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Chapter 1

Promoting Utopia/Selling Technology

We will create a civilization of the mind in Cyberspace. May it be more humane and fair than the world your governments have made before (Perry Barlow, 'Declaration of Independence of Cyberspace', 1996).

New technologies spread by word of mouth. Legends, myths and narratives accompany a new technology while it is still in development and announce it to a broader audience in society, to its potential users. Many stories have been told of imagining futures drafting possible trends in the use and development of technology (Barbrook 2005). The attempt to bring technology to perfection and to create a utopia through engineering has been recognized as an important agent of change (e.g. Peters 1999; Daniels 2002; De Vries 2008). Whether a positive or negative utopia is depicted depends on which terminology, images, and associations are chosen to imagine and present the new media. In view of participation, a negative utopia manifests itself as the dark side of the tempting promise for social progress, as the potential abuse of technology for repression. However, popular discourse rarely touches upon this. Rather, it promotes a positive utopia. The new media, the Internet, the personal computer, but also the mobile phone and wireless communication entered popular discourse in tandem with a rhetoric of promise which envisioned a brighter future. Jan van Dijk points out four examples where technological design is related in popular discourse to utopian notions of participation and social progress: The notion of teledemocracy in the 1980s, virtual communities and the new economy in the 1990s, and most recently the Web 2.0 (2006). Here, metaphors, associations and images create a certain imago of technology. They are part of a rhetoric of progress that can be recognized in the representations of new media in popular discourse. Referring to past media revolutions or a culturally constituted imagination of technological progress, they are often familiar and thus comprehensible for audiences and easily employable for promoters. Science fiction texts from Jules Verne to William Gibson, alternative concepts of society from Thomas Morus to 1960s counter-culture, and images from Fritz Lang's Metropolis to the Wachowskis' The Matrix contribute to this and are representative of the current debates. McLuhan described our limitation for perceiving the future only in terms of past developments, as if we looked 'at the present through a rear-view mirror' (1967:74). A rich cultural repertoire of images, associations and narratives informs the present rhetoric of progress that accompanies information technology.

The framing of new technologies occurs in two types of discourse: a popular discourse, aimed at a broad audience, which introduces and promotes new technologies on a large scale, and a scholarly discourse, which examines their social

use. However, both discourses tend to cross over, due to a lack of specialized scholarly discourse on the topic and the need to create attention for both the emerging media and its academic framing. A key example is Nicholas Negroponte's book Being Digital. Despite being written by a respected scholar, it targets a broad audience and hardly meets the need for scholarly reflection and analysis, instead promoting a utopian future of digital media and their impact on society (1996).

Promoting and building information technology has unfolded simultaneously. With respect to the 'second coming' of the Internet in the form of Web 2.0, the imagination and promotion of this technology's prosperous future and its beneficial use can be seen as inseparably linked to the technology's own development. Therefore, promoting the Internet revolution while still in progress required the creation of a suitable language, a rhetoric that made an Internet future comprehensible to a large audience, and that mediated things that seem so natural today.

The first time an interested public could have a glance at the new information infrastructure and its potential effects was the 1991 special edition of Scientific American entitled 'Communications, Computers, Networks', featuring articles by Al Gore, Nicholas Negroponte, Vint Cerf, Mitch Kapor, and Alan Kay. The range of occupations and the different backgrounds already indicate the broad nature of agenda setting. In this special issue, a scholar (Negroponte), a politician (Gore), a computer scientist (Kay), a programmer and activist (Kapor), and an Internet pioneer (Cerf) cover a wide field of topics and potential applications of an electronic information infrastructure. Alan Kay portrays possibilities of using computer networks for teaching children and how these technologies could enable and stimulate kids to teach themselves, and Mark Weiser sketches a future of ubiquitous computing, in which the computer of the 21st century is a pervasive technology accessible from many different tools in all kinds of situations. While Al Gore introduces the 'information superhighway', Mitch Kapor, co-founder of the Electronic Frontier Foundation (EEF), claims civil rights for the concerned citizens of Cyberspace. ² In 1994, the Superhighway Summit held at UCLA's Center for Communication Policy demonstrated the Clinton/Gore administration's efforts to set communication technology on the national agenda. In his speech, Al Gore outlined the main regulations that were being established by the governing administration for dealing with the 'Information Superhighway', emphasizing the role of entrepreneurs and free market principles.³ Along with the popularization of information technology in special interest and mainstream media, politicians already saw the implementation of an information infrastructure on their horizon and started to conceive regulations accordingly.4

