



Contents lists available at ScienceDirect

Wellbeing, Space and Society

journal homepage: www.elsevier.com/locate/wss

Wellbeing, place and technology

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ARTICLE INFO

Keywords:

Wellbeing
Place
Technology
Capabilities
Capability approach

ABSTRACT

One of the strengths of a capability account of wellbeing is that it allows us to theoretically and empirically analyze at a quite practical level why certain things matter to people - such as their housing, their jobs, and their friendships. A capability account of wellbeing is also very well suited to understand the importance of place for wellbeing. Some dimensions of wellbeing are constitutively place-related, such as “feeling at home”. Other dimensions of wellbeing are affected by what the places and locations in which we live mean to us. Taken together, we call them “place-based capabilities”. Using a capability account of wellbeing allows us to use social scientific research to investigate the role of social, economic, demographic, political, ecological and technological processes on wellbeing. This paper illustrates this by investigating the role of recent technologies in enabling and expanding capabilities. On the one hand, technological change has dramatically expanded those capabilities. On the other hand, the use of those technologies has unintended consequences for other capabilities. The conceptual as well as empirical relationships between (place-based) capabilities and technology is therefore a complex one.

1. Introduction

In the European Fall and Winter of 1994, I spent half an academic year abroad as an exchange student. I came from Belgium and was moving to the University of Göttingen, in Germany. This half year abroad turned out to be pivotal in how my life unfolded: it was the start of my transformation from a person who felt that home was a specific place, into a person who had experienced that she could set up home in different places. Living in another place also made me much more critical of the place where I spent the first twenty years of my life; it allowed me to become much more critical of the way things are done unquestionably in one place, since I discovered institutions and practices could be done very different elsewhere, sometimes in a way that I judged overall to be better.

If I wanted to be in contact with family or friends, I wrote them letters, written by hand, that I would send by postal mail. If there was something urgent or important, we would call - but given that international phone calls were expensive, these conversations would be rare, and typically very short.

In that year, I became befriended with Christine Chen, an American exchange student who came from Berkeley. One day, when I visited Christine, she was about to log off from the computer in the common room of her student accommodation. That was the very first time I saw email. It was very rudimentary, with a very basic set-up and a simple visual design, probably composed in PINE. I still have a vivid memory of Christine explaining me that she could use this system to send messages

between Berkeley and universities abroad - like sending short letters. I was in awe of how technology would deliver a note across an ocean and a continent in a mere few seconds, whereas it would take half a week for my handwritten letter to be delivered across only one national border, to a place a mere 500 km away.

In 1994, I had not yet understood the impact that the internet, email, and all the subsequent internet-based technologies such as videoconferencing would have on my life as an academic and a migrant. But the impact would turn out to be huge, and the general embrace of these information and communication technologies (ICTs) would suggest that the impact was, overall, mainly positive. Technological change has been able to bridge distances, and thus to bring different places together, in a sense that was not possible before these technologies became available on a massive scale.

This example illustrates at least two things. First, that places can be very important in determining our wellbeing. We want to travel and live in other places as part of our education and our flourishing. If we travel, we are able to experience other ways of life, and hence also acquire a critical understanding of the traditions, institutions and practices of the place where we come from. And we want to interact with people that are physically in a place very far away from us. This raises the conceptual question what the role of ‘place’ exactly is in our understanding of wellbeing. Second, the example shows the role that technology can play in securing those dimensions of wellbeing. Without the technologies that enabled trains and cars, it would have been very difficult for me to spend a semester at a university abroad. Without internet and

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<https://doi.org/10.1016/j.wss.2020.100013>

Received 27 June 2020; Received in revised form 26 November 2020; Accepted 4 December 2020

Available online 5 December 2020

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email, it would have been much harder for Christine Chen to stay in touch with her friends and family in the USA when she was living in Germany.

In this paper, I want to analyze the relations between place, wellbeing and technology from a conceptual point of view. In [Section 2](#), I will first offer some clarifications related to theories and concepts of wellbeing. This provides some groundwork that will help me to argue in the next section that if one is interested in social changes, including policy making, a capability approach of wellbeing is particularly well-suited to understand wellbeing. It also allows us to analyze and understand at a quite practical level why certain things matter to people - such as their housing, their jobs, and their friendships. [Section 4](#) shows how this is true for what we can call “place-based capabilities”, which are capabilities that are directly place-related, such as “feeling at home”, or capabilities which are strongly and unavoidably affected by what the places and locations in which we live can offer us. I also ask how the introduction of place-based capabilities can help (applications of) the capability approach. In [Section 5](#), I offer an illustration of how this capability approach of wellbeing can be used to analyze the determinants of wellbeing. I take technology as an illustration, and ask what the role of recent technological developments is in enabling and expanding place-based capabilities. I will argue that, on the one hand, technological change has dramatically expanded those capabilities. On the other hand, the use of those technologies has unintended consequences for other capabilities. In the final section, I therefore conclude that the conceptual as well as empirical relationships between place-based capabilities and technology are complex.

