

Platforms for re-localization. Communities and places in the post-pandemic hybrid spaces

Ezio Manzini 📵 a | Massimo Menichinelli 📵 b *

- ^a DESIS Network | University of Politecnico di Milano, Department of Design: Milan, Italy
- ^b RMIT University, RMIT Europe: Melbourne, Australia | Aalto University, Aalto Media Lab: Espoo, Finland
- * Corresponding author: massimo.menichinelli@rmit.edu.au

ABSTRACT

Beside addressing the emergency, design practice and research could focus on how COVID-19 is influencing existing trends in order to strategically plan for a post-pandemic phase where the "new normality" means living in ecological and socio-economic crises. This article focuses on what the pandemic crisis teaches us on the issue of local communities and related digital technologies. How can we design for and with the new kind of communities emerging because of COVID-19? The background of this research is the experimentation and research at the intersection of two themes (as they were before the COVID-19 crisis): the construction of communities related to the place where they are located (community of place), and the design of enabling platforms of re-localizing processes (place-making infrastructure). The article draws an overview of the changes that the pandemic has brought to communities, the emerging hybrid communities of the new normality (i.e., communities *before*, *during and after* COVID-19). Finally, it proposes 10 design guidelines for the development of resilient, fair and open platforms supporting and assessing the new emerging hybrid communities and their distributed activities (i.e., platforms for communities *after* COVID-19).

Keywords: community, platform, place, resilience, distributed systems.

INTRODUCTION

After a handful of months since its start, the COVID-19 pandemic has already had a huge influence on society, so much that expectations are that its impact will be long lasting on several dimensions. Beside addressing the emergency, design practice and research could focus on how COVID-19 is influencing existing trends in order to strategically plan for a new post-pandemic phase: the one that is frequently called the "new normal", even though it should be clear that this will be the "normality" of living in the ecological and socio-economic crisis.

The emerging questions are: How can we design for and with the new kind of communities emerging because of COVID-19? How can we design the infrastructures necessary for supporting the new activities of such new communities?

The background of this research is the experimentation and research at the intersection of two themes (as they were before the COVID-19 crisis): the construction of communities related to the place where they are located (community of place), and the design of enabling platforms of re-localizing processes (place-making and community-building platforms). This article thus focuses on what the pandemic crisis teaches us on the issue of local communities and how digital technologies, infrastructures, and platforms can support them in becoming

hybrid communities of place, a concept we introduce here together with 10 design guidelines for designing platforms for them.

The COVID-19 is a pandemic and therefore a global phenomenon; however, we, the authors of this article, write about it from our experience from Southern Europe, between Italy and Spain. The perspective of the article and of the design guidelines should be thus contextualized in such experience and local worldviews.

1. WHERE WE WERE AT: CONFLICTING TRENDS IN THE ECOLOGICAL CRISIS

1.1. Trends and Counter Trends

The pre-pandemic scenario can be characterized as the clash between different forces and different trends: the dominant macro trend towards *neoliberal globalization* (T1), as understood in recent decades and various counter-trends that, in different ways, have opposed T1. In turn, these trends can be placed in two very different (and in their own way opposed) areas of political action: *reactionary anti-globalism* (T2), which is based on identity, racist, denialist positions. And the *alter-globalism for sustainability* (T3), which expresses a high degree of awareness of the ongoing social, environmental and political emergency which sees opposition to T1 and T2 as necessary steps to move towards sustainability.

It should also be said that T1 and T2 are the dominant trends today, fuelled by enormous economic and political interests. Conversely, T3 is generated by a multiplicity of actors, in an arc that has included and includes numbers and different political movements (from the World Social Forum, at the beginning of the century, to Friday for the Future and Extinction Rebellion, to new Green parties in Europe and at the Black Lives Matter, in the USA and worldwide) and, generally, all the people who have adopted ways of being and doing in opposition to T1 and T2. Considered as a whole, these people, groups and organizations, in the past two decades, have produced a large wave of social innovation .

