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Digital Resilience between Social Distance and Algorithmic Closeness

Ivana Stepanović[1]

Abstract

The concept of digital resilience acquired new meanings immediately after the outbreak of the Covid-19 pandemic when online platforms became the only solution to maintain businesses, communications and our private lives. Overnight, the vast majority of human actions and interactions moved into the online sphere and populations quickly adapted to the "new normal" of distanced sociability and digital social innovation. Technology has become the means of empowerment and resilience during this major health crisis, moreover, its rapid expansion and development has inadvertently helped people with disabilities to improve the quality of their lives and feel better integrated into the social fabric. However, this concept of resilience stems from the neoliberal ideology that prioritises the health and well-being of individuals over the collective good. By showing the need for cooperation and interconnectedness in terms of battling global crises, the pandemic has silently undermined the core principles of neoliberalism and offered alternative ways to cope with the world's biggest challenges. This paper investigates how the digital turn towards social distancing simultaneously reinforces and challenges the neoliberal concept of digital resilience.

What is (wrong with) Digital Resilience?

In the context of the omnipresent and accelerating digitalisation as well as the rapid development of communication technologies, the concept of resilience is continuously being transformed to include various online practices and digital social services that help those with disabilities along with everyone else. In this sense, digital resilience is a very broad category that encompasses different strategies, including the construction of "urban resilience" through digital platforms (Qiu et al., 2022), working from home (Bai et al., 2021), digital medical services (Wachter, 2015) and online education (Naidu, 2021). The possibility of accessing shops, schools, workplaces as well as healthcare and other services through online communication and contactless financial transactions has dramatically increased the resilience of disabled people. New technologies have even enabled them to run their businesses, find jobs and work remotely online from the comfort of their homes. For all these reasons, the Internet itself was proclaimed to be "one of the most important social innovations to have emerged since the end of the Second World War" (Tjörnbo, 2017: 116). However, it is also associated with multiple threats and negative effects on humanity.

Digital resilience typically refers to specific uses of technologies that can empower people enduring illnesses or suffering from disabilities in addition to those even facing

1 Ivana Stepanović; ivana.stepanovic@iask.hu; Researcher; Institute of Advanced Studies, Kőszeg (iASK)

environmental disasters, public health crises or other inconveniences. Communication technologies are annihilating social and physical distances while offering alternatives to physical spaces and face-to-face interactions. However, the concept of digital resilience is twofold. In addition to the processes of building resilience through various digital means, there is also resilience in opposition to the technology itself. As the Internet has expanded and developed over time, challenges have cropped up along the way. The convenience of remote work and businesses as well as online entertainment and money transfers has led to the emergence of multiple problems with and downsides of communication technologies.

One of the key obstacles to developing resilience in the digital era is unequal access to the Internet known as the digital divide. The concept of the digital divide is not simply related to gaps in the network coverage. Cullen writes that the 'digital divide' can also be caused by "socio-economic factors, geographical factors, educational, attitudinal, and generational factors, or it may be through physical disabilities" (Cullen, 2001). Some authors also suggest that it can be related to "energy poverty" (Wang et al, 2022), while others stress that it often refers to the capabilities of individuals to use increasingly complex technologies that require high levels of digital literacy (Wang & Wu, 2021; Vissenberg et al., 2022). The lack of knowledge and skills can be an obstacle for both young and old Internet users as well as for those with disabilities.

Additionally, digital literacy can refer to very specific abilities such as protecting online privacy (Stepanovic, 2019) or recognising fake news (Moore & Hancock, 2022; Soetekouw & Angelopoulos, 2022). In this sense, digital literacy is necessary for developing the second type of digital resilience, namely resilience against the harmful effects of technologies. Some of these stem from the contemporary platform economy that relies on omnipresent data surveillance, ultimately leaving users vulnerable to various types of privacy violations and cybercrime (DeBrabander, 2020), exploitative practices related to numerous types of unpaid digital labour (Fuchs, 2019) as well as discriminatory practices stemming from the use of biased algorithms (O'Neil, 2016).

