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Escaping Facebook

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Mechanically posting, liking, and commenting—with each click, we become clearer targets for advertisers. We have no idea whether an app has just been allowed to record with our microphone or camera. Companies use social media data patterns to analyze job seekers' health status and their desire to have children. Police take runaway children's mobile phones in order to identify them. Experiments examining how emotions spread in networks, election campaign manipulation, social media burnout, fake news, and data theft—these are all well-known scenarios.

Many current books address us as users of new media and technologies, in order to support making media consumption meaningful. This carries an increasingly negative tone, often oriented toward at least somehow regaining control over our media consumption. In the style of counseling literature, they describe the successful year that, within the scope of an experiment, something was consciously dispensed: social media, mobile phones, Internet connections, or even new technologies in general. From *detoxification* through *digital detox,* and *slow computing* or *slow media* (transpositions from the concept of *slow food*), buzzwords are used to offer tips on how to limit our addiction: install social networks only on desktops, not on mobile phones; switch off notifications; change the color scheme of the mobile phone to black and white; use a separate alarm clock to avoid picking up the phone to first check for updates before getting up, etc.

Escaping Facebook adopts a different perspective. From the outset, it makes little sense to restrict ourselves to the roles of consumers who have little choice other than to change supermarkets or go on a diet. If one puts aside this model, there is a much wider range of possibility for action at the individual level, or groups and collectives of various sizes. Local groups and thematic initiatives are no longer organized solely through *Facebook* or *WhatsApp* groups. Media activists—from small groups to large NGOs—now advocate for different political frameworks, while even large regulatory organizations like ICANN have opened up their processes to the participation of individual Internet users. Activists and media scientists define and test subversive strategies. Open source developers and alternative Internet providers work constantly on new self-determined methods of Internet access. At certain points in social and political movements, there emerges a growing recognition that appropriate media and technological solutions have become essential for the implementation of content and convictions. As a result of all this, new possibilities also arise for access to individual users. Finding your way around a current alternative network like *Mastodon* is no more difficult than doing so on the large profit-oriented platforms. The focus on user-friendliness in this area has already advanced to such an extent that solutions even exist to allow users to operate their own server instances, even without any technical knowledge.

The series of interviews underlying this book deals with the wide range of possibilities for action available to us here and now, in the midst of surveillance capitalism and hyper-individualism. The interview topics range from such scenarios as analyses of *Facebook's* collection and evaluation of user data through alternative social movement practices, civil society's representation of interests in transnational policy areas, users' experiences leaving social media accounts, and scenarios of possible Facebook endings, up to blockchain technologies and cryptocurrencies, currently a focus of controversial discussions about decentralization.

That *Facebook* is mentioned in the title, and not *Google Search*, or the permanent monitoring and valorization of users by mobile phones, corresponds to the book's content, which focuses on social networks and social

media in the broader sense. *Facebook*'s function in the book is to provide an example of a large commercial social network platform. However, it differs in size from its current competitors, and above all, in its monopolistic position. The tendency towards monopoly does not result from the *nature* of social networks, but corresponds to a network capitalist business model, which the well-known tech investor Peter Thiel—not only co-founder of *PayPal* and *Palantir*, but also *Facebook*'s initial outside investor—has condensed into a buzzword phrase: "competition is for losers." *Facebook* represents this claim to omnipotence like no other social networking platform (at least in the "international market," though in China, the app *WeChat,* which also integrates payment functions, should be mentioned as the dominant platform). This attitude of supremacy becomes more apparent in light of their method of dealing with potential competitors. Embodying the myth of being nearly identical to the Internet, it will also take form in the Global South, when *Facebook* offers free "Internet access" through its project *internet.org*, hardly allowing access beyond its own platform, to its far-flung distribution outside its own territory through its "Like" button, or the possibility of logging on to countless other websites with a *Facebook* account.

The fact that the term "escape" is used here in connection with *Facebook* has largely to do with its claim of supremacy, the construction of an apparent lack of alternatives, and its tracking on the Internet even outside of its own platform. But escaping does not mean running away, wanting to retreat to the far corners of the virtual world, where you are still safe from *Facebook*. It is based on a strategy that Paolo Virno developed in the concept of *exit*. Unlike reactive forms of resistance, which remain related to what power establishes, the *exit* creates a completely new constellation. The prerequisite for this is an abundance of possibilities; it is about "the surplus of knowledge, communication, virtuosic acting in concert, all presupposed by the publicness of the *general intellect*. Exodus allows for a dramatic, autonomous, and affirmative expression of this surplus" (Paolo Virno, Grammar of the Multitude, p. 70; translation modified).

Shortly after the first computer networks were developed for the Ministry of Defense, as media theorist Douglas Rushkoff reports, the system operators noticed something strange. Researchers who had accounts spent much more time and network capacity talking about their personal research interests and their favorite science fiction novels than they did on the official tasks. "What all these social networking businesses keep getting wrong, however," says Rushkoff in his book *Program or be Programmed*, "is that the net is not *becoming* a social medium. It already *is* one. The history of the internet can probably best be understood as a social medium repeatedly shaking off attempts to turn into something else. And it will keep doing so" (p. 93). In this sense, the large social media platforms and their predecessor projects are not the inventors of social media, but only a series of attempts to fit this dimension of the network into a business model.

Media theory approaches are often sorted into camps of Internet optimists or pessimists, in other words, those who see the Internet in its empowering dimensions, a medium that gives individuals a voice, and provides tools for their political self-organization, or those who primarily detect exploitation, surveillance, nodocentrism, and attacks on privacy. Particularly within the context of social networks and social media, in the current situation, it seems reasonable not to want to join either of these camps, but to combine both perspectives, to avoid being subjected to criticism, while, at the same time, exploiting their emancipatory potential.

Social Movements and Everyday Life in the Social Media

The media strategies of social and protest movements are linked in many ways to the everyday lives of users of commercial social media and social networks. Social movements can foster the development of social media and networking sites by revealing the contradictions between corporate products' functions and their business models on the one hand, and collective social processes on the other. At the same time, social movements are contexts in which new media relations arise. These are determined by immediate practical necessities, such as

ensuring the anonymity of activists, creating a secure environment for tactical discussions, and preventing disruptive interventions from deleting individual accounts or shutting down the Internet completely.

Accompanying these practical reasons for an independent media and technical infrastructure are the "prefigurative" approaches. This element is easy to grasp in the example of a square held by the Occupy movement. Occupy pursued "strategic" goals, like greater control of the financial markets, while also having a "prefigurative" level that aimed to realize and test desired contemporary forms of living together. In this way, it referred in practice to the shaping of concrete coexistence in the occupied square, and the development of collective practices for supplanting competitive individualism, through mutual care, solidarity, and so on. With more advanced movements such as the current municipalism in Spain, this no longer only concerns squatting, but also living together in city districts and entire cities.

Just as with the invention of a new kind of cohabitation in a square crowded with tents, there are also approaches to changing coexistence in the media and in technological space, here and now. This is a component of social movements in general, but can also be seen as a kind of media and technology activism with its own specific dynamic (a connection examined in more detail in the interview with Stefania Milan). The best-known example of a new media structure emerging from social movements is *Indymedia*, which not only opened up enormous new media opportunities for the anti-globalization movement, but also preceded the broad boom of the blogosphere. There are also examples in the area of social networks, such as the Spanish *n-1/Lorea*, which is closely examined in the interview with Florencio Cabello. At both levels, privacy and data protection play an important role, but are by no means the only factor.

The important question of *how to reach a wider public* was undoubtedly also of great relevance to *Indymedia*, which was later far surpassed by social media in terms of reach. The result of implementing capitalist exploitation contexts on the World Wide Web (triggered primarily by the Dotcom crisis in the early 2000s, and its reaction, the concept of *Web 2.0*), social movements and sub- and counter-cultures today face the self-contradictory, almost inevitable, unsatisfactory situation of having to give commercial platforms such as *Facebook* and *Twitter* an essential place in their media and technology mix.