1.2. A choice of field and a point of view

In order to translate it into lines of research, two other important choices had been made in the framework proposed. The first is a choice of field: we will consider the clash between these different trends starting from the point of view of those who have decided to work for the success of T3. This choice of field has a political value which will not be discussed here, but which it is right to declare upstream of any other argument. The second choice concerns the point of view to be adopted. Given the wide range of interventions that can and must be done to support T3, we decided to deal with those relating to the daily dimension of the experience. In other words, how people can be motivated and able to work for the regeneration of society, starting from the reconstruction of communities and places. And how technology can hopefully support them .

Since T1 presented itself as the intertwining of individualization, virtualization and delocalization, T3 was driven by, and in turn promoted, opposing tendencies which can be summarized as the creation of new forms of community, new relationships with places and new ways of relating the physical and digital worlds. It is also necessary that these lines of action of T3 are not only alternatives to T1, of course, but also to T2. Communities and places referred to in T3 must not become the closed and reactionary entities that populate

the rhetoric and practices of T2. There is a keyword which, in our opinion, indicates the direction to follow, "openness" of approaches and communities .

1.3. Communities of place and enabling digital platforms

In the pre-COVID-19 situation, therefore, the theme on which we were working, and which is therefore the background from which this article arises, is placed in the context of the conflicts now described, placing itself at the intersection of two areas of research and experimentation: that of (C1) building community of place and that of (C2) digital platforms that can make them more probable and possible.

For us, the roots of the concept of communities of place (C1) are double. On one side there are the works on the city done, first of all, by Jane Jacobs (1992) and then by Henri Lefebvre, Charles Landry, David Harvey, Richard Sennett. On the other side, there are the work done on design for social innovation on Creative Communities and by several labs of the DESIS Network.

In our perspective, digital platforms (C2) are considered not only as a set of technologies, innovations or business models but for their ability of enabling distributed collaborative networks that extends the common discussions supported by ICT towards activities that are both local and online with Digital Social Innovation initiatives (Bria 2015). This consideration emerged from Participatory Design and New Media, especially from the concepts of enabling solutions, infrastructuring and meta-design. Here meta-design can be considered as an activity and approach (how), infrastructuring as a long-term strategy (when), platform as the technology being designed (what), enabling solutions as the goal (what for).

2. WHAT WE OBSERVED: MICRO-SOCIABILITY AND ONLINE LIFE

2.1. Re-localization: re-centering on territories

After decades in which, in the name of globalization, connectivity, virtualization, and of what appeared to be the economic convenience, those in power operated as if the territory did not exist, today, many people and entire institutions seem to have noticed its importance. That is, the fact that we and our human affairs are inevitably immersed in a physical, local, complex space. This observation should lead us to propose regenerative strategies (based on the reconstruction of the relationship between human beings and the places where they live) with more force and more chance of success.

2.2. Micro-sociability

For many people, the lockdown period meant the (re)discovery of micro-sociability. That is, the value of getting in touch with those who live really close, in the same building and/or in the same street. Therefore, we have seen this type of sociality emerge everywhere: there have been those who organized themselves to help the elderly or people in isolation. There were public bodies and voluntary associations that coordinated hyper-local initiatives. There were local stores that sent groceries home to those neighbors who were unable to move. There have been bookstores that found ways to support local cultural activities. *This*

observation should lead us to reflect on the issue of proximity (physical and otherwise) and its role in social innovation due to the importance of being local.

