

Jaap Bloem, Menno van Doorn, Sander Duivestein




RISE OF THE CONVERSATION SOCIETY

Me the Media

Featuring
"The Obama Moment"
by Peter Leyden

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Me the Media

Me the Media

Rise of the Conversation Society

**Past, Present and Future
of the Third Media Revolution**

Jaap Bloem, Menno van Doorn, Sander Duivestijn

Featuring “**The Obama Moment**”
by Peter Leyden, founder and CEO of NextAgenda.org

2009

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Preface

Anyone trying to come up with three media associated phrases will no doubt hit upon “media storm,” “power of the media” and “media hype.” The sequence is not important, the three terms are largely interchangeable. We are for the most part still stuck in the mind set of an age dominated by TV, radio and print (i.e. traditional mass media). These were the digital Middle Ages, an era in which the audience was fundamentally voiceless and which came to end with the launch of YouTube at the beginning of 2005.



Yes, you. You control
the Information Age.
Welcome to your world!

Twenty-one months later, the Renaissance of the twenty-first century erupted with a flourish when Google paid 1.65 billion dollars in shares for YouTube. Time Magazine immediately seized upon the event, naming “You”, the prosumer (the digitally productive consumer), as their person of the year. In a flash, the mass media’s exclusive monopoly was threatened. Anyone could become a media outlet if they wanted to, and people clearly wanted to. The YouTube formula has now been cloned and integrated in various shapes and sizes. YouTube clones appear in many of the 150 million weblogs that currently exist, but also in the iReport segment on CNN. The broadcaster began making this report in August 2006 when there was no longer any doubt about the enormous hit potential of YouTube.

For the Internet, the bearer of the new multimedia power, the Golden Age is only just fully dawning. The 2008 Beijing Olympic Games attracted hundreds of millions of web viewers around the world during an eight-week period (www.ebu.ch/en/union/news/2008/tcm_6-62839.php). At present, more than 200,000 videos are uploaded to YouTube every day, while the total number of videos stored there is approaching 100 million. Include the immense scope of all other social networks such as Facebook, MySpace, Friendster and Hi5, factor in the growing popularity of microblogs such as Twitter and alert aggregators like Friendfeed, and there can be little doubt that the glory days of traditional mass media are now over. After all, everybody knows that you can only devote your attention to one thing at one time.



The Web revolution, which began during the first decade of the twenty-first century, has in fact caused traditional mass media to be absorbed into a new media mass, one in which anyone who so wishes can make their voice heard and their face known. This “democratized” media presence may take many everyday forms, including job references, CVs or conversations. It is because of this amenability to general use that social media, also known as Web 2.0, is now spreading like wildfire around the world; we are increasingly listening to each others’ voices rather than to the Master’s Voice. Individuals and ad-hoc communities communicate through the new media mass on the same level and use the same resources as the Masters’ Voices of days gone by (i.e. corporations, politicians and traditional journalists). These elites held control of the mass media, while the rest of the population listened, watched, slept and consumed. However, their time has passed: the unilateral monopoly of the Masters’ Voices is gone for good.



In an exceptionally emphatic manner, the new media power has confirmed the power of the media and the role of media hype. However, this power has now been distributed via the multi-media World Wide Web. The Web has liberated “We the People,” individualizing us, socializing us and emancipating us. It has transformed each one of us into a media organism, into “Me the Media.” This trend, which is only just beginning, represents a Third Media Revolution, following the individuation and socialization brought about over the past 400 years by print and electronics.

Rise of the Conversation Society

Since the mid nineteenth century countless innovations have sprung up from American soil, in particular those related to technology and media. With Barack Obama as the 44th President of the United States the change that web media can create is being further satisfied. For example, during the campaign at myBarackObama.com, YouTube and Facebook, and later at Change.gov amongst others, his new Master Voice was communicated to the people via the Internet, resonating and swelling in a genuinely democratic way. Through web media Barack Obama was able to deliberately implement “We the People” anew, so that each and every individual who chooses to can participate in a variety of ways. It is along these lines that the world is moving ahead from the well-known concept of the “Conversation Economy” to a “Conversation Society,” which is the ultimate consequence, if not goal, of what is referred to in this book as the Third Media Revolution.



1 The Kick-Off

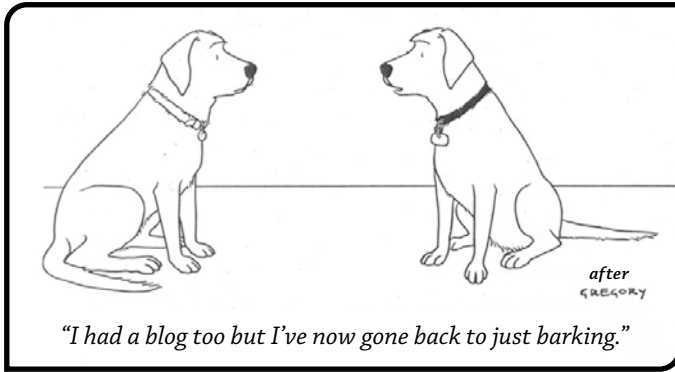
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It is remarkably easy these days to play at being a newspaper, radio station, television channel or business operation. You need only go to Blogger.com to start your own weblog in three easy steps, complete with automatically generated advertisements providing the initial bit of income. The 15 minutes of fame that Andy Warhol felt everyone deserved would seem to be closer at hand than ever before.

Traditional media are extremely troubled by the explosive web media activity and are increasingly eying the Internet on account of its popularity and opportunities of this multimedia and egalitarian medium. A number of weblogs and alternatives to newspapers have secured a good position but, at the same time, the desperate “cry for attention” has taken on gigantic dimensions. Many bloggers compete with each other for just a few seconds of fame because, on average, there will be just a fraction leftover of Andy’s 15 minutes for everyone.

SixApart.com leaves it up to you. **Vox** is for the recreational blogger who wants to upload cookies once in a while along with a few phrases. **LiveJournal** goes a step further. LiveJournalists blog more frequently and use the diaries to converse with others in order to “blossom into a community of independent bloggers.” The third option is **TypePad**, which is tailored to the “professional blogger” who truly has something to report and wants to stand out from the crowd. Finally, **MovableType** is the platform for “corporate blogging.” It can be integrated into business applications and is used by such organizations as The Washington Post, Boeing, American Express and Genentech. If your organization is soon to make use of Intel’s **SuiteTwo** collaboration software package, MovableType will be automatically included. Blogs and wikis are regarded as key to the new knowledge management geared to the human scale (see Section 9.6 in particular).



1.1 Me-Media Impact

These days, a little reading and writing is more than sufficient to enable almost anyone to fulfill an adult (multi)media function on the Internet—at least in as far as presentation is concerned. There can be no doubt about it: after the letter, telephone and the written submission, the present is the

glorious age for Me-Media. Largely to the chagrin of traditional pop FM stations, newspapers and television, the new media are making it possible for people to truly have their own voices heard and faces seen.

The popularity of these media is not only a matter of reading and writing. Spending a few hours with family and friends on YouTube or even watching presentations on Slideshare.com have now become highly routine pastimes. The activity can be compared with the ways in which twentieth-century Wurlitzer jukeboxes spun requested 45s in cafés and diners. Only, the number of performing artists and acts has grown exponentially.



Me-Media is how we call this multimedia web-based age. The old, trusted mass media have been absorbed by the new media mass in which we all participate as private individuals and consumers. After the printing press and movable type and after such mass media as radio and TV, the modern era of the Web is the Third great Media Revolution undergone by humanity. This third media wave has far-reaching consequences...

1 Consequences for Information Technology (IT)

After the mainframe (IT 0.0), the PC (IT 1.0) and e-Business (IT 2.0), the focus continues to shift towards the empowerment of individuals and communities (IT 3.0). Instead of on ITechnology (the “IT Doesn’t Matter” from Nicholas Carr’s famous May 2003 article in Harvard Business Review: www.nicholasgarr.com/articles/matter.html), attention nowadays is increasingly being focused on ITainment (or perhaps rather iTainment, like iPhone, iTunes, iReport and the like), which is to say on “collaborative” info/edu/entertainment as an “open” basis for the adequate sharing of information and knowledge, as well as a platform for production.

As we have known for millennia, “learning and pleasure,” utility and amusement, go side by side. But the chance is extremely great that, with web media and ITainment, the balance will swing so far to the fun side that we will slide off in that direction without producing anything retaining a hint of significance. Chatting, Twittering, YouTubing, et cetera, is fragmenting our zap culture even further. The new news websites of, for example, Google, Wikio, and Digg and all the dozens of millions of weblogs of which, according to Technorati, there are at least a few valuable ones, all are strong contributors to this further fragmentation.



The intimate relationship between ITech and ITainment is exemplified in the German online edition of the *Financial Times* newspaper (www.ftd.de). The left menu bar has an “IT + Medien” (IT + Media) section, via which readers can choose between the domains IT + Telecom and Media + Internet.

2 Consequences for Business and Society

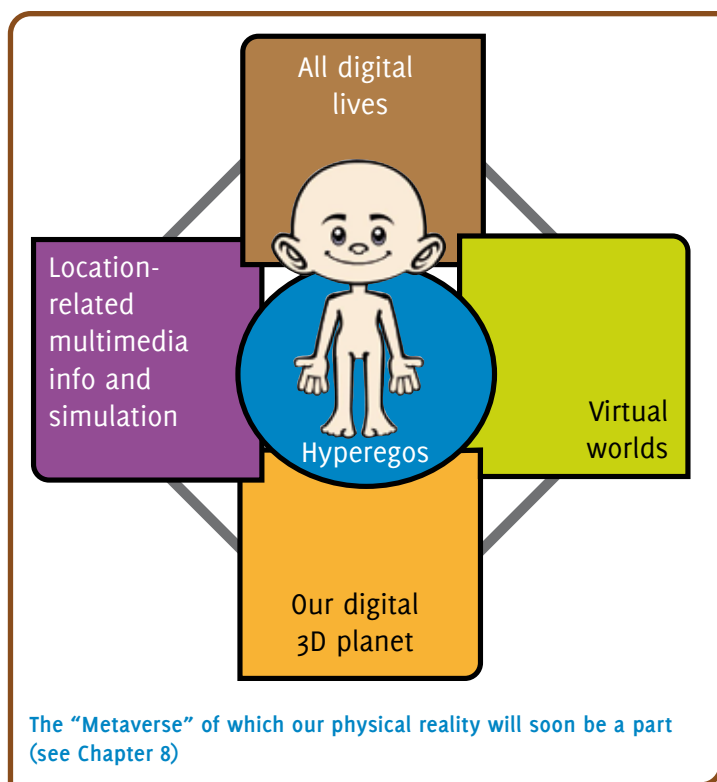
Web conversations are creating new power relationships. The fact that, on the Internet, anyone can escape anonymity and become engaged in communities presents organizations a number of opportunities, but also pitfalls. The Third Media Revolution makes contacting customers, employees and anyone else much easier, but it also demands creativity and new types of communication skills. This especially applies to traditional organizations accustomed, as they were, to communicating to the public rather than conversing with its members. The economic significance of the shift to inter-activity can be described as the blossoming of the “Conversation Economy,” characterized by the genuinely two-way communication that is becoming progressively more the norm. U.S. President Barack Obama has taken this concept even further. Web media enabled Obama to deliberately implement “We the People” anew, so that each and every individual who chooses to can participate in a variety of ways. It is along these lines that the world is moving ahead from the well-known concept of the “Conversation Economy” to a “Conversation Society,”

which is the ultimate consequence, if not goal, of what is referred to in this book as the Third Media Revolution.

3 Consequences for Us

Virtual identities are gaining prominent places in our lives. They may consist of blogger nicknames or avatars in Second Life, for example. Or they may be the identities of our intelligent profiles and agents, who are able to disseminate information and may soon perform automatic tasks on our behalf. In

this Me-Media dynamics composites of digital alter egos are rapidly becoming an accepted form of personal and brand identity. They increasingly form the basis of the social and economic activity in which individuals, organizations, and government engage. The Third Media Revolution emancipates physical identities to the “Hyperego” level: the digital me’s we know so well from CNN’s iReport, iGoogle, iPhone, myBarackObama, YouTube and the like. All are hyper-linked and super active on the Web, involving citizens, brands, companies and politicians. The combination of virtuality and physical reality will create a new virtu-real world, the completely mediated universe which we are calling the “Metaverse” and in which the web media revolution will play itself out to its ultimate conclusion.



1.2

Three Great Media Revolutions

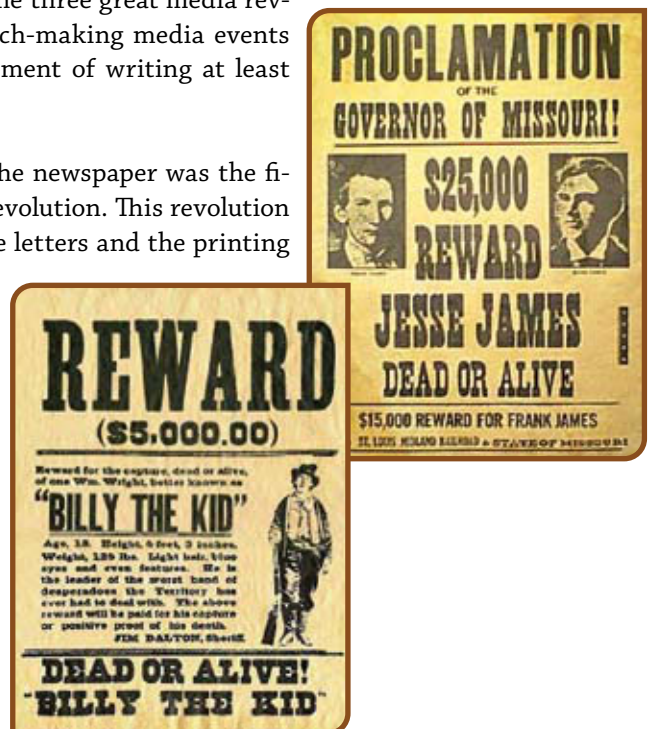
Media has a central role in our lives, an observation that, according to the definition of the word, is also literally true. Traditionally, a “medium” is found in the space between sender and receiver. As there are various ways of communicating across this space (one-to-many, one-to-one, many-to-many, visual, audio, text and their associated devices), it is possible to distinguish different types of “media.”

As a result of the Internet, the pre-existing media of radio, TV, newspapers, magazines, telephone, et cetera, are all brought together into a single multimedia environment that is personal and social at the same time. This trend is highly troublesome to traditional mass media and the organizations that tend to support communications, primarily in such mass-media forms. In the “digital Middle Ages,” every medium had its own distinctive impact, but these distinguishing features have now become fully interwoven on the multimedia Internet, forming what has now become one media mass.

Due to the emergence of this personal and social multimedia Internet, experiences of brand and identity have gained enormously in importance. Phrases such as “information at your fingertips” and “the customer is always right” can now be given new meaning. The first examples of this new development are discernible in the ways that companies engage leading bloggers to help them maintain a competitive edge, while others are involving online customers in innovation and marketing. A similar observation on consumer empowerment was made by the American innovation magazine *Business 2.0* and later by *Time Magazine* when it placed “You” in the top spot at the middle and end of 2006.

We will now briefly consider each of the three great media revolutions of our history, the most epoch-making media events that have occurred since the development of writing at least 5000 years ago.

1. **Type letters and printing press:** The newspaper was the final development of the First Media Revolution. This revolution resulted from the introduction of type letters and the printing press in Europe and subsequently around the world. Modern printing makes it possible for everyone to be kept informed about the latest developments. In the Wild West, for example, posters clearly indicated how big the reward would be for a captured outlaw.
2. **The electronic mass media:** In addition to the explosion of newspapers and magazines, radio and television are the big innovations from the Mass-Media Age. This Second Media



Revolution exposed us to multimedia broadcasts across the airwaves. The resulting forms of communication and socialization combined with print media in a fruitful cross-fertilization.

3. **Web media:** The Internet, the PC and mobile telephones with cameras are characteristic of the present phase of the Third Media Revolution. We are currently living through the transition from the traditional mass media to a single massive (multi)medium in which everyone can personally participate as a “prosumer.” For we are now all able to both consume and produce texts, images and audio using such devices as our mobile telephones, which along with the PC have developed into the most prominent forms of Internet hardware. This Third Media Revolution means even more communication and more socialization, as individuals via their Me-Media are able to become personally involved at any given moment. On the Web they can easily organize themselves into associations such as Wal-Mart customers, *New York Times* readers, jazz lovers or liberals.

All media revolutions are sensational revaluations of the individual and a correspondingly revised form of socialization, but the third one is extra special. In principle, the new web media enable every literate Internet user to escape anonymity. In the meantime, the penetration of the Internet and mobile telecommunications has exploded and the two have become fused together. Rupert Murdoch, the archetypical media tycoon whose enterprises range from Fox television and *The Wall Street Journal* to MySpace, compares the impact of the Third Media Revolution to the first, that of the printing press:

To find something comparable, you have to go back 500 years to the printing press, the birth of mass media—which, incidentally, is what really destroyed the old world of kings and aristocracies. Technology is shifting power away from the editors, the publishers, the establishment, the media elite. Now it's the people who are taking control.

From “His Space,” *Wired* magazine, July 2006.



1.3 From Conversations to Metaverse

Weblogs and wikis were the first successes of the Third Media Revolution, making conversation techniques universally accessible. Thanks to these contemporary web tools, organizations, employees, customers and partners are able to deal with each other in remote and yet much more personal ways.

These days we have grown used to the availability of such tools. Currently, the spotlight is focused more acutely on developments such as Facebook, MySpace and Second Life, all of which generate virtual identities and social structures. In addition to weblogs and wikis, the current experience of the Third Media Revolution primarily revolves around digital contact in social networks and the avatars that “physically” shape our identities in Virtual Worlds.

Virtuality will attain an even higher profile in the near future, even having an impact at street level. Our planet will be mapped out three-dimensionally (Virtual Earth) and location-related multimedia information will be available everywhere (Augmented Reality) on mobile phones and such prostheses as digital glasses. The possibility of our physical reality, the universe around us, soon being part of the new virtu-real Metaverse still sounds an awful lot like science fiction, but such a transformation will simply provide useful supplements to our daily activities.

“Me” is a Question of Identities

The Me in Me the Media refers to each interactive role-playing media identity used to ornament individuals, brands, organizations, et cetera, but also to the media presences used by other entities such as national museums in responding to information requests made from, for example, mobile phones.

Expression <i>What I say</i> 	Publication <i>What I share</i> 	Profession <i>Where I work</i> 
Opinion <i>What I like</i> 	Details <i>How and where to join me</i> 	Reputation <i>What is being said on me</i> 
Hobby <i>What passionate me</i> 	 Certificates <i>Who can certify my identity</i> 	Purchase <i>What I buy</i> 
Knowledge <i>What I know</i> 	Avatars <i>What represent me</i> 	Audience <i>Who I know</i> 

Here we see a so-called Hyperego in the midst of various digital (sub)identities currently already accessible. Source: FredCavazza.net.

As a consequence, the notion of identity will become increasingly more important over the coming decades. Of course, this is partly an offshoot of concerns about security and authentication but, more importantly, it also comes from our physical identity being extended by avatars and self-learning agents (bits of software code that perform certain tasks). This Me-Media development is a logical consequence of the profiles and preferences with which we are already familiar.

The coming decades will see a complete mediatization of the world around us. For instance, affordable care for a steadily aging population will be an important driver in the introduction of “ambient intelligence.” If necessary, we may be placed under constant wireless observation day and night by means of a control system that we will carry both on and in ourselves. Such a system would accelerate the interweaving of IT, nanotechnology, biotechnology and neurotechnology, while raising the integration of media, individuals and identities to a higher level.

Any such development would be ground-breaking. The self-defining virtual media space that half a century ago, when the media landscape was dominated by newspapers, magazines, radio and TV, kept sender and receiver at a respectable distance will soon be overpopulated by individuals. Bit by bit, residents will begin literally to “live” in there (multi)media activity, as media interaction comes to define the content of their identity.

We can see this as a consistently implemented variant of the age-old uni-media adage: “the writer lives on in his work.” Attaching identity to (intelligent) media productions and, in this way, remaining alive to—or at least remembered by—future generations is an endeavor that has been practiced throughout the centuries. But the impact of media-mass developments will be incomparably greater. Given unlimited storage and processing capacity in which perceivable software identities will act and interact, we feel the following scenario is not inconceivable:

» *Intelligence from the past will be deliberately retained longer than its mortal originator. It will continue to develop in a sort of hyper-brain. On the one hand, it will be a collective good and, on the other, it will be the responsibility of the person or community who deemed it valuable to maintain the intelligence in question, to upgrade it, to link it to and to integrate it with other intelligences, or whatever else that may be the case.* «

The scenario undoubtedly raises a few eyebrows, but one thing is for certain: science fiction is increasingly becoming reality. The virtu-real hyper-reality of an intelligent Metaverse may assume other metamorphoses, as it is unlikely that the future will be limited to what we can imagine today. Yet, in the current phase of the Third Media Revolution, it is already possible for us to survey the various directions that the future may take. To this end, it is the case now more than ever that “The Future Is Now.”

1.4

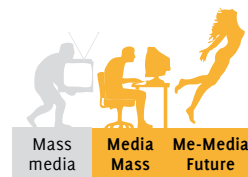
Me the Media: Summary

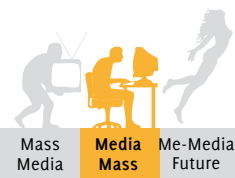
Perhaps this opening has already beggared belief or made it impossible for you to further delay the adventure that is to follow. For both groups of people and everyone in between, we will start by mapping out the voyage ahead of us. Before you venture into the rest of *Me the Media*, the following summary will clarify how the chapters of this book interrelate and how the story will play itself out.

The margin logos provide a clear indication the period being discussed in a chapter: the recent past of the electronic mass media, the present of the new mass media or the future in which our Hyperegos will take off.

2 Me-Media and ITainment

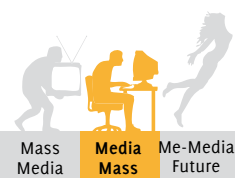
The second chapter will explain how individuals, brands, organizations, politics, et cetera, are using web media to better represent themselves and in a more flamboyant way than ever before. The Internet is the location for this great explosion of Me-Media. The Web is the Third Media Revolution, following the printing press and the mass media of radio and TV. Previously, we communicated by letter or telephone, and we could reach more people through written submissions or by operating a ham radio set. But the use of mass media has always been restricted to the few: the press, politicians, brands and organizations. Thanks to the Web revolution now being undergone by Me-Media, everyone is able to make themselves heard in a professional and multimedia way via one large media mass of which the mass media are, to their great dismay, only one element. Modern Information Technology (IT) makes this possible. IT is currently expanding from ITechnology into ITainment, the latter now becoming the focus of attention. The combination of web media and ITainment makes communication so intense and dominant that we, the actors, individuals, brands, organizations, et cetera, can accurately be called Hyperegos. We are hyperlinked and becoming super-active in a media-fusion reaction that will have far-reaching consequences for the dynamics of our world.





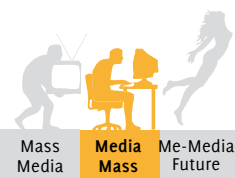
3 Web Media: Business Heart Attack or Pacemaker?

By presenting various examples, Chapter 3 will discuss the business impact of the new Me-Media. Transparency and heavy two-way traffic are its common denominators. They turn the traditional relationships involving brands, organizations, politics and the public on their head. Open conversations with a human face are now the norm for the media mass on the Internet. The anonymous public has been given a face and brands, organizations and politicians must now step up to the mark on the same scale. Ultimately, everyone is able to profit from the frequent and personal multimedia contact that Me-Media makes possible. Without doubt, the media mass can sometimes cause organizational hearts to palpitate and even drive organizations crazy. But it is a reliable pacemaker for anyone who knows how to communicate on the right wavelength.



4 An Economy of New Conversations

Our economy has always been made up of conversations, but they usually only contained a few wasted words. There was the striking of a bargain, supply and demand, later supplemented by after-sales customer support and the helpdesk. Chapter 4 demonstrates that multimedia web conversations propel the traditional economy into a new phase that may be called the “Conversation Economy.” This development has been foreseeable for a few years now, but it is only now that something is really being made of it. Reactive and proactive web conversations not only ensure that clients are more satisfied but that adequate products, services and even laws can be produced more quickly.

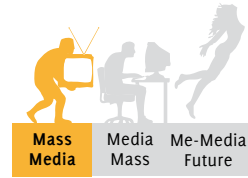


5 The Obama Moment: From Conversation Economy to Conversation Society

The support Barack Obama attracted in the primary and general U.S. elections for President in 2008 marked a new conversational phase in the use of web media. Obama and his campaign have taken methods seen in the Conversation Economy and elevated them to a true Conversation Society level. However special, Obama’s achievement has had its structural precedents in politics before. American politics periodically goes through an intensive period of innovation based partly on the rapid adoption of new media technology. This time they are leveraging the powerful web tools for communication, coordination, and cooperation. The societal paradigm shift that web conversations bring about can be viewed as the ultimate consequence, if not goal, of what is referred to in this book as the Third Media Revolution.

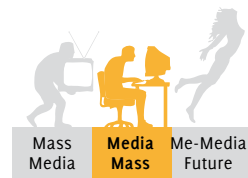
6 Electronic Mass Media

Life was completely transformed in the first half of the previous century. Trams and cars gave cities a modern face; trains began to transport us back and forth over large distances; tanks and aircraft appeared on battlefields; radio and TV broadcast news and entertainment, propaganda and advertising, narcissism and conversations. We were dealing with media for the first time, and its impact was enormous. Economics became life itself! The electronic mass media led and shaped the transformation in combination with newspapers and magazines. Segmentation and individualization once and for all became common experience. Within our new “global village,” we replace the close ties of the past with hectic multitasking and “quality time.” On this basis, a digital dematerialization of being began its emergence around ten years ago. This phenomenon expanded into the mediatization of ourselves, as we ourselves began to become progressively more virtual.



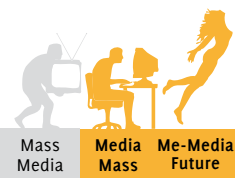
7 Hyperegos in Their Social Networking Environment

The scope in which Hyperegos act (Hyperegos being hyperlinked individuals and organizations such as those appearing on Facebook) is so large that we would never be able to discuss it fully here. We have therefore made a representative selection of such activities, ones that are familiar to everyone. For the sake of historical perception, however, we will begin by focusing on the first mass medium by means of which identity was “broadcast.” The portraits on old Roman coins showed everyone across the Empire who was boss. Social web networks have made us highly familiar with similar “mug shots,” at least in a metaphorical sense. They also give shape to our identity and have come to represent a certain value: \$15 billion in the case of Facebook. Could such a comparison be an overexaggeration? Consider then that, in terms of “residents,” MySpace was the 11th largest country in the world when it was taken over by News Corporation in 2005. At the beginning of 2008, MySpace moved up to fourth place in terms of world population. Of course on a single social media site several instances of any one actual person may exist. But multiple digital personalities will be even more commonplace and well-accepted than is the case right now.



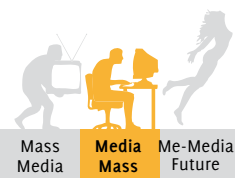
The takeover of the MySpace social network by Rupert Murdoch’s News Corporation started an explosion in the development and use of these sorts of ego display cases. It is not just shared “friend lists” but also content oriented websites such as Digg and Del.icio.us that are prospering like never before. The popularity of these social web initiatives has created a greater need for one central location where users can register themselves and combine the possibilities of various social structures. The practice of establishing all

types of social digital islands is no longer acceptable. Hyperegos want to be able to make the best possible use of the infrastructure that, notably, they have themselves built into social networks.



8 The Metaverse: Our New Virtual Universe

Social networks do not of course exist by themselves. They are an important ingredient of what can be elegantly termed the “Metaverse”: the digital fulfillment of the physical universe in which we live. The qualification “meta” indicates that the Metaverse is an add-on for “the universe.” On the way to a new Metaverse, we discover completely new worlds. Consider, for example, a Virtual World such as Second Life, along with the mirrored world of Google Earth. The purpose of the Metaverse is to digitally expand our physical reality, creating a new Virtu-Reality that adds socio-economic value to individuals and organizations. Corporations such as Google, IBM, Microsoft, Nokia and many other companies on the user side regard the Metaverse as a vital opportunity. A great deal of money is being poured into it.



9 Five Industry Disruptions and a Cultural One

It is not surprising that the web multimedia of the Third Media Revolution is disruptive to traditional mass media. To begin with, this is especially the case for newspapers. As everything becomes digital, some predict that printed newspapers will become obsolete in just a few years. Whatever truth there is to such a prophecy, there is a discernible fusion of newspapers with television, websites and social networks on the Internet. A great deal of news is already freely available on the Web. New free local newspapers are managing to stay afloat but are no longer independent. They are part of the pluriform palette of multimedia companies, telecom organizations and publishing conglomerates.

After the newspaper, this chapter will examine the attack of free web initiatives on the bastion of television. This trend seems unstoppable. The YouTube onslaught is what contemporary consumers demand and are getting. The focus then shifts to the music industry. Originally, it appeared that Napster and Kazaa could be successfully got rid of, but peer-to-peer networks are perniciously popping up everywhere. And it is not just the music industry that is seeking to find new ways of directly contacting their fans and distributing their music over the Internet, but artists too.

Attention is then turned to disruption within the telecoms industry. An examination is made of how Internet telephony company Skype attacked the

revenue model of the existing telecom giants. To conclude our survey of the disruptions in various economic sectors brought about by web media, we take stock of the financial sector, in which increasingly more peer-to-peer markets are announcing themselves, placing the margins earned by banks on money markets under growing pressure. The final disruption that we will discuss here does not involve the upheaval of an economic sector but the thematic cultural disruption of organizations by new forms of collaboration and knowledge sharing made possible by such web media as blogs and wikis.

10 The Development of Virtu-Real Media

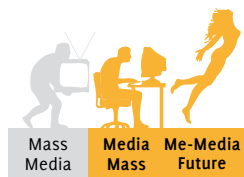
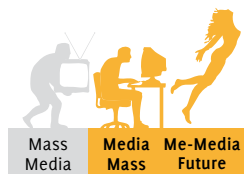
The century between 1965 and 2065 is replete with coding, modeling, programming and recombining. This development slowly got off the ground in the 1960s and, after a period of assimilation eventually took flight. Coding, modeling and recombining are now beginning to cross-over into elements of virtuality, enriching our reality, making it more effective and efficient. At the same time, the future merging of ITech and ITainment with emerging nanotechnology, biotechnology and neurotechnology is visible on the horizon. In the future, consciousness and cognition will no longer have to be contained within mortal shells. The Virtual Worlds that will ultimately come into existence will not completely coincide with environments such as Second Life. Instead, (multi)mediatization, the new 2.0 lifestyle and artificial intelligence by means of agents and avatars will create a new personal hyper-reality within the next decades. Within this domain, virtual elements that have been in the pipeline and preparation for some time will enrich the manner in which we deal with and do business with each other.

Undoubtedly, this will vary around the globe, American being different to Europe, and Asia and Africa forming the two endpoints in the dissemination and acceptance of digital applications. Geo-cultural, sub-cultural and also personal differences are and will remain great.

11 Is Science Fiction Becoming Reality?

Ultimately and, according to experts, hyper-individualization will achieve its true fulfillment much sooner than we think through the convergence of digital and analog. This change will be brought about by the fusion of such notions as “my physical individual,” “media” and “content.”

In the present Me-Media years, things are still being done in what is perhaps a somewhat outmoded way. All the mediating Me’s—all the I’s communicating a message, regardless of whether they are individuals, companies, brands



or things—all are still audience oriented. In terms of their objectives, the contemporary Me-Media are mostly just fragmented imitations of mass media. The technology of web media simply enables them to reach the public much more easily. At the same time, the new web environment encourages us to be incredibly fickle.

Web media clearly have a socializing and emancipating effect, but the ultimate consequence of the Ubiquitous Web would still seem to be far off. However, towards the end of the next decade we may well find ourselves looking back at the present moment as digital prehistory, as developments are occurring at an amazing speed.

The integration of ITech and ITainment with nanotech, biotech and cognition is very close at hand (Nanotech + Biotech + ITech/ITainment + Cognition = NBIC). Or at the very least, there is great interest in the subject as shown by the recent activity of the U.S. President's Council on Bioethics, a rotating group of MDs and PhDs organized in November 2001 to advise the President on the ethical considerations of advances in biomedical science and technology.

1.5 **Constantly Dividing Your Attention**

When we began writing this book, we immediately found ourselves immersed in all Me-Media developments. We poked and prodded at every bit of social software. We experimented with Twitter and Del.icio.us, and were surprised that many of the reports on Google News did not belong to the categories in which they were placed. Every application was still in beta and numerous ones perhaps will remain there. We were certainly able to agree on one thing: all of these new social Me-Media require a huge amount of time of time.

What on earth are you meant to do with Facebook, MySpace, LinkedIn, Plaxo, Jaiku, Twitter, Second Life, Wikio, Google News, CNN, Drudge Report, NYT.com, WashingtonPost.com, LATimes.com, Digg.com, BostonGlobe.com, WSJ.com, FT.com, the History Channel and all of the interesting documentaries and clips on YouTube and other video websites? Admittedly, you'll want to keep up with a few interesting blogs while getting your work done, as well as seeing a few people in the real world every now and then (your family, for example), exercising a little more often and maybe enjoying some cooking with nice music in the background. So what is all the web media stuff good for?

There is one clear answer: nothing. So much “social web warmth” is simply distracting. And an increasing amount of people are beginning to recognize this fact.

The presence of the media mass on the Internet constantly commands our attention; as the PC is already switched on, you might as well just finish one last e-mail before sitting down to dinner. Once in a while, you might stumble across great out-of-copyright books available for free on books.google.com. So much is on offer that it is hard to see how we actually get around to doing anything these days. And this is not to mention all the music and films that you still want to download, the games that you want to play, and the CDs and books sitting untouched on the shelf. There is no doubt about it: the hectic interactions with web media have increasingly begun to take over our lives, making undivided attention a thing of the past.

Linda Stone, the woman who established the Virtual Worlds Group at Microsoft, has for some time been issuing warnings about what she calls Continuous Partial Attention and Friendship. Having to constantly divide your attention across, for example, all of the online friendships that you wish to maintain, means that attention and friendship have now become completely different values that are being entirely scrambled by web multimedia. Multitasking and being a jack of all trades at the proper time is fine, but having to divide your attention constantly and at the most inconvenient moments is something else entirely.



The well-known American scientist Herbert Simon made a similar claim in his book *Designing Organizations for an Information-Rich World*: “What information consumes is rather obvious: it consumes the attention of its recipients. Hence a wealth of information creates a poverty of attention and a need to allocate that attention efficiently among the overabundance of information sources that might consume it.” In this book Simon outlined the basis for what we now still call the Attention Economy.

The impact on business is obvious. In large doses, Continuous Partial Attention is fatal for productivity. In 2006, the American consulting agency Basex distracted a group of employees with e-mails and phone calls while letting a second group smoke marijuana. Both groups subsequently took an IQ test on which the marijuana smokers scored higher. According to Basex, American

employees are interrupted, on average, eleven times every hour. This equates to 2.1 hours or 28 percent of the working day, an amount of lost working time that costs the business community \$588 billion a year. Source: *The Cost of Not Paying Attention: How Interruptions Impact Knowledge Worker Productivity*. At the start of 2009 this figure was updated to \$900 billion.

This loss of productivity can be directly related to the adoption of online communities in organizations based on weblogs, wikis, newsfeeds and instant messaging. These intrusive technologies must be handled in a measured manner, although the responsibility for their use is primarily borne by the users themselves. They must, at the very least, escape from the maelstrom a set number of times in order to concentrate on what is truly important and requires their undivided attention. If this does not happen, then the Enterprise 2.0, described by Don Tapscott and Anthony Williams in the bestseller *Wikinomics: How Mass Collaboration Changes Everything*, could very easily have an undesirable effect.

An overdose of fragmented thinking is harmful, while a period of multitasking in a state of “flow” can of course be very effective and inspiring. Moreover, staying up to date with a variety of issues and people certainly has its benefits, and a controlled dose of social web media fits well into the trend of lifelong learning. However, it is more important than ever before that we, as modern Hyperegos, make conscious choices in allocating our attention, rather than allowing ourselves to be constantly sucked into the swirling vortex of the new Me-Media mass.

It is not only people like Linda Stone and Herbert Simon who have been talking about attention. The negative digital ADHD effect of Continuous Partial Attention has received a great deal of attention recently, especially in America. Reviler of amateur culture Andrew Keen abhorrently views “how blogs, wikis, social networking, and the digital world are assaulting our economy, our culture, and our values.” Maggie Jackson, the heroine of the Information Overload Research Group set up in mid-2008, sees it differently but no less disparagingly. Her book is rather ominously entitled *Distracted: The Erosion of Attention and the Coming Dark Age*. Mark Bauerlein, yet another digital ADHD criticaster, describes in harsh words *How the Digital Age Stupefies Young Americans and Jeopardizes Our Future*. The subtitle of his book reads: *Don't Trust Anyone Under 30: 50 Million Minds Diverted, Distracted, Devoured*.

Mark Bauerlein promotes his ideas at www.dumbestgeneration.com, where you can read the following abridged arguments:

Compared to previous generations, American youth have:

- * More schooling (college enrollments have never been higher)
- * More money (\$100 a week in disposable income)
- * More leisure (five hours a day)
- * More news and information (Internet, Daily Show, RSS feeds . . .)

What do they do with all that time and money?

- * Download, upload, IM, post, chat, network (9 of their top 10 sites are for social networking)
- * Watch television and play video games (2 to 4 hours per day)

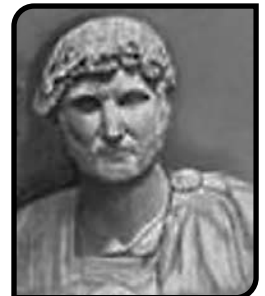
And here is what they don't do:

- * Read, even online (two-thirds aren't proficient in reading)
- * Follow politics (most can't name their mayor, governor, or senator)
- * Vote regularly (45 percent can't comprehend a ballot)

The opposing party—perhaps not as dumb as all that—includes Don Tapscott, the owner of www.thedumbestgeneration.com. On the site, you can read the following:

» If you're born in the baby boom echo and are a part of Generation Y—the Millennials, or what Don Tapscott refers to as the Net Generation—you might feel targeted by what is becoming an increasingly loud attack against your character and intellect. This public assault is widespread, as teachers, parents and the media continue to paint an extreme, yet increasingly popular, image of youth... and the picture isn't pretty. Frankly, it's quite offensive. «

It all boils down to a proverb attributed to Publilius Syrus, the freed slave who Gaius Julius Caesar once personally designated as the winner of what we now might term Rome's Got Talent. Syrus is supposed to have said, "Ad duo festinans neutrum bene peregeris," although the Latin Library doubts that the aphorism is actually attributable to him. This does not make the message any less pertinent. After all, doing two things at the same time often means that neither is done as well as when we make the effort to devote our undivided attention to any one of them. The abbreviated Latin sentence ought to be interpreted roughly in this way. Its relevance to our lives is irrefutable; although we must also acknowledge that multitasking has its useful aspects and that we cannot just simply avoid it these days.



Excessive Multitasking is Mind-Numbing and Maddening

The above-mentioned proverb, perhaps re-adorned in succinct modern English, is evident in Walter Kirk's article *The Autumn of the Multitaskers*, which appeared in the November 2007 issue of American journal *The Atlantic*. Kirk's introductory sub-heading is a sufficient clue to the content of the entire article:

» *Neuroscience is confirming what we all suspect: Multitasking is dumbing us down and driving us crazy. One man's odyssey through the nightmare of infinite connectivity.* «

Kirk concludes his remarks by noting how Microsoft used to confront us with their slogan: Where do you want to go today? Walter Kirk is sure of his answer: "Now that I no longer confuse freedom with speed, convenience, and mobility, my answer would be: AWAY. JUST AWAY. Someplace where I can think."

Over half a year later, Nicholas Carr also threw in a little more grist for the anti-multitasking lobby's mill in remarking alarmingly that his intellectual powers had changed:

» *I'm not thinking the way I used to think. I can feel it most strongly when I'm reading. [...] I feel as if I'm always dragging my wayward brain back to the text. The deep reading that used to come naturally has become a struggle.* «



In effect, the attention being devoted to digital ADHD by Stone, Kirk, Carr, Jackson, Bauerlein, Nobel prize winner Doris Lessing and all others walking in Syrus' shadow only makes us more aware of the writing on the wall. Business is embracing multitasking to a serious degree, as evidenced by the founding of the Information Overload Research Group (IORG) in July 2008. Also, IORG did not just fall out of the sky. Members were all long-term active participants of the Infomania Solutions Workgroup at the University of Haifa.

In September 2008, in the *New York Times* Damon Darlin reduced the observations for which Nicholas Carr required 4175 words in *The Atlantic* to one Twitter offering of 137 characters: “Google makes deep reading impossible. Media changes. Our brains’ wiring changes too. Computers think for us, flattening our intelligence.”

Nevertheless Darlin views this development as something far from as terrible, as the doomsayers claim. In making his case, he refers to an essential remark from Twitter founder Jack Dorsey, who noted that people have ultimate control, as they are responsible for using the communication resources available to them.

We no longer have time for boredom in this day and age, while the opposite—digital ADHD—can induce the same state of paralysis and neuroses. In both cases, we do not get done what we need to get done. Focus, rest and rhythm—these constitute the discipline required to thrive at today’s hectic pace.



1.6

Me the Media Test Card

In recent years, the Web has most certainly been added to our favorite media form as a result of which organizations reach out to their public. In 2007, over \$31 billion in advertising money was spent on the Web, compared with \$168 billion on television. Expectations were that web advertising would surpass the radio share in 2008 and that in approximately 2010 web advertising would represent a tenth of total world advertising expenditure.

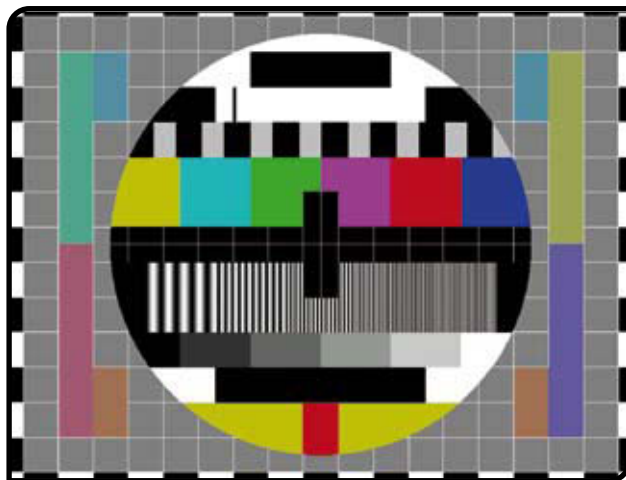
This ZenithOptimedia prediction may have been spoiled by the economic recession, but there is much more going on. Thanks to the Web, we no longer sprawl on the couch flicking channels during commercial breaks, rather we self-determine where we will devote our attention. To an increasing extent, the object of our devotion is no longer the mass media. The uni-media newspapers, radio stations and television channels have long since been devastatingly overwhelmed by the multimedia mix or media mass, in which the Web is becoming increasingly more dominant.

Undivided attention is a rarity, and attention span is perceptibly reduced. This primarily results from the amount of time that we are spending on the Web and the ease with which we flip over to something else: e-mail, film,

product comparisons, news, games, sex, searches and web-TV to mention just a few.

In addition, the anonymous public is using the Web to involve itself in everything. We have our blogs, maintain and establish contact through social networks, visit photo sites, video sites, favorite sites, news sites, music sites, and so on. The sky is once again the limit. Attention and content fly off in all directions, but fortunately web traffic is easy to trace. As a consequence, companies can target product sales in a quicker and less expensive manner. The new dynamics calls for experimentation and measurement. And once again, that is not all.

As a result of the Web, mobile phones, GPS and computer games, we are gradually entering a new Virtu-Reality, one which will eventually penetrate into the very fibers of our behavior and the way in which people behave towards us. Second Life, World of Warcraft, Google Earth, Microsoft Photosynth and social networks—these are the predecessors to an integrated virtu-real Metaverse in which desire and reality intertwine for the sake of our pleasure, the enrichment of our experience and ease of life. The integration of our on-line identities with the Web and the implicated interaction transforms us all at once into Hyperegos. Hyperlinked on the Internet, we mutate into hyper-targets in a hyper-competitive web economy. Think about it: as individuals, we have our partial identities, but the same applies to things, brands and organizations, et cetera. The digital personalization and socialization is still only just beginning.



The previous century was characterized by large, flamboyant changes such as the car, the train, the airplane, the radio, the telephone and the computer. Digital development has subsequently become all-encompassing, infiltrating financial markets, all forms of communication, commerce, health care, politics, and so on. The media function has come to occupy a central position. The next step is to get it under our skin: literally, by fusing IT, nanotechnology, biotechnology and intelligence. All these items are to be coded, modeled and linked.

As a result, the coming decades will see us all intimately and physically interconnected within our own web by means of ordinary hard and software, as well as via the biochemistry that, for the sake of convenience, we will call “wetware.” In this way, life will become one enormous test laboratory for the further development of humanity. The multimedia linking of our biology, behavior, intelligence, organizations, et cetera, will be a revolution without equal. Who would have ever thought that we would be taking part in this ultimate mediatization?

2

Me-Media and ITainment

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- 2.7 The Telephone: From Intimate Dialogue to Media Center 54

This chapter will explain how individuals, brands, organizations, politics, and so on, are using web media to represent themselves better and more flamboyantly than ever before. The Internet is the site for this great explosion of Me-Media. The Web is the Third Media Revolution, following the printing press and the mass media of radio and TV. Previously, we had communicated by letter or telephone, and we could reach more people through written submissions or by operating radio equipment. But the use of mass media was always reserved for the press, politicians, brands and organizations. Thanks to the Me-Media web revolution, everyone is able to make themselves heard in a professional and multimedia way via one large media mass of which the mass media industry is, to its great dismay, only one element. Modern Information Technology (IT) makes this possible. IT is currently expanding from ITechnology into ITainment, the latter now becoming the center of attention. The combination of web media and ITainment makes communication so intense and dominant that we, the actors, individuals, brands, organizations, et cetera, can accurately be called Hyperegos; we are hyperlinked and becoming super-active, with all the resulting consequences for the dynamics of our world.

2.1

From Printing Press to Web 2.0

Reasoning from the perspective of our current information overload, it seemed to begin so peacefully after the invention of book printing in Europe around the middle of the fifteenth century. The first things to be printed in



Europe were tarot cards. Later, the Gutenberg Bible followed as the *pièce de résistance* and subsequently profaner items such as world maps and pamphlets for and against the Reformation.

Church reformers spoke out against the papal hierarchy, incomprehensible Latin, dominant Saints, all decorum, and for “bare, naked” Scripture—the Word. The first printed newspaper appeared just under a century later in the Belgian city of Antwerp. However, there was still a great deal of illiteracy throughout the “civilized world” well into the last century, as books and paper only became affordable as a result of the industrial revolution.

Four centuries after the Gutenberg Bible, we came up with the telegraph and later the telephone as electric wonders. They both became hugely important in the Mass-Media Age. In addition to print media, radio and television emerged as overpowering technologies in the second half of the twentieth century as a result of developments in electronic and wireless communication.

Now, just a fraction of time later, we have a media whirlwind that is becoming progressively more powerful and mobile, encompassing e-mail, instant messaging, text messaging, websites, e-business and, not forgetting, the “social computing” of Web 2.0 with its blogs, wikis, MySpace, Facebook, YouTube, Digg and anything else that might exist. A completely new mass of media in both the home and workplace.

In noting this development, we have ridden the speed train into the present. 2007 was a memorable year: more information was generated in this single

From Gutenberg to the Internet

Print Media

- ca.1425 – Tarot cards
- ca.1440 – Type letters and printing press
 - 1453 – The Gutenberg Bible in print
 - 1472 – The first printed world map
 - 1520 – The Reformation is the first war of pamphlets
 - 1605 – The first printed newspaper

Personal & Mass Media

- 1844 – The telegraph binds continents together: the “Victorian Internet”
- 1875 – The telephone: real-time sound from A to B
- 1877 – The phonograph: recording and playback of sound
- 1906 – Radio: the first voice across the airwaves; wireless communication comes into being
- 1926 – The first live TV broadcast
- 1943 – Colossus: the first electronic computer, decodes German messages
- 1978 – TCP/IP: the basic Internet Protocol

year than in the entire history of writing since its inception in Mesopotamia at least five thousand years ago.

From the printing press to Web 2.0, three major media revolutions have swept across Western Europe and America before engulfing the entire world. All three have had an irreversible impact on the development of the power relations involving individuals, governments, businesses and media itself. The progressive mediatization hugely refashioned the individualization, socialization and economization of society, again displaying the social consequences of scientific and technological developments.

To begin with, we had the revolution of type letters and the printing press, which ultimately resulted in the mass-media newspaper. But newspapers were not on their own for long, as radio and TV made their advance. Print and electronic mass media existed harmoniously for a generation, until the profound change of the Third Media Revolution swept across the media landscape like a wave. Web multimedia engulfed the entire industry, creating one large media mass. Web 2.0 now gives every literate Internet user the opportunity not just to make his or her ideas known, but also to join together in various groups of like-minded individuals.

The invention of the printing press enabled political and religious activism to flourish during the Reformation. Shortly thereafter, it was the turn of science and literature to be widely circulated, followed by the dissemination of news, products and services. The media encouraged shared contacts and ideologies; national pride and a new feeling of self-esteem developed. The modern fashion experience emerged, the Me generation formed into an en-

1981 – The IBM Personal Computer

Media Mass / Multimedia / Me-Media

1989 – The World Wide Web:

Tim Berners-Lee links hypertext to TCP/IP

2003 – O'Reilly Media's Dale Dougherty coins the term Web 2.0

2006 – Social computing:

You are named person of the year

2007 – More information generated than in all of the previous four thousand years put together. See "Did You Know 2.0" on YouTube



Source: *From Gutenberg to the Internet. A Source-book on the History of Information Technology*, www.historyofscience.com/G21/docs/timeline/index.shtml.



tire new era and narcissism peaked. TV feeds us American Idol, America's Next Top Model, Britain's Got Talent, et cetera, and YouTube a diet of stars such as Lonelygirl15, Esmée Denters and the satirical BarelyPolitical, the little known ChurchOfBlow and many, many more. Nowadays, everyone wants to have their own "fifteen minutes of fame," and you can take in whatever suits your fancy whenever it is convenient for you.

The three media revolutions have therefore literally brought about a form of popularization. Increasingly more "normal" people are becoming involved in a growing number of activities and events, whether or not their involvement is passive, active, in more or less casual forms.

2.2

Always "both...and," Never "either...or"

At this point in the Third Media Revolution, the web media mass has already settled the question of "either...or" or "both...and" in favor of the latter. IT has hugely increased media opportunities, and their creative combination is more popular than ever. The integration of nanotech, biotech, ITech, ITainment and cognition/intelligence (NBIC) will only continue this trend. NBIC is the upcoming revolution, which has already begun to take place. It appears that the principle limitations of human development will shortly be a thing of the past. Danish philosopher Søren Kierkegaard led the way as far as this point is concerned, publishing a book entitled *Enten-Eller (Either/Or)* in 1843. Visit www.enten-eller.dk.



For the sake of artificially-enforced clarity, we have a strong tendency to think in boxes while working in isolation. But (healthy) narcissism and community undoubtedly go hand in hand. To be admired, celebrities require a public and one that longs for idols. The same applies to heroes as well as to role models, but also to objects. We can adorn ourselves with accessories and gadgets to pimp our identity. Topping the British Cool Brands list in 2007 were Aston Martin, YouTube and iPod. An Englishman is only complete if he has these three things, which are the "media" for creating the best possible image. In America, the marketing magazine *BtoB* listed the Blackberry, a wireless email and Internet cell phone, as the top corporate brand.

Individuality and sociality, exhibitionism and communication join forces as poles in the same continuum, to put forward what appears to be a paradox. But such contradictions are given increasingly greater expression on web media than they have ever had before, as what is virtual and what is real are steadily converging. Over the course of time, our experience of what is and is not real has continued to evolve. Apart from being

individual and social, contemporary mediatized experience is, to an increasing extent, also virtual and real. Thanks to the Internet and the Third Media Revolution, there is hardly any “either...or” left at the present time, and this has happened while we are so accustomed to thinking in well defined categories that fit together well.

Modern multimedia can generate deceptively real experiences. In the future, we will be immersed in virtuality, which began with the GPS system in our cars. Virtuality as an extension of reality enhances our world, making life richer and easier.

Previously, we crept into the world of a book, using a flashlight to read under the blankets. Now, we watch a film in our home cinema, play World of Warcraft on our computers or visit the virtual dollhouse Habbo Hotel. With GPS navigators, we are more than ever truly “en route.” A moving street map with landmark buildings has become part of today’s standard equipment. So what is so virtual about it? The question does not even occur to us. You are simply able to have a clearer view of where you are when using GPS. The system literally increases a person’s field of vision.



If we can learn one lesson from the three media revolutions and, specifically, from the current Me-Media period, it is undoubtedly that “either...or” does not exist. Although it may be sometimes useful to think in boxes, everything is always “both...and.” Shifts in emphasis are of course characteristic of a certain phase. Ultimately, we will reach the next “level.” Then, for example, the original attention to technology will diminish in favor of consideration for human-centric applications, just as it is doing now.

The consequences of the printing press, mass media and now the media mass are extraordinarily remarkable and, in this sense, revolutionary. However, a media revolution is, of course, a question of perspective, a way of viewing reality, and therefore part of a complex “both...and.” It is certainly a very important perspective, as media represent immediate extensions of ourselves, in which the development of human communication and, consequently, our emancipation is key.

The three media revolutions are each a separate phenomenon, but they certainly did not occur in isolation. At least equally important were, for example, the expanding world population, electricity and electronics, road, water and air transportation, factories, robots, energy, the development of ideol-



ogy and politics, the economy and financial markets, computing, biochemistry, nanotechnology, neurotechnology and the list goes on. Together they constitute a continuum encompassing an increasing amount of complex interactions.

A few years ago, the collective roles played by books, newspapers, the telephone, radio, TV, e-mail, websites, blogs, wikis, podcasts, Virtual Worlds, and games, et cetera. began to explode inside the melting pot of individualization, economics, globalization and virtuality. This new playing field is based on the progressive integration of information, communications and technology. The fundamental relationship between Information Technology (IT, or Information & Communication Technology (ICT) as it is called in parts of the world) and media is, in part, the basic idea underlying the website *From Gutenberg to the Internet: A Sourcebook on the History of Information Technology*. The current relationship of information, communications and technology to media can be viewed as follows:

Information: The generic “information” ingredient is, at present, clearly viewed as “Tainment,” which is to say entertainment, edutainment, infotainment, et cetera. Tainment is a media property. It is the combination of multimedia diversion, knowledge and information. As a result, a strong focus is placed on the accessibility and usability of information, as well as on its expressiveness and attractiveness.

Communications: Communications and coordination are direct extensions of each other, although coordination receives increasingly more attention. It particularly involves the coordination of communities and of the content (information or Tainment) with which we work, the content that we as producers produce and consume with and for each other. This lies at the heart of the “social computing” of the current Me-Media phase.

Technology: Modern digital Me-Media technology is characterized by a further and definitive shift in emphasis away from the necessary technology, including concepts and structures to the concrete applications and use, in both their active and passive forms. In short, attention is now being focused on the human dimension, which comprises utility and amusement, learning and diversion, “prodesse et delectare”—the age old idea we inherited from the roman poet Horace, that media is meant to please as well as to instruct. The one side does not occur without the other: ITechnology is complemented by ITainment, by web multimedia. With this we have returned to what was said previously about the information category.

2.3

IT or Web 2.0?

The progressive integration of I, C and T is generally referred to as Web 2.0. It is true that the multimedia Internet facilitates integration, but perhaps, instead of naming it “Web number whatever,” it would be better to retain IT as the foundation of the multimedia, socializing and personal Internet. The new IT of today and the near future must, as stated, be understood as multimedia Tainment while, of course, including the necessary implicated layered technological infrastructure.

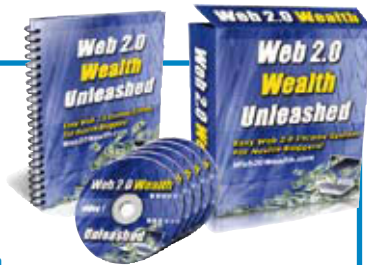
Undisputed fact: Web 2.0 persists. This term, which was first put into wide circulation by publisher and Internet guru Tim O’Reilly in 2004, has become an everyday expression. Tim’s decision to talk simply about Web 2.0 is, in retrospect, extremely logical. He faced the difficult task of explaining a trail-blazing convergence of elements.

To begin with, the recombination of software components, a pie in the sky for some decades, has finally been implemented in a practical way using so-called mash-up applications. The result has been a great increase in extremely usable web functionality, providing a basis for flourishing collaboration, socialization and individualization as never before. Tim clearly felt that putting everything together under a single version number would be convenient, which is exactly what he did, and Web 2.0 was born.

Web 2.0 Rules!

Web 2.0 took off and became a resounding buzzword. But when the real experts from the World Wide Web Consortium brought O’Reilly’s version claim to the examination table, Web 2.0 turned out to be based on features dating from 1995 and the years that followed.

Web 2.0 is a nice gimmick phrase, but, all things considered, we are already working with the preparation of Web 4.0 (see www.w3.org/2006/Talks/06-08-steven-web40). Despite this fact, due to the popularity of Web 2.0, the version number 2.0 has become a synonym for meaningful functionality and “hipness” in very divergent fields.



Based on O'Reilly's version designation, we are now working on the specs for Web 4.0, or at least that is what W3C member Steven Pemberton claims. Obviously, the problem of using simple version numbers to refer to web developments is that a new box with the subsequent number does not just suddenly appear on the shelf, such as we are used to in the case of software packages.

Nevertheless, Web 2.0 has become unusually popular and, consequently, the 2.0 designation as well. At present, there is a veritable overabundance of 2.0 designations, such as Journalism 2.0, Collaboration 2.0, Education 2.0, Lifestyle 2.0, Maslow 2.0, Enterprise 2.0 and "MyCompany" 2.0—or simply fill in any name you like 2.0. Further 2.0 varieties can be found on AllThings-Web2.com, but even this list is far from complete. Among those not included are Victorinox Lifestyle 2.0 Titanium Enhanced Auto Open and Close Umbrella and E-Cigarette 2.0, an umbrella and a smokeless cigarette. Bubble 2.0 is also absent from the list.

The fact that we currently find 2.0 names in the most differing domains and ambitions indicates that contemporary Web software developments have become the standard of hipness and meaningful functionality at the same time. Admittedly, modern Web applications currently deserve top billing on account of the valuable ways in which they can enrich our lives.

But there are also those who believe Web 2.0 to be the greatest possible piece of nonsense. The champion of this position is undoubtedly Andrew Keen. He is a former disciple of Tim O'Reilly who published a book in 2007 with the self-explanatory title: *The Cult of the Amateur: How Today's Internet Is Killing Our Culture and Assaulting Our Economy* (note the contrast between the denigrating term "cult" and the value-laden term "culture").



In 2007 Andrew Keen wrote a book entitled *The Cult of the Amateur: How Today's Internet Is Killing Our Culture and Assaulting Our Economy*. Read the first pages on ajkeen.com/e.htm.

Web 2.0 is Killing Culture and the Economy

Some ten years ago, the British-American Andrew Keen was the head of dot-com company, Audiocafe, which afterwards appeared to be on the front lines of what Fed president Alan Greenspan then identified as “irrational exuberance.” Audiocafe.com collapsed in 1997, giving Andrew Keen a prominent place on the then famous so-called Fucked Company hit list.

In June 2007, Keen made himself heard in a significant way. This time, it was a book that was spreading his name around and, in this case, the first book by an insider who was totally opposed to Web 2.0, which according to Keen’s subtitle was threatening to bring down our culture and economy. Andrew Keen energetically attacks the over-exaggerated “communistic” romanticism implied in the excessive praise of the magazines *Business 2.0* and *Time* of “You,” of us as “prosumers” given a voice within the digital community and consequently allowed to remove the yoke of the media establishment.

Keen, who enjoyed a sound British education, regularly cites a number of nineteenth and early twentieth century Germans as part of his web-cult criticism, including Karl Marx, Herbert Marcuse, Franz Kafka and Oswald Spengler (author of *The Decline of the West*). By doing this, he showed an intellectual tone to which many Web 2.0 devotees could only aspire. They found Keen all the more irritating because he was once one of them, but had now repented in a manner resembling Martin Luther’s abhorrence of mother church.

They were furious with Keen. And anyone who takes the trouble to read the beginning of *The Cult of the Amateur* will understand some of the reasons why. Keen specifically describes his metamorphosis from disciple to disaffected individual during an invitation-only FOO (Friends of O’Reilly) camp in 2004 for powerfully rich Silicon Valley residents who all talked about “new media” and “democracy” in connection with what Keen called the “beta version of the Web 2.0 revolution.” At this point, he converted and contravened the unwritten golden omerta rule of, as he puts it: “no spectators, only participants.”

During the FOO Camp, things became clear to Keen, who broke entirely with his old friends. “We were the new media,” says Keen about his experience.

» *Everyone was simultaneously broadcasting themselves [a slight aimed at the YouTube slogan], but nobody was listening. Out of this anarchy, it suddenly became clear that what was governing the infinite monkeys now in putting away on*



the Internet was the law of digital Darwinism, the survival of the loudest and most opinionated. ‹‹

Under the rule of digital Darwinism, the person shouting the loudest wins; the result is a great deal of sound and fury signifying nothing. No democracy, but mediocracy, and before you know, you are inescapably bogged down in banality. Keen does perhaps have a point here, but failing to react to the situation and retreating to islands of civilization instead is pointless. Such sandbagging was a feeble defense against the emergence of the newspaper, television and the Dotcom Age, and also against the Web 2.0's Me-Media. At the FOO camp, Keen chose to retreat into a stoic resignation and be present only in body. The annoyance that he built up over the next three years was fully unleashed in *The Cult of the Amateur*.

The book was notably praised by none other than Larry Sanger, the joint founder of Wikipedia and main person behind Citizendium. On the cover of Keen's original publication, Sanger characterized the work as a

›› *... thought-provoking and sobering book... really interesting insight and research.* ‹‹

Jonathan Last, online editor of *The Weekly Standard*, even proclaimed that

›› *Andrew Keen is a brilliant, witty, classically-educated technoscold—and thank goodness. The world needs an intellectual Goliath to slay Web 2.0's army of Davids.* ‹‹

At a time when almost nothing else could be heard except “You,” Keen launched a heartfelt jeer to disrupt all of the cheerleading.

IT Is No Longer Hip

Clearly, Tim O'Reilly created a lot of buzz with Web 2.0, and caused the further decline of IT (information technology) as a fashionable term. This decline did not happen overnight but began when IBM introduced the term e-Business in 1996, when the *Business 2.0* magazine was launched in 1997, and when, also in that year, the thought-provoking book, *Web-Enabled Applications Programmed on the Net: How to Become a Web-Enabled Enterprise*, became one of the first handbooks for web organizations in the making. No wonder that, under this web onslaught, the term IT began to lose its sense of popularity. Not without reason, Sir Dennis Stevenson included the C for communication in his report on *Information and Communication Technology in UK Schools*. To his mind, ICT seemed a more adequate term than IT alone.

Three years later, Forrester Research set the tone for the new millennium with its report *The Death of IT*. Bobby Cameron predicted, “The IT organization will disappear in successful e-Businesses.” A further three years later, Nicholas Carr reiterated this point, although in another context, by uttering the maxim IT Doesn’t Matter. By this, he meant to suggest that computer technology, which of course remained extremely important, had more or less solidified into its definitive version, after forty years of volatility dating from the birth of modern programming in 1965. At present, most attention is entirely focused on business-related lifestyle behaviors, specifically those involving “social computing” and Web 2.0 multimedia.

However, web developments being derivative of IT, the Web 2.0 qualification and the criticism of it by the World Wide Web Consortium, mentioned two subsections above in Web 2.0 Rules!, raises the question of to what extent a serious periodization based on IT would result in greater clarity. The fact that, at the beginning of the Third Media Revolution, ITainment has come to predominate ITechnology could give a boost to the use of IT as a valuable term, one that certainly should not be abandoned.