In communication theory, the concept of agenda setting is used to describe the effects of mass media on the dissemination of political ideas, and the shaping of public perception of individual politicians and their policies. The term describes how issues come to the awareness of a broader audience and how the mass media actively drive the process of generating attention and decision-making (Shaw,

McCombs 1977). As political concepts are framed and put forward in society's discourses, so technology is framed in various ways and becomes a part of the discussed agenda. In these discourses, new media have successfully been established as empowering technologies that fundamentally enable participation. Although the mass media are crucial for communicating current trends in technology development and creating the necessary attention for the demand and adoption of technology, they are not the only factors in agenda setting. Many different actors play a part in the framing of technology. Advertisements, manifestos and policies constitute a rhetoric of progress and formulate a promise of participation. Here metaphors, images and associations are used to create a picture of what the Internet or the World Wide Web will be for citizens and consumers.

But the challenge is to imagine and mediate a subject that is often even unclear to its own promoters and completely unknown to most of the audience. When the Internet and the WWW became a subject of mainstream media around 1995, journalists reverted to an entire vocabulary and cultural pool of associations that had already shaped and described computer technology and information networks. 6 Early metaphors affecting the perception of media include the computational metaphor, which is a linguistic and semantic transformation from the concept of human accountant to an electronic calculator. The humanization of the machine, which overemphasizes the labour involved in processing accounting tasks and which was formerly conducted by humans, was an attempt to coin the metaphor of the 'electronic brain' (Hally 2005:85, 101). The term World Wide Web itself is a metaphor, using the picture of a web wrapped around the globe. The network metaphor was also influential and became synonymous for the changes taking place in a society perceived as an organization of networks (Castells 1996-2000). Of the many metaphors used to describe communication and information technologies. two were successfully employed and embedded in popular discourse: Information highway, coined by the Clinton/Gore administration, and Cyberspace, popularized by science fiction writer William Gibson. Cyberspace denotes a blend of cybernetics and space which identifies that element of space which creates information machines and communicational feedback, 'a consensual hallucination experienced daily by billions of legitimate operators, in every nation, by children being taught mathematical concepts. [...] A graphic representation of data abstracted from the banks of every computer in the human system. Unthinkable complexity' (Gibson 1984:51).

Perceiving information technology as a new space allows promoters of this metaphor to portray users as citizens cultivating, inhabiting and developing it. As Wendy Chun emphasizes, cyberspace proved to be a powerful metaphor in promising a new space in which to realize utopian concepts (Chun 2006:28).

The metaphors 'hyperspace', a space above the familiar real-world space, or 'augmented reality', a reality enhanced by ubiquitous information services, creating an 'infosphere', were popular alternative terms. The Information highway recalls

nationally organized transport sectors, controlled and hierarchical structures and bureaucratic regulation. This last metaphor has been criticized for its limited capability of imagining the use and shape of future technology and for being too narrow by virtue of its relation to bureaucratic organizations (Dyson et al. 1994). In their text A Magna Charta of the Knowledge Age, Dyson, Gilder, Keyworth, and Toffler analyse the cyberspace and information highway metaphors, finding the latter inappropriate for facing the new material challenges of online social and political organization, whereas the cyberspace metaphor typifies a spatial perception of a new world rather than an understanding of new highways that would be maintained and administered by bureaucrats (Dyson et al. 1994). The function of these metaphors is clear, and what Bruce Sterling acknowledges for cyberspace is true for the information highway metaphor as well:

The word 'cyberspace' is a sleek container for all kinds of suspicious techie marvels – notions with radically different premises – and considerable commercial promise. People – some of them, millionaire entrepreneurs – are in technophilic ecstasy, boldly comparing 'cyberspace' to the telephone, the automobile, the Wright flyer, the personal computer (Sterling 1990:54).