To completely renounce tools like *Facebook* or *Youtube*, as Stefania Milan addresses in her interview, would ultimately mean a relapse into the situation of the 1990s, when mass media largely still dominated. At that time, social movements were mostly ignored, silenced, or reduced to exotic spectacles. The *reach* is in itself a potential that hardly makes it possible to get past *Facebook*. But, as mentioned in the interview with Florencio Cabello, *Facebook*'s importance cannot just be reduced to that. Politicization processes also take place in many areas of *Facebook*'s platform, which, at the same time, form raw material for the formation processes of social movements. Dissatisfaction with a situation obviously leads to the exchange of ideas with other people in the same situation, on platforms used as widely as possible—for example, in a *Facebook* group—whereby, in a positive case, individual isolation can be overcome, and dissatisfaction can develop into political criticism and resistance. Often, the large reach and presence of *Facebook* also means that groups can grow very quickly, as in the permanent fluctuation of residents in college towns.
As obvious as the advantages of the large platforms are, their inherent problems are just as apparent. This was also the case in the wake of the euphoric hype of the *Facebook* and *Twitter* revolutions in connection with the protest movements from the Arab Spring, 15M in Spain, and the Occupy movements. The hype that had arisen for various reasons, from media optimism and vague knowledge of the local situations, to precisely crafted narratives, was very soon followed by critical analyses. These not only refuted many myths, but also revealed the contradictions between social and protest movements and the large social media platforms, as shaped by exploitative capitalist interests.

In addition to the obvious problems (blocked accounts, deletion of activist content, passing on data to governments), arising structural contradictions were criticized, such as, for example, the platforms' orientation towards individualistic networking, as opposed to the importance of collective levels in social movements, or social media's specific structuring of time and attention. For example, Thomas Poell and José van Dijck note in their text on social media and new protest movements the question of *personalization and virality,* that "the interactions and interests that tie dispersed social media users together to form protest movements, generating instant moments of togetherness, tend to dissolve when social platforms algorithmically connect users to the next wave of trending topics. Alternative media are technologically and intellectually designed to sustain interest in particular social and political issues and to build communities and public around such issues. By contrast, on social media there is a constant tension between community building and commercial interests and strategies. Many of the major social media platforms, on the one hand, invest in the development of community features. *Facebook* groups and pages are a prime example of this. On the other hand, to sustain their structural commercial appetite for online engagement, these platforms also continuously introduce the next set of topics that satisfy user interests, whatever these interests might be" (p. 11).

Comparatively, the best option at present is to use *Facebook* and the other major social media platforms without suppressing their problematic aspects, but simultaneously to develop a parallel critical awareness and discourse. In the details, these solutions may take many forms, but movements typically tend either to develop their own media for *internal* communication and organization, or to use alternative technological solutions, while maintaining a presence on commercial platforms primarily for "outward" communication. In doing so, and beyond the contradictions already mentioned above, the media level tends again and again to reproduce a boundary between *inside* and *outside,* which could easily be dissolved by the structure of social network sites, and which is undoubtedly counterproductive for many political contexts.

Just how precarious are the specific form of *public spheres* arising from *Facebook*'s private space (as Stefania Milan explains in her interview), is noticeable beyond the realm of activism. Jessa Lingel, for example, a researcher in the media practices of counter-cultural 'communities', reports that drag queens and members of body modification communities run the risk of being confronted with account lockouts and deletions, due to reports by other users or identification by an algorithm. Lingel's interlocutors "found it frustrating that *Facebook* claimed to want its users to express themselves and document their lives only to censor those expressions through policies that demand normative identities" (*Digital Countercultures*, p. 126).

At the end of 2017, media organizations in six countries, including Serbia and Slovakia, were faced with the degree of dependence one enters when maintaining relations with their public mainly through *Facebook*, when *Facebook* launched an experiment that allegedly responded to numerous user requests, reserving the news feed exclusively for friends' posts—and, of course, for advertising and promoted content. Other postings were banished to a second feed called *Explore*. Numerous media outlets were confronted with an unannounced overnight decline in their volume of hits. That the experiment did not continue in this concrete form does not change the precariousness of the *public spheres* here, which in these cases did not fall victim to an act of censorship at all, but simply got in the way of a step towards maximizing profits.

Upon closer look, the use of commercial social network platforms—even in combination with alternative tools—proves to be quite problematic. The reasons for this are not only the familiar problems with data protection, but also structural incompatibilities, and medium-term uncertainty. This applies not only to social and protest movements, but also to initiatives that develop critical public spheres, as well as to sub- and counter-cultural contexts. In these fields, concepts and practices related to media and technology should not be limited to developing local solutions aimed at the immediate pragmatic management of their own situations. Rather, with the greater environment in view, they should reflect their own positions and participation in network capitalism, and further develop the prefigurative elements of their own actions.

Another Imagination

In her interview, Ramona-Riin Dremljuga shares findings of her research on *partial disconnection,* focusing on people who have abandoned one or more social media accounts in order to stay in touch with their friends using other existing accounts, or with older media such as the telephone. These processes were varied, but in all cases far more positive than expected, in spite of prevailing opinions. For Dremljuga, one of the most interesting points was that in their interviews, even these subjects, with their range of completely different experiences, did not contradict the typical attitude, still echoing it reflexively: they risked missing out, losing friends, passing up important events, and so on. According to Dremljuga, the idea that closing a social media account represents a loss is deeply anchored in us.

According to Stefania Milan, however, social reality cannot be changed without a change in imagination, above all in developing the capacity to see not only the status quo, but also the alternatives. After over twenty years of the incessant rise in the influence of neoliberal capitalist contexts on the Internet, many technical solutions, practical uses, and interpretations of new media and technologies now seem to be the only options. If one of the central tasks of critical research is to work out alternate lines of history, this seems to have intensified in recent years with the increasing impression that there is no alternative to platform capitalism.

Therefore, an important line of inquiry leads to the history of cybernetics, as a constellation dating back to the period after the Second World War. In his text *"Vergessene Horizonte"* [*Forgotten Horizons*], Simon Schaupp suggests the concept of *cybernetic capitalism* in order to show "that the current form of cybernetization is by no means a neutral technological development, but is politically charged [...]. This is expressed on an ideological level, in the fusion of the cybernetic concept of self-organization with the neoliberal concept of the self-regulated market, and, simultaneously, in an expansion of capitalist access to labor through the establishment of cybernetic control and regulatory technologies" (p. 51).

According to Schaupp's analysis, "cybernetic control does not necessarily have to mean cybernetic capitalism" (ibid.). To this end, it reconstructs visions and concrete attempts to implement a "cybernetics of liberation" (ibid., p. 52). Two of these approaches, the Soviet cybernetics of the early 1960s, and the *Cybersyn* project launched in Salvador Allende's socialist Chile, conceived by management theorist Stafford Beer, can be seen against the background of a dialogue between the forefathers of neoliberalism, Hayek and von Mises, and left-wing economists like Oskar Lange. Neoliberals saw no form in which the collective could act or express its wishes other than the market. A socialist economy was condemned to inefficiency from the outset, because it could not coordinate supply and demand without a pricing mechanism.

The left counterargument suggests that the market cannot be efficient, because it is not simply concerned with coordinating supply and demand, but with extracting profits. Technological possibilities for data exchange and storage, as well as information concepts such as cybernetics, were therefore viewed early on as potential ways to organize coordination of supply and demand differently. In the two practical cases (*Cybersyn* and Soviet cybernetics), which took place in very different contexts, there were strong elements of central planning and control, but also approaches to local self-organization of the workers.

Neither of the two experiments could sustain long-term development—in the Soviet Union the mechanisms were soon again subordinated to strict top-down control, while Chile was transformed into a bloody dictatorship and a laboratory of neoliberalism after the fascist military coup under Pinochet—but they remain examples that form a background, for instance, when Benjamin Bratton develops his complex concept of the platform. "Platforms are formally neutral but remain, each and every one, uniquely *ideological* in how they realize particular strategies for organizing their publics. They are identified with neoliberalism (not without reason), but their origins lie as much within the utopian megastructures of 1960s' experimental architecture,

counterculture cybernetics, Soviet planning schemes, and many other systems of sociotechnical governance, both realized and imagined" (*The Stack*, p. 46).

