

Engineering Culture



# THE PRODUCER AS POWER USER

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- + 'The apparatus will be the better the more consumers it brings in contact with the production process - in short, the more readers or spectators it turns into collaborators.' (Benjamin)<sup>1</sup>

## 1

Within the circumstances of today's media networks it is impossible to not produce.<sup>2</sup> The classical dichotomy of production and consumption has been melted down by the circuits of communication and given birth to what marketing calls *the prosumer*.<sup>3</sup> Also known as *power user*,<sup>4</sup> neither professional nor amateur, neither hobbyist nor self-employed, between sofa and kitchen table, sometimes expert, sometimes dilettante, leaving the suburbs and moving to the city centres or the countryside, using trains and airplanes but not owning a car.<sup>5</sup> Living from project to project and shifting between unemployment and immediate wealth, the power user has left the factories and office buildings long ago to stay home and be the post-industrial anti-hero. On the thin surface of the heavy layers of well developed *old technologies*,<sup>6</sup> this prototype of the *knowledge worker*<sup>7</sup> grew up to become a collective role model *for the rest of us* and began to transform the boundaries of industrial labour, turning it into an ambiguous field of totalised work ethics.<sup>8</sup> Everyone is a power user now, dependent on the degree of participation in the global communication apparatus.

## 2

Through the intensified use of the networked computer, the subjectivity of the power user colonises space as far as the networks go.<sup>9</sup> *Being digital*<sup>10</sup> is constituted by an auto-referential mode of production which has transformed the workplace into a permanent state of mind, organised into thin slices of valuable work time. Like a CPU, the brain now functions as the ultimate desktop<sup>11</sup> where every thought might be useful and therefore needs to be recorded to be organised better. With genetics, the code of life has become a commodity, and the power user gains access to her ultimate eugenic self-optimisation, hacking the body-machine.<sup>12</sup> This pattern of total productivity is not only defined by the success of its results but also by the entirety in which it dominates everyday living standards and permeates every aspect of a *life on the screen*.<sup>13</sup> There are areas of optimisation, and areas of contemplation, but one is never free of production, of having to communicate and report, of having to learn to embrace new standards; or leaving trails of usage, just to be able to take part in the global production of affective and intellectual labour<sup>14</sup> and subjectify according to the expected profits.<sup>15</sup>

## 3

Consuming power and being consumed by it, the power user reproduces the force fields of the network, as well as being effected and formed by them. In the literal sense of the word, the power user takes more from a certain power than others: she might be a *heavy user*, a *hardcore gamer*, or a *machine addict*, a *linux-hacker*, driven by a desire to know and to gain control over the power which in reverse is controlling her. What distinguishes power users from average users or uninitiated *newbies* is the depth of practical experience with the relatively unknown and unsystematised areas of technification. This knowledge is uncertain by definition; it mostly centres around extending *administrative control*, and establishes a semi-stable status of *alpha testing*, where idea and implementation are in a maximum flux of exchange, and the gain and loss of control can be repeatedly re-experienced. As a gardener of her own *media archive*,<sup>16</sup> the power user begins with the cultivation of a private archaeology

of knowledge. It is here, in the enclosure of *electronic loneliness*,<sup>17</sup> where the mediation with technical changes takes place at first, and only from this point on, the power user is paradoxically able to re-enter the gift economy<sup>18</sup> of the public domain again.

#### 4

At the forefront of the still ongoing cybernetic modernisation, the power user serves as an unpaid research and development unit, as a mediator to popular media culture, and a sensitive prototype of sociotechnical exploration. In many cases the power user is self-trained, almost making a living out of her skills, beyond productivity in an industrial sense, without being responsible for a specific product or task. She is primarily dedicated to her own individualisation, the customisation of the extended self in relation to other power users, in the form of an ongoing *system configuration*. Usually not too much involved as a *developer*, the power user actively contributes to the deployment of software tools by finding new uses for them, or documenting errors, and therefore inscribing herself into the collective process. She lives on the back end and insides of *cybernetic circuitry*, and constantly configures and expands it as essential parts of the household. On behalf of technological determinism, it is easy to think it's cool to be a power user, but there is a price to pay: unique authorship dissolves in the technical reproduction of subjectivity, into a set of management strategies. Entering a new era of industrialisation, the craftsmanship of the *digital artisan*<sup>19</sup> makes space for the customisation skills of the power user, within a more and more standardised and modularised corporate information service environment.<sup>20</sup>