The 'Information Superhighway' was yet another sleek container, though it had a bureaucratic tint, a state-mediated project but in favour of a free market economy and commercial application. Metaphors are not neutral or passive, since the choice for or against a metaphor entails important design and regulation decisions. The metaphor of the information highway explicitly invited associations of neo-liberal market organization and the entrepreneurs as the pioneering actors to build, shape and exploit the new information infrastructure:

We are on the verge of a revolution that is just as profound as the change in the economy that came with the industrial revolution. Soon electronic networks will allow people to transcend the barriers of time and distance and take advantage of global markets and business opportunities not even imaginable today, opening up a new world of economic possibility and progress (Gore 1997).

This rhetoric is used by many different people, organizations, and institutions to describe and label the technology and its use in a society-wide debate. A bard such as John Perry Barlow dreamt of a new and better world, politicians such as Al Gore promised a fast ride on information highways that would lead from the industrial age into the rosy future of the information age. A computer pioneer and activist such as Mitch Kapor recognized the need for socio-political representation and citizen rights on the electronic frontier, while business leaders such as Bill Gates anticipated 'business at the speed of thought'. The way media and technologies have been presented reveal an expectation of socio-political progress through

technological development. The various participants from the worlds of business, journalism, politics, activism and art provide a rhetoric that addresses and communicates new technologies. Their statements and the way they present technology have a profound effect on developers and designers attempting to devise solutions that fulfil the proclaimed promises. Those concepts were addressed by prominent spokespersons who quickly became identified with the new media and the new economy, and who were sometimes referred to as the 'digerati' (Brockmann 1996). Fred Turner convincingly shows how counterculture and business converged during the early development of personal computers. Young entrepreneurs and activists teamed up to produce tools for a 'new frontier', entering virgin social and technological territory (Turner 2006). Coming from the most divergent fields related to computer and information technologies, these diverse groups of scholars and writers, entrepreneurs and publishers, activists and politicians, programmers and engineers very much dominated the debate on the implementation of the global information infrastructure. The media appearances and publications of opinion leaders and prominent techno-advocates contributed to the semantic constitution of associations and metaphors for describing, perceiving, and experiencing technology. A plethora of texts was produced by these advocates describing what the Internet and the information revolution was about and which changes society would undergo during the transformation to an information society. 10 The second coming of the Internet as Web 2.0 has a similar dynamic. A flying circus of the usual suspects spread the gospel about the next new thing.

Technology is expected to solve many social problems and abolish many obstacles created by social interaction and power structures. Drawing on psychoanalytical theory, French sociologist Patrice Flichy conceived the concept of the 'imaginaire' to describe the 'collective imagination of technology' (Flichy 1999; 2007). This technological imaginary is constructed by the expectations and projections for cultural and social advancement and manifests itself as an immaterial aspect of technology. It pervades the discourse on technology, whether in popular texts, journalists' articles, the work of artists, debates at conferences and board meetings, and the slick presentation of marketing professionals. It finds expression in the policies of political administrations as well as in the manifestos of activists. The promising rhetoric used to promote the new media in the 1990s represents a technological imaginary that refers to the ideal of egalitarian access to means of information and the freedom to communicate beyond all geographical, political and educational boundaries.

The new technologies have been promoted in the mass media and have stimulated the creation of many new special-interest media, the most popular probably being chief editor Kevin Kelly's Wired magazine, which features and supports many of the key players in popular discourse and the computer and software businesses. ¹¹ In Wired, the amalgam of counterculture and business found a medium with roots in Stewart Brand's hippie magazines The Whole Earth Catalog and The Whole Earth

Review. Later dubbed the 'Californian ideology' (Barbrook, Cameron 1995), Wired's philosophy attempted to link counterculture politics with the polished new economy entrepreneurship, along with a libertarian, evolutionary, Darwinesque philosophy spiced up with a new communalist ideal (Turner 2006: 195). As Turner has pointed out, concepts of social utopia, the free flow of information, the ideal of access to resources and the sharing of information were developed within the counterculture of the 1960s and merged with an emerging entrepreneurship largely rooted in the hobbyist communities of computers and electronics. These counterculture entrepreneurs believed computers should be personal tools, useful for one and all, thereby enabling the advent of the common user. Though this target group eventually proved to be a source of profit, it was initially chosen for ideological reasons: to relinquish the means of production to the people.

