# 1. UNFOLDING CULTURES

This chapter reviews some of the experiences that marked the birth and development of digital communitarian culture, as they have been recalled by scholars as well as protagonists themselves. It highlights some of their cultural features, and reviews a few categorizations developed to bring order into highly dispersed and multi-faceted experiences. Notably, this chapter suggests that many – although not all – of the ‘memes’ that characterize the culture of the so called ‘digital communitarians’ are rooted in the U.S. cybercultural, libertarian paradigm. However, when it comes to explaining how digital communities are maintained and reproduced, that paradigm falls short of convincing explanations, and anti-essentialist, materialist perspectives have to be mobilized.

## 1.1 At the Beginning there was (allegedly) the WELL

Since long before the popularization of the web in mid 1990s, community-making has been a significant driving force for the development of the internet. Group-making efforts may not be separated from the infrastructural development of the Net. From *Usenet* to early *Computer Hobbyist BBS*, from *Fidonet* to *Free-Net*, during the 1970s and 1980s, hackers, university developers, and simple amateurs pursued the utopia of a bottom-up digital infrastructure where technical applications went hand-in-hand with group formation.[[1]](#footnote-1)

However, common knowledge usually refers the first appearance of the term ‘virtual community’ to Howard Rheingold’s homonymous book describing affiliations arising from practices of computer-mediated communication.[[2]](#footnote-2) The book aimed to introduce cyberspace to outsiders, as well as to enlighten stereotypes associated with early adopters’ subcultures. It described social relations established through the *World Earth ‘Lectronic Link* (WELL) and other computer-mediated communication systems (CMC) from the 1980s.[[3]](#footnote-3) As some observers have pointed out, in so doing the book performatively unveiled the link between the 1960s’ counterculture and the cyber age.[[4]](#footnote-4)

In early 1990s, the WELL – a San-Francisco-Bay-Area-based BBS started by Stewart Brand and Lawrence Brilliant in 1985 – involved eight thousand people in ‘online conferencing’. The system ran on a Unix-based software called *PicoSpan* and was hosted on a computer located in the offices of the *Whole Earth Software Review*. Users had to dial in with a modem, log in, call up a list of wide-ranging conference labels and select the preferred topic to post on or start their own.

Actually, the WELL was a resonant case among the many forms of social uses of telecommunication systems developed between late 1970s and 1980s. Nonetheless, even today the cybernetic version of the *Whole Earth Catalog* is widely recognized as one of the primary experiences that contributed to the intellectual and organizational context that influenced emergent internet communitarian culture. As Fred Turner recalls, ‘in its membership and its governance, the WELL carried forward a set of ideals, management strategies, and interpersonal networks first formulated in and around the *Whole Earth Catalog* […] by counterculturalists, hackers and journalists’.[[5]](#footnote-5) [[6]](#footnote-6) In order to review the experiences that marked the birth and development of the digital communitarian culture, I therefore start from Rheingold’s approach to computer-mediated sociability.

As a first-person account by a native informant, *The Virtual Community* aimed to introduce cyberspace to wider segments of society, to inform them about its role in political liberties and to throw light on stereotypes associated with early adopters’ subcultures. While conceptually resonating cyberculture’s distinction between life online and ‘real life’, virtual *persona*, and bounded body,[[7]](#footnote-7) Rheingold’s description reveals the effort to show the social thickness of the digital domain:

people in virtual communities use words on screen to exchange pleasantries and argue, engage in intellectual discourse, conduct commerce, exchange knowledge, share emotional support, make plans, brainstorm, gossip, feud, fall in love, find friends and lose them, play games, flirt, create a little high art and a lot of idle talk. People in virtual communities do just about everything people do in real life, but we leave our bodies behind. You can’t kiss anybody and nobody can punch you in the nose, but a lot can happen without those boundaries. To the millions who have been drawn into it, the richness and vitality of computer-linked cultures is attractive, even addictive.[[8]](#footnote-8)

In Rheingold’s words one can notice the endeavour to clarify to outsiders the social practices that come about in a domain perceived as murky. The author seems to be conscious of the stereotypes of those unaware of the assorted cultural forms that had developed in the computer networks over the previous ten years:

many people are alarmed by the very idea of a virtual community, fearing that it is another step in the wrong direction, substituting more technological ersatz for yet another natural resource or human freedom. These critics often voice their sadness at what people have been reduced to doing in a civilization that worships technology, decrying the circumstances that lead some people into such pathetically disconnected lives that they prefer to find their companions on the other side of a computer screen.[[9]](#footnote-9)

In this excerpt, Rheingold rhetorically (and critically) echoes U.S. middle class’ suspicion towards artificial life and cold war’s dystopias on thinking machines. ‘Ersatz’, for instance, is an oft-recurring word in Philip Dick’s novels.[[10]](#footnote-10)

In order to familiarize the broad public with online behaviours, the author suggests a parallel between the North-American neighbourhood-community tradition[[11]](#footnote-11) and the culture of early adopters of CMC systems. Computer-mediated social groups could thus represent an instance of that ‘third place’ – besides the living space and the workplace – of informal public life where people gather for conviviality:

perhaps cyberspace is one of the informal public places where people can rebuild the aspects of community that were lost when the malt shop became a mall. […] The feeling of logging into the WELL for just a minute or two, dozens of times a day, is very similar to the feeling of peeking into the café, the pub, the common room, to see who’s there, and whether you want to stay around for a chat.[[12]](#footnote-12)

Echoing the foundational distinction between *gemeinschaft* and *gesellschaft*, individual solidarity and institutional bureaucracy, traditional village and modern city, Rheingold introduces the metaphor of digital communities evolving into bigger concentrations, as small towns of few inhabitants grow into metropolises. Differently from real life, however, in metropolitan cyberspace the values rooted in the essence of human beings will keep having a crucial role, they will not be replaced by mechanical rationality:

some knowledge of how people in a small virtual community behave will help prevent vertigo and give you tools for comparison when we zoom out to the larger metropolitan areas of cyberspace. Some aspects of life in a small community have to be abandoned when you move to an online metropolis; the fundamentals of human nature, however, always scale up. [[13]](#footnote-13)

For Rheingold, online affiliation does not only offer the possibility to expand individuals’ social capital nor does it only enable weak ties: it can also provide a strong sense of belonging and communion among individuals who had never met face to face. This is inherent in Rheingold’s definition of virtual communities as ‘social aggregations that emerge from the Net when enough people carry on those public discussions long enough, with sufficient human feeling, to form webs of personal relationships in cyberspace’.[[14]](#footnote-14) [[15]](#footnote-15)Indeed, his account often remarks the emotional support WELLites used to assure to members (or members’ relatives) in difficult conditions:

sitting in front of our computers with our hearts racing and tears in our eyes, in Tokyo and Sacramento and Austin, we read about Lillie’s croup, her tracheostomy, the days and nights at Massachusetts General Hospital, and now the vigil over Lillie’s breathing and the watchful attention to the mechanical apparatus that kept her alive. It went on for days. Weeks. Lillie recovered, and relieved our anxieties about her vocal capabilities after all that time with a hole in her throat by saying the most extraordinary things, duly reported online by Jay.[[16]](#footnote-16)

In other words, for Rheingold, communitarian ties are a specific, qualitatively characterized type of social relationship, distinct from other relationships. His key purpose is to demonstrate that similar, supposedly genuine ties can also develop online.

The depiction of supportive, informed, self-organized citizens, as opposed to political and economic institutional powers, is deep-seated in *The Virtual Community*.[[17]](#footnote-17) Not only does the author foresee the ‘pitfall that political and economic powers seize, censor, meter and finally sell back the Net’[[18]](#footnote-18) to the real creators, the grassroots communities. He also fosters the role of citizens in deciding how public funds should be applied to the development of the net. A clear opposition between two cultures of initiators of the net is at stake in Rheingold’s pages. On one hand, there are the NDRC-funded top-down, ‘high-tech, top-secret doings that led to ARPANET’; on the other hand, there are the anarchic, transparent, bottom-up uses of CMC that grew explosively and almost ‘biologically’ led to BBSs and Usenet.[[19]](#footnote-19)

More than a political concern, however, this opposition can be explained in terms of diverse organizational paradigms. Rheingold and the WELL core team were suspicious of hierarchically organized institutions.[[20]](#footnote-20) As Saxenian has pointed out, decentralized collaboration, and informal, non-hierarchical labour relations were the unifying element of Silicon Valley hi-tech industry’s culture.[[21]](#footnote-21) That same computer industry assured employment to many WELL members working in the San Francisco Bay Area as self-entrepreneurs, software developers, consultants, journalists, researchers. Rapidly, the WELL became the favourite online place for a remarkable variety of experts, thus offering access to information and social relations that could eventually lead to job opportunities.