#### 5

Becoming an expert, functioning between the average user and the I.T. professional, the power user marks a transitional state of computer literacy, which socially buffers the imperfections of current technologies, but also generates a type of *sleeping knowledge* in which an economic potential is generated without the need for financial rewards. Power users form the waiting

reserve of unpaid labour in a networked environment of digital knowledge production.<sup>21</sup> Their specialisation through intensified usage is a model for other computerised work areas, such as film editing, music production, game development or journalistic production. The unpaid labour of the power user is not only legitimated through the need for lifelong learning or the chance to gain access to specialised expertise, but mainly by social reputation, deriving from the tangible and intangible aspects of the production of *life quality*. By putting themselves into the voluntary service of new media technologies, they gain more *media freedom*.<sup>22</sup> For the maximisation of this yet unbound productivity, the access to the means of production needs to be as universal and open as possible.

## 6

The defining threshold which sets the entry line between the unpaid labour of the power user and the highly paid services of the knowledge expert, is no longer entirely constructed by the traditional institutions of knowledge production, such as the university. The global network itself became the educational environment for those without direct access to the institutions. The involvement in *free and open projects*, from where the power user not only builds up a reputation,<sup>23</sup> but also gains crucial skills, can easily equal the value of an academic degree. This type of distributed expert knowledge is of a more pragmatic and immanent kind, more webbed into social fabrics, trial and error and *thick description*,<sup>24</sup> than the one describable in handbooks and how-to guides. While the quality of official education is suffering pressure from the mass production of academic experts, the massive self-education of power users creates a new and growing class of *google intellectuals*,<sup>25</sup> who can only know as much as is available in the open, establishing a new economy of words from the *bottom up*. What power users also produce is the negativity of demand: missing links, feature requests, unreachabele goals and unrealised ideas. Power users form a *ghost army* of pricelessness, in a last big battle of the *copywars*,<sup>26</sup> where academic science might become dependent on them.

## 7

The order which controls the life of the power user derives from a computerised form of self-discipline. In exchange for her submission she is granted access to the platforms of free exchange. Her daily routines are structured by networked environments, the rhythm of digital media such as mobile phones, news blogs, the permanent build-up of private archives, interrupted only by technical malfunctions, which are happily accepted as welcome challenges for individual creativity. The power user is a voluntary file clerk in the global open archives; her singularity is embedded into a truly encyclopaedic digital commons.<sup>27</sup> Her contributions to the means of production are a necessary part of the general media architecture, which she keeps alive as a cultural infrastructure. To be productive, her contributions, private or public, critical or affirmative, need to remain *free gifts* to generate the surplus on which other advanced services and enclosures can be built upon.<sup>28</sup> The ambiguity of this low end info-communism in the eye of the hurricane of world wide integrated capitalism, has become one of the major resources of the neo-liberal knowledge economy and can be described as both revolutionary and reactionary.

## 8

Riding the top of the gaussian curve of social consensus production, the power user does not mark any source of originality, but serves as a redirector, a filter, amplifier, repeater, reporter and commentator of actualities. Travelling possibility space, she is processing and commenting upon news, *in collaboration* with other power users, as a fabrication of facts, to cover the structural uncertainty of the media society, e.g. the social risk to fall off the edges or stay behind. She says: 'I post so I am', frequently actualising her binary existence by publishing and posting, so more links go to and from her name and address. The power user dreams of the singularity of the author, which she gave up for a passion for engineering.<sup>29</sup> Interestingly, the cross referencing of digital citation coincides with a growing production of books and papers, as if the material carrier would provide a better insurance against future memory loss and individual disappearance. The accumulative result of *panic publishing* is the establishment

of a *radical mediocrity*<sup>30</sup> in intellectual production, where more and more redundant work is produced for the mere sake of the legitimization of the authors. In this process of constant enclosures, the new author turns into a journalist of everything, an entrepreneur with himself as the main product, a frequent *chronicist* of his own biography, an under-cover con-artist and encyclopaedic archive gardener who can be hired for anything which might generate temporary market interests.

## 9

As the power user forms a quasi-autonomous unit with her machines, the quality of her production is at first only measured by herself. The tasks of administration and maintaining, self-employment and constant re-education, configuring and repairing, testing and improving, applies at first only to the systems of an extended self, not driven by an autopoietic 'l'art pour l'art' but a self-sufficient digital craftsmanship aiming at the expansion and optimisation of the entirety of the productive process through the reconfigurations, explorations and improvements of the individual units. The power user is also a power consumer: she participates in an actual economy of cash to enjoy the updating of her gadgetry, credit card payments of flights and services, of storage and bandwidth costs. Checking prices online and evaluating the potential of new goods, reselling used equipment on online auctions, recommending and even customising to find new uses. The legal greyzones populated by power users, are an expression of opportunity and parasitical subversion of brutal market growth. By joining peer-to-peer networks or fan-groups and exchanging warez and tips and tricks, the power user enhances the mere distribution of commodities, and turns them into a participatory, economically reproductive form of *digital lifestyle*.