The above-mentioned topic of alternatives to market coordination options appears again and again—even today, and sometimes even within network capitalism itself, as when, for example, William Davies develops the interpretation that social networks and social media could be part of a "revenge of the *social*," the reappearance of collective coordination prospects beyond the market (even if Davies himself sees it resulting in a current form of social subordination to the logic of neoliberalism).

Similarly, there are a variety of historical lines that call into question many other points of the hegemonic neoliberal technological narrative. For instance, the *Minitel*, which was created in the 1980s without a revolutionary intent, is an example of a network developed directly by a state—specifically, the centralist and relatively dirigiste France—disregarding the neoliberal prejudice that this would result in the loss of all "freedoms." Another of many small examples is the history of the enforcement of the TCP/IP protocol, on which our networking is still technically based. TCP/IP was not, from a purely technical standpoint, the best protocol par excellence, but it could best solve the problem of a neoliberal situation striving for the widest possible networking, while the IT companies were stubbornly sticking to their own standards.

Finally, Douglas Rushkoff's already quoted book also raises an interesting point with regard to today's problem, that the development of larger Internet projects incurs such high costs as to hardly seem feasible without venture capital. Rushkoff looks back to the mid-1990s, when the stock market was looking for new investment opportunities after the 1980s biotech crash, and discovered the Internet waiting to be commercialized, spurring an influx of investment capital that was hardly necessary, since "three hackers in a garage were capable of building most online businesses for a couple of thousand dollars in pizza" (*Program or be Programmed*, p. 92). The dot-com crash was a consequence of this attitude, and probably also the starting point for the implementation of investment interests.

Even considering the most central current area of criticism on *Facebook*—privacy and data protection—it still seems helpful to look to other imaginings. For years, this topic has not only been the focus of much media discussion, but also the subject of much research. The theoretical problematization of privacy within the context of digital technologies dates back at least to the 1960s. Particularly when viewed in a larger context, the way the problem is dealt with remains exceptionally heterogeneous and contradictory.

By 2017, criticism of the large commercial platforms and their business models had already spread from technical discussion niches far into the mainstream. The Cambridge Analytica scandal of March, 2018 could have been anticipated as the proverbial straw that breaks the camel's back. Yet, while this text was being finalized in May, 2018, any reverberations seem to have remained in media discourse, and on the formal-political level of hearings, hardly reaching the practices of Internet users. It must remain unresolved, the extent to which this public impression has been (co-)constructed by *Facebook*'s PR machinery, as well as the as yet unanswerable question of medium-term effects. In any case, however, the gap between the level of discourse and usage behavior becomes apparent again. On the level of discourse, the more critical media public, and to a certain extent also the verbal statements of users, seem to follow data protection activists and experts, who see privacy, data protection, and surveillance capitalism as currently one of the most fundamental problems of the Internet. At the same time, at the level of user behavior, hardly anything seems to be less important, to many.

In a scenario that to a certain extent has already become reality, in which loans, jobs and residence permits are rejected due to Internet profiling, psychological problems or illnesses are recognized without the knowledge of those affected, and the receipt of social benefits can be obstructed, it is obvious that the question can no longer simply be dismissed as irrelevant to everyday practice. When voters are obviously

manipulated—presumably not only in the much-discussed cases of the Trump election and Brexit—the issue far exceeds *privacy*. Furthermore, the slogan that those who have nothing to hide have also nothing to fear, a ploy with which those who sell user data for billions in profit have long tried to steer the discussion into dead ends, at last no longer applies here. The problem, that I may be manipulated during an election campaign, due to the data collected and algorithmically evaluated in a much more effective way than with traditional advertising and PR strategies, has nothing to do with whether or not I have something to hide.

According to Vladan Joler's interview, technical solutions cannot truly protect the private sphere, under the given conditions. Against this background, we also need to change our practices and methods of resistance. In this context, the aforementioned gap in this area between discourse and practice seems to be an essential point. The low attention the problem receives in many users' practices should not be attributed primarily to a lack of information or awareness of the problem, or to psychological factor, such as the lack of direct perceptibility of the resulting disadvantages. Other factors should be examined instead, including the process through which protecting privacy was reinterpreted from a human right, to a good that can be traded or exchanged, remarkable in its short-term nature alone. Here, current discourses to follow deal, for example, with the algorithmic *administration* of poverty, thus raising the classic question again today: to what extent have the lower social classes always been excluded from the right to *privacy,* and what does this mean for our current context?

In the context of social media and social networks, the significance of *privacy,* as the innermost retreat of the authentic self, has changed into an image of non-participation in the social networks, which points to long-standing lines of thought: "The concept of the private always carries the deficiency, the lack, the state of being deprived. In antiquity it was a lack of office, a lack of public sphere, a lack of possibility for political agency" (Gerald Raunig, "Dividuen des Facebook," p. 156).

An important point for practical approaches to further development here is a certain detachment of the issue from the concept of individual privacy. This occurs not only in the defensive manner often suggested by critical discourse, but also in the larger context of playing with *identities*, their multiplication and dissolution, including *blurring* the boundary between collective and individual levels, such as in some practices of *obfuscation*, or in the use of collective, multiple, or other forms of names separated from a particular identity.

Collective levels can become productive here in very different ways. One example is this transition derived by Jessa Lingel from practices of counter-cultural communities. "Looking at norms of secrecy and shifting from the individual notion of privacy to the collective practices of secrecy can provide a new perspective on collective tactics for controlling information in the contexts of surveillance and monitoring" (*Digital Countercultures*, p. 18). The relationship between collectivity and privacy is conceived in a completely different way, for example, in a proposal for a digital network's software architecture in which the group members are directly networked with one another, and only group-level aggregated data is exchanged with a server, so that the data of the individuals is no longer visible at this level.

Collective Individuation / Dividuation / Community

The "individual," as a model of each person, plays a central role in the power constellations and functioning of (neo-)liberal capitalism and the modern state. Historically developed in direct association, numerous mechanisms and institutions aim to construct and stabilize the unity of the individual on a societal level.

Affects, rhythms, gender, communication flows, present, future, past, and interrelationships on different social and psychological spectrums align and bend towards this scale of the "autonomous individual." To it are attributed the origins of actions. It is set as the location of responsibility, deeply entangled with the construction of the competitive conditions that are so important for capitalism.

In the context of new media and technologies, the individual has a general counterpart in the construct of the user. More specifically, hardly any other form focuses on the individual more obviously than the commercial social network platforms (reinforced by their combination with the smartphone). They simultaneously offer us and ask us to emphasize our individuality through profiles, status updates, and uploaded selfies, to express our preferences in the form of likes, to quantify our social success and outdo each other in our numbers of friends and followers, and to use real names instead of playing games with multiple potential "identities" and pseudonyms.

This aspect of commercial social networks is often neglected when criticizing and developing alternatives. This is rooted in a variety of causes, often relating to an impulse to set "the individual" as the polar opposite of the Internet companies—and often, more generally, of institutions, the state, and so on—and to protect against their encroachments. Here, liberalist or even right-wing libertarian world views may come into play, or sometimes concepts may just not be sufficiently developed. Simply counting on the other polarity is not enough; overlooked is the need to instead hypothesize from a different "equation," a different understanding of individuals and their relationship to the collective level, the multiplicities within the self itself, and its changes in time. In practice, this often means it is not enough for an alternative to differ from *Facebook* only in its protection of privacy, and its financial independence from the valorization of user data.

However, focus on the individual goes deeper than this, and is already directly anchored in the theory of the social network. This theory, developed by psychosociologist Jacob L. Moreno, significantly also implying a transition from primarily analytic to primarily interventionist social modeling, has become ubiquitous in recent decades, above all through its familiar visualization in diagrams of nodes and links. As Yuk Hui and Harry Halpin explain in a text directly related to the major platforms and their alternatives, the theory of the social network—despite all its emphasis on the social level and on network-level phenomena—is based on a social atomism. The individual is always presupposed. In this model, the node cannot be an effect of the network, only its prerequisite. The collective level ultimately only appears as a form of accumulation of individuals, so the complex dynamics between individual and collective levels cannot be adequately grasped.