From a broader perspective, as scholars have argued[[22]](#footnote-22) mid-1980s saw hierarchical industries reorganize themselves as project-oriented networks. According to Turner, for people like Rheingold the new organizational paradigm found its roots in technocentric patterns of management that merged the 1960s’ New Communalists rhetoric of non-hierarchical forms of cooperation with the cybernetic paradigm of decentralized control.[[23]](#footnote-23) The centrality of cybernetic principles for the emergent network culture is evident in Rheingold’s own words describing virtual communities as self-regulating biotechnological experiments:

although spatial imagery and a sense of place help convey the experience of dwelling in a virtual community, biological imagery is often more appropriate to describe the way cyberculture changes. In terms of the way the whole system is propagating and evolving, think of cyberspace as a social petri dish, the Net as the agar medium, and virtual communities, in all their diversity, as the colonies of microorganisms that grow in petri dishes. Each of the small colonies of microorganisms—the communities on the Net—is a social experiment that nobody planned but that is happening nevertheless.[[24]](#footnote-24)

He asserts that not only virtual communities are self-sustaining systems, but that – following the biological metaphor – they are also *inevitable* forms of collective life: ‘whenever CMC technology becomes available to people anywhere, they inevitably build virtual communities with it, just as microorganisms inevitably create colonies’.[[25]](#footnote-25)

Rheingold’s understanding of computer-mediated communities reveals its debt to cybernetics from a further perspective, as well. Recalling the efforts made by cold war research to design a communication-command-control network that could survive a nuclear attack,[[26]](#footnote-26) the author takes part in the popular belief that the net cannot be controlled: ‘information can take so many routes that the Net is almost immortally flexible’.[[27]](#footnote-27)

We shall see in the next chapter how this myth, among others associated with cyberculture, had to face empirical counter-evidence. Yet for the time being, I wish to highlight the cultural threads linking the emergence of the digital community paradigm with North-American techno-libertarianism, my main concern being the identification of some distinguishing characteristics of the cultures wherein the notion of digital community has arisen.

Rheingold’s notion of community is debtor in many respects to the anarchic, libertarian cyberculture expressed – among others – by the *World Earth Catalog*, *Wired*, *Salon* magazine, and the *Electronic Frontier Foundation*. Proximity can be traced at least in five respects. First, Rheingold’s distinction between online activities and real life echoes the *Electronic Frontier Foundation*’s effort to introduce in the judicial sphere the notion of cyberspace as separated from the brick-and-mortar world dominated by nation-states. Founded by John Perry Barlow, Mitch Kapor, and John Gilmore, since its inception the EFF[[28]](#footnote-28) has mainly focused on legal campaigns devoted to protect cyberspace from government control, by extending the interpretation of the Constitution’s First Amendment on free speech to the internet. One of the Foundation’s major successes was the rejection by the Supreme Court of the ‘Communications Decency Act’ that dealt with the protection of children from online exposure to pornography. The Court acknowledged that the Act’s provisions were unconstitutional abridgements of the First Amendment’s right to free speech. The decision was sensational, as it prevented the Congress from extending its control over the internet. In the long haul, it was seen as backing EFF-advocated separation between ‘real world’ and ‘virtual life’.[[29]](#footnote-29)

The closeness between the early digital communitarian culture and the U.S. spirit of the frontier reveals why cyberspace has been seen as the place where not only individual liberties, but also communitarian self-government could be pursued out of government control. It is therefore not by accident that the reference to the ‘electronic frontier’ appears in Rheingold’s work subtitle.[[30]](#footnote-30) As Turner has argued:

on the WELL, such terms kept alive a New Communalist vision of sociability and at the same time facilitated the integration of new forms of social and economic exchange into the lives of WELL members. Ultimately, thanks to the work of the many journalists on the system, and particularly the writings of Howard Rheingold and John Perry Barlow, *virtual community* and *electronic frontier* became key frames through which Americans would seek to understand the nature of the emerging public Internet.[[31]](#footnote-31)

In other words, the WELL acted as a bridge that linked the 1960s’ communalist culture with the emerging cyberculture paradigm fostering networked forms of productive organization and labour.

Second, the spatial metaphor depicting the WELL as a little town inhabited by peers finds its roots in U.S. local community tradition. As we have seen, Rheingold’s social assemblage enabled by computer networks finds its communitarian dimension in the relatively small scale and in the sense of solidarity among peers. As sociologist Stanley Aronowitz has noticed, these two aspects are also present in the cultural legacy of the New Left of the 1960s-70s. According to Aronowitz, the New Left fostered principles like localism, individual empowerment, distrust in professional expertise, and direct commitment of individual citizens to political affairs. These same principles, in turn, came from the Jeffersonian ideal of a democratic system based on locally self-governed townships whose decisions were taken during public open assemblies. Similarly – Aronowitz argues – direct involvement and commonality among peers can be traced to forms of self-governance enacted by computer-mediated social networks.[[32]](#footnote-32)

Against Aronowitz’s argument, the parallelism between the New Left’s localism and the notion of cybercommunity is indirectly put under criticism by Turner.[[33]](#footnote-33) Even if he acknowledges the re-emergence of a strong sense of community in the 1960s, Turner argues that the communitarian tradition that ended up into the virtual community paradigm of the WELL was that of the New Communalists and of the back-to-the-earth movement exemplified by the *World Earth Catalog*. Even if common knowledge considers the New Left and the New Communalists as part of the same countercultural movement – Turner argues – the youth of the 1960s developed two overlapping but distinct social movements. While the New Left grew out of the struggles for civil rights and turned to political action and open protest against the Vietnam war, the New Communalists found their inspiration in a wide variety of cultural expressions like Beat poetry, eastern philosophies, action-painting, rock music, and psychedelic trips. This second wing focused on issues of consciousness and interpersonal harmony as means whereby to build alternative, egalitarian communities. Between 1965 and 1972 several thousand communes were established throughout the U.S., thus setting a sort of ‘rural frontier’ that should mark the way to ‘a new nation, a land of small, egalitarian communities linked to one another by a network of shared belief’.[[34]](#footnote-34)

Whatever the origin, be it an actual or analytical distinction, both the U.S. New Left and the New Communalist traditions shared an attachment to localism which remained a reference for digital communitarianism. This is true even when – like in the WELL – it is used as a metaphor for networked, immaterial proximity.

Third, Rheingold’s understanding of two conflicting cultures of creators of the net, summarized by top-down ARPANET and bottom-up Usenet, echoes counterculture’s rejection of 1950s’ ‘closed-world’s.[[35]](#footnote-35) At the same time, the culture expressed by WELL’s members actually has many points in common with cold-war military-academic research. These two worlds share the cybernetic utopia of a techno-scientific anarchism oriented to downsize the power of institutional actors in order to hand autonomy back to individuals. As Mattelart has recalled,[[36]](#footnote-36) in his 1948 work *Cybernetics: or Control and Communication in the Animal and the Machine*, Norbert Wiener postulated information as the source of a ‘second industrial revolution’ bearing the promise of emancipation for the citizenry. To realize this utopia, however, information should be allowed to flow free of any obstacle set up by those institutions that control media and whose aim is the accumulation of power and wealth. Not very differently from Rheingold’s warnings against political and economic powers seizing the net, Wiener was concerned with the tendency of the market to commodify information as well as with the government apparatus’ temptation to subdue science to military ends.