Participation and socio-political progress are some of the new technologies' recurring promises. They propel creative talent and act as alluring arguments for the introduction and diffusion of new technologies (Daniels 2002). The development of the computer into a mass medium was highly driven by the desire to enable future users to develop better ways of achieving labour objectives (Engelbart 1962; Licklider 1965; Papert 1980), but also by the idealistic desire to achieve social progress and egalitarian access and participation (Nelson 1974; Kay 1972). The graphical user interfaces (GUIs) so common in today's computers have been developed very much from a perspective of allowing users to participate in the creation and use of knowledge (e.g. Nelson 1974/1987; Kay; Goldberg 1977/2003). 12 During the development of the Internet, developers were already implementing their expectations for socio-political change into the basic design of the technology, where 'initial choices were profoundly marked by the representations of these actors who dreamed of a communicating, free, universal and non-hierarchized network' (Flichy 2002:201). The counterculture of the 1960s recognized the potential in computer technology and information networks for realizing many of their ideals of social progress, freedom of information, access to education, and a means of conquering both social injustices and geographical disadvantages (Turner 2006). This utopian vision gave important meaning to the new media, and contributed to the 'imago' that was communicated in countless advertisements, manifestos, policies and media coverage in the emerging new market in the 1990s. The promise of participation was crucial to the discourse inherent in the implementation of the Internet and the World Wide Web, and it is also inherent in the developers' culture and the many design decisions they make while constructing these technologies. It was used for promoting the new technology and explaining alleged beneficial effects to large audiences. The technological imaginary is therefore represented in the way opinion leaders communicate about new media to their audiences and in the way engineers design technology. Obviously, reality does not uphold the promises of the technological imaginary, but it has been convincingly argued that the formulation of utopia alone is crucial for developing and designing technology (Daniels

2002:31). Although the socio-political expectations have not been met yet, the present need for them is an important agent for change and development.

The idea of increasing possibilities for participation has been formulated from different perspectives and is a key aspect of the new technologies' promise for social improvement and the abolishment of inequality. References to past media revolutions and images of social uses of technology were marshalled to create an imago for the technologies to come. However, the way participation is conceived takes on a variety of guises.

During the first era in which new technologies and the Internet were promoted, from the early 1990s to the decline of the new economy in 2001, participation was defined as access and connectivity. Participation was presented as a major opportunity for citizens, entrepreneurs, and consumers to improve socio-political reality, business opportunities, and media consumption through connectivity. Accessing information online or using computers for self-education, connecting to overseas business partners, and plugging into remote markets were popular themes in imagining the uses of technology. Participation was a major rhetorical trope in promoting the information revolution. It became a great legend of information and computer technology, highly visible not only in political policies and artists' visionary accounts, but also in companies' corporate communications. The often almost evangelical impetus discernible in corporate media campaigns for the Internet and computer technology is closely related to the cultural heritage of the counterculture and libertarian entrepreneurship (Brockmann 1996; Castells 2001:37-38; Turner 2006). It became a popular narrative, thriving on the tempting promise that changing the world for the better and making money aren't mutually exclusive. In the following phase, characterized generally by the label Web 2.0, the connotations attached to the idea of participation shift: now collaboration and social interaction have become its core elements, thus bringing forth a slightly different type of discourse. This shift can be clearly recognized in two campaigns promoting the IT company Cisco Systems.

1.1 Cisco Systems: empowering the Internet generation

The glorious future described in Al Gore's promising words was represented in the advertisements, business talks, white papers, and publications of IT companies and their spokespersons. The network metaphor was used to describe a new step in globalization, the creation of a worldwide information infrastructure that would abolish the disadvantages of local bondage and physical barriers. The promise for participation became a key motive in promoting information technologies. Prime examples are Cisco Systems' campaigns from the mid-1990s and the recent Web 2.0-related campaign exemplifying the framing of new technologies as social progress. ¹³ Cisco Systems is a perfect example, among the enormously prospering

IT companies, of how to build the physical network, the Internet, and simultaneously establish it as an enabling technology, potentially empowering every user. ¹⁴ Their advertisement campaigns represent the technological imaginary and demonstrate how metaphors and associations can construct a technology's imago. Moreover, Cisco Systems found ways to speak of the Internet to a broad public in a comprehensible language and chose pictures that imagined a possible future. Although this was the key message of Cisco's communications, both campaigns – the 1998 campaign and the Web 2.0-related campaign of 2005 – emphasized participation differently. 15 In the first one, the idea of connectivity and access appears in various forms: developing nations were to gain access to the global electronic marketplace, which in a neo-liberal ideology would be a fair and democratic institution, where the best producers could distribute the best products for the best prices. The Internet promised connection to remote marketplaces, overcoming geographical distances, and access to knowledge resources through online learning. Cisco Systems emphasized the aspect of access and the possibility of actively participating in the new information space, which was mainly characterized as a marketplace and a knowledge space for learning and education, but also as a network to play in. The advertisements reveal metaphors and signifiers that refer to the official vision of the 'information highway' as endorsed by the Clinton/Gore administration. Several key themes can be identified in Cisco's advertisements:

- 1. Access and participation due to new technologies
- 2. The development of new business opportunities
- 3. The global connection of markets and people

In the advertised world of Cisco Systems, social and geographical disadvantages can be compensated by technology. ¹⁶ The first major campaign, 'Empowering the Internet Generation', was launched in 1998; TV spots were used to promote the Internet and its endless possibilities. The title already indicates an evolutionary progress, a new generation adapted to technology (the Internet) and the prospect of socio-political change (empowerment). The TV spots consist of fragments of a monologue spoken by people from different nations with different accents. Each utters a short fragment of the monologue, which in turn makes up a narrative of the fast diffusion of the Internet:

There are over 800,000 jobs openings. For Internet specialists. Right now. Three million more in the next five years. By the time I am eighteen over a billion jobs will require Internet skills.

The monologue connects the images of speakers from different nationalities in their different locations. In the following sequence, another series of different speakers poses a question to the camera: 'Are you ready?' The spot continues:

Virtually all Internet traffic travels across the systems of one company. The same one sponsoring thousands of networking academies. Cisco Systems. Empowering the Internet generation.¹⁷

According to this advertisement, Cisco is not only building the hardware and software for the Internet, Cisco is also enabling people to learn how to use the Internet and is connecting virtually everybody on the planet, thereby diminishing access barriers to education, markets, and social communities. 18 The message was widely disseminated and reached consumers far beyond Cisco Systems' actual target group. The early Cisco campaigns emphasized participation in terms of diminishing geographical distance and providing access to information; the more recent campaigns emphasize potential collaboration, but even more the possibility of being together while geographically far apart. They promote a notion of generating meaning through sharing special moments, leading to creativity and contributions to collaborative works. The 'Empowering the Internet Generation' campaign presented participation as access to education and business opportunities through connectivity, but the 'Human Network' campaign shows participation in a global society as contributing to a collective knowledge resource, communicating and collaborating over far distances, and maintaining a state of perpetual contact, thereby enabling the sharing of special moments and emotions and achieving common objectives. Many popular user activities familiar from Web 2.0 applications are featured in the 'Human Network' advertisement. A child's voice-over comments on a series of scenes where maps are rewritten as Google Maps, books are edited like the editing of a Wikipedia article, and home videos are published. Again a new world is promised, one created by the enabling technology and the enthusiastic participation of its users:

Welcome to a place where books rewrite themselves, [...] welcome to a place where a wedding is captured and recaptured, again and again, where home video is experienced everywhere at once, where a library travels across the world, where businesses are born, countries are transformed, and we are more powerful together than we ever could have been apart. Welcome to the human network.

In Cisco commercials, connectivity describes people extinguishing time zones and space, enabling unhindered access to the sharing of ideas, playful interaction and communication from anywhere, at any time. Most important is the emphasis on the empowering and enabling quality of information networks with respect to participating in economical and educational progress. The images, associations, and metaphors Cisco uses in the campaigns fit into the rhetoric used in the popular discourse on the Internet and simultaneously complement it and resemble those used by other IT companies (Goldman, Papson, Kersey 1998/2003; Cock, Fitchett, Farr 2001). Presented as both a revolution and techno-Darwinist evolution, the

globalization, deterritorialization, social use, and user activities displayed in the campaigns constitute the public perception of information technology.