In order to avoid this methodical individualism, alternatives must be found here, at the level of theoretical concepts. One possibility lies with a sufficiently complex theory of the collective. Hui and Halpin follow the theory of psychic and collective individuation of philosopher Gilbert Simondon in the above-mentioned text. Simondon does not assume a kind of developmental process resulting in the stable unity of the individual, but conceives individuation as a fundamentally unresolvable process. He defines the background from which this process proceeds with the concept of the pre-individual, which is located on three levels: the biological basis of the species (sensory organs, locomotor system, perceptual performance), natural language and historically determined prerequisites, and, finally, social production as a kind of joint activity, in the broad sense. In the process of individuation, this pre-individual can be partly transformed into individual, but never completely; there is always a remainder of pre-individual components within the subject. Some elements are therefore inaccessible to individuation, while some are accessible to psychological individuation, and others exclusively to collective individuation. Thus, Simondon does not construct the individual and the collective as autonomous units (which could then be contrasted with each other), but rather constructs individualization processes that take place on different levels.

Against this background, Hui and Halpin find it insufficient to concentrate only on the question of how collectives, such as *Facebook* groups, emerge from individuals. It is more relevant to create levels for collective individuation within technological settings. At the most general level, they describe this as enabling projects. "A project is also a projection, that is, the anticipation of a common future of the collective individuation of groups" (*Collective Individuation: The Future of the Social Web*, p. 15). Specifically, they refer on the one hand to the integration of groupware, tools for cooperation, such as for the collective writing of texts, as was also implemented at that time in the *n-1/Lorea,* which Florencio Cabello mentions. In their proposals, Hui and

Halpin also go beyond this, for example regarding the idea of tools for collective processing of videos, and virtually all other forms of data (thus implicitly also including leisure and entertainment levels). They also propose, for example, that certain features should not be made accessible to individuals, but only to groups, and that rooms should not merely be defined as open, but that the groups should furthermore have the ability to determine, for example, access control, or the time schedule when their project is accessible.

"Is it possible to imagine contrasting the individual less with the communitarian, the collectivist, the community," asks Gerald Raunig in his book *Dividuum*, "and instead with the positive of the negative that is linguistically depicted with the concept of the in-dividual?" (p. 16). To question the individual in terms of (in)divisibility would be the second approach. Raunig follows the sporadic history of the term "dividual," from antiquity, to the medieval philosopher Gilbert of Poitiers, to Nietzsche, Foucault, and Deleuze, and also makes it productive in the analysis of new media and technologies, including social media and social networks (specifically using *Facebook* as an example), and big data.

Raunig's approach differs from that of Hui and Halpin, not just in his perspective on divisibility, but also in the different window it opens up on the current situation. He does not simply compare the prevailing practices of network capitalism and its implicit concept of the individual with a different model, but further analyzes the dissolution of the individual already present in "machinistic capitalism"—parallel to the invocation of the individual at other levels. In this, he leads us to concrete points where resistance can begin. In connection with *Facebook*, this is, for example, in an analysis of the obligations of confession in social media, against the background of Nietzsche's reading of Christian morality as self-division (superiority of one part of the self over another), or the aforementioned analysis of alleged deficiencies of privacy. In the context of big data, the resolution of the individual into dividual data streams is observable in the processes described in Vladan Joler's interview, for example, in which algorithms generate assignments based on countless data points, beyond what is logically comprehensible for humans. For Raunig, however, the dividuality of social media, big data, and their derivatives also provides starting points for a social turn of the dividual.

The two approaches of Hui and Halpin and Raunig cannot simply be combined—certainly not as a combination of supposed micro- and macro-perspectives—but together, they offer a broad spectrum of starting points for practical considerations.

In my research I have mainly oriented myself to these two approaches, and have at the same time tried to leave the problematic concept of "community" out of the equation, or rather, to leave it alone. That is, in English, of course, it is increasingly used in a more everyday sense to refer to collective formations that arise from a focus on a certain topic, or certain attitudes and ways of life, such as the *body modification community* already mentioned in examples. It has become increasingly clear in the course of research and interviews that "community" is by no means reduced to this function of superficial labelling, but that it continues to play a central role in some scientific approaches, and that in many network public spheres, it is mainly used to refer to collective formations of various sizes. This can range from the local Arduino community of a certain city, to the community that jointly develops a certain open source software, to the community category for awarding top-level domains, and even to the global blockchain community.

For the politically problematic aspects of the term, the philosopher Jean-Luc Nancy, who is still misunderstood as a proponent of the communitarian and the community (*communité*), found clear words when he distanced himself from his own previous position of twenty years earlier, in a text published in 2001. "I could see from all sides the dangers aroused by the use of the word community: its resonance fully invincible and even bloated with substance and interiority; its reference inevitably Christian (as in spiritual, fraternal, communal community); or more broadly religious (as in Jewish community, community of prayers, community of believers or umma) as it is used to support an array of so-called ethnicities. All this could only be a warning. It was clear that the emphasis placed on this necessary but still insufficiently clarified concept

was at least, at this time, on par with the revival of communitarian trends that could be fascistic" (qtd. in Raunig, *Dividuum*, p. 83). Gerald Raunig sees a second problem in close connection with this, concerning the bond between the community and the individual, which is not merely etymologically based on guilt and obligation. "In this respect, community can never be understood as surplus, as multiplying division, as alliance and gain. Rather, the logic of debt and obligation results in limiting singularity, in giving over, giving up oneself. Community is grounded on sacrifice and debt, relinquishment, rendering, surrendering. The band, the binding, the bond decreases singular capabilities. In the desire to become more, community implies becoming less" (ibid., p. 84).

It can be assumed that more or less superficial concepts of "community," similar to the matrix of social network theory, form an obstacle to sufficiently complex conceptions and realizations of collective levels, which, unlike in social network theory, are increasingly crucial for alternatives. As a theme, the "community" has a long history within the context of digital networking, going back at least as far as Howard Rheingold's famous book *The Virtual Community*, published in the early 1990s. It forms a matrix on which self-organized Internet collectives have often oriented themselves, and on which they continue to do so. It is therefore not only linked to various strands of enabling, but also to the prevention of collective levels. In this area, then, the term can neither be put to one side, nor used uncritically, without further elaboration.

Alternatives in Practice

Alternatives to commercial social network platforms are usually sought through two different approaches. We encountered one of them in the section on social movements above. It starts by taking the concrete practices of users, at individual or different collective levels, and examines, for example, the mix of technologies and media that specific groups develop in order to realize their communicative, organizational, political, and cultural strategies, under the conditions of network capitalism. Because of this approach, it is sometimes claimed to be a bottom-up method, the opposite of technical determinism. *Tactics* are sometimes contrasted with *strategies*, following the theories of Michel des Certeaus. Whereas *strategies* are assigned to powerful actors (like large institutions) who strive to determine the structuring of space and time, *tactics* are seen as the tricks, ploys, and schemes of those who (must) cope with this pre-structured terrain.

The second approach, which we will look at in more detail in this section, questions how technological infrastructures should be changed, and what other technological solutions could be developed, such as one's own social network site, based on different principles than the major commercial services. Here, real alternatives—projects that develop fundamentally different structures, functions, and forms of financing—have to be distinguished from competing products, which often position themselves in response to the most common points of criticism against *Facebook*—such as its manipulation, advertising orientation, and lack of data protection. The distinction here, in some cases, is not as clear as one would expect. In particular, in their initial phases, projects' structural developments and business models are often not yet exactly known.