Fourth and strictly related to this point, another element that emerged among cold-war academic think tanks and spread through counterculture and later communitarian cyberculture is the distrust towards forms of leadership that do not derive from reputation capital. Goldsmith and Wu describe the decision-making models of 1950s’ committees of computer scientists as based on ‘rough consensus’ reached among expert peers, rather than on hierarchical positions developed elsewhere. Similarly, it is well-known how in digital and hacker communities, in particular, leadership is based almost exclusively on reputation built inside the digital domain.[[37]](#footnote-37) [[38]](#footnote-38)

Formenti suggests that anti-intellectualism, refusing educational degrees, and bureaucratic rationality as benchmarks of leadership echoes North-American suspicion towards expert knowledge.[[39]](#footnote-39) This aspect is related to the above mentioned decentralized organizational paradigm: in technological and scientific domains, reputation capital related to knowledge of specific issues has replaced forms of interpersonal power derived from class belonging or political affiliation, simply because they were not valuable in project-oriented networks.[[40]](#footnote-40)

The fifth source of proximity between Rheingold’s understanding of virtual community and the anarchic, libertarian cyberculture of the 1980s concerns the resources that are co-created by a virtual community. Rheingold identifies two kinds of resources: community for community’s sake and information. The WELL is both a source of emotions and an information-seeking device bringing value to his professional life. By putting together a sense of common identity and professional knowledge, the digital community acts as an information gatekeeper:

since so many members of virtual communities are workers whose professional standing is based on what they know, virtual communities can be practical instruments. If you need specific information or an expert opinion or a pointer to a resource, a virtual community is like a living encyclopedia. Virtual communities can help their members, whether or not they are information-related workers, to cope with information overload. [[41]](#footnote-41)

The informal, unwritten social contract the author describes is a perfect example of homeostatic processes theorized by cybernetics. Utility originates from the acknowledgment that every piece of information forwarded from a sender to potentially interested receivers will be counter-balanced by other pieces of targeted information that the original sender will receive from former recipients. Given the marginal cost of forwarding which tends to null, the value for the original sender will outweigh the resources spent in producing value that benefits receivers. Like in a social homeostat, altruism, and self-interest go hand in hand.[[42]](#footnote-42)

This cybernetic explanation, however, should not seem fully convincing to Rheingold, if he feels the need to add references to the gift economy:

reciprocity is a key element of any market-based culture, but the arrangement I'm describing feels to me more like a kind of gift economy in which people do things for one another out of a spirit of building something between them, rather than a spreadsheet-calculated quid pro quo. When that spirit exists, everybody gets a little extra something, a little sparkle, from their more practical transactions; different kinds of things become possible when this mind-set pervades.[[43]](#footnote-43)

Here, Rheingold implicitly borrows from anthropological studies on exchange in pre-modern societies where the gift is seen as a means for the establishment of social order. According to a well-known anthropological tradition, gifts originate cycles of exchange that result in the establishment of structural relations between givers and recipients.[[44]](#footnote-44) This is possible because the gift embeds multiple meanings that ultimately work to turn material resources into social capital.[[45]](#footnote-45)

In the case of virtual communities, resources are mainly knowledge-based and immaterial. As such, they are indefinitely reproducible at null or negligible cost. This peculiar feature of informational resources is of crucial importance for the emergence of the communitarian paradigm. If valuable resources – conceived of as gifts whose ultimate role is the establishment of structural relations – can be reproduced at very low cost, then the entrance barriers for setting up online relations turn out to be considerably reduced. This argument would explain the proliferation of online communities that Rheingold saw as a biological necessity.

What is noticeable here is that this explanation refers to elements which fall outside of the cybernetic paradigm. To explain how virtual communities proliferate, Rheingold must resort to analytical patterns borrowed from structuralism, which conceive of informational resources as currency in a gift economy. Here is where virtual communities *à la* Rheingold and its underpinning libertarian paradigm show their limits. In order to not only describe how virtual communities work, but also to explain how they are constantly upkept, essentialist references to a sense of belonging are not sufficient. The material characteristics of the resources being co-produced become key to clarify how a sense of belonging emerges as a result. As FLOSS[[46]](#footnote-46) development communities are upkept by exchange forms which set code as the main currency (see next sections), so virtual communities are reproduced through gift economies which set information as currency.

In summary, Rheingold’s virtual communitarian framework is not only rooted in, but also contributes to perform a U.S. cybercultural libertarian paradigm characterized by sharp separation between cyberspace and physical world, localism and/or cultural proximity, grassroots commitment, distrust in hierarchically organized institutions and professional powers, trust in technocentric forms of decentralized organization based on reputation, and homeostatic social relations. On close analysis, Rheingold’s book can be conceived of as a rhetorical, performative effort to merge multiple cultural traits and experiences in a coherent account of online sociability, along the lines of the dominant U.S. libertarian paradigm. The virtual communitarian framework was crafted as pliable enough to allow this converging effort. Given this monopolizing attempt, it is not surprising that in those same years techno-social feminism issued warnings against totalizing technological narratives. Donna Haraway’s *Cyborg Manifesto*, for example, was an ironic act against binary distinctions between the physical and the semiotic, and against holistic communitarianism: ‘The cyborg does not dream of community on the model of the organic family, this time without the oedipal project. The cyborg would not recognize the Garden of Eden.’[[47]](#footnote-47)

On the other hand, when it comes to explaining how virtual communities are upkept and reproduced, the communitarian paradigm falls short of convincing theories. Rheingold thus needs to resort to structuralist paradigms that originated outside the U.S. communitarian tradition. The need to resort to explanations that transcend the libertarian approach provides a hint to start delineating the main argument of this book. As we have seen, Rheingold’s understanding of virtual communities qualifies communitarian ties in essentialist terms. In this chapter, we shall see how some of the libertarian assumptions and communitarian traits had to face empirical counter-evidence in the early 2000s. Instead of claiming the ontological death of digital communitarian ties, however, this book suggests that empirical counter-evidence requires as much of an empirical, anti-essentialist epistemological approach to digital communites.

Yet before that, we are going to see how other paradigms have contributed to the understanding of online communities through different classificatory attempts.

## 1.2 1980s’ Internet Imaginaires as Attempts to Classify Early Virtual Communities

Being concerned with advocating the community cyberspace to outsiders, by mid 1990s Rheingold’s effort had turned outdated. With the internet overdrive, GUIs and hypertext, CMC systems had become directly accessible to a much wider population, as the author himself acknowledges in the new edition of *The Virtual Community* (2000).[[48]](#footnote-48) Nevertheless, many of the features that characterized the communitarian culture sketched in that early book were translated into new internet logics between mid 1990s and early 2000s.

Rheingold might be considered an exponent of that ‘third layer’ of the internet culture that Manuel Castells lists the ‘virtual communitarians’: users of the net who – while not being techies – nonetheless mould its uses. Castells adopts a linear evolutionary perspective according to which innovative behaviours percolates from élites to wider portions of society through concentric waves.[[49]](#footnote-49) He also highlights the correlation between designers’ culture and technological developments. In so doing, he has identified four hierarchical ‘layers’ contributing to internet cultures: techno-meritocratic, hacker, virtual communitarian, and entrepreneurial culture.[[50]](#footnote-50) The key concept underpinning all these layers – Castells argues – is the openness of the source code, as FLOSS has been the crucial technological element in the development of the internet.[[51]](#footnote-51)

What Castells names ‘techno-meritocratic culture’ corresponds to the cold-war academic technological research mentioned in the previous section. It is characterized by the trust in scientific and technological development as a key component of the progressive improvement of the human condition.[[52]](#footnote-52) The crucial features of techno-meritocracy are the pursuit of technological advancements in computer networking, seen as commons benefitting the whole community of researchers/peers. The object-driven nature of valuable knowledge; peer-review system for reputation building; attribution of managing functions to figures recognized as authoritative among the community of peers; refusal to use common resources for individual purposes and; open communication to the whole community of the results achieved through networked collaboration, are some of the features specific to techno-meritocracy.

According to Castells, these values have been well adopted by hacker ethics, the second layer of internet culture. Hacker cultures share with the techno-meritocratic paradigm the goal of technological excellence – which requires a peer review system for open source code; the intellectual freedom to create, manipulate, and redistribute technical knowledge; and the denial of money and formal property rights as source of authority and reputation; the values of cooperation, reciprocity, and a specific kind of gift economy, in which reputation is linked to the practical relevance of the gift (i.e., the innovative code) for the community of developers..

Castells highlights some distinctive features of the 1980s hacker ethics vis-a-vis the academic system of value: the independence of projects, the use of computer networking as the technological and organizational foundation for this autonomy, informality and virtuality as key elements in the process of identity building. He thus provides a more specific definition of ‘hacker’ than those proposed by Himanen and Raymond.[[53]](#footnote-53) Hackers are

…actors in the transition from an academically and institutionally constructed milieu of innovation to the emergence of self-organizing networks transcending organizational control. In this restricted sense, the hacker culture, in my view, refers to the set of values and beliefs that emerged from the networks of computer programmers interacting on-line around their collaboration in self-defined projects of creative programming.[[54]](#footnote-54)

Further elements characterizing hacker ethics are the sheer joy of creation that draws the hacker culture up to the art sphere, and the political involvement in favour of rights such as freedom of expression and privacy. We shall address the closeness between art, politics, and hacking in sections 1.3 and 1.4. For the time being, I’d like to focus on the role of the communitarian dimension, acknowledged by Castells as a key component of this second layer of internet culture.

Castells suggests that in the hacker community the sense of belonging is indeed rooted into an organizational form – although extremely informal. The co-existence of informality and organizational mechanisms is made possible by technological mediation. Conflict and harmonization are negotiated online through collectively-reinforced rules and, eventually, sanctions in the form of ‘flaming’, public blame, and exclusion from the community of collaborative software creation. Computer-mediated sociability and labour organization thus are deeply intertwined in the interpretation that Castells gives of hacking communities.