2.3. Shifting to more online activities

With the lockdown, a large number of people have been forced to overcome the threshold of practical and psychological difficulties in the use of digital technologies and online services in sectors previously not practiced. The result has been that many have begun to consider it "normal" to do online activities that, before, were considered to be normal in the physical world. In the past decades the local/physical dimension and the digital/online dimension have never been completely separated and have been instead more integrated and their interface and influences continuously negotiated. What we are witnessing now is indeed a shift of the balance towards the digital/online dimension: the "platformization" of the Web and of businesses, the rise of the platform as the dominant infrastructural and economic model, was an important trend even before the COVID-19 pandemic. What has happened during 2020, is that platforms have become even more central to many more people, at least in Western countries, as the main way for people in isolation to reach other people and resources, now even more distant than before.

3. WHAT WE HAVE LEARNT: CHARACTERS OF THE NEW NORMALITY

3.1. New normality means resilience

After COVID-19, the new normality we will be in when the health emergency is overcome, will see other emergencies arising and communities should then be able tackle them. First of all, the social and economic ones, and then the climatic and ecological ones. Therefore, the goal of building a resilient society is not only dictated by the risk that, sooner or later, a catastrophe will occur in the form we have known so far. But also, from the concrete possibility of an unprecedented series of social, ecological and climatic disasters connected to each other. Which means that whatever we think of the society of the future, it will have to be resilient: the capability of a system to cope with stress and failure without breaking down and, more importantly in relation to socio-technical systems, to learn from experience. During an emergency, when normal practices and top-down communication flows collapse, citizens who know each other and their places have demonstrated to be resilient by being able to self-organize and successfully use resources in adapting to the new situation. For this reason, resilience should be considered a fundamental characteristic of any future society. The calamities of the past and the recent one lead us to say that the discussion on resilience, and in particular on social resilience, tends to coincide with that of the construction of an open and diverse society, rooted in the territory and rich in social forms. There is an extensive literature on the issue of social resilience of communities in the face of various types of catastrophes, coherently with

Manzini, E. & Menichinelli, M. (2021). Platforms for re-localization. Communities and places in the post-pandemic hybrid spaces. *Strategic Design Research Journal*. Volume 14, number 01, January – April 2021. 351-360. DOI: 10.4013/sdrj.2021.141.29

3.2. New normality means hybrid communities

We have observed that unprecedented practice of social distancing had, as a more evident effect, the search for online sociality, with both positive and negative implications. Online/digital technologies can have opposite effects: they can push towards an increasing

de-localization, individualization and virtualization. They can include also the neoliberal self-exploitation under the illusion that we are fulfilling ourselves towards the maximization of productivity and efficiency, a typical trait of T1. Or they can go in the opposite direction (T3) supporting new place and community building processes.

The hypothesis here is that the same energy that now pushes many people to go online could lead them to build "localized open networks": online and offline interactions that, in the post-COVID-19 period, could continue and prosper generating unprecedented *hybrid communities* of place. That is, communities that live in hybrid, physical-digital spaces, where the latter (the digital spaces) supports the former (the physical ones). And where places refer not only to us, the humans, but also to all the other living and non-living entities that, with us, constitute the web of life. Doing so means to cultivate in the digital space only (or at least mainly) relationships in-between "neighbors". That is, in-between a well-defined and localized group of interlocutors.

3.3. Re-placing vs. displacing technologies

Social resilience requires the existence of groups of people who interact and collaborate in a physical context that they know so that they can self-organize and solve problems during a crisis. In other words, resilience requires communities of place. We consider that the disruptive potential of digital technologies should be taken into account when designing platforms not by supporting activities that disrupt the social fabric of communities, but instead by supporting activities that enable communities in becoming hybrid ones. Design initiatives should aim at developing platforms that strengthen the relationship of people and communities with their places instead of focusing only on a digital dimension disconnected and disengaged from territories. That is, we need re-placing technologies (that re-create or reinforce the connections between people and physical places thanks to digital spaces) and not displacing ones (that moves people and their relationships out of physical places towards only digital spaces). More than merely counterposing *replacing* with *displacing*, we stress how such technologies should be also *re-placing* with the idea that they should increase the importance, role and focus on physical places in digital technologies.