The advertisements reveal a 'technological imaginary', an imagination of social and economical progress, that is projected onto technical design. Translating the promise of participation into pictures of children, students, and business people prospering from the global information infrastructure was supposed to explain why every individual should acquire Internet skills, and why each company should alter their business accordingly. The campaigns confronted an audience already aware of the new technologies due to agenda setting in popular discourse. At this point, Cisco Systems attempted to inextricably associate its name with the Internet and its socio-political agenda, promoting both the Internet and the company. While creating a standard vision of common users and citizens and small-sized businesses to meet the common interest in technological development and its effects, Cisco Systems comprehensibly translated current developments in information technology. Cisco Systems itself participated significantly in shaping the information age by:

- a. developing crucial backbone technology
- b. establishing a business model which can be seen as a prime example for the next new economy
- c. promoting the Internet to the public and pushing an imago of the technology

A surprising aspect of the Cisco Systems campaigns is that they focused on a broad audience far beyond their usual target group. The large scale of the campaigns, as well as the 'Empowering the Internet Generation' slogan, and its most recent successor, 'The Human Network', more resemble a wake-up call for the promotion of the Internet and its social use as such than simply an advertisement for Cisco Systems' products. In order to sell their Internet-related products, Cisco, as well as other IT companies, were forced to first explain what the Internet precisely was and what it was good for. During the 1990s, innovative information and communication technology companies developed a rhetoric that identified the Internet as a global marketplace and described the transformation from the industrial age to the information age as necessary evolution, irresistible revolution, and a process of speed (Cock, Fitchett, Farr 2001). 19 They participated in constructing narratives of a technological revolution, and their advertisement represented a 'technological imaginary', in so far that information technology promised economic prosperity, social improvement and global democratization. However, the promotion of participation, social progress, and global democratization in such campaigns stands in stark contrast to allegations that IT companies such as Cisco Systems, Yahoo, Microsoft, and Google are providing the means for and are actively participating in surveillance, censorship, and repression in undemocratic countries.²⁰

1.2 Web 2.0: celebrating collaboration

Web 2.0 is, of course, a piece of jargon, nobody even knows what it means. If Web 2.0 for you is blogs and wikis, then that is people to people. But that was what the Web was supposed to be all along (Tim Berners-Lee, 2006).

With the advent of Web 2.0, the narrative of participation shifted from emphasizing access to emphasizing collaboration and collective action. A large user base already provided with the means of accessing the Internet appears to be a precondition for the tremendous success of the Web 2.0. The unfolding diffusion of the Internet and the World Wide Web required companies and public administrators first to build the necessary infrastructure and to promote the new technologies. Another phase, often labelled as 'the second coming of the Web', builds upon the existing infrastructures and large audiences familiar with basic features and media practices as well as a large number of skilled users who can actually participate in developing applications further. Many media practices enabled by Web 2.0 applications were developed earlier, but easy-to-use interfaces in popular applications have led to an amazing increase of user-generated content. Two different kinds of content can be distinguished here, user-created data and user-created (or user-provided) media content, such as images, films, sound or text. Tracking user activities as well as storing the personal data they provide in the process of signing up for a service fills a database that is employed for improving the information processing related to the platform's services as well as for targeting adverts. The success of a Web 2.0 platform depends on a large group of users providing data and media content (O'Reilly, Battelle 2009). On the surface, user activities and their cultural production appear as an unexplainable conjoined interaction of a plurality of individuals. Unsurprisingly, references are made to the phenomenon of emergence (e.g. Morowitz 2002; Johnson 2002) and the incomprehensibly well-organized actions of bees, ants or human crowds (e.g. Surowiecki 2005, Shirky 2008). In Wealth of Networks, Yochai Benkler implicitly speaks of an invisible hand conducting the dynamic processes leading to a concerted effort of cultural production (2006). With an often unexpressed reference to Pierre Lévy, the term 'collective intelligence' is used to label the phenomenon of large numbers of users interacting and collectively contributing to information management and content creation. O'Reilly speaks of 'harnessing the collective intelligence of users' but emphasizes the role of software design as the prime facilitator (O'Reilly, Batelle 2009). However, the popular discourse was successful in shaping an image of the Web 2.0 as a friendly, caring and democratizing way of simply using technologies in order to stimulate creativity. Symptomatic is Clay Shirky's mantra that 'communication tools don't get socially interesting until they get technologically boring' (Shirky 2008). Shirky rightly assumes that when communication technologies are easy to use and it's easier for a user to participate in media production, then more users will participate. However, he com-

