Solidarity in the Digital Commons

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> We have lost the pleasure of being together. Thirty years of precariousness and competition have destroyed social solidarity. Media virtualization has destroyed empathy among bodies, the pleasure of touching each other, and the pleasure of living in urban spaces. We have lost the pleasure of love.
> *Franco Berardi and Geert Lovink (2011)*

While the question of solidarity is back with a vengeance, be it in public or in academic discourse, it comes as a bit of a surprise that it has drawn much less attention in the world of scholars studying digital media. There is only one book that addresses the question head on. In a small volume on "Digital Solidarity"[1], Swiss media theorist Felix Stalder sets himself up to explore "new forms of solidarity which are emerging in the digital realm" by coming up with an "inventory of forms, reduced to four basic types: commons, assemblies, swarms and weak networks"[2]. In covering such a large territory, Stalder never defines what he means by solidarity, nor does he tell us why he does not do so. A possible motive might be that he wants to prevent the exclusion of newly emerging meanings by definitions a priori. But this leads him into a very broad analysis, and does not allow for much more than a vague diagnosis that in digital media, after the end of McLuhan's Gutenberg Galaxy, a "reformulation of solidarity"[3] might develop in conjunction with new forms of autonomy and community, and this might one day "enable us to fill the void created by the waning

1 Stalder, Felix: Digital Solidarity, London and Lüneburg 2013. https://www.metamute.org/sites/www.metamute.org/files/u1/Digital-Solidarity-Felix-Stalder-9781906496920-web-fullbook.pdf

2 Ibid., 15.

3 Ibid., 10.

of the culture and the institutions of the Gutenberg Galaxy"[4]. We sympathise with this hope, yet we question its validity.

In the following paper we take a narrower approach, which sadly will lead us to a more pessimistic result. On the one hand, we limit our inquiry to the digital commons, which provide, according to Stalder's mapping, "the most comprehensive new formations for organising solidarity"[5] in the digital realm. On the other hand, we harden our criteria for solidarity. While we are hesitant to police solidarity's meanings, we note that in times of multiple severe attacks against democracy there is a danger in seeing solidarity everywhere.

To tackle solidarity's manifold and ambivalent meanings, we identify five different versions of solidarity: of cohesion, of care for the weak, of power, of struggle, and of concern. This approach results in the following overall structure: After some initial remarks on (1) the commons and (2) the digital commons, we look specifically into two flagship projects of the digital commons: (3) the software commons, as it can be found in the free and open-source software movement, and the (4) knowledge commons, which underlies, for example, Wikipedia. In these two examples we do not rely on our own first-hand research but on ethnographies by others, and on statements by prominent proponents of the respective movements. We then (5) explicate the aforementioned five different meanings of solidarity to ask (6) what kinds of solidarity are at stake in the digital commons. This analysis leads to a rather pessimistic conclusion. We end our chapter with (7) suggestions as to why the digital commons is so seldomly instigating solidarity.

1. The Commons

Conceptualisations of the commons vary, but there is broad agreement that the commons refer to natural and cultural resources that are shared by a community of commoners. These resources are not privately owned but are owned, maintained, and administered by a community of commoners. They can be different things such as land, language, music, values, knowledge or software. Commons exist in different forms and shapes. Commons such as community forests, grasslands, fisheries, food communities, self-organised clinics, cooperatives, farmer-consumer networks, microcredit networks, landless movements, squatter communities, autonomous universities, community drink water fountains and wells, and water associations, to name a few, have different internal structures and different forms of governance. Commons are also a central property of some of the most interesting corners of dig-

4 Ibid., 44.

5 Ibid., 31.

ital cultures – with the knowledge commons and the software commons as two of the most prominent forms (and we will come back to these later in more detail).

The starting point for the literature on the commons is Hardin's classic argument concerning the inevitable "Tragedy of the Commons."[6] Hardin presents us with a timeless picture of a piece of common land: He begins by asking the reader to "picture a pasture open to all"[7]. For a while, this timeless pasture is able to sustain all the cattle that graze there, but eventually, the pasture's capacity for cattle-grazing is reached. If any more cattle are put on the pasture, the pasture will be over-grazed. It will not be able to reproduce and will face long-term decline. Now the tragedy begins. Hardin has a nice way of telling us what we feel we already know: although it might be bad for the overall pasture to bring extra cattle onto the pasture to graze, the individual herdsman (sic) thinks that it is fine to sneak on a few extra cattle. After all, it will really benefit him and will only lead to the slightest decline in the overall well-being of the pasture. And so, he sneaks a few extra cattle onto the pasture.

Yet multiple individual herdsmen have the same thought process, and thus the tragedy plays out, and the commons pasture is ruined. It does not take much to see that Hardin's tale is not supported by empirical evidence and is theoretically simplistic and free of any context.