4. DESIGN GUIDELINES FOR PLATFORMS FOR HYBRID COMMUNITIES OF PLACE

The platforms we consider in this article should support collaborative community building and place making processes in opposition to both the present dominant trends (T1 and T2). That is, they should not just avoid disruption of social relationships and place culture, but they should contribute to create or re-create new (hybrid) communities with a new sense of (hybrid) place, with communities being not displaced but re-placed by a new hybrid digital/physical place. Therefore, the criteria for considering the design of a technology displacing or re-placing should be based on the quality of social relationships and connections between people and places that are enabled and supported.

We thus propose in this section 10 design guidelines (DG), broad guidelines for designers developing digital platforms. The scope of such guidelines is not to provide a prescriptive and concrete guidance for implementing readymade and tested strategies and components. Instead, such guidelines should be considered as a list of challenges that aim at provoking designers to rethink first a) how platforms could support hybrid communities and then b) to

translate such guidelines into the specific platforms and contexts by supporting communities' particular worldviews, cultural differences and material gaps while c) discussing with communities' what a hybrid community would mean and entail for each of them, considering their cultures, worldviews and present material conditions. Rather than predefined instructions and checklists to be followed, these guidelines are more open questions and challenges to be considered in order to support communities' particular worldviews during this symbolic adaptation to hybrid communities.

DG01. How could we design platforms as capable of supporting hybrid communities in developing activities and social relationships that make them resilient?

The dominant trend T1, so far has gone in the direction of a society of individuals, with the reduction of the number and diversity of social forms, which leads to the impoverishment and desertification of the social ecosystem. And a desertified ecosystem is, by its nature, a fragile ecosystem. Such reduction diversity of social form is a relevant critical point of current platforms, which tends to replicate and promote everywhere a single worldview that originated in a specific place and culture, typically from Silicon Valley . This is an inheritance of the conventional universalism of digital culture: the vision of the Web as a single and same global community undifferentiated for everyone, everywhere. Historically, such vision has been of a place agnosticism attitude to digital media , that sees local cultures and places as irrelevant to digital spaces. There is now a growing interest in developing platforms that are instead more in line with local worldviews instead of a single worldview promoted everywhere by horizontally connecting communities with initiatives that valorize local diversities and connect them globally .

DG02. How could we design platforms that valorize and support a pluriverse of people and places and their local worldviews?

The traditional utopian vision of the web as a universal space feared balkanization as the ultimate menace . But despite global connectivity, groups already self-organize at multiple scales but in fragmented ways, with clear geographical borders that are consistent between physical and virtual spaces that reinforce the diversity of individuals and groups . That is, diversity, clusters and differentiation already exist in society; platforms might be reachable everywhere but tends to have more users in some places than others. As a consequence, the awareness of the existence of a plurality of local worldviews should be sought, including by designers themselves, who should understand how their local worldview might affect the platforms they design in order to support a new pluriverse of hybrid worldviews instead of displacing local worldviews with a single one.

DG03. How can we designers be aware of our own communities, places and worldviews, and how they all influence our designing of platforms for hybrid communities?

The past catastrophes experiences also tell us that a community is resilient not (or not only) because it has some places and some specialized organizations (that is, places and organizations specifically dedicated to the post catastrophe activities that, therefore, in normal times, await empty and unused the "hour x"). It is resilient mainly because there are groups of people, places and infrastructures that are operational every day for other purposes. And that, if "hour x" arrives, they become available to do other things with the same resources, avoiding a strict specialization.

DG04. How could we design platforms that favor redundancy of activities and resources over specialization in order to support multiple activities and actors?

But, in order for this to happen, these same places and their related organizations (neighborhood associations and their offices, sports centers, churches, warehouses, shops, and the people who refer to them daily) must have the possibility and the ability to do it. Which means they should have flexibility in the physical structures and organizations that deal with them. The dominant trend in contemporary societies is not only the desertification mentioned above, but it is also hyper-specialization: places, infrastructures and organizations are designed to do with maximum efficiency only what, at that moment, is most convenient. But we know that the exasperated search for efficiency leads to hyper-specialization and to fragility.