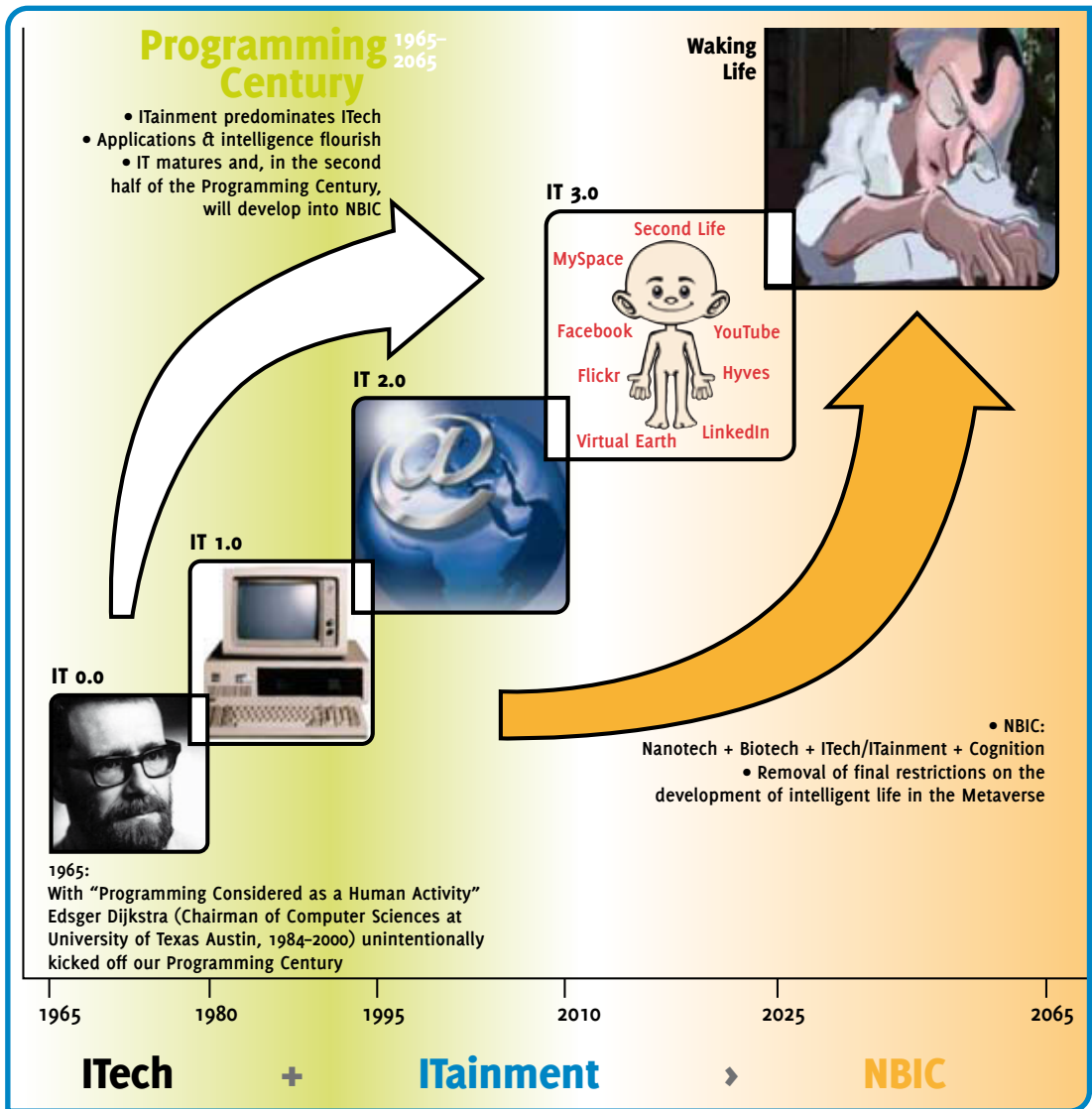
2.4

ITech and ITainment: IT from Beginning to End

Information technology is intended to manipulate data: it is as simple as that. The entire field was initially launched in around 1965. At the time, there was APL and PL/I, a language that combined the best of FORTRAN and COBOL; Simula emerged as the first object-oriented language and, in 1969, the development of program language C was launched. But things were at a very early stage. Structured programming (program code without GOTO statements) was at the center of interest. Edsger Dijkstra (1930–2002), an eminent computer scientist, embodied this thinking, as shown in his 1968 article *The GOTO Statement Considered Harmful*. This issue had already been broached in 1965, when Dijkstra first discussed it in *Programming Considered as a Human Activity*.

Although Dijkstra did not intend anything as significant and extensive as the title might retrospectively suggest, it is without doubt highly relevant to view him in such light, as programming appears to have been humanity’s worldly preoccupation if not its purpose since sometime around 1965. At present, we code and manipulate any loosely or firmly interconnected item with the greatest of ease: from an operating system to GPS, intelligent avatars and DNA. This will ultimately lead to NBIC, an abbreviation for the





integration of nanotechnology, biotechnology and information technology, supplemented by cognitive sciences. It is quite a mouthful, but one that is fundamental and important as, when viewed in its entirety, NBIC is concerned with the unraveling and recombination of intelligent life itself.

The Road to NBIC

All things considered, it is entirely valid to regard Dijkstra's 1965 article *Programming Considered as a Human Activity* as the kick-off not only for modern Information Technology but for an entire century in which a veritable programming revolution took place, and still is. NBIC will produce significant results in approximately 2050. In *Telescopic Evolution*, the sixth scene from the film *Waking Life*, Professor Eamonn Healy explains how NBIC will develop. This can be viewed along with other scenes on YouTube. Further information about NBIC and *Waking Life* will be provided in Chapter 11 of this book, while we will now discuss the four fifteen-year periods into which modern IT can be divided and which together form a prelude to the era of NBIC.

These periods (1965–1980, 1980–1995, 1995–2010 and 2010–2025) do of course overlap, as they did not just appear at the appropriate moment. There are periods of preparation leading up to them as well as ensuing legacies.

IT 0.0

The first stage of modern Information Technology, which began with the development of higher programming languages around 1965, ended in about 1980. More specifically, it ended when the IBM PC was brought out in August 1981. Thanks to the accompanying programming language Basic, the automated execution of DOS commands in batch programs, environments such as Turbo Pascal and Clipper, as well as macro facilities in text processors, spreadsheets and database programs, programming could become the most ordinary task in the world.



IT 1.0

It was only during the second IT period from 1980 to 1995 that Information Technology developed into a popular phenomenon inextricably integrated into daily life. For this reason, the second period is designated as IT 1.0, as opposed to IT 0.0, the first stage in which modern Information Technology was, as it were, born.



IT 2.0

The subsequent period, IT 2.0, officially began in October 1994, when Tim Berners-Lee founded W3C: the World Wide Web Consortium. If, in terms of the interlinking of machines, IT 1.0 brought forth the LAN (Local Area Network), 1995 to 2005 was the glittering and turbulent age of the Internet on the PC. As is well known, this stage has not proceeded without complication. Firstly, there was e-Commerce and e-Business and subsequently even a "New



Economy.” Further examination proved this hype to be nothing more than an enormous bubble that, once it burst, sent a multitude of impoverished Internet entrepreneurs and investors back to the treadmill along which they have unexpectedly had to trudge for years.



IT 3.0

In effect, we are currently in the IT 3.0 period, although this is not yet official, for this stage does not begin until 2010. As mentioned above, however, there is always a preamble and a legacy, and the further we currently progress in time, the more concrete the future becomes. Unlike any previous moment in history, IT 2.0 is the age of the “future is now” and of the “media revolution” to echo the words of Casaleggio Associati, makers of the popular YouTube clip *Prometheus: The Media Revolution* (the last chapter of this book begins with the script for this production). In *Me the Media*, we place this Me-Media revolution in perspective, noting that its conversational impact on the economy and on society as a whole is actually the third great revolution, following the printing press and electronic mass media.

At the end of IT 2.0 and throughout the IT 3.0 period, the focus is and will be placed on ITainment: the mass of multimedia, social networks and various identities that individuals, organizations, brands and objects can take on as Hyperegos (hyperlinked I’s). In 2008, the PC is shrinking further into ultra mobile, with a motherboard-on-chip instead of the inverse. The Ultra Mobile PC (UMPC), with which you can also make normal phone calls, will soon be the Metaverse device par excellence.



NBIC

IT 3.0 is the final age of pure Information Technology before the dawning of the NBIC phase. At that time, the boundaries between nanotech, biotech, infotech and cognitive disciplines will be blurred, and fundamental limitations on the further development, storage and recombination of intelligent life in the new Metaverse will be eliminated. In this sense, life at the end of the century of programming will be a re-awakening into new life.

E-mancipation

In the first sixty years of the Century of Programming (1965–2025), we have witnessed how the computer has moved from the basement into our offices, taken over the media function and, finally, combined with other disciplines to creep under our skins. In other words, we have woven ourselves into a single omnipresent web. A more essential transformation than this ITech

and ITainment based “e-mancipation” has never occurred at any earlier time in our evolution.

The extension of ourselves through ITech and ITainment is not surprising, as the so-called killer apps of Information Technology belong to three essential human drives: the need for distraction, social contact and gratification of curiosity and inquisitiveness. Tainment (entertainment, infotainment and edutainment), communication and information are elements that respectively appease our appetites for distraction, socialization and satisfaction for curiosity and inquisitiveness.

2.5

We Are the Media Mass

At the transition from IT 2.0 into IT 3.0, we are now entering a world in which each individual can use mass media and the Internet to make him or herself heard as a private and commercial being above the large and silent masses. This effect has been dubbed the Long Tail after the gradually diminishing tail of a parabolic curve. Previously, the successful use of media was in the hands of a small group. As a result of the Third Media Revolution, we are now dealing with the Long Tail, the large group of untrained individuals who themselves select the times at which they will pay attention to the various forms of Tainment, to which they often have a lot to contribute themselves.

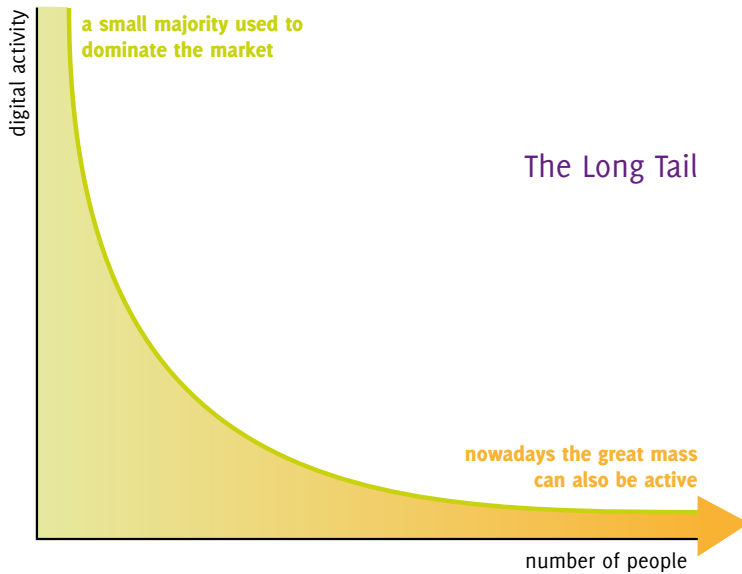
The name we can apply to the shift of emphasis from ITech to ITainment has become the title of this book. *We the Media* means that we, all specific individuals, organizations, brands and objects, have together become the new Media Mass. This transformation can be directly related to the following two quotes from Marshall McLuhan’s 1964 book *Understanding Media: The Extensions of Man*.

» *Our private and corporate lives have become information processes because we have put our central nervous systems outside us in electric technology.* ««

» *The medium is the message.* ««

What Marshall McLuhan meant by “the medium is the message” is quite simple, namely “the medium is the *massage*.” This was in fact a mistake in the title of his 1967 book that McLuhan nevertheless gratefully accepted as being dead on target. The slogans “the medium is the message” and “the medium is the *massage*” boil down to the following point: any medium—be it





Prior to the Third Media Revolution, only a fraction of all possible media actors participated in mass media newspapers radio and TV. On account of ITainment and, in the media mass on the Internet all literate computer users can now match themselves in digital quality against the greats of yesteryear. Various blogs and multimedia platforms have already overshadowed the traditional media insofar as attention and impact are concerned. Time is the critical factor being reallocated to the detriment of the newspaper radio and TV. These three are challenged to consolidate their position within the new media mass.

The uni-media specialists from the previous century must all now invest in multimedia and in new ways of attracting fickle individuals and communities.

radio, television, telephone or other—possesses unique characteristics that significantly affect the processing and appreciation of the message it transmits. The nature of the medium determines the manner in which we receive a “massaged-in” message.

Briefly consider how we experience a football game via the radio. The experience is more intense than on TV, as our only source of information is the standard chatter of the radio announcer. Cumulative auditory impulses are processed in our heads into fragmented images of the game, while we sit excitedly with a few friends glued to our radio sets and hardly have time for a snack, only for a nervous cigarette.

A person may also sit “glued” to a TV set, but not like in a radio experience. The reason for this difference is the over-sufficiency of information; nothing is left to fill in. Most games we can follow better on TV than in a stadium. With

chips, cheese and beer viewers can comfortably watch all the action. The entire course of the game, as well as the stadium atmosphere, is attractively offered to the viewer's senses from various camera angles, complete with an array of images, sounds and commentary, as well as instant replay. And while technology may not yet be able to provide the smells, it certainly can dress up the scene in "ambient" color from behind the flat TV screen.

Web Media and Itainment

McLuhan was specifically dealing with radio and television, the mass media of his time with which he was most familiar. We can easily conceive comparable effects for the telephone, newspaper, book, glossy magazine, billboard, et cetera, and analyze the advantages and disadvantages of these media in terms of how we experience the communicated messages.

What we immediately note about "the medium is the message" is the use of the word "medium." These days, worldwide discussion concerns "media" and "multimedia," words now used as singular mass nouns. Modern TV does not only bring regular television programs—without commercials if we use the right equipment—but radio stations, teletext and on-demand movies as well.

On the Internet, we receive text, sound and video all at the same time, and from all kinds of sources. Add newspapers, magazines, telephone calls and books for anyone who wants them. In addition, there are Virtual Worlds with avatars, not forgetting chat sessions and e-mail, communication platforms such as Facebook and MySpace, games and so on and so forth. What does this flood of Web media mean for McLuhan's maxim "the medium is the message?"

Again, the answer is simple. Web media ensure that "medium" or "media" (regardless of it being considered in a specific or general sense) no longer has any relationship to its original underlying technology. For the specific

Marshall McLuhan (1911–1980)

With the arrival of television in every household, this device became the most powerful instrument for mass manipulation. However, we were not only influenced by



the programs that entertained or enticed us into buying products, TV forced us to look at ourselves, and that, according to McLuhan, was the greatest impact of all.



media of radio, TV, the newspaper, the book and the telephone it is different. We still think of the newspaper as something that rolls off the press, radio broadcasts in terms of the music and news that we receive across the airways by means of an antenna, and television as a signal transmitted by cable or via satellite. But what about the Internet? We do not have any of this on the Internet. It is quite simple: the Internet is...! Most people are not even vaguely aware of the technology that is involved in Web content and navigation, except perhaps for their (touch) screen, mouse and keyboard, which normally also will be taken for granted.

That is interesting. To be precise, it means that the “medium” character of McLuhan’s “message” is, in the case of web media, completely deflected away from Information Technology and onto the applications and even Internet behavior. The focus is on Facebook, MySpace, YouTube, MSN, Gmail, BitTorrent, the Wall Street Journal Online, Drudge Report to name just a few. In short, the medium is now ITainment.

A few factors are responsible for this shift. Firstly, the overwhelming multimedia character of the Internet as opposed to the (relatively-speaking) uni-media nature of the newspaper, radio and TV, for example. Secondly, the fact that interaction between user and “medium” occurs in the on-screen application. And thirdly, the Internet is clearly a personal medium: we have all embraced web applications on a personal level, incorporating them into our lives. As no medium before, the multimedia Web apps of today really are “extensions of man,” as meant by MacLuhan. That is why we call them Me-Media.

It is blatantly oblivious that in every respect the Internet is the new (and only) “multimedial” for everyone. The Internet is the domain of MySpace, YouTube, OhMyNews, iReport, my e-mail, my MSN and my weblog. In fact, we are all on the Internet, which also makes it the number one, unparalleled worldwide social medium.

Due to the richly-colored interaction opportunities, the phenomenon of web media no longer emphasizes underlying technology but applications and their integration. Even if you just ask what Internet or web media are, then you will hear about Facebook, MySpace, YouTube, MSN, and the like. “The medium” is indeed still “the message.” However, due to the World Wide Web (to properly distinguish carrier and parent application for once), the “medium” has become a synonym for “the interactive social and multimedia

character of web applications and their integration,” which is to say, a revolution. This character is “the message” or “the message” of the new Me-Media.

For the masses the perception of “technology” has moved from the airwaves, cable, GSM (the principle standard for mobile phones), et cetera. to drag & drop, pop-up screens, pull-down windows, multimedia and all the functionality these enable. The actual technological basis lies in the software applications themselves: in the APIs (the Application Program Interfaces) of Facebook, Google, Amazon, and so on.

The “message” of all this is perfectly clear: the integration of web functionality and applications is increasingly less associated with technology. Any child can handle the tasks involved, be they personal or commercial. This observation at least marks out the line of advance, one that we all head down when we employ meaningful web services, software mash-ups and widgets in a Service Oriented Architecture. In so doing, we are on the boundary of the transition from IT 2.0 to IT 3.0.

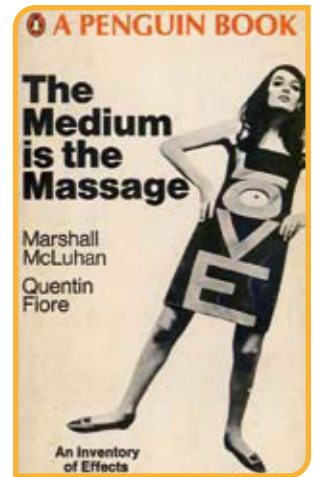
So What?

Why is all this so important? Well, to begin with, the shift in attention from technology to applications and their integrations is extremely important, as the interactive web-media phenomenon offers endless and unparalleled opportunities for personal, social and economic uses, thanks to the storage, recombination and processing possibilities of the underlying hard and software. Consider for a moment that a “medium” exists for the first time ever in history—an interactive multimedia in fact—and is linked to each “I” and to each identity that wishes to be involved. These identities and subjects can all send and receive, and sense and respond at the same time, hence typically a question of the “Long Tail.”

Secondly, the dominant emphasis on applications is essentially important because...

» ... our private and corporate lives have become information processes because we have put our central nervous systems outside us in electric technology. «

Consequently, we refer to McLuhan’s own words to vanquish in a single blow the mysteriousness of “the medium is the message.”



What this all collectively means is that we all (every business, brand or personal “I” and identity) have deliberately moved all our being, including our senses and even intelligence, into contact with the “electrical technology” of ITech, the Web, ITainment and Me-Media, heading further down the path to NBIC. This development is key to the Third Media Revolution, following on from the printing press and the electronic mass media. As private individuals, organizations and every other conceivable (partial) identity, including intelligent agents and avatars, together, we constitute the new Me-Media Mass.

2.6

The Business Impact of the Third Media Revolution

The Me-Media empowerment of the people means that conversations are changing. Me-Media are like a space you can enter: a space to go to when you want to know everything, a space in which no one can gloss over the facts, a sort of replica or Virtual World in which your customers are able to conduct interviews with each other, employees can air their concerns and, before you know it, your good name is dragged through the mud. Such a space stands in stark contrast to the language of folders and advertising campaigns. The Me-Media Mass involves people’s real experiences, emotions and encounters. There is humor and a great deal of cynicism.

The longer you remain in the space, the more you observe and the more interesting it becomes. The immensity of the space can astound you, as well as the fact that there are no locked doors anywhere. Anyone can enter, nothing is secret. There are millions and millions of participants. You recognize a few old classmates. A satisfied customer gives you a pat on the back. A business relation shares what really makes him tick, you learn what his hobbies are, and what his children do. You can read stories, watch clips, become a member of any social network you like: the Web is swarming with activity.

Sometimes, you come across real streets running through this space. There is the neighborhood you live in, with that nice little restaurant around the corner. You decide to go inside. It has a new owner.

Seven Highlights

1. For the first time in history, everyone—individuals, organizations, brands or objects—can use simple and inexpensive tools to “broadcast” to all other identities existing throughout the world and to establish contact with them.
2. Of everything that is broadcast on the new Me-Media, businesses are most interested in the experiences, encounters, emotions, opinions and jokes of ordinary people. This

The menu appeals to you and, fortunately, the interior has not changed. Outside again, you run into avatars and discover that your neighbor is a gang leader in World of Warcraft.

A young man is, just like you, extremely enthusiastic about what he is seeing. He has been coming here for a while. Not just for the pleasure of it but to gather information for a few corporate investors. The word is that there are a few bugs in a newly launched and highly lauded product. He must hurry now; as the investors need to unload their shares before the rest of the shareholders begin to react. When leaving, he apologizes for the fact that he is not a real person but an intelligent avatar, in other words a software program in human form that you can send on errands in the Virtual World.

The new Me-Media space is only half finished, but you can already set up residence there. To be absolutely clear, you have to be there. That is where your customers are, where the stories are and where, if you don't watch out, your business will be flushed down the tube. As a virtual Me-Media resident, you are there to listen, answer questions, and display understanding. And to try in this way to steer discussions in the direction you want. Which by the way

new content affects product choice, brand experiences and purchasing decisions.

3. A large portion of all preferences, knowledge and ideas are shared over the new networks. For instance, knowledge systems have emerged, ranging from Wikipedia to TripAdvisor. They are used to share private and commercial information and to increase knowledge for such purposes as the creation of new products and services or the updating of existing ones.
4. Just as the Internet gave rise to hyper-competition in the nineties, modern web media is empowering individuals,

organizations and brands, transforming them into so-called Hyperegos (identities whose characteristics and deeds are interwoven through hyperlinks into a single large Me-Media Mass).

5. Organizations have to deal with a communication explosion that, for the most part, occurs outside of their control. For this reason, it has become more difficult to keep things secret. Everything has become more visible and transparent.
6. The intimacy among Hyperegos is a distinctive characteristic of the new Me-Media. Within social networks and

other communities, ad hoc power blocks can make or break a brand or organization.

7. Everything within the new media mass has been established on the Internet and everything has an equally serious status. Errors and indecent intentions are difficult to clearly indicate to others. Organizations are therefore required to conduct an open policy and ensure that they have an untarnished reputation insofar as their products, services and treatment of people is concerned.



will happen more and more from your brandnew physical Me-Media center: the one you coincidentally also still conduct direct voice conversations with. The one we still tend to call the telephone, albeit mobile these days.

Empty Room.
Borrowed from www.flickr.com/photos/oddsock/1008718655/,
under CC license



2.7

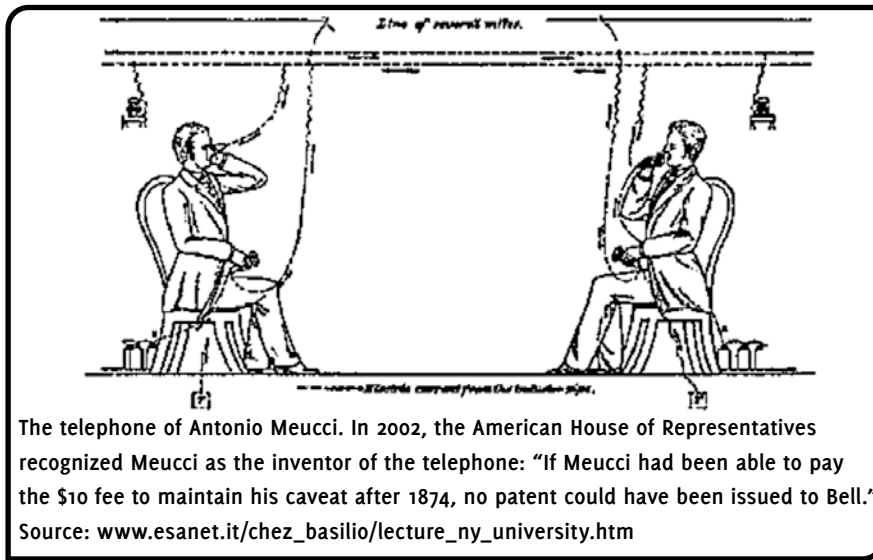
The Telephone: From Intimate Dialogue to Media Center

The first telephones were little more than a couple of tin cans connected by a wire: a childish physics experiment by which schoolchildren learn that sound can travel along a stretched line. The first telephones sounded tinny and lacked modern keypads. In effect, they only differed from the tin can and string model in that their operation was based on electricity rather than resonance.



Source: www.physikfuerkids.de/lab1/versuche/telefon

From the first use of the first instrument, up until the present day, the telephone has primarily been used to transmit a voice from sender to receiver: facilitating simultaneous remote communication. The ability to conduct a person-to-person dialogue over great distances was more than enough to make the telephone a resounding success throughout all of that time.



The videophone, in operation between Berlin and Munich as long ago as 1938, has never really caught on commercially, but this is not surprising. If we are not together in one room and wish, metaphorically speaking, to understand each other properly, a picture on a screen only distracts us from the conversation we are having. Entering into an intense dialogue without seeing



Science fiction in 1914.
Source: paranoiastridesdeep.blogspot.com/2007/09/photophone.html



1938: Television by phone was achieved in Germany. On the wall is the received picture of the Munich operator; to the right the round "eye" picks up the image of the Berlin speaker and sends it to Munich.

Source: blog.modernmechanix.com/mags/PopularMechanics/10-1938/tv_phone.jpg





TOMORROW'S TV-PHONE—

The phone of the future will fit in the palm of the hand and enable a caller to hear and see the other party in color and 3-D. That's the concept of Harold S. Osborne, retired chief engineer of the American Telephone and Telegraph Co., as pictured and described in the September issue of *Mechanix Illustrated Magazine*. On the other side of the pocket watch-sized videophone are buttons which Osborne says the collar of tomorrow will push to talk to anyone anywhere on earth. The device may be carried in pocket or purse, or worn as a locket, Osborne says.

Tomorrow in 1956.

Source: bp3.blogger.com/_sGYULzoQCgA/RworKg60wsl/AAAAAAAAABHc/f9pYeLDcpZQ/s1600-h/1956-Nov-23-Star-News---Pas.jpg

each other evidently enhances communication. This has not changed to date, despite all of the whistles and bells to be found on cell phones. In comparison to general phone use, teleconferencing or video conferencing seems hardly worth mentioning. The communication enhancer that is the telephone functions best between two people based on language. This was initially predominantly spoken language, however the emergence of SMS has extended it to written language as well; the former works best as a type of direct instantaneous communication (and not as voice mail), while SMS is most suitably employed for messaging.

Nowadays, MP3 audio, Internet and television on a cell phone seem to be what everybody wants. Just like the videophone, none of this is new. As far back as 1938, there were telephone handsets containing small screens, and the vision of the telephone being used to listen to favorite music stems from the very beginning of the device in the nineteenth century. Today's multimedia Internet adds a large helping of extras; specifically, it ensures the integration of content and communication: e-mail, chat, websites, social networks, GPS location services, et cetera.

When considering the integration of content and communication, of media and telecom, it is vital to recognize that the invention of the telegraph, telephone, gramophone, radio and television are closely connected. All involve sending and receiving (instantaneous) messages, bridging distance, and time or, in modern terms, to facilitate mobility, real-time interaction and on-demand services. Experimenting with coils, cores, magnetism and membranes led to the invention and improvement of elementary components such as the microphone and loudspeaker. As exemplified by the gramophone record, the vacuum tube and other electronics, all of these elements could be produced on assembly



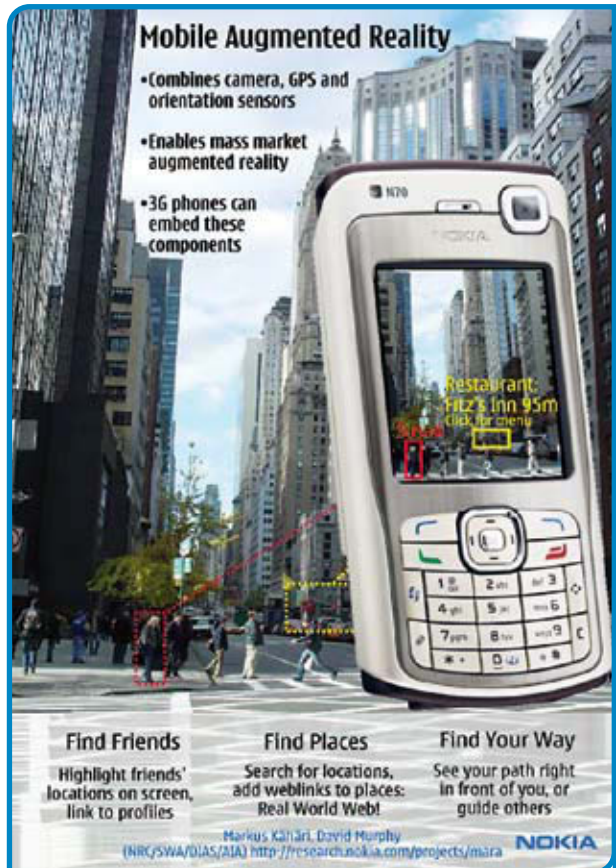
"Television monacle" in use. It works like a hand phone set

Source: blog.modernmechanix.com/2008/04/20/hand-set-for-television-uses-midget-screen

lines, and the final products made affordable to the consumer. The telegraph, telephone, gramophone, radio and television have many things in common, and their specific functionalities would be combined throughout time.

The miniaturization resulting from the emergence of transistors and computer chips, and the continuous development of data carriers and data processing up to and including the immaterial level of software code now enable us to access audiovisual computers that fit into the palm of our hands but which are still called telephones. Their multifunctionality has developed from two-way communication to Tainment (entertainment, edutainment, infotainment, et cetera). As a result of the Tainment factor, the modern cell phone has become a desirable personal media center for modern “homo ludens,” the human being at play.

The further adornment of our cell phones with social network functions, location services, television and multimedia Internet means that the vision of media as “extensions of man” is becoming further realized. Sophisticated cell phones offer us increased mobility within a new Virtu-Reality, focusing on the meaningful enrichment of experience through various forms of enticement and ecstasy, and these omnipresent, everywhere and on demand.

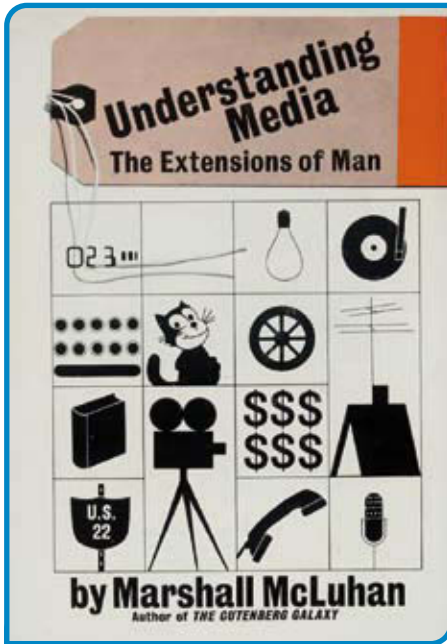


Find Friends, Find Places, Find Your Way: Tomorrow's Mobile Augmented Reality



Johan Huizinga, *Homo Ludens: A Study of the Play Element in Culture*. Haarlem, 1938; Boston, 1955.





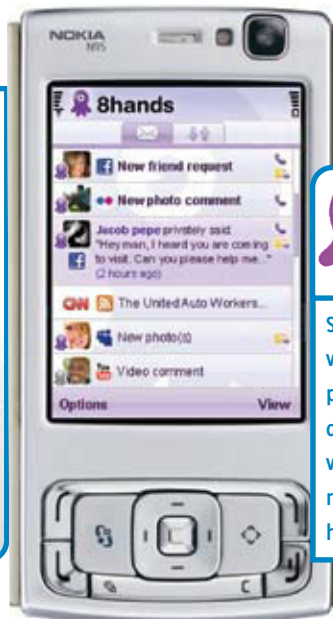
Marshall McLuhan,
*Understanding Media:
 The Extensions of Man*, 1964.
 Source: [www.collections
 canada.gc.ca/obj/002033/f1/
 nlc012699-v6.jpg](http://www.collections.canada.gc.ca/obj/002033/f1/nlc012699-v6.jpg)

The power of the spoken and written word remains the telephone's killer app, but it is supplemented by the sounds and images first broadcast to us via the mass media of the last century, and then narrowcast via web media on the PC.

The personal experience of the all-in integrated media across the Web has brought about the dawn of a new era. Everything has become I and You. Print media, radio and TV are going through tough times. It is only now that we are experiencing the initial consequences of this new dynamic accompanying the rise of the personal media center. In terms of form and function, this new device represents a fusion of PC, the Web and the more advanced broadband cell phones.

Convergence of Telecom and Media

The convergence of telecom and media hails back to the pioneering period at the end of the nineteenth century and at the beginning of the twentieth century. If there was ever an age of media convergence, then it was during this time period. Initially, the dominant focus involved making the telegraph speak, as it was described at the time. However, photography was also on the rise; the magic lantern was gradually



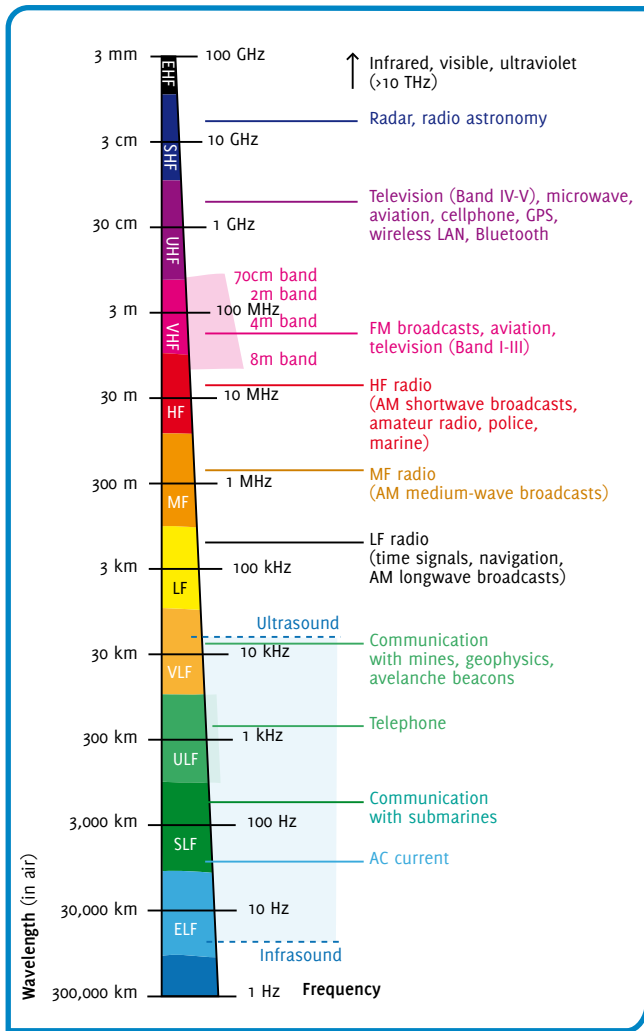
Sources:
[www.diytrade.com/china/4/
 products/3942384/Newest_
 designed_2_Sim_TV_phone.html](http://www.diytrade.com/china/4/products/3942384/Newest_designed_2_Sim_TV_phone.html),
[www.diytrade.com/china/4/
 manufacturers/605155/products-list.
 html](http://www.diytrade.com/china/4/manufacturers/605155/products-list.html) and www.8hands.com

being transformed into the moving picture; and the phonograph developing into the gramophone, despite originally being intended as a peripheral device for the telegraph and telephone.

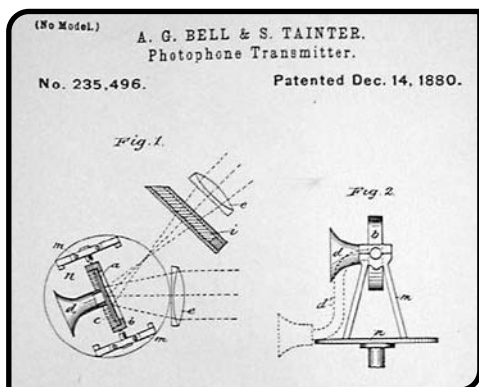
Everything was an exercise in applied electromagnetism. People such as Heinrich Hertz laid the groundwork for this development. Hertz was honored posthumously in 1930, when it was decided to name the unit of frequency after him. From radio and television waves to the processor speed in computers, everything is measured in Hz.

Vibrations and wavelengths were the central focus of all of this activity. In 1929, Louis de Broglie was awarded the Nobel Prize for his hypothesis that everything involves waves. Radio and TV already existed by this time, and it was not unreasonable at the end of the 1930s for people to imagine that we would soon be “transmitting” all types of matter. The use of a scanning tunneling microscope to move a few atoms at the beginning of the 1990s could even be regarded as the first tentative proof of concept (cpima.stanford.edu/education/files/2008/07/etp_rockman.pdf) for the Star Trek vision in which matter is simply teleported across intergalactic distances.

Perhaps an even a bigger breakthrough was Innocenzo Manzetti’s idea of the talking telegraph, first built by him as a prototype in 1864. Only 14 years later, the invention of a good quality microphone by Thomas Edison facilitated the launch of quality telephony based on Alexander Bell’s Improvement in Telegraphy patent, which described “the method



of, and apparatus for, transmitting vocal or other sounds telegraphically.” Bell considered that his invention would mainly be used to listen to news and symphonies. In brief, he envisioned rich streaming media avant la lettre: the convergence of telecom and media. For a while, prior to the arrival of radio, the phone was in fact used for such purposes, but only to an extremely limited extent. The Italian telephone newspaper *L'Araldo Telefonico* had 1300 subscriptions in 1914.



Source: history.sandiego.edu/gen/recording/graphophone.html

Bell's farthest-reaching and, in his eyes, most important project was the photophone, a way of transmitting sound wirelessly using sunlight. In 1880, Bell succeeded in bridging 213 meters in this way. Although the method only worked in clear weather conditions, it cannot be denied that the photophone was a significant historical experiment in wireless communications.

In a period of just forty years (from 1890 to 1930), the world's media sector was completely transformed by an electromagnetic, and then an electronic, revolution. This technological transformation was well-suited to the use of components as practiced in clockworks. It also ran parallel to an electrical revolution, along with radical changes in motorized production, consumer products and transportation, the latter involving travel by land, sea and air. Cars, streetcars, trains, airplanes, tanks, submarines, film, photography, telegraphy, telephony, radio, TV, radar, washing machines, razors, among other innovations, all marked the explosion of modernism, a social transformation that inspired Aldous Huxley to write *Brave New World*.

Behind the scenes, science came to accept the principles of relativity in mathematics and physics, while national economies evaporated at the end of this age, disintegrating into the Great Depression, followed by the entrenchment of ideologies that lead to the Second World War. Consumerism and the power of the mass media subsequently reached their pinnacles in post-war America, Western Europe and Japan.

Briefly put, the designation “multi” was in every way more at home than ever in the period from 1890 to 1930. The development of technologies and infrastructures dominated the media world, facilitating the wide-spread use of telephones, radios and televisions. Nevertheless, the ultimate convergence and integration of various types of media only became possible once the multimedia World Wide Web emerged. Standardization and convenient infor-

mation exchange and usage, along with speed, oceans of free personal space, mobile access and the wireless connection of “rich media,” all combined to establish the dominion of a new multimediuim: a worldwide social network. This hypermedium accommodates all traditional media and everyone who wishes to use it within the context of their own choosing—passively or actively, anonymously or with a clearly defined profile.

This new way of life was undeniably confirmed by the arrival of the YouTube video platform in 2005, followed by the extensive popularity of social networking and new mobile media centers such as the iPhone, which was launched in 2008. The result was the full realization of streaming rich multimedia, along with all of its social ramifications, which had been a promised transformation hanging over the market since 1890. This apparent imminence is exemplified by the evolution of the telephone from an instrument exclusively used for intimate dialogues to the interactive personal multimedia center of today, a development that can be broken down into the following five stages:

YouTube on the
Apple iPhone



1844: Phone 0.0

The first stage is one of experimentation, intended to make the telephone—the speaking telegraph—into a properly functional instrument. Innocenzo Manzetti, Antonio Meucci, Graham Bell, Thomas Edison and Wilhelm Reiss number amongst the great telephone pioneers.



1908: Phone 1.0

The telephone comes to be regarded as a new social medium. *Telephony* magazine publishes the following anecdote in which an enterprising boy succeeds in having a telephone operator put his father on the line, a businessman who is hard a work in his office. The story is later echoed by the 1910 film called *The Telephone* in which Dolores Costello, grandmother of actress Drew Barrymore, plays the role of a girl who is alone at home with her mother when a fire breaks out. She then calls her father to come rescue them.



1973: Phone 2.0

Nearly a century after the first telephone communication between Graham Bell and his assistant Thomas Watson, Motorola inventor Martin Cooper called his co-workers at Bell Labs. The people at Bell had been busy thinking about the best way of achieving mobile telephony since 1947. The conversa-



“Children Cry for It”

A BUSY Lawrencian recently added a telephone to the modern improvements at his home, says the Lawrence (Mass.) Tribune. He has four happy children, all of them young, to whom the telephone was new and who regarded it with awe. One of the kids is a boy of four. He watched the older people call up “Central” and communicate with friends at distant points and yearned to do likewise.

His mother chanced to be absent from home for an hour or so on a recent afternoon. The other children were out somewhere. He was alone. For a half hour he watched the telephone, then climbed up and took the receiver of the telephone off the hook just as he had seen older people do. By this time he was trembling, but his courage was as strong as chilled steel.

“Number?” he heard a sweet voice inquire. For a moment he was startled, but he conquered a desire to drop the receiver and run and shouted bravely, “I want my pop!”

“Central” must have recognized the voice as that of a child. She promptly inquired, “Who is your papa?”

The little fellow knew enough to tell her, and it was but a matter of a few moments to ascertain the number of the busy Lawrencian’s business telephone and connect the four-year-old.

“Hello?” answered the busy citizen, turning away from a desk overburdened, with papers and things.

“Oh, pop, I kin work it!” was the joyful little shout that answered him, and the busy citizen was just as proud and as pleased as the four-year-old at the other end of the line when the brief conversation ceased and the boy, obeying instructions given over the wire, hung up the receiver and awaited the home-coming of mamma to tell her of his conquest.

Telephony, March 1908, page 177.

Source: earlyradiohistory.us/1908chld.htm.

tion in 1973 began in a standard fashion. “Hey Martin! Where are you?” is what the people at Bell Labs reportedly said. And Martin replied, “Well, I am now visiting my barber... Hi Ambrosio... and now I am going to the butcher to get a pound of pork... Hi Sheila, how are the kiddies doing?” Martin was known for his practical jokes, but this was going too far. It was April 3, 1973, so was this a delayed joke for April fool’s day? The staid eggheads at Bell Labs could not have been taking him seriously. “Guys, I can hear you think,” Martin must have gleefully remarked. “Listen, this is no joke at all. Just read



"Hello! Santa Claus!"



"Hello! Little One!"

Source: www.cartoonstock.com

tomorrow's newspapers: Mobile Martin Calling Ma Bell—brouhaha—this is world news!"

2008: Phone 3.0

The emergence of the cellular telephone technically brought about the fusion of radio and telephony for the consumer. The social function of the cell phone based on spoken and written language is unequalled nowadays. A century earlier in 1909, the radio pioneers Gulielmo Marconi and Karl Braun received the Nobel prize for Physics "in recognition of their contributions to the development of wireless telegraphy."

At the beginning of 2009, four billion people on this planet owned a cell phone. Integration with the Internet and television is steadily increasing. Broadband via UMTS (3G or 3rd Generation) is such an established trend that, by the beginning of 2009, there were 350 million 3G subscribers worldwide.



2020: Phone 4.0

The comparison with 100 years ago will continue to hold true. In 1920, the world was entering the technological, social, artistic and cultural dynamic of the Roaring Twenties. Cars, radio, film, music and consumerism dominated



the cities of America and Europe. Phone 4.0, the integration of the social web and life-logging with life-like avatars and mirror worlds such as Google Earth and Microsoft Virtual Earth, will lead to a new experience of reality, a “digitality” in which the virtual will become imperceptibly mixed with the physical world in which we live.



More now than ever before, new generations of telephones functioning as personal media centers will take centre stage; these may take the form of notebooks, or multifunctional combinations of handset and glasses, or both. By 2020, the interactive multimedia Phone 4.0 will reach its completion in “The Cloud,” but the physical “prostheses” that will provide us with access to this realm will be childish simple, just as the telephone has always been.



Source: www.textually.org/textually/archives/images/set2/gamefutphone.jpg



Morph is a vision of the future produced by cell phone manufacturer Nokia focusing on “media, the extensions of man” (McLuhan, 1964). The multifunctionality of Morph is ingeniously linked to futuristic material properties and a so-called “haptic” interface. All this is contained within a fold-out apparatus that is partly worn around the wrist and partly around the neck, and which is available in various designs.

Source: www.nokia.com/A4879144.

3 Web Media: Business Heart Attack or Pacemaker?

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Chapter 3 will use a number of examples to examine the business impact of the new Me-Media Mass. Transparency and busy two-way traffic are its common denominators. They turn the traditional relationships involving brands, organizations, politics and public on their heads. Open conversations with a human face are now the norm for the media mass on the Internet. The anonymous public has emerged and is now calling the shots for brands, organizations and politicians. Ultimately, everyone can profit from the frequent and personal multimedia contacts that Me-Media makes possible. Without doubt, the media mass can sometimes cause organizational hearts to race and even drive organizations crazy. But it is a reliable pacemaker for anyone who knows how to communicate on the right wavelength.

3.1 Surprise!

One evening, you decide all of a sudden to type the name of your company into a browser. The second hit is an unknown weblog containing the latest





Since the late 80's I've been involved with the Internet and 2006 saw my virtual birth in the Metaverse. In real life (in "Meatspace" so to speak) I'm a professional project manager in charge of many crowdsourcing and Web 2.0 projects.
VeeJay Burns, Metaverse citizen

news: your organization has won a prize for a certain technique. You wonder about what your own organization has to say about this and surf to the homepage. No mention can be found there or on the company intranet. Curious about the person or people behind the blog who brought you the good news, you click the About button. In front of you appears a photo of tech blogger VeeJay Burns, an avatar from Second Life.

VeeJay Burns is an avatar from the Metaverse, our digital universe (see Chapter 8). We all have to deal with the Metaverse, even though we may not always be fully aware of it. Evidently, Internet citizens or netizens sometimes learn about the latest news earlier than, in this case, your own company. Interestingly, not everything in the Metaverse is positive. The next day you receive a phone call requesting you to immediately attend a meeting with the Board of Directors. There, you are shown a YouTube clip, an amateur video by someone who phoned the Call Center for which you are responsible.

The man is passed back and forth and is clearly taking pleasure in the commotion that he is causing. For you and your colleagues this is certainly nothing to laugh about. "This Company Sucks" is the title of the video. The entire scene is extremely painful; evidently it is increasingly more difficult to keep something out of the media.

3.2

Conversations at the Heart of Business

Web conversations change relationships. Above all, they enable people to publicly express their uninhibited opinions about certain events or experiences involving products and services. Such expressions partially form the basis for new decisions to purchase or not. All types of stories are exchanged in the Metaverse by means of forums, weblogs and other media.

Organizations themselves are taking steps in order to respond to these circumstances. They initiate corporate blogs, open customer forums and may even establish a company presence in a popular Virtual World like Second Life. There they can acquire there what they long for: the attention and commitment of individuals and communities on the World Wide Web, and of course a new bond with customers and employees. However, this public two-way communication thrives best under a new set of playing rules that

demand openness. Admittedly, you never know as a company if, when you make a mistake, it will be regarded as a sign of weakness or of sincere commitment. To survive in such a state of uncertainty, you need to communicate with a sense of humor, as this may defuse any situation that has become unexpectedly frosty.

This chapter will examine a number of such cases in a positive and negative light involving Alaska Airlines, Dell, Ford, ING, Kryptonite, Microsoft, Wal-Mart and the Toronto public transit system. They all relate to experiences with new web conversations.

We will first begin with the case of Robert Scoble at Microsoft. Their Channel 9 is a fine example of the form that new web conversations might take. The web medium Channel 9 is owned by employees, open to the public and involves a healthy dose of good-humored self-reflection. It is important to surrender as much control as possible, as a tightly governed corporate weblog or forum obviously is never viewed as a trustworthy discussion partner.

Are Corporate Blogs to be Trusted?

- ▶ The *Blogstudie 2007* from the University of Leipzig, Germany revealed that people mistrust corporate blogs the most. Over a quarter of participants expressed reservations about such blogs, while only 7 percent objected to press weblogs. Independent bloggers benefit from a great deal of trust. Information from consumers on blogs and other sites was trusted as much as a newspaper article. Slightly less trustworthy was advertising, and reports by company directors were regarded as the least trustworthy. This view was reiterated in the IPSOS report: *The Power of Blogs in Europe*. (IPSOS is a market research group incorporating major research companies around the world.)
- ▶ As many as one-fifth of Europeans have changed their minds about products and companies after reading about them in a blog. Around 26 million Europeans have developed a lesser opinion about a company after reading weblog postings. And 40 million Europeans ultimately did not purchase a product after surveying user opinions. Blogs and consumer reviews clearly have increasingly more to do with purchasing decisions.
- ▶ On average, a quarter of all people trust the information found on weblogs. A review website scores higher: 35 percent.
- ▶ Comparing that with the trust enjoyed by the press in each European country, we come up with an interesting top three. Occupying first place in Britain, to start with, is the review website, followed by blogs and only then the newspaper. Anyone who knows anything about the British tabloid press will likely be able to understand this ranking. The French and Spanish trust their



press a great deal more. Review sites also enjoy the greatest trust in France, followed by the newspaper and finally the company site. Germans place the newspaper in first place, the review website second and the weblog third.

- ✎ Significant detail: the views of company directors or a business e-mail are mistrusted the most everywhere. They score even lower than TV commercials.

Is the corporate blog consequently doomed to failure? Not if employees write the postings. The public can better identify with them than with the “higher-ups” on account of such factors as their plain-speaking manner of communicating without slippery rhetoric and stodgy formulations.

3.3

Communication Plain and Simple

Robert Scoble, in his informal role as “Chief Humanizing Officer,” has managed to give Microsoft a human face. In spite of all Microsoft’s PR, the company had failed to improve its reputation, according to *The Economist* in February 2005. Traditional PR departments still have a lot to learn from activities such as those performed by Scoble. Scoble often judged his employer harshly, but his message was certainly clearly communicated to independent software developers. On the Web Scoble demonstrated for everyone to see that within Microsoft passionate professionals obtained the most from themselves, but also that mistakes were made, which is quite normal and need not be hidden.

Scoble’s Channel 9 platform still exists. It is an open environment in which employees are free to express themselves. Channel 9 contains satirical videos, including one by bad boy Rory Blyth, who explains how awful it is to attend employee meetings. Rory says, “They concern career, skills and all types



Before Robert Scoble was given his own web media show on PodTech.net, he was probably the best known employee blogger in the world. He first established a web presence at tech company NEC, where he provided customer support and communicated with customers via his blog. His activity attracted the attention of Vic Gondrotta, who offered him a contract at Microsoft. From May 2003 to June 2006, Scoble was involved with the new Microsoft Channel 9 medium. In July 2004, he began his own site: Scobleizer.com. Scoble is regarded as an authority on web conversations. With Shel Israel he co-authored a book entitled *Naked Conversations: How Blogs are Changing the Way Businesses Talk with Customers*. This authoritative work on business blogging stood at sixth place on the 2006 Amazon hit list.

of things that have to do with me, but I don't understand one bit of what goes on. And now the time has come to let off a little steam." The rest of the video then shows a scene in which bullets are fired from an imitation handgun at a helmeted employee. Undoubtedly, the average YouTube bar room humor. Anyone wanting to keep up to date with how things are with Rory, who is now affiliated to Channel 9 as a "poser located in Bellevue WA," can read an example of his postings at www.neopoleon.com/home/blogs/neo/archive/2008/01/15/28813.aspx. Blyth also has his own channel on YouTube: www.youtube.com/profile?user=RoryBlyth.

Tens of thousands of people check out Channel 9 every day. Besides popular entertainment, there is a whole range of important content for software developers. Channel 9 clearly displays that Microsoft is a hip and dynamic company to work for and with.

Basic Tips for Corporate Blogs

The advice for business blogs offered by Scoble and Israel in *Naked Conversations* is that they must above all be "sincere," not include any sales pitches, honestly report both good and bad news, tell a story, and much more...

- ✔ *Think of a good name:* The blog name can help your placing in the top of search lists. Try googling names that you come up with yourself and see what comes out of it.
- ✔ *Read a few blogs:* Read fifty blogs every week and you will find out more. Do you really have something to add or has everything already been said?
- ✔ *Keep it simple:* Readers scan blogs very rapidly. Therefore focus on the message.
- ✔ *Display passion and authority:* Displaying authority without passion is boring. So is passion without authority. How do you exhibit passion? By posting every day, for example. How do you exhibit authority? Blog about things that you know about.
- ✔ *Permit commentary:* A blog is a conversation. Be always polite yourself and deny anonymous commentary.
- ✔ *Be accessible:* Make it easy for readers to contact you; clearly indicate your telephone number and e-mail address on the site. Unexpected things can happen.
- ✔ *Tell a story:* Corporate blogs must tell a story and not sell any marketing pitches. Good sources for a story can be a conflict, an encounter, and a few exemplary cases.
- ✔ *Provide links to other sites:* A good blog has links to relevant sites, even to pages with criticism or to the competition. As a reward, you also receive links to your own blog in return.



- ☞ *Engage with the real world:* The blogging world is one-dimensional. Make contact with the people who read your blog, accept invitations to discuss your postings and make sure that you know what others are saying about you.

3.4

Do Not Conceal Who You Are

If company employees wish to qualify what is in their eyes an overexaggerated blog posting, it would be better if they did not pretend to speak as ordinary outsiders when making such a contribution from an office location, as the IP address will of course betray where they are located. It was in this way that Alaska Airlines employees were exposed when they were trying to discredit an emotional passenger.

At the end of December 2005, Jeremy Hermanns and his fiancée were flying home when aircraft cabin pressure suddenly dropped in mid flight. Oxygen masks were released and Jeremy smelt gas and burning plastic. He grabbed his telephone and began to take photos. His fiancée sat four rows behind him, near to the location where Jeremy had heard a bang (Alaska Airlines flights are always overbooked, so you are often not seated beside each other). Jeremy has a pilot license and was especially concerned about the fear that his fiancée must have been experiencing. Fortunately, the aircraft landed safely, but the first thing that Jeremy did was to place his experiences and emotions on his weblog.

Jeremy received expressions of support but also reactions of the sort “don’t be such a baby” and “you were never a pilot, I’ve checked it out.” They were from various people but came from the same IP address: belonging to Alaska Airlines.



Jeremy had been afraid for his life and later received the following remarks from a “John”:
Do me one favor. I know you were involved in a terrible event, but don’t make more out of it than it was. Lying about the smell of gas and burning anything in your blog only serves your own agenda.

Source: jeremyhermanns.org/me/alaska-flight-536-rapid-de-pressurization-and-panic-at-30k-feet

The story then ended up in *USA Today*, one of the best-known newspapers in America. Alaska Airlines said that it did not place any old official response on Jeremy's weblog, that employees are not permitted to respond on their own accord and no investigation was made to determine if somebody at Alaska Airlines might have responded. Nevertheless, there was at least a systematic attempt to ridicule Jeremy's posting coming from the offices of Alaska Airlines and, in this way, to tone down any negative effect.

Everything is Rosy at Walmartfacts.com

In the Fall of 2006, customers were singing the praises of Wal-Mart on the Wal-Mart Facts site and employees were writing about their wonderful "life at Wal-Mart." It all seemed somewhat false: not a single bit of criticism, no links to competitors and only a few messages. Not too long thereafter, the truth came out by means of testimony from none other than CEO Richard Edelman from the renowned PR agency of the same name.

In any event, it was clear that, in 2006, Wal-Mart Facts was intended as a vehicle for boosting the company image, which had received a heavy blow as a result of public perceptions that the company was underpaying its employees.

At present, Walmartfacts.com/WhatPeopleAreSaying still only reports positive items, but they are likely quite authentic and not copy that has rolled off the keyboards of Edelman employees. A patently obvious anti-Wal-Mart campaign is being conducted on www.wakeupwalmart.com/facts. All this is extremely uncomfortable.

"Social Media" Primarily Intended to Influence the Public

Everything involved in blogs and social (web) media was further elaborated upon in a report issued by Edelman employee Jonny Bentwood in mid-January 2008 under the title of *Distributed Influence: Quantifying the Impact of Social Media*. Bentwood ends his "white paper" with the following words:

» *The future of communications is in the mixing of these quadrants [i.e. open, controlled, communication and collaboration] and understanding how they work together to influence the public.* «

Nice speech on www.edelman.com, but Richard was left with no other option than to make a public apology: *I want to acknowledge our error in failing to be transparent about the identity of the two bloggers [on www.walmartfacts.com] from the outset. This is 100% our responsibility and our error, not the client's.*

"PR should lead the communications mix because we uniquely engage all stakeholders in dialogue in a way that is timely, consistent and credible."

Richard Edelman, President & CEO



Molding public opinion to suit your purposes is what is plainly being said. How propaganda and advertising got off the ground at the beginning of the twentieth century will be outlined in Chapter 5, but actually there is hardly anything new about this. All the 2.0 sincerity, transparency, openness and whatever else that might be proclaimed in a similar fashion simply remains in the service of economic gain. At the very least, this should be reasonable gain, a “fair share”, but preferably as large as possible, of course. In this respect, there are two basic rules: the demographically-segmented public must enthusiastically demonstrate of its own accord that it is being fantastically pampered and, at the same time, the price it is paying must be experienced as justified.

The enticement and influence resulting from good marketing and communications are determinative of the maximum revenue to be attained. Features, services, dialogue and other perks must build up the greatest possible public trust at the lowest possible cost. The true profit margin must be kept hidden from the customer. As long as the latter does not feel exploited, the trick works and there is nothing to worry about. Being clear on this point is perhaps the most crucial element of 2.0 transparency.

3.5 **Blogging Can Be Fatal**

“Oops! That just slipped out!” How often does this occur at home, at work, on the telephone, in an email or during a chat session? That is one thing, but dealing with sincerity on such a rapid and impactful media as weblogs is an art in itself. Former U.N. Head of Mission in Sudan Jan Pronk found this out in the Fall of 2006. On his weblog, he repeatedly revealed how the Sudanese armed forces and government were operating. Pronk, a U.N. special envoy, was not thanked for these pronouncements; instead, the authorities instructed him to leave Sudan immediately. A driven man such as Jan Pronk may have deliberately brought things to boiling point but the chance that a person lets something slip in a impetuous moment of rashness is of course not improbable on a weblog.

On a microblog such as Twitter, it is entirely conceivable that you speak frankly in a manner that you later regret. Take the Edelman hotshot Steve Rubel, for example. In April 2007, he informed his Twitter friends that the popular computer publication *PC Magazine* to which he had a free subscription was immediately chucked into the recycled paper bin at home. Manag-

ing Editor Jim Louderback then politely reminded Rubel of the fact that, among the eleven million enthusiastic *PC Magazine* readers, there were likely to be more than a few Edelman customers, who would now feel that they were being made out to be *PC Magazine* reading suckers.

Rubel, who of course could have kicked himself, could not do anything else than kowtow. In his defense, he added that he read *PC Magazine* articles received as an RSS feed, that he had included links to the magazine on his blog on several occasions, as well as to articles from the affiliated magazine *eWeek*:

» *I learned a valuable lesson. Post too fast without providing context and it can elicit an unintended response. While the item is true, it does not reflect my full media consumption habits. I subscribe to PC Mag RSS feeds and have linked to several of your publication's online articles over the three years I have been writing this blog. Further, I have linked to articles from eWeek, your sister site.* «

Things blew over but of course it was not pleasant. Always remember that these sorts of things remain in existence on the Internet.

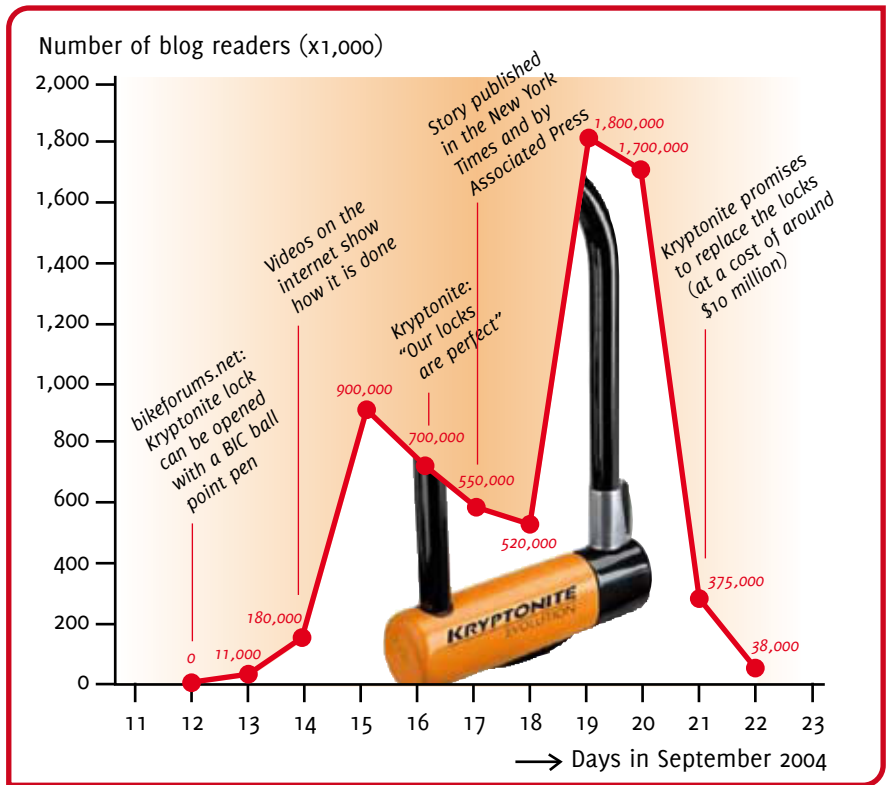
Kryptonite's Blogging was Lame

Kryptonite locks are named for a fictional substance from the planet Krypton, Superman's home planet. Kryptonite therefore stands for something unbreakable. In 2004, postings and clips caused great embarrassment at the Kryptonite Company because the popular large U-lock could be opened with a BIC pen. This security flaw had, however, been exposed earlier, in 1992, only then no Me-Media Mass existed. The Kryptonite case is a textbook example of how powerful negative advertising can work on the Web.

To cut a long story short, the entire commotion lasted ten days. At the end of that period, Kryptonite could do nothing else but to relent. The game was over in five sets:

1. First, there was a blog post about the defective nature of the U-lock.
2. Clips then appeared showing how anyone could pop open the lock with a BIC pen.
3. Kryptonite stubbornly maintained its position that the story was nonsense.
4. The *New York Times* and Associated Press then published it.
5. Four days later, Kryptonite promised to replace the locks in question, which meant paying costs of \$10 million as well as suffering damage to its reputation.





Only ten months after the incident, Kryptonite representative Donna Tocci finally contacted the bloggers. She did this on the advice of Shel Israel and Robert Scoble, who were then working on their book *Naked Conversations*. In July 2005, Israel and Scoble published the e-mail conversation that the two had with Tocci and asked their readers to respond. In one of her e-mails, Donna wrote:

» *In the first two-three weeks we worked 18-20 hour days, every day, to formulate a plan regarding the locks and reply to the folks that were coming to us—consumers, dealers, distributors and media. Again, not being able to rewrite history, we just didn't have the man or woman power to go and answer every forum question or blogger comment—and there were quite a few, as you know. As the weeks went on and I did comment on some inaccuracies, we were blasted for 'not getting it.'* «

Making such, in principle, understandable remarks to bloggers and blog readers is like waving a red flag in front of a bull. They read into this com-

ment only that Kryptonite was busy with its own concerns. And therefore a great deal more negative publicity was generated:

» *Puh-lease! If Kryptonite spoke to their audience in a human voice and stuck with it, they wouldn't have been singled out as the flacks they are. Seriously. They could have responded MUCH differently. They are just still avoiding responsibility on this issue. Entirely. Not once did she say, We fucked up, our lock sucked. Instead, she hides behind corporate bureaucracy and PR babble. Blech. Write your chapter. Please.*

The problem wasn't that they didn't do anything; the problem is that they didn't really communicate to the masses in an effective way that they were doing something and that they were sorry that customers were going through pain. They didn't control the conversation by being proactive. Instead they were reactive and only responded to requests made to them. This is why they took such a hit on the issue.

A clear moral: Kryptonite should have immediately pleaded “mea culpa” and made a proposal. Instead of that, the company reacted in way that was, in the eyes of bloggers, inadequate, defensive and arrogant. This made people increasingly angry. At the beginning of April 2007, Kryptonite even began a weblog on a simple blogger account (unbreakable-bonds.blogspot.com) in which it finally entered into conversation with customers in an open and positive manner, offering them a platform as well.

3.6

Above All, Grant Customers Their Forum

The stories of Alaska Airlines, Wal-Mart, Kryptonite and many other are still available on the Web. The Internet is the new worldwide digital jukebox in which everything is stored and in which search engines can immediately find any track on any record. An organization may unwillingly run the risk of being a climber in the browser hit parade, especially when discussions flare up dramatically. Remarks by individuals can easily come to the attention of a public of millions.

This happened to companies such as Dell, the computer hardware supplier. For some while Dell had operated customer forums, but at a given moment they were closed as the company preferred to provide support for customers itself rather than have all kinds of problems and rumors aired in public. Emotions ran high after a posting in June 2005 on Buzzmachine.com, the weblog of well-known American journalist Jeff Jarvis. Jarvis paid for sup-



port at home but when something went wrong with this new laptop, Dell told Jarvis that it would be better if he sent them the computer, as Dell Home Support did not have the right part available.