Hardin naturalises the herdsman's individual competitive self-interest. He presents it as timeless, so obvious as to be taken as a given, without the need for explanation. Ultimately his tale reveals more about the dominant social relation of capitalism, which is indeed based on competitive self-interest. The fact that Hardin is wrong about his diagnosed inevitability of a commons to work and to work successfully does not mean that commons are not in permanent danger of being enclosed by capital. This threat of enclosure is very real indeed. In turn, this also means that a commons that ceases to be built on solidarity ceases to be a commons.

Led by Nobel prize-winner Elinor Ostrom, a group of scholars have critiqued Hardin from within the tradition of liberal philosophy. This scholarship has examined a range of cases in which commoners have been able to sustain commons. It has also pointed to governance principles and qualities of resources that best allow commons to be maintained.[8] The focus in this tradition of liberal scholarship is on the resources that are being shared. More recently a number of radical theorists have developed analyses that focus less on the shared resources and more on the social practice of commoning.[9] Once we switch our focus from the commons as separate

6 Hardin, Garrett: The Tragedy of the Commons. In: Science 162 (1968) 1243–1248. DOI: https://www.doi.org/10.1126/science.162.3859.1243

7 Ibid., 1244.

8 Cf. Ostrom, Elinor: Governing the Commons: The Evolution of Institutions for Collective Action. Vol. The Political economy of institutions and decisions, New York 1990.

9 Cf. Barbagallo, Camille/Beuret, Nicholas/Harvie, David: Commoning with George Caffentzis and Silvia Federici, London 2019; Bollier, David: Silent Theft: The Private Plunder of our

spaces to commoning as practice(s), these can be found – and extended – in everyday life as well as in multiple institutions. De Angelis explicitly considers commoning as part of a collective path towards an exit from capitalist production:

> I believe there is a social revolution in the making that, if recognised and able to attract more energies from people around the world, could give us a chance to embark on a process of transformation towards post-capitalist society [...] Commons are not just resources held in common, or commonwealth, but social systems whose elements are commonwealth, a community of commoners, and the ongoing interactions, phases of decision-making and communal labour process that together are called commoning.[10]

While a commons is not a happy space, and commoning is not without its own power dynamics, both create autonomous spaces and practices from which challenges against the capitalist order can be mounted.[11] Commoning is inherently based on collaboration rather than on competition. Many commoners live by values such as mutual aid, loyalty, trust, and conviviality. And a commons cannot exist without bonds among the commoners, without a form of solidarity that builds community, that holds the commons together. Commons need to be understood as small islands surrounded by a capitalist sea. For these islands of commoning to survive, commoners need to actively prevent a takeover of these islands by capital. As such, commons and commoning provide us with powerful narratives, spaces and practices against the totality of capitalist enclosure.

Common Wealth, New York 2003; Bollier, David: Think Like a Commoner, Gabriola Island 2014; Bollier, David/Helfrich, Silke: The Wealth of the Commons: A World Beyond Market and State, Amherst 2012; Bollier, David/Helfrich, Silke: Free, Fair and Alive. the Insurgent Power of the Commons, Gabriola Island 2019; Caffentzsis, George: In Letters of Blood and Fire: Work, Machines, and Value, Oakland 2013; Dardot, Pierre/Laval, Christian: Common: On Revolution in the 21st Century. London and New York 2019; De Angelis, Massimo: Omnia Sunt Communia: On the Commons and the Transformation to Postcapitalism, London 2017; Federici, Silvia: Re-Enchanting the World: Feminism and the Politics of the Commons, Oakland 2018; Hardt, Michael/Negri, Antonio: Commonwealth, Harvard 2009; Harvie, David: Commons and Community in the University: Some Notes and some Examples. In: The Commoner (2004). http://www.commoner.org.uk; Holloway, John: Crack Capitalism. London: Pluto Press, 2010; Linebaugh, Peter: The Magna Carta Manifesto, Berkeley 2008; Linebaugh, Peter: Stop, Thief: The Commons, Enclosures, and Resistance, Oakland 2014.

10 De Angelis, Omnia Sunt Communia, 11.

11 Cf. Federici, Re-Enchanting the World.

2. The Digital Commons

The digital commons is an Internet repository of code, information, knowledge, and culture that is collectively produced and freely available to everybody who wants to use or modify these resources. While the digital commons is often associated with the rise of the social web since the early 2000s, questions of the digital commons started to be negotiated three decades earlier, in the 1970s. And this moment, when the digital commons started to become a question has a backstory, too. Since its earliest iterations in the 1950s, most software was freely shared. For a long time, the main limit to sharing software was not that it had to be bought, but that it was often tied to specific hardware, such as a specific model of an IBM system. Beyond this limitation, software was a commons, albeit a self-evident and thus not discussed commons, not yet identified as such. Since the late 1960s, two processes started to change this. On the one hand, software became increasingly independent of specific hardware. Due to the emergence of the virtual machines it could run on many different physical platforms. On the other hand, it started to be commodified. It became a product, and as such it needed to be licensed and to be protected against copying and sharing. By the 1980s, the original commons of software was in danger.