The two types of digital resilience continuously undermine each other because the same technologies are simultaneously empowering and disempowering. This contradiction within the concept of digital resilience stems from a profound inconsistency in the notion of resilience itself. This notion is routinely used without any critical reflection, even though it can be argued that it is deeply embedded in the ideology of neoliberalism and a type of governmentality or a way to mobilise social agents (Joseph, 2013: 38). Neoliberalism is a type of economic system and ideology that shifts the responsibility to individuals themselves who need to build their own capacities as well as adapt to inevitable crises and sources of stress regardless of whether they are natural or man-made and whether they solely have an impact on themselves as individuals, larger populations, regions or even the worldwide. As Harvey argues, neoliberalism "proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets, and free trade" (Harvey, 2005: 2). Furthermore, he states that neoliberalism is "hegemonic as a mode of discourse" and in this sense its values and concepts, including resilience, have become the "common-sense way many of us interpret, live in, and understand the world" (ibid. 3). Harvey further explicates that neoliberalism presupposes that the social good can only be maximised by increasing the frequency of market interactions while subsuming all the human actions and interactions under the domain of the market (ibid. 4). He also

claims that this is precisely the reason why, in terms of neoliberalism, communication technologies and the information society, which intensify market transactions and commodify data, needed to be developed (ibid. 5).

The concept of resilience is not simply reduced to the neoliberal idea of resilient subjects. Understanding resilience as the ability to adapt and thrive despite challenges they are facing implies that people need to be capable of learning, reorganising their activities and even reinventing themselves while relying on the free market as well as their capacities to participate in production processes rather than depending on the state. The resilience of neoliberalism can also be referred to as an economy or ideology that survives in the midst of crises or, in fact, as a result of the crises it develops to sustain itself (Mavelli, 2017). Furthermore, there is also a need for a radically different concept of resilience as a part of the strategy to resist the neoliberal system itself. The Covid-19 pandemic, as one of the greatest global health crises in modern times, has challenged the fundamental principles of neoliberalism as well as shown how insufficient and futile its own concept of resilience truly is when humanity is faced with such a major cause of disruption. Although information technology has provided alternative ways to communicate, learn, trade, run businesses and adapt to the pandemic, they have also deepened inequalities and created many adverse effects that undermine the concept of resilience.

The Distance Paradox: Covid-19 & Digital Acceleration

It was not until the outbreak of Covid-19 that the Internet's power to transform the social itself by replacing physical services became fully fledged. During the first months of the pandemic, digital services and platforms enabled everyday activities to continue despite the strict epidemiological measures. As lockdowns were imposed in the vast majority of countries from east to west and north to south, everyday life along with the ubiquitous processes of production and consumption continued to exist, but a large proportion of them remained confined to the online realm of the Internet. As physical public spaces remained desolated, social life continued to be pursued through social media and various online platforms. Covid-19 has in fact caused a new digital revolution that happened almost overnight when classrooms, office space, conference halls, wedding venues, shopping malls, gyms and practically all other locations moved online.

The most important measures imposed to prevent the spread of Covid-19 worldwide were lockdowns and social distancing. To minimise the risk of infecting themselves and others, people were invited to stay at home or maintain a minimum distance of 1-2 metres from each other in public spaces. During the first months of the pandemic, both measures were referred to as "social distancing" – a concept borrowed from Sociology that implies social class differences and a type of "strangeness" rather than social interactions at a physical distance (Simmel, 1950: 402). Due to many complaints about the inadequacy of this term, it has been replaced with the expression "physical distancing." However, it can be argued that the word *distance* itself is problematic in a way because it implies a new principle of sociability rather than just an epidemiological measure (Stepanovic, 2021: 123). Long before the pandemic broke out, communication technologies were slowly transforming the ways people established and maintained their interpersonal relationships. The omnipresence of smart technologies and the Internet of Things has enabled ongoing

conversations, working from home, remote services, long-distance relationships and online events. The Internet has become the new public space with private segments where people can spend time, share information and even be intimate with each other.

The Covid-19 pandemic has only sped up the process of integrating the physical and digital into one coherent "phigital" space where physical distance and socialising go hand in hand. It is epitomised in the Metaverse project announced during the later stage of the pandemic by Facebook. This project involves virtual and augmented reality equipment along with the production of parallel online locations where people can socialise while maintaining a safe level of social distance. However, this project only builds upon the integration of practices that occur on multiple levels and across different industries over a long period of time. It is therefore not a mere coincidence that the concept of distancing has become a buzzword during the pandemic when the Internet was the only place for having a social life.