After a great deal of commotion involving blog messages and clips and a great deal of “Dell sucks” in this “Dell Hell” incident, Dell reopened its customer forum. As a right-minded web intellectual, Jarvis had foreseen that the popular Conversation Economy book *The Cluetrain Manifesto* (see Chapter 4) had certainly made the interests of customers in support and marketing sufficiently clear.

Dell rode the wave even more by establishing the crowd-sourcing innovation platform IdeaStorm (“Where Your Ideas Reign”), as well as Studio Dell, where people can upload videos, and Bazaarvoice, where people can publish product evaluations. Jarvis remarks on this point:

» *Welcome to the age of customer control. This isn't just crowdsourcing. This is crowd-managing. But hell, if even Dell can lean back and let its customers begin to take charge, anyone can.* «

In the eyes of many, Dell is the prodigal son who has seen the error of his ways and has fortunately again become best in class. The lesson: the redeemed always perform well and to err now and then is only human. Two years after the beginning of the Dell Hell incident, the company is again being lauded:

» *It's a great story about how being open, honest and responsive to a problem has helped to earn back the trust of its user base. If any company needs to do that, Dell is a poster boy.* «

Source: threeminds.organic.com/2007/04/blogs_and_dell.html

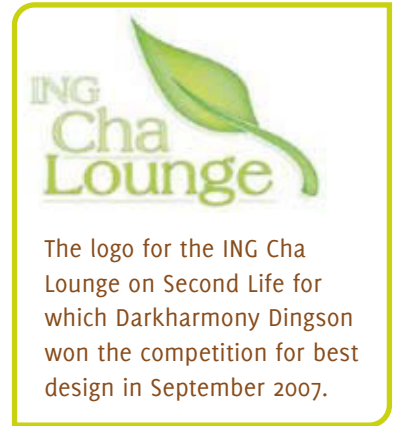
Jeff Jarvis's article Dell Learns to Listen appeared in *BusinessWeek* in mid-October 2007. It marked the definitive end to the Dell Hell affair.

3.7 Socializing Banks: Cup of Cha and Stage Coach Island

Jacques Kemp, CEO from ING Asia Pacific, and David Garceran Nieuwenburg ran the ING weblog in Asia that is appropriately called My Cup of Cha. Of course, ING would have liked to be everyone's cup of tea (or cha) in this

region of the world. ING wanted to become the favorite financial web node worldwide, and weblogs are part of this strategy, as is a presence in the Virtual World of Second Life, for example. The Cha theme also occupied a central role there.

ING's My Cup of Cha blog sought discussion about several issues. Should a bank help customers obtain a better deal from the competition? Should a type of "open lending" concept be something for ING? The company site therefore indicated competitor rates and provided links to their sites. Among those participating in the discussion was Charles Green, business consultant and author of *The Trusted Advisor* and *Trust-Based Selling*.



On a weblog David Nieuwenburg was asked if ING also had plans to provide its bloggers with sales techniques. Nieuwenberg answered this as follows:

» *Sales technique instruction would be a whole new chapter for a blog environment. Old sales techniques (foot in the door, pop-ups) do not of course work online. Perhaps the conclusion is that sales techniques might shift the emphasis from product features or even customer needs to voluntary and interesting relationships. Typically Web 2.0, where pleasure, hobby and interaction without commercial objectives (Wikipedia, Apache, et cetera) are seriously used as effective tools.*

David Nieuwenburg also said that the blog has enabled ING to climb higher in the search-result statistics. That bank now pops up in response to search inquiries that, until quite recently, did not yield any link to ING.

» *We found it very interesting to see how the blog would fit into our search engine optimization strategy. The articles that we write are mostly 'current,' likely a requirement for every blog, and we have noted that ING is now appearing on the first search results page of Google and Yahoo searches in which we otherwise never would appear, for example for search queries about the 'Nobel Prize,' 'Taiwan earthquake' or 'e-Business Asia.' But searches for 'pensions in India,' 'CEO Hong Kong,' 'financial advice Asia Pacific' will also lead to our blog. Although we have not done an ROI, it is readily apparent that this increases our reach substantially.* «

David Nieuwenburg saw the Cha blog primarily as an instrument to make ING more personal:



» I dare not look three years ahead but, if I were to hazard a forecast, I would hope that our blog might have helped ING display its human personal side. No matter if someone is a customer or not, it has to be interesting to learn about what a company like ING is experiencing and forced to make decisions about. Secondly, I would hope that the blog helps to speed up responses to issues that we hear about from our blog readers. Their ideas, concerns, complements or negative experiences entered on the blog or received from other blogs must then be dealt with by an organization capable of responding to them. «

My Cup of Cha sold nothing except opinion and was merely a platform for discussion. It was therefore non-commercial in terms of the traditional sales concepts but certainly commercial for anyone who believes in the power of voluntary relationships and conversations. The blogging policy of My Cup of Cha comprised the following seven rules, which were inspired by the insights of former Forrester Research analyst Charlene Li:

1. We will tell the truth. We will acknowledge and correct mistakes promptly.
2. We will not delete comments unless they are spam, off-topic, in bad taste or defamatory.
3. We reserve the right not to comment on particular responses in line with our disclosure requirements.
4. We will reply to comments when appropriate as promptly as possible.
5. We will disagree with other opinions respectfully.
6. We will link to online references and original source materials directly.
7. We will keep private issues and topics private.

Stagecoach Island

Wells Fargo, the first major bank to capitalize on the new marketing possibilities present in Second Life, created the virtual Stagecoach Island in September 2005. It is an outstanding environment in which to experiment.

» Stagecoach Island is an online virtual world created by Wells Fargo. You can explore the island and its hidden secrets, connect with friends and make new ones, and at the same time learn smart money management. You can earn virtual money by visiting the Learning Lounge—a virtual Wells Fargo ATM—and answering questions about money management. With our introduction of the building functionality, you can now use what you earn to buy land and start building your dream home... We've also introduced virtual jobs, credit cards, and home loans so that you can learn, earn, build and play more in-world. «

3.8

Frankly and Freely Following the Rules

DeveloperWorks is an IBM portal with over sixty different blogs: company blogs by big guns such as Grady Booch and Dave Bartlett are interspersed with community blogs such as the one on WebSphere. IBM devotedly believes in the positive impact of IBMers who actively engage in discussions in forums like HealthNex: IBMers and Friends on Networked, Patient-Centric Healthcare. IBM encourages employees to publish on the Web. Blogging employees acquire knowledge about all types of developments relevant to the company. In addition to the learning effect, IBM would like to make its voice heard and to contribute to public discussion.

When employees blog, they must be aware of the rules of the *IBM Blogging Policy and Guidelines*. The full text ends with the warning intended to somewhat dampen enthusiasm during working hours:

» *Don't forget your day job. You should make sure that blogging does not interfere with your job or commitments to customers.* «

The guidelines are set up on the basis of a wiki on blogging established by a number of IBM bloggers. IBMers and non-IBMers responded to it. IBM blogger Koranteng Ofosu-Amaah felt the use of a disclaimer to be nonsense:

» *A weaselly concession by overly freaked-out folks to keep lawyers employed.* «

A lively discussion on this subject can be found on the blog of IBMer Sam Ruby. He proposes the following playful disclaimer:

» *The opinions expressed here represent the thoughts of 0.0003% of the employees of IBM. Before taking it as anything more than that, you might want to consider checking with the other 99.9997% of the employees first.* «

Sometimes, Koranteng's manager puts substantial pressure on him concerning his blog activities. But he says that he needs his blog to learn about technology and to maintain his sanity in the midst of the madness that a large bureaucracy imposes daily. Koranteng writes on weekends, in the early morning and late in the evening. But once in a while of course he may also prepare texts during working hours.





The Essence of IBM's Blogging Policy and Guidelines

- Become familiar with our general rules of behavior and behave accordingly.
- Blogs, wikis and other forms of online communication are individual actions and not company statements. IBMers are personally responsible for their postings. Understand that what you write will remain available for a long time. Think about your own privacy.
- Make yourself known (name and, if relevant, your role at IBM). Make clear that you are speaking on your own behalf and not in the name of IBM.
- When you publish something on a blog that involves your work or subjects affecting IBM, make a clear disclaimer.
- Respect copyright, fair use and rules concerning the disclosure of financial information.
- Do not disclose confidential information about IBM or anyone else, or for which others have property rights.
- Do not quote customers, partners or suppliers without their permission. The same applies to references.
- Respect your public. Do not use any obscene text, ethnic and personal insults. Show respect for each other's privacy and be careful about sensitive issues such as politics and religion.
- Seek out anyone who is blogging more on the same subject and cite them.
- Never engage in confrontation but be the first to correct your own mistakes. Do not revise any previous postings without indicating that you have made the change.
- Try to add value.

3.9

Two Dot Zero Rushes to Aid of Public Transit

In the Canadian city of Toronto, public transit organization TTC (Toronto Transit Commission) was surprised by an initiative instigated by bloggers. It began with a public letter offering TTC commissioners help in improving their website and information architecture. The offer was made in response to a Request for Proposal that TTC had previously issued. The bloggers had little confidence that the RFP would result in the required improvements.

At the beginning of February 2007, web designers, Web 2.0 specialists and artists came together to form their own TTC (“Toronto Transit Camp”) to contribute to the future of public transit in Toronto in an open and creative manner characteristic of the blog world or “blogosphere”.

» *Transit Camp is about creating space for play. It is about leaving our organizational roles and business cards at the door and entering an open space that has been carved out for play, interaction, meaning-making and collaboration. It is a new way of working, for social goals as well as for market activity. It is about creating abundance from scarcity.* «

Marc Kuznicik, one of the Transit Camp organizers

One month later, recommendations were ready for submission to the Toronto Transit Commission. They varied from tips about user friendliness and architecture to the future functionality of the site and required applications. Much can be accomplished for limited costs: this was an important discovery.

Community Recommendations to the TTC Toronto Transit Camp, February 4th, 2007

Report Submitted: March 5th, 2007



Vision: A website for the future TTC needs to fulfill some core functionality requirements. It is also an opportunity for improving the user experience of the system itself and improving the relationship between the TTC and its passionate communities of interest. In order to fulfill this vision, and considering the budgetary constraints and competing priorities for funding at the TTC, a new approach is recommended to achieve these goals utilizing the passion, creativity and spirit of the Toronto-Transit-Camp community.

Staying on the edge of innovation using internal and major consulting company resources is a very expensive proposition, while the world of Google maps mashups and Open Source tools development show the agility and innovation that is available in the wider transit technology community for very low cost. The Toronto Transit Camp community recommends that the TTC embrace this vision for the future in its web strategy.

Visit toronto.transitcamp.org and www.youtube.com/watch?v=PDkEPvIwarI. The communications that occurred after the much discussed Toronto Transit Camp can be followed on groups.google.com/group/toronto-transitcamp.



FOO Camps and BarCamps

The Toronto Transit Camp was a so-called BarCamp. BarCamps, which are now being organized all around the world, are counterparts of the FOO Camps of Web 2.0 guru O'Reilly, in which FOO stands for Friends of O'Reilly. In their original usage, foo, bar, and foobar are all designations known to every software developer.

```
// PHP code
$foo = 'Hello';
$bar = 'World';
$foobar = $foo . ' ' . $bar;
// $foobar now contains the string 'Hello World'
```

FOO Camps and BarCamps are informal meetings and conferences attended by an extremely enthusiastic public. For this reason, they are also known as “unconferences.”

3.10 Primark and Albert Heijn

There are other organizations besides the public transit commission in Toronto that have received spontaneous positive attention from users by means of web media. Facebook is home to thousands of spontaneous groups dedicated to various companies. With over 95,000 members, the Primark Appreciation Society serves as hub of discussion on new fashion lines and tips on where to buy hot products. Primark is a large and popular clothing retailer based in the United Kingdom.

The most impressive aspect of the Facebook group is that Primark does not appear to be involved with the group at all. It did not start the group, nor does it have editorial control over content. Photos of products on the site often feature individual costumers showing off their newly purchased merchandise. Many of the picture are also out of focus or the product is off center. The amateur nature of the pictures and occasionally critical commentary lend to the authenticity of the group.

A similar phenomenon occurred in online communities on the Dutch social networking site Hyves (from the English word for a community of bees, “hive” but transcribed “hyve” to suit Dutch pronunciation). Among other things, useful suggestions have been made for store improvement and expansion of the product selection. The downside is that less attractive



items are sometimes made public. But if you respond well, any company can reap profit from such exposures.

If the manager of a specific Albert Heijn store reads these “hyves,” he can learn that rösti (a traditional hash brown like dish from Switzerland) is frequently sold out, that no ordinary frozen fish is on offer and that Almhof mild creamy yoghurt with lemon must be immediately added to the product list. Customers of another Albert Heijn store, a few hundred meters away, are unhappy that they cannot buy vacuum cleaner bags, Pellegrino mineral water and instant gravy.

Besides the useful tips, there is of course the necessary bar room humor about the attractiveness of cashiers, for example, or the question of whether or not there should be purple shopping baskets, which would be handy in indicating that you are single.

It is downright unpleasant when former employees feel their dismissal to be unjustified. Jeffrey was fed up with being strung along for years only later to learn that he did not have any career prospects at Albert Heijn. Of a very different kind, but just as unpleasant, is the following message in which Pascal urges people to place stories about mice at Albert Heijn on the Hyves social network:

» *Today was hilarious! Sat down to eat in the cafeteria. All at once, the store manager comes running upstairs with a 2 liter milk bottle and a look on his face of “you all have to see this.” What was hanging there? A dead mouse! With its tail stuck to the label. Dead from the cold, it seemed. What are the weirdest places where you have ever found a mouse?* «

In the Netherlands the Albert Heijn Hyves communities are extremely popular. People use them to write about anything that they have on their minds: from attractive cashiers and working conditions to the best store and errors in the order process.

3.11

Experimenting with Web Media

Many companies want to be part of web communications but want to remain in control of it themselves. A good example of such a case is the Kodak corporate blog.



A Thousand Words

1000words.kodak.com has been operating since September 2006. With a nod to the old phrase “a picture is worth a thousand words,” corporate bloggers share their stories with all the photography fans around the world. Anyone can respond, but should give their responses proper consideration: don’t make them too indecent, and no harping on about Kodak products is permitted on A Thousand Words.

» *This is not a place for off-topic, offensive or inappropriate comments, and we will be vigilant in removing them. Inquiries that are unrelated to this blog related questions—will be redirected to an appropriate resource.* «

Ford Boldmoves

Ford Boldmoves was a completely different experiment. Boldmoves operated from July 2006 to January 2007 as a service by means of which stakeholders were involved in the car maker’s future. The site consisted of thirty candid videos about the activities and concerns of Ford directors and was launched on *American Idol*. Ford did not evade criticism and did not hide its insecurities. There was a desire for constructive conflict, which was exactly what Ford got. The final posting in the experiment contained the following:

» *As we were honest with you from the beginning, you, in turn, were honest with us. Sometimes brutally so, but that’s OK, we asked for it! We heard your comments on the employee buyout plans, the design of the latest versions of the Mustang and even what colors you liked for the Edge—and we all thank you for your spirited participation. We took you through a major product launch from the inside out and you let us know what you thought about it. Never before has there been a conversation quite like this.* «

Corporate Blogging: Is It Worth the Hype?

Although the Boldmoves site is no longer present on the Web, the following blog posting still remembers it: blogsurvey.backbonemedia.com/archives/2006/06/fordboldmovesco.html. This immediately raises a very important question: Corporate Blogging: Is It Worth the Hype? Apart from all the data in the similarly named report, the three ways of operating in Section 1.1 are extremely relevant. On the next page we have inserted the logos of the textbook examples representing each position.

In two situations, corporate blogging is more or less risk-free. They involve the thought-leadership activity that IBM partly chooses to emphasize and the



activity represented by Kodak's use of a corporate blog. Responses from outsiders are permitted there but almost entirely under open censure.

Anyone seeking openness and transparency, such as Ford did with its Boldmoves and Microsoft is still doing in another manner with Channel 9, runs the greatest risk. Dell can be placed between Kodak and Ford, and ING's My Cup of Cha leans slightly more toward IBM's position. The Ford approach may bear productive fruit, but a company first has to make sure that it does not have too much dirty laundry and that it is not about to slip up. The same of course applies to thought leadership: a company might want to do this, but it has to be absolutely certain that it can pull it off.

The similarity between Kodak and IBM is that, in both cases, they lay down clear rules with which bloggers have to comply. In all cases, anyone who has to seek publicity and interaction on the Web realizes that the competition is certainly watching, that there is a risk of negative PR and that there are legal consequences. However, all those who are aware of these issues, who take in the examples and tips provided in this chapter, and give serious consideration to the five basic questions with which we now conclude this chapter, will at least be well prepared.

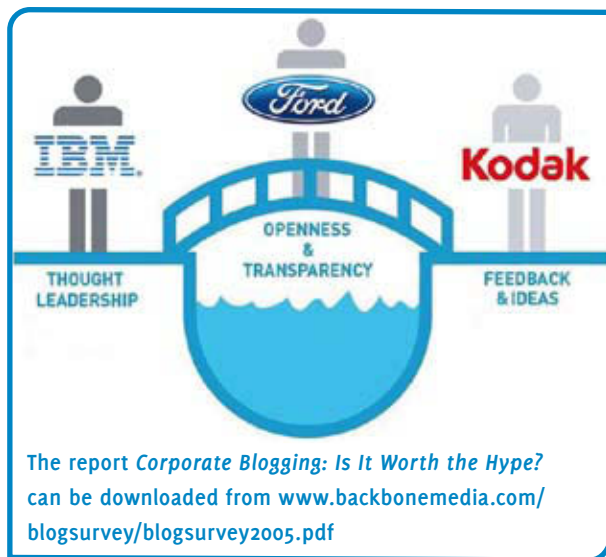
3.12

Five Questions about Corporate Web Conversations

This chapter has examined a number of much discussed mistakes and successes involving the use of web conversations. Below are five fundamental questions about communication in the Me-Media Mass on behalf of an organization.

1 Must There Be Rules?

It goes without saying that there have to be some rules. To be clearer, rules always exist, even if they have not been made public. Everyone understands that some things are not permitted and that open communication



is desirable. There is, however, a degree of questioning about the extent to which a code of behavior can remain unwritten or has to be made explicit. You may not be blogging officially on behalf of the company, but you will indeed be recognizable as one of its members, and anything you write will probably remain on the Web for a long time. Of course, it depends on who takes part in a corporate weblog. Often, a small group of people create the postings and the rest of the company and the outside world are left to respond. In this case, common sense generally prevails. The best scenario is when you can leave as much as possible to the self-cleaning capacity of the “ecosystem.” Organizational culture is an important factor in this respect. American companies and multinationals often issue extensive sets of procedures that also apply to corporate weblogs. The IBM solution of allowing bloggers to establish their terms of use is extremely elegant, not so much because it makes everyone aware of and amenable to the rules of conduct, but because it encourages open communication right from the start. Companies that want to build in further restrictions can do something similar or even identical to IBM’s solutions. Of course, the rules of etiquette governing letters submitted to quality newspapers also always apply. However, anyone who has to monitor weblogs in order to ensure that such rules are respected is facing a tough task.

2 Do I Come Across Well?

All those who are anxious about not coming across well should perhaps not get involved. And an individual with a personal style must certainly make use of it. The point here is quite simple: blog specifically on things that you know about. In addition, effective communication is primarily a question of writing in an appealing manner. Many people therefore use a colloquial and personal tone of voice. It also depends on whether or not a blog posting is intended to inform or to obtain as many responses as possible. The combination of interesting writing, personal style and expertise is undoubtedly a crucial success factor for every web conversation. Finally, the tip about immediately admitting to mistakes is sound advice, unless of course it is the intention to provoke or polemicize. But in corporate blogging, such rabble-rousing will seldom be desirable.

3 What Are Web Conversations Good For?

Talking with (potential) customers always leads to something; in this sense, the question is meaningless. Still, if you are afraid that web media will detract from or conflict with other communication objectives, the question is then very apt. The experience of ING with the weblog My Cup of Cha points the way here. The bank was rewarded with higher scores on searches involv-

ing certain keywords. The weblog therefore contributed to the aims involving search engine optimization. Less tangible, but at least as interesting, is the fact that Microsoft has become a “more human company” as a result of its blog activities. And if web conversations generate concrete ideas such as in the case of Dell’s IdeaStorm, then the benefit can be just one innovative idea.

4 Is The Escalation of Web Conversations a Serious Matter?

If a web conversation with customers or the outside world gets out of hand, it is not the end of the world. It entirely depends on what has instigated the affair, how you react and how strongly something has escalated. In general, corporate front runners are easy targets, but additionally anyone whose weblog stands a little apart from the crowd will run extra risks. Search engines now function as reputation management systems; unpleasant messages remain traceable for a long while. If web conversations happen to escalate, it may be best for you to plead “mea culpa” and air the issues as far as possible in the open. Dell, PR agency Edelman and Kryptonite had to cave in, but ultimately came away from the fight stronger. Controversy is good, as it puts you in the spotlight and gives you the opportunity to make things right. Redemption is not always easy, but a genuine penitent often gains public favor.

5 Can You Control Web Conversations?

Web conversations are certainly controllable through the manner in which they are conducted and, above all, by the choice of subject. Ford’s Boldmoves project is a good example of such control. But you should note that being open to the exchange of ideas with employees and customers is something other than faking openness. Deception is sooner or later exposed. An important benefit of web conversations is derived from the unexpected, the uncontrollable and the vulnerable. This, combined with the standing that you hold as an organization, produces confidence and credibility. Entering into web conversations as such can then have a positive effect on image. However, enforced control of the specific



content of web conversations must be avoided. Acting in a disarming, manner, maintaining a fundamentally positive attitude and exercising a good sense of humor are all the best principles of control.

Pimp Your Brand

Due to the mixture of such websites as Google, eBay, Digg and Del.icio.us, along with social networks, weblogs, wikis and Internet forums, it is very easy to drag out the past of people, companies and brands. Many significant items in both a positive and a negative sense are magnified in the display window of the Internet. This fact may be pleasant or discomforting, but you can also play around with it. In particular, companies are making increasing use of the services of PR agencies in order to polish their reputations. SEO, SEM, SMO and SMM are all abbreviations designating the same activities. They stand for Search Engine Optimization/Marketing and Social Media Optimization/Marketing. To a certain extent, this occurs automatically, but you can also hire in personnel who mingle with the Internet public on certain sites. When a discussion arises somewhere, they speak positively about a product, service, brand or company. In the light of his boss' blunder (see Section 3.4), Steve Rubel at the Edelman PR Agency sounded more Catholic than the pope when he gave evidence of his abhorrence for his sort of practice:

Search engine optimization professionals of late seem poised to take over blogs, Digg, StumbleUpon and other sites with a range of tactics, some legitimate, others more questionable with the intent of building Google Juice and nothing more. This represents a clear and present danger to the fabric of the community. If you care about the social web, then you should be alarmed.

Source: www.micropersuasion.com/2008/02/seo-shenanigans.html.

NB: Digg, Del.icio.us, StumbleUpon and eBay are discussed in Chapter 7.

4

An Economy of New Conversations

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Our economy has always consisted of conversations which usually contained few wasted words. There was the striking of a bargain, supply and demand, later supplemented by after sales, customer support and the helpdesk. Chapter 4 demonstrates that multimedia web conversations propel the traditional economy into a new phase that, in so many words, may be called the Conversation Economy. Chapter 5 will take this paradigm even further by proclaiming the rise of a true Conversation Society on the basis of the Me-Media Mass that we created.

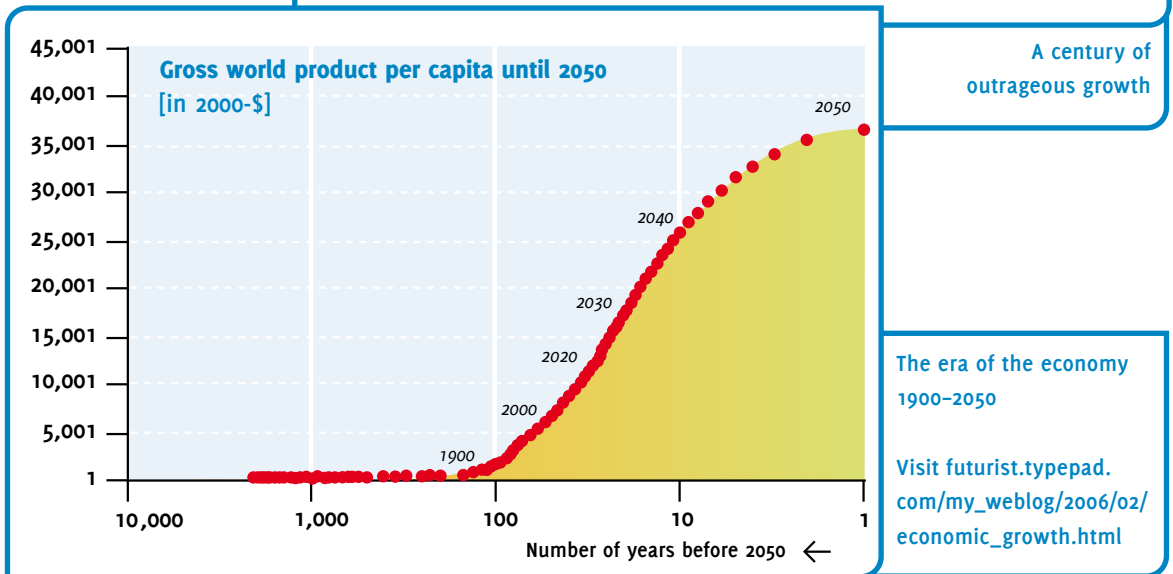
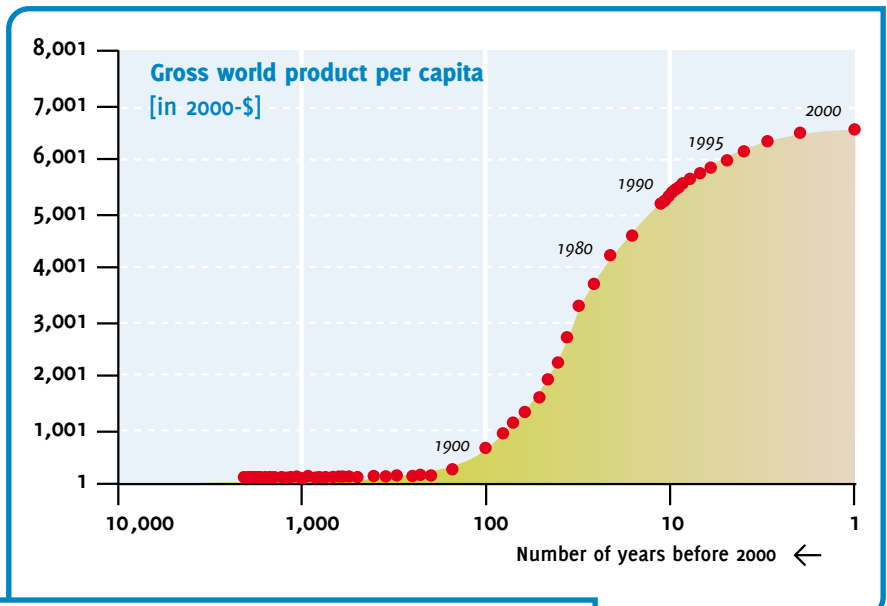
The development of the Conversation Economy was already anticipated a few years ago, but now something is actually happening. Reactive and proactive web conversations not only ensure that clients are more satisfied but that adequate products, services and even laws can be made more quickly.

4.1

The Era of the Economy

Anyone reviewing indicators from the last hundred years will immediately note that despite the world wide recession the present time represents the greatest burst of economic growth that has ever occurred. A logarithmic scale of gross world product immediately reveals that growth in the twentieth century makes the economic development of the previous millennia seem almost negligible. Not only has growth been exponential but the rate of growth has increased exponentially as well.





If we project the trend from 2000 to 2050, we can see that gross world product will be six times greater again. Apart from any other qualification one might wish to add, this one-hundred-and-fifty-year period, of which now one century lies behind us, is above all the era of the economy, despite the dire condition it has slipped in since 2008.

Such explosive progress is unprecedented in the history of humanity. Throughout history, there have of course been periods of boom: the Aztecs, Greeks, Chinese and Romans, to name but a few, all experienced and cultivated luxury and progress, but not at the rate, extent and distribution of well-being that we are now enjoying. In the past, only a minority elite benefited from economic progress, while colonization and exploring the earth were the main activities. Ordinary people, no matter if they were Romans or Aztecs, have never experienced much of the good life throughout history.

We are therefore in the era of the economy. This began at the beginning of the previous century and resulted at the end of that century in the hopes of a so-called New Economy. The new order was to be characterized by continuous annual 4 percent growth. The Internet was the magic word—the e-this-or-that was what the age was clamoring for (consider for example, e-commerce, e-business, e-tailing, e-marketplaces), and all this alleged beneficence coming out of the United States. On March 10, 2000, the NASDAQ closed at an all time high of 5048.62 points—twice as much as the previous year. After that it went downhill; the Internet bubble burst.

With hindsight, everyone could have foreseen that the downward turn was bound to happen, as the American Federal Reserve had raised the prime interest rate six times in order to slow down “irrational exuberance.” The downward slide was painful, although not as devastating as the recession that started in 2008.

This gap in American superiority was subsequently widened, specifically by terrorism (9/11), unprecedented book-keeping scandals (Enron, Worldcom among others), faulty intelligence about weapons of mass destruction, the economic emergence of India and China, and the recession that started in 2008 as a subprime mortgage crisis. After the euphoria surrounding the New Economy, it became clear everywhere that economics is only an abstraction of reality.

4.2

Conversations in the Economy

The economy is based on a few simple ground rules. It is the place where supply meets demand, where trading occurs as part of the talk between buyer and seller, and where advertising promotes sales.



Some movements in the economy are beyond our control, such as Black Monday in October 1987 when automatic trading on financial markets had to be suspended in order to prevent something more serious from happening. However, the economy is essentially an interconnection of interpersonal conversations. And the era of web media is bulging with such human-based interactions as never before. The examples in the preceding chapter have made this point sufficiently clear.

In addition to a lightning-fast, hot-money economy, we are also currently experiencing an increase in new conversations on the Internet among real people. These conversations drive supply and demand, especially as they frequently involve advertising or negative opinion. This e-mancipation has grown into a supplement of e-trading and e-business.

E-mancipation based on web media differs from the Mass-Media Age of a few decades ago just as day differs from night. If we are able to speak of conversations occurring then between supplier and consumer, they were one-sided, to say the least. The emphasis was placed entirely on the messages dispersed by companies through media and directed at various demographic segments.

Consumer organizations and ombudsmen had to conduct the conversations on our behalf. As far as this situation was concerned, the arrival of call centers and customer contact centers was already an enormous step forward.



Communities Dominate Brands

Eighty percent of 18- to 26-year-olds are currently actively involved in web media such as blogs, clips and social networks. This new generation of employees is changing the ways in which companies operate, just as *The Cluetrain Manifesto* predicted in 1999. Alan Moore, the author of *Communities Dominate*

Brands: Business and Marketing Challenges for the 21st Century, has the following to say on the subject:

The companies that don't understand the new media empowered consumer will not survive. Companies have to empower their network, build advocacy, learn to give up control and understand that it is not about persuasion anymore.

The Cluetrain Manifesto

The realization that markets are conversations and that both are altered by the new media was noted in an intriguing way as early as 1999 by Rick Levine, Christopher Locke, Doc Searls and David Weinberger in *The Cluetrain Manifesto*. This new media manifesto, of which a book version was published in 2000 with the provocative subtitle *The End of Business as Usual*, came out prior to the age of YouTube, MySpace, Facebook and Twitter. In 1999, Google was just one year-old, and the favorite search engine of the time was AltaVista. In those days, thousands of people wrote in the manifesto's guestbook, people from IBM and Ogilvy, celebrities such as Dave Winer and open-source guru Eric Raymond, and very many ordinary web devotees of the time.

The Cluetrain Manifesto focused on the media qualities of Information Technology (IT): in other words ITainment. It is relatively far-reaching, going so far as to predict the end of advertising. After all, we would rather listen to each other on the Internet than to what companies throw at us in their advertisements. David Weinberger later admitted that this was in fact a mistake. The Internet is bursting with advertising messages, and radio and television still exist as well. The traditional mass media have certainly lost their absolute power; they are now all just elements of the new media mass.

Although *The Cluetrain Manifesto* occasionally overshot the mark in proclaiming the revolution, it was undoubtedly the document that started something. As the following summary of key passages from the original manifesto reveals, there was an emerging new (web) media mass based on human activity. *The Cluetrain Manifesto* describes this development as a liberating e-manicipation of humanity, while romanticizing it as a kind of homecoming.

Conversations are (again) the norm

Old markets were filled with the sounds of life: conversations. These markets were places for trading traditional products in which the hand of the maker was recognizable. Subsequently, we were presented with mass production, mass marketing and mass media. Interchangeable employees, products and consumers came into being, together with the hierarchical bureaucracies needed to command and control them. But the Internet—uncontrolled and full of the sound of the human voice—demonstrates that the Industrial Age was nothing more than a temporary interruption of the conversations of a bygone age. This time, they are going on all around the world. The voice—the forthright expression of craftsmanship present in our handmade products and words—is again rising on the Internet.



Hierarchies are subverted

Just like their counterparts in the market, employees are now able to contact each other and are consequently learning to speak with their own voices. Traditional organizational structures are therefore being overturned. People are telling each other and their customers the truth. The direct contact between employees over the Web undermines the old management pyramid, breaking down the walls segregating the workspace by engaging in open conversations. From the bottom up, companies are beginning to accept openness, decentralization, incompleteness, disarray, context-rich information, narrative and the sound of the authentic voices of individuals.

Communication is forthright

Almost everyone online expresses a playful attitude; a shared ironic intelligence that undermines the basic assumptions of traditional institutions. The Internet is for fooling around, and companies would do better to take this play seriously. When this paradox has become a paradigm, then it will be too late to go looking for a magic potion to cure empty organizational speech. Instead, it is time to get familiar with new roles, new reasoning, new worlds.

It's the Conversation Economy, Stupid!

The Cluetrain manner of thinking is the yardstick and often the inspiration for the examples in the previous chapter. In April 2007 David Armano placed a strong exclamation mark after this fact in *BusinessWeek*: “It’s the Conversation Economy, Stupid!” *The Cluetrain Manifesto* is perfectly in tune with the current trend of involving customers in the development of products and services. Such interaction occurs in the case of open-source software, open innovation and, briefly put, in all forms of crowdsourcing among organizations, knowledge institutes, individuals and communities.

Five years after publication of *The Cluetrain Manifesto*, the landscape of the Internet had a radically changed appearance: the era of Google, YouTube, MySpace, LinkedIn, Virtual Earth, Flickr, et cetera, had dawned. New social software platforms for conducting conversations were springing up like weeds. Evidently, everyone had simultaneously become convinced of the power of the Internet to establish dialogues about everything. The flow of web communications by e-mail, instant messaging, blogs and wikis fueled this trend and, of course, the application of simple web conversations in the development of open-source software such as Linux, Apache, and thousands of other applications.

When open-source guru and author of the seminal work *The Cathedral and the Bazaar* Eric Raymond signed the Cluetrain guest book, he added the following comment:

» *The Cluetrain is to marketing and communications what the open-source movement is to software development—**anarchic, messy, rude, and vastly more powerful than the doomed bullshit** that conventionally passes for wisdom.* «

This remark is rich in irritation and irony. This is the manner of straightforward communication that Levine, Locke, Searls and Weinberger have talked about and which was already well-known in the open-source movement. The forthright tone of web conversations is a complete contrast to the empty organizational speech of which we saw examples in the previous chapter.

While writing *Me the Media* we experienced this ourselves, during our visits to several companies around the globe. In response to a question probing fear about what might happen to beards, we were told in several cases that “fear” was not the right word:

» *Afraid? No, we are not afraid. We are absolutely terrified. That’s why we experiment like hell.* «

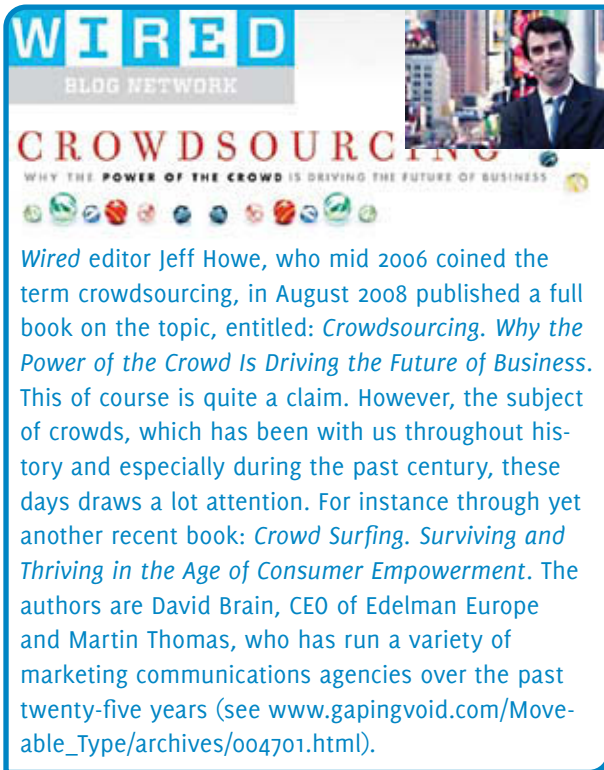
Fortunately, the destructive humor and pranks of web media users only represents one side of the coin. The other more constructive side is the value creation of crowdsourcing: the use of web media to mobilize everyone online. This activity, which began with software development, is now permeating all other economic sectors.

4.3 Crowdsourcing with Web Media

In effect, the Web Conversation Economy began in 1985 with the establishment of the Free Software Foundation by Richard Stallman. This act of defiance against the established software companies has had substantial economic consequences. Stallman felt that every programmer had the right to participate in writing the software that everyone works with. This principle became the basis for a new production method, which was ultimately also embraced by the establishment when it became apparent how successful the open-source approach was.



Twenty-one years after the establishment of the Free Software Foundation, Open Source received a new name from *Wired* editor Jeff Howe. In June 2006, he wrote the article “The Rise of Crowdsourcing” dealing with the use of web media to engage outsiders in production and marketing in the most divergent segments. As a consequence, these activities potentially involve more than a billion people, the online population these days. Aircraft manufacturer Boeing, shoe maker Fluevog, NASA, Goldcorp, Lego, Procter & Gamble, Unilever and many other organizations are making great efforts to take advantage of the crowdsourcing phenomenon.



The graphic features the 'WIRED' logo in large blue letters at the top left, with 'BLOG NETWORK' in smaller grey letters below it. To the right is a small photo of Jeff Howe. The main title 'CROWDSOURCING' is in large red letters, with the subtitle 'WHY THE POWER OF THE CROWD IS DRIVING THE FUTURE OF BUSINESS' in smaller black letters below it. A row of colorful circular icons is positioned below the subtitle. The text at the bottom describes how Jeff Howe coined the term and mentions the book *Crowdsourcing: Why the Power of the Crowd Is Driving the Future of Business* by David Brain and Martin Thomas, along with a website link.

WIRED
BLOG NETWORK

CROWDSOURCING
WHY THE POWER OF THE CROWD IS DRIVING THE FUTURE OF BUSINESS

Wired editor Jeff Howe, who mid 2006 coined the term crowdsourcing, in August 2008 published a full book on the topic, entitled: *Crowdsourcing. Why the Power of the Crowd Is Driving the Future of Business*. This of course is quite a claim. However, the subject of crowds, which has been with us throughout history and especially during the past century, these days draws a lot attention. For instance through yet another recent book: *Crowd Surfing. Surviving and Thriving in the Age of Consumer Empowerment*. The authors are David Brain, CEO of Edelman Europe and Martin Thomas, who has run a variety of marketing communications agencies over the past twenty-five years (see www.gapingvoid.com/Movable_Type/archives/004701.html).

The revolutionary message that, as a result of such social web media as YouTube and MySpace, the consumer will be in charge rather than companies, authorities, traditional media and politicians must therefore be extended. Web media are also of great interest to organizations, as they can ultimately enter into direct one-on-one contact with the, until very recently, anonymous public. The hyper-linked egos of today are more involved than ever and in addition have a stronger tendency to communicate.



The graphic shows a lightbulb icon next to the 'CrowdSpirit' logo. Below the logo, it says 'Electronic Products Crowdsourcing' and '1st Electronic Design Community'.

CrowdSpirit
Electronic Products Crowdsourcing
1st Electronic Design Community.

Obviously, crowdsourcing means that the cards are re-shuffled and new relationships created. Take for example CrowdSpirit. The founders began this enterprise because they could no longer stand the old-fashioned product development of multibillion dollar businesses. CrowdSpirit is a communication platform in which everyone can participate and still earn some good money. Visit www.crowdsprit.com.

An overly excessive emphasis on the increasing power of the individual overlooks the fact that organizations can make excellent use of the accessibility and communication skills of all web media users for their own benefit. By using the escalating population of individuals as the best but under-paid or unpaid employees, organizations can make windfall profits from the new Conversation Economy. On the condition that there are frequent and clear interactions, the lock-in of the consumer can be highly organic and stronger than was ever previously possible. Web media can be used to bind the fickle customer from the mass media era much more securely to products, services and brands. Consumers should feel that these products, services and brands are ultimately theirs and not only intended for them but also created by them.

4.4

Are We Getting Back What We Have Lost?

The authors of *The Cluetrain Manifesto* have unambiguously expressed their romantic vision:

» *The long silence—the industrial interruption of the human conversation—is coming to an end. On the Internet, markets are getting more connected and more powerfully vocal every day. These markets want to talk, just as they did for the thousands of years that passed before market became a verb with us as its object.* «

This notion is widely spread; in the 1960s, media philosopher Marshall McLuhan spoke about a “global village” of “interconnected tribes” and in 1993, Howard Rheingold used the notion of “real-time tribes.” Web media allegedly enable us to recover the community relationships that we had long since lost. But is this re-tribalization actually happening? We posed this question to Wouter van Beek, Professor of Religious Anthropology at the University of Tilburg, the Netherlands.

“No,” answers Van Beek, “our modern society is now structured completely differently from what it once was or from a tribal culture. To begin with, we are all much better off in the era of the economy. Furthermore, the dynamics of communication in small centers around a specific set of value and



To experience community spirit, you can now go to Africa and fight on behalf of a tribe



norms such as existed in tribal culture are fundamentally different from the virtual web world.

Tribes—incidentally, a word out of favour by many anthropologists—are scattered societies that are little affected by the two megatrends of advancing economic progress: globalization and Information Technology. Tribal society and its conversations are focused on the village, district, heritage and clan. These are atoms of the community as a whole.

What we have lost as a result of economic progress and what tribal cultures have retained is the sense of community at the center of all action. In tribal life, there are no lease cars in which to drive to work, no fitness rooms in which to keep in shape and no billboards full of temptation. No newspapers and magazines to read when riding a public transit or no LinkedIn with which to find old school friends who we have lost touch with. People work together, travel together, drink beer, go to parties and tempt each other. Interpersonal relationships are put together differently in tribes than in modern society. They are multi-stranded: each connection of person to person has several strands. You sometimes travel with your brother-in-law, you do a little trade with him, and you are married to his sister. In contrast, modern society tends to involve single-stranded relationships. You know somebody at work, play tennis with somebody else, and run into yet another person at the school grounds when you pick up your child. In addition, there are virtual strands as well: sometimes with hundreds of people in the new social web networks. But they also are primarily single-stranded relationships.

We have therefore lost the tightly-bound sense of community for good. We are “busy busy busy” and must multitask to an extreme degree in order to deal with all these single-stranded relationships. There is no longer any real time left over; deadlines and quality time have taken its place. They characterize our Continuous Partial Attention, mentioned in Chapter 1.

A second important difference is that tribal culture has much less to do with modern digital Virtual Worlds, worlds in which you can only reside temporarily. In a tribal culture, there is in fact only one important Virtual World: the world of religion. Otherwise, everything else primarily involves face-to-face contact, dancing, feasting, eating, drinking and working; in brief, life itself. The modern world is much more inundated with virtuality, for example in advertising.

Returning to tribal culture is therefore quite absurd. The modern world has increasingly more technology, and returning to tribalism would take us back to a time in which no technology existed. Furthermore, a return to tribal life is essentially a mistaken romanticism. Of course, the loss of deep-rooted relationships is not a positive development. However, if a choice has to be made between economic progress and poverty, there are few people who would choose the latter. It would unquestioningly be best if a both/and situation could be created permitting economic progress and multi-stranded communities.”

4.5 Doing Business in the Media Mass

The economy is a conversation and conversations change. The Third Media Revolution therefore has profound economic consequences. Relationships between organizations and customers are changing and the economic game is increasingly being played out in the open. This means that organizations must adapt to the mores of a new virtual reality. As in the previous era, the customer remains key, but we might add that only now is that real. Contact with others within a network is something new, along with the opportunity for everyone to actively participate. The difference between the mass media era and the new media mass can be categorized as follows:

Mass Media	Media Mass
The anonymous client	All hyperlinked customers
E-business	E-mancipation
An individual website	The Web in all its forms
Customer database	Communities
Reacting	Interacting
Return On Investment	Return On Involvement
Professionalism	Humor and irony

How the new conversations are being conducted, is a key issue. What does a customer say? What do you say? How do you respond to each other? These are essential issues, as everything on the Web can be checked. A single conversation with a specific customer can become a group discussion in no time.

Organizations will have to change their tune. Control of the media is slipping out of the hands of organizations and into the hands of individuals. The relationship between organizations and the outside world is evolving.

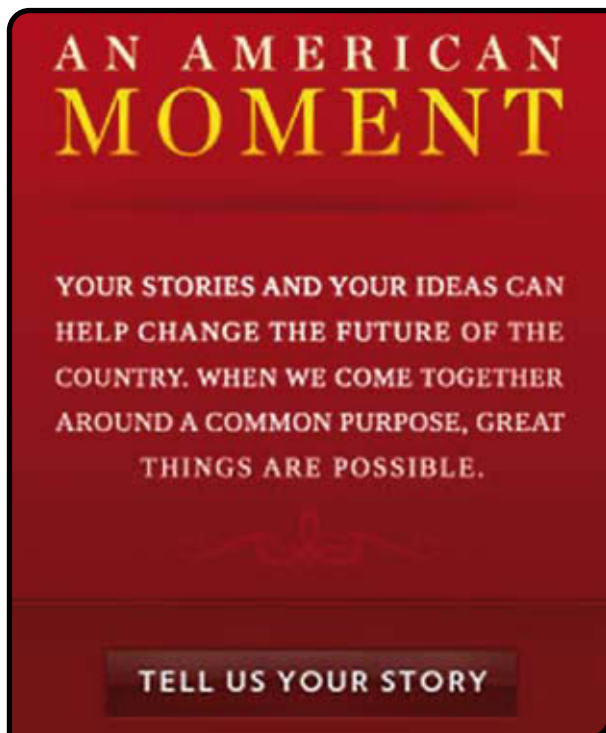


Individuals are pooling their forces and advising each other about what they should buy: the best car, the best hotel room, the best book, et cetera. Complaints about your organization quickly appear on the Web. Search engines do not only dig up nice stories, but also customer evaluations and complaints from fussy egos.

However, web conversations are not a complete power shift but a means of ensuring a better alignment of wishes and services. They are above all a quest for a new equilibrium. People have multiple experiences regarding brands and products. They are proud of them and show them off. Brands are statements and a part of individual identity. Power is undoubtedly shifting, but commitment to organizations and products is more prevalent than the urge to destroy.

Encouraging everyone online to become actively involved in your organization is one of the new business strategies of the twenty-first century. This so-called crowdsourcing creates opportunities. On the one hand, you can make use of ideas flowing from existing and potential buyers; on the other, you create commitment and are marketing the product long before it appears on the market. The new Conversation Economy makes organizations able to recover pub status, where you can have a long talk over a few drinks.

On top of the Conversation Economy in the Obama era a new Conversation Society will unfold, as pointed out on the Change.gov website.



5 The Obama Moment: From Conversation Economy to Conversation Society

Peter Leyden



Leyden is founder and CEO of Next Agenda, a startup that is a cross between a policy think tank and a new media business leveraging new technologies to help solve America's biggest challenges. Next Agenda gets extraordinary people outside of Washington D.C. involved in policy-making by using both new techniques for facilitating physical gatherings and new technologies for collaboration online. Leyden recently finished a period as the Director of the New Politics Institute, a think tank helping people in politics understand and adapt to the huge changes in technology and new media. NPI built a network of private sector experts in tech and new media who helped Democrats re-strategize and take advantage of the new tools. Leyden previously worked as the managing editor at the original *Wired* magazine, which helped drive the digital revolution and create the early online new media of the Web. After that he worked as a director of Global Business Network's think tank on the future that pioneered the use of diverse networks of talented individuals to help corporations and governments solve difficult problems. Leyden has been a journalist, a special correspondent for *Newsweek* in Asia, and is co-author of *The Long Boom*, which was translated into half a dozen languages, and *What's Next*, which was based on deep interviews with 50 remarkable people from diverse fields impacting the future.

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The support attracted by Barack Obama during the primary and general U.S. presidential elections in 2008 marked a new conversational phase in the use of web media. Obama and his campaign team took methods seen in the Conversation Economy and elevated them to a true Conversation Society level. However unique this may have been, Obama's achievement had its structural precedents in politics before now. American

politics periodically undergoes an intensive period of innovation based partly on the rapid adoption of new media technology. This time it was the adoption of powerful web tools for communication, coordination, and cooperation.

5.1 America's Moment

"America, this is our moment." Barack Obama used this phrase again and again throughout his successful campaign for President. He frequently talked about America coming to an historic juncture, and entering a very different historic period. Yet what is it that makes this period we live in potentially so historic? A strong argument can be made that America is about to begin a rare period of rapid political innovation, one that will spur a transformation of the American economy and society to fit the new realities of our globalized twenty-first century world. Obama is not the cause of this, yet he has played a large role in helping to catalyze it. In this sense, it could be called "The Obama Moment." However this period is far greater than Obama; it is far greater than any single individual. It involves all of us, not just all Americans, but ultimately people across the world.



America has entered these explosive periods of political innovation only a handful of times during its history. For example, around the time of the Civil War, Abraham Lincoln was the catalyst; at the beginning of the twentieth century, Republican Teddy Roosevelt initiated another period, with Democrat Woodrow Wilson bringing it into fruition. Following this was the more familiar period of the 1930s and 1940s led by Franklin Delano Roosevelt,

FDR. These periods are usually prompted by huge structural changes to the economy and society, such as the shift from an agrarian economy to an industrialized one, or by the appearance of unprecedented challenges that the former politics and policies are utterly unable to address—such as the Great Depression.

In terms of a solution, these periods are almost always marked by three crucial elements that combine to help resolve the crisis: They usually encompass new technologies and new media as core tools allowing things to happen like never before. (Consider how broadcast radio helped FDR lead Americans during the 1930s.) These periods also entice huge numbers of new people into political process, often through immigration or generational change, and often using the new media. These periods are also accompanied by an explosion of new ideas about how society could be reinvented across a wide spectrum of fields. These elements combine and, historically, create a period of roughly 15-20 years of widespread experimentation and innovation in policy and government, as well as in the larger social and economic spheres. Throughout American history, these periods have often been called “progressive” as opposed to “conservative” eras, as the spirit of the times is geared towards change, new approaches, and the future. In essence, they are all about “progress” as opposed to looking to the past, reviving traditional approaches, and “conserving” the old ways.



5.2

The Great Global Reframe

America is entering one of these historic progressive periods right now. All the pieces are in place for Obama to catalyze a long run of widespread political and governmental innovation that has the potential to re-invent America and, in time, even the world. Americans today face a fundamental restructuring of the world on a par with any of the previous periods of change faced by their predecessors. We are only just beginning to see the great global reframing of all systems in response to the globalization of the economy and, increasingly, the globalization of almost everything. As if that weren't enough, Americans today face an array of twenty-first century challenges just as daunting as those faced by Americans in previous eras. An example of this is climate change—the most complex problem ever faced by human beings. It is just one of a dozen or so perplexing challenges ranging



from global pandemics, to decentralized terrorism, to providing healthcare for all in a time of genetics and biotechnology, to dealing with the impending retirement of the Baby Boomers in a time of life extension, to revamping an educational system still modeled on nineteenth century methods. It is clear that these problems are daunting, however these challenges also have their solutions.

The same three key elements that came together during previous eras to help solve problems are also coming together today, in abundance. The country is undergoing the biggest technology and media transformation in its history, both in terms of its wide scope and the relatively compact transitional timeframe. The full emergence of computer technologies and telecommunications infrastructure offers us capabilities that simply blow away the means of the past. There is the tendency to underestimate the power that is literally at our fingertips. Imagine if someone had told FDR about a machine on his desk that, in response to a question, would instantaneously deliver all of the related information in the world. He would have called it magic. We call it Google, and every five-year-old in the country knows how to use it.

The United States is also undergoing one of the biggest population transformations in its history. The levels of immigration in recent decades have been almost the same as those in the heyday of Ellis Island in the early twentieth century. America is now on track for so-called minorities to become the majority of the population by 2050. In addition to this comes clear evidence of the impact of the arrival of the biggest generation in American history, the Millennial Generation: those now in their teens and twenties who have greater numbers than the Baby Boomers (the parents of many Millennials) and who come of age using these new media. The new perspectives, new capabilities, new talents and new ideas that these newcomers bring, will be critical in refashioning the old system.

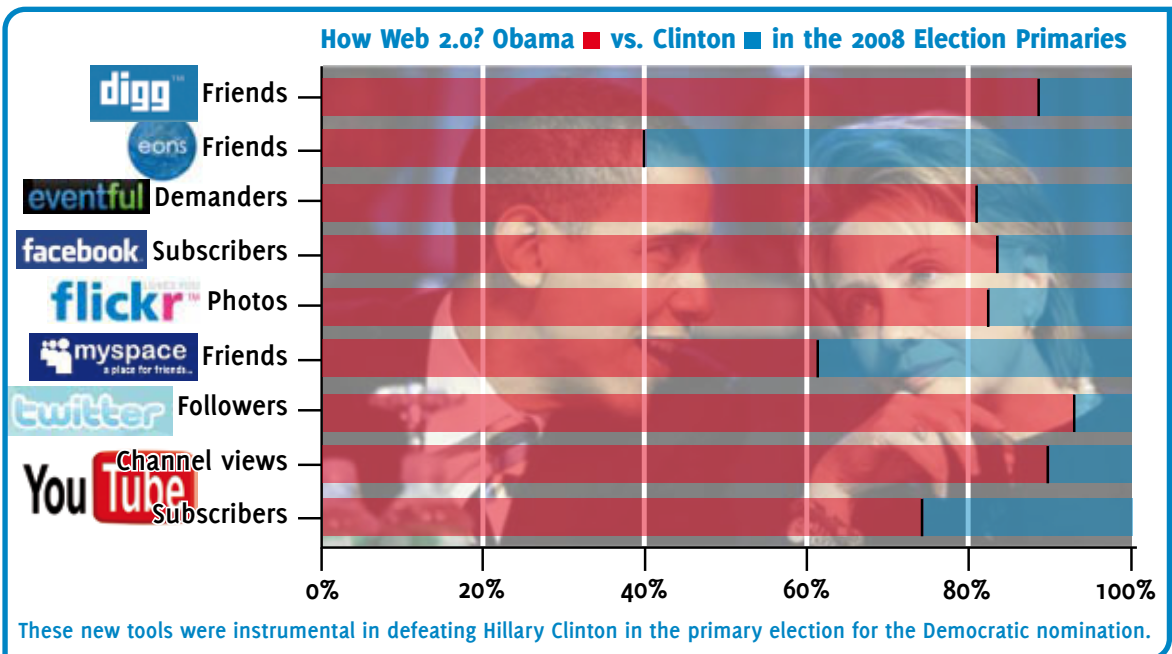
Finally, the third critical element is emerging right on track—the explosion of new ideas on how to take on these unprecedented challenges. It is not that no one knows how to deal with climate change—there are a profusion of fantastic ideas coming from many quarters of American society and the private sector. The problem now is figuring out the right solutions and moving them into politics and government in order to make them work at large scale. This brings us back to Obama and his emerging role in catalyzing political and governmental change.

5.3

Obama and the New Politics of the Web

Obama, more than any one person at the current time, holds the potential to initiate this historic moment, to usher in the next progressive era. More than any other political leader, he and his team understand the power of the new tools—the new technologies, the new media, the Internet. Those new tools were instrumental in defeating Hillary Clinton in the primary election for the Democratic nomination. Obama would not have been able to defeat her had he not had the new tools of the new politics. Clinton had all the traditional advantages, and Obama, like other outside reform candidates before him, could not have overcome those advantages without the tools that offered him an even more powerful strategic advantage. In fact, what Obama did was create a paradigm shift in politics.

Hillary Clinton was a master of the old paradigm of politics, which has been the rule of thumb since John F. Kennedy and the arrival of early broadcast television. Fundraising required wealthy donors and special interest big money. Organization required the party establishment from federal through to state levels. And media required you to master television. Clinton did all three as well as any Democrat ever has—yet she lost.



Clinton lost because Obama relied on a new model of politics powered by new technologies. For fundraising, he tapped into countless middle-class people who were able to use the Internet to donate small amounts that aggregated into huge sums. For organization, he skillfully used new technologies to reach vast numbers of party outsiders, i.e. ordinary people who could productively get involved in the campaign; not as spectators or occasional donors, but by rolling up their sleeves and doing work via a computer or on the ground. And as for media, Obama and his team mastered the new media better than any candidate yet. His videos went viral, his social networks hummed, his text messages really connected with people, particularly young people.

Obama still competed with Clinton in the traditional TV media and in the areas of the old paradigm, but what gave him his strategic advantage was the new paradigm in which he was master and the others lagged far behind. Later, when campaigning against John McCain, Barack Obama was almost four times as popular on the Web than his contender. Obama's new approach to politics simply overwhelmed McCain's old-style methods that were stuck in the past.

What follows is an explanation of how these historic moments have worked in the past, and could potentially work now. It's an argument describing the political paradigm shift already made by Obama, with a view to how a similar paradigm shift might come about in how we set the national agenda, create policy, and reshape government—all using new tools and technologies. These governing tools are not necessarily the same ones being used so effectively in politics. The tools needed to transform government and solve the great challenges of our age will need to be more collaborative in nature. Not one-to-many, or many-to-one, but many-to-many. Fortunately for us, those many-to-many social technologies are all ready for prime time too.

5.4

The Pattern of Previous Progressive Eras

How does this all work? How has it worked before? Consider the classic Progressive Era of the early twentieth century that goes by that name in American history textbooks; it is a textbook case, so to speak. The background to this era involved America undergoing a fundamental restructuring of its economy: from that of an agricultural one to that of an industrial one; and of its society, from that of a rural one to that of an urban one. The results of this were not good. The raw industrial capitalism of the time had concentrated fantastic wealth into the hands of the few, leaving the vast majority of

average workers with a precarious standard of living. These workers, including women and children, worked extremely long hours, often in dangerous working environments, powerless to challenge business owners and to improve their lot in life. The new urban centers had become public health hazards with dangerous tenement housing subject to frequent fires, poor sanitation leading to disease and illness, and no social infrastructure to replace the family and community structures of the small towns left far behind. The old politics, the *laissez-faire* conservative political ideology, only led to more of the same concentration of wealth and power and to the impoverishment of the masses. It was inadequate to the task of transforming society anew. However, the three forces were in motion, pointing the way towards better times.



Newsies.
Source: farm1.
[static.flickr.com/
224/493892317_
oefc3de918.jpg](https://static.flickr.com/224/493892317_oefc3de918.jpg)

The technology and media revolution of that time period was based on new methods to scale up urban newspapers to reach mass audiences. Breakthroughs in printing technology allowed publishers to produce previously unheard of numbers of newspapers within the daily news cycle time. The army of “newsies” (the boys hawking papers on the streets, as seen in movies depicting those times) were able to reach vast numbers of readers who were concentrated within urban neighborhoods as never before. America had long had newspapers, but they had never been a mass medium of significant scale and reach. It did not take long for such tools to be used to new ends. This was the period of the rise of the great national newspaper empires of Joseph Pulitzer and William Randolph Hearst who had the muscle to take on the titans of industry. It was also the period of the great muckrakers such as Lincoln Steffens and Upton Sinclair, the bloggers of their day. These muckrakers exposed the sordid underbelly of raw capitalism (filthy meatpacking plants, overcrowded tenements) to appalled audiences.

America was also going through a transformation in its population that allowed a reconfiguration of its political coalitions, particularly for those interested in change. The muckrakers were typically members of what became known as the Missionary Generation, a huge generation of idealistic young people committed to righting the many societal wrongs they saw around them. Of course those years around the turn of the twentieth century were



marked by massive waves of European immigrants flooding the urban centers, where they were engaged by everyone from ward bosses to socialist organizers. The other new entrant to politics consisted of half of the population—women. The Progressive Era was marked by the spirited political participation of women, culminating in the nineteenth amendment to the Constitution, extending women the right to vote in August 1920.

The women's right to vote was by no means an isolated accomplishment. The Progressive Era was marked by an explosion of social and political innovation that created many elements of the system we live with today. The famous trust-busting of the Robber Barons set up laws preventing monopolies. The progressive concept of income tax did not exist until a constitutional amendment in 1913. The federal Food and Drug Administration, created in response to the horrors of the meat packing industry, still monitors our food today. Child labor ceased, workplace safety and limits to working hours were set, and workers began to be given the right to organize themselves within unions. There was also a wave of reform related to the institutions of democracy, particularly in highly progressive states such as California. Citizens were given the right to recall elected officials and propose their own referendums, to circumnavigate corrupt legislatures and to pass laws. All of this happened within a relatively brief time in historical terms. This Progressive Era is considered to have begun with the inception of the presidency of Republican Teddy Roosevelt following the assassination of William McKinley in 1901, and to have ended shortly after World War I, when Democratic President Woodrow Wilson's idealistic attempt to create the League of Nations was rejected by an exhausted public in March 1920.

5.5 **The Political Paradigm Shift in Technology**

Fast forward a century to today. New technologies and new media are again transforming the way to do politics. The Obama campaign's use of the Internet and new media in the 2008 Presidential cycle has created nothing short of a paradigm shift by reshaping how to do the three basics of politics: fundraising, organizing and media. In fundraising, Obama, the relative newcomer to politics with little access to those patrons with deep pockets, used an Internet strategy to counter Clinton's money advantages. For each of the four quarters of 2007, Clinton and Obama were neck-and-neck in fundraising; then came the early primaries of 2008 and the groundswell of support for Obama. In January he almost tripled her figure, raising \$36 million in a single month compared to her \$13.9 million. In February, he topped \$55 mil-

The Half-Billion-Dollar Man

Time, July 15, 2008

As the public face of the party, Obama is responsible for both his own campaign's fundraising and for that of the Democratic National Committee (DNC)—a combined estimated goal of \$450 million.

Source: www.time.com/time/politics/article/0,8599,1822819,00.html.

Cover: www.time.com/time/specials/2008/personoftheyear.



The Billion-Dollar Man

Politico, December 2, 2008

When the 2008 campaign books are closed, the Democratic President-elect will shatter the fundraising record by coming close to, or capturing, the title of the first billion-dollar candidate. That's roughly how much the Obama finance team has raised for his campaign, convention, transition and January 20 Inauguration events.

Source: www.politico.com/news/stories/1208/16115.html

Photo: Exhibition: Billion Dollar Man, by Artist Papa G
(www.compulsion.com/usher/Usher_bdm_cat.pdf).



lion, an astounding sum for a primary candidate. In March he more than doubled her figure, raising over \$40 million. The total figures for the first quarter of 2008 were: Obama \$132 million; Clinton \$69 million. His figure for that whole quarter quadrupled his (and her) number from the fourth quarter of 2007, normally a big fundraising quarter leading into the primaries. Obama's breakaway fundraising in the early primaries set the stage for even more astounding feats throughout the campaign. By the end of the primaries, Obama had raised \$389 million compared to Clinton's \$235 million. And by the end of the General Election, Obama had raised \$639 million, dwarfing McCain's \$360 million pull.



The *only* way Obama was able to raise so much money so fast around the critical early primaries of 2008 was by using the new technologies. With the new campaign finance rules, there is simply no way to raise that amount of money through the traditional means of meeting with or calling on rich donors or special interest representatives and by getting them to donate the legal limit of \$2300. A quick way was needed to reach many more people and to get them to donate \$50 or \$100. What was needed was the scalability of computer technology.