In this process, a counter movement developed that aimed to protect the older ways of working, mostly driven by engineers. This movement gained different names over the course of its existence, which all have slightly different meanings: Free Software, Open Source, and Free/Libre Open Source Software (FLOSS) might be the most prominent. In different versions, this movement aims to protect what it frames as the "freedom" of software: the ability to read, copy and share software, to assemble systems in ways not limited by proprietary restrictions, and to explore software, unrestrained by artificial inaccessibility. This movement has widened and accelerated on an astonishing scale. It has spread from the peer production of software and code to text, sound, images, and moving images, with Wikipedia, WikiLeaks, Pirate Bay, Libgen and the Creative Commons as some of its iconic websites.

The digital commons consist of a multitude of Internet-based commons such as the software commons, news commons, information commons, knowledge commons, art commons, and entertainment commons. The digital commons is defined by the fact that the repository that has been created is not a commodity. It is freely available to those who access the repository. Over the last two decades, the digital commons has played an important role for those who believed in the possibility to create alternatives to a capitalist economy and to our dominant social structures and institutions. There was a belief that a growing digital commons could eventually be expanded to the material realm. However, this hope has never materialised, and the digital commons has not grown over the last 15 years. In fact, it has become smaller.

At its height, the notion of the digital commons has generated a plethora of enthusiastic theoretical musings. One example comes from Yochai Benkler[12], who originated the term "commons-based peer production" and is perhaps the most influential theorist of the digital commons. Commons-based peer production is the production of this repository by (digital) commoners. Benkler recognised the non-proprietary possibilities of the networked information economy. For him, these are driven most of all by new forms of large-scale cooperation. As the material barrier to cooperation is removed, digital commoners can cooperate at a distance and without centralised organisation. This non-market production would transform markets and freedom. It would also have beneficial effects on democracy. Benkler is firmly rooted in liberal theory. He does not see proprietary structures and capitalism as a problem. He merely thinks that non-market production could outperform markets in the field of non-material production such as art, knowledge, information, news, culture, education, and political debate. It is safe to say that these hopes have not materialised. The digital commons is largely reduced to knowledge production and information production.

As different as all of these spheres of the digital commons are, they also share certain properties: The large-scale cooperative networks of commons-based peer production create a rather specific form of social relationships amongst digital commoners. First of all, the digital commons is a non-commodified space. Secondly, contributions and cooperations by digital commoners are voluntary and driven by intrinsic motivations. While hierarchies do exist, they are often based, at least in the views of the actors, on a value-rational form of authority (O'Neil 2011), where authority is accepted, if it is based on expertise and on personal investment. Thirdly, a large majority of the social relationships are non-local and anonymous. Some of these traits can pose significant obstacles to solidarity, at least certain forms of solidarity. However, before we go deeper into the question whether the digital commons might allow for old and new forms of solidarity, we want to go a little deeper into two subfields of the digital commons. What follows are two short literature reviews that look for moments where analysts have used the term solidarity to understand, on the one hand, the software commons, as it can be found in the free and open-source software movement, and, on the other hand, the knowledge commons, as we can observe it in the example of Wikipedia.

12 Cf. Benkler, Yochai: The Wealth of Networks. How Social Production Transforms Markets and Freedom, New Haven and London 2006.

3. The Software Commons

Given the fact that the digital commons emerged in the software commons, it makes sense to start our enquiry with its most important proponent, who also functions as its most influential theorist: Richard Stallman is a software engineer, who has not only developed crucial protocols (rules that drive free software) and written important code, but has also developed the ideas of free software in a series of classical essays. And indeed, solidarity is part of his analysis. In his "GNU Manifesto" (first 1985, here 2010), Stallman answers his self-posed question "Why I must write GNU" by stating that "the golden rule requires that if I like a program I must share it with other people who like it" and supports this rule directly with the following sentence: "Software sellers want to divide the users and conquer them, making each user agree not to share with others. I refuse to break solidarity with other users in this way."[13] Solidarity here is an act of refusing an artificial break imposed by others, the "software sellers." This break is not the break between programmers and non-programming users (as in consumers of software), but a break between one programmer, who might want to use the program of another programmer, and vice versa. GNU as one particularly legendary piece of free software (an early operating system, and as such a precursor of LINUX, which provides up until today an important Free Software alternative to proprietary operating systems such as Microsoft Windows) is thus a means of solidarity inside of the programming community against the attacks by another community, the software sellers. What is at stake is an example of what we might view as a specific form of professional solidarity that makes the job of this profession easier to execute, as well as a defence against the attack on such practices.