DG05. How could we design platforms that favor flexibility of activities and resources and their re-distribution over multiple activities, and places?

If we want to support hybrid communities in being resilient, we need to consider how the platforms themselves can be made resilient i.e., that they have an architecture and underlying infrastructure and management that makes them always available and ready to fix problems and adapt their features quickly. For example, peer-to-peer, distributed, mesh networks architecture might contribute towards avoiding a failure in their accessibility.

DG06. How could we design platforms that are themselves resilient in order to continuously and fully support hybrid communities in being resilient?

Furthermore, another consideration that should be made is that such platforms should be then fair, open and democratic, in order to guarantee that they are fit for the communities and that they are empowered and not just mere end-users of such platforms. One of the risks emerging in the pandemic is that contact tracing apps might become the new normal with the trends of the increasing surveillance capitalism . Together with this, opacity of platforms should be avoided through open source software and practices, and power dynamics and influences should be checked .

DG07. How could we design platforms that are open, fair, transparent and democratic towards the hybrid communities they support?

Finally, a design that works at building the infrastructure that enables new kind of communities should also be assessed if and how it reaches such goal. That is, the implementation of a new design practice should also coupled with the assessment of its impact: the assessment of the impact of design activities is still largely an unexplored field, that has been mapped so far only in its economic or innovation dimensions . Such assessment should be developed along further dimensions, adopting approaches, for example, that focus not only on resilience but at least also on social impact , well-being , urban health , SDGs .

DG08. How could we assess the social, environmental, economic impact of the platforms that support hybrid communities, while considering their resilience and well-being?

Such approaches already provide several frameworks for analyzing impact along these dimensions; they mainly are, however, research tools that can be adopted only by researchers, and communities can hardly access nor know how to use them. It is thus necessary to design tools and systems that make the measurements and visualize them in a

way that each specific community can understand the impact. Considering the ability of platforms in automatizing processes, collecting data from different sources and provide interactive visualizations, such frameworks could be consolidated into composite indicators and integrated directly within the platforms .

DG09. How could we contribute assessment tools to be integrated directly into the platforms that support hybrid communities?

Furthermore, it should be noted how such impact assessment does not take place at the level of single initiatives, but at platform level, and therefore at a larger, system scale. The integration of assessment tools would then provide an overview of the impact of both single communities and initiatives and of larger systems as well. The impact of designing for hybrid communities should be assessed on platforms themselves and on the initiatives supported by platforms, which enable then to map impact of design at a larger scale. This also leads to the possibility of using such assessment not only for verifying the impact of designing activities, but also to do a validation of the models adopted for understanding resilience and hybrid communities i.e., to assess the strategic approach behind the designing activities as well. In order to do this, the communities should be engaged in this validation too, to see if the worldviews of designers and platforms are aligned with their one .

DG10. How could we engage hybrid communities in the validation of the impact assessment of their platforms in terms of impact and of validity of the models adopted?

5. CONCLUSIONS

The COVID-19 situation has not only disrupted many systems and processes, but also strengthened existing trends: this article focuses on how platforms could integrate and support the increasing move towards online spaces and activities of local (now hybrid) communities, and their ability and needs for becoming resilient. On this ground, design for social innovation could and should play an important role in supporting such hybrid communities in becoming resilient in their activities following the new proxemics. In order for this to be possible, two preconditions are necessary: (1) it must be prevented that, as long as these physical distancing rules are in place, they push people towards isolation (effectively reinforcing hyper-individualism and the solitude of T1 or closed pseudocommunities of T2). And it is necessary that (2) the communities that are produced have the necessary resilience to face the traumatic events that, in any case, will occur in the future. We expect thus a new generation of platforms capable of supporting the reorganization and redistribution of infrastructures and activities compatible with the new rules - another step towards designing distributed systems. Along this direction, in this article we proposed 10 design guidelines for designing platforms that are resilient, fair, inclusive and that fosters local relationships, sense of place, culture and worldview; finally, assessing the impact of such platforms should also be not an afterthought but a design strategy. Future research should implement such guidelines into concrete platforms, test them with hybrid communities and develop them further.