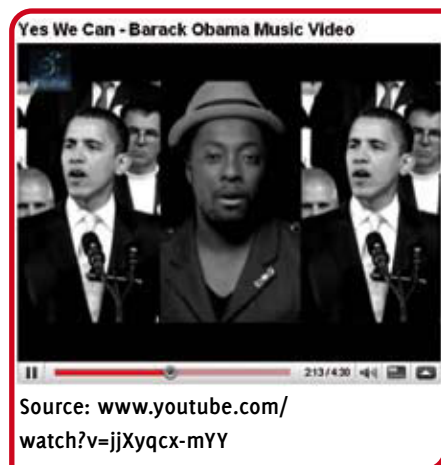
The paradigm shift in organization is similarly powered by new technologies, particularly social networking technologies. Politics has always been about social networking, albeit in a low-tech way. The whole idea of electoral politics is to get your supporters to get their friends and families motivated and to the polls. In the old days this was facilitated by the ward heel mobilizing the neighborhood, or the union boss making sure that all union members got their extended families to vote. The Obama campaign has done a terrific job melding good-old-fashioned on-the-ground organizing techniques with the new online organizational tools. It is not that all organization is done exclusively in one way or in the other, but that the two approaches blend together creating an end result greater than the sum of its parts. For example, organizers on the ground are able to use online tools to draw out the best practices from organizers in other states or headquarters. This allowed the Obama organization to move rapidly into new states during the primary season and catalyze productively functioning local organizations that scale up quickly to include large numbers of people. They scale because not everyone working for them was hired paid staff—far from it. They were able to quickly absorb outside volunteers by plugging them into the tech template rather than having to reinvent every local operation from scratch.

The even more radical move is to place the tools on the campaign website and essentially tell your supporters to “go nuts.” In so many words, that is what the my.barackobama.com campaign website did. It allowed ordinary people to download campaign material and walk through neighborhoods, to organize a house party to proselytize about the campaign, to use their mobile phone to make campaign telephone calls, or to build up their own fundraising circle. They could join myriad local groups of like-minded supporters, or blog their own ideas about why Obama should win. The campaign also actually encouraged you to draw in your extended social network by easily connecting to all the social media websites from Facebook to Digg. In essence the Obama campaign used new social media techniques to extend the reach of the formal campaign to far greater lengths than ever before, if not

to outsource it entirely to people at large. This approach opens the door to the possibility of a national presidential campaign that might have far more than the 500 staff people or so traditionally found on the payroll, to as many as a couple of million unpaid volunteers actually involved in day-to-day campaign work. By the end of the primaries in June 2008, 800,000 users had created accounts on my.barackobama.com.

The final paradigm shift is between the old and new media. For the last 40 years or so, politics has been primarily concerned with television, specifically broadcast television. The vast majority of money spent in major political campaigns goes to 30-second TV commercials. In 2006, out of the \$2.6 billion spent on all political advertising in all races of both parties, a full \$2.4 billion of it went to TV. That amount has gone up, not down, in recent years. In 2004, a Presidential year, the total of all political advertisement spending was only \$1.7 billion, and even during the 2008 cycle, the total TV advertisement spending of the two presidential candidates through late October was \$295 million with only a fraction of that devoted to Internet ads. (Although analysts predict that up to \$110 million could ultimately be spent on Internet ads during 2008—about half coming from the presidential race.) However, this discrepancy in advertisement spending masks the actual media paradigm shift that is taking place.

The new media numbers are starting to add up. For example, the total number of views of Obama's YouTube videos throughout November 2008 was approximately 113 million (compared to McCain's 25.7 million), and the average number of views of Obama's top 10 videos was 2.6 million. Some might say that those numbers are small compared to the eyeballs reached through TV ads. This is, however, like comparing apples to oranges. The average *length* of Obama's top 10 videos was 14.7 *minutes* long, not 30 *seconds*. In fact, Obama's speech on race was 37 minutes long and has been viewed 5.4 million times (as of November 2008). Included among the fantastic features of web video is the fact that you can run for as long as you or the audience wishes. Another distinguishing feature is that the viewers of web video are active—not passive—viewers. They *want* to watch the video. They clicked on the link to specifically in order to see it. This engaged viewer is much more likely to want to do something after they see the video. A smart campaign will have a big button right there on the screen



to push to help the viewer to contribute money or become more involved in the campaign, or to pass the video along to all of their friends and family so that the whole engagement process can begin again.

This is a paradigm away from broadcast television's 30-second ad, which all viewers almost universally hate, will do everything to avoid, and rarely (or barely) pay attention to. Even if they pay attention, they are hardly able to learn anything useful in the space of 30 seconds, and they have no way to do anything with what they have learned. How do they donate money? Well, they might call a telephone operator to find the campaign headquarters' phone number or find a computer and search the Web to find the right website and webpage to pitch in. Or, they could go to the refrigerator and get another beer.



The paradigm shift between web video and television is even starker than this. To begin with, much of the web video supporting a candidate can be, and often is, produced for free. The plummeting cost of video cameras and video editing software allows supporters to produce compelling, high quality video of their own. In fact, it is generally recognized that the most memorable and effective "ads" of the 2008 primary season were not produced by the campaigns but by their supporters, beginning in early 2007 with the famous remake of the Apple Computer 1984 ad with Hillary Clinton as Big Brother, to the Black-eyed Peas' will.i.am's tribute to Obama's Yes We Can speech. Neither of these, or Obama Girl's videos or many others, cost the Obama campaign a dime.

The paradigm shift in distribution is even more dramatic. Web video is distributed for free and can be simultaneously viewed at local, national and global levels. No need to buy airtime locally, or spend even more for a national buy, let alone a global buy, which is effectively impossible as costs are so prohibitive. A good web video can go a long way and, as a bonus, never has to go away. It can live forever, for free. That is a paradigm shift. That shift has only just begun, and so it still has a long way to go. Obama, and others, will continue to use television for quite some time yet. However, the attractiveness and ultimate superiority of web video will increasingly make it the media of choice for politics in the long run. Moreover those who leverage it early

will gain a strategic advantage over those who do not. That is what Obama did as he built his new majority coalition.

5.6

The New Progressive Political Coalition

Widespread political innovation and transformative change does not come easily. A majority coalition is required to hold fast when the going gets tough. So at an historic juncture, we need to look at what large and emergent constituencies could be used to capture and maintain power. Today there are two substantial ones: Hispanics and the young Millennial Generation, and they are both trending toward progressive Democrats. Here we will focus on the Millennials, those who—more than any other group—use the new tools and new media.

The Millennial Generation are those born from 1978, when the birthrate in America finally began to climb again, to 1996. (The endpoint for this generation is not universally agreed upon, however the New Politics Institute, of which I was the former director, marked the endpoint as being 18 years after the beginning, the same span as the Baby Boom from 1945 to 1964.) The Millennials now span from 29 years old all the way down to 11 years old, in which they overlapped with the youth vote (18-29) for the 2008 election cycle. By 2015 all Millennials will be able to vote (ages 19-37) and they will be the largest generation in American history, larger than even the famed Baby Boomers, who will begin to fade from the national stage (ages 51-69). The Millennials will be 83 million strong, compared to an estimated 74 million Boomers.

The Millennials are an unusual generation compared to the other generations within America today. They are technologically savvy, very comfortable with the new tools and the new media we have discussed, which means that they are easily integrated into a new politics built with those tools. Each generation has a distinct personality shaped by the events and experiences during their own period of coming of age. The Millennials tend to be a can-do, group-oriented generation that is optimistic about the future. Unlike the more cynical and disengaged Generation X before them, the Millennials are civic-minded, with high rates of volunteerism and voting. (For more information and greater details check out two excellent recent books: *Generation We*, by Eric Greenberg with Karl Weber, and *Millennial Makeover*, by Morley Winograd and Michael Hais; as well as reports from the New Politics Institute.) Many of the beliefs and values of the Millennials are progressive: They



are tolerant of differences in race, gender, and sexual preference (partly because they are the most racially diverse generation in American history, with about 40 percent being part of minority groups.) They appear to be more concerned than other generations about social inequalities, and they are more open to using government to rectify the balance. They are extremely concerned about the environment, with 60 percent in a recent survey stating they would choose to protect the environment even if it harmed the economy. As well as this they are very globally minded, with, for example, 20 percent of those now in college or university participating in some kind of study abroad program. Consequently, they are more likely to favor multilateral diplomacy (57 percent) over military strength (37 percent) in the pursuit of national security.

The numbers also show that this generation is clearly trending Democrat. In 2004, John Kerry would have won by a landslide (375 electoral votes compared to 163 for Bush) if only young people under age 30 (mostly, but not all, Millennials) could have voted. In the 2006 Congressional elections, young people voted for Democrats over Republicans with a 22 percent margin (60 percent Democrat and 38 percent Republican), an almost unheard of generational gulf. In the 2008 primaries, people under age 30—all Millennials this time—overwhelmingly favored Democrats over Republicans. In California, Republicans attracted roughly one third as many young people. Even in Ohio (a much more Republican state) Republicans only brought out one-third of that of the Democrats. This trend continued in the general election with Millennials voting for Obama by a nearly 2 to 1 margin: 66 to 32 percent.

The general rule of thumb in politics is that if a generation votes for one party for three elections in a row, they tend to vote that way for the rest of their lives. If so, the Democrats have one of their political engines for the twenty-first century.

5.7

The Coming Paradigm Shift in the Ideas Business

The Millennial Generation, among other constituencies, are really looking for more transformative ideas about how to take on the wide array of twenty-first century challenges. Fortunately, the ideas business of Washington D.C., the world of policy think tanks, is about to go through a tech-driven paradigm shift as well.

Currently, it is still very much trapped in the old paradigm of the twentieth century, similar to the old paradigm of electoral politics. Funding comes from wealthy people and special interest corporations with an agenda. Organizations are filled with political insiders who rotate in and out of government, and the technology and media used by current D.C. think tanks are essentially the same as those used throughout most of the twentieth century. They work on white papers and come together in physical meetings and events. They do use the Web, but it's Web 1.0. They "broadcast" their papers out to everyone with no dialogue or collaboration.

The new paradigm applied to the ideas business would create a very similar shift as that already applied to doing politics. In financing, diversify funding sources, ultimately heading towards wide support from low-dollar donors with no special interest in promotion. As for organization, use technology to scale up to a much larger network of people who can make valuable policy contributions. These could be experts within the private or non-profit sectors who have "cognitive surplus," excess intellectual capacity or brainpower that could be applied outside of their day jobs and normal line of work to issues directed at the common good.

Furthermore, the new paradigm applied to the ideas business would involve new media and many more new technologies. At the very least, it would shift from Web 1.0 broadcast technologies to more collaborative Web 2.0 approaches. Here the technological paradigm shift applied to ideas might go beyond that applied to electoral politics. The political paradigm shift used "one-to-many" technologies, such as web videos from Obama and his core team to vast numbers of supporters. It also went "many-to-one," as all these people were able to independently do things to support Obama, the One. However, to truly figure out the new challenges of our era and devise comprehensive solutions for them, "many-to-many" tools and technologies must be implemented.

The ultimate transformation of how we move new policy ideas into government demands that we take advantage of three core characteristics of computer technologies. One of the features of networked computer technologies in general is the ability to parallel process. There was a time in which increasing the processing power of a computer meant increasing the internal processing power of that one computer. This approach worked until someone figured out that the power of the most powerful supercomputer could be surpassed by taking a totally different approach. It was possible to connect up many regular personal computers through lightning-fast telecom-



munications. Just break down the problem into smaller sub-problems, let the smaller computers figure out a piece of the puzzle, and then reassemble the results to solve the initial overall problem. Given processing speeds and modern telecommunications, this could be done in a flash and faster than the one central computer churning through the problem by itself.

Such an approach of distributed problem-solving could also be applied to our twenty-first century challenges, with the help of existing collaborative technologies. If America wishes to simultaneously solve anywhere close to the multiple challenges sketched out above, then there will be the demand for distributed problem-solving mechanisms that can manage high levels of complexity. The next wave of collaborative tools, such as wikis and groupware, can do that in ways that the old analog methods cannot match.

A second characteristic of technology is its ability to scale. Apply that to the ideas space and new possibilities open up. In the old analog think tank world, a large policy organization might have 100 fulltime fellows, and most have far fewer, closer to half a dozen or so. A technologically enhanced virtual think tank would be able to leverage hundreds or even thousands of experts and other valuable people. Once the technological infrastructure had been designed and built and the mental shift made to a new kind of distributed, collaborative policy-making process, adding new people would become relatively easy. Theoretically, there is nothing to say that 10,000 contributors or more could not be tapped into.



Our Era's Top Ten Twenty-first Century Challenges

A 10 to 20 year project to solve any and all of them

- The Globalization of the Economy
- Climate Change
- Clean Energy Shift
- Global Terrorism
- Universal Health Care
- Education Overhaul
- Baby Boom Aging
- Global Pandemic
- Mass Migration
- Sustainable Living

"Today we begin in earnest the work of making sure that the world we leave our children is just a little bit better than the one we inhabit today."

YES WE CAN.

Further Reading

- Peter Leyden speaking on “The Obama Moment and America’s Coming Transformation.” See video and other material at www.nextagenda.org.
- Peter Leyden on Obama’s understanding of technology at Tech for Obama, www.techforobama.com/about.
- Renee Feltz in *Columbia Journalism Review*: “Blogged Down in the Past”, www.cjr.org/campaign_desk/blogged_down_in_the_past.php.
- Liam Maxwell: “How the Internet took Obama back to the 1950s”, conservativehome.blogs.com/platform/2008/11/liam-maxwell-ho.html.
- Edelman: “Barack Obama’s Social Media Toolkit,” www.edelman.com/image/insights/content/Social%20Pulpit%20-%20Barack%20Obamas%20Social%20Media%20Toolkit%201.09.pdf

BARACK OBAMA 2008

Why is this important? Barack Obama alone is not going to be able to figure out climate change, nor the dozen other challenges of that scale. Obama’s brain-trust of his cabinet and top administration officials are not going to do it either. The 100 or so fellows at the Brookings Institute or their colleagues at a handful of other think tanks are not up to the task either. The only way to redesign American society on the historic scale that Obama himself talks about is to involve huge numbers of Americans.



This brings up the final relevant technology characteristic. Internet technologies essentially lead to the collapse of space. The history of telecommunications has been one long story of helping people who are far apart become closer. As broadband Internet becomes faster, so richer forms of communication, such as video, become cheap and increasingly common. This opens up interesting possibilities for the world of Washington D.C.

People living outside of Washington are increasingly able to play the policy-making and agenda-setting game. The group of people that helps figure out America's upcoming agenda does not have to reside within a 50-mile radius of the Capitol. For that matter, there are brilliant people all over the world who could contribute to helping solve America's problems, most of which are also world problems, just as America's solutions can also be world solutions. People outside of the United States can contribute if only the people of our era find a way to work together and find a way to plug them in. Now, we can. Yes, we can.

6

Electronic Mass Media

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Life was completely transformed in the first half of the previous century. Street-cars and automobiles gave cities a modern face. Trains began to transport us back and forth across great distances. Tanks and aircraft appeared on the battlefield. Radio and TV broadcasted news and entertainment, propaganda and advertising, narcissism and conversations. For the first time we were really dealing with media, and the impact of it all was enormous. The electronic mass media accompanied and shaped the transformation, together with newspapers and magazines. Once and for all segmentation and individualization became the norm. Inside our new “global village,” we traded the close ties of the past for hectic multitasking

and “quality time.” Against this background, a digital dematerialization of being began to take hold around ten years ago, and the phenomenon has now expanded into a complete mediatization of our selves.



In 1605, Abraham Verhoeven produced the first newspaper to strengthen the morale of the Antwerp residents during the siege of the city.

6.1

Newspaper and Multimedia

What has a newspaper got to do with multimedia, you might ask. Well, a newspaper is a form of multimedia and, for that matter, has always been such. It contains pictures; it has text; the frequency of publication is



synchronous with events; we turn the pages to move from front-page news to opinion, entertainment, lifestyle and sport; comic strips add further variety; the future is predicted in horoscopes; work is done at night in order to be current at the crack of dawn. Nothing is therefore missing from such a multimedia newspaper, and *Metro* or any number of the free dailies that have followed in its wake demonstrate that the public still places a great deal of value on news in print. To the extent that multimedia today are different from the newspaper, factors such as hyperlinks and video make this difference. Clips, cross-references, text and information automatically popping up: that is true, digital multimedia. Over ten years ago, the CD-I (Compact Disk Interactive) and the CD-ROM were the ultimate in multimedia. This position is now occupied by web media and their endless variety of functionality. The digital Media Mass is the multimedia of today.

The first medium with audience potential, the newspaper, began to appear regularly in 1605, four centuries ago. The anniversary was enthusiastically celebrated in Belgium, since the publication of the first regular newspaper is often attributed to Antwerp resident Abraham Verhoeven, although the World Newspaper Association awards the honor to the German Johann Carolus who also published a newspaper in 1605, the *Relation aller Fürnemmen und gedenckwürdigen Historien* (Account of All Important and Commemorable Stories). It does not really matter if the innovator was Verhoeven or Carolus, just as in the case of the First Media Revolution, insofar as the printers Koster or Gutenberg are concerned, or later with regard to the invention of the thermometer by Celsius, Réamur and Fahrenheit.

In his *Nieuwe Tijdinghe* (New Tidings), Verhoeven lauded the courage and determination of the Catholic residents of the city being besieged by the *Geuzen* (Protestant rebels). Verhoeven unveiled his journalistic activity under the patronage of archduke and duchess Albrecht and Isabella of Austria. His first report concerned a battle at Ekeren won by the Catholic Spaniards. Verhoeven's *Nieuwe Tijdinghe* was published as a result of the invention of type letters and the printing press seventy-five years before. Taking place during the Reformation, the First Media Revolution produced a convenient tool to facilitate the distribution of pamphlets for and against the opposing parties' points of view.

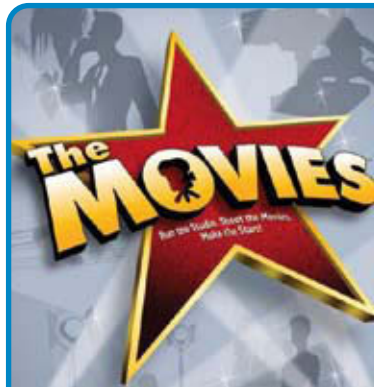
Understandably, in general especially dramatic events being covered, commented and thus remembered. Long ago, the Greek historian Herodotus reported on the Persian Wars, and Thucydides on the Peloponnesian. Caesar recorded his conquest of Gaul in a book, and on a daily basis had senate reso-

lutions and other information of interest to the citizens of Rome published in *Acta Diurna*. Orators like Cicero and poets like Catullus and Horace were high profile figures in ancient Rome. The Romans had sewers and aqueducts that are still in use today. Their architecture was partly made possible by the invention of concrete in many forms. Yet for some reason Europe had to wait an extra fifteen hundred years for type letters and the printing press to be invented. In Korea a printing press had already been constructed at the beginning of the thirteenth century.

Print is still an effective manner of getting people's attention. We learn from books, around the globe free newspapers are flourishing as never before, and bill-boards, posters and advertising folders compel us to purchase by stimulating our appetite. The difference from 1605 is that print has now been incorporated in an electronic multimedia mix based on a combination of broadcast and cable communication for about seventy years, in the case of radio, fifty for television and just over ten years insofar as the Internet is concerned.

Within this new multimedia mix, interaction is more important than ever before. The range of participation runs from calling into TV and radio game-shows, to choosing your favorite star performer on a TV program for a new musical; from participating in Internet forums set up by manufacturers about their products and services, to exchanging ideas and experiences on blogs and wikis. And of course the social networks, such as MySpace, Facebook, YouTube and LinkedIn.

Back in 1997, Berkeley researcher Marc Davis used the occasion of the fiftieth anniversary of the Association of Computing Machinery—the oldest computer club in the world—to predict that the media landscape would develop into hundreds of millions of channels when digital resources were made available to the public at large over the Internet. Davis made this comment in the article “Garage Cinema



Today people speak of the ‘New Hollywood’ and refer to the merger of Hollywood and Silicon Valley. When the tools and infrastructure are in place to enable cheap and effective home use of video annotation, retrieval, and repurposing tools, the garages of the world will be the sites

of the ‘New New Hollywood’ creating hundreds of millions of channels of video content.

From Marc Davis, “Garage Cinema and the Future of Media Technology”, 1997, fusion.sims.berkeley.edu/GarageCinema/pubs/pdf/pdf_599AB179-D346-4374-8FoAE11D9D76EBEF.pdf.



Me-Media and Our Health

The coming decades will see particular developments in health care, leading us to accept electronic interaction with our physical well-being as something normal and welcome. Think about the remote and rapid data that a Nike shoe is already able to send to an iPod, allowing us to complete a training program. Similarly, all kinds of data can be sent via sensors and mobile phones to a central computer, which then provides us with information and makes adjustments when necessary. Some feel such a future scenario should be quickly implemented as a cost-saving measure to cope with the aging population.

and the Future of Media Technology.” Ten years later, we find ourselves precisely in the predicted situation.

Just like the printing press at the time of the Reformation, the development of personal web media occurred at a very opportune moment, this time in the context of the The Third Great Awakening foreseen by Tom Wolfe in 1976. Its rhythm is “Me, Me, Me,” the words with which Wolfe ended his essay. He predicted a Me Decade that, rather than expiring some time ago, evolved into an Age of Individualism of which there is no end in sight. Emerging at this time, web emancipation not only feeds this narcissism but has a strongly socializing effect as well.

The Third Media Revolution—the one involving web media—is characterized by an unprecedented increase in interaction among people, organizations and systems. Our reality is consequently evolving further into a virtual reality, into a world in which all conceivable kinds of information are presented graphically so that we can function more

easily. It started rather basically with GPS inside cars, an application that not so long ago was only found as a simulation in computer games. Nowadays, such cartographic images are an indispensable resource for many drivers around the world, and it will not be much longer before most mobile phones are equipped with this feature.

6.2

Fighting and Playing

The dramatic and tragic nature of wars and the propaganda about them have always been an important subject for the media. The invention of type letters and the printing press made it possible for the Reformation to become known as a war of pamphlets. Even in the present day, it remains common practice to use pamphlets in an attempt to demoralize an enemy. The first newspaper by Abraham Verhoeven had a similar purpose in strengthening the morale of the Catholic population of Antwerp by portraying the problems in the besieged city in a favorable light. In the nineteenth century, the British were able to closely follow the events of the Crimean war through newspapers. Thanks to the invention of the telegraph, reports could be sent over great distances in the blink of an eye.

It is understandable that the impact of a new medium will be at its highest during times of war. Television is particularly associated world-wide with the Vietnam Conflict; the two World Wars with newspapers, but the Second World War was also fought on the radio and in cinemas. Radio and television enormously heightened the sense of reality and played a great role in the biased and graphic reporting. When Orson Welles read out H.G. Wells' *War of the Worlds* as a radio hoax, people ran in panic into the streets in the belief that the Martians were attacking.

As Orson Welles' hoax was "only" a matter of trifling with feelings of anxiety, it serves as an example of propaganda. However, the arrival of computer media turned the element of play into something extremely real, as evidenced by an article from *The Washington Post* entitled "Virtual Reality Prepares Soldiers for Real War."

Of course, we have now all since seen images from both Gulf wars and the attack on Bin Laden's hiding place Tora Bora, in which simulation and cameras placed on bombs and in other devices precisely illustrated how an attack was carried out. Good and accurate was the impression that it was intended to make: a clear contrast with the primitive, unguided Scud missiles fired at Israel some years earlier by Saddam Hussein.

Not surprisingly, this war activity had a positive effect on sales of so-called first-person shooter computer games, as well as on participation in popular online games such as World of Warcraft. Never before have ITech and ITainment been so strongly interwoven as in the current web media era. Just think about GPS and the simulation techniques on spectacles, contact lenses, and mobile phones and examples of military equipment gone public.

Once, radar, sonar and night glasses were the basis of this new Virtu-Reality or Augmented Reality. Today, soldiers can look through walls to see the structure of a building. Nothing is left to the imagination. In fact, imagination in warfare is a handicap that leads to errors in judgment, and these are absolutely unnecessary given the current state of ITech and ITainment.



Visit www.military-training-technology.com. See www.washingtonpost.com/wp-dyn/content/article/2006/02/13/AR2006021302437.html



6.3

The First Radio War

Every new medium—newspaper, radio, television, multimedia—provides valuable extra information and, in this way, considerably reduces situations and events we previously could have only imagined, guessed or simply could not have known. The Spanish Civil War, which actually was the first radio war, clearly revealed how great the impact could be of listening to eye witness accounts and receiving on-the-spot commentary of events. Radio promoted involvement and, as a result, hordes of people from numerous countries decided to join the fight against the fascists. At the same time, the authorities used brochures to invite disaster tourists to experience the conflict for themselves, particularly as a war-time adventure could be combined with a visit to a picturesque region.

It was nearly three-quarters of a century ago that this bloody civil war between the fascists and their opponents raged in Spain. Within just three years (from July 17, 1936 to April 1, 1939), 350,000 people lost their lives. On this sad basis, for the first time ever, the world had become one through the mass media combination of newspapers and radio. Shiploads of Russians, British, Dutch, Germans, and Frenchmen, among others, fought in the international brigades against Franco's army, which was supported by Mussolini and Hitler.

The anti-fascist camp was led by such individuals as French intellectual André Malraux, while French President Léon Blum remained strictly neutral,

as did the leaders of Great Britain and the Netherlands. In addition to André Malraux, people like George Orwell enlisted in the anti-fascist divisions, while others such as Ernest Hemingway and Willy Brandt, the future Chancellor of Germany, were present as journalists. Even Robert Capa, the renowned photographer who would subsequently cover the Second World War in North Africa, Sicily and Normandy, began his career in the Spanish Civil War.



When the Spanish Civil War broke out in July 1936, André Malraux was purposefully engaged in Spain less than a week after the rebel up-rising of July 17. He organized a foreign volunteer air force for the Loyalists, assumed its command in battle, collected French bombers for the Espanha Squadron, and personally flew sixty-five missions. See [muse.jhu.edu/demo/](https://muse.jhu.edu/demo/comparative_literature_studies/v036/36.3stoltzfus.html)

[comparative_literature_studies/v036/36.3stoltzfus.html](https://muse.jhu.edu/demo/comparative_literature_studies/v036/36.3stoltzfus.html).

In the article “Looking at War: Photography’s View of Devastation and Death” (*The New Yorker*, 2002), American writer and filmmaker Susan Sontag puts it as follows:

» *The Spanish Civil War was the first war to be witnessed (“covered”) in the modern sense: by a corps of professional photographers at the lines of military engagement and in the towns under bombardment, whose work was immediately seen in newspapers and magazines.* «

The famous Guernica painting that Pablo Picasso made in response to the German carpet bombing of the town, and which is based on a bull-fight scene, adorned the pavilion of the Spanish republic at the world exhibition of 1937 in Paris.

At the time, events could be closely followed in newspapers, magazines and newsreels—television was not yet a mass medium. For the first time, radio was also involved; the Spanish Civil War was the first radio war, and therefore the first true mass media spectacle. Radio broadcast played an important role in propaganda, both in and outside the trenches, and these radio news reports could, in principle, even be heard in America. Radio technician Thomas Goottée made this point back in a 1938 edition of the American magazine *Radio News*.

The war consequently attracted media attention everywhere. In fact, the Spanish Civil War was so “popular” that the newly established national Spanish tourism agency even tried to cash-in on its popularity.

This hectic period of technology, transport and war was very closely followed in the media by a large group of engaged intellectuals, a set of disaster tourists and ordinary people all around the world. On the Spanish battle fields, and in French, German, Russian, British, Italian and American metropolises the world had become one village for the first time. Even for the man in the street, who was the intended audience of the new mass media. These final years before the Second World War were a uniquely fertile age for ideology, spontaneous commitment, action and collaboration.

Most of the people on both sides do not have the slightest idea of what they are fighting for. They are spurred on to fight by their leaders who are masters in the art of applied mass-psychology. These political leaders employ various means of convincing the people that their side is right, using one of the newest methods for the dissemination of war propaganda: *radio*.

Within a few days after the war broke out in July 1936 all major radio broadcasting stations in Spain and Morocco were seized by either the Rebels or the Loyalists, and almost immediately propaganda belched forth from these stations. This flow has not stopped yet. Although confined mainly to the broadcasting stations on the long waves, all short wave broadcasts have a burdening share of this propaganda. American listeners can pick up many of these short wave stations and get a distant idea as to the scope and use of radio in modern warfare.

From: “Radio and the Spanish War,” Thomas E. Goottée in *Radio News*, May 1938. Read the entire article at www181.pair.com/otsw/Articles/SpanCivWar.pdf.





Spanish Tourist Brochure from April 1938
National Spain Invites you to visit the War Route of the North (San Sebastian, Bilbao, Santander, Gijon, Oviedo, and the Iron Ring). See history in the making among Spanish scenery of unsurpassed beauty.
 Source: www.historycooperative.org/journals/ahr/110.5/holguin.html.

6.4 The World Live in Your Living Room

A century ago, there were still no modern media: no radio, no TV, no fancy avatars. Our world was much smaller. The dinner table was the most important medium. A family would sit around it, joined by neighbors and sometimes the minister or pastor. Discussions involved this or that, as well as gossip and scandal. The table was the medium, even in a literal sense, as it stood in the midst of group. The content was us. We talked about our stories, experiences, things we felt to be important, and how they were all interconnected. In fact, it was a “multi-stranded” situation, as described by Van Beek in Section 4.4.

The dinner table was the most prominent media location in most households for centuries. In the kitchen or dining room, we wrote letters, read the Bible or browsed through the newspaper. Homework was done, drawings made and later the radio was listened to. People chatted, played games and insofar

as the dinner table served all these functions, it might even be said that it was the first multimedia, multi-user and multitasking environment. Even Me-Media would be appropriate, the only difference being that no one could tune in remotely. For larger manifestations, we had to go to the town hall, the pool hall or the market. The latter was the most prominent place for town criers, proclamations, trade, and enjoyment, as well as podiums and pillories.



Trans-Atlantic telegraph lines in 1880.

Source: atlantic-cable.com/Maps/index.htm

Spanning distances with media was successfully accomplished for the first time during the French Revolution. Use was then made of the optical telegraph to make the world a smaller place. Using flags, sticks and semaphore, reports were transmitted, just as the American Indians worked with smoke signals. This form of messaging was much faster than sending a messenger on horseback. The first trans-Atlantic telegraph transmission only became a reality in 1866, using electrical equipment to send Morse code back and forth along an undersea cable. The Victorian Internet was born, but it certainly was not a mass medium comparable to radio, TV and later the real Internet.

The telegraph involved the transmission of texts, rather than the multimedia integration of text, image, sound and video which is perfectly common today. The “interface” for telegraph messages was the newspaper. A delay of only one single day meant that many readers were informed about the latest developments elsewhere in the world in almost real time. For instance, British readers learned the latest about the Crimean War and the care of the wounded by Florence Nightingale. For the sake of our historical understanding: the Crimean War lasted from 1854 to 1856 and set an alliance of the English, French, Ottomans and Sardinians against Tsarist Russia. Even then, the issue concerned control of the Holy Land.

Radio contact was originally used to send messages in Morse code. However, as little as five years later, Reginald Fessenden, a Canadian, succeeded in performing voice transmission in 1900. By 1906, two-way trans-Atlantic radio and the broadcasting of entertainment and music was a reality. However, no one had any idea of the direction in which radio would develop in these initial years. One idea was that people might use the telephone, which had



been in existence for some time, to call radio stations in order to reach the entire world live.

These days, it is perhaps difficult to understand what the radio meant to people in the first half of the last century. Contemporary metropolitan urban culture did not yet exist at that time, except perhaps among intellectuals in world cities such as Berlin, Paris and New York.

6.5

Recording and Playing back

Sound from the radio silenced the conversation around the table. New authorities such as reporters and politicians began to grab people's attention. And of course, there was the Charleston, music by Gershwin, Schubert, Mozart, Tchaikovsky, big bands, Latin music, jazz, and later Elvis Presley, Motown, The Beatles and The Doors. By providing factual information, infotainment, edutainment and entertainment, radio brought real life live into people's homes. Broadcasting live was initially an essential point for the BBC, as the power of radio came from its sense of immediacy. With radio, the outside world penetrated the private sphere for the first time. As a result, the world became a "global village", to quote Marshall McLuhan.



LATEST IN RADIO — ELECTRONICS — TELEVISION

At an early stage, consideration was already being given to the future of the radio as a fashion statement; take a look at this radio hat which graced the cover of *Radio Electronics* in 1949.

The global village forced the British Broadcasting Corporation to abandon the live nature of radio, when the BBC Empire Service was set up in December 1932. Use then had to be made of the first reel-to-reel recorders in order to store radio programs so that they could be broadcast in the various time zones in which British subjects lived. These Blattnerphones worked with long metal tapes, which were capable of recording good quality sound and could be replayed relatively quickly, however editing was cumbersome. At the time, a soldering iron was required for the cut & paste process. Storage and processing were still in their infancy, and there is simply no comparison between these processes and the obvious facility with which digital multimedia can be manipulated by everyone nowadays.

While the BBC remained committed to recording with the proven technology of the Blattnerphone, the radio station nevertheless joined forces early on with The Gramophone Company in order to make higher-quality recordings of historical events. The first being the opening of the London Naval Conference by King George V in January 1930. The pressing of the final gramophone records cost 50,000 pounds per hour and required a half day before they were ready for use. For this reason, Blattnerphones were given preference. Wax disks represented another alternative given consideration. Although recording time with them was only nine minutes, they were immediately destroyed when played back. For this reason, a number of them were always played at the same time. In 1934, the last year in which the BBC used this system, six hundred wax disks were recorded, half of which were converted to permanent disks.

Musician and businessman Cecil Watts introduced changes in the recording process, which would have long-lasting consequences. By applying a layer of lacquer, he succeeded in making disks that could be played twenty times. They are comparable to the floppy plastic 45 RPM records of musical fragments and commentary, which were distributed free up to the seventies in order to introduce people to gramophone record collections. Marguerite Sound Studios, Watts' company, used this technology to supply commercials in Europe to stations like Radio Luxembourg, a station that wanted nothing to do with Blattnerphones and made early use of audio tape (film sound track) for recordings. The BBC first ordered a Watts Disk in the mid thirties and subsequently a Recorded Programs Mixer, which could handle six gramophone records. During recording, there was a synchronized groove counter, so that a channel could be opened and closed at precisely the right moment. This technology meant the birth of the modern recording studio.

Anyone wanting to compare the multimedia Internet with something from the past should go back to the development of the gramophone. This is a claim made by Lisa Gitelman in her book *Always Already New: Media History and the Data of Culture*, which she published in 2006. The gramophone first made it possible to record and play back sound. During the phonograph parties organized by George Gouraud in 1888 around the Edison Perfected Phonograph, of which Gouraud had two examples shipped to England, phonograms were played back with music, and some guests made a "podcast" for Thomas Edison. The well-known British composer Arthur Sullivan, whose "Lost Chord" is one of the first recorded pieces of music, spoke the following into the phonogram:



» Dear Mr. Edison,

If my friend Edmund Yates has been a little incoherent it is in consequence of the excellent dinner and good wines that he has drunk. Therefore I think you will excuse him. He has his lucid intervals. For myself, I can only say that I am astonished and somewhat terrified at the result of this evening's experiments: astonished at the wonderful power you have developed, and terrified at the thought that so much hideous and bad music may be put on record for ever. But all the same I think it is the most wonderful thing that I have ever experienced, and congratulate you with all my heart on this wonderful discovery.

Arthur Sullivan

«



In 1901, the first gramophone record came on the market, 23 years after the invention of the phonograph. It would take another six years before a gramophone player would begin to threaten Edison's phonograph. The apparatus was affordable and did not require people to leave home in order to hear chosen pieces of music. The first phonographs were displayed to the public in concert halls and theatres. In these locations, people could pay admission to have their own voice recorded and stored on a wax roll. At the end of the evening, the wax rolls were taken home as relics. In general, the recordings contained children's songs and animal imitations.

It seems just like a blog post. If we had to explain the modern Internet to men like Edison, Gouraud and Sullivan, then a comparison with one big long record on which everyone can place their stories, songs and clips, would have been effective. The Internet viewed in terms of the recording and playing back of sound (though involving multimedia) would be very well understood by people from the time of the invention of the gramophone.

The use of the gramophone was not restricted to what inventor and businessman Thomas Edison had originally thought up. He believed it to be a device well suited for linguistics and anthropology in order to record voices and languages of the nearly extinct American Indian tribes. Just as in the present with the Internet, it took a while before the gramophone developed from wax roll to record and turntable, and consequently into home entertainment equipment.

The same applies to the Internet. In the e-Business period of ten years ago, we thought that the Web had already fully matured. However, only now is the much discussed e-mancipation taking place. The Internet is changing into a personal infotainment, edutainment and entertainment machine, one immense Wurlitzer jukebox accessible to everyone. Point & click: on the Internet recording and playing back can be done in split seconds.

Mountains of records were made for the gramophone, and everyone had the opportunity to play them, and to do so alone, without interruption, or at a party. Private gramophone use mainly brought the entertainment of music and the singing voice into the home. But radio and television, the ones we call “electronic mass media,” accomplished something else. They let people from different places tune in to the same experience, but only at the time a program was broadcasted. In the seventies recording music from the radio on tape at home briefly was a hype among pop-chart addicted youngsters, and only in the nineties video recording gained some popularity. Renting prerecorded video tapes however became a booming business with stores in cities and villages in many countries around the world. Copying expensive gramophone records to compact cassettes became popular in the seventies and boomed in the eighties with the advent of the Sony Walkman and copy-cat devices. Later such practice was replaced by copying audio compact discs, and DVDs. Today we see the convergence of audio and video recording and playback capabilities in compact Web-enabled multimedia centers that we still simply call “telephone.”

6.6

650 Billion to Harass Everyone

Newspapers, magazines, advertising brochures, posters and other print work are the mass products created by the First Media Revolution. Their attraction involves a combination of headlines, text, images, color, paper quality and coating. With the advent of radio and television, audio and video content were additional ingredients in the mix, resulting in an even more intense experience. The Second Revolution involving electronic mass media provided a completely different type of sensory and cognitive event, one that was shared and therefore also established a basis for communication with others. This particularly applied to television, as we all watched the same programs. Now with YouTube, Facebook, MSN and MySpace, as well as a large number of TV channels, this situation has completely changed.

In the sixties, TV took us away from the dinner table and into armchairs and couches. Television programs became increasingly more frequent subjects of our conversations. Mom, dad, brothers, sisters and others shared their opinions about the *Evening News*, *Sixty Minutes* or *Bonanza*, popular game or variety show hosts, sports, politics and even the latest attention-grabbing commercial spot. Sometimes it seemed that life mostly consisted of stars, audience, candidates, prizes, presenters, lovely assistants and a few winners. This vision was a constant thorn in the side of many intellectuals and reli-

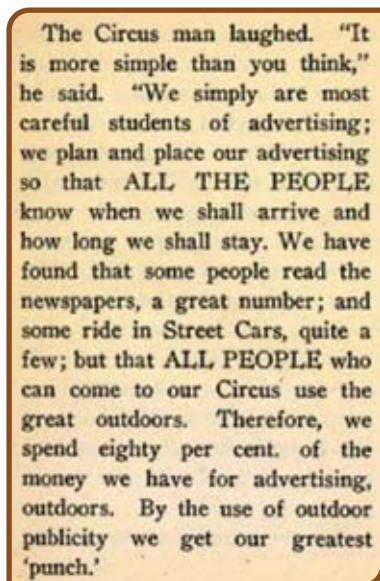


gious leaders. Previously, the masses had been ignorant because they were barely informed about things. But now they were plagued by banal influences. From the eighties, TV even appeared to threaten the last remaining bit of culture. Narcissism, commercialism and materialism corrupted all sense of community. However, we were emancipated at the same time.

Advertising Works Wonders

Wherever people are, there is trade, so mass media, mass production, advertising and public relations all went hand in hand. The very first TV commercial was shown in America in 1941, barely twenty years after the first radio commercial. It cost the Bulova Watch Company just 9 dollars to say that “America runs on Bulova time.” The virtues of the brand were extolled during a break in the baseball game between the Brooklyn Dodgers and the Philadelphia Phillies. Just fourteen years later, ITV began its programming as the first advertising-funded television broadcaster in Europe with a teaser announcing “commercial television is here.” Since then, the advertising industry has enjoyed greater revenue than the economy of Brazil. In 2007, the industry passed the 650 billion U.S. dollar mark in sales.

It is quite simple really. Leonard Dreyfus stated it clearly in *An Idea that Saved a Business*, his book of 1918: Make sure that you advertise where there are the greatest number of people. You can certainly advertise in the newspaper, but hanging posters up outside at the right locations is much more effective, as that is where everyone passes by. Reaching people became crucial for expanding a business.



The Circus man laughed. “It is more simple than you think,” he said. “We simply are most careful students of advertising; we plan and place our advertising so that ALL THE PEOPLE know when we shall arrive and how long we shall stay. We have found that some people read the newspapers, a great number; and some ride in Street Cars, quite a few; but that ALL PEOPLE who can come to our Circus use the great outdoors. Therefore, we spend eighty per cent. of the money we have for advertising, outdoors. By the use of outdoor publicity we get our greatest ‘punch.’”

The electronic mass media radio and television brought the outside world inside, and managed to reach the people where they are: at home. Every evening, we sat on the couch watching what broadcasters served us. Instead of posters, companies had to buy prime-time spots in order to promote their products in an attractive and effective way. This advertising cost a great deal of money, but it built up the economy, changed dreams and desires, and manipulated our existence.

6.7

Propaganda and PR

The century preceding the vision of the New Economy and the explosion of web media was dominated by the development of the means of transport, computer applications, the Internet, warfare and the consumer society. National conflicts flared up in Europe, resulting in the First World War and the Russian Revolution. Amid the decadent Roaring Twenties and the historical stock-market crash of 1929, followed by the Great Depression, an unparalleled ideological struggle between political parties emerged. Ultimately, it led, via a detour through the Spanish Civil War, the first radio war, to a new World War against the German-Italian-Japanese fascism that overtook Europe and parts of Asia.

The history of political ideology and mass consumption runs hand in hand. In both cases, something (a product or idea) has to be sold to as many people as possible and, preferably, while convincing the greatest possible number of its merit. Now that the control of mass media is subject to a great deal of discussion—partly because of the shift in attention to multimedia created by people themselves—the actual question is if this existing model of mass manipulation and mass marketing can continue in the current Me-Media Web era.

The industrialization that increased in momentum at the beginning of the last century was well served by clever mass marketing in which people felt themselves be personally addressed. Better ways of selling products helped to avoid problems of overproduction. And up-to-date sales statistics made it possible to manufacture improved products at a faster rate.

The manipulation of audience by mass producers took off to great effect at the beginning of the last century. Edward Bernays was the first person to call himself “Public Relations Counsel.” Before that, the services he offered were called “propaganda,” but the term was



Bernays encouraged women to smoke by extolling cigarettes as Torches of Freedom, alluding to the Statue of Liberty and cleverly implicating the growing women's movement. Over thirty years later, Bernays took up the struggle against the dangers of smoking. He wrote: "Had I known in 1928 what I know today, I would have refused Hill's offer." At the time, George Washington Hill was the head of the American Tobacco Company, the maker of the Lucky Strike brand.

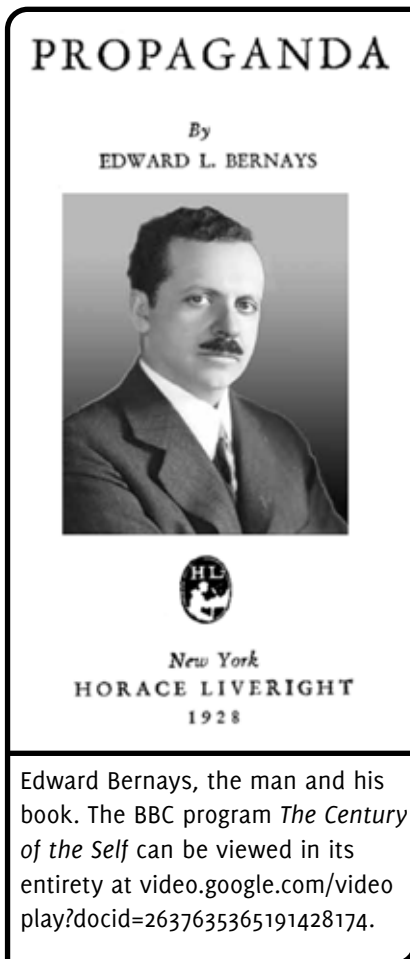
Visit www.prmuseum.com.



besmirched by the Second World War and subsequently associated with the arousal of mass hysteria.

Edward Bernays, a nephew of Sigmund Freud, is a central figure in the fascinating BBC program on consumerism, ideology and mass manipulation, *The Century of the Self*. Bernays was the father of PR; he wrote a book on propaganda, advised companies and would later provide inspiration for Joseph Goebbels, the Minister for Propaganda in Nazi Germany.

In the 1920s, mass manipulation was viewed differently from how it is today. What we would now frequently describe as the seduction or temptation of the consumer was then much more ideologically loaded. The crowd had to be tamed by transforming them into civilized consuming people.



Edward Bernays successfully applied some of Sigmund Freud's theories. In fact, Freud's ideas began the Century of the Self. Suddenly, it was possible to talk about feelings, fear and grief. Emotions were a rich source of inspiration for advertising and PR professionals to play with when manipulating public opinion and selling products.

Edward Bernays' best-known book was published in 1928 and is simply entitled *Propaganda*. Bernays then operated a very successful PR consulting business, with a magnificent suite in a luxurious New York hotel, so large that he could organize parties for high government officials, film stars and captains of industry.

Bernays established an imposing track record in the field of mass manipulation. His clients included Procter & Gamble, the American Tobacco Co., Cartier, General Electric, the Public Health Service and Dodge Motors. Bernays was himself inspired by the work of Gustav Le Bon, whose 1895 book *Crowd: A Study of the Popular Mind* portrays the masses as dangerous and ignorant. In the media-poor times in which it was written, people were also rather less well educated. A large proportion of the population could not read, and it was mainly the elite who were knowledgeable about world events. The population at large was regarded as a mob whose collective mind was to be molded before it would start pursuing its own goals. Le Bon regarded ordinary members of the crowd as an underdeveloped accumulation of mediocrity.

The masses, the proverbial “sow’s ear” from which you could never make a “silk purse,” were not just ignorant but dangerous. Forming a mob caused qualities to arise in people that were simultaneously heroic and dangerous. The conclusion was clear: take the boorish hooligans in hand; the masses must be kept under the thumb.

In 1928, the year that *Propaganda* was published, U.S. President Herbert Hoover addressed a group of advertising and PR executives. He told them that they had built a new economy. Not one based on the necessity of products, but an economy that created need by addressing subconscious desires. Consumerism had become the engine of economic activity.

» *You have taken over the job of creating desire. And you have transformed people into constantly moving happiness machines. Machines have become the key to economic progress.* «

President Herbert Hoover, 1928

Transforming people into happy consuming machines that drive economic progress was, unfortunately, only one side of the coin. The flipside became apparent when the 1929 stock-market crash overturned such ideas about need-creation. Mass unemployment, poverty, insurrection and riots became the factors governing the new dynamic.

Such events provided new grist for the mill of those claiming that the masses had to be tamed. Joseph Goebbels read Bernays’ book and put the population in Germany under the hand of National-Socialism. In America, President Franklin Roosevelt tightened the reins by abandoning the ideology of consumerism. Corporate American grumbled, as the business community wanted to be a given free reign. The discontent played right into Bernays’ hand, as he initiated a campaign against government intervention.

6.8

A World of Fussy Individuals

Propaganda and PR have taken on huge dimensions in our modern age. The advertising on offer is larger than ever and biased reporting is of the order of the day. This development has everything to do with the emancipation that population groups and individuals have experienced around the world thanks to the collective media. The masses are no longer ignorant; to put it more strongly, the masses have not existed for around thirty years. In the



ideal case, companies are involved with segmented markets and, in the worst case, with a large collection of headstrong individuals who would switch to the competition in a moment after running a price comparison on the Internet and reading a few product reviews.

The narcissistic Me Decade of the seventies launched an age of self-absorption and self-promotion that has not diminished today in the current era of *Idols* and MySpace, on the contrary. Nevertheless, contemporary web multimedia also has a strong socializing effect, communities of all kinds and all sizes are flourishing as never before. The apparent contradiction is somewhat understandable, as even the most blatant narcissists still require an audience and, as we have previously noted, the public is often regarded as something to be conned, bamboozled and manipulated.

However, in addition to such straightforward deception, defrauding and manipulation of others, the obvious result of the Third Media Revolution is unquestionably the emergence of web multimedia—in particular insofar as this change imposes a new openness and transparency as the proclaimed ethical norm. We now even speak of Social Media, a change in perception that not only has consequences for individuals but, in particular, for companies, as we noted in Chapter 3.

Expressions such as “the customer is always right” suggest that companies have found a new respect for the consumer. Of course, this is partly happening in response to vicious competition, but it is also occurring because the consumers of today are no longer completely ignorant. They may allow themselves to be taken in once in a while and are certainly susceptible to persuasion (if perhaps only when something especially substantial is at stake). Yet, unsatisfied customers are a disaster for a company. Before you know it, you have not just lost them for good but dissatisfaction has left an ink-blot on the company name, whose reputation is then simply blown away in a torrent of blogging, chatting and online public denunciation. In the age of social media, an enormous quantity of social control is aimed at the ways in which companies deal with the public, the latter no longer being an anonymous mass but an assembly of strong-minded and opinionated individuals.

Me, Me, Me

There has been enough written about ego trips over the last thirty years since the me decade launched a new Age of Individualism. The rhythm of this era rolls along: Me...Me...Me...Me. So ends Tom Wolfe’s perceptive essay “The ‘Me’ Decade and the Great Third Awakening” (we emphatically refuse

to become entangled in the discussion about what such Awakening might actually entail: see www.press.uchicago.edu/Misc/Chicago/256626.html). In 1976, no one could have predicted what the awakening I's would mean for the community, business and individual contacts.

Market research methods originated in the seventies (see amapedia.amazon.com/view/History+of+Market+Research/id=98323). Attempts were made to manufacture products that served the concrete and more refined needs and wants of the consumer. After all, every household already had a radio, washing machine and TV. Consequently, more luxury goods had to be sold to fussy individuals by companies, the numbers of which were growing strongly.

The protests of the sixties, student revolts, women's lib, the New Left, counterculture activism, Flower Power were not just extreme reactions to consumer society. There was more: the recovery in Europe after 1945 was complete, a new generation, the Baby Boomers, was becoming more self-aware and assertive, and there was a new horrifying conflict being shown daily in the news—Vietnam. Such events as the assassination of U.S. President John F. Kennedy were served up on television screens and made larger than life by the media.

A few years later, the American TV series *Peyton Place* was a worldwide smash. People everywhere were waking up in their Great Third Awakening (see the website tvhistory.tv).

Narcissism as a Norm

Philosopher Christopher Lasch recognized that egocentrism increased after the decade of the seventies. He writes about this realization in “Culture of Narcissism Revisited,” an essay that was included as a postscript to the 1991 re-printing of his book *The Culture of Narcissism: American Life in an Age of Diminishing Expectations*.

We now ride like roller coaster down the path of the twenty-first century. There are nearly one-hundred million weblogs, and microblogs or nanoblogs, short reports about what you happened to be doing, are the “latest rage.” In Chapter 3, we saw the example of the Twitter posting by Steve Rubel, employee of the Edelman PR Agency, which resulted in an unpleasant clash between the agency and *PC Magazine*.





Narcissus and Social-Network Anna

Narcissus was an attractive youth who lived to hunt. So very beautiful, he had already caused more than a few hearts to flutter. He, on the other hand, wanted nothing to do with love and rejected everyone. Only hunting interested him. Continuing in his pursuits, the youth one day happened upon a sacred pool of crystal-clear water where no herdsman ever brought his flock and from which no mountain goat or other animal ever drank. Even the leaves and branches of the trees dared not disturb the water's serenity. All around, grew grass that was more beautiful here than anywhere else, the location being encircled by rocks protecting it from the sun. Exhausted from hunting, Narcissus decided to rest for a while on the bank and to quench his thirst by drinking from the pool. Bending over the surface, he saw his reflection in the water. Thinking it was a beautiful spirit who lived in the pond, he remained seated there, staring in wonder at the figure with its lovely eyes, curly hair, powerful chin,

ivory neck, slightly parted lips, brimming good health and impeccable fitness. He fell instantly in love, while still not realizing that the vision was of his own reflection.

He lowered his lips in an effort to kiss the apparition and opened his arms in order to embrace it. Of course, his coy beloved vanished at once, only to re-appear when the water returned to calm.

Narcissus could not turn his gaze away from the figure in the pool. He no longer thought about eating, drinking or sleeping, only about the watery vision. He tried speaking to it, receiving no reply. He began to cry, his tears rippling the enchanted presence, whereupon he implored the apparition to forsake him no longer. So it went on, Narcissus withering away until all that was left of him was a flower.

Obviously, such proliferation raises the question of why we expose ourselves so much. Why do we parade everything—or at least a great deal—about ourselves in front of the eyes of the world? One explanation can be found in the development of media and technology. We attribute increasingly more meaning to images of ourselves in the media. Since the advent of television, we are accustomed to viewing people, their behavior and the commentary on both. We have become obsessed with ourselves. *Big Brother* is a perfect example of this, as are our weblogs.

Gary Carter is tracing the media consciousness of our generation. He is the president of Fremantle Creative Networks and Chief Creativity Officer of Fremantle Media, known from such programs as *American Idol* and *The X Factor*. This media company makes ordinary people larger than life, serving a mass public that is eager to find celebrity status and world fame on one of the many reality shows. He indicates that his own generation (Gary is well into his forties) has seen the role of television evolve. Previously, TV was the mirror to the world, showing us how things were to be understood and what was good or bad. Nowadays, TV has evolved into a window in the world that allows us to view ordinary things and people. The latter are quite at home in front of the camera, because they are the generation that has grown up with TV and video tapes of themselves stored in the attic.

When Lasch calculated the outcome for the Age of Narcissism, he came to a shocking conclusion. Craftsmanship and trust in a company are being replaced by visibility, personal charm, momentum and impression management. The contemporary organizations in which we work reward narcissistic behavior. How we come across to others is monitored with trepidation.

Web media are directly able to serve narcissism well and encourage the further development of propaganda and advertising. Through digital dematerialization, the mediatization of ourselves and of our economic activities is given an enormous boost. The extent of the transformation will be discussed further in the following chapter, Hyperegos in Their Social-Network Environment.




7 Hyperegos in Their Social- Networking Environment

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The stage on which Hyperegos act is so large that we would never be able to discuss it fully here. That is why we made an overview of the most important examples of “social” Web initiatives. For the sake of historical understanding we will begin with the first mass medium by means of which identity was “broadcast.” Portraits of emperors on Roman coins made it clear to everyone within the Empire just who was in charge. Social web networks have made us very familiar with similar “profiles,” at least in a metaphorical sense. They also shape our identity and have value: \$15 billion in the case of Facebook. An over-exaggeration? Then consider that, in terms of “residents,” MySpace was the eleventh largest country in the world when it was taken over by News Corporation in 2005. At the beginning of 2008, MySpace had moved up to the fourth place in terms of world population.

The acquisition of the MySpace social network by Rupert Murdoch’s News Corporation touched off an explosion in the development and use of these sorts of ego display cases. It is not just shared friend lists, but also content oriented websites such as Digg and Del.icio.us that are prospering like never before. The popularity of all these social web initiatives has created a greater need for one central location where users can register themselves and combine the possibilities of various social structures. The practice of establishing all kinds of social digital islands is



Hyperegos are hyperlinked individuals, organizations and objects that will soon, in a socio-economic sense, become more strongly interwoven within the Metaverse (see Chapter 8) than they are in existing social networks on the Web.



no longer acceptable. Hyperegos want to be able to make the best possible use of the infrastructure that they themselves have built into social networks.

7.1

From a Few Superegos to All Hyperegos

Coins were the very first mass medium to be issued in millions. The portrait of Caesar on the denarius, the coin with which he paid his soldiers, made it unequivocally clear who was calling the shots. Later, Roman emperors were portrayed on the aureus, the gold coin then being issued. On the reverse, there was a short and powerful reference to what the emperor had done and what he still had up his sleeve. The aureus “teleported” the imperially crowned superego to all corners of the empire. The effect of the aureus was, so to speak, “a golden glimmer emitted from the emperor’s personal antenna”—to paraphrase a famous radio jingle. With the aureus, the Roman emperors literally capitalized on their ideas and deeds.

Due to their value and durability, coins were and are extremely well-suited for broadcasting identity. Special commemorative coins for people and events still sell well. Immediately after Caesar’s murder, Brutus had the event recorded in image and text on his own coins. The English expression “to coin a phrase” recalls this practice. Besides a means of payment, the Roman coins were therefore an effective propaganda medium from over two thousand years ago. As everyone needed to have coins and as they were constantly changing hands, their circulation was an ancient means of transmitting identity to as many people as possible.

Today, coins play a marginal role as conveyors of messages due to the much greater impact of mass media. There are endlessly new things to hear and see on radio and television, in newspapers, magazines, and given the speed, the volume of information and the intrusiveness of such technologies, coins and banknotes are clearly falling by the wayside. At best, coins have become similar to stamps in portraying a part of folklore. Not least because physical money is increasingly less involved in payment transactions. However, up until the introduction of the Euro, portraits of queens and national figures still gave citizens in the various countries of the Eurozone their own “imperial” experience.

In this era of the Third Media Revolution, mass media are confronted with strong competition from the millions of private individuals and marketing teams that now work on their own dynamic multimedia monuments via

websites, social networks, weblogs and wikis. This chapter will be dominated by social digital networks such as Facebook, MySpace, and LinkedIn and by the incalculable value that their individual profiles now have. If media tycoon Rupert Murdoch was able to buy the social network MySpace for “just” \$580 million in 2005, its competitor Facebook was valued at over \$15 billion in 2008, judged by the amount of money Microsoft paid for a small stake in the company. “Broadcast yourself,” the slogan of the YouTube video site is undoubtedly the new big business on the Internet.

It is now possible for everyone to exhibit their identity on the Web by publishing their name, photo, achievements, education, hobbies, and the like, and hyperlinking such a profile to friends, music, books, clips and whatever else that may seem appropriate.

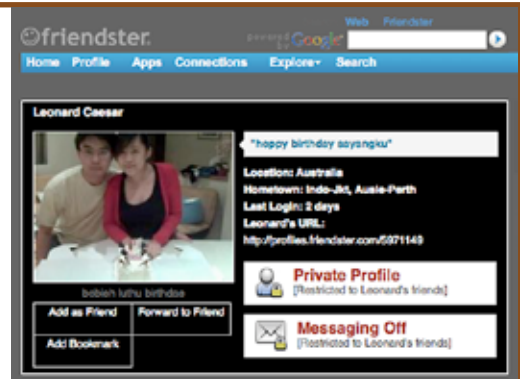
The emotional and economic value of profiles on the Internet can relate to individuals in any of the various social networks or to anything else, be it a company, brand, product, service or other type of item that we buy and sell. The significance (i.e. recognizability) of a given identity on the Web depends



Broadcast Yourself

First Century before Christ

In ancient Rome, Julius Caesar (left) was the first living person to have his likeness imprinted onto a coin. Caesar deliberately used the coin as a mass medium in a manner that had never previously been done. After Caesar’s murder, Brutus had his death portrayed on a coin. Right, we see the weapons that were used, under which the date of the assassination is indicated: 15 March, the “ides” (ID) of the month of March (MAR).



2008

A certain Leonard Caesar on a social network, in this case Friendster, which is very popular in Asia. His profile along with those of millions of others on similar digital networks is of great economic and emotional value.



on a combination of description, content, tags, hyperlinks, “friends,” views and clicks.

This new set of rules by which the media game is being played lays the foundation for a new form of broadcasting. Thanks to the hyperlinks of the World Wide Web, Hyperegos and hyper-identities have now become the most normal thing in the world. Everyone and everything is in contact with each other and are, in principle, only a few searches and clicks away. Such proximity has become well known as Six Degrees of Separation.

Six Degrees of Separation

In 1929, Hungarian writer Frigyes Karinthy published his short story collection *Everything is Different*. One story, called Chains, deals with the Six Degrees of Separation topic: the claim that anyone can contact any previously unknown person in just six steps. You begin within your own circle of acquaintances with someone who knows another person who you do not know. The process continues in this manner until a chain of contacts is built between you and the previously unknown person.

Without ever having heard of the story behind Six Degrees of Separation, a psychologist named Stanley Milgram tested this theory in practice. Beginning in 1967, he ran a number of experiments to investigate the number of connections linking two people chosen at random. Milgram wrote a letter and addressed it to a certain individual. He sent the letter to a random selection of people living in various states within the U.S., instructing them to forward it to the addressee. If they could not make this delivery, then they were to select another individual from among their acquaintances who was felt to be better able to deliver the letter. It transpired that the letters arrived at their destination within six steps.

The world is in fact much smaller than we had previously thought. Everyone is capable of contacting everyone else. Milgram called this reality the “small world phenomenon.” The World Map below expresses this phenomenon. Social web networks put this principle into practice. It all began with Friendster, but many others have followed since.



The Mother of All Social Networks

The Friendster website was one of the first social networks that we would still recognize as such today. It was founded in March 2002 by Jonathan Abrams, who ultimately did not profit from it. Originally, he regarded Friendster as a way to meet women, but the concept had more wide-ranging repercussions. Groups of virtual friends were established by sharing lists with real friends and acquaintances. By the end of 2008 Friendster had more than 90 million registered users. In 2003, Google offered \$30 million for Friendster, but Abrams did not accept the offer. Since that time Friendster has become increasingly popular in Asia.



MySpace was originally a place where people could exchange files. It was unsuccessful, and the site was closed in 2001. In July 2002, Tom Anderson purchased the domain name and set up one of the world's largest social networks. The growth of MySpace can be explained by its strong association with music. Many musicians and bands have created profiles and use them to communicate with their fans. At the beginning of August 2006, the one hundred millionth MySpace member was welcomed. By February 2008, MySpace announced that it had over 300 million users, at a time when the United States had 303,361,000 residents, and at the end of 2008 the site still grew by more than 230,000 new members a day. At the beginning of 2008, the number of MySpace residents gave it a ranking of fourth place on the list of the world's most populated countries, however in April 2008 Facebook's monthly unique visitors outpaced the MySpaceans. MySpace is a division of News Corporation, the largest media company in the world, originally founded in 1954 by Rupert Murdoch. With a total of 53,000 employees, this company has daily contact with a billion people through its newspapers, TV channels and Internet enterprises.

In 2005, News Corp acquired MySpace for \$580 million. Although, at the time, many were amazed by the figure, this amazement has now been transformed into admiration for Murdoch's foresight. The social network Facebook was valued in the Fall of 2007 at \$15 billion, and MySpace had already

been appraised at that level a year earlier. Extrapolating from the \$15 billion of Facebook and applying the results to MySpace, the latter social network would now have a value of \$65 billion. At the Graphing Social Patterns Conference in October 2007, Facebook was, in fact, estimated to have a value of \$200 billion. Mahalo CEO, Jason Calacanis, made a more conservative calculation and came up with an estimated of \$2.5-5 billion, an amount which given the current recession is wildly exaggerated.

MySpace announced a new advertising model in November 2007. Based on the information in user profiles, advertising could from now on be made to target specific individuals. The practice was called “hypertargeting,” which fits nicely with “Hyperegos.”

facebook

Facebook was started in February 2004 by Mark Zuckerberg. The site name alludes to the paper “facebooks” that are produced in many organizations and educational programs. Originally, the website was intended for the students of Harvard University but quickly expanded to include the surrounding schools and universities. The site was open to everyone with a valid e-mail address from September 2006.

Facebook experienced extraordinary growth, and Mark Zuckerberg decided to construct the News Feed mini application. The News Feed informs every visitor on their own page of the changes that friends and acquaintances have implemented on their pages. Initially, this created a great deal of protest against such a breach of privacy, but the application was quickly embraced by the majority, and distinguished Facebook from the competition.

In May 2007, Facebook opened its programming platform so that other developers could directly communicate with the Facebook database. In short order, over 5,000 new applications materialized. They were shared amongst friends, enormously increasing the popularity of Facebook.



Facebook aims to be “A Social Utility that Connects You with the People Around You”—with people you already physically know that is. On that basis your friends of friends of course still can be only digital acquaintances.



Zuckerberg makes a distinction between two large information flows. The established media keep us informed about day-to-day news. On the Internet such information is offered for free. All other news (for example the name of the best hairdresser in town) is provided by friends, acquaintances and family. Zuckerberg believes that this second information flow will become increasingly more important, and he would like to channel it via Facebook.

» *We're not trying to help you make new friends online. We're just trying to help you digitally map out the relationships you already have.* «

Zuckerberg would like everyone in the world to have a Facebook profile comprising all their desires and thoughts. Such a database, which John Batelle in his bestseller *Search* labels the Database of Intentions, would represent an enormous economic value. In January 2009, 150 million people in all continents were actively using Facebook, almost half of them every day. It was then the fastest growing social network—of “real” relations, not just of digital “friends,” as Mark Zuckerberg loves to point out. If Facebook were a country, it would then have been the eighth most populated in the world.

In October 2007, it was announced that Microsoft had purchased a 1.6% share in Facebook for \$240 million. On this basis, Facebook at that time must have had a total worth of \$15 billion. Surprisingly Facebook's cost still exceeds its revenue. Zuckerberg however is confident that in a few years his company will be profitable:

» *One group is very focused on targeting; another part is focused on social recommendation from your friends. In three years from now we have to figure out what the optimum model is. But that is not our primary focus today. Growth is primary, revenue is secondary.* «

So, let's wait and see. At the start of 2007, Zuckerberg discussed Facebook's social marketing strategy at the Facebook Social Advertising Event in New York. In his opening address, he combatively stated:

» *Once every hundred years, media change. The next hundred years will be different for advertising, and it starts today.* «

The strategy focuses on two fronts. First of all, companies were given the opportunity to create a profile page just like other users; only theirs involve brands or products. Users subscribe to these company profile pages, and fa-

avorites are shared with friends by means of newsfeeds, which stimulates the viral effect of a company profile.