This, however, is not the only moment where Stallman uses the term solidarity in his writings. In a later paper, where the socialist Richard Stallman argues against Open Source – in his view a commercialised, trivialised, dismantled and thus falsified version of his original ideas – the freedoms of free software "are vitally important. They are essential, not just for the individual users' sake, but for society as a whole because they promote social solidarity – that is, sharing and cooperation"[14]. In this short remark, Stallman develops a slightly bigger idea of solidarity: Free Software promotes "sharing and cooperation" not only inside programmers' circles. It also provides a model of social solidarity. At least implicitly he might also hint towards the role of Free Software: It is so important because it provides the infrastructure that is crucial for holding society together. Sharing and collaboration as central practices in one of society's most important infrastructural realms lead to a model

13 Stallman, Richard: Free Software, Free Society. Selected Essays. 2nd Edition, Boston 2010, 40.

14 Ibid., 95.

that has the power to "promote" solidarity in society as a whole. This is the most ambitious articulation of a model of solidarity that we have found in the discourse of leading proponents of the software commons. It is also an idea that stands alone. At least in our relatively quick screening of the writing of veterans of the free software movement, this statement is not mirrored elsewhere. In a collection of essays by more than a dozen programmers and software commons advocates[15], no one except Richard Stallmann mentions solidarity, nor do other classical accounts that are part of or sympathetic to the movement (Levy 1984).[16]

There is one group, however, that took up Stallman's claims: ethnographers of free software. Gabriella Coleman, for example, sees solidarity as an important addition to the overall dominance of an another concept, freedom: "While developers enunciate a sophisticated language of freedom that makes individual experiences of creation intelligible, their language also elaborates on ideals that are more collectivist and populist in their orientation – such as cooperation, community, and solidarity"[17]. According to Coleman, such language and sentiments need "a process of ritual condensation and emotional celebration." Interestingly, programmers find this in physical gatherings: "cons cement group solidarity"[18] insofar as "the conference works to perform and thus confirm what are otherwise more frequent, though more prosaic forms of virtual sociality" (2010, 47). In such conferences, programmers feel their solidarity with each other, a solidarity that would otherwise only be based on loose collaboration. *Feeling* solidarity with each other is crucial. Here is another account, this time referring to UNIX (another operating system that provided free software even before it was formulated as such), which served, according to Dafermos, "to strengthen the feeling of solidarity among the growing number of users at American universities, turning thus the development of Unix into a truly collaborative enterprise" (2012, 13).

Based on these examples, it might seem as if the ethnographic literature on Free Software is littered with references to solidarity. But nothing could be further from the truth. Indeed, most of the other significant analyses of free software operate without mentioning the term even once (Siefkes 2007, Kelty 2008, Söderberg

15 Cf., DiBona, Chris/Ockman, Sam: Open Sources: Voices from the Open Source Revolution, Newton 1999.

16 Cf., Levy, Steven: Hackers: Heroes of the Computer Revolution, New York 1984; Raymond, Eric: The Cathedral and the Bazaar. Musings on Linux and Open Source by an Accidental Revolutionary, Newton 2001.

17 Coleman, Gabriella: Coding Freedom: The Ethics and Aesthetics of Hacking, Princeton 2013, 44.

18 Ibid., 71.

2008).[19] Beyond the arguments we have just referred to, solidarity plays a role only in adjacent bodies of literature. One such body of literature is the writing on the conjuncture of digital discourses and corporate and neoliberal logics. Unsurprisingly, the results are sobering. Lilly Irani, for example, warns us that methodologies such as design thinking seem "on their face, compatible with political debate, dissent, and solidarity building through collaboration"[20], but her analysis shows that here, "empathy functions not as an orientation toward compassionate solidarity but rather as the mining of intimacies for projects of value creation"[21]. Indeed, such forms of entrepreneurial solidarity "occlude the possibility of solidarity building, oppositional politics, or even politics that destroy value"[22]. A second body of literature looks at corporate programmers. Here, solidarity is situated among colleagues in a particular version of the capitalist labour process. Programmers are, after all, cognitive workers. As such, their position can produce worker solidarity. According to Sareeta Amrute, who draws extensively on the literature of operaismo, the programmer's "creative capacity can sow seeds of solidarity among different sorts of workers who may recognize the shared inhumanity of their labor and the shared potential of creative activity undertaken in common and for the common good."[23] But this solidarity has limits. Amrute gives us striking examples where it fails. And Trebor Scholz laments the absence of "converging various forms of solidarity worldwide," asking almost desperately, "Why couldn't American and Indian workers connect online and stand united as they face Amazon's CEO, Jeff Bezos?"[24].