## 10

As the permanent exchange between sender and receiver, between server and client, has become the primary source of digital productivity, the power user has to integrate them in her *ego design*<sup>31</sup> process. Constructed as a leaking container of commercial cultural content, peer-to-peer networks become sources of

'shared identity'. Driven by their hunter-gatherer instincts, power users cannot get enough of free content; they are liberal enough to traverse different levels of resistant production, and reprocess minority politics and psychosocial delinquency as 'hybrid identities', which are generously hosted by the system for the sake of diversity and innovation. From the other side, jurisdiction and commerce reestablishes the order of individual rights and their restrictions. Power users are the organic intellectuals<sup>32</sup> who work *between the frontlines* on social implementations of upcoming standards, and expand and test their acceptability. They also socially develop new work disciplines, job models, and cultural killer applications. The model of legitimation of the double bind of this emerging *hacker class*<sup>33</sup> is symptomatic for the rest of society. In order to modulate and redirect power relations, the power user has to legitimate her access to power as a critical one. By referring to the forces of technical revolution and the crisis it leads to, she is betting on tactical reformism as an opportunity for individual freedom. At the centre of this double bind between technology and capitalism stands the relation to property and authorship, in which the power user works both on her own dissolvement as well as re-establishment.

## 11

There are two different types of power users, affirmative ones and critical ones. The affirmative power user operates as a singularised entity of intensified use and micro-self-publishing, who then, by learning more, join flocks of loose and interlinked groupings, and develops a sense of togetherness. Dependent on the degree of desire for such a community, she joins the forming of sub-groups, where in an antagonism against and within the host system, she turns into a critic. As a critical opponent, she supports the *community* of the like-minded with plans to change the host system, and the critique becomes an expression of the growing self-awareness of her own class.<sup>34</sup> As an affirmative member she chooses competition in favour of individual optimisation and uses the integration for means of efficiency. It is rare that the power user is not *critical* and *affirmative* at once and it is here, in the social field, where power unfolds with the most forceful ruptures, ready to be reprocessed into its symbolic forms



again.<sup>35</sup> Finally, unable to distinguish between *me* and *we*, the power user speaks of herself in plural.<sup>36</sup> Tactically transmutating between multiplicity and singularity, her oscillating condition of mind has become identical with the modes of production which define her.

## 12

There are no sovereign media.<sup>37</sup> The more excluded or invisible a group, the more interesting it becomes for representation. The more violent the fight, the more self-destructively it resists representation, the more difference it produces, so the media sets its focus of investigation to the maximum. Terrorism is the continuation of communication with other means to send 'messages without words'.<sup>38</sup> Total mediation does not allow any outside, any existence in the shadows; it only allows unrepresentable noise, chaos, decay and disintegration - or a peaceful life in a subordinated normality. Therefore the line of the outside becomes the centre of attention. Focusing on the extremes of catastrophe and violence, the uncanny chaos becomes symbolised and fixed in a commodity value exchange, and economy ultimately turns into a matter of faith. The power user serves as an active agent of mediation: she works on the overlappings of old and new electric media, and tests the boundaries of the new interfaces between internet, television, radio, telephony and other gadgetry for a possible answer.<sup>39</sup> As free capitalism enlightened by free media aims at the total domination of space and time, the power user delivers to the all-seeing eye, as it operates on its surface through image media, to objectify what it 'sees', and what it sees is what you want.<sup>40</sup>

## 13

The expected growth of *open archives* at the *non profit* end of the spectrum exceeds commercial growth by orders of magnitude<sup>41</sup> because the intensity of exchange is much larger than in a closed learning environment. The power user marks a change of the function of the author in such a collectified mode of production and is described by a prolonged list of *last authors*.<sup>42</sup> Any enterprise in the future which operates on the basis of knowledge production will have to

rely partly on 'free and open' resources, as a foundation of their business power. As a *contributor* the power user remixes modes of production, consumption and distribution, maximising communicative participation. Therefore the power user becomes the new ideal of education in a democratic media culture.<sup>43</sup> This new type of authorship is more factory-like, more collective, based on an imaginary predictability of 'free will'<sup>44</sup> and constant competition, a combination of the dreams of info-capitalism and soviet constructivism.<sup>45</sup> Its openings and enclosures are dialectically entangled; none of them exists without the other.