One borderline example is *Ello*, who disappointed users in the critical network scene after promising not to bother them with advertising, or to sell their data. Although this was implemented, the overall network as an alternative was not conceptually convincing. At the beginning of the research for this book, I was also confronted with similarly difficult-to-assess phases when I investigated blockchain- and cryptocurrency-based social networks, which were very topical at the beginning of 2017. Blockchain and cryptocurrencies are undoubtedly areas at the center of (often controversial) contemporary discussions on decentralization, which is why an extensive interview with Jaya Klara Brekke is devoted to this topic in the book. The social network project *Synereo*, which, in my opinion, was at the time already politically ambivalent, though in some aspects conceptually promising, seems to be in a conceptually uninteresting phase for our inquiry, in that it primarily deals with micro-payments for content and curating. Products which merely compete to replace *Facebook*, or

which are resistant even in only a few aspects, could have a positive effect in relativizing *Facebook*'s monopolistic position, if successful. *Facebook* has effectively withstood this so far, however, by employing a strategy of either purportedly buying competitors outright (*WhatsApp, Instagram*), or, where unable to do so, by simply copying their most interesting features, as in the case of *Snapchat*.

The assignment of individual projects may seem unclear at first glance. This was the case with the private-sector messenger app *FireChat*, which had a certain significance in 2014 Hong Kong demonstrations because of its mesh network capability. It is able to establish a network from direct WLAN and Bluetooth connections, from mobile phone to mobile phone, and is therefore only partially affected by internet outages. For networks specifically oriented towards social movements—one example of which, the Spanish *n-1/Lorea*, is discussed in more detail in the interview with Florencio Cabello—the distinction is normally clear from the context anyway.

Many components have been identified as essential for alternative projects that are useful for the assessment of alternative social networks, but are primarily intended for the development of individual projects and practices. In a summary of some of the most important points from practice and literature, as well as from approaches already mentioned in this text, development should be considered in concrete relation to and at least partly together with the users, in a fundamentally unresolvable process, perhaps most succinctly captured by the expression *permanent sandbox*. Developing an attitude towards the question of *user-friendliness* is essential, regarding the tension between consumer criticism and radical openness towards non-specialists. I have already mentioned the development of levels at which processes of collective individuation can unfold. This also includes the development of tools for the cooperative processing of the widest range of data formats possible (such as text, video, and visualization) and the attempt to combine functionality and decentralization. A form of data protection not based on the liberal model of bourgeois privacy, supporting the use of pseudonyms, play with *identities,* and the dissolution of boundaries between individual and collective levels, is also crucial. Another central issue is financing, which cannot be based on investors' risk capital (and corresponding illusions about the future of commercial start-ups), but which, conversely, should not ignore the economic level and thus operate on the basis of sheer self-exploitation. Environmental compatibility has once again become a highly topical issue, due to the excessive environmental impact of the *proof of work* method of Bitcoin and other cryptocurrencies. Many other factors should be touched on: low tech, pedagogy, the forgetting of data, refusing certain popular features from commercial platforms, developing strategies against a bias toward primarily equal linking (of educated with educated, urbanite with urbanite), and more.

The so-called *Federated Social Web* again provides an interesting context for such projects. This approach has been pursued for a relatively long time, though, after a phase of greater activity and wider resonance at the beginning of the 2010s, it became quiet for some time, until a recent noticeable upswing. The basic idea of the *Federated Social Web* is often illustrated—for example in the interview with Florencio Cabello—by a comparison with how email functions. Email would be virtually unusable were it not possible to send messages from one platform to another. Users would for example have to set up Gmail accounts to exchange messages with their friends with Gmail accounts. From a usage perspective, it seems quite absurd that in the world of *Facebook*, *Twitter* and *Google+,* such artificial restrictions actually exist.

Of course, this is related to business models, including the monopolization efforts mentioned above—resulting in far more beyond the mere inconvenience of multiple parallel accounts. If, for example, Danah Boyd has worked out that users of *MySpace* and *Facebook* can also be clearly recognized as members of different social classes in the USA, this makes mutual isolation all the more problematic. Another example is Jessa Lingel's assessment that such separations would even make visible the limits of the non-rivalry of data (meaning that use in one instance does not preclude the simultaneous use by someone else). For example, in the body modification community, media behavior initially developed through both posts on *Facebook* and *Instagram* and the community's own social networking site, IAM, but later moved exclusively to *Facebook* and *Instagram*.

The *Federated Social Web* thus pursues the goal of equipping social media with exchange possibilities, such as with email. One initial foundation for this was the development of technical standards to enable this exchange. As a result, there is an important role to be performed by the World Wide Web Consortium (W3C), the World Wide Web standards organization, which works with open groups to develop such protocols. The processes unfortunately unfold within a limited framework, and the potentially continuous work is not very easy for outsiders to follow. Although everything is designed for *transparency*, supported, for example, by the publication of meeting minutes, it is not accessible for non-technicians. Since different groups are in the process of replacing each other, I had the impression at the beginning of my research that these activities had been discontinued in the meantime, while, in reality, there was probably just a lot of activity with the completion of the *ActivityPub* protocol, which finally received official status in January 2018, and represents more than a significant share in the current boom of the *Federated Social Web*.

I would like to take the example of the social network in this area currently receiving the most attention, and discuss some aspects of the *Twitter* alternative *Mastodon*, founded in 2016. Since the spring of 2017, it has received broader media attention. In order to discuss more general perspectives on the *Federated Social Web,* I am concerned specifically with instances and communities, with heterogeneity, as well as with the characteristics of networks that have fewer users. In fact, *Mastodon* is only used as an example of the developments in general, and the Federated Social Web in general, while it is not the intention to look at what distinguishes Mastodon e.g. from *friend.ca* or *GNU Social*.

The basic format of *Mastodon* is its messages, or *toots,* which, unlike Twitter's, are not limited to 140 but 500 characters. Unlike with the proprietary platforms, on a network like *Mastodon,* the user does not face a homogeneous entity owned by a single company, but rather many independent servers, or *instances,* which are interconnected (and connected beyond *Mastodon* to servers using different software, based on compatible exchange protocols). The roles of these individual instances changes with the various networks in the *Federated Social Web*. Sometimes, selecting a server to set up an account with mainly concerns how trustworthy one thinks the server is, both in terms of data protection and technical stability (specifically, the question of how often the server is offline). With networks such as *Mastodon* however, the instances also basically have the characteristic of being "communities."
This is quite different from one individual instance to another. Some are oriented towards specific communities and/or themes, while others see themselves as "universal." Each instance essentially has its own code of conduct. As can be seen in wider contexts, such rules are fundamentally ambivalent. However, there is at least the possibility that joint rule formulation can become a vigorous phase in the institutionalization of collective contexts (which, in principle, remain open-ended). As with thematic orientation, this can be very important for some instances. Other instances manage by copying the rules users have discussed for the most prominent one, mastodon.social, and adapting them if necessary. There is a risk that reproduced content can be reduced to rampant, catchphrase-like platitudes. Nevertheless, it is necessary to develop good copy templates on the current web, where commercial platforms have also been found to have captured *theme leadership*, in the sense that small projects are increasingly copying Internet companies' "Terms of Service"—a very different kind of document, of course.

Even in universally-oriented instances, the unity of instances is present in everyday use. Thus, three different streams are accessible in the interface of *Mastodon.* Apart from the usual (chronologically, not algorithmically-generated) order of the *toots* stream of followed users, there is also a *local timeline* with all messages on the current instance, as well as the *federated timeline.* The latter again also relates to the current instance, since here not all messages are displayed, only those of users known to the current server, as a consequence of at least one user in the current instance following them.

The fact that everyone has the opportunity to set up his or her own instance has also led to a broad differentiation of content. Among over a thousand instances, there is the academically oriented scholar.social, or the art instance mastodon.art, as well as many other, often interesting instances, some of which remain somewhat opaque. For example, witches.town, a primarily French-speaking instance that, according to its own definition, primarily addresses queers, feminists, and anarchists, around whom myths entwine, only permits subscribers to register at the witching hour. Another example is anticapitalist.party, whose homepage explains: "Party means fun, not political party. But we're still political." There is not much more information available at the moment, other than that the instance is currently closed to new members after having accumulated more than 1,400, and that registration is only possible using codes from friends who have already joined. Other examples are coop.social, a group organized as a cooperative, or switter.at, where sex workers set up their own social media instance in the spring of 2018, after changes in US legislation and the resultant problems with the major platforms.