The third layer of internet cultures according to Castells are virtual communities. They have adopted from academic techno-meritocratic culture and hacker ethics values such as meritocracy, freedom to use and manipulate technological artefacts, many-to-many patterns of communication, *unus inter pares* forms of leadership based on internal reputation, and an open-sharing approach to the commons produced by the community itself. Crucially, they have also borrowed decentralized organizational patterns embedded in distributed networks.

In turn, this layer has contributed to previous cultures an orientation towards society-at-large, thus watering down the focus on technology for technology’s sake. BBSs, Usenet, Fidonet, The Digital City Amsterdam, the Institute for Global Communitcation (igc), and the WELL, shaped innovative uses and social practices on the net, although their promoters had limited technological skills. According to Castells, while software-oriented cultures provided the technological basis for the internet, communitarian culture moulded its social processes and uses.

Similarly to Turner,[[55]](#footnote-55) Castells recalls the cultural affinity between early virtual communities and the counterculture of the 1960s: ‘many of the early on-line conferences and BBSs seem to have grown out of the need to build some kind of communal feeling after the failure of countercultural experiments in the physical world’.[[56]](#footnote-56) However, over the years – he argues – the link was deadened, to the point that nowadays it is impossible to identify countercultural heritage with digital communitarian culture. Despite this, Castells singles out two features shared even by highly diverse online communities: the value of horizontal, many-to-many grassroots communication in a world dominated by media concentrations, and a kind of entrepreneurial attitude to network, self-publish, self-organize, and induce new networks.[[57]](#footnote-57)

In summary, while for Rheingold communitarian ties are specific types of social relationships characterized by a sense of belonging, Castells reconnects the origins of a sense of belonging to the decentralized form of network organization, which fosters individualism and entrepreneurship as characterizing features of digital communities.

The fourth and last layer identified by Castells corresponds to those entrepreneurs that in the 1990s fostered the new economy and led the diffusion of the internet to wider parts of society. New economy firms were a driving force for the expansion of the internet from closer circles of techies and communitarians to society writ large. At the same time, entrepreneurs, innovators, and venture capitalists developed – and were moved by – autonomous values, rather different from those of the previous actors.

First, the economic realization of the power of the mind was a cornerstone of the emerging Silicon Valley entrepreneurial culture. Second, large financial assets represented not only success, but also independence from the traditional corporate world. The stock option mechanism was functional in this regard, allowing the convergence between individual freedom and entrepreneurship. Third, money was a means to earn the respect of peers. This is were the distance with the other internet cultures described by Castells becomes more evident. While for scientists, hackers and communitarians the respect of peers depended upon the degree of excellence of the innovation proposed to the community, for internet entrepreneurs the financial market was the ultimate judge of the company’s innovating performance. Fourth, while traditional Wall Street corporations used to create value by betting on future market behaviour, internet entrepreneurs used to sell the future which they believed they were able to determine. As a consequence, more than a full-blown business man, the internet entrepreneur acted as a self-fulfilling-prophecies vendors. Fifth, for the internet business culture the reward-system did not follow a deferred gratification model but rather an immediate hedonistic pattern of superfluous consumption accompanied by an informal working behaviour. Even here, the difference with the humble life style of hackers like Richard Stallman is manifest.

To conclude, one might suggest that Castells marks a clear distinction in the systems of value of excellence-oriented scientific, hacking and communitarian cultures, on the one hand, and of internet entrepreneurs, on the other hand. It should also be noticed that this point contrasts with Turner’s argument, conversely stressing the seamless translation of the New Communalists’ culture into the early experiences of online communities of the 1980s and, through them, into the internet business logic of the 1990s. As we have seen in the previous section, according to Turner the counterculture movement of the 1960s provided the emergent internet business world not only with a cultural framework oriented to informality and self-entrepreneurship, but also with new organizing logics derived from cybernetics.[[58]](#footnote-58)

### 1.2.1 Flichy’s Classification of Online Communities

Another author who has stressed the debt of the virtual communitarian culture to the counterculture of the 1960s – although avoids extending the analogy further – is Patrice Flichy. Flichy parts with establishing a diachronic classification of the different cultures whereby the internet was constituted, and prefers to focus on the origins of virtual communities between the late 1970s and early 1980s.[[59]](#footnote-59)

Flichy distinguishes an understanding of information technologies seen exclusively as intellectual tools, on one hand, and their conception as instruments to be made widely accessible to everybody, on the other hand. If the first understanding is typical of the closed academic world, the second attitude towards networking technologies was fostered by computer programmers working at the margins of the university. Following Levy and very closely Castells’ definition, Flichy adopts the term *hackers* to indicate independent computer amateurs moved by values like open access to information technology, decentralized organization, freedom of information, reputation capital based solely on the excellence of the products, and trust in the capability of computers to enhance the quality of human life.[[60]](#footnote-60)

However, differently from Castells, Flichy does not limit this definition to developers, but extends it to online communitarians. According to him, hackers can be sorted into three principal currents: those involved in the wider project of counterculture and the hippie movement, those stressing technical performance (*hackers* in the strict sense), and those involved in community projects oriented towards civil society at large. Among the countercultural experiences, Flichy remembers *Community Memory* – an ‘utopia embodied onto the first technological steps’, that started in 1973, whose goal was to provide personal computers for all and a network of communication among peers; *CommuniTree* – a conference system started in 1978 in the San Francisco area, aiming to build a community whose freedom of communication should be inscribed into software; and the WELL itself.

The second current gets closer to hackers *stricto sensu*. Hobbyists networks were mainly focused on technical objectives, like enhancing the capability to communicate at a distance by means of computing systems. Here, Flichy includes the *Computer Hobbyist Bulletin Board System* (1978) and *Fidonet* (1983). The *Computer Hobbyist BBS* was an electronic board for goods exchange. Being a system for experimenters, the developers freely released the code in order to enable other people to create their own BBSs as nodes of a wider network.[[61]](#footnote-61)

Nevertheless, it was *Fidonet* that in 1983 realized the intuition of early BBS designers. Developer Tom Jennings released a software enabling the networking of two BBSs running on micro-computers. Fidonet’s architecture was based on the principle of maximum decentralization: every node was self-standing and could automatically communicate with all the other nodes, in a much more anarchist way than Usenet and Arpanet. Freedom of Fidonautes was limited by a minimalistic ethical principle: don’t be annoying in order not to be annoyed.

As for radio amateurs, Jennings’ goal was primarily technical: to create a ‘non-commercial network of hackers willing to play and find new uses for data transmission networks’.[[62]](#footnote-62) Yet Flichy argues that Fidonet – a project defined by technical objectives – turned out to be a social project, as well. Indeed, ‘techies’ and social currents soon diverged as far as the control of the network and the focus on content transmission vs. technical performances were concerned.

Differently, the third type of communitarian *imaginaire* acknowledged by Flichy explicitly looked at ICT as tools for community development. He recalls that the idea of neighbourhood communities using grassroots media to grant free expression to citizens appeared in early 1970s in the U.S., with the diffusion of public access cable TV and video. The *People’s Video Theatre* and *Alternative Media Center*, for instance, were projects aimed at giving communities, especially the most disadvantaged, the opportunity to independently produce information about themselves. Video-making was conceived of as a tool for community development.[[63]](#footnote-63) Similar projects aggregated around principles like universal access to media, refusal of mainstream media distortions, lack of top-down control.

Among these initiatives, Flichy includes the *Free-Net* (1984), *Big Sky Telegraph* (1987), and *PEN* (1989). The Cleveland Free-Net was founded by Tom Grundler, a professor in education, as a BBS focused on health-related issues. By 1989, it had turned into a multi-topic community network (the National Public Telecomputing Network) directly managed by the 250 community volunteers. Differently from the WELL and commercial services, the NPTN was not based on an information-pull model: free information was published according to the desires of the senders and not to the needs of the receivers. Additionally, the logic underpinning Cleveland Free-Net was that of the digital public library based on universal free access to knowledge. Like physical libraries, the virtual one was conceived of as a founding element of local identity and as a tool for the re-humanization of urban life.

Big Sky Telegraph’s rationale was fairly different. BST was a network that digitally interconnected dispersed schools and businesses in rural communities in the West. It was aimed to facilitate community integration in rural middle-classes traditionally suspicious of big governments and big businesses.[[64]](#footnote-64) Here, the distrust towards big powers echoes Rheingold’s opposition between top-down and bottom-up digital networks.