4. The Knowledge Commons

We now want to shift our attention to another realm of the digital commons: the knowledge commons, as exemplified by Wikipedia. For this section, we use the monographs of Dan O'Sullivan (2010), Joseph Reagle (2010), Darius Jemielniak (2014), Nathaniel Tkacz (2015), and Arvid Lund (2017). We also use edited books

19 Cf. Siefkes, Christian: From Exchange to Contributions: Generalizing Peer Production into the Physical World, Berlin 2007; Kelty, Chris: Two Bits. The Cultural Significance of Free Software, Durham 2008;

20 Irani, Lilly: Chasing Innovation Making Entrepreneurial Citizens in Modern India, Princeton 2019, 17.

21 Ibid., 145.

22 Ibid., 219.

23 Amrute, Sareeta: Encoding Race, Encoding Class. Indian IT Workers in Berlin, Durham 2016, 5.

24 Scholz, Trebor: Think outside the Boss. Cooperative Alternatives for the Post-Internet Age. In: Barney, Darin et. al. (eds.): In The Participatory Condition in the Digital Age, Minneapolis 2016, 59–79, 68.

by Geert Lovink and Nathaniel Tkacz (2011) and Joseph Reagle and Jackie Koerner (2020). This literature reflects a trend that can be seen in all literature on digital media in the last two decades: the movement from a hopeful exploration of possibilities to a more sober and more critical analysis of digital media. The most important conclusion of our literature review is, once more, that solidarity is not much of a topic in either the early work or in the work that has been published more recently. The literature we use is mostly focused on the governance of Wikipedia, on its economics or its business model, on framings of truth and knowledge, and on social processes or processes of collaboration. However, these processes of social practice focus predominantly on conflict and forms of conflict resolution. Theoretically, there is no contradiction between solidarity and conflict as conflict is part and parcel of all solidaristic relationships. These processes also focus on practices and structures of exclusion, uneven distributions of power among Wikipedians, uneven geographies and uneven demographics of Wikipedians (who are predominantly male, young, and educated). Considering that solidarity has a total mention of 14 in the literature we used, it is fair to say that this body of work does not treat it as a relevant topic.

To highlight this rather surprising outcome even more, most of the mentions of the term "solidarity" that came up in our search stretch the meaning of solidarity to a level where it becomes synonymous with "taking sides" in a conflict between Wikipedians. Wikipedians are all those who contribute to the building of the knowledge commons. To give an example, Jemielniak writes, "Possibly to show solidarity with this singled-out Wikipedian, on February 23, 2007, Wales nominated Essjay to the Arbitration Committee, a highly prestigious body that is responsible for resolving conflicts and disputes in the community and has high decision powers."[25]

It is worth remembering that Wikipedia started as a project with a different idea of solidarity. It was conceived in solidarity with and in support of those parts of humanity that are excluded from access to information and access to knowledge. We can see this ambition of the Wikipedia project clearly expressed in a 2004 letter by co-founder Jimmy Wales (qtd. in Reagle, Joseph: Good Faith Collaboration).

> Our mission is to give freely the sum of the world's knowledge to every single person on the planet in the language of their choice, under a free license, so that they can modify, adapt, reuse, or redistribute it, at will. And, by "every single person on the planet," I mean exactly that, so we have to remember that much of our target audience is not yet able to access the Internet reliably, if at all. Our community already comes from a huge variety of backgrounds, and over time the variety will only increase. The only way we can coordinate our efforts

25 Jemielniak, Dariusz: Common Knowledge? An Ethnography of Wikipedia, Redwood 2014, 111.

> in an efficient manner to achieve the goals we have set for ourselves, is to love our work and to love each other, even when we disagree. Mutual respect and a reasonable approach to disagreement are essential on this incredible ridiculous crazy fun project to change the world.[26]

Needless to say, Wales' expression of solidarity with those excluded from access to information was a dream, a possibility and not a reality. Twenty years after the foundation of Wikipedia, this dream is still alive, but it is now coupled with a realisation that the fulfilment of this dream is as distant as it always was. In "Wikipedia @20: stories of an incomplete revolution" Vrana et al (2020: 244) provide a rather grave assessment of the direction Wikipedia has taken: "Everyone is, or can be, an ally to someone else. We can build a better Wikipedia in solidarity with each other. But the first step is to recognize the myths that are keeping us from working together in productive ways – and then to build new, welcoming, and inclusive practices that will make this happen." In the final subchapters, we will explain why the hope that Wikipedians will find better ways of working together might not be easy to achieve as it faces structural and inherent obstacles.