One-person instances are also possible. This is also a structural transition to another current approach within the *Federated Social Web* that is driving *decentralization* one step further. It assumes that the alternative to proprietary platforms is not another platform, but *something other than a platform*: in this case, *Federated Personal Websites*. Here, a single user account is isolated from the usual context of a platform and set as an independent unit that, like any other website, can also be reached at its own Internet address. This website can be expanded further, and may integrate many features beyond social network functionality, such as email accounts, cloud storage, and so on. This approach certainly holds interesting potential, although care must be taken to prevent this from developing into another atomistic paradigm. Other projects also extend beyond social network sites, working instead on tools aimed at decentralization, which connect to the *Federated Social Web* through the aforementioned *ActivityPub* protocol. A couple of examples are the tool *Dokie.li*, which specializes in collaborative writing, commenting, and publishing, and the video tool *PeerTube*.

What these few examples already show is the heterogeneity of the *Federated Social Web*, which can also be viewed in opposition to the movement of proprietary social networking sites towards increasingly streamlined designs. This development was already apparent—as the interview with Vladan Joler demonstrates in a somewhat broader context—in comparing *Facebook* with the platform *MySpace*, which had previously been dominant. While *MySpace* users still had the opportunity to design their respective pages specifically with HTML, which many did extensively, *Facebook* presented each and every user with the same firmly structured white field, increasingly limiting the possibility of action, in alignment with developments in the field of data collection and advertising.

In her standard work *The Culture of Connectivity*, José van Dijck refers to the early years of *Facebook,* when they were still more focused on exchange between users: "*Facebook*'s interface, as British researcher Garde-Hansen observed, was presented as a database *of* users *for* users where 'each user's page is a database of their life, making this social network site a collection of collections and collectives.' [...] Content diversity allowed users to appropriate the site to suit their own purpose. Over the course of several years, the platform's owners clearly strove toward more uniformity in data input and began to introduce specific narrative features in the interface—a transformation that culminated in the implementation of Timeline in 2011. [...] *Facebook*'s new content architecture smoothly integrated the principle of narrative with the principle of connectivity. Apart from the fact that the narrative structure of the site's interface renders users' content presentation more uniformly, the architecture also streamlines user input of data, thus facilitating data management and enhancing the application of algorithms. For instance, unified data input makes it a lot easier for companies to insert personalized advertisements for diapers in the Timelines of women with babies and toddlers." (p. 54, 56)

Against this background it becomes clear that the diversity of communities is only one layer where the *Federated Social Web* offers much greater heterogeneity, in a positive sense. It by no means aims to control user behavior, and, of course, it also offers users much more comprehensive possibilities for action than the

old *MySpace*, which appears so unregulated compared to *Facebook*.

So far, many interesting projects have sought to provide alternatives to the large commercial platforms, but most have failed because they were unable to reach or retain a sufficient number of users. In light of this situation, it is interesting to view the *Federated Social Web* as a whole. It may continue to grow steadily to a certain extent, independently of the fluctuating success of individual projects. Its dynamics are not primarily shaped by whether a single alternative platform succeeds or fails, since competition from *Facebook* or *Twitter* is so overwhelming. *Mastodon* gives the impression that, in the meantime, some elements have been developed that accentuate the qualities of small networks, making it conceivable that the project could function and be interesting for a longer period of time, even on this scale.

In contrast to the larger platforms, the three streams mentioned above can also be viewed as opportunities for small networks to absorb potential disadvantages. When a user has only found a few accounts to follow, the larger streams may offer a more dynamic experience. For smaller instances, when the local timeline feels somewhat empty or slow, users can switch to the federated timeline. Smaller size also has other advantages. On the larger platforms, users may feel themselves increasingly maneuvered into filtered bubbles and narrow user circles. As one further refines the flow of incoming information to one's own interests—in order to avoid getting lost in the noise of too many messages, and to perceive an ever smaller section of reality— local and federated timelines open up again to a much wider spectrum.

The experiences of users who partially give up their social media accounts, as reported by Ramona-Riin Dremljuga in the interview, show that threats of complete exclusion prove to be overstated. Additionally, the information-theoretical fact that network efficiency increases exponentially with size does not determine the network at all levels. On the contrary, especially at the level of user experience it often creates overload, blockades, a feeling of senselessness, and more. Many advantages of small networks become visible against this background.

The conscious decision to remain small and establish a permanent niche for oneself should not be argued for here. However, developments should not be forced into the opposite dynamic, either. A few years ago, alternative and competing projects were still sometimes referred to as "*Facebook* killers," and it's certainly a good idea to put an end to the narrative of either gaining a certain market share or being considered a failure within a certain time period. The *Federated Social Web* is not a single project, and therefore holds a range of continuous potential developments, despite its ups and downs. Moreover, it is not a competitive product that must enter the profit zone at a certain pace in order to justify capital investments. With its variable growth rate, it can take advantage of the many benefits that small niches offer.

The *Federated Social Web* represents first and foremost the possibility of an open technical infrastructure. In a positive sense, this is not only a "purely" technological approach, but a counter-model to network capitalism in its current institutionalization, monopolistic platforms aiming to retain users as permanently as possible in their fenced-in areas (or "walled gardens") in order to make, among other things, profits on the basis of the data this generates. In the broader sense, however, this is the mere enabling, and not yet the shaping, of an alternative technical infrastructure.

There are many more possibilities, not only to work for free spaces within and without network capitalism, but also to overcome the atomism of the social network matrix, to develop new opportunities for cooperation, and to encourage playing with different identities and levels. However, in a defensive sense, openness alone is not enough. The fact that both emancipatory projects (in the most general sense) and right-wing groups are interested in alternative networks is not the only potential problem these days. A broad range of new challenges will foreseeably emerge when the *Federated Social Web* crosses the size threshold for remaining interesting, beyond which it will then become a target for the advertising industry, PR agencies, software

company services, election campaign machinery, troll farms, fraudulent bots, and, last but not least, competitive self-promotional needs at the level of individual users.

The briefly discussed *Mastodon* is an example of this shaping through code and interface, by specifying software use through license provisions, shaping instances through themes, "communities," and codes of conduct, and creating resilience through small moderated units, with all of these moves made in interaction with various levels of concrete user activities. The aforementioned dokie.li, and the forms of cooperative writing, commenting, and publishing it provides or enables is another example.

In essence, options for intervention and participation in the *Federated Social Web* are diverse, and by no means limited to technicians and developers. At the levels of collectivity and dividuation, instances could well be starting points. There is an essential difference between instances and the above-mentioned point that *Facebook* groups can only be collections of previously existing individuals. Since one-person instances are currently only of importance to a very small percentage of users, users do not usually join networks as individuals, but as part of a community or instance. On the other hand, the model of collectivity seems to remain very strongly attached to that of the community. This level alone reveals several possibilities for intervention and participation, however. One point, for example, is the theoretical task of a "deconstruction" of the 'online community', which aims to detach knowledge and practices developed around this model from the problematic overall concept, making them available for other approaches as well.

Another possibility, accessible to non-technicians through hosting solutions, would be to experiment with their own instances. If collectives find they have reached their limits here, cooperation with developers will probably become necessary and sensible in order to proceed. What could changes to the software enable? What are the potentials and limits of exchange protocols? What new cooperation opportunities could be created with decentralized tools?

This could *also*—and, probably with regard to some fundamental matters, *only*—be done in experimental form. However, many questions can only be answered in concrete applications. There are several active networks—some of which have been running for a relatively long time, along with currently inactive ones that could probably be reactivated—which not only could be joined by individuals and groups, but which could also be available as working tools, for the next spring, the next Occupy, or just the next micro-social protest.

Notes

Exodus. The term is dealt with in many texts by Paolo Virno. See, besides the quoted *A Grammar of the Multitude* (Cambridge, MA & New York: MIT Press & Semiotext(e) 2004), also Paolo Virno, *Exodus* (Vienna: Turia + Kant 2010).

Facebook Liberation Army Link List. A list of useful links on the website of the Amsterdam Institute of Network Cultures, compiled by Geert Lovink and Patricia de Vries, http://networkcultures.org/blog/2018/04/13/facebook-liberation-army-link-list-april-12-2018/.