#### 14

The power user is the opposite of the hacker; she does not want to get 'inside' or 'outside' the system, but stays at her place to deepen her knowledge. Only the collectivisation of these singular 'boreholes of insight' overcomes the traps of a production process which collapses in the final goal of a fabricated individualism, as an advanced part of capitalistic production, and the establishment of a radically mediocre authorship within very constrained and predictable boundaries. The second criteria of change is the equivalent of what was called consciousness before, but is today rather a media process than a psychological one. In effect, the media architecture of the *information and communication* infrastructure<sup>46</sup> has replaced the discursive function of the psychic apparatus, and clarity can only be regained in the plurality of a *parliament of things*. This is the radical conversion of Descartes' 'cogito', and the first trials of a truly planetary politics are still tinkering around how to outsmart the 'other'.<sup>47</sup> The current defence of conservative fundamentalism can only be a phase of transition and the symbolic death in which capitalistic production culminates; it cannot remain a means in itself. Driven by the will to knowledge,<sup>48</sup> the power user will ultimately empower herself by giving the power of knowledge away. The more intellectual property is collectivised, the more sources are open,<sup>49</sup> the more a critical mass of free knowledge becomes possible.

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**NOTES:**

1. Benjamin's 'The Author as Producer', republished in Harrison & Wood (1992 [1934]: 484).
2. Berthold Brecht 'Der Dreigrosschenprozess': 'To tell to the mind worker that he would be free to forfeit the new means of production, would mean to direct him to a freedom outside of the process of production.' (1966 [1931]: 176; my trans.); also compare: 'Axiom I: one cannot not communicate' (Watzlawick *et al.* 1967); also: 'Every communication has a content and a relationship aspect such that the latter defines the former and is therefore metacommunication.' Axiom II is currently exploited in social software systems.
3. 'Some of the richest and largest corporations in the world are also for their own technological and economic reasons accelerating the rise of the prosumer.' (Toffler 1980: 270)  
'The customer is now a participant in the production process. One way or another, we recruit customers to become our allies and in effect, co-producers. The customer now is what we call a prosumer. [...] What's happening is a shift toward consumption in which the lines have blurred between producer and consumer or customer.' (interview with Alvin and Heidi Toffler by James Daly, *Business 2.0*, 15 Sept, 2000).
4. The power user, defined in various jargon glossaries as: 'a computer user who needs the fastest and most powerful computers available'; 'someone who's read the manual all the way through once'; first mentioned in 1985: 'I'm a power user - my computer draws a kilowatt.' (Newsgroups: *net.micro*, 26 July 85); 'the power user can have a multiple window connection to a host. The casual user can be supported by a macro capability to provide desired functions from the host.' (Newsgroups: *fa.info-mac*, 1 July 1985); Raymond M. Glath: 'Level 1 - "Typical End User"? (Basic knowledge of using applications and DOS commands). Level 2 - "Power User"? (Knowledge of DOS Command processor, Hardware functions, BASIC programming, etc.). Level 3 - "Applications Programmer"? (Knowledge of programming languages and DOS service calls). Level 4 - "Systems Engineer"? (Knowledge of DOS and Hardware internal functions). Level 5 - "Computer Science Professor that develops viruses for research purposes?"' (1988) <<http://www.textfiles.com/virus/glath.vir>>.
5. See Pritchett's *Mindshift: The Employee Handbook for Understanding the Changing World of Work* (1996).
6. See Carolyn Marvin's *When Old Technologies Were New* (1990).
7. '[...]in the knowledge society the employees, that is knowledge workers, again own the tools of production' (Drucker 1994).
8. See Max Weber's *The Protestant Ethic and the Spirit of Capitalism* (1930).
9. See Felix Guattari's 'De la production de subjectivité' (1986). The concept is also central to Hardt & Negri's *Empire* (2000: 277) and Lazzarato's 'Immaterial Labour' (1996: 137). Similarly, Negri states: 'It is the production of oneself with others in struggles, it is innovation, the invention of languages and networks, it is to produce and to reappropriate the value of living labour. It is to booby-trap capitalism from within.' (2000)  
Michel Foucault, Pontifical Catholic University of Rio de Janeiro in May 1973, is quoted by Mark Coté as saying: 'The fact is, capitalism penetrates much more deeply into our existence. [...] A web of microscopic, capillary political power had to be established at the level of man's very existence, attaching men to the production apparatus, while making them into agents of production, into workers. [...] There is no hyperprofit without an infrapower...[which refers not to a state apparatus, or to the class in power, but to a whole set of little powers, of little institutions situated at the lowest level.]
10. 'In being digital I am me, not a statistical subset [...] True personalization is now upon us [...] The post-information age is about acquaintance over time: machines' understanding individuals with the same degree of subtlety (or more than) we can expect from other human beings.' (Negroponte 1995: 164)