pletely neglects that easy-to-use design often comes at the price of proprietary lockin and, therefore, limited opportunities for appropriation. The history of radio teaches us that the potential for interactive communication through radio was consequently prevented, leaving the user with nothing more than a simple control panel for receiving a limited choice of broadcasting stations. Technology is not acknowledged as a prime facilitator that channels user activities so that companies can generate revenues from their actions. Technology is presented instead as a neutral means for enabling users to get in touch with their community and to benefit from collective achievements. The intelligence in the back end and the subtle ways of directing user activities through the graphic design of the front end is unacknowledged, while the emancipatory use of software is overly emphasized. Technology companies in particular explicitly point out the beneficial effects of collective production and the heart-warming community feeling, literally constituting a global village. The above-mentioned advertisement 'The Human Network' by Cisco Systems is exemplary in emphasizing this new participation as a collective and community-constituting aspect of the Web 2.0, where we allegedly 'are more powerful together than we ever could have been apart'. In a 2009 series of commercials launched by the former monopolist of telephone services in the Netherlands, KPN, the use of the mobile phone as a 'tactical medium' is pointed out in different situations. In one, children playing hide-and-seek simply dial the phones of their hidden mates; in another, an elderly woman on a night out with her husband checks the online ratings of a restaurant he suggests and then advises him to pick another one. These situations portray the 'Generation KPN', a generation not defined by age but by how technology is used and information is shared. Similarly, the German branch of Vodafone coined the term 'Generation Upload', which, in contrast to the 'passive downloader', spreads creativity, engages with expanding social networks and turns unconventional ideas into successful business opportunities. The claim of Vodafone's 200-million-euro campaign entitled 'Whatever you start, it can shake the world, this is your moment. Vodafone' introduces Vodafone as partner of Generation Upload, providing the means for empowerment, while the community stimulates the creativity. In a series of advertisements with allegedly well-known German bloggers and self-proclaimed Web 2.0 'celebrities', publishing online, producing amateur art or sharing aspects of daily life with the community are presented as core aspects of the emerging media practice. An accompanying spot in the campaign features various users covering the David Bowie song 'Heroes' while doing all kinds of things supposedly worth recording and sharing with others. Becoming a hero is easy, at least in the legends, the popular discourse tells us. John Blossom opens his book, entitled Content Nation. Surviving and Thriving as Social Media Changes Our Work, Our Lives and Our Future, with the lines:

This is a story about you – one of billions of publishers in the world today. Sent an email lately? You're a publisher. Posted a photo, a video, a comment, or a vote

on a Web site? You're a publisher. Keyed in a text message to friends on your cell phone? You're a publisher (Blossom, 2009:2).

Three aspects are noteworthy about the popular framing of 'social media':

- a. claiming that users belong to a community; drawn from the notion of collective intelligence and peer-based production, the 'social' in 'social media' receives a positive connotation as a community experience, and it is perceived as a social phenomenon rather than a commercial one.
- claiming mediated communication equals publishing; simply using technology that mediates communication and facilitates interaction is presented as turning users into content producers replacing established media production.
- c. claiming that these practices are specific features of the Web 2.0 and distinctive from earlier media practices online.

Quite different from the emphasis on access during the earlier wave of popular discourse on the World Wide Web, the recent commentary on the Web 2.0 constitutes a 'rhetoric of community', emphasizing aspects of togetherness, equality, collective production and democratic decision-making. Turning users into media producers is only one part of what the 'social web' promises, the other is changing the world for the better through collective efforts facilitated by 'social media' (e.g. Leadbeater 2008; Shirky 2010). While earlier discourse framed social progress as an effect of technological advancement, the rhetoric of community frames social progress as a collective effort achieved by using advanced technologies properly. In his programmatic text We-Think. The Power of Mass Creativity, Charles Leadbeater dreams of a way to amplify the collective intelligence of the plurality of users who then, in a joint effort - provided technology is used 'wisely' - could 'spread democracy, promote freedom, alleviate inequality and allow us to be creative together, en mass' (2008:6). The 'social media' acquired through this repetitive positive connotation of 'social' a public understanding that goes beyond the original denotation of social interaction and organisation. The phenomenon of social interactions and its socio-political implications is blurred by the overly positive perception of users interacting online. Actual events in which Web 2.0 applications were used, such as the Obama Campaign in 2008, or the response to the Iran elections of 2009, helped to create a strong belief in the revolutionary potential of media technology. However, this image is mostly shaped by not telling the entire story and therefore creating media myths. The Obama campaign team was indeed the first to employ online media significantly, but the amount it spent on advertising in broadcasting media – mainly television – was ten times higher than on online media, and quadrupled that of its competitor, McCain. Although the Internet increasingly became an important source of campaign information and related news,