Internet.org. As a brief hint, see for example: Markus Beckedahl, "Facebook liebt nur die eigene Netzneutralität," 18 April, 2015, https://netzpolitik.org/2015/facebook-liebt-nur-die-eigene-netzneutralitaet/. On the increasing importance of the Global South for *Facebook* in times of declining growth rates in the USA and Europe, especially among the youngest generations, see for example Frédéric Filloux, "Mark Zuckerberg's long game: the next billion," 16 April, 2018, https://mondaynote.com/mark-zuckerbergs-long-game-the-next-billion-af2e359e3bde.

Nodocentrism. For the concept of *nodocentrism* see Ulises Ali Mejias, *Off the Network*, Minneapolis: University of Minnesota Press 2013. "The point, rather, is that nodocentrism constructs a social reality in which nodes can only see other nodes. It is an epistemology based on the exclusive reality of the node. It privileges nodes while discriminating against what is not a node—the invisible, the Other." (p. 10) Mejias also develops a counter-concept: "We can give a name to that which networks leave out, that which fills the interstices between nodes with noise, and that which resists being assimilated by the network: *paranode*." (p. 153)

Radical Technologies. A comprehensive overview of the wider context of current technological developments and their impact on everyday life can be found in Adam Greenfield's *Radical Technologies: The Design of Everyday Life*, London, New York: Verso 2017.

Douglas Rushkoff, Program or be Programmed: Ten Commands for a Digital Age, New York: OR Books 2010. The quoted passage is in Part VII: "SOCIAL. Do Not Sell Your Friends."

Slow Computing, Slow Media, Digital Detox. While *Digital Detox* mostly seems to refer to individual and uncritical approaches, *Slow Computing* and *Slow Media* often go beyond that to critical and resistant approaches. See also the footnotes in the interview with Ramona-Riin Dremljuga. The practical tips on media and technology consumption are taken from this website: http://humanetech.com/take-control/.

Scenarios. The scenarios mentioned in the introductory paragraph, for mechanically posting, commenting, and liking see the interview with Vladan Joler. The problem of apps accessing mobile phone cameras and microphones has often been discussed in connection with *Facebook Messenger*; see https://www.verbraucherzentrale.de/aktuelle-meldungen/digitale-welt/datenschutz/facebook-messenger-zwangsapp-mit-schnueffelfun or https://www.computerworld.com/article/2491051/mobile-apps/messenger-app-users-worry-how-facebook-uses-a-device-s-phone--ca In 2012, the *Guardian* published a fictional text about a young *Facebook* user on the subject of the evaluation of data from social networks and a complex profiling of job seekers. Today, this text makes us think about whether this story, which started as fiction in the year 2018, has now become reality. Frédéric Filloux, "Facebook's Generation Y nightmare," 24 September, 2012, https://www.theguardian.com/technology/2012/sep/24/facebook-generation-y. The situation in Denmark was reported at the beginning of 2016. Mobile phones of runaway children had been removed in order to identify them: https://www.welt.de/politik/ausland/article152313401/Daenemark-nimmt-Kindern-offenbar-Handys-weg.html. Facebook conducted a controversial experiment some time ago on the issue of the spread of emotions in networks: https://www.nytimes.com/2014/06/30/technology/facebook-tinkers-with-users-emotions-in-news-feed-experiment-stirring-outcry.h

Beyond one's own social networking site. See also Anne Helmond, "The Web as Platform: Data Flows in Social Media," Amsterdam 2015, http://www.annehelmond.nl/2015/08/28/dissertation-the-web-as-platform-data-flows-in-the-social-web/.

Competition is for losers. See Peter Thiel, "Competition Is for Losers," *The Wall Street Journal*, 12 September, 2014.

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Facebooks News Feed Experiment. See also the interview with Vladan Joler about *Facebook* experiments and the references there. Short media reports can be found additionally in *The Guardian*: https://www.theguardian.com/technology/2017/oct/23/facebook-non-promoted-posts-news-feed-new-trial-publishers and https://www.theguardian.com/technology/2018/mar/01/facebook-news-feed-experiment-media-posts. Also, the criticism of the Slovak journalist Filip Struhárik is prominently mentioned in these articles. See:

https://medium.com/@filip_struharik/biggest-drop-in-organic-reach-weve-ever-seen-b2239323413.

Jessa Lingel, *Digital Countercultures and the Struggle for Community*, Cambridge, MA: MIT Press 2017.

Media practices of social and protest movements. See the interviews with Stefania Milan and Florencio Cabello and the references there. The quoted text by Thomas Poell and José van Dijck ("Social Media and new protest movements," in: Jean Burgess, Alice Marwick, Thomas Poell (ed.), *The SAGE Handbook of Social Media*, London: Sage 2018, p. 546–561; https://pure.uva.nl/ws/files/19952198/Poell_Van_Dijck_Social_media_and_new_protest_movements_2018_.pdf, p. 1–17) offers a brief overview of the current state of research. From the large number of publications and texts on the subject, see for example: Veronica Barassi, *Activism on the Web. Everyday Struggles against Digital Capitalism*, New York: Routledge 2015; Lina Dencik, Oliver Leistert (ed.): *Critical Perspectives on Social Media and Protest. Between Control and Emancipation*, London: Rowman & Littlefield 2015; Anastasia Kavada, "Creating the collective: social media, the Occupy Movement and its constitution as a collective actor," in: *Information, Communication & Society*, 18(8), 2015; Christoph Brunner, "Activist Sense: Affective Media Practices during the G20 Summit in Hamburg," in: transversal 03/18: *Technologies*, http://transversal.at/transversal/0318/brunner/en.

Prefigurative approaches. For a discussion of prefigurative approaches in connection with the Occupy movement, see Mark and Paul Engler, "Should we fight the system or be the change?" 3 June, 2014, https://wagingnonviolence.org/feature/fight-system-change/.

Another Imagination

Cybernetics of Liberation. The quoted text by Simon Schaupp, "Vergessene Horizonte. Der kybernetische Kapitalismus und seine Alternativen" was published in: Paul Buckermann, Anne Koppenburger, Simon Schaupp (ed.), *Kybernetik, Kapitalismus, Revolutionen. Emanzipatorische Perspektiven im technologischen Wandel*, Münster: Unrast 2017, p. 51–73. Although Benjamin Bratton's book *The Stack: On Software and Sovereignty* (Cambridge, MA, London: MIT Press 2015) contains only a few scattered references to Soviet cybernetics, it weaves the subject into a very complex confrontation. The history of Soviet cybernetics was also considered in a novel: Francis Spufford, *Red Plenty*, London: Faber and Faber 2010. The Chilean *Cybersyn* is a well-known application example from the history of cybernetics. See for example: Claus Pias, "Der Auftrag. Kybernetik und Revolution in Chile," in: Daniel Gethmann, Markus Stauff (ed.): *Politiken der Medien*, Zürich/Berlin: Diaphanes 2004, p. 131–154, https://www.uni-due.de/~bj0063/texte/chile.pdf. General information on cybernetics: Andrew Pickering, *The Cybernetic Brain: Sketches of another future*, Chicago, London: University of Chicago Press 2010.

Minitel. See: Julien Mailland, Kevin Driscoll, *Minitel. Welcome to the Internet*, Cambridge, MA, London: MIT Press 2017

Privacy/Data Protection. On the transformation of *privacy* from a human right to a commodity see John Edward Campbell, Matt Carlson, "Panopticon.com: Online Surveillance and the Commodification of Privacy," in: *Journal of Broadcasting & Electronic Media* 46.4 (2002), p. 586–606. On poverty and privacy see Virginia Eubanks, *Automating Inequality. How High-tech Tools Profile, Police, and Punish the Poor*, New York: St. Martin's Press 2017, as well as the review by Sam Adler-Bell: "Privacy for Whom? Two new books show that for the poor, privacy has never been on offer," in: *The New Inquiry*, https://thenewinquiry.com/privacy-for-whom/. Gerald Raunig's "Dividuen des Facebook. Das neue Begehren nach Selbstzerteilung," was published in: Oliver Leistert, Theo Röhle (ed.) *Generation Facebook. Über das Leben im Social Net*, Bielefeld: transcript 2011, p. 145–160. For the aforementioned connections between collectivity and privacy, see: Jessa Lingel, *Digital Countercultures and the Struggle for Community*, Cambridge, MA: MIT Press 2017, Finn Brunton, Helen Nissenbaum, *Obfuscation: A User's Guide for Privacy and Protest*,

Cambridge, MA, London: MIT Press 2015, Shang Shang, Yuk Hui, Pan Hui, Paul Cuff, Sanjeev Kulkarni, "Beyond personalization and anonymity: Towards a group-based recommender system," Proceedings of the ACM Symposium on Applied Computing, 2014, Marco Deseriis, *Improper Names. Collective Pseudonyms from the Luddites to Anonymous*, Minneapolis, London: University of Minnesota Press 2015. For detailed analyses of the practices and structures of monitoring, tracking, data trading, etc. see for example http://crackedlabs.org/.