Secondly, companies can place scripts (beacons) on their own websites. When Facebook users buy products on these sites, this information is recorded in the Facebook newsfeed. Thus, brand experience will be directly linked to an individual's identity and preferences. As a result, users become the ambassadors of brands and products. Mark Zuckerberg puts it as follows:

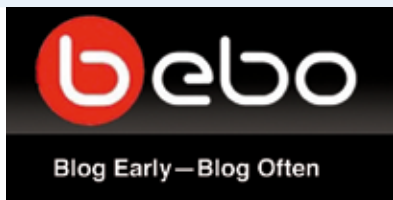
» *Nothing influences a person more than the recommendation of a trusted friend.* «

Referring to *The Cluetrain Manifesto* (see Chapter 4) and Marshall McLuhan (see Chapter 2), Nicholas Carr, the author of *Does IT Matter* and *The Big Switch*, wrote in his weblog Roughtype.com the following about Facebook's new marketing strategy:

» *There is no intimacy that is not a branding opportunity, no friendship that can't be monetized, no kiss that doesn't carry an exchange of value. The cluetrain has reached its last stop, its terminus, the end of the line. Editorial is advertorial. The medium is the message from our sponsor.* «

Dave Winer, the inventor of RSS newsfeeds, even proclaimed the end of advertising on his Scripting.com weblog:

» *In the long-term, advertising is on its way to being obsolete. Facebook is just another step along the path. Advertising will get more and more targeted until it disappears, because perfectly targeted advertising is just information.* «



The interesting point about Bebo is that it has passed through several phases. In 2003, Michael Birch came up with Ringo, which he sold after 400,000 members had joined. Bebo, a refinement of Ringo, was intended to serve the over-thirty crowd, but struck a chord with an entirely different target group: teenagers. The power of Bebo is its simplicity: everyone can do it.



Bebo is especially popular in English-speaking countries, such as Great Britain, Ireland, New Zealand, Australia, Canada and the United States. It is currently the sixth most popular site in the U.K., bigger than AOL, Amazon and bbc.co.uk. In 2008, Bebo was sold to AOL for \$850 million.

Ning

Create Your Own Social Network for Anything

The Ning website offers users the opportunity to set up their own social network. Ning was founded in October 2005 by Marc Andreessen, one of the developers of the Mosaic browser and joint founder of Netscape, along with Gina Bianchini. Ning is Chinese for “peace.” In September 2008, over a half million social networks were built on the Ning platform.



When he was asked whether LinkedIn would pursue a similar open strategy to Facebook, founder Reid Hoffman stated the following:

» *While Facebook is used by bloggers to push out their own media to as wide a circle as possible, most professionals don't want an open door policy. In Web-based social networking, six figure Fortune 500 execs seek the discretion and confidentiality that LinkedIn uniquely offers. While bloggers may extol the virtual sociability of anything and everything goes open blogosphere atmosphere, a professionally run, online gated referral network is invaluable in the real world of high-stakes business.* «

The first version of LinkedIn was built in 2002 by students Reid Hoffman and Konstantin Guericke along with three other developers. This social network, which is specifically aimed at professionals, was launched in 2003. Initially, the database was filled with 350 contacts from the personal networks of Hoffman and Guericke, but the network subsequently experienced explosive growth.

The most prominent goal of LinkedIn is the formation of an online network of your own immediate contacts. They should assemble a network as well, and the people in that network do the same. The second and third-line networks cannot be approached directly but can only be accessed by obtaining a referral from your first-line network. This system of referrals is intended to prevent people from being harassed by requests to initiate a relationship, although this now appears to be happening all the same. The network of LinkedIn is based on mutual trust among associates.

The privacy policy of LinkedIn states that the network takes part in the EU Safe Harbor Privacy Framework (see www.export.gov/safeharbor/SH_Documents.asp). This guarantees that disputes concerning the privacy of the user will be resolved in accordance with the Safe Harbor Privacy Framework.

LinkedIn profiles are plain CV descriptions without photos or flashy backgrounds. This trimmed-down style has the advantage of ensuring that LinkedIn is used only for business contacts. However, when Facebook was opened to developers, a large group of people left the LinkedIn network, including such prominent bloggers as Robert Scoble and David Weinberger. The exodus was due to Facebook offering more opportunities for contacting others, combined with the fact that duplication among social networks is gradually becoming irritating to many (see the Social Graph in Section 7.5).

Despite this, LinkedIn continued to grow. In 2006, American professionals became convinced of the need to maintain a presence on LinkedIn. The number of registrations increased enormously: the count standing at more than 30 million registered users from 150 economic sectors in October 2008.

Many people use LinkedIn to find new jobs. Recruiters scan the network daily and increasingly more employers list vacancies there. Users can now also make inquiries via the network.

LinkedIn is free, but you can also purchase a subscription, which lets one e-mail people directly without having to be referred. A paid subscription also better enables you to track people who visit your profile.

Any user can have an unlimited number of contacts. As soon as someone exceeds five hundred, LinkedIn marks the number as 500+. In this way, LinkedIn aims to prevent the network from becoming a competition in making contacts. However, the website Toplinked.com keeps a record of LinkedIn



top scorers. At the start of 2009 Ron Bates topped that list with more than 40,000 connections.

Top-20 Social Network Sites (November 2008)

Site	November 2008		November 2007		YOY Growth (%)	
	Unique Audience [x1000]	Time per Person [h:mm:ss]	Unique Audience [x1000]	Time per Person [h:mm:ss]	Unique Audience [%]	Time per Person [%]
MySpace.com	59,123	1:52:17	57,390	2:26:30	+3	-23
Facebook	47,543	2:12:11	21,975	1:02:28	+116	+112
Classmates Online	14,603	0:10:38	11,466	0:08:08	+27	+31
LinkedIn	11,646	0:12:42	5,443	0:08:06	+114	+57
Reunion.com	9,528	0:04:40	4,085	0:03:32	+133	+32
Windows Live Spaces	9,420	0:05:22	9,504	0:06:45	+1	-20
Club Penguin	6,497	0:26:02	4,398	0:21:15	+48	+23
AOL Community	5,347	0:10:02	3,455	0:30:18	+55	-67
Tagged.com	4,478	1:02:40	792	0:12:42	+465	+393
Twitter.com	3,174	0:08:13	N.A.	N.A.	N.A.	N.A.
Ning	2,994	0:18:57	810	0:06:37	+270	+186
My Yearbook	2,937	1:11:43	1,836	0:18:38	+60	+285
Bebo	2,882	0:12:48	1,743	0:32:49	+65	-61
Imeem	2,877	0:11:24	1,716	0:19:16	+68	-41
Last.fm	2,198	0:05:34	1,746	0:05:49	+26	-4
Hi5	1,968	0:18:31	1,363	0:28:07	+44	-34
Flixster	1,824	0:08:00	3,357	0:04:22	-46	+83
Meetup.com	1,781	0:09:59	1,738	0:14:08	+2	-29
Gaia Online	1,627	1:27:45	1,438	2:48:15	+16	-48
Multiply	1,672	0:13:09	970	0:07:14	+72	+82

Source: Nielsen Online

Blue data represent sample sizes below reporting cut-off

Plaxo and Pulse

Plaxo is an online address book. The website was started in July 2001 by Sean Parker, one of the founders of Napster, along with Minh Nguyen and two students at Stanford University, Tod Masonis and Cameron Ring. Plaxo makes it possible to use a plug-in to synchronize various desktop applications, such as Microsoft Outlook and Mozilla Thunderbird. When someone changes the data of a contact, this is automatically communicated to all registered applications.

Plaxo Pulse was launched in August 2007, an application that keeps users updated on any changes to their contacts are concerned. There is also the option to keep track of other social initiatives in this lifestream, such as blogs and wikis. Plaxo Pulse is the first application to support an effective implementation of the OpenSocial initiative, for example (see Section 7.5). As a consequence, the number of visitors to Plaxo has increased dramatically.



A World of Relations

Up to now, we have discussed a variety of internationally trendsetting social networks. But in the digital arena, Asia is definitely a very important part of the world. The largest social network is South Korean Cyworld, which is particularly popular among young people. Cy is Korean for "relation."

Cyworld combines a social network with a Virtual World. Each visitor receives a profile page (MiniHompy) on which his or her digital identity (Mini Me) can be created. The MiniHompy offers the user a number of standard functionalities, such as a photo album, a diary and a guestbook.

The MiniRoom, a virtual living room, differentiates Cyworld from most other social networks. Users can furnish this MiniRoom by acquiring all types of virtual objects. These objects are paid for using Cyworld's own monetary unit: the dotoris. Users can even select music for their living room.

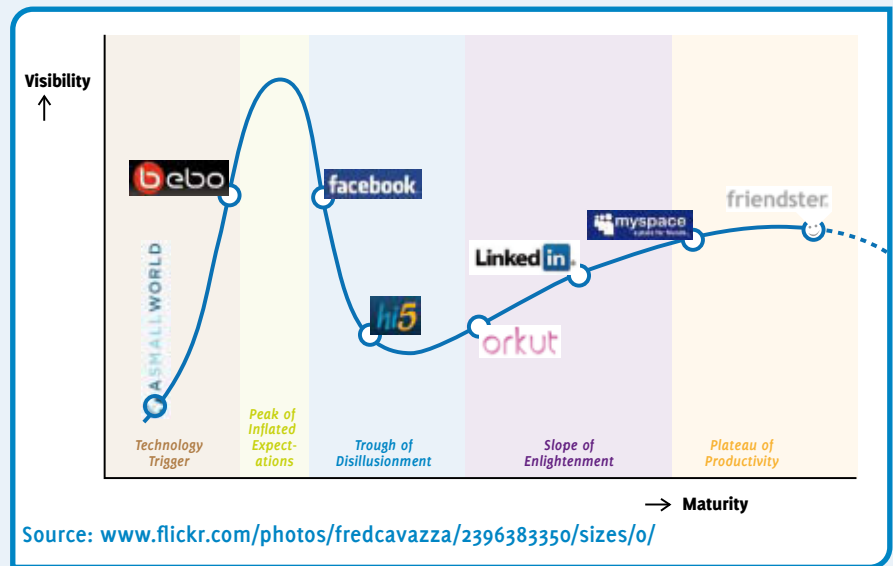


Each day more videos are placed on Cyworld than on YouTube. In terms of music sales, Cyworld is the second largest service in the world after Apple's iTunes.

Cyworld has had a large impact on South Korean culture. The introduction of MiniRooms lead many women to use the Internet for the first time in their lives.

Over 20 million people visit Cyworld every day. Over 90 percent of South Korean teenagers have a Cyworld account. In total, they constitute a quarter of the population.

Fred Cavazza of the website FredCavazza.net has come up with a diagram plotting the life spans of the various social networks against each other on a hype cycle:



In September 2008 Bill Tancer, head of research at Hitwise and writer of the book *Click: What Millions of People are Doing Online and Why It Matters*, announced that social networks have become more popular on the Internet than adult sites. Analysis of information from over ten million users revealed a notable trend:

» *As social networking traffic has increased, visits to porn sites have decreased. My theory is that young users spend so much time on social networks that they don't have time to look at adult sites.* «

7.3

This Is Really Something: Digg, Del.icio.us, StumbleUpon, Wakoopa

To put it bluntly, many social networks are little more than dressed-up friends collections. “Friend me” has become a fashionable phrase. An emphatically more substantial manner of engaging in social networks on the Web involves the sharing of favorite websites, articles, and so on. The three most prominent initiatives in this area are Digg, Del.icio.us and StumbleUpon.



The Digg website is an experiment by Kevin Rose, Owen Byren, Ron Goro-detzky and Jay Adelson. The site was officially launched in December 2004. You can place short documents on Digg that refer to material you find to be worthwhile (to “dig” rather than to “diss”). Top ranked articles make it to the front page of the Digg site, where they attract the attention of all visitors. In this way, the public contributes to what becomes hot or not. There is no journalistic editing.

Frequently, websites carrying top ranked stories go down, as they cannot handle the number of visitors. This is called being “dugg to death”: buried alive as a result of a fatal embrace by Digg. Digg attracts more than a million unique visitors a day.

In the past, Digg has had to endure a great deal of criticism, as for instance only a quarter of all Diggers determined the content of the front page, so it seemed. Also, Digg came under heavy fire on May 1, 2007, when someone published an article containing the key to the copy protection for HD DVD. After having consulted their lawyers, the Digg management had the article removed. This led to a great commotion about freedom of speech being violated. Diggers rebelled and the website was flooded with articles containing



the key in question. Kevin Rose ultimately capitulated and stated the following on his weblog:

» *After seeing hundreds of stories and reading thousands of comments, you've made it clear. You'd rather see Digg go down fighting than bow down to a bigger company. We hear you, and effective immediately we won't delete stories or comments containing the code and will deal with whatever the consequences might be.* «

In July 2008 rumor had it that Google would acquire Digg for \$200 million, however a few weeks later Google announced that there would be no deal at all. In December 2008 CEO Jay Adelson announced that news aggregator Digg was no longer for sale, and instead would aim at reaching profitability as quickly as possible.



In contrast to the broad-based evaluation of articles on Digg, Del.icio.us offers an abbreviated survey of any kind of favorites. Del.icio.us was launched in 2003 by Joshua Schachter. The site lets you store favorites in a central location and share them with others.

Using features (tags), it is easy to find similar types of information in the Del.icio.us network. It is also possible to form a small network around certain tags, allowing you to share the latest information on the subjects in which you are interested. Thanks to Del.icio.us, tags have become a focus of attention to the public at large.

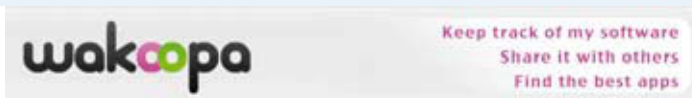
In December 2005, the website was sold to Yahoo for \$30 million, half of which went to founder Joshua Schachter.

Favorites on Del.icio.us sometimes lead to surprising discoveries. Interesting stuff people have run into on the Web is what the StumbleUpon service offers. Users refer each other to the most exciting new sites they happen to find.



By means of a browser plug-in, users, known as “Stumblers,” can click on the Stumble button when they want to share an article, photo, clip, or something else. Others can then vote which ideally would cause an URL to appear on the StumbleUpon homepage. Communities are formed around subjects by means of “collaborative filtering.”

In May 2007, StumbleUpon was sold to eBay for over \$75 million. The site exceeded 4 million members by December of the same year. In September 2008, TechCrunch.com subsequently revealed that eBay was looking for a buyer for StumbleUpon. Only 1.3 million Stumblers were still using the service in July 2008.



Wakoopa was founded by Wouter Broekhof and Robert Gaal in May 2007 as a free social network for software users and gamers. A small tracker is used to monitor how long someone is using a particular piece of software. Every fifteen minutes, the data is uploaded to a person’s profile and shared with the rest of the world on the Wakoopa site. Based on your profile, you can contact others.

As well as tracking and tracing desktop software, Wakoopa also keeps track of various web applications. The Wakoopa community primarily uses the Firefox and Opera browsers. Extra functionality has been especially developed for these platforms in order to discover who is using which web application in the CrunchBase of TechCrunch.com

BusinessWeek praised the concept by placing Wakoopa in the top five of Europe.



Object-Centered Sociality

Every social network focuses on a certain topic, or object about and around which people communicate. Digg, Del.icio.us and StumbleUpon are concerned with favorites, Flickr with photos and Last.fm with music. Jyri Engeström, co-founder of the service Jaiku, feels that this is often too easily overlooked. We have the tendency to reduce social networks to the interpersonal relationships resulting from communications. In emphasizing the importance of the central object, Engeström follows Karin Knorr Cetina, Professor of Sociology at the University of Constance, Germany, in employing the term Object-Centered Sociality.

Go to www.zengestrom.com/blog/2005/04/why_some_social.html and take a look at Jyri's presentation at aula.org/people/jyri/presentations/reboot7-jyri.ppt. The abbreviation YASNS used by Jyri stands for "Yet Another Social Networking Site." If you want to read more about the subject, surf to yasns.pbwiki.com. On this PeanutButterWiki, danah boyd is compiling a history of social networks.

7.4

Online Shopping: eBay, Amazon, Craigslist



As early as September 1995 Pierre Omidyar kicked off AuctionWeb. He envisioned a transparent online market place, where people from all over the world could trade all kinds of goods. Omidyar had already become a multimillionaire as a software architect for various Internet startups. Probing the viability of AuctionWeb he offered a broken laser pen that he had once bought as a toy for his cat. Within a few days, the item was sold to a collector for \$14. Pierre understood that he might be sitting on a goldmine.

In September 1997, AuctionWeb was renamed as eBay, an abbreviation of Pierre Omidyar's own consulting company Echo Bay Technology Group. In the beginning, the site was primarily visited by collectors. Through word-of-

mouth, the site became increasingly more popular. Today eBay is the largest online market place in the world.

Reputation Management and Power Seller Narro

To combat fraud, eBay offers the opportunity of evaluating buyers and sellers after a transaction. So people can decide to become commercially involved with a particular person based on reputation.

At eBay so-called power sellers often have an unblemished personal record, which is to say a reliability rating of one-hundred percent. However, this must not always be taken too seriously, as the story of power seller Narro reveals. Narro had ten thousand transactions to his name, but regularly had to come clean when buyers discovered that he was selling second hand items in new packaging. His prices certainly were low, but nevertheless. Whoever punished Narro by giving him a downgrade inevitably received the same treatment in return.

No matter how small the smear on Narro's reputation may appear against the background of his ten thousand "clean" transactions, this power seller was eager to maintain his so-called one-hundred percent reliability. On the other hand, a purchaser screamed blue murder about a downgrade from Narro, for Narro's thumbs-down when weighted against, let us say, ten transactions represents a reliability reduction of 10 percent. This sort of retributive activity is completely unfair, as our purchaser has promptly paid within the deadline, but the eBay rules do not prohibit such practice. Purchaser and seller can flatter or rubbish each other according to their own state of mind. Power seller Narro will then propose to settle the reputation quarrel with the purchaser in question, who of course accepts, provided having not suffered too heavy a loss. After all, the perception of a 10 percent lower reliability can then be wiped away. In this manner, a power seller can easily exploit a statistical advantage to maintain a spotless record.

Texan Wim Bent of Toolhaus.org has developed software that reveals all the deals and negative evaluations of Narro and others. To see how useful Wim Bent's tool is, just try once to manually check the ten thousand transactions of a power seller in order to discover bad experiences of other buyers. Under the weight of such sales volume, any complaints inevitably disappear into nothing. Bent's program retrieves all the negative reactions and settled transactions (which are therefore not included in the rating) and con-



sequently sheds an entirely different light on the high reputation of some power sellers.

The eBay website appears regularly in the news on account of the strange items that are sometimes on offer. For instance, an American once wanted to buy a kidney online, a married couple offered a baby and a price tag of one million dollars was hung on Britney Spears' shorn hair. When articles placed on sale do not meet the eBay rules, they are unapologetically removed and the seller issued a ban.

The eBay website has, over its brief existence, pulled off a number of big acquisitions. When the website became aware of the fact that the PayPal payment system was involved in half of all transactions, eBay did not hesitate to reach deep into its pockets to acquire PayPal, shelling out one and a half billion dollars in shares for PayPal in July 2002. In September 2005, eBay bought the voice over IP program Skype for 2.6 billion dollars. The reason was that buyers and sellers could then contact each other over Internet telephone in order to gain additional information about objects and services. The venture has not been a success, however.

At the top of its popularity, eBay was visited by over 700 million unique visitors in 2007, and the total value of merchandise sold in 2006 reached \$48 billion. The items being sold, range from just a few cents to \$4.9 million for a private business jet—the most expensive item sold so far.

amazon.com

online shopping



Jeff Bezos came up with the business plan for his Internet company during a car ride with his wife. Originally, Jeff wanted to sell books, but later focused on various products. Jeff was one of the first to have a realistic business plan; he knew that Cadabra, the predecessor to Amazon, would suffer losses for the first four to five years.

Real success took a bit longer. Only in the fourth quarter of 2002 was the company able to reporting a positive result to its shareholders. All told, earnings were one U.S. cent per share. Subsequently, the company has made a definitive breakthrough, hundreds of millions of goods and services now being sold each year.

One of the distinctive features of Amazon is the way in which the automatic system directs users to comparable items of interest on the basis of meta-information and reviews. When, for example, you are interested in a certain book, Amazon is happy to present writers and books of the same genre as a list of recommendations. This practice has now been adopted for all products and has proven to be an important ingredient for successful business operations on the Internet.

In March 2006 Amazon started to offer its online Simple Storage Service (S3), which now belongs to the biggest so-called Cloud initiatives worldwide.

Cloud Computing

In 1999, Jeff Bezos was named Person of the Year by *Time* magazine for his visionary ideas about web sales. But this is not the only thing. The manner in which Amazon deals with IT is much debated; the company provides services of various sizes and sorts, including Simple Storage Service and Amazon Web Services. However, the same of course applies to eBay, Yahoo, Facebook, MySpace and without doubt Google. It also applies to Cisco, Sun, IBM and Microsoft as well. The question is when Cloud Computing related developments will become truly reliable not just for Aunt Emmy's photos and Christina's online friends, but also for businesses.

craigslist

alaska

Craigslist is the final model of a successful Internet market place that we will mention here. It was set up by Craig Newmark in 1995. Craig had just moved to San Francisco and was looking for an easy way to keep up to date on events in his immediate locality. Word-of-mouth advertising also played a big role in this story. More and more people began to use Craigslist in order to post messages for each other. Not just announcements about celebrations and parties, but inquiries about work or residential spaces were also listed.

Craig quickly realized that he could earn his living from Craigslist. The site is now operating in fifty countries and four-hundred and fifty cities. Nowhere



on the site will you find flashy advertising banners. Craig earns his money from advertisements in the categories for work and living space, and the site yields an annual revenue of around \$25 million. Craig surprised the world in 2006 when he announced that he was not interested in optimizing the profit. He would rather spend his time helping other people so that they could find what they were looking for on his site. This customer intimacy has been effective: Craigslist is incredibly popular.

7.5

Identity and the Social Graph: OpenID, OpenSocial, DataPortability

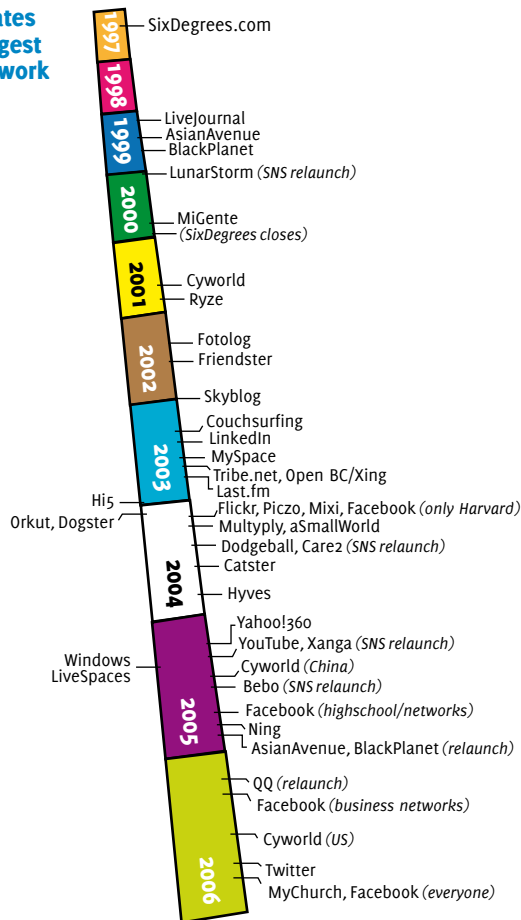
The number of social applications on the Web has increased tremendously in recent years; consider such websites as YouTube, Flickr, Digg, MySpace, LinkedIn, and eBay. Before these applications can be used, users must often first register as site members. A similar process must be completed every time: register, create a profile, invite other people. Whoever receives an invitation must, in turn, also re-register. Having to continuously re-enter all this data is annoying and has a negative effect on the power of social applications.

Brad Fitzpatrick wrote about this problem in his August 2007 article “Thoughts on the Social Graph.” Fitzpatrick is the creator of LiveJournal, a popular blog platform from Six Apart. A Social Graph is the structure of someone’s social network, so the way in which people interlink with each other.

Fitzpatrick recognized that, throughout the world, there is not a single Social Graph that contains all the relationships of an individual. All Social Graphs are network specific and non-transferable. And this remains the case despite the fact that social networks are fundamentally the same; they concern people and interrelationships based on shared interests. This interaction may involve photos, as in the case of Flickr; music, as in the case of Last.fm; video material, as on YouTube or valuable news at sites like Digg.

Fitzpatrick therefore proposes to create a central common database to ensure interchangeability. In this way, social networks will be able to recognize individuals and share social structures. Ultimately, this will probably result in only a few social networks continuing to exist.

Launch dates of the biggest social network sites



In reaction to Brad Fitzpatrick's ideas, the initiative A Bill of Rights for Users of the Social Web was started in September 2007. The authors of this pamphlet, including Joseph Smarr from Plaxo, Marc Canter from PeopleAggregator, "blogfather" Robert Scoble and Michael Arrington from the Techcrunch website all signed a statement indicating that users were the owners of what they publish on the Web, that they have the right to manage this data, as well as the right to give someone or something permission to use it.

Tim Berners-Lee, the pioneer of the World Wide Web, also focused his attention on the notion of a Social Graph. For him, it is just another way of talking about the semantic web. Alluding to the abbreviation WWW, Berners-Lee suggested in November 2007 that we perhaps should be talking about a GGG, a Giant Global Graph:



» The Net links computers, the Web links documents. Now, people are making another mental move. There is realization now, 'It's not the documents, it is the things they are about which are important.' Obvious, really... It's not the Social Network Sites that are interesting—it is the Social Network itself. The Social Graph. The way I am connected, not the way my Webpages are connected. We can use the word Graph, now, to distinguish from Web. I called this graph the Semantic Web, but maybe it should have been Giant Global Graph! «



A Free and Easy Way to Use a
Single Digital Identity across the Internet

Brad Fitzpatrick is the driving force behind decentralized authentication mechanism OpenID. This system makes it possible to make yourself known by means of a single sign-on over the Internet. Instead of having to register for each website, a simple registration using OpenID would be sufficient.

At the beginning of 2007, Yahoo announced that it would also adopt OpenID. Until then, roughly ten thousand sites had been using it worldwide, involving services for a total of 120 million people. With the inclusion of Yahoo, the total number of OpenID users rose to 368 million.



The Web is Better
When It's Social

In the meantime, Brad Fitzpatrick has elaborated his ideas about the Social Graph at Google under the name of OpenSocial. At the beginning of November 2007, Google made it known that it was entering into collaboration with a number of social networks and developers, initially including Flixster, Friendster, Hi5, iLike, LinkedIn, Ning, Plaxo, Viadeo, Oracle, Orkut, RockYou, Salesforce and Slide.

The thinking behind OpenSocial is that the existing web provided the ideal development platform rather than Facebook, MySpace or something else. Using a number of Application Program Interfaces (APIs), it is relatively easy to unlock information concerning profiles, friends and activities. In this way, it must then be possible to develop an application in which the contacts from

LinkedIn can automatically be used in for instance Plaxo and Friendster. It is no longer necessary to compile a new list of friends for every application. Should a contact change his or her data in the future, it should be sufficient for him or her to make these changes in only one application. They would be automatically implemented in the associated networks. However, under OpenSocial it is still impossible to mix the data for various sources with each other.

In February 2008, MySpace established its own development platform in compliance with OpenSocial. Just as with Facebook, MySpaceans can use a number of APIs to build applications based on MySpace core data. Amit Kapur, the COO of MySpace, indicates that the strategy of MySpace will, for the time being, be focused on three factors:

» *Making the Web more personal, more portable (through both mobile and data portability), and more collaborative.* «

At the end of January 2008, Facebook announced that it would offer a client-side JavaScript library enabling Facebook applications to run on other websites. In December 2008 the service enabled this feature to directly access the social graph of Facebook and dubbed it Facebook Connect. Responding to Facebook, Google introduced its Friend Connect, which is an Open Social application. The battle for the control of online identities has just started.



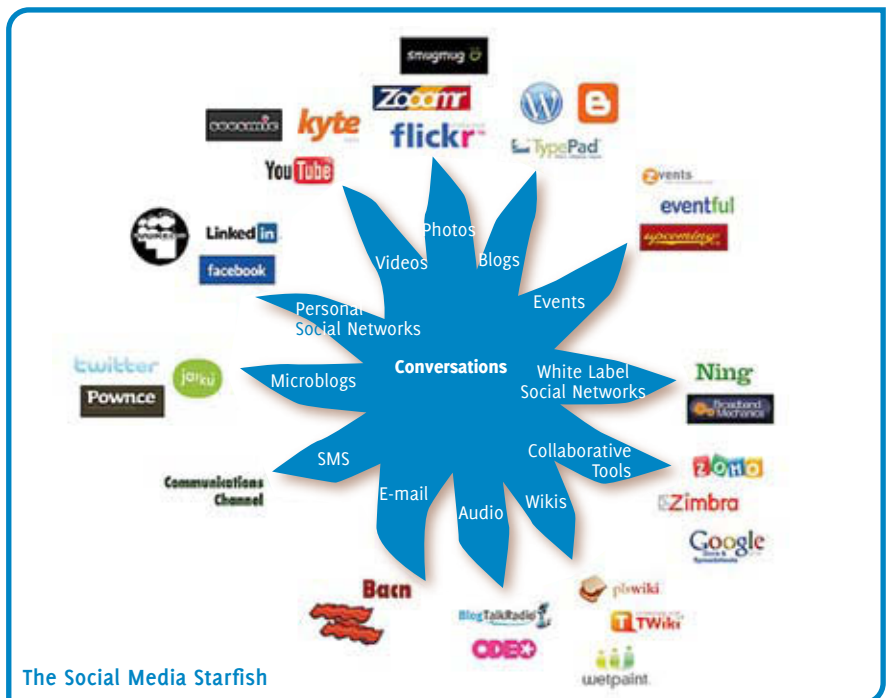
At the start of 2007, Google, Facebook and Plaxo indicated that they were joining the DataPortability work group. The aim of this initiative is to ensure that photos, videos and other forms of data can be shared. People must be able to carry their data with them, so to speak. Yahoo, Dow Jones, eHub, Zoomr and the BBC are already a part of this initiative.

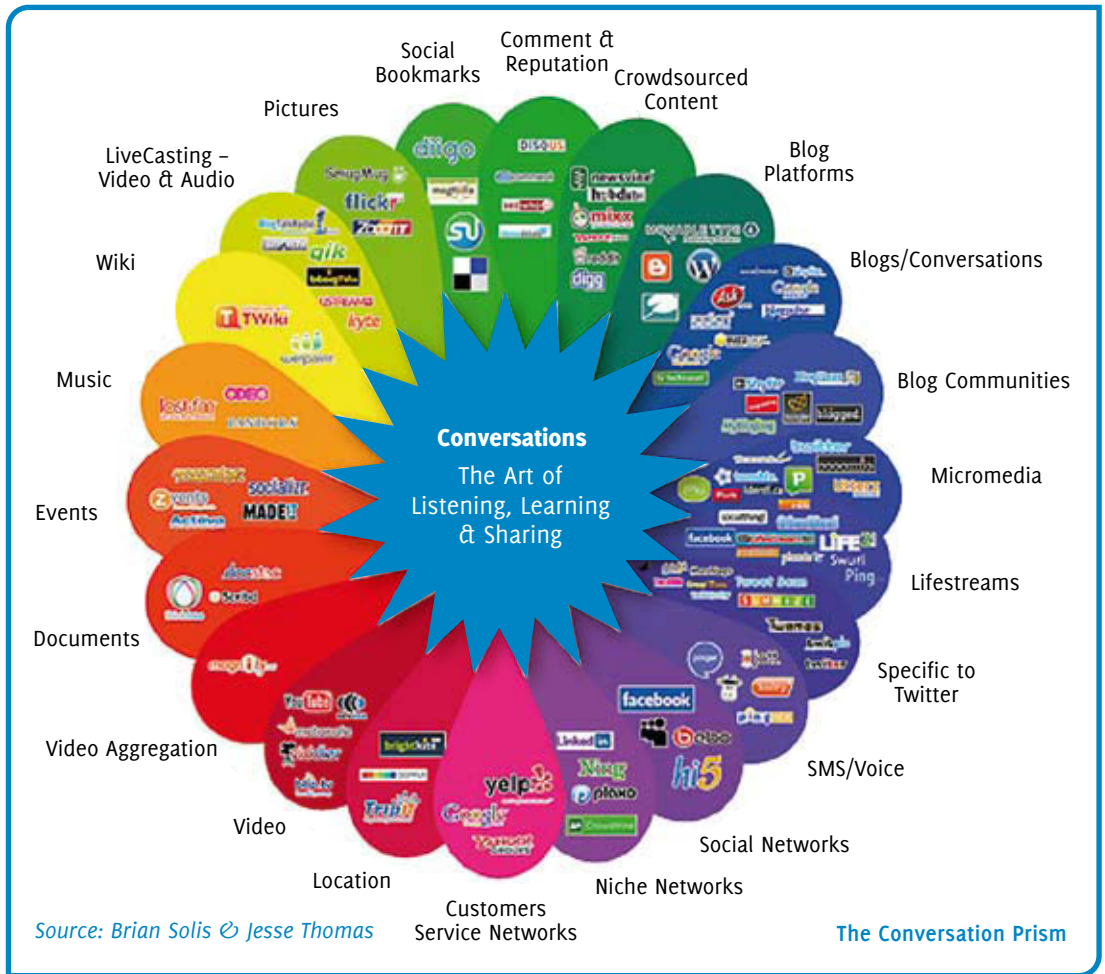


7.6

Social networks are flourishing but still in their infancy. However, their social and economic potential is immense. Social web networks effectively transform the world into a crowded village. Everyone can learn and get to know what another individual wants and does. It is understandable that companies try to gain the greatest possible share of the social network pie in one way or another.

In November 2007, Robert Scoble and Darren Barefoot introduced the Social Media Starfish. It is a diagram displaying what were then the most popular social networks. A great deal has changed since then. The number of social web applications has grown explosively. Something has been devised for every niche. In August 2008, Brian Solis and Jesse Thomas provided some revealing insight into this growth by means of their Conversation Prism. Besides enormous growth, there are two things worth noting. The number of social networks appears to be concentrated on the right side, in the areas of microblogging and lifestreams. This would suggest that the Conversation Economy has shifted to a Conversation Society.





Hyperegos: Ordinary People Are Becoming a Brand

A media ego bigger than Oprah Winfrey is barely conceivable. She does not need Facebook in order to draw attention to herself. Nevertheless, she is of course a social network player and has had a channel on YouTube since November 2007. The Roman emperors did not have TV or Facebook, but used coins to make themselves more familiar to the people throughout their vast empire. Oprah on YouTube, imperial feats portrayed on the face of a coin, or the ordinary man or woman who makes the most of their own achievements and ambitions on LinkedIn or Facebook: what is the difference? Well, Oprah and Julius Caesar were already substantial brands before they began their activities. But contemporary forms of social software are exceptionally well



suiting for anybody or any nobody wanting to improve his or her own reputation.

Everyone with a page on MySpace, LinkedIn, Facebook or anywhere else is busy working on their own brand. With a good CV and the proper photos, people make themselves more visible to the outside world. Headhunters know where to find you, but it goes much further. Information about what people want and do is the key to a new socio-economic dynamic. This functions as part of the computerized preparation for and conclusion of transactions that are transforming the nature of traditional advertising, but also the way markets work. Time and again new research indicates that, online, we place the most trust in friends and acquaintances.

Hypertargeting: Using Profiles to Better Serve the Consumer

Commerce is out to appeal directly to the consumer hearts of all egos on social networks by making use of their personal descriptions and favorites. Everyday Facebook, MySpace, and others demonstrate that hypertargeting is a reality.

The information on social networks forms one giant Database of Intentions, the sum total of the hundreds of millions of people with their characteristics, favorites, friends and behaviors. Every business operator dreams of being able to respond instantly to the demands of consumers, who have themselves indicated that they have specific needs. However, an increasing number of stimuli will likely mean that the consumer will become more difficult to reach.

Hyper-attention: Continuously Dividing Your Attention

The idea that we must continuously be linked to the network in order not to miss out on anything causes our attention to be spread across an increasing number of stimuli. The Social Web therefore enhances the importance of virtual friends. Buzz marketing and mutual influence accompany this trend.

Thinking through the causes, nature and consequences of Continuous Partial Attention & Friendship, Linda Stone shows that we only partially focus our attention on any one thing these days. Paying attention to social web networks is becoming an anywhere-anytime activity. We must be well aware of this fact and make proper choices, otherwise our productivity will plummet, and feelings of stress will increase.

Virtual friendship, or what passes as such, is gaining in importance. This, of course, raises the question of whether virtual friends cause our “real” social life to come under enormous pressure. What has more value: a digital contact with someone on the other side of the world or engaging in a relationship with someone of flesh and blood? Anthropologist Ralph Dunbar has, in fact, demonstrated that people are not capable of entering into more than one hundred and fifty relationships. What value should we therefore attach to hundreds or thousands of virtual friends? To ask the question is to answer it: it is obviously another “both...and” situation, and not an “either...or”. This is how we need to understand the Third Media Revolution. We have to do it all, but set the right priorities at the right time. Accepting this responsibility is also part of the e-mancipation involved in the all new Me-Media.

How You Communicate Just Might Be the Most Relevant Business Factor

In 44 BC, Roman statesman, philosopher and rhetorician Marcus Tullius Cicero wrote his famous essay “De Officiis.” In it, he included a code of conduct that is entirely applicable to contemporary commercial web conversations. Extensive examples of successful and less successful conversation were discussed in Chapter 3. Of course, Cicero’s rules—incidentally, Cicero was a fierce opponent of Julius Caesar, with whom we began this chapter—do not only apply to blogs and Internet forums but also to our behavior in social networks in general. To have a strong and enduring business impact, the manner of communication is of crucial importance. More than two thousand years ago, Cicero gave the following tips, which you will yourself be able to apply to a multi-Me-Media Web setting:

- ▣ Be clear and understandable
- ▣ Communicate with ease but not too much: above all, leave space for others
- ▣ Do not interrupt others
- ▣ Be respectful
- ▣ Give important issues the attention they deserve and deal aptly with trivial things
- ▣ Do not criticize people behind their back
- ▣ Do not get lost in insignificant detail
- ▣ Do not put yourself in the foreground
- ▣ Never lose your patience and do not become angry



Go to www.iep.utm.edu/c/cicero.htm: Section 7s (“On Duties”), which discusses “De Officiis”



At least use Cicero's rules as a mirror with which to offer your retrospective apology about what you may have once again done wrong. Given today's heavy social web traffic, these ancient tips are, in any case, not a redundant luxury, and everyone is free to play around with them, depending on the flexibility that you believe yourself to have.

8

The Metaverse: Our New Virtual Universe

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The growing importance of social networks has been outlined in detail above. But these networks do not of course exist in isolation. They are an important ingredient of what can elegantly be termed the Metaverse, the digital fulfillment of the physical universe in which we live. The qualification Meta indicates that the Metaverse is an add-on for the universe. On the way to a new Metaverse, we discover completely new worlds. Consider, for example, a virtual world such as Second Life, as well as the mirror worlds of Microsoft and Google (Virtual) Earth.

The purpose of the Metaverse is to digitally expand our physical reality, creating a new Virtu-Reality that adds socio-economic value to individuals and organizations. This value expresses itself in further development of their status as Hyperegos. Digital innovators such as Google, IBM, Microsoft and many other companies on the user side regard the Metaverse as an extremely serious opportunity. A great deal of money is being poured into it.

The Universe as the World of Human Experience

The principle meaning of the term “universe” is the cosmos, everything considered as a whole, both the very far and very near. It is therefore not just a term that describes distant heavens, but also the immediately accessible (everything around us); both the vastness of deep space and the “world of human experience” (Merriam-Webster). And it is this view of a proximate universe that you have to keep in mind when reading this chapter: the universe anchored in human experience. In this context, the digital Metaverse (here a mashup of meta and universe) is a logical term describing a world beyond the immediacy of human reality. Intriguingly the Metaverse enriches our everyday universe, and thus transforms it into a new Virtu-Reality.



8.1

Neuromancer, Snow Crash and the Metaverse Roadmap

What happens when the real and the virtual world are mashed together? When Google Earth and Microsoft Virtual Earth are linked to any arbitrary information source on the Web? When avatars are authorized to make decisions for their real alter egos? When everyone has a camera and broadcasts elements of their own lives? When the worlds of video games foretell how social interaction will occur in the future? What happens when no distinction is made between online and offline? When work and private life are fully intertwined? When individuals, companies and objects constantly communicate with each other?

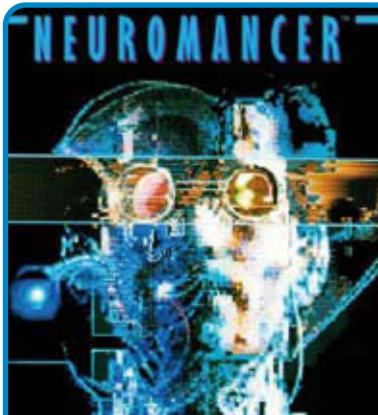
Such a fusion will result in a new equilibrium. Various types of virtual lines will infiltrate our physical universe to differing degrees. To provide an initial example of how that might appear, we will discuss two science fiction books: *Neuromancer* from 1984 and *Snow Crash* from 1992, while noting that the Metaverse is, at present, no longer science fiction.

Cyberspace

In 1984, William Gibson made his publishing debut with the nightmare novel *Neuromancer*, the book that introduced the terms Cyberspace and Matrix. In *Neuromancer*, the Internet is a three-dimensional space in which data files are visualized as concrete objects. This Cyberspace was not intended for the

average user; only technical experts were capable of finding their way around this virtual world.

Gibson described a world in which multinationals hold power; anarchy runs riot because artificial intelligence, robots and humans constantly battle each other; most people have replaced a body part with an implantation, artificial limb or artificial organ and have therefore become Cyborgs: cyber organisms. It is a dystopic vision of progress echoed in films such as *Blade Runner* and *The Matrix* trilogy.



From the book: *Program a map to display frequency of data exchange, every thousand megabytes a single pixel on a very large screen. Manhattan and Atlanta burn solid white. Then they start to pulse, the rate of traffic threatening to over-load your simulation. Your map is about to go nova. Cool it down.*

Up your scale. Each pixel a million megabytes. At a hundred million megabytes per second, you begin to make out certain blocks in midtown Manhattan, outlines of hundred-year-old industrial parks ringing the old core of Atlanta.

The Metaverse

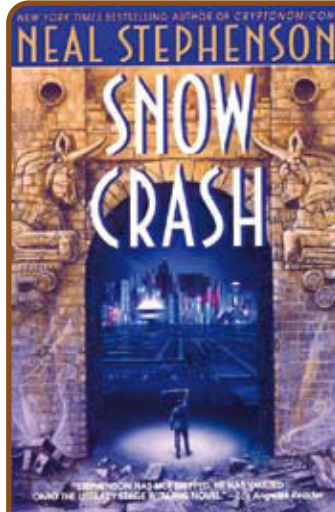
In 1992, Neal Stephenson elaborated the idea of a three-dimensional Virtual World into which people can extend their lives. In the classic *Snow Crash*, Stephenson introduced the so-called Metaverse. The book describes a virtual earth that is 1.6 times larger than the original, with a gigantic road running all the way around the equator. Digital reproductions of ourselves, that are hardly discernible from reality, communicate and trade. The majority of the people would rather pass time on this geosynchronous plane than actually remain in the real world.

The Metaverse Roadmap

Now that we have acquired an initial idea about what the Metaverse and parallel concepts were envisioned to be, some of us may, in fact, dismiss them as pure science fiction. The story of the Metaverse and its development is, however, more intricate than *Neuromancer*, *Snow Crash* and *The Matrix* might suggest.

The “Metaverse Roadmap” appeared in June 2007. It explains the development of the Metaverse by referring to the four categories that Jamais Cascio of the Open the Future weblog first used. In following Cascio, we can use compass points to plot the Metaverse. Instead of north, south, east and west, there is intimate, extimate, augmentation and simulation. These categories do not exclude each other. They are the principle directions on a co-ordinate system mapping out everything possible. Cascio’s compass enables us to coherently chart the Metaverse, the digital extension of our physical universe.

What began with life-like adventures such as Leisure Suit Larry, social networks such as Our World from CompuServe, virtual worlds such as Worlds-Away from CompuServe and Fujitsu, flight simulators, GPS in our cars, digital battle support and satellite photos, is gradually becoming available to everyone within one single universe-enriching Metaverse, made up of four quadrants.



From the book: A globe about the size of a grapefruit, a perfectly detailed rendition of Planet Earth, hanging in space at arm's length in front of his eyes. [...] It is a piece of CIC [Central Intelligence Corporation] software called, simply, Earth. It is the user interface that CIC uses to keep track of every bit of spatial information that it owns [...]

It's not just continents and oceans. It looks exactly like the Earth would look from orbit directly above L.A., complete with weather systems—vast spinning galaxies of clouds, hovering just above the surface of the globe, casting gray shadows on the oceans and polar ice caps, fading and fragmenting into the sea.



- ◉ **Intimate** means: aimed at the identity and actions of an individual or object. The epitome of this activity is lifelogging, recording (some of) the events of our lives in so-called Lifestreams. Social networks such as MySpace and Facebook, in combination with blogs and microblogs, are beginning to head in this direction.

- ◉ **Estimate** is the opposite of intimate and personal. It is epitomized by Mirror Worlds such as Microsoft Virtual Earth.

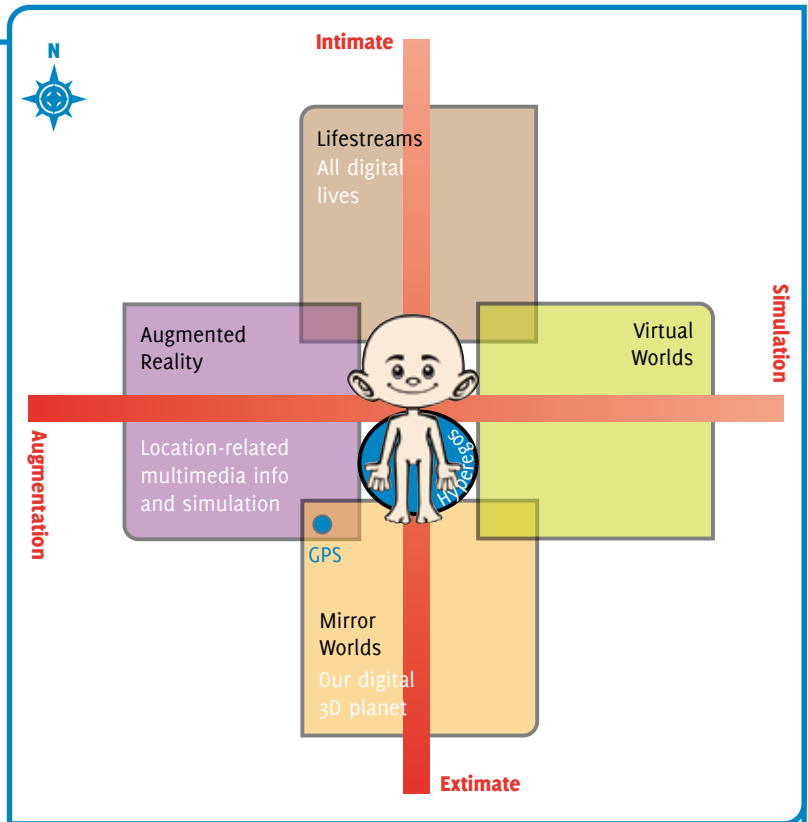
- ◉ **Augmentation** is the use of digital applications and systems to add extra visual and textual information, and associated functional-

ity on a screen. All extras are related to a given location in physical reality (Location-Based Services) or to a specific context, for instance an advertisement in a magazine, which a device can recognize via a webcam. The latter is how the Me The Media Augmented Reality application works (visit: MeTheMedia.com/AugmentedReality). The information is visible on a screen sensitized to location and direction. This path of development is called Augmented Reality.

- ◉ **Simulation** mainly refers to Virtual Worlds but involves digital variants of socio-economic reality like Second Life, or fictional scenarios ranging from The Sims to World of Warcraft.

The combination of Lifestreams and Mirror Worlds forms the basis of an integrated Metaverse in which all four quadrants meet and ultimately overlap. Virtual Worlds and Augmented Reality will eventually become the most meaningful in a socio-economic sense, a point demonstrated by the tens of billions of dollars that the big social networks are now worth. GPS provides the link between Mirror Worlds and Augmented Reality.

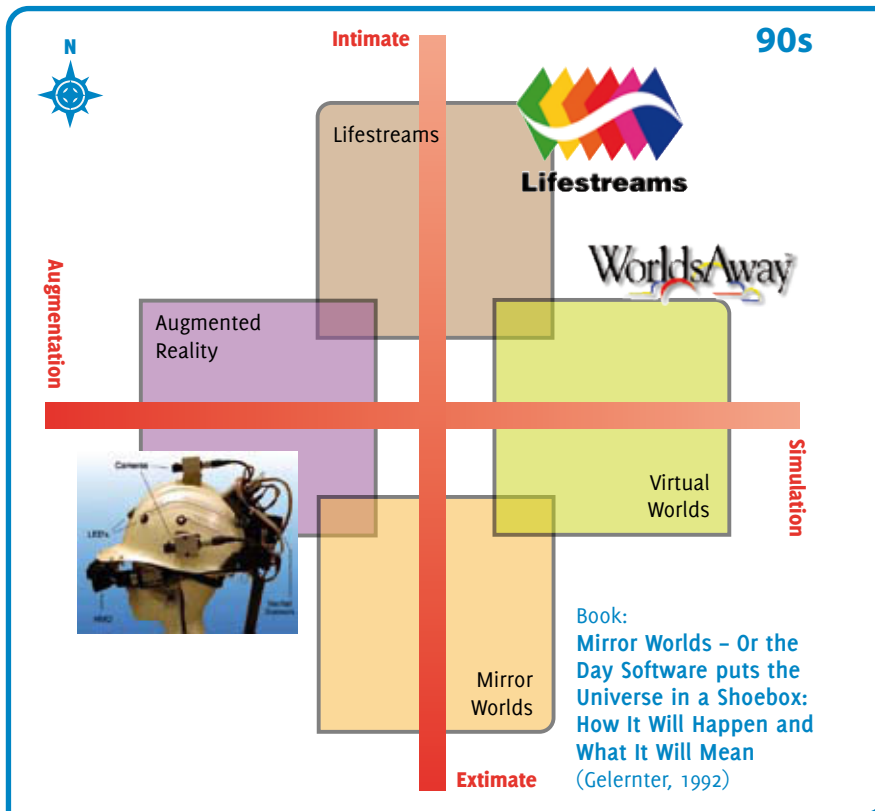
A hyperlinked identity within the Metaverse is called a Hyperego, regardless of whether it identifies an individual, brand, organization, and so on. Each identity will mostly consist of a number of sub-identities. This segmentation is already discernible online.



However, the Metaverse is an intermediary stage. Ultimately, the new Virtu-Reality will become as normal as our universe. Compare it to e-Business, which was an important concept from 1996 to 2002, the years in which the idea was taking shape. When subsequently every organization was engaged in e-Business, the “e” vanished, and it became business as usual.

The Metaverse Then and Now

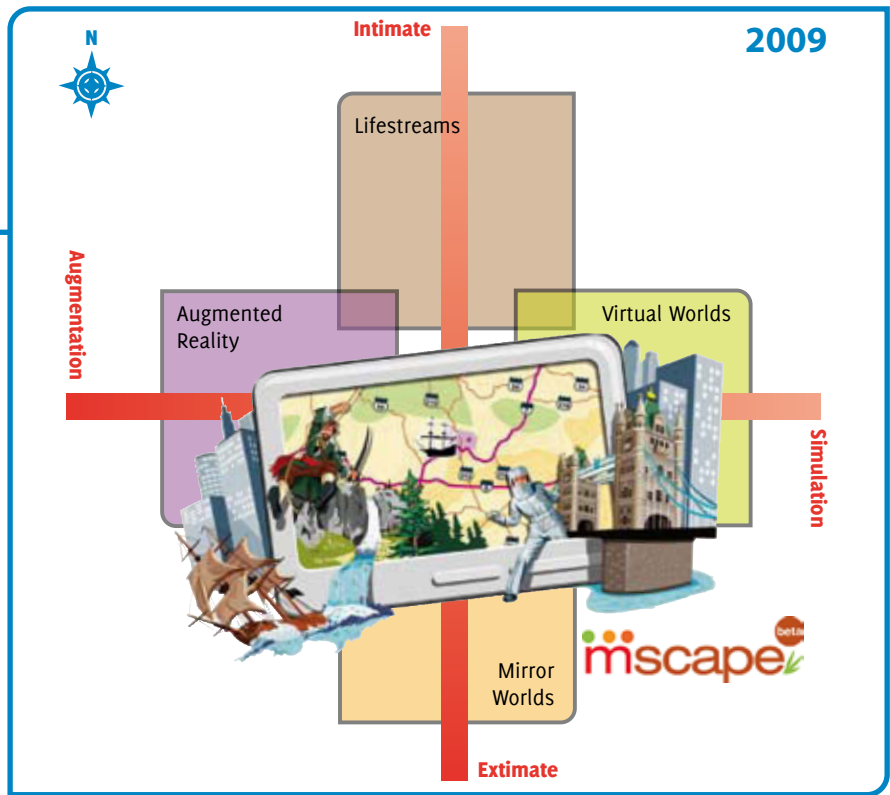
Already back in the nineties, David Gelernter, Eric Freeman and Scott Fertig developed Lifestreams, as a storage model for personal data. Each Lifestream was a long series of portrait-format letter-size pages containing browsable and scannable multimedia material, just as the colorful Lifestreams logo in the illustration suggests. Gelernter and his associates tried to commercially exploit Lifestreams via their start-up MirrorWorlds Technologies. But it was much too early for a public application at that time.



In the nineties, when Neal Stephenson had introduced the notion of the Metaverse in the science fiction best seller *Snow Crash*, our existing views of the Metaverse were still poorly developed.



In 1992, Gelernter published his vision in the book *Mirror Worlds. Or the Day Software Puts the Universe in a Shoebox: How It Will Happen and What It Will Mean*. Mirror Worlds and Augmented Reality, then often called Virtual Reality, were military and academic concerns. It would still take years before GPS would become commonly used. In the virtual world of Worlds Away (now V-Zones), you could not do much more with your avatar than chat and play a game. But the first steps were being made down the road to a Metaverse. An integration of all the possibilities was still purely science fiction in the nineties, as was the concept of the Hyperego. The network, the hardware and the programming languages were simply not ready at that time.



Mscape is a good example of the new ITainment: simultaneous info, edu and entertainment. Read “HP Turns Downtown San Francisco Into Virtual Gameboard” (techluver.com/2007/10/19/hp-turns-downtown-san-francisco-into-virtual-gameboard) and watch the mscape video on YouTube: youtube.com/watch?v=BU0HfVXkUaI.

These days, this has completely changed. In May 2007, Hewlett Packard launched mscape, short for “mediascape.” Mscape is the first combination of Virtual Worlds, Mirror Worlds and Augmented Reality. It functions on any mobile phone, but unfortunately a link with user profiles does not yet exist.

What we can expect of mscape and other comparable platforms is explained by Phil McKinney, VP and CTO of the Personal Systems Group at HP:

» *Mscape matches digital media with the physical world, providing an immersive and location-aware experience. Mobile devices will increasingly incorporate context and location awareness in the coming years, and mscape helps us better understand how associating digital media with physical locations can not only be fun and informative, but also useful in our personal and professional lives.* «

For Neal Stephenson, the Metaverse was simply a world in which our digital identities dwell. Current ideas concerning the Metaverse are more multiform. Physical reality and digital virtuality belong to the same continuum: it is not “either...or” but “both...and.”

The following four sections deal with the applications that currently give tentative form to the four above-mentioned quadrants and that can be further integrated within the Metaverse. At present, Lifestreams are the most developed area and full-blown Augmented Reality the least. However, there are many players hard at work on catching up within the latter domain, particularly with location and context-based services within health care and mobile information systems.

8.2

The Metaverse: Lifestreams

The Lifestreams concept was first put into practice in 1996 by Eric Freeman and David Gelernter. Lifestreams is a metaphor for the storage of multimedia information in organic time flows, in contrast with the hierarchical directory structures of our computers. In 2003, Gelernter explained the Lifestreams concept as follows:

» *I can imagine all the electronic information in my life collected into one beam, or (equivalently) one flowing stream. Every electronic document: every email, photo, draft, URL, audio, video, calendar or address note, and so on. Life is a series of events in time—a timeline with a past, present and future. The events of your life and the memories in which they're recorded aren't parceled out into directories, or typed shoeboxes. An information beam incorporates documents of all types into one (focussable) beam. The question 'where did I put that piece of information?' always has exactly one answer: it's in my beam. The stream has a past, present and future. The future flows into the present into the past. If I've posted an appoint-*



ment or reminder in the ‘future’ part of the stream, eventually it flows automatically into the present where I’ll notice it and be reminded, and then into the past where it’s part of the permanent, searchable, browsable archive. When I acquire a new piece of ‘real-life’ (versus electronic) information—a new memory of (let’s say) talking to Melissa on a sunny afternoon outside the Red Parrot—I don’t have to give this memory a name, or stuff it in a directory. I can use anything in the memory as a retrieval key. (I might recall this event when I think about Melissa, or sunny afternoons outside the Red Parrot.) I shouldn’t have to name electronic documents either, or put them in directories. And I ought to be able to use anything in them as a retrieval key.

In our view of the future, users will no longer care about operating systems or computers; they’ll care about their own streams, and other people’s. I can tune in my stream wherever I am. I can shuffle other streams into mine—to the extent I have permission to use other people’s streams. My own personal stream, my electronic life story, can have other streams shuffled into it—streams belonging to groups or organizations I’m part of. And eventually I’ll have, for example, newspaper and magazine streams shuffled into my stream also. I follow my own life, and the lives of the organizations I’m part of, and the news, et cetera, by watching the stream flow.

Source: java.sun.com/developer/technicalArticles/Interviews/Gelernter_qa.html

Did You Know 2.0 (Excerpt)

- Today’s 21-year-olds have played more than 10,000 hours of computer games.
- Today’s 21-year-olds have talked 10,000 hours on the phone.
- And they’ve sent/received 250,000 e-mails or instant messages.
- More than 50% of U.S. 21-year-olds have created content on the Web.
- More than 70% of U.S. 4-year-olds have used a computer.
- Years it took to reach a market audience of 50 million:
Radio: 38 years. Television: 13 years. The PC: 4 years.
- Number of Internet devices in 1984: 1,000.
- Number of Internet devices in 1992: 1,000,000.
- Number of Internet devices in 2006: 600,000,000.
- Did you know?

Source: youtube.com/watch?v=pMcfrLYDm2U and shifthappens.wikispaces.com.

This “normalization” is now beginning to take shape. Every day, television, newspapers, radio, blogs, podcasts, SMS, MSN, et cetera, discharge an enormous quantity of information to us, and this will only increase in volume.

The information generated in 2007 exceeded, for the first time ever, all of the information generated over the last four-thousand years since the invention of writing.

Out of necessity, we have to decide which information is relevant or irrelevant. The result is a feeling of crisis, as we do not want to miss anything happening in the world around us. Hastily giving everything a little bit of our attention often will be the best that we can do.

MySpace, Facebook, LinkedIn, Hi5, Friendster, Flickr, Blogger, Wikipedia, and Digg are all examples of websites that we use to publicize our ideas. In using lifestreams, we display the events of our lives, no matter if the vehicle used is Twitter, Jaiku, Pownce, Friendfeed or identi.ca. Each of these are an example of lifestream activity.



Twitterers use text messages of 140 characters to inform family and friends about what they are up to. These short updates are known as “tweets.” Some people call it microblogging, others call it lifestreaming.

» *The goal of lifelogging: to record and archive all information in one's life. This includes all text, all visual information, all audio, all media activity, as well as all biological data from sensors on one's body. The information would be archived for the benefit of the life-logger, and shared with others in various degrees as controlled by him or her.* «

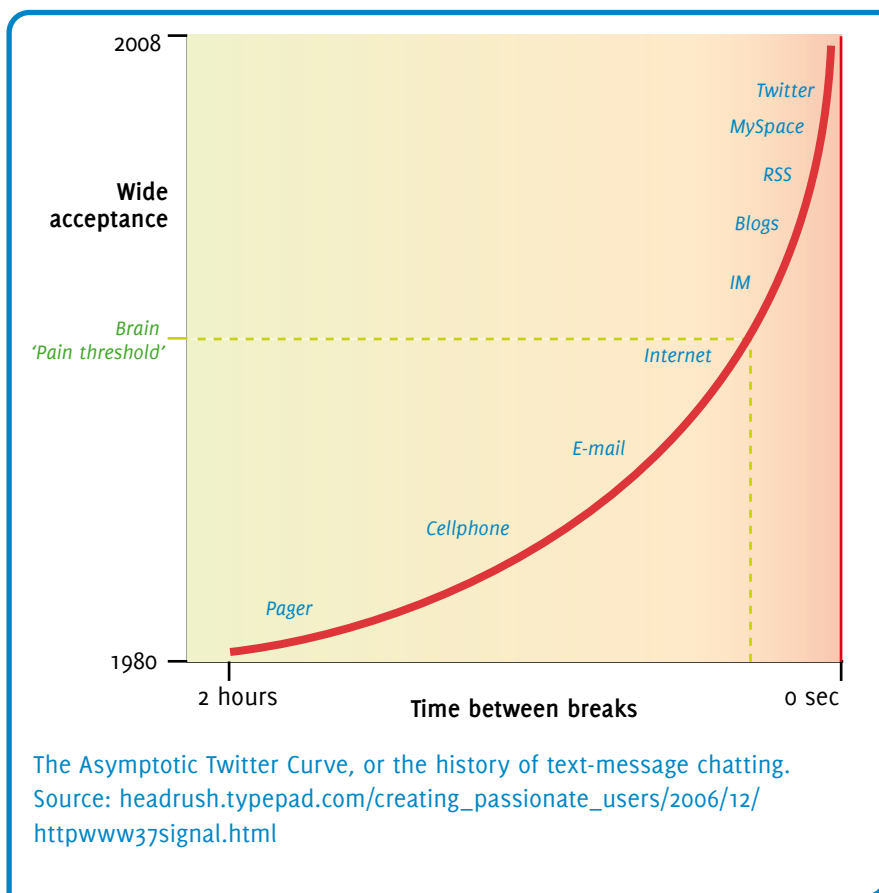
Kevin Kelly, 2007

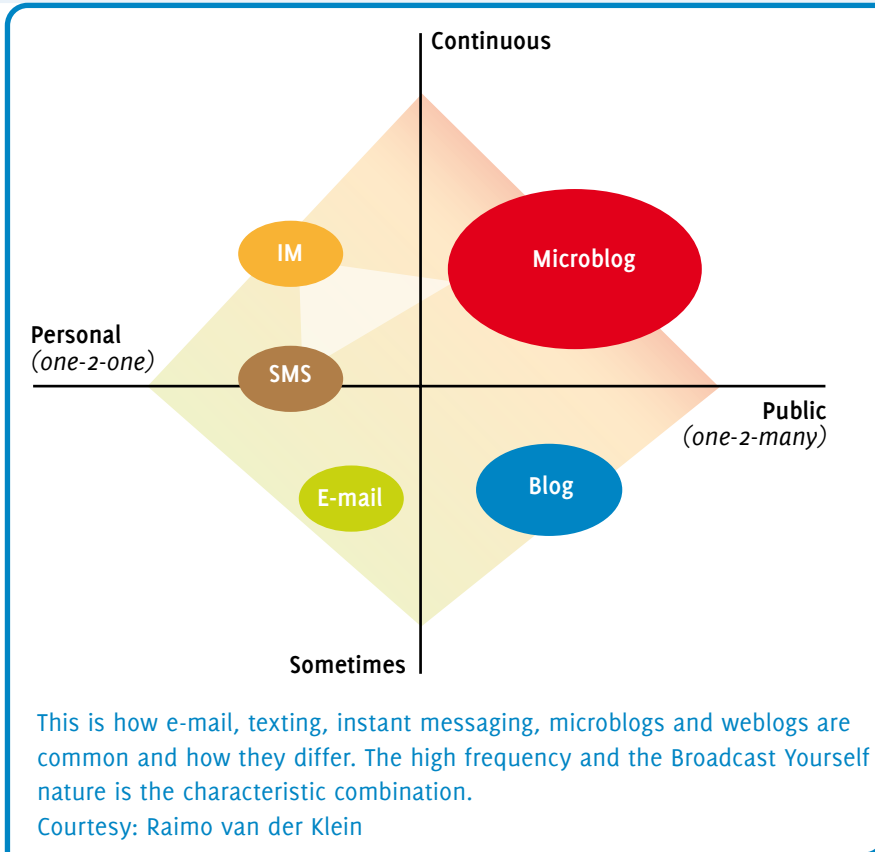
Twitter was launched in March 2006 by Obvious, a company through Evan Williams, the man who previously sold Blogger to Google. One year later, Twitter won the South By Southwest (SXSW) Web Award in the Blog category. From that moment on, the use of Twitter took off.