Nevertheless, how has the pandemic affected disabled people and in what ways has communication technology helped? Epidemiological measures imposed to mitigate the devastating consequences of Covid-19 have had a very different impact on such individuals, depending on their type of disability and personal needs. In certain cases, the disabled were further discriminated against and deprived of the social services and healthcare they required (Jumreornvong et al., 2020: 1683). Furthermore, people with disabilities were severely hit by the economic consequences of the pandemic because they are at a higher risk of living in poverty as a result of lower levels of education, insufficient physical or mental capacities and other factors (Rotarou et al., 2021). Additionally, technologies that were supposed to contribute to resilience and inclusion inadvertently caused exclusion and disempowerment. What has been proclaimed as the "new normal," i.e. staying at home and maintaining social distancing, was already an everyday reality for many disabled people (Goggin & Elis, 2020: 168).

Some research projects conducted during the pandemic suggest that confinement measures have not severely impacted the mental health of people with physical disabilities (Dalise et al., 2021: 158). Meanwhile, the lockdowns have caused elevated levels of anxiety, depression and other mental health issues for people without disabilities who rely more on social interaction for their well-being. Moreover, since physical distance between people is easily overridden by immersive communication technologies, the Internet is considered a type of social innovation and a tool that makes disabled as well as healthy people more resilient and adaptable to various sources of stress. However, the undesirable effects of such technologies on health, well-being and the functioning of the social fabric are underresearched.

Before and after the outbreak of Covid-19, technology was the tool to transform physical distance into digital proximity, enabling remote work, love, play and healthcare. However, the socioeconomic conditions of this mediation are very complex. Constructed according to the ideology of neoliberalism, the platforms used to overcome distance are privately owned public spaces that operate under constant surveillance and are subjected to the collection and distribution of personal data. Private information is treated as a currency, even though the processing and analysis of as well as exposure to data leave people vulnerable not only to classic cybercrimes such as identity theft, cyberbullying or illegal pornography but also to less visible and hardly traceable practices that involve algorithmic bias, discrimination and manipulation which can affect those with disabilities even more severely.

Physical distance has been replaced by something termed "algorithmic closeness" (Krutrök, 2021) and even "algorithmic friendship" (Chambers, 2016) or "algorithmic love" (Cambre, 2017) because the expansion of the Internet has brought about new systems of sorting information. Although the algorithms manage large amounts of data and facilitate visibility on platforms, due to the commercial interests of platform owners, they seek to make a profit rather than maintain people's well-being and human values. The benefits of digital services come with multiple dangers, including severe human rights violations. For example, even though the normalisation of working from home during the pandemic has increased the resilience of people with physical disabilities and can even be regarded as a "silver lining" (Schur et al., 2020), the new risks associated with remote work concerning security and privacy are often overlooked (Nurse et al., 2021). Nevertheless, as the Internet evolves, it is capable of changing over time and prioritising one set of values over another. Understanding the deeper meanings of the concept of resilience is essential to assess the existing framework and improve it or propose a new one.

Lessons for the Future: Challenging the Neoliberal Concept of Resilience

While it is obvious that technology has made people more resilient during the pandemic by helping them to survive and even thrive during the lockdowns, maintaining their communications, education, work, entertainment and even social lives without leaving their homes, many downsides of such a sharp digital turn are evident. This digital resilience comes with new risks as well as deepens inequalities because it is exclusively available to privileged individuals who have homes, jobs and incomes along with the necessary technology itself as well as sufficient levels of digital literacy to be able to self-isolate and enjoy a comfortable life from a physical distance. The term "new normal" discriminates against people with disabilities who were already confined to their homes before the pandemic, while the concept of distance presupposes another type of closeness that depends on the ability to adapt to new technologies which is not so effortless for the elderly. This algorithmic socialisation involves intrusive data surveillance that goes as far as the level of the inner self, including its thoughts and emotions, while heavily relying on machine-learning formulae and automated decision-making.

Dependence on the Internet to mitigate the negative effects of Covid-19 has proven to be insufficient because the pandemic has triggered multiple crises and caused severe disruption, including dysfunctional global supply chains and production as well as problems associated with unemployment, inadequate healthcare and education amongst many others. The virus has shaken the basis of the neoliberal view of the world by exposing the weaknesses and helplessness of individuals when faced with global threats. The need for stronger state interventions was palpable, moreover, governments started to introduce measures that are completely at odds with neoliberalism such as assembling bailout packages as well as providing free Covid-19 tests, vaccines and other medical necessities. In other words, the virus has, in fact, exposed all the weaknesses of societies and shown that the pandemic is merely a result of neoliberalism and a world-system based on "extraction, exploitation and expansion" (Horvat, 2021: 12). Paradoxically, even though Covid-19 is the most significant crisis of neoliberalism that has ever occurred, it has not resulted in its demise. Using its own abilities to adapt and remain resilient, neoliberalism has endured by producing coping

mechanisms. Digital resilience is one of these mechanisms, the main downside of which is its inability to tackle the causes of the problems but only to offer remedies that mitigate their devastating consequences.