2. Theories and concepts of wellbeing

Wellbeing may well be the value that is most widely studied across the social sciences and humanities. Yet it is used in a wide variety of ways, not just in academic scholarship, but also in everyday life. Anna Alexandrova, a philosopher of science who has analyzed theories and empirical research of wellbeing, has argued that this pluralism is inevitable ([Alexandrova, 2017](#)). She argues that while we use many different notions of wellbeing, we still have no problem to acknowledge and understand that in all those different contexts we are talking about wellbeing in a sense that is appropriate to that context. For example, a therapist of a patient with mental health problems, a police officer who approaches someone who has just been robbed, or a social scientist studying well-being enhancing policies in a country may all be using a different (implicit) account of wellbeing when they do their work, but still in all these contexts it is appropriate to speak of “wellbeing”. Alexandrova calls this *contextualism*, “the view that well-being expressions have varying content dependent on the context in which wellbeing is assessed.” [([Alexandrova, 2017](#)), p. 23].

In philosophy, the most striking feature of the literature on wellbeing is the high degree of abstraction used. Philosophers of the analytical tradition have not only focused their wellbeing debates on entire-life discussions of wellbeing, but have also debated those accounts at a very high level of abstraction. A good example is the influential distinction made by Derek Parfit in Appendix I of his influential book *Reasons and Persons* ([Parfit, 1985](#)). Parfit suggests that we should make a distinction between three types of philosophical wellbeing theories. As he formulates it, “On *Hedonistic Theories*, what would be best for someone is what would make his life happiest. On *Desire-fulfilment Theories*, what would be best for someone is what, throughout this life, would best fulfil his desires. On *Objective List Theories*, certain things are good or bad for us, whether or not we want to have the good things, or to avoid the bad things” [([Parfit, 1985](#)), p. 493]. The typical philosophical preoccupation is to argue, *ad infinitum*, which of those three theories is the better one. As Alexandrova rightly points out, there is other work that philosophers of wellbeing could be doing.

For empirical-making or for theorizing that would be the groundwork for empirical research, a less abstract theory may be more helpful. But

in addition, in order to know whether we should aim for a very abstract theory, or a less abstract theory of wellbeing, and which particular theory or account would be best, we first need to know the *aim* or the *purpose* of our use of the term “wellbeing”. This is clear if we look at some examples from how we refer to someone’s wellbeing in ordinary speech. For example, when we asked someone who has just been robbed whether they are OK, we are not asking about their overall wellbeing in life, but focus on the particular circumstances. Similarly, if as a scholar we refer to wellbeing in the context of government policies that we are studying, or in the context of asking whether a certain child raising practice is enhancing the wellbeing of a child, we need different accounts of wellbeing.

Hence, the term “wellbeing” is never used in a vacuum. Sometimes it is used as the variable to be explained, and scholars examine the determinants of wellbeing. Some projects are more explicitly action guiding and hence more explicitly normative, for example when formulating policy advice, or when answering the question what we owe to each other as fellow citizens or human beings.

In the next section, I will argue why the capability approach provides us with a helpful account of wellbeing for policy making by a government (whether national or local), and also for studies in the social sciences about the wellbeing of groups and individuals, both cross-sectionally, as well as over time. Yet from these arguments for why the capability approach is particularly useful for understanding “wellbeing” in those contexts, we cannot conclude that other accounts of wellbeing would not be helpful. If one endorses Alexandrova’s two contextualist claims, first, that there is no single correct theory or concept of wellbeing, and second, that the context in which the notion is used matters for its content, then this pluralistic stance is the right one. This paper aims to show what we can do with the capability approach, but doesn’t aim to cast judgement on what the strengths and limitations of other theories and concepts of wellbeing are.