11. 'Consider a future device for individual use, which is a sort of mechanized private file and library [...] a device in which an individual stores all his books, records, and communications [...] It is an enlarged intimate supplement to his memory [...] Otherwise it looks like an ordinary desk.' (Bush 1945)
12. 'Eugenics is a perfect complement to the capitalist political-economic imperative of authoritarian control through increased rationalization of culture.' (Critical Art Ensemble 1998: 119)  
'If the more utopian political aspects of the PC and video were never realized, biotechnology will probably never even have any such aspects on a general collective level, for the simple reason that the means of production will not be given to the public.' (Critical Art Ensemble 2002: 120)
13. 'There is something else that keeps me at the screen. I feel pressure from a machine that seems itself to be perfect and leaves no one and no other thing but me to blame [...] The computer's holding power is a phenomenon frequently referred to in terms associated with drug addiction. It is striking that the word "user" is associated with computers and drugs.' (Turkle 1995: 29)
14. 'The particularity of the commodity produced through immaterial labor (its essential use value being given by its value as informational and cultural content) consists in the fact that it is not destroyed in the act of consumption, but rather it enlarges, transforms, and creates the ideological and cultural environment of the consumer.' (Lazzarato 1996: 137)
15. System/Environment: the purification of the knowledge production process leads to a growing amount of attended 'waste material' which leads to the question of the information commons. James Boyles' 'A Politics of Intellectual Property: Environmentalism For the Net?' (1997) was highly influential for Lawrence Lessig's approach. The systemic or 'green' approach has been forgotten in favour of a liberal politics for openness and innovation.
16. 'The pure thinking of yore [sic] has now become a purifying thinking, obsessed with the administration of its own mindset.' (Adilkno 1998 [1992]) <<http://thing.desk.nl/bilwet/adilkno/TheMediaArchive/50.txt>>.
17. 'Change the world, stay at home.' Adilkno, 'Electronic Loneliness' (1998 [1992]) <<http://thing.desk.nl/bilwet/adilkno/TheMediaArchive/38.txt>>.
18. 'Power, of which this is always and everywhere the definition, resides in the act of giving without being given.' (Baudrillard 1993 [1976]: 40)
19. See Richard Barbrook & Pit Schultz's 'Digital Artisan Manifesto' (1999).
20. 'The IT-service market is developing itself from artisanship to mass production.' ('Gartner Briefing: IT-services become mass products', *Computerwoche*, 3 October 2005, my trans.).
21. See 'The Automation of Higher Education' (Noble 1997).
22. 'As a central part of their campaign for more market competition, the neo-liberals created a new definition of media freedom. Echoing the prophecies of the futurologists, they claimed that the application of their deregulation and privatisation policies within the electronic media would encourage the rapid construction of an interactive cable network.' (Barbrook 1995)
23. 'Reputation, similarly, is a measure of the value placed upon certain producer-consumers - and their products - by others. The flow and interaction of reputation is a measure of the health of the entire cooking-pot economy.' (Aiyer Ghosh 1996)
24. 'Cultural analysis is intrinsically incomplete. And, worse than that, the more deeply it goes the less complete it is.' (Geertz 1973: 29; 'thick description' is a term borrowed from Ryle 1949).