Lastly, Flichy quotes Santa Monica’s Public Electronic Network as an experiment in local electronic democracy. The PEN was a local municipality-led digital assembly where citizens, disadvantaged individuals, and local authorities could engage in open discussions. However, while acknowledging the communitarian scope of this early experiment for a digital city, Flichy argues that this network did not succeed in constituting a place for political confrontation.

To conclude, Flichy has suggested that it was at the early prototypical stage that the internet *imaginaires* were being constructed. Bypassing both Rheingold’s converging account and Castells’ materialist perspective, Flichy has proposed not a univocal understanding of online sociability, but a taxonomy in which early virtual communities can be classified according to three features: geographical proximity, institutional belonging, degree of face-to-face knowledge. As to geographical proximity, BBS, Free-Nets, and the WELL (mainly based in the San Francisco Bay Area) replaced the claims for universal, de-localized communication introduced by hackers and technology amateurs with a local perspective. As to institutional belonging, while CommuniTree was fully open, BBS and community networks required some formal subscription and a shared vocabulary as strong identity markers. Finally, reciprocal face-to-face knowledge was a very variable element, depending upon the dimension and regularity of participation.

Nevertheless, an understanding of networking technologies as tools to be made accessible to wider segments of population was a unifying element of much diverse experiences. And this is one of the traits that can also be recovered in the communitarian experiences of the 1990s.

## 1.3 The Network is the Message: Networking as a Form of Art and the Mailing List Culture of the 1990s

In addition to the early experiences discussed up to now, which are widely recognized as key instances of online forms of socialization, other kinds of computer-mediated social practices were developed during the 1990s. While contributing elements to the more recent understanding of digital communities, new media art practices running on mailing list systems and political movements commonly subsumed under the umbrella term ‘No/New Global’ cannot be traced directly back to New Communalism and the North-American libertarian tradition. This is why some authors have preferred to expunge them from online communitarianism’s genealogical tree. Differently, given this book’s anti-essentialist approach, I suggest that including these experiences can contribute to a richer framing of online sociability.

With the internet overdrive, the graphic interface and hypertext, in mid 1990s the World Wide Web emerged for non experts as a powerful broadcast (i.e., one-to-many) medium for information retrieval. However, online groups assembled through decentralized, peer-to-peer technologies continued to constitute an important amount of the activities carried out on the internet. Avoiding the World Wide Web, these activities used to take place in self-organized digital environments, like BBSs, mailing lists, streaming channels, and internet chats. Only in late 1990s open publishing web platforms started being implemented.

Despite the diffuse efforts to devise business plans whereby to extract monetary value from the internet, many artists and activists kept looking at the net as a place for designing collective projects in a non-profit way. As Antonio Caronia has pointed out, the 1990s were years of coexistence where the expansion of freedoms went hand-in-hand with economic chances: ‘the Net was seen as a means to multiply experiences, to extend freedom, to share. A space where not only broadening the opportunities for interpersonal relations was possible, but also subduing the logic of profit to these relations was feasible, without denying the possibility to create income from online activities, but looking at this possibility as the result of the logic of sharing’.[[65]](#footnote-65)

Such a sense of potentiality was sustained by a peculiar type of coalition. It is widely accepted that the 1990s witnessed the alliance – however never overtly declared – between immaterial capitals and knowledge workers, libertarian capitalism and the rebels on the net. Formenti, for instance, named this heterogeneous coalition ‘Fifth State’.[[66]](#footnote-66) More than economic powers, government attempts to shrink the spaces of autonomous action online were seen as the main obstacle to the development of the net. The 1990s thus were a decade where TAZ – Temporary Autonomous Zones[[67]](#footnote-67) – mingled with start-ups.

It is well-known that this phase of expansion woke up in the ruins of the Dotcom burst. As we discuss in chapter 2, the net economy burst not only killed the illusion of medium and small companies to compete with big traditional sectors, but also marked the end of the alliance between venture capitalists and creatives of the net. However, given their non-profit nature, this sudden awakening seemed to exert less influence on those practices of independent networking that were situated at the confluence of digital technology, art, and politics.

Actually, networked forms of artistic collaboration did not appear with the internet. In the 1960s’ neo avant-gardes’ experimental networked practices took place across distances, using traditional mail, television, radio. As Norie Neumark recalls, ‘in the second half of the 20th century, artists turned communication media into their art media. At that moment art, activism, and media fundamentally reconfigured each other – at a distance. The projects they engaged with ranged from mail art to radio art to satellite art and beyond and between’.[[68]](#footnote-68) Artistic and activist practices joined forces in the critique of communication institutions: ‘many artists were concerned more with challenging the institutions not (just) of art, but of communication, from the mail system, to publishing, to radio and television. This challenge to the institutions of communication was a nodal point of connection between artists and activists’.[[69]](#footnote-69)

From *Fluxus* to mail art, from *Neoism* to *Mini-FM*, the minimal common denominator was the possibility to experiment with art as collective inter-action where every actor was at the same time user and producer of information. This principle brought with it a radical critique of the artist/spectator distinction, the notion of originality in the art work, the same idea of individual author, and the distinction between amateur and professional. As Tatiana Bazzichelli has pointed out, these insights were subsequently inherited and further developed by the antagonist art practices of the 1970s and 1980s. By claiming the autarchy of media and the possibility to self-produce art outside commercial circuits, cyberpunk, graffitism, hacking, and squatting aimed to create infrastructures of communication that could be alternatives to those dominated by market logics and commercial content.[[70]](#footnote-70)

In the 1990s this system of values and practices found full deployment in the practices of so called ‘digital networking’. Artists, hackers, and activists seamlessly integrated nomadic media projects, decentralized forms of organization and critical issues as elements constituting coherent meanings and modes of action. International public discussion lists like *Nettime, Rhizome, Xchange, Recode, Syndicate* provided decentralized communication networks, open access policies, low-profile moderation, and media criticism.[[71]](#footnote-71)

By freeing the artistic process from the one-to-many technological restraint of broadcast media, the internet came to embody the ideal of inter-active artwork creation and replaced the artist/spectator distinction with that of host/guest.[[72]](#footnote-72) Net, ascii, and software art marked the transition from an aesthetics of representation to an aesthetics of interaction, from image and intention to interconnection and interaction. In these forms of art, the creative act was not oriented to the creation of objects, but rather to the development of networks, share procedures and protocols, and shared knowledge *corpora*. Art theorist Andreas Broeckmann has labelled ‘machinic aesthetics’ this new media art subfield located at the convergence of the social, the political, the cultural and the economic.[[73]](#footnote-73)

One of the pioneers in this field was *The Thing* (http://bbs.thing.net), a BBS-based discussion platform that soon became a reference point for new media art and net.art. Founded in 1991 in New York by Austrian artists Wolfgang Staehle and Gisela Ehrenfried, in 1992 The Thing Köln and The Thing Vienna joined the network, followed by The Thing Berlin, Amsterdam, Frankfurt, Basel and Rome. As Marco Deseriis and Giuseppe Marano (founders of The Thing Rome) recall,

in 1995, The Thing New York <bbs.thing.net> and Vienna <www.thing.at> migrated on the Web, thanks to an interface created by young Viennese developer Max Kossatz. *This interface kept the communitarian features of the BBS*, providing members with additional chatting, comments posting and discussion list reading facilities. By gathering a rich archive of artistic projects, sound documents, radio transmissions, reviews, articles and interviews, over the years The Thing became a fundamental reference point for both the underground scene and the Avant-garde art.[[74]](#footnote-74)

Between 1994 and 1996 other initiatives joined The Thing in offering discussion platforms on critical net culture.[[75]](#footnote-75) Moreover, from 1995 onwards, this discussion could also rely on international mailing lists. The culture of the lists was originally born among university researchers as a way to reach agreement on standards and software development. Then, in mid 1990s mailing list software turned out to be adaptable to the needs of media artists, theorists and technology designers. *Nettime* (www.nettime.org) was the first mailing list devoted to the development of an environment for Net critique. It was founded in 1995 at the Venice Biennale by artists, media theorists and activists Nils Roeller, Pit Schultz, Tommaso Tozzi, Vuk Cosic, Kathy Rae Huffman, Geert Lovink, David Garcia, Diana McCarty, Siegfried Zielinski, Roberto Paci Dalò, and Alessandro Ludovico. In a few months the list became the reference point for the European digital avant-garde, with hundreds of subscribers. Net.art, public space, digital democracy, media activism were issues of interest. Among the goals of Nettime, was the effort to renew a ‘leftist’ European political agenda of the 1990s by fostering an approach towards ICT that overcame the ‘Californian Ideology’ as well as the cynicism of ‘old media’ intellectuals.[[76]](#footnote-76) Further mailing lists focused on net culture were *Rhizome, Syndicate, Cybermind, Xchange, 7-11, Faces*.[[77]](#footnote-77)

Media theorist Geert Lovink has introduced the label ‘critical[[78]](#footnote-78) internet culture’ to indicate this ‘emergent *milieu* made of no-profit initiatives, cultural organizations and individuals mainly based in Europe, United States, Canada and Australia and in an increasing number of other countries […] that lies at the crossroads between visual art, social movements, pop culture, journalism and academic research.’[[79]](#footnote-79) It is this inter-sectoriality that characterizes critical internet culture. Its goals pertain to artistic practice as much as to a critique of media institutions, to political activism as much as to technological design. On one hand, critical media culture aimed to establish long-term media infrastructures independent from mainstream media corporations and governments. On the other hand, it aimed to directly intervene in the early phases of technological innovation. It reversed engineer network architectures and their code, software-designed social relations and their technical standards.