5. A Few Words on Solidarity

Before we ask whether solidarity is a property of the digital commons, or, more precisely, what forms of solidarity are at stake here, we need to say a few words about what we mean by solidarity. This is a book about solidarity. Words such as solidarity come in and out of fashion. The way they become fashionable or unfashionable can tell us a lot about the zeitgeist, about a particular moral and intellectual mood of an era. Since the financial crisis of 2008, which is not really a financial crisis but a crisis of capitalism, and in a period in which questions of climate justice, racism, pandemics, and the fight against authoritarian politics dominate our attention, it is safe to assume that the term solidarity is back. In such times academics feel the need to frame the meanings of words. On the one hand, such attempts to define a term are necessary for clarification; on the other hand, they are always contestable, in danger of missing newly emerging meanings, or in danger of covering too much ground and therefore losing their meaning. We therefore need to clarify what we mean when we say solidarity.

Solidarity is tricky because it can have many distinct meanings. We propose to differentiate five meanings, while acknowledging right from the start that the strength of the term can often lie in mixing these and in hiding one of its meanings

26 Reagle, Joseph: Good Faith Collaboration: The Culture of Wikipedia , Cambridge, Mass 2010, 4.

behind another. In its first meaning, solidarity is a word for that which holds societies together. Such an understanding of solidarity is expressed, for example, in Durkheim's use of the term (if we abstract from his problematic distinction between mechanical and organic solidarity). Here, solidarity describes traits, practices, affects, beliefs and institutions that enable a society to not fall apart. We propose to call this form "solidarity as cohesion." A second understanding of solidarity is based in an ethical commitment for the well-being of those who are perceived to be weak or in danger. In popular discourse we have recently encountered this understanding of solidarity in the appeals to be solidaric by wearing masks during the pandemic. As such we are not only asked to protect our society and its members in general (first form of solidarity), but especially those in danger (second form of solidarity). We can thus see that different forms of solidarity often overlap, but they are still distinct enough to name the second form "solidarity as care for the weak." Often overlooked, there is also the solidarity of the strong: the solidarity of the rich, of elites, of police, of masculinity, of whiteness: in short, the "solidarity of power" (which does not need the challenge of solidarity as struggle, which we will introduce in the next paragraph, to occur). This is the third form of solidarity. Academics interested in forms of solidarity that foster resistance and emancipatory practices to fight against injustice are often uncomfortable with these first three forms. But they are clearly part of the semantic field of the term.

The fourth and fifth forms of solidarity are more political. The fourth form of solidarity takes its paradigmatic form in the workers' movement. Here, solidarity "unites" people who find themselves in similar conditions of oppression, while at the same time directing them against an antagonist in a position of power. This understanding of solidarity can not only be found in the workers' movement, but also in movements such as Me Too or Black Lives Matter. In all these cases, solidarity is never simply given: After all, people in similar situations are often in competition with each other. Such solidarity has to be built, to be worked for, to be organised, partially by a process of "Köpfe zusammenrotten,"[27] as Marx famously put it, but also by practices, commitments, relations, local structures of feelings, (always also invented) traditions, conditions, social structures, institutions and so on. We call this form of solidarity "solidarity of struggle." The fifth and last form of solidarity occurs when one is "in solidarity" with a movement, even though this person seems to not be directly affected, at least not at first sight. Such forms of solidarity can look like the second form, solidarity with the weak. But, at least sometimes, there is more at stake. Julia Eckert has coined the interesting term "solidarity of concern"[28] (and we keep this term) to describe this important alternative to a solidarity with the

27 Marx, Karl: Das Kapital, Band 1, Berlin 1962, 320.

28 Eckert, Julia: The Solidarity of Concern. In: Anthropological Theory Commons, December 17 (2019). http://www.at-commons.com/2019/12/17/the-solidarity-of-concern/.

weak: Starting from the observation that we are all always entangled, one can, for example, be in solidarity with Black Lives Matter, even if one is white, because one understands that whiteness makes one part of the problem. The same can be said about solidarity with refugees, once framed in a postcolonial framework: Everyone is part of the relations that are at stake, as lifeworlds in the so-called West are deeply entangled in global colonialism and capitalism. Hence, such solidarity simply acknowledges the relations (and debts) that have been there all along. Once more, the fourth and fifth form of solidarity often overlap, such as in the idea of "international solidarity." They aim to enable the fight for social justice.