25. A term introduced by Diana McCarty and Hans-Christian Dany for extensively using search engines instead of one's own head.
26. Copywars? <<http://www.eff.org/IP/>>.
27. 'You will be obliged to get the assistance of a large number of men who belong to different classes, priceless men, but to whom the gates of the academies are nonetheless closed because of their social station. All the members of these learned societies are more than is needed for a single object of human science; all the societies together are not sufficient for a science of man in general.' (Diderot ~1777)
28. The potlatch is also a means of social hierarchisation; only those who can give much, are powerful.
29. Compare Benjamin's question to the author as engineer: 'Does he achieve to support the socialisation of the means of production?'
30. 'Henk Oosterling argues that art has become "radically mediocre". This sounds like a rejection of contemporary art, but he means it literally: middling, medium. According to Oosterling, art is not an activity that takes place separately from society, art represents an interest, a being-in-the-middle. Oosterling's vision is marked by a media perspective: we ourselves, he says, have also become radically mediocre; we have allowed ourselves to be embraced by the media with which we communicate and transport ourselves. In this view, neither art nor the individual are autonomous, they are parts of the 'inter', they consist of the connections that they are concerned with.' (Altena 2000)
31. See Stefan Geene's *Money Aided Ich-Design* (1998).
32. 'Every social group creates together with itself, organically, one or more strata of intellectuals which give it homogeneity and an awareness of its own function not only in the economic but also in the social and political fields. The capitalist entrepreneur creates alongside himself the industrial technician, the specialist in political economy, the organisers of a new culture, of a new legal system...' (Gramsci 1994: 217)  
'All men are intellectuals... but not all men have in society the function of intellectuals [...] in any physical work, even the most degraded and mechanical, there exists a minimum of technical qualification, that is, a minimum of creative intellectual activity.' (Gramsci 1994: 217-18)
33. 'Hacking is the production of production. The hack produces a production of a new kind, which has as its result a singular and unique product, and a singular and unique producer.' (Wark 2004)
34. See Roberto Verzola's 'Cyberlords: The Rentier Class of the Information Sector' (1996).
35. 'Power is coextensive with the social body; there are no spaces of primal liberty between the meshes of its network.' (Foucault 1980: 142)
36. See Richard Sennett's 'We, the Dangerous Pronoun' (1998).
37. 'The sovereign media insulate themselves against the hyperculture. They seek no connection; they disconnect.' (Adilkno 1998)
38. 'Our people in Arabia will send him messages without words because he [the president] does not understand words' (Interview on *CNN*, Peter Arnett with Osama bin Laden, 11 May 1997).
39. 'Now, the totality of the existing architecture of the media finds itself on this latter definition: they are what always prevents response, making all processes of exchange impossible (except in the various forms of response simulation, themselves integrated in the transmission process, thus leaving the unilateral nature of the communication intact). This is the real

abstraction of the media. And the system of social control and power is rooted in it.' (Baudrillard 1981 [1972]: 169).

40. See Hakim Bey's *The Obelisk* (1997).

41. '[A] single development, in either technology or management technique, which by itself promises even one order of magnitude improvement in productivity, in reliability, in simplicity [of software projects.]' (Brooks 2005 [1986]); Compare the Wikipedia.org press release of February 2004: 'the surge in growth has [...] resulted in Wikipedia.org surpassing Britannica.com, Infoplease.com and Encyclopedia.com in terms of its Internet traffic rank and has placed Wikipedia.org firmly within the top 1,000 websites.'

42. 'Mallarme, Benjamin ('The Author as Producer'), Foucault ('What is an Author?') and Barthes ('The Death of the Author') all write on the erosion and/or disappearance of the author. But their writing had little effect on the disposition of author law. On the contrary, in law there is an enormous expansion of the definition of the author to include those doing dance, pantomime, cinema, photography, video, translations, softwares, databases, exhibitions... well, the culture we have is the one we deserve!' (email to author, from Kobe Matthys, January 2005).

43. See Olivier Marchart's 'Media Darkness' (2003).

44. See Eric S. Raymond's 'Predictability, Computability, and Free Will' (2004).

45. 'Everyone can and should ... introduce a maximum degree of precision, clear-cut contours, and purposefulness into the thing produced by him, just as dedicated specialists have until now, the form searchers, the workers of art. Advocates of the transformation of raw materials into a certain socially beneficial form, combined with the ability and the intensive search for the most meaningful form - this is what an "art for all" must comprise. Everyone should be an artist, a sublime master in the thing he is doing at a certain moment in time.' (Tretjakov 1972).

46. 'Space and Time... fall into their places as mere mental frameworks of our own constitution.' (Innis 1994 [1952]).

47. See the political process of deciding on Software Patents <<http://www.nosoftwarepatents.com/>>.

48. 'And only on this solidified, granitelike foundation of ignorance could knowledge rear itself hitherto, the will to knowledge on the foundation of a far more powerful will, the will to ignorance, to the uncertain, to the untrue! Not as its opposite, but - as its refinement!' (Nietzsche 1886)

49. Compare the doctrine of Intelligence Services lead by the principles of 'open source' (Björe 1995).

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