While its attention to decentralized, self-organized platforms – coupled with a challenge to communication institutions – overlaps with earlier experiences described in the previous sections, Lovink is reluctant to describe critical internet culture as digital communitarianism. This is mainly due to his suspicion towards the idea of harmony, consensus and order entailed by the term ‘community’. This rejection of an essentialist vision of community is shared by this author. Nevertheless, I suggest that contemporary understanding of digital communities is deeply in debt to media art platforms, which blurred artist and spectator, amateurs and professionals. Those experiences constituted the link translating the avant-garde critique of authorship into the emerging digital realm. Many present-day community initiatives analysed in the second part of this book could not be understood without the move from an aesthetic of representation to an aesthetic of interaction brought about by 1990s media art experimentations.

## 1.4 Mediactivism and the Early Web Platforms for Open Publishing

In early 2000s, mailing lists’ techno-political agenda integrating political, media and artistic critique witnessed the emergence of a new collective actor. As American film professor and activist Dee Dee Halleck pointed out, from the so called ‘battle of Seattle’ onwards, a growing number of world-spanning appointments ratified the welding of two currents that up to that moment had rarely met. During the protests in Seattle, Davos, Geneva, Nice, Genoa and Prague, the anti-neoliberist movement for social justice and the alternative media scene integrated their agendas, thus setting the bases for the birth of a globally widespread network of Independent Media Centres (IMC or *Indymedia*).[[80]](#footnote-80)

The hybrid movement that emerged to worldwide visibility in 1999’s rallies showed the common will to resist neo-liberalist policies imposed by Western countries on developing ones. One further unifying trait was the capability to gain global visibility starting from grassroots conditions by ‘tactically’ using media and the internet.[[81]](#footnote-81) ‘Don’t hate the media, become the media’ soon became the motto of Independent Media Centres.

Multiple cultural strands contributed to the *Indymedia* experience, and to early-2000s media activism in general: *World Social Forum* activists and pirate radios, hackers and journalists, fanzine editors, and artists from the punk scene. As Pasquinelli has observed, early century’s media activism was constituted along ‘two geopolitical faults – the Latin and the Anglo-Saxon – that collide in the global scene of independent communication […] Media activism explodes at the junction of Internet and Seattle, at the convergence of self-organized networked information with the global movement network’.[[82]](#footnote-82)

For many commentators, media activism constituted the encounter between two different attitudes towards bottom-up media, namely the second and third type of online community identified by Flichy as ‘techno-narcissism’[[83]](#footnote-83) of the *techies* – programmers, hackers, media designers, and the technological naivety of local community networks, mainly from the so called ‘Global South’.

Concerning the use of technologies, media activism reproposed Fluxus’s ‘intermedia’ practices that used to combine different media and languages.[[84]](#footnote-84) Often under precarious conditions, mediactivists produced grassroots information by combining low- and high-resolution media: web radio and podcasts, video streaming and FM microradios, open channels and communitarian televisions, satellite transponders and weblogs.[[85]](#footnote-85) For example, the anti-WTO protests in Seattle were both TV-broadcast by *Deep Dish TV*, an independent satellite video network founded in mid 1980s by U.S. artists, activists and academics and web-cast by the Indymedia website using FLOSS software *Active* developed by the *Catalyst* community in Sidney.[[86]](#footnote-86) [[87]](#footnote-87)

The Indymedia web platform developed by Catalyst was particularly flexible and scalable: contents were automatically ordered by the software, the news section was constantly updated and the publishing system was open to everyone’s contribution. While new users could consult a web guide to get started with video editing and news publishing, members of the nodes used to coordinate through public mailing lists and Internet-Relay-Chat (IRC) channels. As a matter of fact, Indymedia’s adoption of an open publishing web platform, sustained by mailing lists and IRC channels, anticipated the massive advent of weblogs in mid 2000s.

Thanks to their capacity to organize collective activity through web platforms, between 1999 and 2003 Independent Media Centres established themselves as models for multi-media production, as well as actual examples of decentralized organization and online consensus building. The global network of local IMCs was run according to some principles typical of hacker ethics: decentralization, self-management of autonomous local collectives, do-it-yourself (DIY) attitude towards media and technology at large, free access to information and free, and collaborative knowledge sharing.

Many organizations started using Indymedia software to coordinate protests. During the 2001 G8 rallies in Genoa, for instance, the constellation of self-organized, grassroots media gathered through Indymedia Italy acted as the principal source for information also for mainstream broadcast media. As a consequence, the visibility of the digitally-mediated global movement triggered the interest of political studies, as well.[[88]](#footnote-88)

Their ability to provide actual models of grassroots collective organization and online consensus building by using open web publishing platforms suggests including Indymedia and the media activist movement into the composite landscape of communities aggregating through the internet. As Andreas Hirsch, the designer of the *Prix Ars Electronica* Digital Communities competition, has suggested:

the basic ideas of the internet about ‘giving’ and ‘taking’ are not only present on the meme level, but are also coded into the basic protocol architecture of the internet. It would probably be bold to argue that the ‘basis’ of such protocols shapes the thoughts of users, but to a certain degree it might, if certain other factors come to help. Among those ‘other’ factors I see the drastic increase in usership of the net between the 1990s and today, a backswing away from the neoliberal ideology together with a certain renaissance of leftist positions, the anti-globalization movement and an entirely new generation of users, who grew up with computers. [[89]](#footnote-89)

Despite these developments, over the last years the ‘second super-power’ (as the *New York Times* called the anti-war media-activist movement in March 2003, after the global rallies against the war in Iraq) proved to be unable to exert significant influence on international political choices made by the US-UK coalition. On the contrary, the new measures associated with the ‘War on Terror’ marked the strengthening of control over internet by governments. As a matter of fact, in mid 2000s the neo-anarchic grassroots credo (or better, credos) looking at the internet as a major channel for the liberation of individuals, the enforcement of democracy and social justice, the proliferation of critical communities or simply the creation of supportive ties on the net was at a crossroads, as we are going to discuss in the next chapter.

1. M. Benedikt (ed.) *Cyberspace: First Steps*, Cambridge, Mass.: MIT Press, 1991;

   W. Christensen and R. Suess, ‘Hobbyist Computerized Bulletin Boards’, *Byte*, November issue, 1978;

   T. Jennings et al., ‘Fidonet History and Operation’, 08 February 1985, http://www.rxn.com/~net282/fidonet.jennings.history.1.txt;