Manzini, E. & Menichinelli, M. (2021). Platforms for re-localization. Communities and places in the post-pandemic hybrid spaces. Strategic Design Research Journal. Volume 14, number 01, January – April 2021. 351-360. DOI: 10.4013/sdrj.2021.141.29

REFERENCES

Beck, U. (2000). What Is Globalization? (1 edition). Polity.

Benton, S., Miller, S., & Reid, S. (2018). *The Design Economy 2018. The state of design in the UK*. Design Council. Retrieved February 3, 2020, from

https://www.designcouncil.org.uk/resources/report/design-economy-2018

- Cipolla, C. (2018). Desis Network: Strategies to advancing systemic social innovation through service design. ServDes2018. Service Design Proof of Concept, Proceedings of the ServDes.2018 Conference, 18-20 June, Milano, Italy, 25–36. Retrieved October 12, 2020, from http://www.ep.liu.se/ecp/article.asp?issue=150&article=003&volume=#
- Curtis, D. R. (2014). Coping with Crisis: The Resilience and Vulnerability of Pre-Industrial Settlements (1 edition). Routledge.
- Cusumano, M. A., Gawer, A., & Yoffie, D. B. (2019). *The Business of Platforms: Strategy in the Age of Digital Competition, Innovation, and Power*. HarperBusiness.
- Design ROI. (2013). Design ROI Measurable Design. Retrieved August 1, 2017, from https://issuu.com/anttipitkanen/docs/droi-measurabledesign-2012-issuu-en
- Ehn, P. (2008). Participation in design things. *Proceedings of the Tenth Anniversary Conference on Participatory Design 2008*, 92–101. Retrieved October 12, 2020, from http://dl.acm.org/citation.cfm?id=1795234.1795248
- Escobar, A. (2018). *Designs for the Pluriverse: Radical Interdependence, Autonomy, and the Making of Worlds*. Duke University Press Books.
- Giaccardi, E. (2003). *Principles of Metadesign: Processes and Levels of Co-Creation in the New Design Space* (Doctoral dissertation). University of Plymouth, Plymouth, United Kingdom. Retrieved October 12, 2020, from https://pearl.plymouth.ac.uk/handle/10026.1/799
- Grieco, C., Michelini, L., & Iasevoli, G. (2015). Measuring Value Creation in Social Enterprises: A Cluster Analysis of Social Impact Assessment Models. *Nonprofit and Voluntary Sector Quarterly*, 44(6), 1173–1193 DOI: 10.1177/0899764014555986
- Guerrero, A. M., Bodin, Ö., McAllister, R. R. J., & Wilson, K. A. (2015). Achieving social-ecological fit through bottom-up collaborative governance: An empirical investigation. *Ecology and Society, 20*(4). JSTOR. Retrieved October 12, 2020, from https://www.jstor.org/stable/26270301
- Han, B.-C. (2014). *Psychopolitik: Neoliberalismus und die neuen Machttechniken* [Psychopolitics: Neoliberalism and New Technologies of Power]. S. Fischer.