Interested individuals can access a Twitter Lifestream by SMS, MSN, RSS or by means of a “badge” on a webpage. The creator of a Twitter feed can keep the feed private, or open it up to the public.

Opinions about Twitter vary from regarding it as pointless to deeming it brilliant. In a number of cases, Twitter has demonstrated its usefulness, for example in providing information about earthquakes. Conference reporting via a so-called Twitter backchannel is also now common. Twitter can help keeping people informed about upcoming events and engaging in “social discovery”.





Worldwide there are now millions of passionate Twitterers. However, the company is not profitable yet. Co-founder Biz Stone promised that in 2009 exciting new ways of making money will be introduced.

The power of Twitter is its simplicity, plus the open API on which other applications can be built. One of the best known is TwitterVision, a mashup of Google Maps. A map of the world shows where the Twitter messages are coming from.

Twitter reinforces the small town feeling of the global web world and has completely changed the way in which some people communicate.





Your Conversation.

The manner in which we initiate a conversation has not changed much since the introduction of the telephone. We introduce ourselves and inquire if we are interrupting something important and, in the era of the mobile phone, we often ask where the person is at the time, as a telephone number no longer tells us much about a person's whereabouts. This is strange, as MSN, Gtalk, Skype and similar applications immediately indicate the presence of individuals by reporting that the person is online, on lunch break, et cetera. Combining presence information with a mobile phone is a new trend. The most important exponent is called Jaiku, an online service similar to Twitter.

Jaiku was launched in 2006 by Jyri Engeström and Petteri Koponen, who were seeking a better method for keeping friends informed about what was happening in their lives. Brief messages had to be distributed over the Web and by means of mobile telecommunication. The name Jaiku alludes to the brevity of Japanese haikus.

Jaiku is a "presence aggregator." As well as posting messages, Jaiku is also able to integrate RSS feeds from other applications. The goal is to establish a central environment in which everyone can place their published information and personal interests. In this way, weblogs, favorites, photos and locations are linked together; creating a rich Lifestream that Jyri Engeström calls a "social peripheral vision." Everyone who wants or has to know about what someone else is doing can subscribe to this service.

According to the originators of Jaiku, we will be in increasingly more frequent constant contact with each other in the future. The number of messages will consequently increase enormously. .

In October 2007 Google acquired Jaiku. Many were puzzled because Twitter is many times bigger. However, Jaiku at that time was felt to be better fitted for an integration with mobile telecommunications, and had a genuine vision. At the start of 2009 Google abandoned Jaiku and made it open source.

The Pownce logo is displayed in a white, bold, sans-serif font against a dark brown rectangular background.

Send stuff to your friends.

In June 2007 Kevin Rose, the founder of Digg, introduced his new brainchild, Pownce. In December 2008 it was acquired and integrated by blog platform company Six Apart. Pownce was a social network and microblogging site for sharing messages, files, events, and links with friends.

Following its introduction, there was a veritable run on Pownce. The tool was strongly promoted on the Digg website. Just as Twitter and Jaiku, Pownce also had an open API, enabling developers to build applications on the platform.

The Friendfeed logo is shown in a blue, rounded, lowercase font with a slight 3D effect, set against a light blue gradient background.

The Friendfeed website was established by Paul Buchleit, Jim Norris, Sanjeev Singh and Bret Taylor, all former Google employees. Friendfeed is a “social aggregator.” It makes it possible to integrate and aggregate RSS feeds as well as the feeds of people you follow and even their friends’ feeds. In this way, discussion topics are easy to monitor without requiring you to jump from website to website. Friendfeed has enjoyed immense success as a result of its pure RSS character. Friendfeed already has been called the Wikipedia of social networking.

The identi.ca logo features the text “identi.ca” in a white, lowercase, sans-serif font, with “Public Timeline” in a smaller font below it, all on a dark blue background.

Another microblogging service is Identi.ca. This site is constructed completely with Laconica, the open source development environment for microblog platforms. Identi.ca received a great deal of attention directly after its launch, enabling it to boast of over 8,000 users in its first 24 hours. Not surprisingly, identi.ca has its own jargon as part of the effort to differentiate itself: updates are called “dents” as opposed to Twitter’s “tweets.”



8.3

The Metaverse: Mirror Worlds

» *What has to be done to create a detailed working model of a city? To begin with, we require a model: a detailed map on which we can begin to build, layer by layer, houses, roads, parks, cars, et cetera. It very rapidly becomes apparent that a great deal of work is involved. People have to be included. We place them at strategic locations, each with a telephone, so they can quickly report the latest information. This works. To find out what is happening, you only have to consult the model.* <<



Source: upload.wikimedia.org/wikipedia/commons/thumb/6/6a/Phoenix_landing.jpg/650px-Phoenix_landing.jpg

Although, in 1982, this was just a thought experiment by David Gelernter, today we can choose from many Mirror Worlds. We will discuss the most well-known ones here: Google Earth, Microsoft Virtual Earth, Photosynth, EveryScape and NASA World Wind.

Increasingly more companies are seeing the benefits of using a microblog, such as Twitter, Jaiku or Indenti.ca. For instance, NASA posted a microblog announcement indicating that the landing of the latest Mars probe, Phoenix, had gone well and that water had been found (see: twitter.com/MarsPhoenix). The Mars probe communicated in the first person, as if Phoenix was entering into a conversation itself. Of course, the Mars probe did not really communicate. The tweets were sent by Veronica McGregor, the news services manager at NASA's Jet Propulsion Laboratory in Pasadena. She was hugely surprised by the large number of followers that subscribed to the tweets.

Atmospheric entry has started. Time to get REALLY nervous. Now I'm in the "seven minutes of terror."

Peak heating will hit in 40 seconds. The heat and energy generated during atmospheric entry would be enough to power 280,000 homes.

parachute must open next. my signal still getting to Earth which is AWESOME!

parachute opening is scariest part for the team.

parachute is open!!!!

come on rocketssssss!!!!

I've landed!!!!!!!!!!!!!!

Cheers! Tears!! I'm here!"

Large software companies have also become deeply involved in the microblogging phenomenon. IBM now offers Blue Twit, Oracle has Ora Tweets and SAP is busy experimenting with various tools.

Google Earth 4 was launched in September 2006. The user is able to fly above an Earth composed of satellite and aerial photographs. Zooming in, the level of detail is excellent. Since August 2007, it has also been possible to observe stars and solar systems using the Sky application. Not all satellite images can be displayed. Some photos contain sensitive information, such as the famous Area 15, a sealed area in the Nevada desert where, rumor has it, the U.S. government conducts experiments on extra-terrestrial beings. In the Sky application also some parts are not accessible.

Google Earth also makes it possible to incorporate specific layers of information within photos. At the end of 2006, Google Earth included two additional layers in its standard package: Panoramio (user photos) and Wikipedia. Royal Dutch Airlines, KLM, for instance, mapped all of its flight destinations from Amsterdam on an extra Google Earth layer. It is possible to use this information to check the availability of flights and make reservations. Private users can also add things to the virtual planet by means of Google Sketch Up. In Google 3D Warehouse creations can also be shared.

Google Earth has to be downloaded and installed on to a computer. This is not required for Google Maps, the web variant, but its images are of a lower resolution. Users can also make additions to the images produced in Maps and the resulting mashups can then be saved online and shared. A Google Maps widget was introduced at the beginning of 2007. Just like YouTube videos, a simple piece of programming code can be used to copy the maps and to insert them in all types of social tools.

Google Maps is also available for mobile phones. This application has a useful gimmick: pressing the 0 key shows the phone's present location, determined by measuring the distance from three aeriels. The result is a rough estimate and is not as accurate as GPS.

In July 2007, Google began extending its arsenal of Mirror Worlds with Street View. For months, cars with cameras on top crisscrossed the large cities of the United States, while constantly taking photographs. As a consequence, it is now possible to virtually travel along a route prior to making the trip in reality. Street View stirred up a great deal of commotion. It was possible to see into the rooms of houses and also to clearly make out the faces



of passers-by. Privacy was being threatened and, as a result, faces were made unrecognizable.

Many people now access Google Maps on their cell phones as a free route planner for the car. Since July 2008, it has also been possible to mark out walks and hiking routes.



Google's biggest competitor has also not been idle. Microsoft spends hundreds of millions annually on the development of Virtual Earth, which is a component of Microsoft Live and, in contrast to Google Earth, is available online. Its functionality is provided by a browser plug-in. An API can be used to develop mashups for Virtual Earth. In comparison to Google Earth, Microsoft Virtual Earth offers an additional functionality: Bird's Eye View.



As well as Virtual Earth, Microsoft has also introduced another Mirror World called Photosynth. This application allows users to merge photos on the Web into a single picture that a person can walk through. Photosynth's tagline is:

» *What if your photo collection was an entry point to the world, like a wormhole that you could jump through and explore?* «

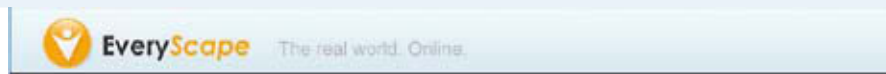
One of the first Microsoft products to use Photosynth is Microsoft Worldwide Telescope. Users can utilize this application to navigate through the universe based on precisely-detailed satellite photographs that are seamlessly pieced together. Microsoft wants to use this program to transform astronomy into a personal experience. Users can even undertake intergalactic voyages along various routes or in line with their personal whims. They can also share space travel with third parties.



Right before the introduction, Robert Scoble, co-author of the book *Naked Conversations*, said that he spontaneously shed some tears when seeing the application:

» *I cried because I imagined all the kids, like my sons, who will be inspired by what they see. It took me back to the days when John Kennedy wanted us to go to the moon. Hint: there's a lot more out there to explore.* «

We had to put up with a rickety telescope in our bedroom, today's youth can immediately launch this application and drag and drop parts of outer space into their personal computers.



EveryScape is a clever combination of user photos and Google Maps. Just like Photosynth, EveryScape weaves user photos together and the user sees an authentic street scene. Users can add commentary that others can consult in order to familiarize themselves with the area. The application went live at the end of October 2007. Four areas were then being supported: Boston, New York, Miami and Aspen.



NASA World Wind is an application from the NASA Ames Research Center that makes it possible to display a virtual planet Earth. Like Google Earth and Microsoft Virtual Earth, the user is able to zoom in on the globe. It is also possible to superimpose all types of layers over the satellite images, enabling the construction of mashups. The best part of this tool is that the source code has been released to the public.

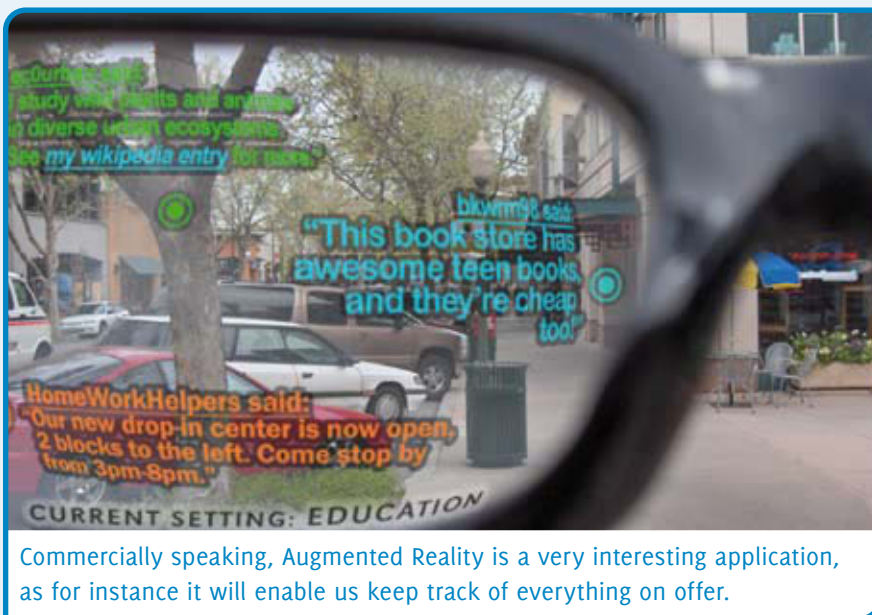


8.4

The Metaverse: Augmented and Virtual Reality

Everyone knows about the transparent head-up displays (HUD) that provide fighter pilots with additional information without impairing their vision. This augmented-reality technology, which has been available to the military for years, is increasingly making its way into civilian life. In the near future, extra information about the world around us will be provided via glasses and mobile phones. The data can be provided on the basis of GPS and direction-sensitive sensors. Because Augmented Reality is expected to undergo a breakthrough in the near future, we will discuss this phenomenon in detail in Chapter 9.

Key to Augmented Reality is therefore the serious digital embellishment and enrichment of the real world. Our reality is supplemented by additional topic and location-specific information. A further example involves receiving extra information on our mobile phones about composer, orchestra and conductor while listening to a classical music performance in a concert hall. The transmission of location coordinates makes it possible to receive such location-specific data. Time and location are linked to the concert hall's performance calendar, which is also made available as a menu item. Such scenarios are conceivable for a given site, event or experience.



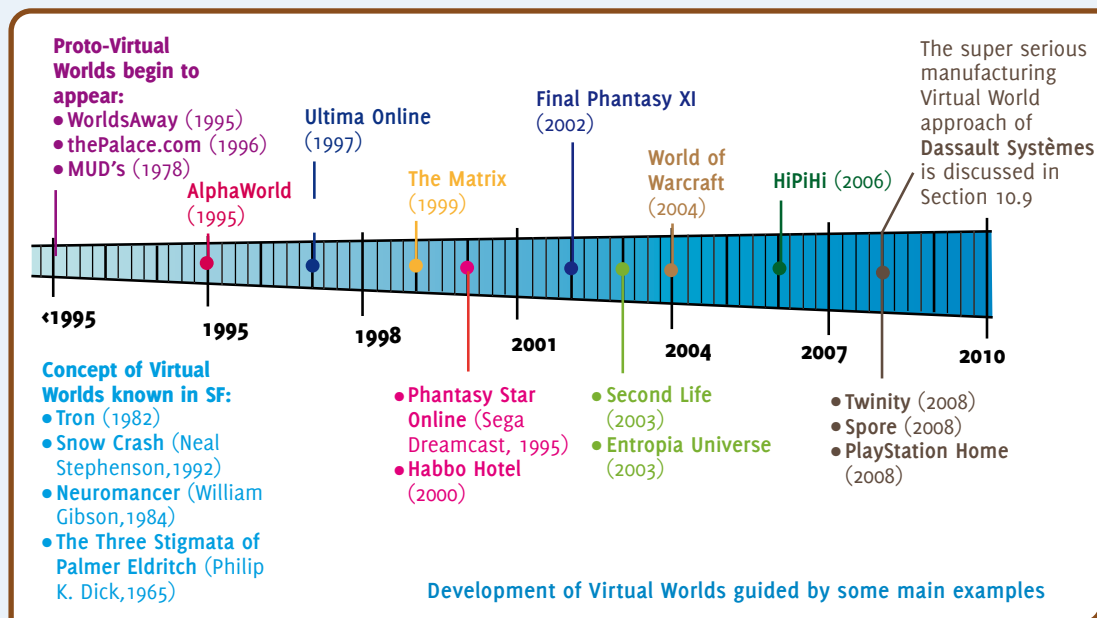
Consider books, for example. In the future, it will not only be possible to read them but also to use them to access a complete virtual world. Entire battles could be played back before the reader's eyes, creating the sense of participating in the actual reality. Multimedia experiences are becoming increasingly more important. We did not previously have the resources to turn reading into a multimedia experience, but it has now become possible.

8.5

The Metaverse: Virtual Worlds

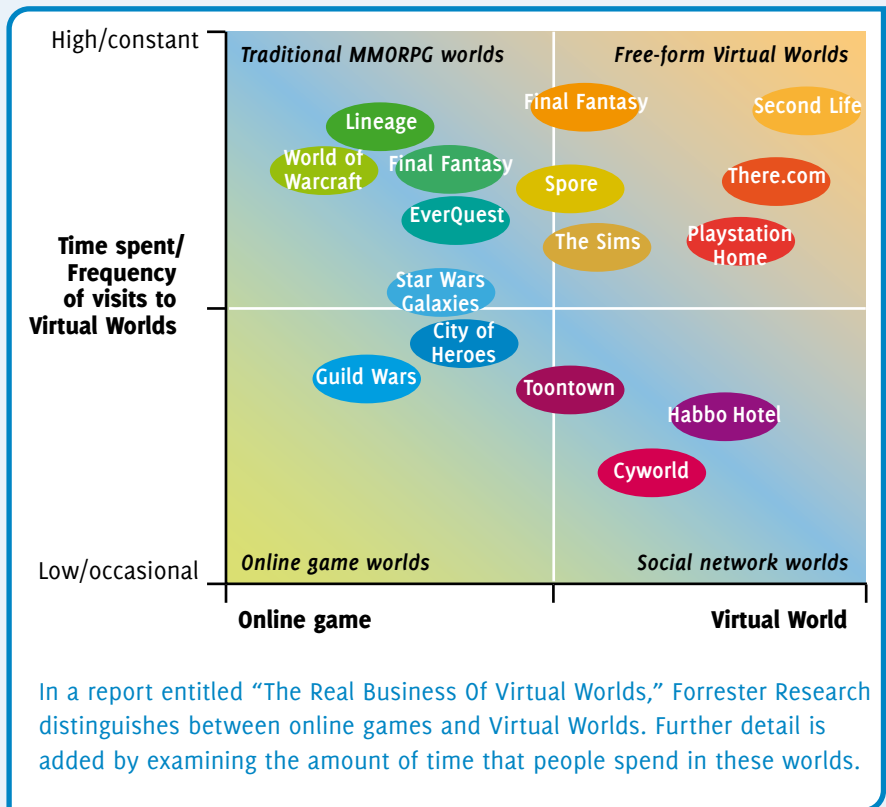
2006 was reputed to be the year in which Virtual Worlds finally made a breakthrough. The hype around Second Life was immense. If you wanted to create publicity, you only needed to indicate that you were the first at something or other in Second Life. But Virtual Worlds have existed for much longer.

The first versions of Virtual Worlds were the Multi-User Dungeons (MUDs) dating from the nineties, in which several people could participate at the same time and that primarily consisted of text commands guiding players through certain rooms. After 1995, audiovisual material was added to this text environment. The best known examples of this stage of virtual evolution are Habbo Hotel, World of Warcraft and Second Life. Broadband connections have made it possible for millions of people to enter a Virtual World.



Virtual Worlds come in all shapes and sizes. A world such as Second life does not serve another purpose than to stroll around, participating in a virtual event and meeting other avatars for fun. In World of Warcraft on the other hand, you fight with and against others and must be constantly on guard to avoid being beheaded. The medium conveying a Virtual World can be anything: TV, computer, games console or mobile phone.

As well as Second Life and World of Warcraft, we will also discuss the Virtual Worlds of MTV's Laguna Beach, Habbo Hotel, the Chinese HiPiHi and NovoKing, Halo 3 Eve Online, Google Lively and Spore. The super serious Virtual World approach of Dassault Systèmes is discussed separately in Section 10.9.





Second Life is a three-dimensional Virtual World that is, in a certain sense, a copy of real life. In which digital city districts, landscapes and buildings are authentically reproduced. The world of Second Life is hosted on over three thousand servers that, together, are known as the Second Life Grid. Second Life is not a game but a virtual life: a parallel world in which game elements such as levels, obstacles and death are absent. Individuals have to find their own way as well as their roles in this universe.

Second Life was developed in 2003 by San Francisco based Linden Lab. Second Life is a so-called Massive Multiplayer Online Role Playing Game (MMORPG), a game in which several players are involved in network game activities. Popular MMORPGs are The Sims Online (2002) and World of Warcraft (2004). Other well-known Virtual Worlds are Active Worlds (1995), Habbo Hotel (2000), Entropia Universe (2003), Worlds (2003), There (2003), Virtual Laguna Beach (2006) and PlayStation Home (2008).

Second Life has an extensive tool set with which to create avatars as well as all kinds of virtual objects. There are no limits to what can be built. Second Life avatars have also been able to speak to each other since August 2007. Prior to that, communication was only possible by means of text messages and body language.

Participating in Second Life does not cost anything, but a Basic Member cannot earn any money, whereas a Premium Member can. Earning money (Linden dollars) can occur in several ways: by leasing property, selling clothes or creating virtual (animated) objects for others.

A number of famous companies became involved in Second Life. The latest update at the Second Life Business Communicators Wiki dates back to December 31, 2007 (see slbusinesscommunicators.pbwiki.com/FindPage?RevisionsFor=Companies+in+Second+Life). In August 2006, Suzanne Vega became the first big-name musical artist to give a virtual concert.



Some business highlights from the top of the Second Life hype:

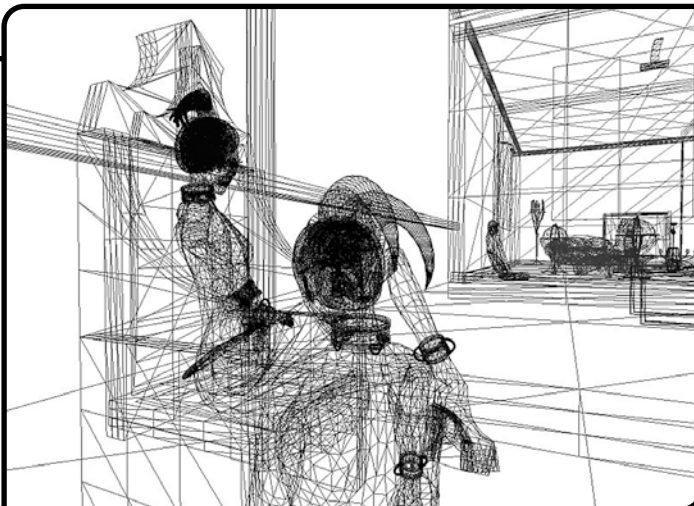
IBM invested \$10 million into Second Life at the top of the hype in 2007. The computing giant mainly uses the Virtual World to train and hold meetings. In October 2007 IBM and Linden Lab announced that they would continue to collaborate in, among other things, making sure that avatars can move easily from one Virtual World to another. One digital identity should be sufficient to move through all the realms of virtuality.

Wells Fargo launched its Second Life presence Stagecoach Island in September 2005. The goal was to help impart financial wisdom to the young Second Life visitors. New visitors to the Island were given 30 virtual dollars which they could use to experiment with various financial services (like deposit accounts).

Pontiac released Motorati Island in November 2005 as a way of creating a “vibrant car culture” in Second Life. Instead of serving as just another retailer—or in this case dealership where users could take virtual car rides—Pontiac sought to harness customer content by awarding free plots of land to vetted individual users who created car-themed content.

Semper International was the first real-world staffing company (a temp agency for various design and print companies) to create an office in Second Life. The theory is that Second Life provides a reservoir of creative and motivated individuals that may not normally respond to conventional job fairs.

Viewed graphically, Second Life is not terribly enticing. There are Virtual Worlds that are much more visibly attractive. In addition, many visitors drop out because it takes so long before they can do anything with the virtual environment.



Playboy joined Second Life in early 2007 to mixed results. By late 2008, however, Playboy's island of virtual Bunnies (complete with a virtual Hef!) and live performances exceeded expectations. With contests such as CyberGirl (a Second Life analog to real-world Playmates), Playboy's Second Life is creating real-world traffic and a steady stream of income from virtual merchandise.

Anshe Chung Studios is a company that buys up property from Linden Lab. This property is then developed and finally leased or sold to interested parties. This enterprise has resulted in so many transactions that Anshe Chung became the first Second Life millionaire, in real dollars that is.

In everyday life, Anshe Chung is known as Ailin Graef. Together with her husband Guntram she runs Anshe Chung Studios, a company that now provides work for over sixty people in Germany and China. In 2007 the company started to expand activity to other Virtual Worlds as well. The fact that Anshe Chung spread the news about becoming the first millionaire by means of a press release stirred up bad blood among many "residents." For instance, people have dug into Ailin's past and it seems that she was once a virtual call girl offering services for money. An interview with Chung was disrupted by "grievors" who caused a flock of penises to fly across the screen.



Anshe Chung in first and Second Life

In an interview with the newspaper The Guardian in May 2008 Linden Lab founder Philip Rosedale expressed his thoughts about the future of the web and whether Second Life would be part of that future:

» *Yes. Not only do I think that, I think that it'll become more pervasive, especially if we open it up and standardize it. I'm not necessarily saying that this one company will control all those servers. No. We're Working on systems where you can have the servers outside of our company. But, yeah, it will become the Web. I believe that what we're working on right now will become a More common way of using the Internet to retrieve information essentially.* «

In July 2008 Linden Lab launched the Open Grid Beta, which is the first step to develop Virtual-World interoperability. In the near future it must be possible for avatars travel between Virtual Worlds with all their belongings and money. Also in 2008 Philips Design's Ideation Quest in Second Life explored how to effectively combine the emerging technology of Virtual Worlds with an customer-centric perspective of open innovation.

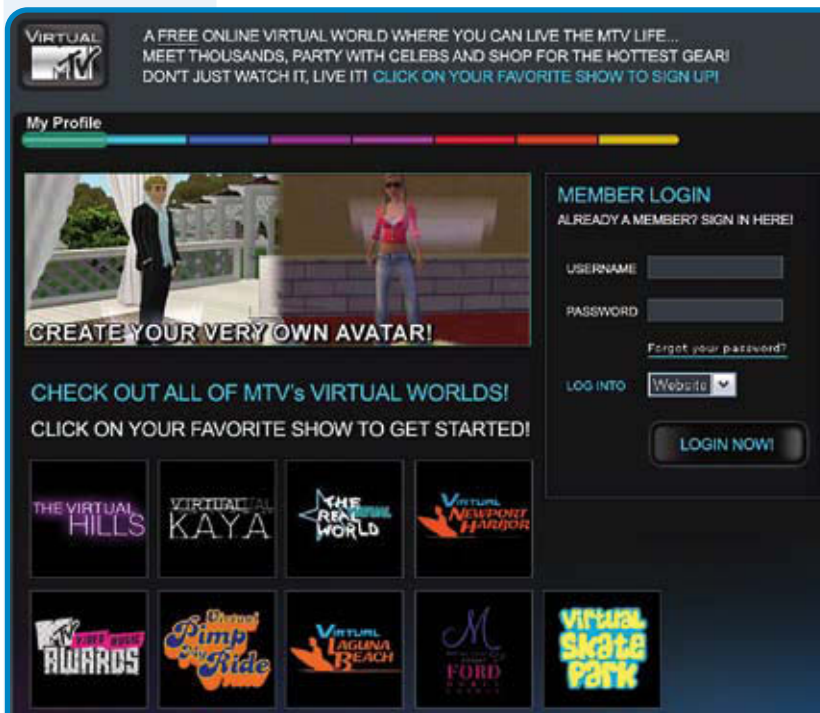




DON'T JUST WATCH IT, LIVE IT!

In September 2006 MTV, one of the world's best known television stations, wanted to give its brand a similarly high profile on the Internet. Virtual Laguna Beach was launched, built on the There platform to extend and personalize the experience of the TV hit series. Laguna Beach fans could now participate as avatars in the TV series world and do the same things as their favorite television personalities. MTV launched its second Virtual World in January 2007: The Virtual Hills. This world is also based on an existing series, *The Hills*. Everything revolves around glitter and glamour. Residents of Virtual Laguna Beach can be teleported to this new world. In Virtual Pimp my Ride, avatars can outfit their cars in an extravagant way. At the start of 2009, Virtual MTV consisted of six major Virtual Worlds, which are accessible via vmtv.com.

The average age of the Virtual MTV World user is 29. A visit to one of the worlds lasts, on average, 37 minutes. At the beginning of 2008, MTV hoped to have more than 3 million registered users. Of this number, nearly two thirds make regular return visits.



Besides the Virtual Worlds for adult MTV viewers, the TV station is also trying to actively engage younger users with the introduction of Nicktropolis and the acquisition of Neopets. According to Steve Youngwood, Executive Vice President of Digital Media MTVN Kids and Family Group Nickelodeon, Nicktropolis has been the fastest growing Virtual World since its inception in January 2007.



Hanging out at Virtual Laguna Beach, a personal account:
Soon I was talking to an attractive avatar, who invited me to join her on a bench. After the usual “hey” and “ru,” the conversation shifted to age. “42” I said in all honesty and good conscience. This was followed by: “Seriously?,” and as I persisted, even more in disbelief. I asked her how old she was. “17” was the answer. I can still see us sitting on that bench for a while without saying another word. Suddenly she walked away. No hard feeling on my side, since a minute and a half later, I was kissing a Japanese avatar aged 30, who already felt herself to be rather old. She still did not have to think about children and did have no problem with someone who was 42 years old. Quickly we added each other to our buddy lists.



Hangout for Teens

As Habbo Hotel combines a chat room and an online game, it qualifies as an MMOCC, which is short for Massive Multiplayer Online Chat Community.

The Habbo concept was developed by two Finns: Sampo Karjalainen and Aapo Kyrölä. Initially, back in 1999, it was not called Habbo Hotel, but Mobiles Disco. The website was then intended as an online game to promote the rock band Mobiles. The game, which allowed you to create a coarse-pixel avatar and then chat at the bar, quickly became extremely popular.



Karjalainen and Kyröla further elaborated their concept in their next project, called Lumisota (Finnish for “snowstorm”). As well as chatting, avatars could also throw snowballs. Next, there was MC Chat. These projects formed the basis for Habbo Hotel. At first, Habbo was an online game called Hotelli Kultakala (Hotel Goldfish), which was sold to Finnish telecom provider Elisa. This company set up a separate website and began operating Habbo Hotel in its current form. At the present time, the Finnish company Sulake owns Habbo Hotel, and Sampo Karjalainen has become the Chief Creative Officer, while Aapo Kyröla remains active in the background at Sulake.

Habbo Hotel received its current name when the concept was launched in England. The Habbo chain now has over thirty hotels spread over a large number of countries.

Habbo Hotel primarily generates revenue from sales of virtual furniture. Players can create their own rooms within the hotel. The greatest challenge for players is to furnish a room in the most attractive way possible. In June 2007, more than 118 million Habbo avatars had been created, and over 8 million individual visitors enter the various hotels that month. Habbo Hotel has also gained popularity among businesses.



A Brave New World and
Lifestyle Is Unfolding

The Virtual World HiPiHi (a sort of Second Life, but developed independently from it) was set up in October 2005 by Xu Hui and Rao Xuewei in Beijing. HiPiHi was the first Virtual World on the Chinese market. The initial beta version was released in March 2007. Although the platform could accommodate ten thousand residents at that time, thirty thousand people had registered by October 2007. The big difference from Second Life is that each HiPiHi user is given a piece of property comprising one hundred square meters. There is also a large variety of ready-made objects that users can employ immediately.

In July 2008 CN Reviews published an interview with HiPiHi founder and CEO Hui Xu, in which he emphasized HiPiHi's international ambition:

» *HiPiHi from the beginning was meant to be a global platform. People from overseas, even though they don't speak Chinese, can still have fun and meet people inside our virtual world. When they speak English, they are usually understood by the non-English speakers as well.* «



NOVO King

Your Dream! Your Kingdom!

The Virtual World of NovoKing was also released in October 2005, in this case by Patrick Zha. In contrast to HiPiHi, this world is completely directed at the Chinese world.

Although NovoKing greatly resembles HiPiHi, there are two big differences. Firstly, the world of NovoKing has already been partially constructed. Shopping centers, restaurants, et cetera, already exist. Secondly, the graphics are much sharper and the avatars more closely resemble real people.



World of Warcraft was introduced in November 2004, and the game quickly became an inextricable feature in the world of online gaming. At the start of 2009 over 11 million people were playing World of Warcraft, including more than two million Europeans. In excess of a half million people play the game online every day. Each month, gamers pay Blizzard, the game's developer, between \$11 and \$15.

World of Warcraft is a Massive Multiplayer Online Role Playing Game (MMORPG) and is staged in the fantasy world of Azeroth, where eight different species of beings reside. Each species is subdivided into, at most, nine different classes. A race belongs to either the Alliance or the Horde, who must destroy each other.



In contrast to Second Life, World of Warcraft has a clear narrative line and avatars must undertake quests in order to become stronger. At the beginning of the game, you must indicate the race to which you wish to belong. You also have to identify the profession that you wish to practice.

HALO 3

Halo is a first person shooter game and is extremely popular on the Microsoft Xbox platform. Players can engage each other in battle across the network. Halo 3 game moments can be recorded. The videos can be uploaded and shared with other Xbox players, who then express their opinions on the recorded action.

In the twenty-sixth century, the Earth is being ravaged by an all-engulfing war. Humanity is battling the Covenant, a varied collection of extra-terrestrial beings. One player takes the role of the Master Chief, a genetically advanced super soldier engaged in combat with these beings.

Halo 3 was launched in September 2007, and its sales exceeded all expectations. Surpassing even sales of the last book in the Harry Potter series, Halo 3 was the best selling entertainment product.

EVE[®] ONLINE

THE WORLD'S LARGEST GAME UNIVERSE

Eve Online is an online game simultaneously played by multiple players: a Massive Multiplayer Online Role-Playing Game (MMORPG). The Eve game is set in outer space. The players are the pilots of spaceships that can be customized to suit their individual tastes. In total, Eve Online comprises five thousand solar systems. Players can jump from solar system to solar system through various stargates.

In contrast to World of Warcraft, players do not earn points in order to achieve a higher rank. Over time, the player learns new skills, even when not logged on. For instance, you can always engage in further game activities, such as mining, manufacturing, trade and combat.

Eve Online is interesting as it involves an open economy. Over 300,000 residents take care of a living and evolving system of earnings, accumulation and trade. The company behind the game has even hired a real economist, Dr Eyjol Gudmondsson, to issue reports. According to Gudmondsson, the game's economy is a perfect simulation of reality.



In July 2008, Google introduced its own Virtual World: Google Lively. Since Lively didn't live up to Google's expectations it was shut down in December 2008. Intended as an enrichment of existing websites, it involved adding a plug-in to your browser, enabling the Virtual World to run on an existing webpage as a real-time communication environment.

Google Lively consisted of rooms. Everyone was able to create their own room and furnish it with ready-for-use designs. Unlike Second Life, users did not have the option of creating their own content but could decorate their room with YouTube clips or Picasa photos, for example.

Almost directly after its introduction Google Lively began to flounder. Visitors created a room, but then never returned. Experts attribute the disinterest to the lack of a virtual economy and the fact that users could not build anything for themselves.



Spore is quite possibly the most remarkable game of the past decade. The game was developed by Will Wright, inventor of such popular games as SimCity and The Sims.

Spore is an evolution game: a so-called "god game." In Spore, you begin as a single cell organism that must ultimately develop into a complex, intelligent being. You even have the opportunity to build up the appearance and character of your organism throughout the game. The game involves five different



stages (cell phase, creature stage, tribal stage, civilization stage and space phase) but you are not required to pass through all the stages in succession.

Users are able to send their creations to Sporepedia, the central database, so that other users can also participate in their evolution. Almost everything in the game is kept up to date in this database. Users can also monitor and follow the development of their creations.

Spore has received a great deal of media attention, primarily as it took a long time to come onto the market. Much has also been written and said about the game's complexity. For instance, the initial stage (cell phase) has elements of Pacman, while the civilisation stage contains ingredients from Risk.

Despite this mixed publicity, or perhaps because of it, Spore became the most downloaded game of all time on the BitTorrent network almost immediately after its introduction.

8.6

The New Universe is Big Business

Surf to virtual-economy.org and you will immediately get a better idea about the commercial value of Virtual Worlds. The Virtual Economy Research Network publishes “news, research and discussion on real-money trade of virtual property globally.” The point here is quite simple:

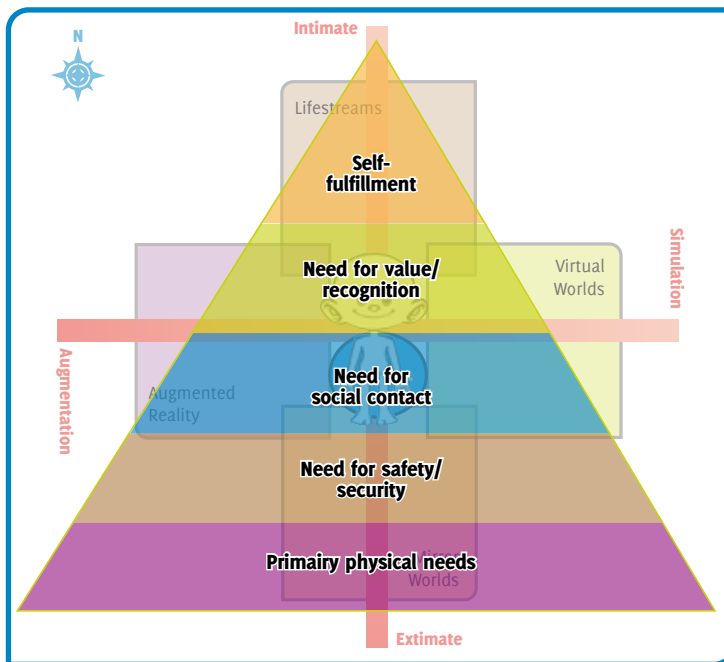
» *Online resources, such as domain names, virtual items in community sites, and powerful characters in online games, are similar to physical goods in that only one person can control the resource at a time. Today, this virtual property is being bought and sold for real money by millions of people in numerous market places around the world.* «

It does not take a genius to understand why this may be the case. All four of the Metaverse giga-trends in this chapter (Lifestreams, Mirror Worlds, Augmented Reality and Virtual Worlds) have unquestionable relationships with the ways in which we interact with companies. Due to the corresponding convergence between physical and digital reality, the movement towards a single Metaverse continuum is, in fact, synonymous with the evolution of the private and commercial Hyperego. This means that the e-mancipation of

hyperlinked identities, as we know them in the present, will propel humanity into a higher level of development, or at least activity.

In a mature Metaverse, we will have “grown” enormously on account of all the additional multimedia information and be even more strongly interconnected with the world around us. In a well-known pyramid from psychologist Abraham Maslow, this is an enormous step up towards the level of self-fulfillment, while simultaneously providing better completion of the all the lower levels. This digital advancement of our world and our lives has, of course, economic consequences.

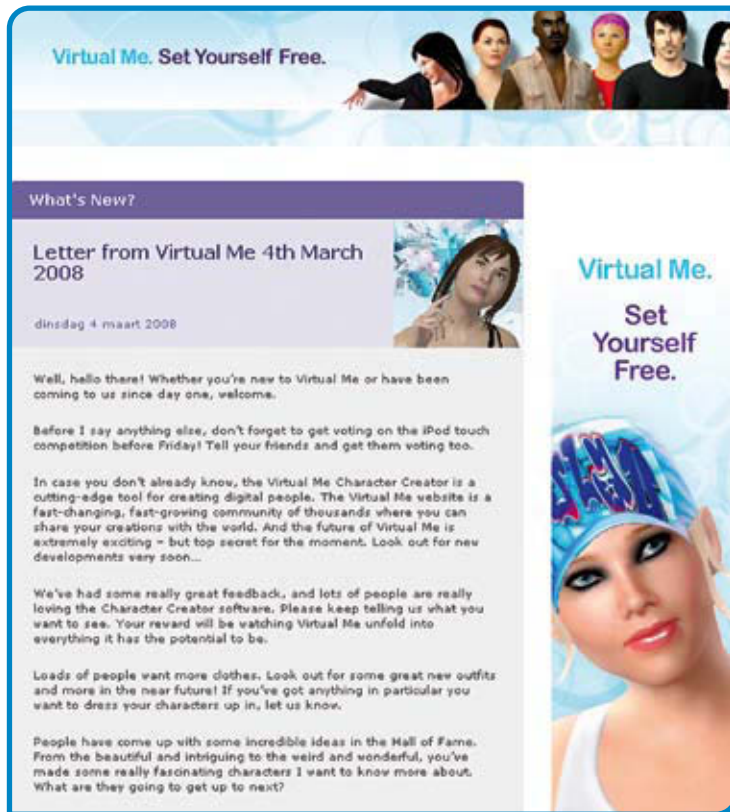
The four regions of the Metaverse are, at this time, still largely individual domains in development. The coming decades will increasingly eradicate the distinctions between them. In contrast to the static billboards of today, companies will be effectively brought to life as a result of the Web and Augmented Reality, and we will be able to shop in various Mirror Worlds. Anything bought will be physically delivered the next days.



A complete implementation of the Metaverse will ultimately result in mature Hyperegos, a development that we can relate to the top level of the Maslow pyramid. Mature Hyperegos will ultimately be a physically and virtually “embodied” combination of hardware, software and “wetware” (connecting biotechnology, neurotechnology and nanotechnology) and consist of a number of subidentities.



In *Snow Crash*, the 1992 science fiction bestseller by Neal Stephenson, the Metaverse was 1.6 times as big as the real world. But the virtual economy may soon be over one and a half times as big as the physical one. If we consider the media segment, this may not be too far away. Digital has become the standard and physical carriers are now shrinking spectacularly in importance, except for the free newspapers, whose attractive websites often make them into true multimedia companies. Moreover, web media now make it possible for each Hyperego—each organization, brand and individual—to be a professional media company. New platforms are being developed for this purpose.



The combination of Lifestreams, Mirror Worlds, Augmented Reality and Virtual Worlds is giving the Third Media Revolution its true shape. A lot of structural work is being done and all the Hyperegos are, in their various roles, busily engaged in experiments. Anyone who is still not yet involved in this activity must immediately make a start on it.

9

Five Industry Disruptions and a Cultural One

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Unsurprisingly, the web multimedia of the Third Media Revolution are disruptive of the traditional mass media. To begin with, this is particularly the case for newspapers, with some pundits even predicting the imminent death of the printed newspaper as a result of digitalization. Whether or not such demise may be taking place, a discernible fusion of newspapers, television, websites and social networks on the Internet is clearly happening. Substantial amounts of news are already freely available on the Web. New free local newspapers are managing to stay afloat, but are no longer independent operations. They have become part of the pluriform pallets wielded by multimedia companies, telecoms organizations and publishing conglomerates.

In addition to the newspaper front, free web initiatives are threatening other media strongholds, including the stronghold of television. This trend seems unstoppable. A YouTube onslaught is what contemporary consumers want and are getting. In the case of the music industry, it originally appeared that Napster and Kazaa could be successfully defeated. However, peer-to-peer networks are now perniciously popping up everywhere. It is not just record companies who are seeking new ways of directly contacting their fans and distributing their music over the Internet, but recording artists too. A fourth wave of assault is disrupting the telecoms industry: Skype, Apple and Google all parade technologies aimed at bringing down the existing telecoms giants.



To conclude our survey of the disruptions in various economic sectors brought about by web media, we take stock of the financial sector, in which increasingly more peer-to-peer marketplaces are appearing, subjecting the margins earned by banks on money markets to growing pressure.

The final “disruption” we will discuss here does not involve the upheaval of an economic sector but the thematic cultural disruption of organizations by new forms of collaboration and knowledge sharing, made possible by such web media as blogs and wikis

9.1

From Newspaper to Paperless News!

In 2007, Veronis Suhler Stevenson predicted that print newspapers, which have been around for four hundred years, were in their final days. In its opinion, digital multimedia will, for the most part, take over the role of newspapers by 2011. At the same time, flexible electronic media will replace traditional paper. Veronis Suhler Stevenson is a research and consultancy agency specializing in media, communication, information and education. It is a vigorous ITainment company that conducts analyses and helps to close deals within America and Europe.

» *There will be no media consumption left in ten years that is not delivered over an IP network. There will be no newspapers, no magazines that are delivered in paper form. Everything gets delivered in an electronic form.* «

Microsoft CEO Steve Balmer during an interview for *The Washington Post*, 5 June 2008

At present, it does not seem that newspapers will completely disappear very soon. With all the free editions around, newspapers appear to be more popular than ever. In the Netherlands, there was enough room in 2007 for



the two existing free dailies as well as two new ones. (Although less common in America, free dailies such as the San Francisco and Washington Examiners have a combined circulation of over 280,000 as of mid-2008.) However, the integration with the Internet is readily discernible: *Metro* is of Swedish origin, but has grown internationally into the largest free newspaper. In 2007, over

More than 300,000 RSS newsfeeds are available free of charge for the iLiad of iRex Technologies. You can read and write with these feeds. They also offer a large selection of books, newspapers and comic strips.

18 million people each day around the world read the 69 *Metro* editions published in 20 countries and 18 languages. In the U.S., *Metro* is available in New York, Philadelphia and Boston as well as online at www.metro.us.

Many traditional newspapers have already given way under the new digital multimedia onslaught and this trend will undoubtedly continue. At the same time, there will always be a place for printed newspapers.

In brief, we live in a world of “all at once” in which traditional mass media such as the subscription newspaper, radio and TV broadcasting have to devote a great deal of attention and investment to the free content offered by multimedia portals on paper and on the Internet. Welcome to the era of the Third Media Revolution, the era of web multimedia, IT 3.0 and the development of ITech into ITainment, in terms of diversity, coverage and principally influence, the creation of infotainment, edutainment, entertainment, erotainment, consutainment, traveltainment and you-name-it-tainment. Veronis Suhler Stevenson predicts that, in 2008, the sum spent on the communication mix will, for the first time, exceed the astronomical amount of one trillion dollars (a million million, a one followed by twelve zeros). Digital multimedia will dominate the mix.

In his book *Future Files: A History of the Next 50 Years*, Richard Watson has indicated an “extinction timeline” for familiar items that we will see disappear within our lifetime. Watson believes that the printed newspaper may continue until almost 2050. But Dave Morgan, founder of the New York-based Tacoda communication and media agency, thinks that everything will be completely digital by 2020 (see blogs.media-post.com/spin/?p=m6). The future will reveal who is right: Veronis Suhler Stevenson (2011), Watson (2050) or Morgan (2020). It is, in any case, clear that web multimedia will soon become even more dominant than they currently are.

Andreas Pfeiffer, known for *The Pfeiffer Report*:

Emerging: Trends and Technologies, says the following about the “both/and” continuum characterizing the current web multimedia era:

Once we start thinking of media as a continuum or a cloud, rather than focusing on individual instances, it all begins to make sense. Forget about ‘digital’ vs. ‘analog’, ‘New’ Media vs. ‘old’. All that matters is delivering perceived value to the audience. And that value can come in many shapes and size.
Source: ACM Ubiquity, March 2007. See www.acm.org/ubiquity/views/v8i09_pfeiffer.html and take a look at pfeiffer-report.com/trends/index.html.

Don Campbell, Professor of Journalism at Emory University in Atlanta, and affiliated to the popular American newspaper *USA Today*, cannot say precise-



ly when the last print edition will appear, but thinks that newspapers will rapidly become niche products for the elderly:

» *Newspapers [won't] disappear overnight. That might take 10 years; it might take 25. But traditional newspapers increasingly will become niche products for the shrinking number of older readers who cling to the pleasure of sitting with a cup of coffee on the back deck on Sunday morning and perusing five to 10 sections of a newspaper.* «

See “Can newspapers weather the techno-storm?” at www.usatoday.com/news/opinion/editorials/2005-12-12-campbell-edit_x.htm.

Changes will occur extremely rapidly in the web multimedia era. At the Web 2.0 summit at the beginning of October 2007 in San Francisco, News Corporation media tycoon Rupert Murdoch admitted that, two years previously when he purchased MySpace, he had not anticipated that social web networks for information, communication and entertainment would reach such a peak in so brief a time. However, by mid 2006, he was well aware of where things were heading. In an interview with *Wired* magazine, Murdoch said:

» *“To find something comparable, you have to go back 500 years to the printing press, the birth of mass media—which, incidentally, is what really destroyed the old world of kings and aristocracies. Technology is shifting power away from the editors, the publishers, the establishment, the media elite. Now it’s the people who are taking control.”* «

Source: www.wired.com/wired/archive/14.07/murdoch.html.

In 2008, Rupert Murdoch took over Dow Jones & Company, including The Wall Street Journal, for \$5 billion. This acquisition prompted Mark Bowden to air his views about the deplorable state of the American press in *The Atlantic Online*:

» *Newspapers are in a sad way in America. Readership continues to fall. Advertisers are deserting them for newer forms of media. Revenues are plummeting, as the costs of printing and distribution mount catastrophically. Faced with declining profit margins, investors are fleeing. Knight Ridder, once the largest newspaper chain in America, has gone out of business. Stalwart family owners such as Dow Jones’s Bancrofts are selling out. Reporters and editors are being bought out or laid off in droves, and not just at small regional papers. The once-fat Los Angeles Times has been dismantling itself. The New York Times and The Washington Post are trimming their staffs. In the eyes of many media experts, print journalism, that stubborn fifteenth-century technology, appears at long last to be on its deathbed.* «

The newspaper has become progressively more “social.” At first, there were only letters to the editor. Now, everyone is involved everywhere on forums, blogs, microblogs, with clips, et cetera. The modern newspaper is a continuum of paper and interactive website. Inside the flood of free web multimedia, the subscription-based approach is becoming increasingly more difficult to maintain. Many newspapers have therefore embraced social networks, 95 of the top 100 newspapers making use of weblogs.

Thanks to web media, “continuum” has become the new archetype. Now, we no longer have to choose from the newspaper, TV or radio, website or social networks, free or paid, real or virtual, or even sender or receiver. From individual mass media, we have converted to one large media mass and therefore a continuum constructed by the convergence of text, sound, image, software and Internet. This is the contemporary media continuum: no longer “either...or” but more than ever “both...and,”

As a result, we have now a refined interplay of supply and demand. A game that is “hyper”-individual. In fact, hyperlinks provide the link of preferences, profiles and multimedia. The network media mass that is consequently

Via the Internet people and companies are inundated with true information but also with lots of half truths and false reports. In September 2008, Google News automatically ran an old article (from 2002) about United Airlines that speculated on the airline’s bankruptcy. The news report was indiscriminately picked up by large press agencies and led to a massive sell-off of United Airline shares, resulting in a \$1 billion loss. Once it was revealed that this report had an incorrect headline and should not have been run, the share price was restored. Shortly after this event, CNN iReport spread the rumor that Steve Jobs, the CEO of Apple, had suffered a heart attack and was rushed to hospital. This also led to an abrupt drop in Apple share prices.

In October 2005 the American television comedian Stephen Colbert used the word truthiness to describe the dire quality of things we claim to know without regard to evidence, logic, intellectual examination, or facts. Besides for instance the decision to invade Iraq in 2003 Colbert attacked the user-generated Wikipedia with his definition of truthiness. Truthiness was named Word of the Year for 2005 by the American Dialect Society and for 2006 by Merriam-Webster.

tru·thi·ness \ˈtrū-thē-nəs\ *n*
1 : truth that comes from the gut, not books (*Stephen Colbert, Comedy Central’s “The Colbert Report,” October 2005*)
2 : the quality of preferring concepts or facts one wishes to be true, rather than concepts or facts known to be true (*American Dialect Society, January 2006*)



created overflows into television, radio and the newspaper and is increasingly supplanting them. The media mass is displacing the mass media and its specializations.

In the past, all media were neatly arranged into broadcasting and publishing companies. Software makers and web platforms were then added, but all this was initially not terribly compatible. Web media have now reversed the roles: software makers and web platforms are calling the shots, along with the individuals that formerly made up the audience. For senders need receivers. But the latter can now also turn their hand to anything with fantastic success using software, the Web and, above all, multimedia.

In the social web, everyone has the opportunity to make themselves truly heard for the first time and to form groups known as “online communities.” This social media movement is bringing about enormous economic change, as the individual is now more readily recognizable and approachable than ever before.

9.2

The Attack on the TV Empire

Back in the thirties people had no idea of the role that television would play in modern life:

» *Television has a future, likely a limited future. It may not grow to be as popular as the radio has become; the range of possibilities are now simply subject to certain limitations. To take advantage of television requires real interest, be it in the technology or the broadcasts. What often occurs in the case of radio, the set being left on all day without devoting too much attention to it, would be absurd in the case of television.* «

For more, go to www.tvhistory.tv.

This view has been entirely outmoded for some time now. Each household now has a TV, and most have several. Sometimes, the television set is on for the entire day or, at least, whenever someone is in the room. TVs are equipped with timers and with automatic recording equipment for the channels that we do not watch for the express purpose of not missing any of the delights that the small screen has to offer. TV simultaneously became a mass-medium and the first multimedia, broadcasting picture, sound and text (subtitling and teletext).

At present, the function of the television is increasingly being replaced by the possibilities that the Web offers. If television serves the greater masses, then the multimedia web is for the individual. On the Internet, we wholly determine the information, communication or entertainment that we receive.

Television and the Internet have been merging for some time, but the Third Media Revolution has transformed this into a flood. To ascertain what the consequences of this fusion will be and what effects it will have on existing media industries, we will first examine what the Internet currently has to offer. We will then examine any ultimate conclusions that we might draw about the development of TV as a separate medium.

To begin with, we will first present an overview of how the transformation from television to Internet will occur, a glimpse at the future that we will base on the following examples: Dancing Baby, Star Wars Kid, Numa Numa Guy, Evolution of Dance, Lonelygirl15, Esmée Denters, Obama Girl, Rickroll, YouTube, Tudou, Ogrish, LiveLeak, Justin.tv, MyLifeBits, Hulu, Joost, BitTorrent, MeOnTV, and Seesmic.

Dancing Baby

In 1996-97, a short clip of a dancing baby enjoyed immense popularity. The video showed a baby animation figure performing dance moves to cha-cha music. The infant became popular when it was a repetitive item on the *Ally McBeal* series. This clip was also one of the first viral successes on the Web.



Star Wars Kid

It is likely that most people already know about the Star Wars Kid clip. At the beginning of November 2002, corpulent Canadian resident Ghyslain Raza made a video showing himself striking imaginary enemies with a golf ball retriever. He was pretending to be Darth Maul in the film *The Phantom Menace*, the first part of the *Star Wars* trilogy.



Ghyslain recorded the video to see how well he could imitate Darth Maul and then forgot about it. But his classmates found the clip and placed it on the Kazaa network. Many people took the fragment as the raw material for their own versions, and Ghyslain became unwittingly famous; more than



900 million people have seen him in action. Later, Ghyslain got his own back in a lawsuit. Three classmates had to pay him a sum of 350,000 Canadian dollars in order to compensate him for the breach of privacy.

Numa Numa Guy

At the beginning of December 2004, an American, Gary Brolsma, posted a parody of the Moldavian smash hit “Dragostea din tei” on the Newsgroup website; again a clip of a fat teenager, but this time mouthing the words to the song. The clip was immediately picked up by hundreds of other websites and spread like wild fire. According to the BBC, more than 700 million people have viewed the clip, a total that puts it in second place on the all-time viral video hit list. Later, Gary attempted to duplicate his success by launching the New Numa website on which he organized a competition to find a worthy successor to his classic.



Evolution of Dance

The all-time most watched video on YouTube is “Evolution of Dance.” The clip was made by Judson Laipply. In his everyday life, he is a pep-talk guru and comedian. He shows how dance moves have changed over the years. To demonstrate the various forms of dancing, he plays excerpts from well-known hits such as Elvis Presley’s “Hound Dog”, Chubby Checker’s “The Twist”, Michael Jackson’s “Billy Jean” and MC Hammer’s “U Can’t Touch This.” To date, over 60 million people have viewed the video.



Lonelygirl15

In mid June 2006, a sixteen-year-old named Bree began her rise to YouTube stardom. Within the briefest period of time, she became enormously popular as Lonelygirl15. Millions of people were glued to their monitor every week to experience the ups and downs of Bree. She came from a strongly religious family and, whenever she had a little bit of spare time, she transformed her deepest thoughts into audiovisual material for the Internet.

On September 12, Bree was unmasked by *The New York Times* in the article “Lonely Girl (and Friends) Just Wanted Movie Deal.” Behind the figure of Bree was the young New Zealand actress Jessica Rose. The whole project had consequently been faked. However, “Bree” was viewed even more frequently following the revelation. New episodes continued to be made and broadcast on MySpaceTV and YouTube.

In total, over five hundred episodes of Lonelygirl15 were produced. In September 2008, the makers began LG15: The Resistance, a new weekly series in which a number of characters from Lonelygirl15 resurfaced.

Esmée Denters

Esmée Denters is a girl from Oosterbeek in the Netherlands who has become well known on YouTube. She had previously participated in talent shows *Popstar* and *The Rivals*, but was eliminated in the preliminary rounds. Esmée did not throw in the towel and began to post videos made in her bedroom on the Web. She sings songs by well-known artists such as Beyoncé and Shakira. Her videos have enthralled millions of people and were noticed by various large record companies in America.

After five months, Esmée moved to America where she was welcomed with open arms by Kelly Rowland from Destiny’s Child, who escorted her into music Valhalla. She has now signed a record deal with Tennmen Records, Justin Timberlake’s new label. Videos of her still regularly appear on the Internet, in a number of which she is accompanied by famous artists, such as Justin Timberlake and Natasha Bedingfeld. She has also become one of the supporting acts for Justin Timberlake on his European tour. In November 2007, she appeared as a guest on the Oprah Winfrey show.



Esmée Denters
on Oprah Cam
after the show.
Source: youtube.
com/watch?v=jXLeYp2NMg4

Obama Girl

The video “I Got a Crush... on Obama” was launched on YouTube in June 2007. The main role in the video was played by actress and model Amber Lee Ettinger, who quickly became known as the Obama Girl. The popularity of the video soon spread, the original now having been viewed more than ten million times (see: youtube.com/watch?v=wKsoXHYICqU) and a number of sequels and responses have also appeared. It even enticed Barack Obama to make the following remark: “It’s just one more example of the fertile imagination of the Internet. More stuff like this will be popping up all the time.”



Rickroll

The surfing public was surprised by a new joke that first appeared in 2007. Members of the 4chan forum conducting a search for cars were linked to the clip “Never Gonna Give You Up” by singer Rick Astley instead of the relevant information suggested by the link. A study by SurveyUSA has revealed that over 18 million Americans have now been exposed to this joke of being

“Rickrolled.” For his part, Rick Astley seems also to have enjoyed the joke, viewing all the commotion surrounding his old clip with a great deal of amusement.

Rick Astley-Never Gonna Give You Up



At the start of 2005, the online video jukebox YouTube initiated its triumphant emergence as a media force with the slogan “Broadcast Yourself.” YouTube was founded in February of that year by Chad Hurley, Steve Chen and Jawed Karim. The three had got to know each other on the work floor of PayPal, the online pay service that was sold to eBay in 2002. After dinner with friends in January 2005, they wanted to exchange each

other's videos of the dinner. But the files were too large to send by e-mail and, at the time, publishing on the Internet was a crime. They decided to resolve the problem themselves in some practical manner.

Jawed Karim had already thought about how videos could best be uploaded and exchanged as a result of the commotion created when Justin Timberlake revealed the star-decked breast of Janet Jackson during the half-time show at the 38th Super Bowl. Karim had not viewed this event live and had fruitlessly searched the Web for the famous scene. A second reason for Karim to start a site for video posting was the tsunami in Asia on Boxing Day 2004, which cost the lives of around 225,000 people. Images of the destructive wave sprung up everywhere on the Internet, but the Web still did not have a central video site.

The name YouTube.com was registered on 15 February 2005. The three founders worked on their idea in a rented garage in Menlo Park. The work was shared on the basis of knowledge and skill. Chad Hurley was responsible for the graphic design of the site. He had also designed the PayPal logo. Steve Chen and Jawed Karim were jointly concerned with the technology. Later, Hurley became the CEO and Chen the CTO.

After coming up with the concept, helping to establish YouTube and having partly constructed the website, Karim returned as planned to his computer studies at Stanford, but remained associated with the company as an advisor. When YouTube was sold to Google in mid October 2006, Karim's shares were worth around \$65 million. After completing his degree, Karim set up Youniversity Ventures, through which he is helping students who have good ideas to start up companies.

Jawed Karim posted the first video on YouTube in April 2005. In "Me at the zoo," Karim tells how long the trunks of elephants in the zoo are. The first beta version of the site was launched in May 2005. Almost instantly, the site was receiving 30,000 visitors a day. A run was started on YouTube because an iPod Nano could be won every day on the basis of points that were awarded points for doing everything: registering, uploading a video, et cetera. The iPod Nano campaign lasted a total of two months. In November, the website received \$3 million from Sequoia Capital. At that time, there were more than 200,000 registered us-



ers and over 2 million videos that were viewed daily. YouTube officially went live in mid December 2005.

By the next month, the number of videos viewed daily passed the 25 million mark. In March 2006, it was announced that users were uploading 20,000 new videos every day. In April, the cost for bandwidth amounted to \$1 million a month and YouTube received another million from Sequoia Capital. In May, it became apparent that YouTube was responsible for 43 percent of all web-video traffic. In mid July, the company reported that more than 100 million videos were viewed every day. In August 2006, Steve Chen announced that YouTube had the ambition of hosting all the music videos in the world within the space of one and a half years.

YouTube was sold to Google on October 16, 2006 for \$1.65 billion. *The Wall Street Journal* reported that Chad Hurley deposited \$345.6 million in his bank account. Steve Chen and Jawed Karim obtained respectively \$326.2 and \$64.6 million from their adventure. The rest of the money went to investors.

The most striking point was that YouTube had still not earned a cent at the time. The company had gigantically high costs due to the enormous bandwidth required. Why did Google place such a large sum on the table? “Scope” is the answer. Millions of people view YouTube clips every day. This exposure is worth money, and Google only needed to exploit the value of having contact with all these people. During mid 2007, a start was made on placing advertisements in some clips. This practice has now been expanded and YouTube videos are also included in the Google AdSense program. Site owners can use part of the program code for relevant videos related to the content on their sites.

The popularity of YouTube continued to increase in 2007. However, various television companies lodged complaints against the company for multiple transgressions of the copyrights for their programming. Viacom claimed the biggest loss and demanded \$1 billion from parent company Google. As a result, a large number of videos were removed. In July 2008, a district court judge ruled that YouTube must disclose all data concerning its video traffic to Viacom, including data involving the names and IP numbers of its users.

In September 2008, YouTube CEO and joint founder Chad Hurely made the following remark following a blogposting:

» Today, 13 hours of video are uploaded to YouTube every minute, and we believe the volume will continue to grow exponentially. In ten years, we believe that online video broadcasting will be the most ubiquitous and accessible form of communication. The tools for video recording will continue to become smaller and more affordable. Personal media devices will be universal and interconnected. Even more people will have the opportunity to record and share even more video with a small group of friends or everyone around the world.

Over the next decade, people will be at the center of their video and media experience. More and more consumers will become creators. We will continue to help give people unlimited options and access to information, and the world will be a smaller place.


TUDOU.com

每个人都是生活的导演

Everyone is the Director of Life

Tudou is the largest video website in China. The site was set up at the end of 2004 by Marc van der Chijs together with Gary Wang. According to a report by Nielsen/Netratings published at the end of August 2007, more than 360 million videos are viewed weekly on the website by a total of over 29.9 million unique visitors.

Site visits to Tudou.com in May and August 2007

	21-27 May (7 days)	17-23 August (7 days)	Difference (%)
Unique hits (avg./day)	2,327,667	6,173,727	+165
Web pages viewed (#/week)	179,466,304	493,921,824	+175
Clips viewed (#/week)	131,214,903	360,793,957	+175
Unique hits (#/week)	11,498,791	28,844,925	+150

Bron: Nielsen Online

Tudou owner Marc van der Chijs explains:

» Since increasingly more Chinese have broadband access, online video is becoming ever more popular in China. Undeniably, entertainment is the most important item that people in China look for on the Internet. At present, we reach about 40 percent of all Internet users in China every month. And because only 12 percent of the people are online there, we expect to be able to grow still a great deal more. About 700



thousand new clips are added each month, which are viewed about 1.5 billion times month in total. Since YouTube is currently not growing any longer and, according to insiders, the number of videos viewed per day there has in fact fallen sharply, it is not inconceivable that we will eventually become bigger than YouTube. Tudou is currently larger than YouTube was a year ago when it was taken over by Google. »



The name Ogrish.com was registered in June 2000. Ogrish is derived from the word “ogre,” the epitome of a man-slaying monster that kills its victims in the most gruesome manner. The content of this “shock site” lives up to its name. Only horrifying images, photos or videos are placed on the site. Not inappropriately, the website wields the slogan “Can you handle life?”

Initially, the site was administered by a person bearing the nickname “Evil Knevil.” Later, the site came into the hands of Dan Klinker. At its peak, Ogrish attracted an average of 175,000 visitors a day. Whenever a disaster occurred, such as the Al Qaida attack in Madrid for example, around 750,000 visitors viewed the website. When, in an interview, Dan Klinker was asked why he was publishing all this torment, he replied:

» *We do think that we are offering a service to the world by showing something the regular news will not show. Ogrish does not provide a sugar-coated version of the world. We feel that people are often unaware of what really goes on around us. Everything you see on Ogrish.com is reality, it's part of our life, whether we like it or not. The main reason for publishing this material is to give everyone the opportunity to see things as they are, so they can come to their own conclusions rather than settling for biased versions of world events as handed out by the mainstream media.* »

Ogrish was extremely controversial. It displayed images that the regular news did not obtain due to its excessively shocking content. The site was criticized in the news on several occasions. No consideration was given to next of kin, and this alleged disrespect resulted in legal action. On October 31, 2006, the website ultimately ceased its activity and was transferred to LiveLeak. The Ogrish forum is still accessible at OgrishForum.com.