However, during the pandemic, certain ideas that fall outside of the ideological framework of neoliberalism started to circulate and gain more attention. Among many others, the concepts of interdependence and interconnectedness were focused on to challenge the primacy of individualism and self-dependence associated with neoliberalism. Since the outbreak of Covid-19, it has been clear that a catastrophe of such proportions emerged due to large-scale environmental changes, moreover, that crisis management requires close cooperation between individuals, communities, regions and even states. On the one hand, technology has strived to overcome physical distance by allowing people to isolate themselves from each other while collaborating to overcome multiple obstacles and survive during the lockdowns. This shift from individual autonomy to the ideal of interconnectedness (Chandler, 2014) disturbs the neoliberal order as well as points towards different ways of tackling global crises such as climate change and related problems which stem from human interventions in the environment that go beyond the capacities of our planet. This shift from individual to collective responsibility problematises individual resilience as well and imposes the idea of collective resilience that radically breaks away from neoliberal ideology. It is strongly attached to the ideas of providing health and well-being for everyone without discrimination and limiting progress, extractivism and expansion to natural boundaries. According to this logic, building individual resilience with technologies has to be conditioned by the availability of resources for producing these technologies and by the requirements of digital wellbeing.

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Komplex rendszerek rezilienciája

Boda Dezső[1]

Absztrakt

A minket körülvevő komplex társadalmi-ökológiai rendszer rezilienciája a rendszert érő komoly hatások (klímaváltozás, járványok, káros technológiák) tükrében egy húsbavágó kérdés. Ebben az írásban a komplex adaptív rendszerek rezilienciáját illetve sérülékenységét, törékenységét elemzem a komplex rendszerek egy szabályalapú modelljének keretein belül. Ebben a modellben a rendszert alkotó ágensek viselkedését szabályok irányítják, ami viszont a rendszer emergens viselkedésében nyilvánul meg. Ily módon a rendszer rezilienciája az ágensek adaptív viselkedésével hozható közvetlen kapcsolatba. Több olyan kérdést elemzek az írásban, ami a reziliencia fogalmának jobb megértéséhez vezet, mint például a rend és rendezetlenség harca, az öregedés, az életciklusok, transzformációk, összeomlások, a „káosz peremén" való egyensúlyozás, a rejtett sérülékenység és az önző mémek.

Abstract

The resilience of the complex socio-ecological system around us in the face of serious challenges faced by the system (climate change, epidemics, harmful technologies) is a pressing issue. In this paper, I analyse the resilience, vulnerability, and fragility of complex adaptive systems within the framework of a rule-based model of complex systems. In this model, the behavior of the agents that make up the system is governed by rules, which in turn manifests itself in the emergent behavior of the system. Thus, the resilience of the system can be directly related to the adaptive behavior of the agents. Several issues are analysed in the paper that lead to a better understanding of the concept of resilience, such as the struggle between order and disorder, ageing, life cycles, transformations, collapses, balancing on the edge of chaos, hidden vulnerability, and selfish memes.

Bevezetés

Manapság egyre többet lehet hallani arról, hogy a minket körülvevő világ komplex, és hogy az emberiség olyan komplex problémákkal néz szembe, mint a klímaváltozás vagy az éppen körülöttünk dúló világjárvány. Ha egy percre eltekintünk attól, hogy ezeket is az egyre globálisabbá váló, túlnépesedő technológiai civilizáció okozza, legalábbis részben, akkor ezeket a külső hatásokat tekinthetjük egy külső perturbációnak. Felmerül tehát az a kérdés, hogy erre a külső perturbációra miképpen válaszol a rendszer, tud-e alkalmazkodni ezekhez a hatásokhoz, vagy olyan mértékben át kell alakítania a saját működését, hogy

1 Boda Dezső, boda.dezso@mk.uni-pannon.hu, egyetemi tanár, Pannon Egyetem, Természettudományi Központ; ösztöndíjas kutató, Felsőbbfokú Tanulmányok Intézete