"*Revenge of the 'Social'"* The briefly referenced text is part of a discussion on the fundamental question of whether the social networks have been completely appropriated by neoliberalism or whether alternatives are possible in this context. See both texts on https://www.opendemocracy.net: William Davies, "Neoliberalism and the revenge of the 'social,'" 16.7.2013, and Jeremy Gilbert, "Neoliberal networks: a response to William Davies," 18.7.2013. See also in this context: Tiziana Terranova, "Securing the Social: Foucault and Social Networks," in: S. Fuggle, Y. Lanci, M. Tazzioli (ed.), *Foucault and the History of Our Present*, Palgrave Macmillan 2015, p. 111–127.

Douglas Rushkoff, *Program or be Programmed. Ten Commands for a Digital Age*, New York: OR Books 2010.

TCP/IP. The mentioned analysis of the history of TCP/IP can be found in Benjamin Bratton's *The Stack. On Software and Sovereignty*, Cambridge, MA, London: MIT Press 2015, chapter 14 (p. 61–65).

Collective Individuation / Dividuation / Community

Yuk Hui, Harry Halpin, "Collective Individuation: The Future of the Social Web," in: Geert Lovink, Miriam Rasch (ed.), *Unlike Us Reader: Understanding Social Media Monopolies and their Alternatives*, Amsterdam: Institute of Network Cultures 2013, p. 103–116. For further theoretical context see also: Yuk Hui, *On the Existence of Digital Objects*, Minneapolis, London: University of Minnesota Press 2016.

Collective intelligence. I dealt with the question of how this theme was launched directly in the wake of the concept of *Web 2.0,* in order to control collectivity and knowledge production in the sense of network capitalism in two older texts: Raimund Minichbauer, "Kognitiver Kapitalismus, General Intellect und die Politiken der 'kollektiven Intelligenz'," Vienna 2012, http://eipcp.net/dlfiles/minichbauer-ci, and Raimund Minichbauer, "Fragmented Collectives: On the Politics of "Collective Intelligence" in Electronic Networks," in: transversal 01/2012: *unsettling knowledges*, https://transversal.at/transversal/0112/minichbauer/en.

Gerald Raunig, *DIVIDUUM. Machinic Capitalism and Molecular Revolution*, translated by Aileen Derieg, South Pasadena, Cambridge, MA and London: Semiotext(e) and MIT Press 2016.

Howard Rheingold, *Virtual Community: Homesteading on the Electronic Frontier*, Boston: Addison Wesley 1993.

Gilbert Simondon. While some works, such as the book on technical objects, are available in German and English, Simondon's main work on psychological and collective individuation is unfortunately not yet available in either language. So far, only individual chapters have been published in one or both languages. My abbreviated representation in the text, especially regarding the levels of the pre-individual, is oriented mainly to works by Paolo Virno.

Top-Level-Domains and "Communities." The connection is illustrated in more detail using the example of e-flux's application for the administration of the ".art"domain in: Lucie Kolb, *Study, Not Critique*, Vienna et al.: transversal texts 2018.

User. See for example the analysis of the "user layer" in: Benjamin Bratton, *The Stack. On Software and Sovereignty*, Cambridge, MA, London: MIT Press 2015, p. 251–289.

Alternatives in Practice

Alternative social media. Robert W. Gehl's work provides a good overview of these questions, in particular his book *Reverse Engineering Social Media: Software, Culture, and Political Economy in New Media Capitalism* (Philadelphia: Temple University Press 2014), but also in several essays. A list of publications can be found on Gehl's personal website (http://www.robertwgehl.org). See also the *Social Media Alternatives Project*, which documents projects with screenshots, texts, and some detailed information. (https://www.socialmediaalternatives.org/).

Blockchain/Cryptocurrencies. Almost ten years after its launch in January 2009, Bitcoin has developed into two influential traditions: the field of cryptocurrencies with its exuberant number of very different projects, ranging between desperate speculation and progressive economic experiments, and the technology of the blockchain, a decentralized database system created as a means to store all Bitcoin transactions, but now used far beyond the area of cryptocurrencies, as an unchangeable storage facility for "contracts," apps, organizational processes, and more. Politically, both traditions are controversial. Hopes for a new emancipatory technology are opposed by concerns about possible inherent neoliberal, right-wing and only property-oriented tendencies as well as ecological costs. See the interview with Jaya Klara Brekke. I have reported on my research on the social networks based on it in a longer blog article: Raimund Minichbauer, "'Next Generation' Online Social Networks Based on Cryptocurrencies and Blockchain," June 2017, http://transversal.at/blog/Next_Generation_Online_Social_Networks.

Danah Boyd, "Viewing American class divisions through *Facebook* and MySpace," 24 June, 2007, http://www.danah.org/papers/essays/ClassDivisions.html.

Code of Conduct/Terms of Service. Jessa Lingel reports in her book *Digital Countercultures and the Struggle for Community* (Cambridge, MA: MIT Press 2017, p. 50) that smaller platforms began to copy the Terms of Service of the large social network sites.

FireChat. https://www.opengarden.com/firechat.html.

Michel de Certeau, *Kunst des Handelns*, Berlin: Merve 1988. The reference comes from the two already quoted books by Veronica Barassi and Jessa Lingel respectively.

Dokie.li. https://dokie.li/. See also: Sarven Capadisli, Amy Guy, Ruben Verborgh, Christoph Lange, Sören Auer, Tim Berners-Lee, "Decentralised Authoring, Annotations and Notifications for a Read-Write Web with dokieli," 27 February, 2017, http://csarven.ca/dokieli-rww.

Federated Personal Websites. See for example the *Indienet* project (https://indienet.info/). A few years ago, Marco Fioretti presented a proposal for the so-called *percloud*, which was revised at the beginning of 2018. The aim is a personal cloud that tends to integrate a high bandwidth of proprietary services as "all-in-one alternative to Facebook, Gmail, Flickr, Dropbox..." (http://per-cloud.com/percloud-proposal/). The danger of the reproduction of social atomism mentioned in the current text is very clearly to be found in Fioretti's text: "1. *Person before 'community'*. Human beings are *individuals* first, and only after that 'social.' In the long run, personal and group boxes can work only if they mirror this reality."

Federation, Fediverse, ActivityWeb. A compact overview of the different protocols and approaches in the Federated Social Web can be found in Sean Tilley, "A quick guide to The Free Network," (https://medium.com/we-distribute/a-quick-guide-to-the-free-network-c069309f334). Statistical data can be found at https://the-federation.info/.

Mastodon. Basic information about the network can be found at https://joinmastodon.org/. The names of instances mentioned in the current text, such as mastodon.social, function in this form in the browser as links. On the emergence of Switter see also:

https://medium.com/assembly-four/my-six-week-rollercoaster-ride-172eb58ba80e.

PeerTube. See https://peertube.cpy.re/about and https://github.com/Chocobozzz/PeerTube.

José van Dijck, *The Culture of Connectivity. A Critical History of Social Media,* Oxford University Press 2013.

W3C. The website of the current Federated Social Web group is https://www.w3.org/wiki/SocialCG.

https://transversal.at/books/facebook-entkommen
http://midstream.eipcp.net/interviews