- Han, B.-C. (2016). *Die Austreibung des Anderen: Gesellschaft, Wahrnehmung und Kommunikation heute* [The Expulsion of the Other: Society, Perception and Communication Today]. S. Fischer.
- Harvey, D. (2005). A Brief History of Neoliberalism (1st Edition edition). Oxford University Press.
- Harvey, D. (2013). Rebel Cities: From the Right to the City to the Urban Revolution (1 edition). Verso.
- Hedayatifar, L., Rigg, R. A., Bar-Yam, Y., & Morales, A. J. (2019). US social fragmentation at multiple scales. *Journal of The Royal Society Interface*, 16(159), 20190509. DOI: 10.1098/rsif.2019.0509
- Helmond, A. (2015). The Platformization of the Web: Making Web Data Platform Ready. *Social Media + Society*, 1(2), 2056305115603080. DOI: 10.1177/2056305115603080
- Kitchin, R., & Dodge, M. (2011). Code/Space: Software and Everyday Life. The MIT Press.
- Landry, C. (2006). The Art of City Making (1 edition). Routledge.
- Latour, B. (2018). Down to Earth: Politics in the New Climatic Regime (Translation edition). Polity Press.
- Lefebvre, H. (1968). *Le droit à la ville* [Right to the city]. Anthropos.
- Loukissas, Y. A. (2019). All data are local: Thinking critically in a data-driven society. The MIT Press.
- Magis, K. (2010). Community Resilience: An Indicator of Social Sustainability. *Society & Natural Resources*, 23(5), 401–416. DOI: 10.1080/08941920903305674
- Manzini, E. (2012). Error-Friendliness: How to Deal with the Future Scarcest Resource: the Environmental, Social, Economic Security. That is, How to Design Resilient Socio-Technical Systems. *Architectural Design*, 82(4), 56–61. DOI: 10.1002/ad.1429
- Manzini, E. (2015). Design, When Everybody Designs: An Introduction to Design for Social Innovation (R. Coad, Trans.). The MIT Press.
- Manzini, E. (2016). Design Culture and Dialogic Design. *Design Issues*, *32*(1), 52–59. DOI: 10.1162/DESI a 00364
- Manzini, E. (2019). Politics of the Everyday. Bloomsbury Visual Arts.
- Manzini, E. (2010). Small, local, open and connected. In F. Ceschin, C. Vezzoli, & J. Zhang (Eds.), Sustainability in Design: Now! Challenges and Opportunities for Design Research, Education and Practice in the XXI Century: Vol. I (pp. 14–18). Citeseer. Retrieved October 12, 2020, from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.427.1460&rep=rep1&type=pdf#page=33
- Manzini, E., & M'Rithaa, M. K. (2016). Distributed Systems And Cosmopolitan Localism: An Emerging Design Scenario For Resilient Societies: Distributed Systems And Cosmopolitan Localism. *Sustainable Development*, *24*(5), 275–280. DOI: 10.1002/sd.1628