6. Solidarity in the Digital Commons

With these five different forms of solidarity in mind, we now want to go back to our question: What kinds of solidarity are at stake in the digital commons? Let's start with the most prominent example: Richard Stallman's solidarity by free software programmers against "software sellers." This has clear properties of a solidarity of struggle. Indeed, it has traits of class struggle[29]: While they are not conflicts between capital and labour, they are conflicts where programmers oppose a particular version of capitalist logic.

The reason for these conflicts is not value extraction, nor exploitation, nor the disciplinary regimes of the labour process. The reason is a desire to establish the best possible working conditions. Working conditions focus here not on the well-being of the workers, but on the possibility of creating the best possible product and having the largest freedom possible to do so. Software sellers, on the other hand, are constructed as outsiders, who "divide and conquer." So yes, this is a solidarity of (class) struggle, built into protocols, thus partially automated, creating a peculiar mix of practices and structures of feelings on the one hand, and technical automatization and legal frameworks on the other hand. Yet, at the same time, we can also see a second form of solidarity looming in the background: This is also the solidarity of a particular profession, which aims to protect its own work culture and does not want to be conquered. Programmers aim to protect an environment best suited for a particular version of their own way of working. They happily do so at the expense of other groups: Free software projects are notoriously inaccessible to people with little knowledge of programming. If the battle cry of "program or be programmed" has only a grain of truth, the software commons in practice is also a way of protecting the special status of those who do the programming. It is not only a solidarity of struggle. It is a solidarity of power, too.

29 Cf. Dafermos, George/Söderberg, Johan: The hacker movement as a continuation of labour struggle. In: Capital and Class 97 (2009) 53–73.

Furthermore, we can find in Stallman's theorisation of free software some elements of a solidarity of integration: At least indirectly he hints that free software could be a model for a society that is based on "sharing and cooperation": a specific, and one might argue, rather sanitised version of a solidarity of cohesion. Jimmy Wales, too, argues for a society where everyone has access to the world's knowledge. Once more this vision has more than a whiff of an idea of a society integrated by knowledge, achieved by accessibility and agreement through the techno-social processes that made Wikipedia famous. Unsurprisingly this vision of a solidarity of cohesion remains lofty, and behind it lurk, once more, other solidarities. It has at least elements of a serious form of solidarity of concern: By understanding that those who have knowledge and power are at the same time entangled with less powerful groups it has an element of paying one's debt to the other side of the equation. Yet the use of the term solidarity in the context of the editing wars in Wikipedia points us toward the probably inevitable power struggles that come with such an approach. Here, solidarity can mean many things: A solidarity with the weak, a solidarity of power, and maybe sometimes even a solidarity of struggle (where a group of Wikipedians might rally along a certain interest). Solidarity's charm often lies in exactly this ambivalence.

The knowledge commons and the software commons are not the only forms of the digital commons, and the digital commons only describe parts of what plays out in digital cultures. If we look for solidarity in other digital contexts, we surely would find other examples of solidarity. One obvious example would be the Me Too Movement, which is directly named after a gesture of solidarity of struggle: "Me, too." Anonymous, where anonymous participants unite under an image and name owned by no one to organise digital campaigns and all sorts of mischief, is another example: Its "DDoS campaign solidified the alliance through a spectacular display of solidarity and support,"[30] writes Biella Coleman. To her, Anonymous "manages to leave us with a striking vision of solidarity – e pluribus unum."[31] Both Anonymous and Twitter-hashtag-movements have some properties of a digital commons, too: They are not only not centralised, but their names, which hold them together, belong to no one. Yet these names need to be cared for by everyone who is part of the movement, otherwise they cease to exist, be it due to loss of energy, or due to misuse. As such they can be a powerful antidote against self-promotion: "Anonymous, in discouraging and criticising fame seeking and social peacocking, enacts a critical practice of egalitarianism and solidarity"[32]. In short, there are, indeed, further examples of

30 Coleman, Gabriella: Hacker, Hoaxer, Whistleblower, Spy: The Many Faces of Anonymous, London 2014, 121.

31 Ibid., 399.

32 Coleman, Gabriella: From Internet Farming to Weapons of the Geek. In: Current Anthropo logy 58 (2017), 15, 91–102, 98.

interesting conjunctions of commons and commoning and solidarity practices and social forms in the digital realm,[33] and Felix Stalder's quest for "new forms of solidarity" is far from exhaustively answered by our exploration of some examples of the digital commons. However, one result can not be overlooked: While we found some examples of solidarity in the digital knowledge and software commons, they remain very rare. This result is especially striking if we take into account that only a decade ago, many scholars of digital media were hopeful that the possibilities of digital technologies could bring about positive transformations. The question that we therefore need to answer is this: Why are practices of solidarity in the digital commons so hard to find?