   M. Strangelove, ‘Free-Nets: community computing systems and the rise of the electronic citizen’, *Online Access* 8, (Spring, 1994). [↑](#footnote-ref-1)
2. Rheingold, The Virtual Community. [↑](#footnote-ref-2)
3. Actually Rheingold’s book takes into consideration also other kinds of ‘virtual communities’, like MUDs, IRC channels, Usenet and mailing lists. However, since I am interested in his unmediated account as a direct participant, I take into account his direct experience as a WELLite, a member of the WELL community. Other types of online groups will be considered later on in this section. [↑](#footnote-ref-3)
4. Turner, From Counterculture to Cyberculture. [↑](#footnote-ref-4)
5. Turner in part explains the WELL’s impact on public perceptions of networked computing as due to the editorial policy that granted free accounts on the system to journalists and editors for the *New York Times, The San Francisco Chronicle, Time, Rolling Stone, the Wall Street Journal*, among others, see Turner, *From Counterculture to Cyberculture* p. 143. For an in depth study of the social dynamics taking place in the WELL, see Smith, *Voices from the WELL.* [↑](#footnote-ref-5)
6. Turner, From Counterculture to Cyberculture, p.141. [↑](#footnote-ref-6)
7. For a classical example of the binary distinction between virtual and physical domains see J. P. Barlow ‘A Declaration of the Independence of Cyberspace’, 1996, http://homes.eff.org/~barlow/Declaration-Final.html. For a cultural history account on how cybernetics led to the dismissal of human body in the information age, see K. Hayles, *How We Become Posthuman*, Chicago: University of Chicago Press, 1999. [↑](#footnote-ref-7)
8. Rheingold, The Virtual Community, pp. xvii-xviii. Author’s emphasis. [↑](#footnote-ref-8)
9. Rheingold, *The Virtual* Community, p. 8. [↑](#footnote-ref-9)
10. P. K. Dick, *The Simulacra*, New York: Ace Books, 1964. [↑](#footnote-ref-10)
11. I cannot account here for the vast North-American sociological and urban planning literature dealing with territorial communities and sense of belonging. A classic reference author for this literature is J. Jacobs, *The Death and Life of Great American Cities*, New York: Random House, 1961. Rheingold himself quotes R. Oldenburg, *The Great Good Place: Cafes, Coffee Shops, Community Centers, Beauty Parlors, General Stores, Bars, Hangouts, and How They Get You through the Day*, New York: Paragon House, 1991. Section 3.1 will tackle sociological approaches that criticize the (somewhat mythological) association between local assemblages and sense of community. [↑](#footnote-ref-11)
12. Rheingold, The Virtual Community, p. 11. [↑](#footnote-ref-12)
13. Rheingold, *The Virtual Community*, p. xxxii. [↑](#footnote-ref-13)
14. The ambiguity of this definition is manifest. One could wonder what Rheingold means by ‘human feeling’ or which amount of time or persons constitutes ‘enough’. Actually, the main direction of scientific research on virtual communities has tackled exactly the measurement of ‘communitarian potential’, authenticity of online sociability as compared to face-to-face relations, and the elements that transform an aggregation of individuals into a ‘genuine community’. In the Introduction, I have already mentioned some of the limitations of this essentialist perspective. For examples of sociological literature dealing with the features of ‘successful communities’ versus informal aggregates or ‘pseudocommunities’ (not only online), see P. Bartle,*The Sociology of Communities*, Victoria, Canada: Camosun Imaging, 2005; Jones, *Cybersociety 2.0*; L. Paccagnella, *La comunicazione al computer: Sociologia delle reti telematiche*, Bologna: Il Mulino, 2000; Smith and Kollock, *Communities in Cyberspace*; M. Taylor, *The Possibility of Cooperation*, Cambridge: Cambridge University Press, 1987. [↑](#footnote-ref-14)
15. Rheingold, The Virtual Community, p. xx [↑](#footnote-ref-15)
16. Rheingold, The Virtual Community, p. 4. [↑](#footnote-ref-16)
17. Rheingold, The Virtual Community. [↑](#footnote-ref-17)
18. Rheingold, *The Virtual Community*, p. xix. [↑](#footnote-ref-18)
19. Rheingold, The Virtual Community, p. xxiii. [↑](#footnote-ref-19)
20. In this regard, Rheingold quotes Sara Kiesler’s research on how e-mail systems changed hierarchical barriers and standard operating procedures in organizations. See S. Kiesler, ‘The Hidden Message in Computer Networks’, *Harvard Business Review* 64.1 (1986): 46-58. [↑](#footnote-ref-20)
21. A. Saxenian, Regional Advantage: Culture and Competition in Silicon Valley and Route 128, Cambridge, Mass.: Harvard University Press, 1994. [↑](#footnote-ref-21)
22. See, for instance, D. Harvey, *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change*, Oxford: Blackwell, 1989; S. Lash and J. Urry, *The End of Organized Capitalism*, Madison: University of Wisconsin Press, 1987. [↑](#footnote-ref-22)
23. Turner, From Counterculture to Cyberculture. [↑](#footnote-ref-23)
24. Rheingold, *The Virtual Community*, p. xx. [↑](#footnote-ref-24)
25. Rheingold, *The Virtual Community*, p. xx. [↑](#footnote-ref-25)
26. Actually many authors, among whom there is Manuel Castells cited above, have endorsed this account. See K. Hafner and M. Lyon, *Where Wizards Stay Up Late: The Origins of The Internet*, New York: Simon & Schuster, 1996. [↑](#footnote-ref-26)
27. Rheingold, *The Virtual Community*, p. xxii. [↑](#footnote-ref-27)
28. For the analysis of the EFF’s submission to Ars Electronica’s competition, see section 6.3. [↑](#footnote-ref-28)
29. John Paul Stevens, “Opinion of the Court, Reno v. American Civil Liberties Union,” Cornell University Law School Legal Information Institute: Supreme Court Collection, June 26, 1997, https://www.law.cornell.edu/supremecourt/text/521/844 [↑](#footnote-ref-29)
30. The book’s complete title being, ‘The Virtual Community: Homesteading on the Electronic Frontier’. [↑](#footnote-ref-30)
31. Turner, From Counterculture to Cyberculture, p. 142. [↑](#footnote-ref-31)
32. S. Aronowitz, *Post-Work. Per la fine del lavoro senza fine*, Roma: DeriveApprodi, 2006. [↑](#footnote-ref-32)
33. Turner, From Counterculture to Cyberculture. [↑](#footnote-ref-33)
34. Turner, *From Counterculture to* Cyberculture, p.33. [↑](#footnote-ref-34)
35. S.J. Whitfield, *The Culture of the Cold War*, Baltimore: John Hopkins University Press, 1996. [↑](#footnote-ref-35)
36. ‘In cybernetic thinking, causality is circular. Intelligence does not radiate from a central decision-making position at the top, where information converges and from which decisions are disseminated through a hierarchy of agents, but rather involves an organization or system of decentralized, interactive control.’, A. Mattelart, *Histoire de la société de l’information*, Paris: La Découverte, 2001, p. 51. [↑](#footnote-ref-36)
37. Castells, *Internet Galaxy*; G. F. Lanzara and M. Morner, ‘Artifacts rule! How Organizing Happens in Open Source Software Projects’, in B. Czarniawska, and T.Hernes (eds) *Actor Network Theory and Organizing*, Copenhagen: Liber, 2005. I will address this aspect in more depth in the next section. [↑](#footnote-ref-37)
38. Goldsmith and Wu, Who Controls the Internet? [↑](#footnote-ref-38)
39. C. Formenti, *Cybersoviet. Utopie postdemocratiche e nuovi media*, Milano: Raffaello Cortina Editore, 2008. [↑](#footnote-ref-39)
40. Saxenian, Regional Advantage. [↑](#footnote-ref-40)
41. Rheingold, *The Virtual Community*, p. 46. [↑](#footnote-ref-41)
42. This is indeed the way peer-to-peer (P2P) networks work. As it is well known, P2P clients operate on the basis of a contract embedded into code, according to which the higher your upload bandwidth, the faster your download. [↑](#footnote-ref-42)
43. Rheingold, The Virtual Community, p. 49. [↑](#footnote-ref-43)
44. M. Mauss and W. D. Halls, The Gift: The Form and Reason for Exchange in Archaic Societies, New York: Norton, 1990. [↑](#footnote-ref-44)
45. P. Bourdieu, Méditations pascaliennes: Éléments pour une philosophie négative, Paris: Seuil, 1997. [↑](#footnote-ref-45)
46. FLOSS is the acronym of *Free/Libre Open Source Software*. It is considered to be the politically correct expression that merges the 1998’s controversy between Richard Stallman, initiator of the Free Software Foundation, and Eric Raymond, promoter of the ‘open source’ philosophy as a business model. For details on the controversy, see C. DiBona, S. Ockam, and M. Stone, *Open Sources: Voices from the Open Source Revolution*, Sebastopol: O’Reilly Publishing, 1999. [↑](#footnote-ref-46)