The execution of Saddam Hussein was recorded on a mobile phone camera by a few of those in attendance. Within a couple of hours, the clips were available on the Internet, where a public of millions were horrified by the last moments of the tyrant. Just a day later, traditional TV news programs showed a censored version of the hanging.

One of the first sites on which the Hussein clips were displayed was LiveLeak, which carries the slogan “Redefining the media.” LiveLeak often offers shocking images, but it is only one of the many shock sites visited every day by hundreds of thousands of people. A prohibition or blockade of these types of websites has, to date, not been of any use. It has only led to other similar sites springing up like weeds.



Live Video

Justin.tv went online in March 2007. On it, you can continuously follow the life of Justin Kahn. Justin wears a cap on which a mounted camera constantly transmits the images that he himself sees to his website. The only moments when the camera is switched off is when he goes to the toilet, goes to sleep or has intimate contacts. The concept therefore strongly resembles the films *EDtv* and *The Truman Show*. Justin himself calls it “lifecasting.”

One of the biggest start-up problems was the high cost of sufficient bandwidth. Ultimately, the team behind Justin.tv found an inexpensive solution in the “Simple Storage Service” from Amazon. Justin.tv opened its platform to the external world in October 2007. Everyone was given the opportunity to continuously broadcast their lives. The result was more than a half million individual visitors in the first five days following the opening of the platform, all of whom wanted to give it a try. Only a few went ahead with it. Similar to Justin.tv are Ustream.tv and Kyte.tv.



MyLifeBits: The Life of Gordon Bell

It is likely that Gordon Bell, the famous Microsoft researcher, is still the only person who truly “lifelogs.” He has digitalized all his paperwork and a camera around his neck records any change in his immediate vicinity. It is doubtful that Bell will be the only one doing this for much longer. The number of personal and commercial weblogs, videoblogs, wiki environments, YouTube clips and MySpace pages are multiplying like rabbits, and governments will soon want to give us all our own websites at birth. In this way, the point demonstrated by the MirrorWorlds Company in the mid nineties with the Lifestreams application is slowly becoming a reality: everyone will place a record of their life, complete with multimedia content, in a digital mirror world.



Gordon Bell with MyLifeBits camera.

Source: pic.hjbbs.com/doc/200704/shooting98.jpg.

Let us zoom in on the future, while remaining close to reality by examining the groundbreaking Lifestreams project of Microsoft hotshot Gordon Bell. Bell's MyLifeBits project is a pilot of what soon might become completely normal.

MyLifeBits actually started in 1998, when Gordon Bell cut the cord and freed himself from immense piles of paperwork: articles, books, cards, letters, memos, posters, photos and more. Having made the first step, Bell decided, in his enthusiasm, to digitalize his films, videos of his lectures and all his taped recordings as well. Bell's assistant had to slave away for years in order to finish the job. His electronic archive is now much easier to maintain, as most documents, films, photos and spoken texts are already digital.

Once everything was scanned in, Gordon Bell noted that his treasure chest of information could not be easily unlocked with the software available at the time. It was 2001 and this constraint resulted in MyLifeBits building up steam. Full-text searches were implemented and metadata added to each bit of information. At present, the system records telephone conversations and instant messages, as well as radio and TV programs, along with every webpage that Bell visits. And of course, the files that he opens, the music that he clicks on and the searches that he conducts. GPS is used to update Bell's location and links the data to photos that he unknowingly takes. His “SenseCam” automatically takes pictures based on new information received from various sensors.

This somewhat over-the-top implementation scientifically demonstrates that technology is a far better memory aid than maintaining a diary each evening, for example. After six years of research, Gordon Bell's personal digital archive has now grown to 300,000 database records with a total size of 150 gigabytes. Of this amount, there are 60 gigabytes of film, 25 gigs of photo material and 25 Gbs of audio, including 18 Gbs of music. The remaining 40 gigabytes consist of 100,000 webpages, along with 100,000 e-mails, 15,000 texts and 2000 slide presentations.

In the future, such systems will be indispensable. Not only on account of the practical advantages with regard to contacts in the work domain, but specifically because MyLifeBits can, for example, easily record the 3 billion heart beats that occur in a human life, as well as other vital data about an individual's health, and can promptly detect any possible changes. In twenty years, we will be able to acquire 250 tera-bytes of memory for just a few hundred dollars. This amount of memory will be enough for tens of thousands of hours of video and tens of millions of photos.



Anywhere, Anytime

The big television companies are closely following the developments mentioned above. Bit by bit the ground underneath their feet is crumbling away, as everyone plays fast and loose with their content. Reaction from the established companies cannot be far off. In March 2007, NBC Universal and News Corporation announced that they were joining forces. Together, they invested \$1 billion in the Hulu initiative that began to provide some competition, particularly for YouTube in the Fall of 2007. This initiative has been viewed with skepticism by Google, insiders there dubbing the collaboration "Clown and Co."

The new site of NBC Universal and News Corporation allows on-demand viewing of complete series and films, such as *24*, *The Simpsons*, *Las Vegas*, *Borat* and *The Bourne Identity*. Metro-Goldwyn-Mayer and Sony Pictures Television have, in the meantime, also joined the Hulu initiative. As a result, other shows including *Chappelle's Show* and *I Dream of Jeannie* have also become available.



Hulu's offer is unique. It provides high picture quality for entirely professional productions. However, the biggest weakness is the delay that Hulu has built into its program schedule. New episodes of popular series are only distributed five weeks after their television broadcast. There is some question as to whether Internet users will accept the five-week delay or find alternatives in other initiatives. It is also unfortunate that users outside American do not have access to Hulu.

NBC Universal's general counsel Rick Cotton made the following statement at a U.S. Chamber of Commerce symposium: "Hulu represents a complete change of thought process and how the TV business is run. It used to be four years before a series was available anywhere else besides the network. Now, the minute a show is over in Hawaii, it's on the Web. That's a huge change." We are therefore converting from scarcity to overabundance. Large organizations can no longer monitor their content. They lose *de facto* title to their property the moment that it is broadcast. Once aired, complete television series are immediately placed on the Internet, where everyone in the world can view them on demand.



200,000+ TV shows
400+ Channels

Joost (pronounced in English as "juiced") is the web TV enterprise of Niklas Zennström from Sweden and Janus Friis from Denmark. In the past, the two have already succeeded in launching two programs that completely turned industries upside down: first the music exchange program Kazaa, which caused turmoil throughout the music industry, and then Skype, by means of which it is possible to make phone calls over the Internet and is therefore a direct competitor of the established telecoms companies. With Joost, they now have the television and film industry in their sights. Just like Kazaa and Skype, Joost offers a peer-to-peer environment. The goal is to obtain the same television quality over the Internet as the one we are accustomed to obtaining from cable or satellite TV.

Joost was started at the beginning 2006 and is being developed in Leiden in the Netherlands. In an interview, former technological director Dirk Willem van Gulik revealed:

» *Just like on existing TV, you will choose a channel and zap with your remote control. The process must be as close to watching ordinary TV as possible. In addition, there are new extras. You will be able to rewind, pause and, if it is not a live broadcast, also fast forward. In principle, Joost will also be a kind of program on demand online service, but then for everything and forever.* «

Joost adds yet another important noteworthy extra to the manner in which we currently experience television. It makes it possible to establish contacts with viewers of the same program or seek contact with viewers who share the same interest. Joost therefore combines television with the social-network concept.

Joost is built from existing components. Use is made of the private company Global Index, which also keeps Kazaa and Skype afloat. Eighty percent of Joost consists of open-source software, such as Ubuntu and Mozilla. Users will soon be able to use an open API to add their own functionality to the program in the form of “widgets.”

Joost is free to everyone. Revenue will be obtained from advertisers, as Joost can obviously be used for targeted advertising, as the person sitting in front of the computer screen can be precisely identified. This possibility is so attractive that various companies have already bought advertising time, such as Wrigley's chewing gum and the T-Mobile Company, as well as Maybelline cosmetics.

Joost has learned from its predecessor Kazaa, and users will not be able to upload material themselves. This will avoid copyright claims. All the material on Joost will be legal. Given this policy, various large film and television companies have already concluded contracts with Joost. The service started as a desktop application. In September 2008 became clear that Joost would be transformed into a browser plug-in, enabling users to find content via others. Compared to Hulu Joost offers little premium content.



BitTorrent, as its name suggests, is a wild-running peer-to-peer protocol. In contrast with other P2P communication programs, BitTorrent has no central service to store source files and make exchanges among users. Downloading of files occurs in a decentralized manner between users who happen to be on-



line at the same time. They exchange bits of the complete file directly among themselves. To make it easy to find specific files, there are websites that distribute “torrents,” of which the best known is the Swedish Piratebay.

Bram Cohen is the brains behind the BitTorrent protocol. He started developing his ideas in April 2001 and unveiled the product to the world at a conference that he organized under the title CodeCon. To enable as many people as possible to make use of his protocol, he used free porn to bring the protocol to the attention of the Internet public.

Originally, Cohen devised BitTorrent to enable the rapid exchange of files among users. It has now become the world’s largest peer-to-peer network for software, films and music. Nearly the half of all Internet traffic is now caused by people downloading BitTorrent files. The Brein Foundation is fighting this practice in the Netherlands, although this opposition has enjoyed little success. BitTorrent traffic continues to increase annually in leaps and bounds.

MeOnTV

Mobile Internet and television are slowly being merged. With an eye on this development, Ericsson, Endemol and Triple IT jointly introduced the new worldwide service MeOnTV in September 2007. Thanks to MeOnTV, people can send pictures recorded on a mobile telephone to a studio, where they can be included in a live program or stored for later use. Regional stations in the Netherlands were the first to use MeOnTV; three hundred people received a video phone by means of which they sent local news to a daily prosumer news show.



More information? Then watch the MeOnTV clip on Blip.tv (ttestarolo.blip.tv/file/371749) and surf to Ericsson’s “Are you my Televisionary?” page (www.ericsson.com/campaign/televisionary/?WT.mc_id=bnnr_sml). Of course, you can go directly to the website www.MeOnTV.co.uk.



Seesmic is the new company of Loïc Le Meur, the founder of the famous LeWeb symposia. The associated site is a mix of Facebook, YouTube and Twitter. Users can upload a video; other users can then respond with a homemade video. Le Meur believes that the future of online video does not lie with YouTube or live video but, he thinks, with video conversations in social networks. His belief is shared by investors, including AOL founder Steve Case,

Niklas Zennström and Janus Friis from Skype and Reid Hoffman, the founder of LinkedIn.

The most noteworthy factor is, however, the manner in which Le Meur has set up his company. Right from the beginning, he posted a new video every day in which he talks about the problems that he encountered in setting up the company. Viewers were constantly asked for advice. This interaction engaged people in such activities as the creation of the logo and the hiring of personnel. Le Meur even states the following about this method:

The conventional wisdom in business is to keep your ideas secret, develop new products in stealth mode, and make employees sign nondisclosure agreements... But sharing is power. The more you share, the more opportunity and help you get.

The television medium is shifting from mass to niche. In the past, television was specifically devoted to serving the large majority. The Internet is bringing about a complete change in this regard. The individual in front of the computer is no longer interested in a medium that only provides one-way traffic and limited choice. Even setting a time when a certain program can be viewed is a practice that no longer belongs to the present. Of course, we all have a video recorder, but users want to determine themselves when, where and on what device they will watch something. Above all, we have become accustomed to entering into conversations on MSN, weblogs, wikis, et cetera.

» *Future TV will be made with simple equipment, unqualified people, small budgets and bad taste.* «

Brian Eno, 1991

This development will transform the traditional TV experience. Consider the video clips on YouTube to which users can respond, or the social element in the Joost television images. Users also want to be able to determine what they will watch and when. This new form of television will not only be more appealing to the public but will also be preferred by companies. Based on the user profiles and interests, they will be capable of targeting the individual with their advertising.

A side effect of the new television is the development of the medium's hard edge. The Internet is ruthless. All the material that was previously censored by broadcasters is now viewable by everyone. The gruesomeness of sites such as Ogrish and LiveLeak are not kept behind lock and key. Governments warn their citizens against the dangers of the Internet. A clip that your friend



or partner makes with a mobile camera may, if you are not careful, find its way on to the Internet once the relationship breaks down. Fewer and fewer things can be kept secret.

9.3 The Attack on the Music Industry

Mozart, Bach and Beethoven were world famous amongst the elite. They were at home amongst royal families and aristocrats, but ordinary people were totally unaware of their existence. In 1887, Thomas Edison's phonograph represented the first step toward changing this lack of familiarity. Initially, phonographs, and later gramophones, were devices possessed only by the elite. But at least you did not have to always go to a concert hall. In the forties, radio became a big hit and, by the end of the fifties, the gramophone became a consistent domestic device. The teen pop idols in the sixties made the gramophone, then more commonly referred to as the record player, a resounding success. Singles and LPs were played again and again until they wore out.

Hundreds of independent recording studios shot up like mushrooms. Shrewd marketing campaigns enabled them to secure large sales of their artists' work. Music magnates emerged; if an artist or band wanted to make it big, they had to sign a contract with one of the large record companies. These industry giants could make or break artists. In the United States, the four large record companies (Warner Music Group Corp., Vivendi's Universal Music Group, EMI Group PLC and Sony BMG Music Entertainment) are responsible for 88 percent of total album sales.

The shift in power away from the record companies to the consumers and artists can be illustrated using the following examples: Napster, Kazaa, eMule, BitTorrent, Sellaband, Last.fm, Pandora, iTunes, SpiralFrog, Arctic Monkeys, Nine Inch Nails, Radiohead, Prince and Madonna.



In September 1999, failing student Shawn Fanning jolted the music industry awake with his peer-to-peer musical service Napster. The constant com-

plaints from his roommate about all the dead MP3 links on the Web caused Shawn to think about the situation:

» *I had this idea that there was a lot of material out there sitting on people's hard drives, and I had to figure out a way to go and get it.* «

Shawn had learned how to program UNIX servers at high school. However, everyone was using Windows, so he first had to master this program. When his cousin dropped him off at his student residence in Boston one January evening, Shawn, inseparable from his trusty laptop, made a big decision. From then on he would fully devote himself to the development of Napster. John Fanning, Shawn's uncle, made him a proposal. Shawn could continue to work on Napster within his software company at Uncle John's expense. The two finalized a 30-70 deal and Shawn, who received the smaller share, went to work.

Napster was the very first program for peer-to-peer exchange of music. At the peak of its existence in February 2001, there were over 26 million users around the world. However, Napster could not survive for long, quickly becoming a victim of its own success. Various musicians, including Metallica and Dr. Dre, condemned it as a pirating product that caused them to lose a great deal of money. A series of lawsuits ensued, and Napster was declared bankrupt in June 2003. In December 2003, Napster was finally sold in auction to Roxio Inc. Little has been heard of Shawn Fanning since. In 2007, he resurfaced with Rupture, a social network for online gamers.



Big shots within the recording industry were pleased, thinking that the end of Napster would signal the return of power into their own hands. But things did not quite turn out that way. Niklas Zennström and Janus Friis jumped into the void left by Napster by launching Kazaa. In contrast to Napster's use of a central server, Kazaa is completely decentralized. The users themselves provide hardware support for the transfer of data, making Kazaa much more difficult to fight on legal grounds.





Nevertheless, the record industry also took Kazaa to court. Under the pressure of looming court cases, Niklas Zennström and Janus Friis made the best of a bad lot and sold Kazaa to Sharman Networks and, ultimately, this Australian company had to pay a \$100 million fine in 2006.

After Kazaa, things only deteriorated for the record companies. Alternatives quickly appeared on the market, such as eMule and BitTorrent, with protocols that only made it more difficult to trace end users. In the case of eMule, the program creator is even anonymous. Fighting P2P is ultimately a losing battle.



Music consumers are not the only ones who have tried to extricate themselves from the power of the recording companies. In 2006, Pim Betist came up with the idea of turning the control of a website over to musicians and their fans. In August 2006 he, along with Johan Vosmeijer and Dagmar Heihmans, set up the Sellaband website, where visitors can acquire a share in an artist or band. When 5000 shares are sold, an amount equal to \$50,000, the artist in question is then allowed to enter the studio and record an album with a professional producer. The investors, who are “believers” in the artist or band, are then offered the music online.

Income is generated by selling CDs and advertising space on the site. The “believers” receive 10 percent of the profit, 30 percent goes to Sellaband and the remaining 60 percent to the performing artist(s). The Sellaband site now contains the music of around 1250 artists from 50 countries. The Dutch gothic rock band Nemesea was the first band to succeed in reaching the \$50,000 mark. Nemesea’s album *In Control* was released at the end of June 2007.



The Last.fm website is a radio station where you can indicate the music you want to listen to. With this data, the website searches in the available profiles to provide other music that might appeal to you. The profiles are, to a large extent, automatically set up by the Audioscrobbler plug-in. This is lodged in

Windows Media Play, iTunes, et cetera. Information is sent to Last.fm only when a tune is listened to. In this way, the website gets a better idea about the music that you like to listen to. Linked to a database comprising millions of listeners, the accumulated data provides new tips about how to suit your preferences. In addition, you can label music and conduct key-word searches for music that you and others would like to hear. As a result, you get a radio station that plays your favorite types of music.

The website now has more than 20 million visitors every month from over 230 countries. At the end of May 2007, the website was sold to American media company CBS for over \$280 million.

PANDORA® radio from the Music Genome Project®

Pandora is comparable to Last.fm, with one significant difference: Pandora is not based on human intelligence but uses an algorithm that analyses music files on the basis of around four hundred characteristics constituting the Music Genome Project. The characteristics vary from the sex of the singer or relation of the rap artist, to the volume of the electrical guitar. This analysis reveals the music that the user prefers to listen to.

Until recently, everyone could access Pandora. The company pays a small royalty for each streamed music file. The American Copyright Royalty Board has, however, determined that the amounts were too low and has tripled them. As a result, many American radio stations that had exclusively been broadcasting their music on the Internet were stopped in their tracks. The cost of music streams became so high that they could only be paid by the big stations from advertising revenue. Many small Internet stations, unable or hardly able to support themselves, were immediately throttled. Pandora decided to no longer allow many foreign listeners to access its broadcasts and to then target only American music fans. In the meantime, many Internet radio stations are attempting to reverse the ruling by means of the Save Net Radio initiative.



iTunes

The record companies were able to take a breather at the beginning of 2001. Apple headman, Steve Jobs, introduced the iTunes program,



which enabled users to manage their own music and film catalogues in a simple way. This program can also be used to legally acquire mp3 files from the iTunes Music Store for \$0.99 per file.

It was announced in July 2007 that over 3 billion tunes had been downloaded from the iTunes Music Store. Jobs also revealed that this music was primarily placed onto the Apple iPod. However, it was also evident that only 3 percent of the music on iPods had been legally obtained.



The SpiralFrog website is only accessible to residents of the United States and Canada. Visitors can download their music for free, provided that they view an advertisement. The site has to be revisited once every thirty days so that another advertisement can be shown to users. If this does not happen, then the downloaded music is automatically rendered unusable by the person in question. In total, 800,000 songs and 35,000 videos are available.



In 2002, four young men came together to make music, forming a band called Arctic Monkeys. They began to give concerts in the Sheffield area of England, which is where they come from. People who came to their concerts received free CDs with the request that they distribute the music over the Internet. Very quickly, a MySpace page was created from which the four's music could be downloaded. Their music spread like wildfire and the group was increasingly invited to perform outside their local area.

At a certain point, U.K. radio began to pay attention to this phenomenon. A small indie record label then offered to record a CD for the group. The first

week sales of the album exceeded 360,000 copies. The band's second album conquered the world, and received top-billing in several countries.

When the Arctic Monkeys are asked about the success behind their music, they always point to the Internet. The viral power of the Web is immense and made it possible for everyone to be familiar with their music.

Nine Inch Nails

Industrial rock band Nine Inch Nails employed a clever strategy when issuing their album *Year Zero*. A T-shirt sold on the concert tour came with a set of instructions. Printed on the back were various dates and locations for where the band was scheduled to perform in 2007. Some of the letters indicating the dates and locations were striking to the eye. They were printed separately, using vivid colors. Together, the letters formed the sentence "I am trying to believe." The phrase led fans to an identically named website on which they, after solving a number of puzzles, were linked to a free track from the new album. USB sticks could also be found lying around during concerts and these also contained a track from the new album. The band also encouraged fans to share the music among themselves.



This marketing campaign struck a tender spot with the Recording Industry Association of America (RIAA). Under pressure from this organization, Nine Inch Nails had to call a halt to the campaign. A great deal of commotion ensued, as Nine Inch Nails and their record company had decided to promote the music in this way. At the beginning of 2007, Nine Inch Nails front man, Trent Reznor, announced that the band was no longer contractually bound to a record company. In March 2008, part of the *Ghosts* album was placed on the Internet (ghosts.nin.com),

» ... because we believe BitTorrent is a revolutionary digital distribution method, and we believe in finding ways to utilize new technologies instead of fighting them. «





Radiohead and Prince

One of the stories in the book *Freakonomics* by Steven Levitt and Stephen Dubner describes how a sandwich retailer no longer finds it worthwhile to wait every day for customers to come along, pick up and pay for their sandwiches. As a test, he leaves the sandwiches

at the back of the lunchrooms in the companies where his customers were working. Next to the sandwiches was a sort of money box in which customers were supposed to place the money owed for the sandwiches they consumed. Ultimately, it turned out that customers were willing to pay \$0.90 for a sandwich. Of course, there were people who did not pay, but the retailer was better off overall. He received more money and it cost him less time.

This story was the source of inspiration for the U.K. band Radiohead in selling their latest album *In Rainbows* at a price that the individual consumer was ready to pay. At the start of October 2007, fans could register for the new album, which was released on the band's website on October 10. They had to pay a minimum of 45 eurocents (the cost of a credit-card transaction) for the album.

Radiohead did not expect to strike it rich with the sales of the new album; however, they did see it as good marketing for the upcoming big concert tour. Prince had already demonstrated this when, in July 2007, he distributed his new album *Planet Earth* for free via the U.K. *Daily Mail* newspaper. The CD popped through the letter box as an insert to a print run of 2.9 million newspapers. As a result, 21 concert dates were sold out within a few days.

The Radiohead campaign has, in any event, resulted in worldwide front page headlines for the band, a consequence of which being that their website has become the most heavily visited in the U.K. Even people who had never heard of Radiohead viewed the site. Radiohead's initiative has also led other artists to consider this new business model. Jamiroquai and Oasis have now announced that their new albums will also be distributed in this way.

On October 12, 2007, it was revealed that Radiohead had distributed over 1.3 million copies of its album through its website in a couple of days. As a side effect of this activity, the website was inaccessible for several periods during that time. The 1.3 million figure could have been several times higher. A third of the people downloading the album did not pay anything, many paid \$20 and the average was \$8 a copy. The album *In Rainbows* ap-

peared in stores in January 2008. More than fifty minutes of the New Year's Eve concert "Scotch Mist" was also released on YouTube ([youtube.com/watch?v=ukythkK4EPQ](https://www.youtube.com/watch?v=ukythkK4EPQ)).

Madonna

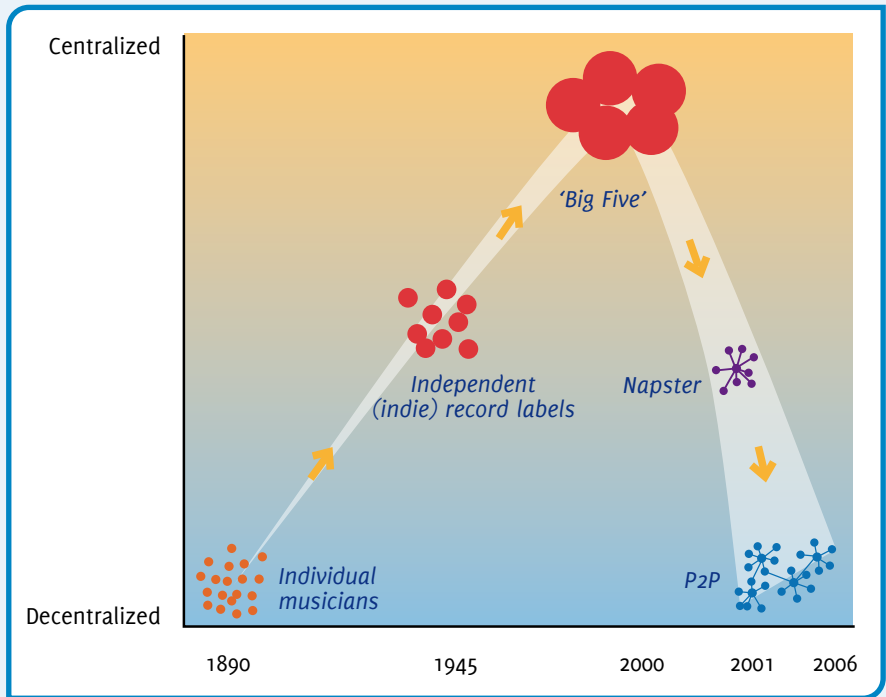
Pop icon Madonna announced in October 2007 that she was ending her 24-year relationship with the Warner Bros Record Company. Instead, she signed a 10 year contract with concert promoter Live Nation. For a payment of \$120 million, this company has purchased the right to distribute three studio albums, promote concerts and sell Madonna paraphernalia. Moreover, Live Nation has also acquired the right to use the Madonna brand. In a statement, the pop star explained:

» *The paradigm in the music business has shifted, for the first time in my career, the way that my music can reach my fans is unlimited.* «

The hegemony formerly enjoyed by record companies appears to have been ended by the Internet. Firstly, music fans are using P2P to exchange programs and, consequently, cut themselves a bigger slice of the pie. This has exposed the weakness in the value chain linking artist, record company and consumer. Secondly, social initiatives such as Sellaband are taking over the role of the record company. Finally, established artists are also turning against their paymasters. They also realize that record companies are no longer necessary in order to reach the public. The Internet makes it possible to have direct contact with fans. Madonna, Prince and Radiohead have already proven their popularity in the past and sold millions of albums via record companies. These artists can allow themselves to experiment with another business model. Artists just starting out will find this more difficult.

The fact that the music industry's value chain is now fully exposed will cause the power of the big record companies to crumble. New business models are bringing new challenges to an industry that has, in the past, brimmed with profits. The following diagram shows how the music sector has developed from a decentralized into a centralized industry, and back to decentralized one. The figure is taken from the book *The Starfish and the Spider* by Rod Beckström and Ori Brafman.





9.4 The Attack on the Telecoms Industry

In 2003, the telecoms industry was surprised by the Skype initiative from Niklas Zennström and Janus Friis. With the peer-to-peer technology of Kazaa, they had already shown themselves capable of administering a substantial blow to the music industry. Zennström and Friis re-used the same technology in order to affect a revolution in the telecom sector. In an interview, Niklas Zennström stated:

» *We deliberately chose to disrupt the Telecom sector with our technology because it looked very attractive.* «



Skype makes it possible for telephone calls to be made over the Internet, a functionality known as Voice over IP and one for which, in principle, no money has to be paid. Since its introduction in 2003, Skype has gained enormous popularity, 247.5 million people making use of the

service in September 2007. Skype has now been copied by many of the big players resulting in such programs as Microsoft Messenger and GoogleTalk.

In mid September 2005, Skype was sold to the online market place eBay for \$1.9 billion in shares and cash. The owners also had the potential to add an extra \$1.5 billion to their bank accounts if they succeeded in reaching certain targets within 2008. It became evident in the third quarter of 2007 that these goals would not to be attained. The number of Skype users has continued to increase, but the money earned from each user is too low. CEO Niklas Zennström was sent packing and indicated in a final statement:

» *Some people may want to monetize faster, but the key is to figure out what is the right speed of monetization. If you act too aggressively, there is a real risk you will lose the huge active user base.* «

Skype owner eBay is now busy considering how it can recover its substantial loss.

iPhone

Steve Jobs astonished the world in one of his famous speeches, the one given in January 2007. Apple has again proven to be incredibly successful in developing a small and attractive device: the Apple iPhone. The iPhone is an ingenious mobile device with just a few buttons. The rest of the device is a flashy display with fingertip functionality.

The apparatus has subsequently been distributed throughout the various parts of the world. Wherever it has been introduced, there has been a veritable run on the various Apple stores.



gPhone

In 2007, there was a great deal of speculation about the appearance of the gPhone from Google. At the beginning of November, it became clear that this mobile telephone would not be introduced. Google made it known that it would, instead, combine its forces with 33 telephone equipment suppliers in bringing a new operating system to the market under the “Android” name. The operating system, based on a stripped-down version of Linux, is integrated with many Google tools, such as Gtalk, Gmail and Google Maps. The Android project is completely open-sourced. By distributing a Software



Developer's Kit, Google hopes to promote interest among developers. Additionally, there is a jackpot of \$10 million available to them. According to Google, mobile Internet is the next trend. The company wants to use the Android platform to achieve a dominant position within this market.



The telecoms industry first began to wobble when the mobile phone was introduced. This weakening of the industry left room for mobile operators to sell their subscriptions to the public at knock-down prices. One of the consequences of this activity is that nearly everyone now has his or her own mobile phone and that the fixed telephone connection is rapidly disappearing everywhere. The next blow for the telecoms industry was Skype. In one fell swoop, it became apparent that phone calls could be made over the existing network of the Web. Sky-high profits enjoyed by the telecoms industry for decades are melting away like ice on a sunny day. To boot, the telecom industry now has to deal with a rapidly emerging mobile web. It is in danger of losing the battle here as well. Titans such as Apple, Google and Microsoft are all, in their own way, out for a piece of the pie.

The coming years will reveal if the existing telecom giants can remain steady on their feet and face up to the challenge successfully. The winner will undoubtedly be the consumer.

9.5

The Attack on Banking Institutions

The idea that a decentralized network is capable of undermining the power of established institutions has proven its validity in the newspaper, music, television and telecom industries. The financial sector is the next line of business to feel these effects.



Loans from People not Banks

James Alexander is CEO of the peer-to-peer Internet financial company Zopa. A month before Zopa went live, it still did not have a name. Upon reflection, one of the founders recalled the term "Zone of Possible Agreement." This was exactly what Zopa was all about: to assist indi-

viduals in lending money to each other in a secure environment, but without the intervention of a hefty bank charge for the transaction. The domain was bought very cheaply, but when the finance company made its first steps on the Internet, an e-mail was received indicating that Zopa in Russian means something like “son-of-a-bitch.”

The people who take part in Zopa are called “freeformers” by Alexander. The enormous increase in their numbers over the last decade suggests that the consumer revolution of the past thirty years is undoubtedly converting into a free form revolution to last the next thirty. In 2000, eBay was created for goods, in 2005 iTunes for music and in 2010 it will, Alexander predicts, be the turn of Zopa, which will shake the foundations underlying the financial world. Such free-form companies, including Wikipedia, YouTube and Flickr, are capable of transforming economic sectors on the basis of technology. At present, “social lending” is the accepted label under which Zopa operates. In 2006, the American innovation magazine *Business 2.0* listed Zopa among the eleven companies likely to economically turn the world upside down.

To retrieve the credit rating of borrowers, Zopa not only makes use of the regulated bodies but also social initiatives such as eBay. A check is made on eBay to determine how a money seeker lives up to his or her obligations: is the individual someone who pays for delivered goods on time or not? Zopa was launched for U.K. residents in March 2005. Since then, Zopa has spread its wings worldwide.



The P2P Lending Marketplace

One year after the British Zopa, Prosper was set up in America. This loan site resembles Zopa in all its facets, but there is one big difference. Prosper is a combination of peer-to-peer and social network. Money seekers can post extensive profiles in order to cultivate the trust of moneylenders.



In February 2007, the Dutch loan site Boober was started by Guus Drijver, a former manager at ABN AMRO. According to Guus, Boober has a right to exist because:



» *We do not have expensive premises and do not run costly advertising campaigns on television and the Internet. For these reasons, we charge the investor only 0.5 percent, and borrowers a substantially lower amount on loans than the large parties do. Over the coming 2 to 3 years, we aim to acquire 1 percent of the total market for personal loans. This amounts to 170 million euros [252 million dollars].* «

After a few weeks had passed, Guus Drijver reported:

» *... 1600 registered borrowers and 600 moneylenders. To date, they have made combined commitments involving 1.6 million euros [2.4 million dollars]. This is substantially more than the amount we had expected. The initial fifty loans have already been issued. Registered users of the site have extended loans amounting to between 250 and 300 grand.* «

There are a number of requirements that have to be met in order to borrow or lend money. Borrowers must be domiciled in the Netherlands and have fixed incomes. They must also provide some information about their spending habits. Finally, a credit check is run at Experian and Intrum Justitia, two European financial and credit management service companies. In the future, Boober also hopes to conduct these checks by accessing the Dutch National Credit Register.

Boober permits its users to precisely justify why they need the loan. This can be accomplished with an explanation provided when filling in the application or by including an appropriate photo. There is also a forum where direct questions can be asked of the lender. This social element makes it easier for the moneylender to decide whether or not to lend money to someone. The borrower's reliability is of crucial importance for the amount of interest to be paid. A high credit rating means a low level of interest.

The Boober loan site has even been cause for questions raised in the Dutch House of Representatives. There was a great fear among Dutch Representatives that such initiatives would ultimately only lead to money problems for borrowers. The House of Representatives decided that these market places must also comply with the law and therefore satisfy certain criteria.

At the end of August, the Dutch Financial Markets Authority (*Autoriteit Financiële Markten*, abbreviated AFM) forced Boober to close its virtual vaults. The court decided that Boober did not possess the necessary licenses to broker loans. Boober immediately decided to no longer allow moneylenders to register as creditors for loans. Later, a thorough investigation by the AFM

led to the conclusion that Boober could continue its practice without license, provided that a number of conditions were met. For instance, no professional financial institutions could participate in the peer-to-peer network, private individuals may not lend more than 40,000 euros (about 60,000 dollars using a 2008 exchange rate) and these individuals may not extend more than 100 loans.

The Netherlands Central Bank gave Boober the green light at the beginning of October 2007. As the authorities are unable to act against these sorts of initiatives, the Dutch Minister of Finance, Wouter Bos, has promised that an amendment will soon be made to the Dutch Financial Supervision Act (*Wet Financieel Toezicht*).



wesabe

Get to Know Your Money

The Wesabe website makes it possible to upload digital bank statements so that the features of a person's spending habits can be analyzed. Wesabe then makes recommendations based on this analysis. Wesabe also provides people with the opportunity of linking up with people who have the same spending habits. These individuals can then attempt to modify their spending practices and even to save money. It is as if collective intelligence is being added to an individual's bank account.



Kiva was set up in San Francisco by Matt and Jessica Flannery. Kiva uses the peer-to-peer principle to assist in supporting small projects within developing countries. Moneylenders can only lend a small amount, which in many developing countries is large enough to move mountains. In this way, Kiva supports an economy of micro-transactions. There is a risk that a project may be unsuccessful and the project owner cannot repay the loan with interest, but to date (February 2008) 98.4 percent of the projects have been successful in making such repayment.



It is still too early to ascertain if peer-to-peer markets in which borrowers and lenders meet will have a destructive effect on traditional financial institutions. Many people will not readily place their hard-earned savings in jeopardy by “playing” at being a bank. Nevertheless, it is certainly the case that the above-mentioned initiatives involve millions of dollars. And this amount involves companies still in their infancy. The potential is therefore great, but the public still remains to be convinced.

9.6

The Wiki Way to Enterprise 2.0

The final “disruption” that we will discuss here does not involve any upheaval of an economic sector but the thematic cultural disruption caused by the new collaboration and knowledge sharing enabled by the introduction of such web media as blogs and wikis in organizations.

How will knowledge work be performed in the information era? Firstly, gather as much information as possible and then process it into usable information. On this basis, we acquire knowledge over the course of time. And if we can use it in an appropriate manner, we attain a certain level of wisdom. Schematically, it all seems very simple. The more data you can access, the better your information is and ultimately your knowledge is increased.

This would not be possible without IT, but there are two large, related objections: intelligibility and involvement. After all, an unintelligible information blob curtails involvement enormously. People turn off. And the fewer people involved, the bigger the chance is that information is completely unintelligible to third parties. They simply do not take part. Working collectively on knowledge products and the processes to which they give rise is therefore crucial. Of course, this work involves the computer and is therefore called Computer Supported Cooperative Work (CSCW).

Collectively building good data processing and information provision has long been a question of groupware and workflow. Unfortunately, in the nineteen eighties and nineties we had the idea that the corresponding knowledge systems would resolve the knowledge management challenges facing us. In her paper “Wiki and the Wiki Way: Beyond a Knowledge Management Solution” (2005), Jennifer Gonzalez-Reinhart of the University of Houston clearly explains what is going on. Gonzalez-Reinhart distinguishes the fol-

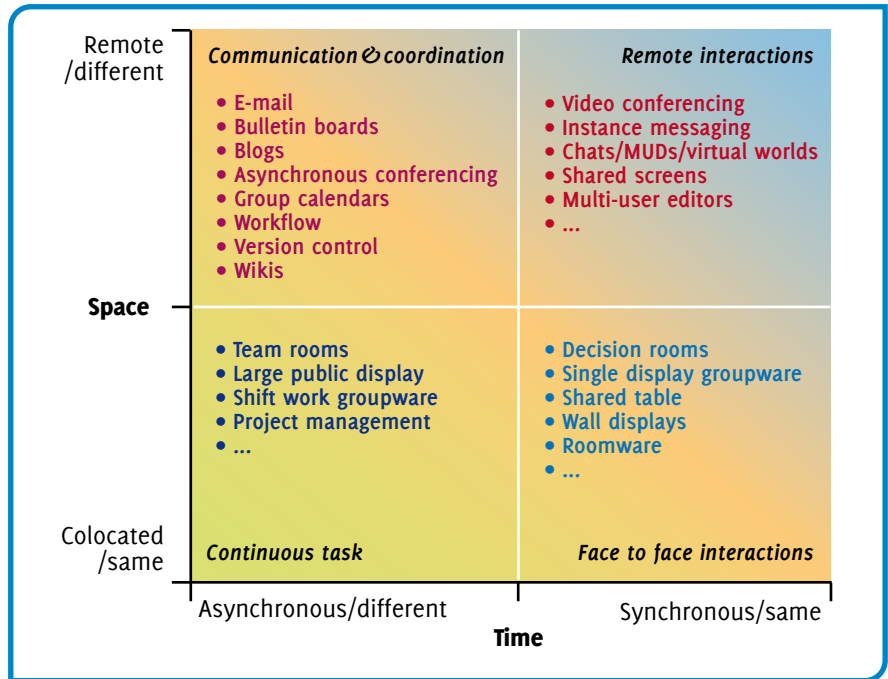
lowing four phases: proprietary solutions, open-source solutions, the first generation wikis and the second generation wikis.

A static manner of accumulating dynamic knowledge combined with poor co-ordination on the work floor causes proprietary systems to explode. A subsequent interlinking of a few such systems focusing primarily on technology then makes knowledge management failure complete. Things are slightly better in the case of open source systems. The cost of these for the user is rather less and they encourage a culture of involvement. A system that is built collectively by many people also instills a “we” feeling and a “we” practice among users. The subsequent step to wikis is then a very easy one to take. From the start, wikis have been tools derived from the open-source approach. They are concerned with transparency: changes are easy to follow and to reverse. Ward Cunningham, the discoverer of the wiki, is very modest about it. He says that a wiki is the simplest database that could ever function properly. A wiki is just a hypertext in a multi-user environment in which people—initially programmers—collectively work together. Wikis are easy and fast (“wiki-wiki” means “fast” in Hawaiian) and encourage the involvement of the individual in a social context (“wiki” has also been interpreted as an anagram for “what I know is”).

Jennifer Gonzalez-Reinhard describes wikis as a “conversational” manner of working. Consequently, they belong to the same category as weblogs, although wikis have more structure. As examples of the second generation of wikis, Gonzalez-Reinhard points to Socialtext and TWiki, the Enterprise Wiki. These products have now been joined by what we might call the third generation wikis, which include SuiteTwo from Intel, including Socialtext, and such solutions as Microsoft SharePoint. Wikis currently consist of complete software packages including news feeds, weblogs and knowledge tracking software. In theory, there has always been a need for such interaction and conversation in the pursuit and accumulation of knowledge. Knowledge management stands and falls with the intelligibility and engagement of knowledge management and the knowledge process; it requires conversations such as those that give form to collaboration in the context of Computer Supported Cooperative Work. The total field of CSCW appears as depicted in the following diagram.

According to Don Tapscott and Anthony Williams, wikis are an important cornerstone of “Enterprise 2.0”, the business version of Web 2.0. Their book *Wikinomics: How Mass Collaboration Changes Everything* (2006) is, in fact,





the ultimate promotion of human-based Supported Cooperative Work as a knowledge, production and innovation paradigm.

A great deal had already been written and said about wiki-use in organizations when, in 2006, Wikipedia clone Intellipedia became the core of the new way of working inside the American security services. Intellipedia was a response to the criticism that the best equip spies in the world turn out often to be incorrectly and insufficiently informed. Wikis are now employed to fight terrorism, but their use also extends to the H5N1 bird-flu program, for example. Other countries participate wherever possible, as collaboration and controlled openness characterize the wiki way of working.

Intellipedia is the shining example of what many organizations are striving for: collaboration with new tools such as wikis, weblogs and newsfeeds, while still preserving a little privacy. Not all knowledge needs to be available on the street. Intellipedia is a good barometer for the trend in which organizations are using more and more so-called “social software.” The wiki is the modern archetype for this category: simple, accessible, informative and flexible.

Wikis at Dresdner Kleinwort Wasserstein

The success of Enterprise 2.0 depends, to a large extent, on what management makes of it. In essence, this is also the conclusion of Andre McAfee in his article “Enterprise 2.0: The Dawn of Emergent Collaboration,” which appeared in *MIT Sloan Management Review*. This essay primarily focuses on developing a best wiki practice to serve as a guide for organizations wanting to travel down the Enterprise 2.0 path.

In his article, McAfee looks carefully at Dresdner Kleinwort Wasserstein (DrKW). This investment bank has about six thousand employees working in offices located in such cities as London, Frankfurt, Paris and Tokyo. DrKW chose to establish one central wiki instead of numerous individual systems so as to, in this way, encourage collaboration and communication.

» *We had to move away from a static, dead intranet. The wiki has allowed us to improve collaboration, communication and publication. We can cross time zones, improve the way teams works, reduce email and increase transparency.* «
Myrto Lazopoulou, Director User Experience DrKW

The wiki project was launched in the third quarter of 2004. In February 2006, there were eighteen hundred users. The installation of a WYSIWYG interface during the course of the project has led to a substantial growth in use.

The CIO responsible for the implementation at the time decided to take an informal bottom-up approach: no rules of use or conduct. Anyone could start using the wiki in a manner that he or she wanted. Even a wiki about your favorite holiday destinations was deemed permissible as long as a little of everything was being done, as this was how usage would grow, familiarity increase and the advantages be discovered. Rules of conduct were unnecessary, it was found, because they were sufficiently embedded in the company culture. One of the successes of the new wiki was found to be the “digital markets” user group, where new digital products and services were discussed. Ideas from employees in New York and Tokyo are being expressed there, whereas there had previously not been a place for this type of bottom-up input.

Anyone reading about the DrKW case either in the article in *MIT Sloan Management Review* or in the report that supplier Socialtext has placed on its website will be impressed by the simple and open culture, or in other words the clarity and engagement.



9.7 Further Disruptions

Only a certain number of disruptions of a few economic sectors have been discussed in this chapter. The current issues affecting newspapers, television, music, telecom and banking have consequently been reviewed. This is however not an exhaustive list. There are still other examples that could be included. Consideration might be given to the many travel agencies that are steadily losing their place within the value chain. Consumers in this sector are also uniting over the Internet.

The ease with which the owners of Skype were able to challenge the status quo in the telecoms industry suggests that other established companies will soon be troubled by the Web 2.0 generation. Companies wanting to avoid being dispatched by these disruptive difficulties should not try to fight them off, but deal with them rationally on the basis of their own strengths. Abandon bureaucracy and embrace adhocracy. Try to transform a closed and centralized organizational structure into an open and decentralized environment in which “digital natives” are welcomed with open arms outside the confines of the organization.

9.8 Ten Questions You Need to Ask Yourself

Web disruptions are the standard nowadays. Even Google is being openly besieged by, among other things, Wikia Search from Wikipedia, founded by Jimmy Wales. Instead of the advanced algorithms of Google, user input is key to Wikia Search. Users can provide their search results with a mini article containing further explanation. They can also evaluate search results in terms of their relevance in order to obtain better focused results.

eBay is taking control of the market for second-hand items. The travel world has been fighting against disruptive web forces for some time now, and the same goes for headhunters and employment agencies. Add the music industry, newspapers and telecoms to this list. Who's next? Perhaps the banks.

What is going to happen to household brands, the service industry and advertising companies? Even professional soccer has suffered a web disruption, as the first purchase of a soccer club by an enthusiastic Web 2.0 public has taken place on www.myfootball-club.co.uk, meaning that Ebbsfleet United FC has been acquired by fans. A new commitment based on



web media is the core of the disruptive force behind all the changes in soccer clubs, business processes, information sources, and whatever else you care to name.

How can you prepare yourself for all this? To begin with, you could just “let your mind go”, to co-opt a 60’s consciousness-expanding mantra, under the stimulus of the following ten simple questions:

- In our organizations, do we do enough thinking out-of-the-box?
- Free music, free newspapers, free phone calls—where does the power of something for nothing lie hidden within my company?
- Would our customers feel it was worthwhile to form a network with each other?
- Would links in our production chain be lost as a result?
- Would our organization take the new disruptive forces more seriously than the record industry did?
- Might other players in our production chain be plagued by disruptive forces? And is that an opportunity for us?
- How might enthusiasts, people with a passion for the services or products that we supply, set up a company if they completely gave in to their heart’s desire?
- Are we paying sufficient attention to the start-ups on the market?
- Which new information system might radically transform the market?
- If I were to leave my company, which disruptive new business would I begin in this sector tomorrow?



10

The Development of Virtu-Real Media

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The century between 1965 and 2065 is replete with coding, modeling, programming and recombining. This development slowly emerged in the 1960s and, after a period of assimilation of the Web 2.0 lifestyle, eventually took flight. Coding, modeling and recombining are now beginning to cross-over into elements of virtuality, enriching our reality and making it more effective and efficient. At the same time, the future merging of ITech and ITainment with developments in nanotechnology, biotechnology and neurotechnology is now visible on our horizon. In the future, consciousness and cognition will no longer have to be contained within mortal shells.

The Virtual Worlds that will ultimately come to exist will not completely correspond to environments such as Second Life. Instead, (multi)mediatization, the new 2.0 lifestyle and artificial intelligence in the form of agents and avatars will create a new personal hyperreality, one that will become prevalent within the next ten years. In this domain, virtual elements that have been in the pipeline and preparation for some time now will come to enrich the way in which we deal with and do business with each other.

Undoubtedly, this will soon be different in America than in Europe and different again in Asia and Africa. In effect, Asia and Africa form the two poles in the dis-

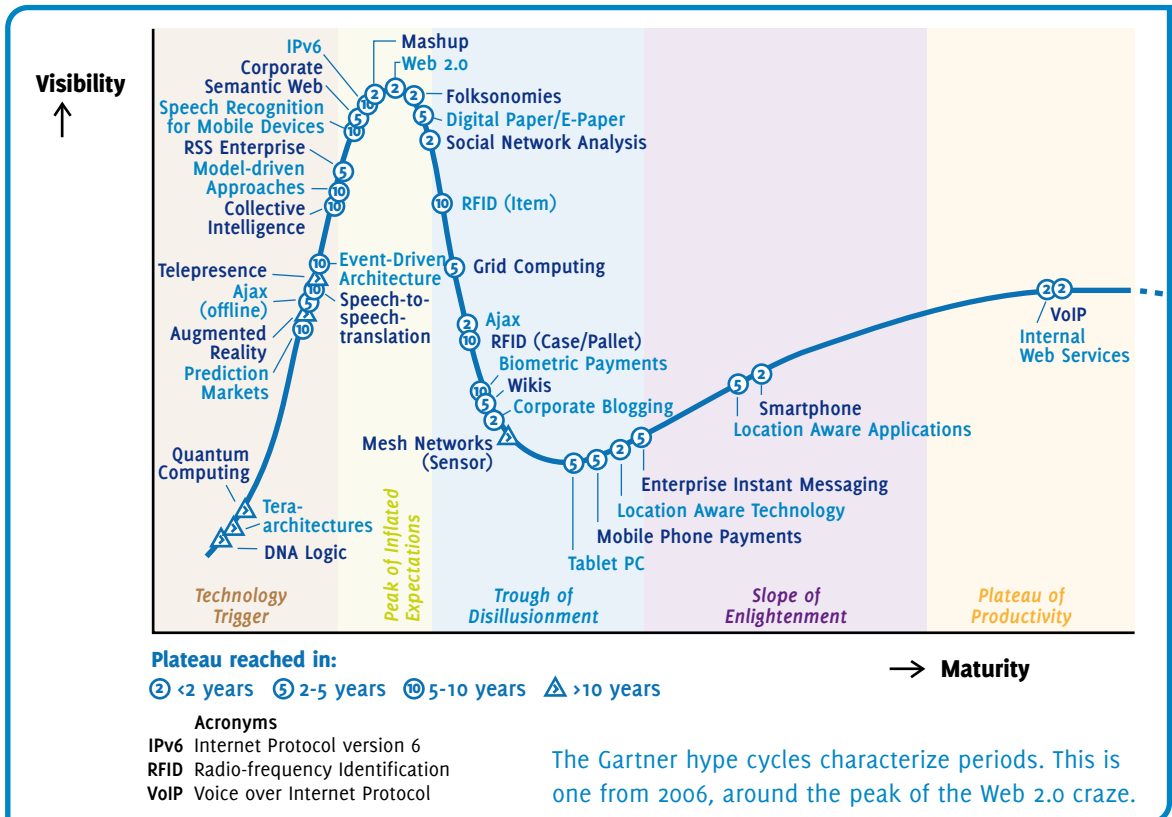


semination and acceptance of digital applications. Geocultural, subcultural and also personal differences are, and will remain, great. This will always be the case.

10.1

The Future is Now

The hyperlinks of the multimedia and socializing World Wide Web underlie the high hopes concerning hyperindividualization and hypercompetition. However, the developments that, in principle, make the Web possible will never come about to an extent that will be alien to us humans. The human dimension is primary, a fact that must be constantly emphasized. It goes without saying that thoughts and ideas are, however, being audaciously banded about with an eye to the future, as pride and overconfidence are as old as humanity itself. Next to “hyper,” “hype” remains an important Internet characteristic, one splendidly described in the very well-known hype cycles that the Gartner market research agency first came up with in 1995.



A hype cycle can also be a good way of viewing the ways in which we have started to think that the future is our oyster, particularly in recent decades. The belief that we can map out the future is one that is gaining ever more ground. Still, past visions, such as the “cybercorporation” predicted by IT guru, James Martin, in 1996, have not yet become a reality to any reasonable extent. The same lot may befall the “cyborg,” the new species of human “cyber organisms,” despite the fact that this development now seems within reach as a result of the convergence of ITech, ITainment, nanotechnology, biotechnology and neurotechnology.

The point here is quite simple: the ability to navigate oceans with seafaring vessels does not, of course, mean that the sea will turn black with ships. The same proved to be the case for printing and is similarly now holding true for the Internet and the PC. The general dissemination of state-of-the-art techniques remains far behind the spread of basic applications. This is primarily because we simply do not need state of the art in all circumstances. Nevertheless, given the spread of basic applications, it is easy to feel that the present state of the art will become common currency within a very short time.

The increasing individualization that characterizes human history, from book printing and science, through industrialization and mass media, to Web media and the convergence of digital and analogue (or reality and virtuality) have now been so characteristically reshaped by the hyperlinks of the World Wide Web that we can speak meaningfully of hyperindividualization and Hyperegos.

The individual and social e-mancipation of the Third Media Revolution has become possible thanks to modern digital virtuality. Mediatization and the flood of profiles or IDs have paved the way for this. Web media and social Web networks have now become a useful extension of increasing numbers of people. Not only are individuals appropriately evolving into a set of hyperlinked sub-identities that together form the Hyperego, the same evolution can be found in brands and organizations.

The interrelation of these types of being by means of identity management, and the combination with progressively more (artificial) intelligence, will further strengthen the development of Hyperegos over the coming decades. The archetypical slogan of me-medium YouTube, “Broadcast Yourself,” is therefore attaining increasing standing and significance. The explosion of interlinked, mediated self-projections is occurring in our lifetime because the mass media are being filled up with a digital media mass. Whereas, previ-



ously, we would be at most requested to show our passport, a few passwords and pin codes, the number of profiles and IDs is now spectacularly on the rise, engulfing everything from individuals, to products, to all the media themselves.

The future of the Third Media Revolution, which we now believe ourselves capable of summarizing as “The Future is Now,” begins with a new two-part hyperreality. On the one hand, we are already experiencing the enrichment of our physical reality with—shall we say—dressed up mobile 3D GPS or Augmented Reality, a development which is certain to continue. On the other hand, popular software games have inspired the strong emergence of completely Virtual Worlds such as Second Life, if the amount of media coverage that they receive is any indication. The extent to which this trend will continue remains to be seen, as the question remains: “What use do they have?” The fact that for instance the Dutch government organized a contest in November 2007 to promote good ideas about the useful application of Second Life emphasizes, first of all, the enormous question marks surrounding the utilization of completely Virtual Worlds outside the domain of games, in spite of the stampede of companies into this field. These modern-day “Sooners” primarily wished to experiment and demonstrate how in vogue and future-oriented they are.

10.2

Man is God

To place the final two chapters of this book in perspective, what follows is a vision of a possible future instigated by the Third Media Revolution and prognosticated in the video clip *Prometeus*. This video on the growing multi-mediatization and virtualization of our world can be viewed on YouTube in several languages. The *Prometeus* scenario is undeniably science fiction. At the same time, it contains elements that are more than plausible.

- ☞ Everyone has their own intelligent agent / avatar.
- ☞ In the successor to Second Life, anyone can be whoever he or she wants to be.
- ☞ In the Virtual World entitled Place, everyone can determine where they are, be it on Mars, at the battle of Waterloo or anywhere else. The way is already being paved for this possibility in Microsoft Photosynth.
- ☞ The traditional mass media newspaper, radio and television have been absorbed into one large Web multimedia mass.
- ☞ Google dominates our world and has evidently not yet become “evil.”



PROMETEUS

In Greek mythology, the Titan Prometheus (the far-sighted one, the innovator) brought man the gift of fire. As a consequence, we acquired a divine power: fire was the beginning of technology. Over the centuries, the Prometheus story has continued to be an important theme in visual art and literature.

But above all read the *Prometheus* story below for yourself or watch the clip at youtube.com/watch?v=xj8ZadKgdC0.

» **MAN IS GOD.** *He is everywhere, he is anybody, he knows everything. This is the Prometheus new world.*

*All started with the Media Revolution, with Internet, **at the end of the last century**. Everything related to the old media vanished: Gutenberg, the copyright, the radio, the television, the publicity.*

The old world reacts: more restrictions for the copyright, new laws against non authorized copies. Napster, the music peer to peer company is sued.

At the same time, free Internet radio appears; TIVO, the Internet television, allows to avoid publicity; the Wall Street Journal goes on line; Google launches Google news.

Millions of people read daily the biggest on line newspaper. OhmyNews written by thousands of journalists; Flickr becomes the biggest repository in the history of photos, YouTube for movies. The power of the masses.

A new figure emerges: the prosumer, a producer and a consumer of information. Anyone can be a prosumer.

The news channels become available on Internet. The blogs become more influential than the old media. The newspapers are released for free. Wikipedia is the most complete encyclopedia ever.

*In **2007** Life magazine closes. The NYT sells its television and declares that the future is digital. BBC follows.*

In the main cities of the world people are connected for free. At the corners of the streets totems print pages from blogs and digital magazines. The Virtual Worlds are common places on the Internet for millions of people.

A person can have multiple on line identities. Second Life launches the vocal avatar. The old media fight back.

A tax is added on any screen; newspapers, radios and televisions are financed by the State; illegal download from the Web is punished with years of jail.



*Around **2011** the tipping point is reached: the publicity investments are done on the Net. The electronic paper is a mass product: anyone can read anything on plastic paper.*

*In **2015** newspapers and broadcasting television disappear, digital terrestrial is abandoned, the radio goes on the Internet.*

The media arena is less and less populated. Only the Tyrannosaurus Rex survives. The Net includes and unifies all the content. Google buys Microsoft. Amazon buys Yahoo! and become the world universal content leaders with BBC, CNN and CCTV.

The concept of static information—books, articles, images—changes and is transformed into knowledge flow.

The publicity is chosen by the content creators, by the authors and becomes information, comparison, experience.

*In **2020** Lawrence Lessig, the author of Free Culture, is the new U.S. Secretary of Justice and declares the copyright illegal.*

Devices that replicate the five senses are available in the Virtual Worlds. The reality could be replicated in Second Life.

*Any one has an Agav (agent-avatar) that finds information, people, places in the Virtual Worlds. In **2022** Google launches Prometheus, the Agav standard interface.*

Amazon creates Place, a company that replicates reality. You can be on Mars, at the battle of Waterloo, at the Super Bowl as a person. It's real.

*In **2027** Second Life evolves into Spirit. People become who they want. And share the memory. The experiences. The feelings. Memory selling becomes a normal trading.*

*In **2050** Prometheus buys Place and Spirit. Virtual life is the biggest market on the planet. Prometheus finances all the space missions to find new worlds for its customers: the terrestrial avatar. Experience is the new reality.* <<

The predictions in the *Prometheus* clip stop at 2050. This seems awfully soon to realize everything that is mentioned above. In addition, the underlying techno-economic optimism overlooks the fact that, in this century, we are confronted by demonstrably large climate, energy, food and population growth problems, each of which IT guru James Martin includes and analyzes in his new 21st Century Business School at Oxford University. Partly on account of these types of challenges, it is unlikely that the *Prometheus* scenario will come to pass. If all the ethical issues along with our delayed adoption of new things are taken in to consideration, the predictions in *Prometheus* would, in fact, seem to be completely at sea. This is especially the case insofar as the stated timeframe is concerned, even if we were able to look that far into the future.

Nevertheless, these comments on the *Prometheus* clip clearly indicate why the future beyond the Third Media Revolution is so relevant. It is extremely important to critically examine such a scenario when living in a present that is ostensibly crossing over into an attractive hyperreal or virtu-real existence. Upon reflection, we can make great progress in separating the wheat from the chaff, and recognize:

- by what we might expect within the foreseeable future
- by exactly what we should not expect
- by and what, in principle, is “conceivable” but does not go beyond that.

10.3

Best Bits of the Future

Undoubtedly, the future for us Hyperegos is becoming progressively more virtual and dominated by multimedia. But what do we mean by that? To answer this question, we will discuss the notion of virtuality and the media character of it. We will also give some initial thought to the hyperreality engendered in media virtuality. The nature of IT is changing from ITech to ITainment, as explained in Chapter 2.

We will then consult with telephone manufacturer Nokia and Mobile Assets. We will present concrete applications of mobile hyperreality, including MARA (Mobile Augmented Reality Applications) and MIA (Mobile Intelligent Agent). With MARA and MIA, we are moving some distance down the path to what the *Prometheus* clip means by an Agav, an agent/avatar, and the Virtual World of Place.

The development of virtu-real media will, in the near future, remain predominantly close to our physical world, resembling little more than GPS with an array of pleasant multimedia attractiveness. Second Life will, for the time being, remain merely credible proof of concept. Our having several (sub-) identities is already an actual fact. Identity management and the portability of profiles will receive further attention in the coming period. The linking of identity management with Agavs is near at hand. Who else could we cite in this regard, but Sir Tim Berners-Lee, a man who does not care for predictions, and who heads up the World Wide Web Consortium. Berners-Lee explains at the end of this chapter how he views the hyperreal world of tomorrow and what his fundamental considerations are.

The final chapter of this book responds to the question that always plagues us when we attempt to predict the future: To what extent will certain science



UMBERTO ECO TRAVELS IN HYPER REALITY

Our Age of Simulation is characterized by a “phony transcendence via media, computers and fabricated environments.” Visit transparencynow.com/eco.htm and transparencynow.com/tables.htm.

fiction visions become reality? It is conceivable and not implausible that ITech, ITainment, artificial intelligence, biotechnology, neurotechnology and nanotechnology will merge? What will that produce and when? In Scene 6 of the film *Waking Life*, Professor Eamonn Healy supplies an answer to this question that follows the line of the *Prometheus* scenario.

We will subsequently consider doubts and the margin of error in these types of predictions, while recalling the time space required for adoption. To conclude, we will briefly review the external problems that most likely await us in this century.

10.4 Virtuality is Completely Normal

The digital virtuality that we know from computer games, which is completely misrepresented in film productions, and of which we only encounter rather crude forms of in Virtual Worlds such as Second Life, is only made possible by advanced graphic hardware and software. Realistic digital virtuality has been mainstream for over fifteen years. On the PC, Microsoft Flight Simulator and Leisure Suit Larry were the first acceptable virtual environments. At the time, we were also very excited about Psion Battle Chess. It seems that, even fifteen years ago, digital virtuality was no longer a technological stunt, but a convincing (multimedia) enrichment of human experience.

As a distant progeny of the above-mentioned applications, hyperreality is beginning gradually to emerge in 2008 due to the combination of mobile telephony, GPS, motion tracking and the Internet. The new mobile media platform is becoming a world in which we can fly problem-free to another destination, just as in Second Life, MMORPGs (Massive Multiplayer Online Role Playing Games) and virtual-earth-related applications. We can communicate with each other, exchange information and experience pleasure. But even better is the fact that, thanks to “mobile virtuality,” we will soon be able to get more out of and to do more with our actual physical reality. 3D images on our spectacles equipped with earplugs connected to a mobile GPS telephone will transform reality into an open air museum through which we can wander with our headsets on and be able to say that we met Napoleon while visiting Waterloo. We may have even had a discussion with the man by means of intelligent software. After all, there are already websites equipped

with friendly avatars enabling us to take out an insurance policy by personally interacting with an friendly saleswoman.

Because virtuality has received an enormous boost from digital technology and, in various respects, has become extremely convincing, many regard virtuality as techno wizardry. On close inspection however, virtuality is nothing special, moreover, it belongs to all ages. Every representation of things, trees, plants, animals or people is virtual, in the sense that it is a representation. In painting, surrealism playfully ridiculed this point and often took it a step further, as the French painter Magritte did with his “Ceci n’est pas une pipe.”



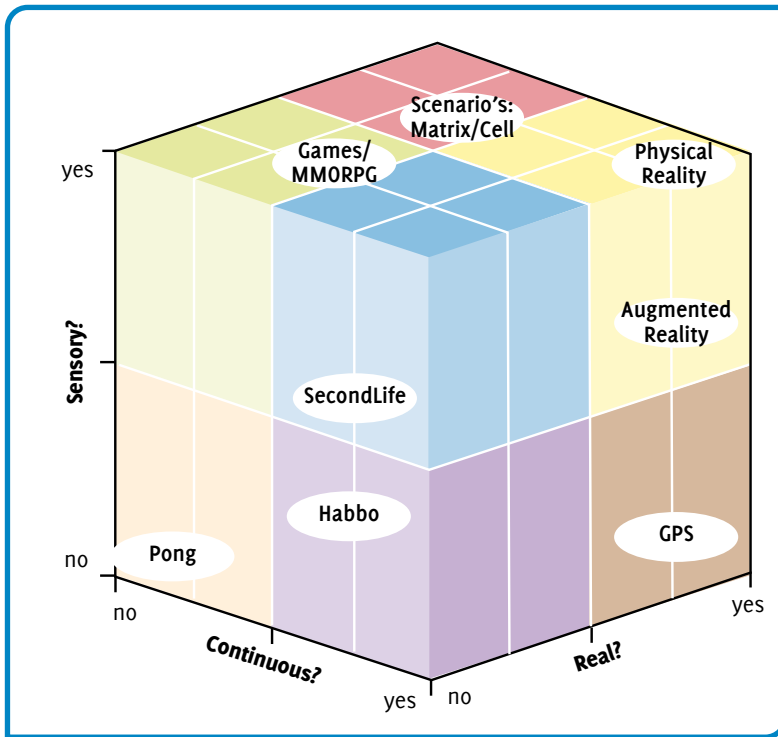
“Virtual” is a collective qualifier for all uni-media or multimedia information that enriches our sensual contact with reality. But, by extension, virtual is also the characteristic of all information lacking sensual contact with reality. When we, for example, call someone on the telephone, eye contact between conversing individuals is missing. In terms of vision, telephone calls are therefore a virtual form of communication. Instant messaging or “chatting” makes it entirely clear that virtual conversation, as the term itself suggests, and scripted talking is ultimately incomplete. Furthermore, the purely auditory nature of the phone conversation alters the focus of attention so that it differs from face-to-face contact, although this shift in focus may arguably have a very enriching effect. On the phone, we concentrate on the verbal subject and are not distracted by looks, gestures and postures of the other(s).