7. Explaining a Puzzling Absence

We have started our analysis with the claim that every material or natural commons fundamentally relies on solidarity for the commons to work. As we have now seen, solidarity in the digital commons seems to be more ambiguous, and the digital commons seems to be less based on solidarity. For our first explanation, we look at digital media in general. Digital media have not only co-evolved with business models such as surveillance capitalism and with techno-entrepreneurship and precarity – in the motto at the beginning of this essay, Berardi and Lovink give us one version of this inextricable knot – but also with neoliberal forms of sociality and subjectivity in general. Indeed, digital media can be analysed as neoliberal individualism cast in hard- and software, in digital infrastructures and platforms: Since the introduction of personal computers, digital media's user-facing hardware has been made for individuals. Screen-based interfaces afford a virtual user without a body. The Internet evokes sociality in networked forms, and social media platforms have translated this into offerings driven by profit. In short, the technical, social and economic properties of digital media are deeply influenced by neoliberal capitalism. This does not have to be the case. There is a long tradition of alternative visions for digital media that entail other ideas of togetherness. But in the digital environments that we have come to take as self-evident, solidarities might have to work uphill against digital media's most basic affordances, especially solidarities of struggle. It is thus no surprise when Coleman reports that free software programmers meet in person when they want to "feel solidarity."

The second difference between digital and material commoners lies in their ways of working together. Using FLOSS and Wikipedia as primary examples, a body of

33 For a further example, see Staiou, ER: Digital Solidarity in Times of Crisis: The Case of Greece. In: Jones, John/Trice, Michael (eds.): In Platforms, Protests, and the Challenge of Networked Democracy, New York 2020, 237–251.

academic literature emerged with the arrival of the social web that was full of praise for new ways of mass collaboration (Ghosh 2005; von Hippel 2005; Benkler 2006; Tapscott and Williams 2006; Shirky 2008 and 2010). Analysing this literature Tkacz[34] argues that this discourse uses the notion of collaboration in a way that is not only devoid of substance, but positions these projects of collaboration as somehow post-political. He contrasts this post-political understanding of collaboration with two examples from his ethnographic research that highlight the fact that collaboration between Wikipedians often ends in so-called edit-wars, where two or more contributors fight against each other for their version of the correct or truthful understanding of an entry. According to Tkacz, such collaboration is deeply embedded in neoliberal ideology as it produces winners and losers. We can see similar difficulties with working together in the open-source software movement, where programmers who disagree on the process can fork: They can continue on different paths and follow their own chosen direction of programming. If we imagine such practices of forking in a material commons we can immediately see that this would destroy the commons. Rather than sharing a piece of grassland with other herders and sheep, forking herders would bring about a partition of the grassland. Ultimately edit-wars and forking are social practices that do not provide a fertile ground for solidarity.

Finally we want to point to a rather weird understanding of the "gift-economy" in techno-utopian discourse. For this we want to take a quick look at another influential autochthon theorist of the software commons: Eric Raymond. Unlike Stallman, Raymond is a techno-libertarian, which includes, in his case, a passion for guns and chauvinistic one-liners. In one of his most widely read essays, "Noosphere" (2001), Raymond develops a transactional reading of Marcel Mauss' famous essay on the gift: Starting from the assumption that "human beings have an innate drive to compete for social status" that is "wired in by our evolutionary history"[35], Raymond describes the digital commons as a "gift economy […], where value circulates via different proxy currencies, such as reputation, status, or authorial creativity"[36]. While Mauss was writing his essay on the gift partially to develop a new idea of solidarity in the footsteps of Durkheim, Raymond's version of the "gift economy" is just a libertarian marketplace with other goods and slightly different forms of exchange. Sadly, such a trivialised reading of Mauss is widespread and influential[37] in the dig-

34 Cf. Tkacz, Nathaniel: Wikipedia and the Politics of Mass Collaboration. In: Platform: Journal of Media and Communication 2(2010), 2, 40–53; Tkacz, Nathaniel: Wikipedia and the Politics of Openness, Chicago 2015.

35 Raymond, Eric: The Cathedral and the Bazaar. Musings on Linux and Open Source by an Accidental Revolutionary, Newton 2001, 80.

36 Kelty, Chris: HAU to do things with Words, 2002. https://www.kelty.org/or/papers/unpublishable/Kelty.Hautodothings.2002.pdf, 51.

37 For a critique of how this translates into technical platforms, see Lund, Arwid: Wikipedia, Work and Capitalism: A Realm of Freedom? London 2017.

ital commons, and it surely does not sit easily with solidarity. It pains us to say it, but it is deceptively plausible to understand the digital commons as a libertarian gift economy, because it is, as it happens, influenced by these concepts. Exactly this plausibility might stand in the way of more interesting forms of solidarity. The digital commons might have become a neoliberal project.

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