- Manzini, E., & Tassinari, V. (2013). Sustainable qualities. In R. Crocker & S. Lehmann (Eds.), *Motivating change: Sustainable design and behaviour in the built environment* (pp. 217–232). Routledge.
- Manzini, E., & Thorpe, A. (2018). Weaving People and Places: Art and Design for Resilient Communities. She Ji: The Journal of Design, Economics, and Innovation, 4(1), 1–10. DOI: 10.1016/j.sheji.2018.03.003
- Menichinelli, M. (2020a). Open and collaborative design processes—Meta-Design, ontologies and platforms within the Maker Movement. Aalto University. Retrieved October 12, 2020, from http://urn.fi/URN:ISBN:978-952-64-0091-4
- Menichinelli, M. (2020b). Exploring the impact of Maker initiatives on cities and regions with a research through design approach. *Strategic Design Research Journal*, *13*(1), 92-109–109. DOI: <u>10.4013/sdrj.2020.131.07</u>
- Menichinelli, M., & Gerson Saltiel Schmidt, A. (2019). Measuring the Social Impact of Maker Initiatives. Frameworks and Guidelines for Scaling the Assessment on Digital Platforms. In B. Tejerina, C. M. de Almeida, & I. Perugorría (Eds.), *Sharing Society. The Impact of Collaborative Collective Actions in the Transformation of Contemporary Societies.* (pp. 526–537). Universidad del País Vasco/ Euskal Herriko Unibertsitatea. https://sharingsocietyproject.org/2019/05/08/conference-proceedings/
- Meroni, A. (2007). *Creative Communities. People inventing sustainable ways of living*. Edizioni POLI.design. Retrieved October 12, 2020, from https://www.strategicdesignscenarios.net/creative-communities-book/
- Morozov, E. (2014). *To Save Everything, Click Here: The Folly of Technological Solutionism* (First Trade Paper Edition). PublicAffairs.
- Mueller, M. (2017). Will the Internet Fragment? Sovereignty, Globalization and Cyberspace. John Wiley & Sons.
- Mulgan, G. (2020, March 9). A world dominated by platform companies lacks good platforms for the SDGs: So what can be done? *Geoffmulgan*. Retrieved March 10, 2020, from https://www.geoffmulgan.com/post/the-vital-missing-support-that-s-needed-for-the-sdgs-and-how-it-could-be-provided
- Mulgan, G., Steinberg, T., & Salem, O. (2005). *Wide open: Open source methods and their future potential*. Demos. Retrieved July 4, 2020, from http://www.demos.co.uk/publications/wideopen
- Murray, R., Caulier-Grice, J., & Mulgan, G. (2010). *The open book of social innovation*. NESTA / Young Foundation. Retrieved June 3, 2017, from http://www.nesta.org.uk/publications/open-book-social-innovation
- Nomen, E. (2014). *Guidelines for collecting and Interpreting design data. A proposal for a future barcelona manual on design*. € Design | Measuring Design Value. Retrieved July 4, 2020, from http://www.measuringdesignvalue.eu/
- OECD. (2014). *How's Life in Your Region? Measuring Regional and Local Well-being for Policy Making*. OECD Publishing. DOI: 10.1787/9789264217416-en
- OECD. (2020). A Territorial Approach to the Sustainable Development Goals: Synthesis report. OECD. DOI: 10.1787/e86fa715-en
- OECD, & JRC (Eds.). (2008). Handbook on constructing composite indicators: Methodology and user guide. OECD. Retrieved July 4, 2020, from http://www.oecd.org/els/soc/handbookonconstructingcompositeindicatorsmethodologyanduserguide.htm
- Ostadtaghizadeh, A., Ardalan, A., Paton, D., Jabbari, H., & Khankeh, H. R. (2015). Community Disaster Resilience: A Systematic Review on Assessment Models and Tools. *PLoS Currents*, 7. DOI: 10.1371/currents.dis.f224ef8efbdfcf1d508dd0de4d8210ed
- Pineo, H., Glonti, K., Rutter, H., Zimmermann, N., Wilkinson, P., & Davies, M. (2018). Urban Health Indicator Tools of the Physical Environment: A Systematic Review. *Journal of Urban Health*, 95(5), 613–646. DOI: 10.1007/s11524-018-0228-8
- Rettberg, J. W. (2020). Situated data analysis: A new method for analysing encoded power relationships in social media platforms and apps. *Humanities and Social Sciences Communications*, 7(1), 1–13. DOI: 10.1057/s41599-020-0495-3
- Sennett, R. (2019). *Building and Dwelling: Ethics for the City* (Reprint edition). Farrar, Straus and Giroux.
- Wellman, B. (2002). Little Boxes, Glocalization, and Networked Individualism. In M. Tanabe, P. van den Besselaar, & T. Ishida (Eds.), *Digital Cities II: Computational and Sociological Approaches* (pp. 10–25). Springer. DOI: 10.1007/3-540-45636-8 2
- Zuboff, S. (2019). The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power (1st edition). PublicAffairs.
- Manzini, E. & Menichinelli, M. (2021). Platforms for re-localization. Communities and places in the post-pandemic hybrid spaces. *Strategic Design Research Journal*. Volume 14, number 01, January April 2021. 351-360. DOI: 10.4013/sdrj.2021.141.29