especially among young Americans, television still remained the dominant medium overall.²¹ In case of the Iranian rebellion following the election, it cannot be emphasized enough that, despite the concerted actions of Internet users, the very same technology actually helped the Iranian authorities to trace protesters. It remains unclear to what extent the activities in social networks actually exposed protesters, but it is undeniable that Western companies, such as Nokia Siemens, provided telecommunication equipment suited for efficiently suppressing dissent. As Evgeny Morozov puts it, Internet technologies can be an effective means of control: 'Contrary to the utopian rhetoric of social media enthusiasts, the Internet often makes the jump from deliberation to participation even more difficult' (Morozov 2010a). He refers to the successful infiltration of dissidents in Belarus by authorities. Gathering information from social networks, the authorities could easily identify members, interfere with planned demonstrations and approach dissidents individually to either scare them off or arrest them (Morozov 2010b).²² Apart from this, the statistics on the use of Internet and social media do not indicate a large number of users being actively involved in revolutionary upheaval but rather e-mailing, using search engines, watching videos, shopping online, updating their profile on social networking sites and interacting with peers (PEW Trend Data Online Activities; Lenhart et al. 2010). Furthermore, it appears that only a small minority of Web 2.0 platform users contribute actively by producing media content, while a large majority simply consumes it (e.g. Prieur et al. 2009). Web 2.0 platforms established themselves successfully as community-driven platforms committed to public weal. And while enthusiastic promoters celebrate these platforms' potential to empower passive consumers, entrepreneurs have long realized that the 'social media' users are not only yet another audience for advertising, but also a crowd of helping hands in distributing the commercial messages. A plethora of marketing-oriented books promises to provide strategies on how to employ social networks for commercial success and how to boost a company's image by appearing friendlier and more committed to customers communicating through 'social media'.²³

Recently, some critical voices are pointing out problematic aspects about Web 2.0 platforms (e.g. Lanier 2006 and 2010; Keen 2007; Zimmer 2008, Scholz 2008; Petersen 2008; Mueller 2009; Schäfer 2009). The oft-quoted account of Andrew Keen is ultimately a culture-pessimistic rant against the emergence of amateur producers and an arbitrary fear of users putting professional producers out of business, eventually destroying the quality and reliability of media content (Keen 2007). Despite the urgent questions Keen is bringing up, his speculative and poorly supported approach is not very helpful in formulating critique.

Critical perspectives can be divided into three accounts. The free labour account draws from the post-Marxist critique of labour in media consumption (Andrejevic 2002; Terranova 2004; Virno 2004). The critique aims at the unacknowledged implementation of user-generated content for commercial ends (e.g. Scholz 2007a, 2007b, 2008; Petersen 2008). A joint effort in revisiting participatory culture as

unpaid labour for corporate companies has been initiated by Trebor Scholz on the mailing list of the Institute for Distributed Creativity and a conference with the programmatic title 'The Internet as Playground and Factory' (Scholz 2009). Another branch of critique emphasizes the violation of privacy in online services (e.g. Zimmer 2007, 2008; Fuchs 2009) and the power structures facilitating means of control and regulation (e.g. Galloway 2004; Chun 2006; Deibert et al. 2008; Zittrain 2008). A third thread of criticism considers Web 2.0 platforms as emerging public spheres (Münker 2009) and the new socio-political quality of user-producer relations in governing software applications and their users (Uricchio 2004a; Kow and Nardi 2010). This is exceedingly important to consider, since Web 2.0 platforms are indeed becoming something similar to traditional third places where conversations take place as much on private issues as on socio-political concerns. In expanding the traditional private and public spaces and increasing the possibilities for socio-political organization and debate, the actual social quality of online media is revealed. The function and role online platforms will occupy in daily social life are still subject to negotiations between various stakeholders ranging from common users to corporate producers and public administrations. These debates result from the technological qualities of new media as well as from media practices that are eventually transforming social interaction, markets and politics. Drawn from a deep-rooted idealism for participatory societies, democratic decision processes and freedom of expression, expectations are formulated for the potential use and regulation of these new technologies. Traditionally, this claim for participation finds its expression in culture critique and the humanities.