47. D. Haraway, ‘A Cyborg Manifesto. Science, Technology, and Socialist-Feminism in the 1980s’, *Socialist Review* 80 (1985): 65–108. Reprinted in D. Haraway (ed.) *Simians, Cyborgs and Women: The Reinvention of Nature,* New York: Routledge, 1991, pp.149-181; p.151. [↑](#footnote-ref-47)
48. Rheingold, *The Virtual Community*, pp. 323-391. [↑](#footnote-ref-48)
49. Castells, Internet Galaxy. [↑](#footnote-ref-49)
50. Castells, *Internet Galaxy*, pp. 36-37. [↑](#footnote-ref-50)
51. As examples of key open technologies, Castells quotes Apache server programs, TCP/IP protocols, Unix and GNU/Linux operating systems, Mosaic and Netscape Navigator browsers and partially Java language. [↑](#footnote-ref-51)
52. On this topic, Mattelart, *Histoire de la société de l’information* wrote about the origins of the technocratic culture and of the same notion of ‘Information Society’, referring them back to Francis Bacon’s *scientia utilis*. [↑](#footnote-ref-52)
53. P. Himanen, The Hacker Ethic and the Spirit of the Information Age, New York: Random House, 2001; E. Raymond, The Cathedral and the Bazaar: Musings on Linux and Open Source by an Accidental Revolutionary, Sebastopol, CA.: O’Reilly, 1999. [↑](#footnote-ref-53)
54. Castells, *Internet Galaxy*, pp.41-42. [↑](#footnote-ref-54)
55. Turner, From Counterculture to Cyberculture. [↑](#footnote-ref-55)
56. Castells, *Internet Galaxy*, p. 54. [↑](#footnote-ref-56)
57. Castells, Internet Galaxy. [↑](#footnote-ref-57)
58. Turner, From Counterculture to Cyberculture. [↑](#footnote-ref-58)
59. Flichy, L’imaginaire d’Internet. [↑](#footnote-ref-59)
60. S. Levy, Hackers: Heroes of the Computer Revolution, New York: Dell Book, 1985. [↑](#footnote-ref-60)
61. Christensen and Suess, ‘Hobbyist Computerized Bulletin Boards’, quoted in Flichy, *L’imaginaire d’Internet*. [↑](#footnote-ref-61)
62. Jennings, ‘Fidonet History and Operation’, quoted in Flichy, *L’imaginaire d’Internet*. [↑](#footnote-ref-62)
63. For a similar perspective shown in this research’s sample, see the dotSUB case study in section 6.4. [↑](#footnote-ref-63)
64. Dave Hughes, quoted in Rheingold, *The Virtual Community*, p. 242. [↑](#footnote-ref-64)
65. A. Caronia, ‘AHACamping: Le Trappole del Social Networking’, *Digimag* 38 (October, 2008) http://isole.ecn.org/aha/camper/doku.php?id=antonio\_caronia\_-\_ahacamping.\_le\_trappole\_del\_social\_networking (*Author’s translation from Italian*). [↑](#footnote-ref-65)
66. C. Formenti, *Mercanti di Futuro*, Torino: Einaudi, 2002. [↑](#footnote-ref-66)
67. H. Bey, *Temporary Autonomous Zones*, Brooklyn: Autonomedia, 1992. [↑](#footnote-ref-67)
68. N. Neumark, ‘Art/Activism’, in A. Chandler and N. Neumark (eds) *At a Distance: Precursors to Art and Activism on the Internet*, Cambridge, Mass: MIT Press, 2005, p.3. [↑](#footnote-ref-68)
69. Neumark, ‘Art/Activism’, p. 12. [↑](#footnote-ref-69)
70. Bazzichelli, *Networking.* [↑](#footnote-ref-70)
71. G. Lovink, My First Recession: Critical Internet Culture in Transition, Rotterdam: V2\_/NAi Publishers, 2003. [↑](#footnote-ref-71)
72. E. Hobijn and A. Broeckmann, ‘Techno-parasites: bringing the machinic unconscious to life’, Lecture at the 5th Cyberconference, Madrid 1996, http://v2.nl/archive/articles/techno-parasites. I am referring here in particular to their understanding of net.art as ‘techno-parasite’. Like a parasite, net.art endlessly migrates from host to host and net.artists homepages are constituted, in turn, by links to other artists. [↑](#footnote-ref-72)
73. A. Broeckmann, ‘Towards an Aesthetics of Heterogenesis’, *Convergence*, 3.2 (1997): 48–58. DOI: 10.1177/135485659700300207; A. Broeckmann, ‘Public Spheres and Network Interfaces’, in S. Graham (ed.) *The Cybercities Reader*, London: Routledge, 2004, pp. 378-383. [↑](#footnote-ref-73)
74. Deseriis and Marano, Net.Art, p.196. Author’s emphasis. Author’s translation from Italian. [↑](#footnote-ref-74)
75. *De Digital Stad* *Amsterdam* was founded in 1994, *Public Netbase* was born in Vienna in 1995, *Ljubliana Digital Media Lab* started in 1995, *Backspace* was founded in London in 1996. A detailed description of the rise and fall of *De Digital Stad* can be found in G. Lovink, *Dark Fiber*, Cambridge, Mass: MIT Press, 2002. [↑](#footnote-ref-75)
76. D. McCarty, ‘Nettime: the legend and the myth’, *EduEDA. The Educational Encyclopedia*, 1997, http://www.edueda.net/index.php?title=Nettime:\_the\_legend\_and\_the\_myth (in Italian). [↑](#footnote-ref-76)
77. *Rhizome* (www.rhizome.org) was founded by American artist Marc Tribe in Berlin in 1996. It is now based in New York. On top of the newsletter, Rhizome has developed a Web 2.0-like archive for net.art works. The *Syndicate* (http://v2.nl/archive/organizations/syndicate/) mailing list was founded by media art critics Inke Arns and Andreas Broeckmann in 1996 as a branch of the V2\_East initiative aiming at involving new media art professionals active in East and West Europe in a common discussion space. This list witnessed the controversies arisen during the war for Kosovo and was closed in 2001 under attacks by trolls and net.artists. *Cybermind* was founded in 1994 with a focus on online identity construction: arguments spanned from French theory to Mud and Moo, from cybersex to the theory of films. It closed down during US invasion of Iraq in spring 2003 because of overwhelming tensions arisen from national identity-related controversies. *Xchange* was initiated in 1997 as a no-profit, independent network experimenting grassroots solutions for internet streaming. For an extended account on international networking platforms and mailing lists, see Deseriis and Marano, *Net.Art.* [↑](#footnote-ref-77)
78. Lovink, *My First Recession*, p. 11 of Italian edition. *Author’s translation from Italian*. With ‘critical’ Lovink did not refer to continental critical theory developed by the Frankfurt School, but rather to an intellectual practice that pushed internet cultures to root in more solid ground than the 1990s’ hype. ‘“Critique”, in this contest, refers to the urgent need to reflect and think, combined with action. In the 1990s many felt that taking action was essential in order to contrast an emphatic information obsessed by slogans. What was needed was an informed discourse that could transcend daily slogans and combine a diffuse orientation towards the public, free software, and open standards with a self-critical understanding of economy and of the role of culture in the building of the “net society”’. [↑](#footnote-ref-78)
79. Lovink , My First Recession, p. 32. [↑](#footnote-ref-79)
80. D. D. Halleck, ‘Una tempesta coinvolgente: Il cyber-forum aperto Indymedia’, in M. Pasquinelli (ed.) *Media Activism. Strategie e pratiche della comunicazione indipendente*, Roma: DeriveApprodi, 2002. [↑](#footnote-ref-80)
81. M. Pasquinelli (ed.) Media Activism: Strategie e pratiche della comunicazione indipendente, Roma: DeriveApprodi, 2002. [↑](#footnote-ref-81)
82. Pasquinelli, *Media Activism*, p. 10. [↑](#footnote-ref-82)
83. Flichy, L’imaginaire d’Internet. [↑](#footnote-ref-83)
84. Bazzichelli. *Networking*. [↑](#footnote-ref-84)
85. A. Pelizza, ‘Dall'Auditel al General Intellect. Un modello evolutivo del pubblico televisivo’, in P. Adamoli, and M. Marinelli (eds) *Comunicazione, media e società. Premio Baskerville ‘Mauro Wolf’ 2004*, Bologna: Baskerville, 2005; ‘Comunicare l'immediatezza: Una televisione dal basso a Rotterdam' [Communicating Immediacy: A grassroots TV broadcaster in Rotterdam], *Inchiesta. Rivista di Studi Politici* 152 April/June (2006): 12-18. [↑](#footnote-ref-85)
86. For a reconstruction of the history of Indymedia’s Weblog and the *Active* software, see G. Meikle, *Future Active*, Sydney: Pluto Press Australia, 2002. [↑](#footnote-ref-86)
87. J. Drew, ‘From the Gulf War to the Battle of Seattle: Building an International Alternative Media Network’, in A. Chandler and N. Neumark (eds) *At a Distance.*  [↑](#footnote-ref-87)
88. Della Porta, D. et al. (2006), ‘Searching the Net: An Analysis of the Democratic Use of Internet by 266 Social Movement Organizations. WP 2’, *Democracy in Europe and the Mobilization of Society Research Project*, http://demos.iue.it/PDFfiles/PressReleaseMay06.pdf. [↑](#footnote-ref-88)
89. Personal e-mail exchange with the author, 28 September 2007. [↑](#footnote-ref-89)