Virtuality therefore enriches the reality in which we exist, the envelope of everything around us. There is no opposition between real and virtual. Simply put, they are two points on a single continuum, just like beautiful/ugly and healthy/sick. In fact, close inspection reveals that we are constantly physically and/or intellectually moving between the poles in this continuum in one way or another. Virtual-real is therefore not an “either...or” distinction but “both...and.” Every thought that we have, every image that we see, every song that we hear on the radio more or less all have virtual qualities. Each stimulus by means of which we know that the experience is sensually limited (a person on TV cannot be smelled, touched or brought into immediate contact) draws attention to the media intervening in the experience; the medium always filters out a number of things and focuses attention in some way.



A great deal of shifting has been going on in the virtual-real continuum over the last century. As a result of multimedia high tech, which is now rapidly becoming three-dimensional, the representation is sometimes indistinguishable from the genuine item. We still clearly regard Second Life as inauthentic, as virtual, as something completely different from physical reality. This distinction might end when we receive 3D images projected onto our glasses, and that's not science fiction. Nokia, for example, is working hard on MARA, the Mobile Augmented Reality Application, and the topic was discussed in a very concrete manner in the August 2007 issue of *IEEE Spectrum* magazine.

Telephone contact, the gramophone record, the radio and TV were also initially thought strange and unreal, as distant and virtual. Due to lack of interaction, TV and radio will continue to appear as such. However, concert recordings in our surround-sound home theatre are something entirely different. The arrival of 3D brings the experience of reality even closer than is currently the case. This technological realism will certainly apply to gaming, where future life-like interaction seems almost guaranteed.



Digital Virtuality Cube

The following Digital Virtuality Cube will place our modern virtuality (not the one in the Lascaux caves or the virtuality in our museums) in perspective by means of representative examples varying from the Pong tennis game to virtuality scenarios such as the ones in *The Matrix* and *The Cell*. The reference is the “yes” side of the three axis. This is the location of our physical reality, which we experience as optimally real, continuous and sensory. The Digital Virtuality Cube is a practical way of looking at the Metaverse as discussed in Chapter 8.

A couple of illustrations will further explain the three axis and the plotting of examples in the cube:

- ☞ *Continuous.* The Virtual World of Habbo Hotel does not include a story. Just like Second Life, Habbo cannot be played to the end, and therefore Habbo Hotel and Second Life are as continuous as possible, enduring until we have had enough. In this sense, Virtual Worlds like Habbo and Second Life adopt a great deal of reality.
- ☞ *Sensory.* Habbo is no great success insofar as stimulation of the senses is concerned. There are some rudimentary graphics and we can chat, but that is as far as it goes. This is entirely different in the case of Second Life, especially now that the avatars have been given their own voices.
- ☞ *Real.* As far as lifelikeness is concerned, both Habbo and Second Life are easily recognizable as artificial.

In realistic games, such as World of Warcraft and Halo 3, the sensory stimulation is much better developed, partly due to the theme and the limited continuity inherent in the competitive element, which makes you sit on the edge of your chair. We know that it is entirely unreal, but the sensation is so addictive that we can literally play ourselves to death. This illustrates an important point: the axis of the digital virtuality cube are not intended to assess the extent to which fantasy is a part of your life. Such a factor is an individual issue based on personal experience. There are some who can, of course, completely lose themselves in a good book, a medium that is outside the realm of modern digital virtuality. On the other hand, our physical reality, despite being ultimately real, continuous and sensory, is generally extremely boring and prosaic.

10.5

Hyperreality and Calm Technology

Through the integration of the mobile telephone, GPS and the multimedia Internet, the near future will see virtuality gradually and unnoticeably becoming a permanent feature in all our environments. This virtual infiltration will first take the form of information about where we are and what there is to do there. Modern virtuality is therefore a (multi)media issue based on information linked together over the Internet. Undoubtedly, a world of tomorrow that becomes increasingly more virtual in any such manner could be called hyperreality. After all, Internet hyperlinks are what make this development possible, along with the corresponding socializing hyperindividuality.

Let us just consider the Virtual World of Second Life for an instant. To many, this Internet application is the ultimate in virtuality. Philip Rosedale, the



founder of Linden Lab, continues to insist that Second Life is the virtual future that everyone will use. The general acceptance of a strongly improved version may, in the end, take place, but Philip will likely no longer be a part of such a development. Apart from the prevalent technical and other limitations, a Virtual World literally meant to be a Second Life cannot just be constructed willy-nilly. Environments must grow as part of a slow evolutionary process at a rate determined by our innate human reserve. History, tradition and snail-pace change are important ingredients in ensuring that people remain at ease. An explosive sudden transformation of our reality into a Second Life or other virtual replica world would therefore only have a very limited effect. Such realization does not detract from Second Life as a very important proof of concept.

All in all, it is implausible that a Virtual World like Second Life would quickly become mainstream. An ideal replica of our physical offices, beaches, discotheques, cities and, most significantly, ourselves as eternally youthful avatars is not the direction in which digital virtuality will first develop for the public at large. The combination of mobile telecommunications, GPS, glasses with ear plugs and perhaps even tongue piercings or shirts with microphones has a much greater chance of compelling the public to take the next step towards hyperreality. It is not the intention that hyperreality should replace human reality. It will enrich our lives by drawing on multimedia virtuality and making life ever more efficient and effective, just as GPS in cars is now doing. In brief, digital-virtual prostheses for physical reality have the greatest chance of becoming mainstream.

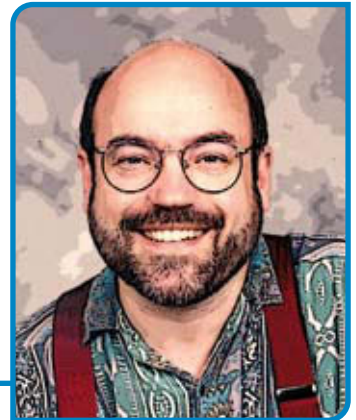
Many techno freaks—mostly men with an insatiable appetite for gadgets, which they then identify as very important bits of “technology”—believe religiously that everyone will automatically become “technologically savvy” within just a few generations. This view is not just misguided, it is a downright fantasy. A world made “technologically savvy” is just not on the cards at all. What it would require are (perceived) benefits and ease of use. Remember GPS and, insofar as mass media are concerned, radio and TV.

In an age in which information, entertainment and communication were scarce, it was not surprising that the mass media of radio and television were voraciously consumed, and later principally used for marketing as well. In effect, there was an enormous untapped need. The fax machine, telephone and email (the Internet’s “killer app”) originally became widespread on account of the speed and the one-to-one nature of communication. At present, telephone and multimedia Internet communications are developing into a

“personal mass medium” receivable on PCs, GPS and all types of receiving equipment. Only the postcard appears to be still able to survive this communicative “great leap forward.”

The overwhelming popularity of SMS, chatting and, to a lesser degree, “twittering” belongs to the same category as the above-mentioned e-mail. In the first instance, they collectively supply our evidently unrelenting urge to have a new “telegraph”: to “dash off a note” with negligible delay between sending and receiving, one that compares favorably to the letter or the costly telegraph and that is, moreover, perfectly legible. In most cases, a little bit of typing is sent for the pleasure of pure communication, but informative communication in which we formulate and correct messages in a reflected manner is also, in principle, possible. Digital communication allows issues to be examined in depth before sending them off by pressing a button.

Mark Weiser (1952–1999), who sadly died too young, was Chief Technologist at Xerox and argued at the end of the previous century that this sort of “calm technology” was a necessary condition for the acceptance of digital applications. Only when the technology has “disappeared” and being “technologically savvy” has no further benefit can a certain application actually become a hit. Technology embraced by the masses must be capable of supporting involuntary use, which is to say, without requiring any awareness of its presence. Of course, all this depends on one other factor: the necessity of the application in question providing sufficient added value.



Next comes ubiquitous computing, or the Age of Calm Technology, when technology recedes into the background of our lives.

Mark Weiser (1952–1999) is the father of “calm technology” and “ubiquitous computing.” Surf to ubcomp.org/ubcomp2009 for information on the 11th International Conference on Ubiquitous Computing.

This form of technological assimilation fully applies to the new telegraphing technologies of SMS and chatting, although their popularity was never properly foreseen. Evidently, everyone in IT had a lower opinion of these applications, not anticipating that they would be used specifically, and somewhat sacrilegiously, to facilitate the C of communication, turning it into the intercommunication of human, mechanical and process entities, as well as their combined communication. Therefore, Co+ or Co3 has emerged, the new digital telegraphy unexpectedly forging the combination of communication, cooperation and coordination.



Nicholas Carr's famous maxim "IT doesn't matter" was entirely anticipated by Mark Weiser's notions of "calm technology" and "ubiquitous computing." The conclusion is that communication (C) only persists in combination with IT, as indicated by the suggestion to label the entire domain ICT (information and communication technology). The resulting configuration better enables the necessary interlinking of "learning and pleasure" (a combination known to be necessary since the time that "prodesse et delectare" was formulated by the Greek poet Horace, but which is now being referred to as "information and entertainment"). The new alignment, which we might call ICE (information, communication and entertainment), can now be found as a burgeoning practice in consultancy, for example.

Existing Virtual Worlds, such as Second Life, have not yet met the conditions of "calm technology" and sufficient added value. The program's control functions are difficult for people unfamiliar with computer games, and few are enthusiastic about the trade in virtual goods, jewelry, clothing, land and houses. The disappointing Second-Life population and residence statistics clearly indicate that this form of a digital dollhouse for adults has little future. The absence of plot or goals, such as those that exist in computer game worlds, makes the likelihood of a looming demise all the more likely. The enlivening of communication or the targeted transfer of information based on digital puppet avatars has too little to contribute to our lives.

Despite all the hype, an idealizing replica world such as Second Life is perhaps an ultimate goal but certainly not an important application of virtuality in the near future. Such a world is "just" a proof of concept, a technological high point, or at least intended as such. However, bit by bit, Second-Life elements will soon find their way into our mobile hyperreality, which is connected to physical reality.

It is patently obvious that, for millennia, "killer apps" have played on the same three basic human needs: the need for diversion, the need for social contact and the need to satisfy our curiosity and inquisitiveness. In addition, we have to be able to determine the combination and the extent to which we can indulge such drives. Entertainment, communication and information are elements that respectively appease our appetites for diversion, socialization and satisfaction for curiosity/inquisitiveness. Manifestations vary from sex, music, science and philosophy, to politics, reading and literature, news, friends, family, parties, drugs, travel, vacation and whatever else there might be.

However, the underlying technology must also satisfy two criteria: it must be functional and easy to use. And when technology or an application excessively violates our need for stress-reducing comfortable conservatism, which often entails very different sets of geo-cultural, subcultural and even individual factors, its future is inevitably obscurity. The innovation will never catch on.

Our “virtual” personal (multi)media future will be mobile and hybrid: virtual and real at the same time. This is also how it should be, as life without reality is still just a contradiction or science fiction. Among others, Nokia’s Mara (Mobile Augmented Reality Applications) and Mobile Assets’ self-learning MIA (Mobile Intelligent Agent) are clearly pointing in the direction of such a meaningful mobile combination of reality and virtuality, one that we will likely enjoy in the near future. These applications will be the subject of the next sections.

10.6

MARA and MIA

It is entirely beyond question that we, thanks to our mobiles, are increasingly becoming true digital nomads. *Wired* editor Harvey Feldspar puts it as follows:

» *My mobile is my place of business, my social network, my entire life folded up into a device the size of a liquor flask.* «

MARA: The New Mobile Augmented Reality Applications

Point the camera of your telephone at the art gallery or concert hall. You will immediately see all the data about the current exhibition—for example the rich patrons of the artists in the gallery’s collection of Dutch Masters; or concerning concerts that you can attend at the civic center. You can, of course, switch to another date or obtain information about the performing artists. You can also select the option “Other galleries,” as you are rarely in town and would like to check out the local contemporary art scene. You have heard about the new installations at the modern art museum, all the rage among the arty-set. Again, you look at your mobile and follow the arrow. You have also used your mobile to buy a ticket for the exhibition, meaning that you can avoid the queue and walk right in.

These are just a few simple examples of what we will soon be able to do thanks to MARA, the Mobile Augmented Reality Applications system now being put





together at Nokia. MARA is a combination of GPS, photo recognition and a triangulation location system. Work on the system has been ongoing for some time now, and all the Web 2.0 developments make it seem that the time is more than ripe for this type of mobile information about the real world. The MARA homepage, including a short film presentation, is available at research.nokia.com/research/projects/mara/index.html.

What MARA will ultimately mean can be vividly imagined. Walk into a neighborhood where you would like to live, all of the houses available for sale appear on the map of your mobile within the blink of an eye. The next step is the description and then exploring the possibility of obtaining a mortgage from banks, from which you then request an offer by pressing a button. These sorts of information and transaction services in the real world are facing a spectacular future. MARA will definitely help to realize this vision, but a great deal of the current PC functionality is now already available on mobile phones.

For example, vacations can be booked. While talking in a restaurant, you simply indicate that you want to fly to a particular hot country for an all-inclusive ten-day vacation during a certain timeframe and that your party includes an eleven-year-old child. What you preselect for further consideration shows up on your home PC. Everyone will then be able to obtain extra information there, and increase their anticipation. In principle, you could also immediately book the vacation between the courses of your meal. This might be handy if a unique last-minute arrangement is available.

Augmented Reality is Pure ITainment

Augmented reality makes improved working and learning possible, for us to move around better, receive information and entertain ourselves in all sorts of ways. Augmented reality is the ultimate in ITainment. Using a mobile equipped with a camera, GPS, a couple of sensors and a set of digital glasses, we will be deliriously happy if, in around ten years, the problems that we are still experiencing with such convergence are resolved.

That was how *IEEE Spectrum* magazine put it in August 2007. As well as notes about the world around us that we observe through the camera, we could use the special glasses or lenses to bring images from the past alive or allow

ourselves to be actually physically matched against soldiers and cowboys on abandoned film sets.

At the Georgia Institute of Technology, we can wander through Oakland Cemetery in this way. Important figures from the American Civil War have their final resting place there. At appropriate moments, the “ghosts” appear just above the ground beside their tombstones, complete with accompanying text and appropriated background noise. The figures cannot yet move, but the experience is nevertheless wonderfully authentic. Augmented reality may also provide a solution for technicians. They will be able to receive visual help, for example in the case of complex wiring systems or repairs to airplane and car engines. Surgery might also make use of Augmented Reality in a comparable manner.

It is important for further development that the graphic objects can move within all three dimensions. Much work is being done on this issue in terms of software games, a sector involving \$30 billion annually. The great challenge is to keep virtual images perfectly in sync with the images from reality. Always determining the proper location and direction costs a great deal of computing power, and is obviously dependant on the details we want. It is, for example, great for the tour of Oakland Cemetery when the ghosts hover above the ground beside their graves. However, a much greater precision is required when we replace a small part in an engine. Depth is also very important; the further you look, the more disturbing the squint angle is.

MIA: Our Mobile Intelligent Agent

MIA is the mobile intelligent agent that the former Mobil Assets Company developed together with its partners. The Predictive Intelligence Technologies, which provide the basis for MIA, make it possible to have artificial intelligence on mobile phones. By constantly registering favorites, your MIA telephone is made into a truly



The augmented-reality glasses will provide useful information in helping us to orient ourselves. The glasses in this illustration are in “education” mode. Read the entire story at spectrum.ieee.org/aug07/5377.



Augmented reality will enable us to experience all sorts of things with greater intensity.



personal assistant for all possible tasks. The more we use MIA to do things, the smarter it becomes. MIA is a collection of neural expert systems that must first be trained and that then further develop on their own, acting as an autonomous intelligent agent. MIA works with the same intelligent systems that have been operational at various levels of complexity in nuclear power stations, the army and the air force since the nineties, to name just a few uses.



Remainders of the MIA endeavor can be found at ragingbull.quote.com/mboard/boards.cgi?board=MBAP&read=50 and otline.com/sections-viewarticle-22.html.

MIA will know what we want and take the work off our hands. MIA is intended to be a “clone in a phone” for people, but is also very well able to act, in the hands of a individual, on behalf of a company in financial transactions, for example. MIA is well suited to all types of work, as well as to providing entertainment and making purchases. For instance, MIA can help us to configure electronic equipment or to detect errors. We only have to enter the right model number and MIA will provide us with the relevant manufacturer instructions.

As reported in Mobile Assets, the development of MIA is now possible on account of the following convergence of circumstances:

- ☑ everyone now has a mobile, and storage is increasingly less expensive
- ☑ the Internet is readily accessible everywhere
- ☑ and there have been recent breakthroughs, especially in terms of fuzzy logic, neurocomputing, evolutionary computing, probabilistic computing, chaotic computing and machine learning theory. These areas of “soft computing” complement each other well.

Developments such as MARA and MIA together bring us a long way down the path to Agav, the smart agent / avatar in the YouTube *Prometeus* video.

10.7

Sir Tim Berners-Lee on the Mobile Future

In March 2007, World Wide Web founder Sir Time Berners-Lee appeared before a judicial sub-committee of the U.S. congress. Berners-Lee, who had set the ball rolling in a series of lectures on the “Digital Future of the United States,” has a vision of a future world in which mobile telephones use radio waves to communicate with the most divergent things around us, they themselves equipped with digital billboard technology. The telephone of tomorrow will be able to determine if a given surface is suitable for the projection of certain information. For example, we may not want to have our agendas projected somewhere in the metro, but on the back of the taxi driver’s car seat would do no harm. In the meantime, the advertising image on the side of a taxi would change every ten minutes, depending on the area in which the taxi is located. Advertising for IKEA makes the most sense beyond a two-kilometer radius from an outlet, as routes to the store are clearly marked within this radius.

These possibilities are part of what is known as the semantic Web (see Section 11.4) on which Tim Berners-Lee and his World Wide Web Consortium (abbreviated W3C) are working. The semantic Web is literally intended as a “meaningful” (semantic) Internet in which various types of data and metadata can be unambiguously exchanged among applications, organizations and user communities. Anyone filling out a tax form without knowing what a certain amount was spent on can quickly access the appropriate agenda entry by entering the transaction date. If it is still not clear, then photos taken on that day are retrieved and examined. “Ah, it was a day spent with the kids at Disneyland.” Everyone will be able to do something similar with regard to their specific situations. Take, for example, the researcher who wants to know the source of a certain virus. First, he will assemble the relevant geographic information and medical research in order then to find an answer to this question.



Sir Tim Berners-Lee

The smart Agav, the intelligent agent / avatar from the YouTube *Prometheus* video, will therefore largely be embedded in the structure and content of the semantic Web of Berners-Lee and co.



10.8

A Social Web in the Shopping Mall and Elsewhere

The enrichment of our physical reality with digital virtuality is a development that will affect us all in the future. Intelligent agents, linked to avatars, will not remain science fiction. Our “hyperreal” futures in which people, machines, objects, our environment, companies, knowledge and experience are interlinked on the basis of the semantic and social Web can now already be mapped out. Such a development has already been in the pipeline for some time now and technology companies, in particular, have been hard at work in their endeavors to realize such a future.

Our hyperreal future is more personal than ever, and it can move as well. The mobile phone is the platform for a hyperreality in which everything is hyperlinked to everything else. This future is permeated with artificial intelligence. Easy to use ITainment will be the future’s “killer app.” Virtual worlds outside the game setting, such as Second Life, will remain proofs of concept for the time being.

Once storefronts, bar stools, trees, cars and gravestones begin to send out messages, there will be a media free-for-all everywhere. When Internet virtuality begins to play a role in our street scene, a new sort of hustle and bustle will emerge all around this hype. The struggle for position in the attention economy will be fought with new weapons. There are consequently two big questions that arise: How participatory will initiatives like MARA become? And how will the fight for attention be fought on the street? Just like an RSS news feed on the Internet, you will then obtain information with which you can do something concrete with almost anything wherever you happen to be: in the shopping center or out running errands.

10.9

State-of-the-Art Digital Manufacturing

The collaborative virtual-world development of state-of-the-art digital manufacturing is about to transform our old world of wasteful production, of shameful efficiency, of poor effectiveness and too little customer satisfaction. In the past ten years a revolution has been realized with the breakthrough development of Product Lifecycle Management (PLM). Recently PLM reached its next level of maturity with the release of V6R2009: the new version 6 core and architecture of the 2009 release of the PLM 2.0 software portfolio by Dassault Systèmes.

Product Lifecycle Management

Reaching farther than traditional Rapid Prototyping, modern PLM systems like Dassault Systèmes' CATIA (Computer Aided Three-dimensional Interactive Application), integrate manufacturing with enterprise operations from concept through field support of the finished product.

PLM helps manufacturers to use resources more efficiently along the whole product lifecycle. Before producing anything in the real world, companies can design, simulate, test and produce products in 3D. This allows them to optimize a product's technical, cost and environmental criteria, avoiding wasteful production.

» *PLM follows the product through manufacturing into the aftermarket, and then swings back to the concept and production phases for redesign or update. This close-loop approach can turn a once mediocre product into a genuine category leader.* «

Nick Donofrio, Senior VP Technology & Manufacturing at IBM in *Fortune Magazine*, 7/2004

Bernard Charlès on Dassault's PLM 2.0 Revolution

We won't stop until all physical products on earth will be digitally designed, digitally prepared for production and digitally managed during their lifecycle. Our vision is to have a digital model that allows you to define, monitor and control the physical world.

Bernard Charlès in *Fortune Magazine*, 7/2004

» *Welcome to the Dassault Systèmes Virtual World. For 26 years we have been using the power of 3D to help our customers create, optimize and even produce the best products. We call this Product Lifecycle Management (PLM). Today we are about to re-define the market, again.*

PLM 2.0 is about this new environment that will enable user communities to take advantage of online applications to create, imagine, share and even experience the future real life of the products they are about to create. V6 will enable to develop new categories of applications that will be connected all together, integrated and will be so easy to use that communities of in-



Dassault Systèmes' President and CEO Bernard Charlès and his avatar, making the case for PLM 2.0



novators will be able to share this experience, which is required to make the most optimal products.

In some way it is like Web 2.0, where communities of people can connect to each other, can share ideas and experience. This is something we want to make available to our consumers around the world.

The Virtual World is so powerful that it can—it will help to improve the real world. Imagination, testing, verifying in the Virtual World help to create the best product—the best product for the consumers, the best product for the environment, in short to improve our quality of life.”

Source: “CATIA V6 Intro” via www.youtube.com/watch?v=H2zO_yIOi_4

The New V6 Era

CATIA V6 is the result of a ten year, multi-PhD, multi-patent research and development work on CATIA’s core 3D modeling kernel, and is unrivalled in the industry. V6 enables users to resolve Geometry and Topology simultaneously, it can open files from pretty much any existing CAD system and edit them natively. In short, V6 removes many of the painful limitations that the CAD industry has suffered long and hard from.

CATIA V5 already was the only solution that covered the complete product development process, from product concept specifications through to product-in-service, in a fully integrated manner.

CATIA is recognized as the world’s leading CAD/CAM/CAE software. It is designed to optimize all stages of the production lifecycle and offers the most comprehensive applications portfolio available in a single system, aiming to maximize concurrent product development practices and process

re-engineering. Currently there are more than 13,000 CATIA sites worldwide in Aerospace, Automotive, Industrial Machinery, Electrical, Electronics, Shipbuilding, Plant Design, Consumer Goods, Jewelry and Clothing.



Schuler Group on PLM 2.0

Now it's time to hear what customers expect of PLM 2.0. We selected Schuler, the world leading company producing press systems for the automotive industry and all forming metal products.



Schuler in Short

Metalfforming technology leader

- Hydraulic and mechanical presses
- Automation systems
- Solid forming & minting technology
- Hydroforming

Headquarters: Göppingen, Germany

Schuler has 5,500 employees worldwide

www.schulergroup.com

From a product development perspective Schuler has two major challenges: its presses are huge machines, made up of more than 30,000 parts. Besides that, Schuler also is a global company. These two factors create enormous challenges regarding data management and collaboration, namely:

- ▢ Managing diversified sources of information: economics, product, process, mechanical, control, hydraulic, pneumatic et cetera.
- ▢ Data and information vice versa transfer between real and Virtual Worlds.
- ▢ Adherence between the real and the virtual environments.
- ▢ Managing customer needs from process planning, to production operation, to system maintenance and re-tooling.

Schuler easily identifies six main benefits. CATIA V6 could help realize:

- ▢ Single PLM Platform for Intellectual Property Management
- ▢ Online Creation and Collaboration
- ▢ Global Collaborative Innovation
- ▢ Ready-to-Use PLM Business Processes
- ▢ Lower Cost of Ownership
- ▢ Lifelike Experience

Single PLM Platform for IP Management

V6 could help to manage product and process data more efficiently by grouping all this intellectual property in a single environment. Such a system will be much more easier to manage. Everyone in the Schuler Group will have the same information at the same time. V6 would help to manage better, because it integrates all engineering disciplines and business processes of the product lifecycle on a single platform.



Online Creation and Collaboration

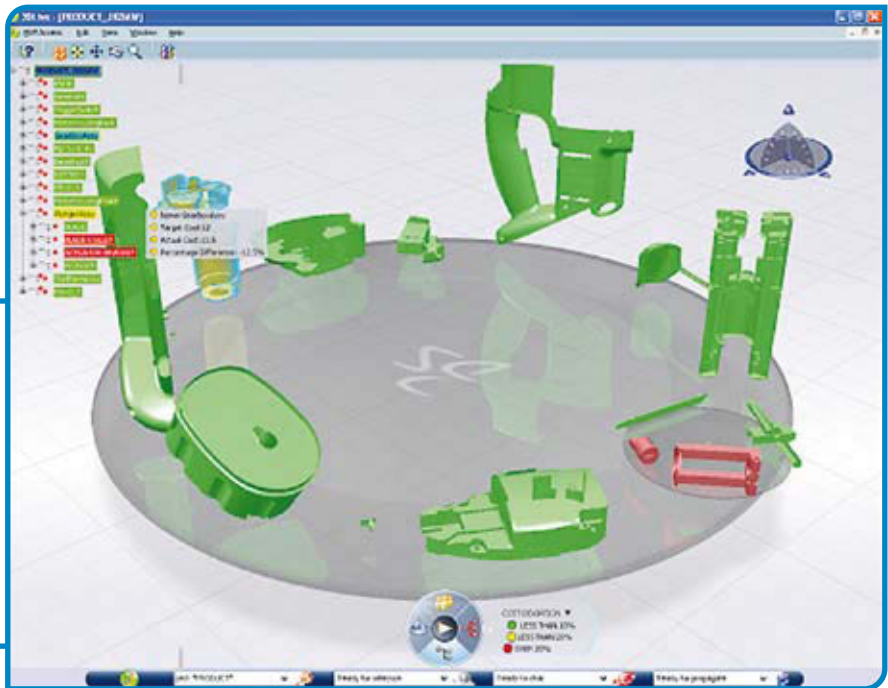
Online remote collaboration reduces problems of bandwidth and latency time. This means all stakeholders could connect and work together simultaneously on the same product. People would be able to share their work in progress together in real time in 3D. This technology will really help to work in different sites.

Schuler uses outside contractors for designing and for the design process. If with V6 the company would be able to simplify this process of bringing in small offices to support the engineering process, that would be of great help.

Global Collaborative Innovation

Extremely important is the large scale of collaboration V6 allows. All the different groups in the company would be able to work together and innovate on the same platform in large projects. More disciplines could collaborate together and the size and the complexities of the assemblies wouldn't be the limiting factor. Moreover, V6 is based on an SOA platform which means it could be easily plugged into the existing Schuler environment.

ENOVIA 3D Live is CATIA V6's turntable navigation tool: a dramatic virtual-world departure from the traditional Excel-style project views. Source: "CATIA V6 Testimonials" via www.youtube.com/watch?v=0vf7MxIUq3o



Ready-to-Use PLM Business Processes

V6 integrates engineering practices with enterprise business processes on a single platform. Linking those two domains make Schuler more competitive. Engineers could instantly access sourcing and compliance information. That would save significant time and money.

Lower Cost of Ownership: an ROI Breakthrough

With V6 there is only one server for the whole system, so only one server to install, customize, administrate and maintain. Overall Schuler's IT costs would go down. The company would also be able to deploy faster because integrating new sites would be easier.

Lifelike Experience

The biggest benefit of V6's 3D Live would be better communication and therefore better products. The interface allows anybody—even non-technical staff—from around the world to navigate and understand the product in 3D.

1998-2008: Ten Years of PLM and CATIA

CATIA as we know it today evolved after IBM's Product Manager (PM) database was sold in 1998 to Dassault Systèmes. At that time Dassault was developing PLM. A little "avant la lettre" so to speak, since AMR analyst Michael Burkett only coined Product Lifecycle Management in 1999.

The advanced PM database allowed IBM engineers to access 1,491,879 parts including 21860 types of cables, 127,008 electronic parts and some 30,000 mechanical assemblies and subassemblies. Via PM all the data, created by the CATIA software, already in use at IBM, could be distributed to engineers, accountants and everyone else who needed the information.

PLM 2.0, "PLM Online for All," or V6R2009 of CATIA, DELMIA (Digital Enterprise Lean Manufacturing Interactive Application) and SIMULIA, has been introduced at the start of 2008, ten years after IBM sold PM to Dassault Systèmes. CATIA, DELMIA and SIMULIA V6R2009 are native online solutions with a unified user interface.

V6R2009 is short for the Release 2009 of the Version 6 core and architecture of Dassault Systèmes' PLM 2.0 portfolio of products, which was conceived in tight collaboration with industry leaders.



Through V6R2009 PLM 2.0 truly brings to life the entire product lifecycle, from ideation to engineering, production, consumer usage, maintenance and disposal. PLM 2.0 enables all users to imagine, develop, share and experience the products in the universal language of 3D while harnessing the collective intelligence of online communities.

V6R2009 in a Nutshell

This first release of Dassault Systèmes' Version 6 serves the business processes of eleven target industries. Customers can select from over 150 production-ready products, including:

- Lifelike Experience through 3DVIA V6
- Collaborative Innovation through ENOVIA V6
- Virtual Design through CATIA V6
- Realistic Simulation through SIMULIA V6
- Digital Manufacturing and Production through DELMIA V6

Lifelike Experience: Imagine and Play

With 3DVIA V6 consumers can try out products and suggest modifications at any stage of the creation process. 3DVIA V6 also helps companies market, promote, sell or maintain products online with 3D-powered experiences in advertising, shopping, operation, maintenance, et cetera

Collaborative Innovation

ENOVIA V6 provides an open, online collaborative environment, on a single IP management platform, for all product lifecycle activities. ENOVIA V6 includes the governance of enterprise ecosystems, global sourcing and Unified 3D Live Collaboration.

Virtual Design

CATIA V6 offers System Engineering as a collective, integrated multi-disciplinary model for product development, Meta-CAD Modeling, Knowledge-Based Design and breakthrough user experiences and functions to shape and reshape 3D from any modeling source with unsurpassed speed, quality, and ease-of-use.

Realistic Simulation

SIMULIA V6 offers a unique collaborative environment to perform lifelike simulation and virtual product behavior testing. SIMULIA V6 features the Multi-physics Digital Lab, the Open Scientific Platform, and embedded compliance.

Microsoft®
Virtual Earth™

3dvia 

This technology preview introduces Virtual Earth integrated with 3DVIA.

Virtual Earth - 3DVIA brings your ideas to life in 3D! Imagine, create and share 3D models within Microsoft Virtual Earth!

- Imagine your own 3D models
- Create a realistic visual experience in 3D within the Virtual Earth environment
- Share your 3D models on the web



Virtual Earth – 3DVIA is designed to be used with Virtual Earth 3D (download at maps.live.com/Help/en-us/VE3DVIADownload).

Digital Manufacturing and Production

DELMIA V6 delivers next generation manufacturing solutions to create, share, execute and optimize virtual production systems through Manufacturing Planning, Plant & Resource Engineering and Program & Control Engineering.

V6R2009 on the Web

A comprehensive V6R2009 PLM 2.0 demo video can be found on the Web at www.3ds.com/products/v6/gallery/teaser.



11 Is Science Fiction Becoming Reality?

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Ultimately and, according to experts much sooner than we think, hyperindividualization will achieve its true fulfillment through the convergence of digital (hardware and software) and analog (“wetware”). This change will be brought about by the fusion of such notions as “my physical being,” “media” and “content.”

This chapter will give voice to the views of a number of people attempting to sketch out the possible futures resulting from such an event. It represents an exercise in mapping out the scope of future possibilities emanating from the probable next step in IT development: the IT penetration of our skin. In the present Me-Media Age, things are still being done in what is perhaps a somewhat outmoded manner. All the mediating Me’s—all the “I’s” communicating a message, no matter if they are individuals, companies, brands or things—all are still publicly oriented. In terms of their objectives, the contemporary Me-Media are mostly just fragmented imitations of mass media. The technology of web media simply enables them to reach a public more easily. At the same time, the new web environment encourages us to be incredibly fickle.

Web media clearly have a socializing and emancipating effect, but the ultimate consequence of the “ubiquitous web” would still seem to be far away. Towards the end of the next decade, however, we may well be looking back at the pres-



ent moment as if it were digital prehistory, as developments are happening at an amazing speed.

As well as beginning what may be the last pure IT era, the integration of ITech and ITainment with nanotech, biotech and cognition is very close at hand (NBIC).

11.1

Hardware, Software and “Wetware”

A number of visionaries continue to predict the ultimate convergence of IT, nano and biotechnology into one large network of hardware, software and biochemical “wetware.” In this new configuration, digital and analog will merge and completely new identities be created, which will partly be embodied and partly assume the form of Second-Life avatars. At the same time, another part of them will consist of autonomous software programs, and a further part may be nano-chemical vitamin and medicinal preparations to protect and repair the wetware.

Such a futuristic vision may perhaps seem laughable, and we are not trying to give an overly simplistic view of the future based on what most of us would regard as amusing or even tedious science fiction. It is clear that, if we look back on evolution, the pace of development is steadily increasing. Each wave of new possibilities, none of which required a genius to predict its arrival, can be regarded as “telescopic” enhancements of future progress: Science and technology providing ever greater powers of magnification.

Various experts have examined the situation and arrived at the conclusion that, in any event, the convergence of digital and analog is less than a half century away. If this is correct, it will signal an evolutionary paradigm shift in which “I’s,” identities, media, content and more will ultimately be completely interwoven and interlinked. To say that this will turn the world upside down is a vast understatement. Assuming that such a development will take place, of course.

As there are increasingly more abundant voices being heard and increasingly more indications pointing to a rapid convergence of digital and analog, along with all the possible consequences of such an occurrence, we would like to take the opportunity in this chapter to look to the future and introduce you to principle changes unleashed in a transition to a world of cyborgs, as sketched out by Eamonn Healy in the film *Waking Life*. Healy makes this de-

velopment extremely attractive, but we prefer for the time being to continue to place it within the category of science fiction.

11.2

From One of the Crowd to a Complex New I

The following vision of the future is based on Scene 6 of the film *Waking Life*. In it, Eamonn Healy, Professor of Chemistry in Austin, Texas, explains his ideas about the approaching evolution revolution. Artificial intelligence and molecular biology will fuse together on the basis of neurotechnology. As the title *Waking Life* suggests, this transformation will result in a new awakening of life after billions of year of slumbering existence. Technology will redeem us all, immortality becoming commonplace.

The “me > Me > ME” theme: To be able to say anything meaningful about the high points of human development, we have to examine our interaction with the environment. From pre-history to the present, human existence has primarily been concerned the development of population, not of the individual. But this is about to change.

Acceleration and change: Life first began two billion years ago and the first human-like creatures appeared six million years ago. Homo Sapiens have been on the earth for one hundred thousand years and began to work the land about ten thousand years ago. Modern science has now existed for about four hundred years and the industrial revolution dates back to around 1850. The speed of evolution is evidently increasing and if we project such an increase of evolutionary pace into the future, then we must conclude that the current generation of humans will undergo phenomenal changes.

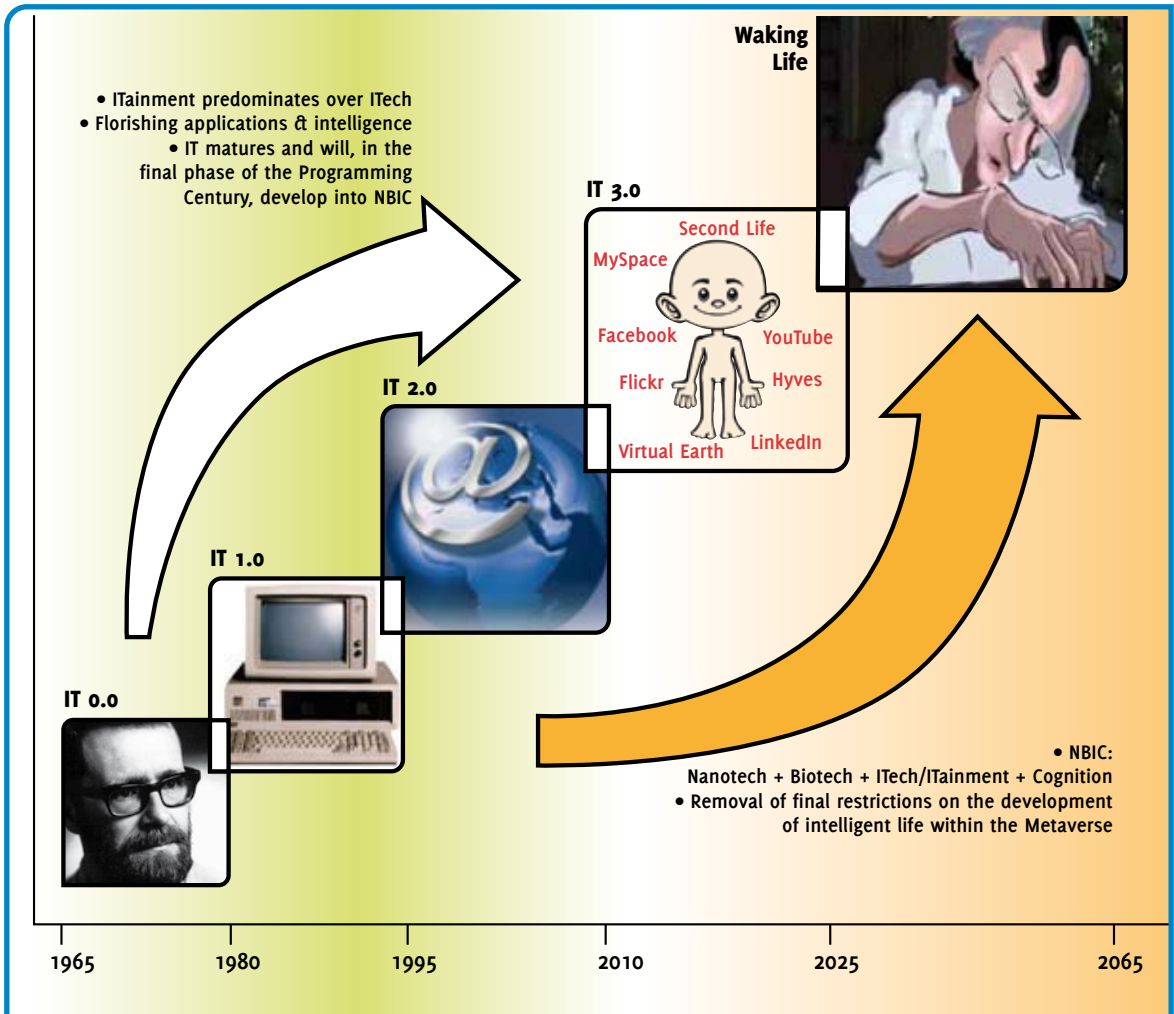
Digital and analog: The basis of the next evolutionary stage in our development is the fusion of digital and analog, of artificial intelligence and molecular biology. Neurotechnology is the binding link between them. Reviewing evolution up to the present day, you might say that one or will become dominant and the other disappear. However, we see something completely new: The realization that digital and analog can be harmoniously incorporated



Film fragment: youtube.com/watch?v=TCiX9yPLWwg; text: strivinglife.net/wordpress/2006/05/25/90/waking-life-chapter-3-life-lessons



with each other based on the individual. As a result, evolution will change from a process based on populations (for despite all the emancipations of the past, the individual of today is still primarily one of the crowd) to a process in which the individual human will take centre stage for the first time.



Over the course of the twenty-first century, the coding and manipulation techniques of IT will merge with nano, bio and neurotechnology. This convergence of life-defining technologies is the principal constituent of so-called singularity. The interaction will, in principle, endow humanity with the capacity to transcend individual existence into an immortal identity with collective intelligence, knowledge, experiences, emotions and spirituality.

Identities and immortality: Once the technology is ready, the intellectual and physical capacities of each individual will increase with blistering speed. Above all, the development of derived identities, sub-identities and combined identities—partly embodied, partly purely digital—is close at hand. We will no longer be bound by time and space, and the experience of immortality will become absolutely normal.

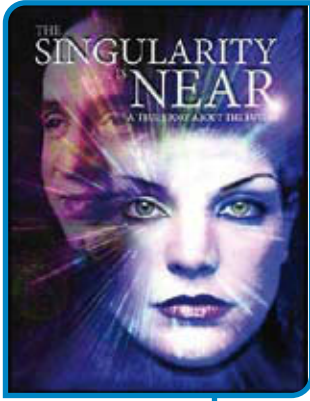
11.3 Singularity and Ideals

Anyone making the effort to examine the film fragment or text on the Internet will note that Healy does not use the term “immortality” but, in a general sense, speaks about “without limitation of time and space.” The leading thread running through his argument involves the increasing acceleration in the succession of peaks in human evolution. We can even add further high points to the ones that he mentions. In so far as the area of media is concerned, there is certainly some relevance to be found in the printing press, which became available in Europe five hundred years ago. Woodblock printing and movable type was available much earlier in China. And we should not forget the computer, which made its entry into the business community half a century ago, or the PC, which first appeared in 1981, or the Internet. Indeed, Healy’s entire periodization may be subject to a certain amount of squabbling. For example, the issue of whether life began two or three and a half billion years ago, as claimed in *The End of History* for instance. (See sypmind.com/singularity.html.)

Singularity—the convergence of development into one magnificent unity—is jargon encountered in many of this type of cyborg (“cyberspace” and “organism”) speculations, and it is not simply nonsense. *The End of History* reveals how we can expect to arrive at the point of singularity within a foreseeable period. Often, such a prelapsarian future is still linked to the ideal of a better world or to the realization of ideals that rational human beings have been working on since the time of the emergence of our species.

In Scene 6 of *Waking Life*, Eamonn Healy again reflects on the worldview that may result in the merging of digital and analog. The efficiency of evolution to date, Healy claims, could be resolved by focusing on typical human ideals such as truth, loyalty, justice and freedom. This primacy of intellectual values has been the theme of numerous philosophies, religions and theories; consider the writings of Plato and Maslow, for example. Due to the acceleration toward singularity, human self-realization in a purely positive sense ap-





2006 saw the publication of the book *The Singularity is Near: When Humans Transcend Biology* by Ray Kurzweil. The film version of this book appeared in 2008. Enjoy Kurzweil's slide presentation on www.kurzweilai.net/pps/tretc.

In 2009 the movie *The Singularity is Near, A True Story about the Future* was released. This full-length motion picture intertwines a fast-paced A-line documentary with a B-line narrative story.

The A-line features Ray Kurzweil interacting with a panoply of thinkers on the impact of exponentially expanding technologies on the nature of human life in the next half century.

The B-line is the story of Ramona, Ray Kurzweil's female alter ego, starting with actual footage of Kurzweil creating and demonstrating his virtual creation at the 2001 TED (Technology, Entertainment, Design) conference, where Ray—as Ramona—sang Jefferson Airplane's "White Rabbit."

The B-line continues as Ramona goes into the future where she becomes more and more humanlike and independent—a Pinocchio story. She combats an attack of self-replicating nanobots (gray goo) and hires Alan Dershowitz (who plays himself) to press for her legal rights as a "person." The judge rules that he will grant her full legal personhood if she passes a "Turing test," in which she must appear indistinguishable from an actual human in a text conversation.

pears, more than ever before, to be within reach as a result of the potential of converging scientific and technological developments. Healy presents this tendency as a potentially beneficial development but does not say anything about the probability of its occurrence.

11.4

Me-Media and the New Internet

In 2007, for the first time ever, more information was generated in one year than had been produced in the entire previous five thousand years—the period since the invention of writing. At the beginning of the twenty-first century, we no longer have to be satisfied with printed snapshots picked up from the photo shop. Instead of images on photographic paper, we now have digital multimedia productions available to us on the spot.

What is it all leading to? For years, there have been predictions of the Internet becoming bogged down. The server parks full of constantly humming computers located all around the world devour enormous quantities of energy. After e-mail and e-business, we are now, in the context of our e-mancipation, experiencing the beginning of the complete mediatization of individuals, organizations, brands and objects.

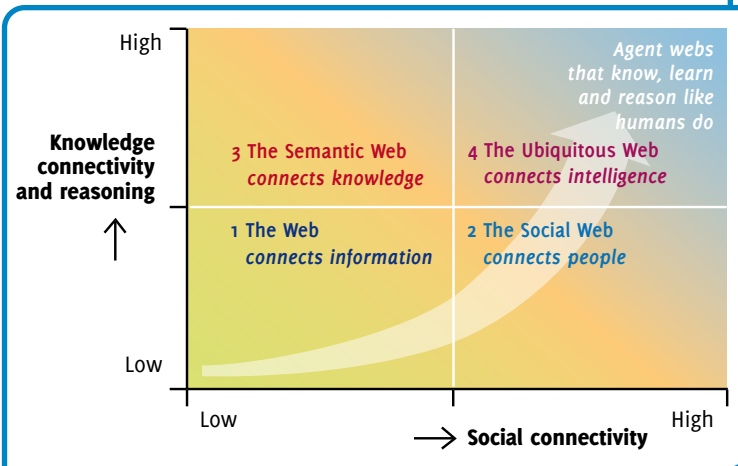
We are preparing for such an explosive increase in Me-Media identities by demanding new technologies to focus increasing amounts of attention on ourselves. A range of complementary measures is in the making, some of which are mentioned in the following (incomplete) list:

- ❏ IPv6 will soon be here. Version 6 of IP (the Internet Protocol) will provide the current web with a new set of clothes tailored to accommodate gigantic growth, as the current 4×10^9 Internet addresses will expand to at least 3.4×10^{38} .
- ❏ The semantic web is in the pipeline. Its information will be well described and properly ordered in a system of what will be known as “metadata.”
- ❏ The social web is the focus of intensive development. It will soon make it possible for everyone and everything to be incorporated. At present, it represents the most noticeable trend emerging from the Me-Media revolution, and is consequently the starting point for this book.

The combination of these new developments represents a decisive step in the direction of the “ubiquitous web”: the omnipresent entity that accumulates knowledge, provides instruction and engages in argument just as people do.

In the future, it will also become more common for this “artificial intelligence” to be given a form of life

The development of the information web into a ubiquitous intelligent Internet requires both a new knowledge infrastructure and participation of the greatest number of people possible. The so-called semantic web must provide the knowledge infrastructure; the term “social web” refers to the participation of individuals and organizations. Visit the Semantic Interoperability Community web or Practice Wiki (colab.cim3.net/cgi-bin/wiki.pl?SICoP).



as avatars, who will be our alter egos within the reality-enriching digital virtuality to be created in the coming decade. We will have various alter egos for various purposes. Together, these smart identities will constitute our rational split personality by 2020. By the way, many companies are already implementing forerunners to such smart alter egos in the form of business intelligence systems, customer-relationship software, et cetera.

Storage capacity will not be a problem in 2020. When we make use of crystal structures in nano-technology by, for example, placing the zeros in carbon isotope 12 and the ones in isotope 13, we will then easily be able to store all memories from a human life in just a few shiny granules. On average, we are awake for 21,024,000 seconds each year. Suppose that we need 1 megabyte every second to record images, text and sound; on an annual basis, the required external memory would amount to 21,024 gigabytes or, in other words, 2 terabytes. Our memories would then always remain in existence and be used by our (and other) avatars.

In this way, immortality becomes tangible, at least active digital artifacts that everyone and everything will be able to leave behind in the second half of the current century. Ultimately, we will be able to upload the content of our brains. This possibility is still science fiction at present, but not entirely if it were up to the Blue Brain Team working in the Swiss city of Lausanne on the cell-for-cell construction of mammal brains.

11.5 Neurotech Is Catching Up

At present, neurotechnology and related fields are undergoing a remarkable catch-up endeavor and the publicity surrounding it is gaining measurable momentum. In March 2007, the *IEEE Transactions on Pattern Analysis and Machine Intelligence* issued an article on the manner in which our brains recognize computer-simulated street scenes. The result is a general framework for which biology was the inspiration, as the new system literally now follows the structure of the visual cortex.

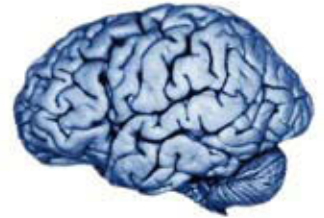
This step forward fits seamlessly with the Blue Brain Project being conducted with the assistance of IBM in Lausanne. Blue Brain is the first serious attempt to artificially construct the brain of a mammal in a biologically accurate manner. At the end of 2006, a splendid simulation of our brains was provided at the level of the cell. The science is now able to artificially link the neurons “in the computer” by placing thirty million synapses in their proper

three-dimensional position. As a result, it has become possible to construct what are known as cortical columns, the underlying structures of our brains. In November 2008 IBM received a \$4.9 million grant from the Pentagon for research into creating intelligent computers. The money funds the first phase of a multiyear effort to engineer computing systems that simulate the brain's activities while rivaling its compact size.

The Soul Catcher research at British Telecom Laboratories is an excellent supplement to Blue Brain. In part, the Soul Catcher project is examining how the stimuli that we receive are captured and stored by our thoughts. At the same time, it is exploring how digital information can be directly entered into the human brain.

In March 2008, it was announced that the Blue Brain project was progressing faster than expected. *Consciousness is just a massive amount of information being exchanged by trillions of brain cells. If you can precisely model that information, then I don't know why you wouldn't be able to generate a conscious mind.*

Read the entire story in *Seed Magazine* at http://seedmagazine.com/news/2008/03/out_of_the_blue.php.



Microchips designed by the Silicon Valley company Audience are now being used by Asian mobile handset makers to improve the quality of conversations in noisy places. The chip is modeled on functions of the inner ear and part of the cerebral cortex, so that piece of the brain already has been successfully reverse-engineered. Read the entire *BusinessWeek* story at www.businessweek.com/magazine/content/08_48/b4110092474021.htm.

It seems likely that we will be able to download the human brain at some time around 2050. “Dying at the end of the century,” remarks BT futurologist Ian Pearson with a wicked humor, “will not cause you any career problems.” If, in connection with Blue Brain and Soul Catcher, you also consider the fact that computers will exceed human intellectual capacity by around 2015, the Prometheus vision at the beginning of the previous chapter may only be a very modest outlook of the future.

11.6

Doubt and the Margin of Error

At various points in this book, we have expressed some doubt about predictions. Such reservation remains important, for are we not perhaps overstating things just a little? How well founded are these kinds of futuristic



Internet Interrupted: Why Architectural Limitations Will Fracture the Net

In 2007, Nemertes Research conducted the first-ever study to independently model the Internet and infrastructure and current and projected traffic. Nemertes concluded that if current trends were to continue, demand would outstrip capacity before 2012. In 2008 Nemertes revisited its study and came to the conclusion that the situation is worse than originally thought. Capacity in the core, and connectivity and fiber layers will outpace all conceivable demand for the near future. However, demand will exceed access line capacity within the next years.

Source: www.nemertes.com/press_releases/nemertes_press_release_stress_fractures_Internet_2012

visions anyway? Are we not rushing into enormous ethical problems, against which the debate on cloning pales by comparison? This may indeed be the case, but the funny thing about software and the Internet is that developments are not so easy to stop by means of legislation and regulation.

Another interesting question concerns the margin of error. Many revelations about the future that seem improbable at first may, in fact, become reality, but only after decades or even several centuries. A good example of an event separated from its prediction by something more than a hundred years is the moon voyage that Jules Verne described in *From the Earth to the Moon*. Remarkably enough, Verne's voyage began in Florida, ended in the Pacific Ocean and had three men on board; the costs of the voyage in 1865 dollars recalculated into 1969 values were roughly equal to the costs of the Apollo 11 trip.

Me-Media of another order occurred about ten years ago. When the Lifestreams of Gelernter, Freeman and Fertig became operational on Sun workstations, the Association for Computing Machinery, the oldest computer club in the world, celebrated its centenary. On that occasion, Berkeley researcher Marc Davis was asked to record his vision of where digital was heading on paper. One of the things that we might expect, wrote Davis, is the "New New Hollywood." Everyone will have access to the software and equipment needed to "broadcast" multimedia programming over the Internet, as a result of which "hundreds of millions of channels" will emerge.

» *When the tools and infrastructure are in place to enable cheap and effective home use of video annotation, retrieval, and repurposing tools, the garages of the world will be the sites of the 'New New Hollywood' creating hundreds of millions of channels of video content. The conditions of production and use will have changed such that a large group of amateurs and home users will be regularly making video that can compete in the information marketplace of networked computers.* «

It is precisely this change in media relations that we now see happening with the lightning-fast growth of Me-Media. YouTube is bursting at the seams with video content ranging from wonderful documentaries such as *Hofman's Potion* on the discovery of LSD and thoughtful musical clips like "Out of Time Man" by Mano Negra to two school friends who, by way of a parody, recommend their new "eyePhone" and product demos from Nokia and IBM.

The margin of error for a complete digital world of multimedia and artificial intelligence in 2020 is, from a technological perspective, negligible. However, growth in the general use of such technology is a completely different issue.

11.7

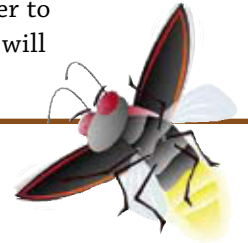
Our Inherent Inertia

The pioneering convergence of digital and analog in embryo form is undeniably close at hand, but a critical remark must be made about the realization of the resulting potential, an issue that poses an equally fundamental counterweight to any such development. The envisioned future is “something completely different,” the “step through the looking-glass,” telescopic evolution, and the mathematical limit that must be accordingly exceeded. Something like this has only been done by Alice in her Wonderland. It is impossible to exceed a limit and, to simply skip over a double contradiction, once exceeded, the wait for any foreseeable consequences might be infinitely long.

As a result, futuristic visions such as the ones in *Prometheus* and *Waking Life* are not written off as nonsense, but may belong to a conceivable but non-human order. For the time being and perhaps until the end of time, we must continue to assign them to the category of science fiction. Instead, it is much more interesting to remain close to the concrete web reality and to examine what we might expect from the next few decades, aside from all the fundamentally radical prophecies of the future. To begin with, we will consider the favorites, profiles and all the other information already available on the Web at Amazon, LinkedIn, MySpace, et cetera. We will then go a step further to discuss the combination of this data with the “intelligent agents” that will act on our behalves and be self-learning.



Mature digital intelligence quite possibly may always be something that remains hidden away. And why not. In principle, a car will drive just as well with a two-stroke motor from the forties as a computer-controlled two-cylinder fuel-injected engine. Mature digital intelligence might be an alienating bit of overkill for us humans, a point that Belgian Silicon-Valley icon Pattie Maes may have already sufficiently proven years ago with her FireFly. See www.wired.com/wired/archive/5.12/maes.html, www.strategy-business.com/press/16635507/19707 and www.wired.com/culture/lifestyle/news/1999/08/21243: “Gerstner: Fireflies before the storm” (www.business-week.com/2000/00_48/b3709097.htm).



Although, technically speaking, there is no single limitation standing in the way of agent technology, not so much use is being made of it. Firstly, it is evident that we already have enough intelligence of our own. Secondly, we have to accept the mitigating reality that the development of the semantic web still leaves much to be desired. There is even some question of whether, with semantic structures, we have already hit the limit of practical application. If the past, present and future are, in fact, included as part of the task, how will we work on it any effective manner? “On the fly” is the current pragmatic answer: just get going and see how far we get. But more than an achievable, experimental playground—a proof of concept—has not yet been realized insofar as the semantic web and autonomous intelligent agents are concerned. This practical failure (lack of a killer app) is particularly true in commercial environments, where state-of-the-art business intelligence, data mining, groupware and CRM are often avoided in favor of spreadsheets, e-mail, telephone and cold-canvas telesales.

The recent past (i.e. the final phase of the IT 2.0 period) saw the adoption of weblogs and wikis, such as the American secret service’s Intellipedia. The social web must therefore be the vehicle for developing the (combined artificial/natural) intelligence described in SF reading and what we all seem to be preoccupied with.

It seems that, with artificial intelligence, we have reached the limit that the Greek philosopher, Protagoras identified 2500 years ago in formulating the maxim “man is the measure of all things: of things which are, that they are, and of things which are not, that they are not.” The rule of thumb implies that any non-existing thing or anything too distant from our world of experience will never come to pass, or may only happen e-x-t-r-e-m-e-l-y slowly. It is for good reason that, as mentioned, we now see the strong emergence of the social web instead of the semantic web, and a proposal has been made to use Wikipedia, the largest hierarchical collection of information in the world, as bottom-up input for the ontologies required to give shape to the semantic web.

Despite all the acceleration and the prototypes that we can construct, human beings always get cold feet when facing the realization of science fiction visions. With the undeniable current acceleration in all types of development, the obvious question asks what soon “will and will not belong to the future.”



Get A First Life! Just go outdoors Everyone is already a member. First life is an analog 3D world in

To make the point even clearer, let us pause to consider the following “vision.” Our inherent reticence might adequately explain why contact with civilizations on other planets has never got off the ground, despite the

probability of such civilizations existing. It seems that they have better things to do than to hang out with a few unredeemable mortals on Earth. For, if humanity has finally built such an elegant device as the computer, and learned something as elementary as coding, modeling, imaging and recombining, what do they then do with these advancements? Would you believe that they then waste the knowledge by copying their own inert existence and building a “second life.” People, people, “get a life” and “get alive.” As mirroring what is will never, of course, have any effect on what might be.

which you are never bogged down by insufficient processing capacity. First life is incredibly popular: more than six billion “residents,” with a few hundred thousand being added every day.

In any case, it is clear that a large part of “civilized humanity” in the midst of the Third Media Revolution going on all around it only has eyes for the transitory Me-Media stardom of *Idols*, *Big Brother*, *Dancing on Ice* and whatever else there might be. We might have to just dream of meaningful splits-of—if not disembodied immortal intelligence—identities for a long time to come. Although the technology for this is extremely near at hand, we have simply still not become any wiser.

Nevertheless, the stories circulating on the Internet about the reputed damage that digital alter egos could cause us are meant to be taken seriously. But as long as the sun rises and sets, human beings are likely to prefer to travel



around the earth with a bit of Augmented Reality enveloping them than to reside in a virtual copy of our real world.

11.8

Superhuman or Sand in the Gears?

There may, indeed, be a premature end to that sunrise, however, as the combination of climate problems and an abrupt shortage of fossil fuels, the joint assault, lay waste to the human economy. Such pessimism might exaggerate a non-redemptive doom scenario, but it is nevertheless only right to recognize that the dream of hyperreality could vanish long before it has the chance to become reality. Global warming and its potential consequences are, in terms of the Me-Media future, less likely to be science fiction than the prospect of singularity based on the convergence of digital and analog that Professor Eamonn Healy presents in the film *Waking Life*. Hyperegos, hyperreality and, ultimately, a digital-analog superhuman may well be the glittering bright-side of the coin, but may also have a dark side that techno-optimists often entirely overlook. This gloomier flip side involves the torments of energy and climate.

Everyone knows that “easy-oil” production is soon likely to pass its peak everywhere, and that there is a real lack of an energy alternative. Unprecedented price increases will undoubtedly be the result. Energy sources other than “easy oil” (the term for oil and gas that is easy to obtain) either provide little relief, or cause too much pollution and threat to the environment, as is even the case for biomass and hydrogen. The days of “easy oil” have passed, as the top man at Shell, Jeroen van der Veer, has been telling shareholders and journalists for some time now. And we are constantly confronted by unpleasant surprises, causing the oil price to shoot up further.

The book *The Last Oil Shock: A Survival Guide to the Imminent Extinction of Petroleum Man* by British writer David Strahan, published earlier this year, makes the problem perfectly clear. For every barrel oil currently being produced, we are consuming three; moreover, it does not take a rocket scientist to figure out that oil production will undoubtedly decline within the next ten years. If nothing changes (and what could any immediate remedy possibly be, for the only manner of producing good hydrogen is by atomic fusion, and its development will take decades), the scarcity of oil will soon bring a large part of the economy to its knees, causing our mobility to come to a grinding halt. No more cars, no trucks and no airplanes, as transportation becomes unaffordable.

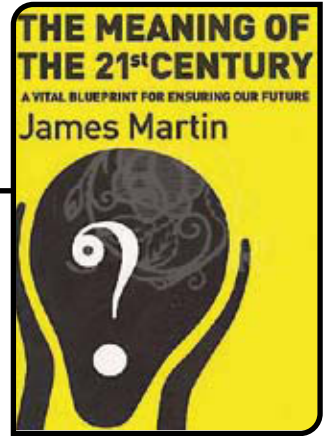
It is distressing to admit that, within the foreseeable future, the combination of global warming and oil, the black gold, will throw so much sand in the gears that IT, me-media and the digital-analog superhuman might sink right down to the bottom of the priority list.

James Martin, the respectable IT guru, has called the twenty-first century the “Make or Break Century,” and has recently launched his 21st Century Business School at Oxford University. It is a place where the huge problems we currently face, from the divide between rich and poor to overpopulation and the climate, are analyzed and pursued in an integrated manner. The result is already clear: humanity will have to endure further difficulties over the coming decades.

A MAKE-OR-BREAK CENTURY

A transition, unique in human history will occur. If the transition goes well, humanity has a magnificent future. If it goes badly, we may be thrown into a new Dark Age or worse.

Source: www.jamesmartin.com.



11.9

IT 3.0 and Beyond

It is important to maintain a healthy skepticism about many of the plausible views propagated by people such as Professor Eamonn Healy. We are eagerly carried away by them but, all things considered, they draft a conceivable but superhuman future that may, in fact, be beyond the limits of our development. However, given our history, a general increase in the convergence of ITech, ITainment, artificial intelligence, nanotech, biotech and neurotech is far from improbable. On the contrary, it has already been substantially demonstrated that a proof of concept for such converging tendencies need not run into difficulties. Apart from rejection or doubt based on reasons of principle, there are three concrete factors suggesting that the work on singularity will be placed on the back burner, particularly when these issues are considered in combination. They are the big challenges facing us in this “make or break century,” inherent human inertia and our tendency for moderation, both of which will dampen any vigorous development towards singularity.

IT began in basements, clambered upstairs and found its way into our offices and business processes. The Third Media Revolution has brought IT before our eyes and into our senses. In the next step, ITech and ITainment will van-



ish under our very skins. At present, we are still talking about ego trips on the Internet and the ways in which we appear to others. Soon, we will be obsessed with life-prolonging measures and become even more preoccupied with ourselves than we already are. One last conclusion has forced its way into our musings. **Individualization? You ain't seen nothing yet!**



Me the Media Movie



You have reached the end of the *Me the Media* book, but its stories are only now truly beginning. At **MeTheMedia.com**, you will find additional information and the Me the Media Movie—a compilation of YouTube video fragments—which is primarily concerned with the business impact of the Third Media Revolution, currently in full swing. The clip ends with the question: “**What is your story?**” We are asking everyone to share their experiences and ideas with us and everyone else. MeTheMedia.com is entirely concerned with the developing impact of the new web media on organizations.



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VINT is the Research Institute of Sogeti, and was founded in 1994. VINT has offices in Amsterdam, Paris, Stockholm and Washington.

Past, Present and Future of the Third Media Revolution

Since the mid 19th century countless innovations have sprung up from American soil, in particular those related to technology and media. With Barack Obama as the 44th President of the United States the change that web media can create, is being further satisfied. For example, during the campaign at myBarackObama.com, YouTube and Facebook, and later at Change.gov amongst others, his messages were resonating and swelling in a genuinely democratic way.

Through web media Barack Obama was able to deliberately implement “We the People” anew, so that each and every individual who chooses to can participate in a variety of ways. It is along these lines that the world is moving ahead from the well-known concept of the Conversation Economy to a Conversation Society, which is the ultimate consequence, if not goal, of what is referred to in this book as the Third Media Revolution.

“Me the Media” is how we call this multimedia web-based age. The old, trusted mass media have been absorbed by the new media mass in which we all participate as individuals and consumers. After the printing press and movable type, and after such mass media as radio and TV, the modern era of the Web is the Third great Media Revolution undergone by humanity. This sweeping wave has far-reaching consequences: for business, for society, for technology, and for us.

In this Me-Media dynamics composites of digital alter egos are rapidly becoming an accepted form of personal and brand identity. They increasingly form the basis of the social and economic activity in which individuals, organizations, and government engage. The Third Media Revolution emancipates physical identities to the “Hyperego” level: the digital me’s we know so well from CNN’s iReport, iGoogle, iPhone, myBarackObama, YouTube and the like. All are hyperlinked and super active on the Web, involving citizens, brands, companies and politicians.

The coming decades will see us intimately and physically interconnected within our own web by means of ordinary hardware and software, but subsequently also via biochemistry (“wetware”) and nanotech. In this way, life will become one enormous test laboratory for the further development of humanity.



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