3. The capability approach to wellbeing

The capability approach is a normative framework that was first proposed by [Sen, \(1985a, 1985b, 2009\)](#) and has been further developed into a theory of justice by [Nussbaum \(2006\)](#), and subsequently taken into a range of different directions by a large number of other scholars ([Robeyns, 2017](#)). Sen refers explicitly to wellbeing in his work on capabilities, but for Nussbaum, her list of capabilities represent fundamental political entitlements; hence matters of justice, not matters of wellbeing. Over the last decades, the capability approach has been further developed for various purposes in the social sciences and humanities, e.g. in conceptual work on agency or democracy, into an evaluative framework for practices, social institutions or policies, or as the conceptual basis for measures of multidimensional poverty or health-related quality of life.

In earlier work, I provided a generalization of the different usages of the capability approach that can be found in this flourishing literature, in order to show what is common to all capability theories, and also discussed which account of wellbeing we can find in the capability approach ([Robeyns, 2017](#)). Capability theories can have many different functions or goals (e.g. a theory of justice, a measure of poverty, a theory of development ethics), yet these are all more specific theories that can be brought together under the general umbrella of the broader framework of the capability approach. The main notions in the capability approach, which are also indispensable for the capability approach of wellbeing, are “functioning” and “capability”. A *functioning* is a doing or a being. One could think of activities and experiences, or aspects of oneself or things one enjoys. As a concept, a functioning is value-neutral: they can be either positively valued, negatively valued, or be regarded as neutral. This makes it possible that functionings can serve as the analytical building blocks of a person’s wellbeing, but also of her illbeing. Examples of positive functionings are: being fit and physically healthy, being educated, holding a job, being a parent, enjoying good mental health, being sheltered, enjoying good social relationships. Examples of

negative functionings are: being harassed, being bullied, being raped, being homeless, not enjoying any education, not having a meaningful job, being lonely.

Although one can find in the capability literature slightly different definitions of “capability”, the most widespread understanding is to see a capability as the opportunity or freedom to achieve or enjoy a particular functioning. Hence, “being educated” is a functioning, but “having the freedom to enjoy higher education” is a capability which one might pursue or not. Capabilities are therefore genuine opportunities; philosophers also denote them with the term “positive freedoms” or “option freedoms”.

Since the capability approach uses both notions of functionings and capabilities, it also allows us to work with two different concepts of wellbeing: achieved wellbeing, and wellbeing freedom, which were introduced by Amartya Sen in his 1984 Dewey Lectures (Sen, 1985b). Sen believes that it is important to make a distinction between these two because two people could have the same achieved wellbeing, but in some circumstances, we might hold that what really matters is the real opportunities or freedom that those persons had to achieve wellbeing. For example, on some accounts and measures of wellbeing, citizens who are inspired by radical ecological ideologies and choose for a life off the grid in which they focus on living ascetically might forego higher levels of material welfare as well as overall wellbeing. Assuming they made those choices autonomously, policy makers shouldn't worry about their lower levels of wellbeing, since these citizens have themselves opted for a simpler lifestyle and still have the freedom to opt for a different lifestyle with a higher level of wellbeing. But clearly, when making group-based analyses, one might argue that the default is that inequalities in achieved wellbeing reflect inequalities in wellbeing freedom, and that the burden of proof is on those who think differently.

This summary of the capabilitarian account of wellbeing does immediately raise the question which functionings and capabilities make up wellbeing. Which items should be included? If we follow Alexandrova's arguments that there are multiple accounts of wellbeing for different contexts and circumstances, then it follows that we cannot answer this question in general terms. We might single out different dimensions for the different purposes in which wellbeing plays a role. This is the main reason why most capability scholars who have studied the question ‘which capabilities matter?’ in applied work have argued in favor of procedural methods to select the dimensions (Robeyns, 2005; Byskov, 2018).

It doesn't follow that the capability account needs to embrace some form of strong relativism about wellbeing. Instead, there are two other (but related) issues which I believe we can observe from studies that have used the capability approach for questions of wellbeing. One observation is that some issues will be important in all contexts, simply because they represent basic human needs: think of access to protection from the elements (shelter), water and food for basic survival, and capabilities that refer to a number of basic rights, such as being free from assault. It is therefore very plausible to conclude that there is some core set of basic capabilities that are universal for all human beings, independent of the time-space constellation in which they live. The second observation is very much congruent with Alexandrova's insights, namely that the selection of relevant capabilities might differ dependent on the context, both in terms of the level of generality as well as what is being focused on. Compare a study of wellbeing differences between countries with a study that asks what can be done to improve the wellbeing of vulnerable children in an affluent society. Surely the list of functionings in the respective accounts of wellbeing will be different, yet both are capabilitarian accounts of wellbeing. There is nothing strange or inconsistent about that observation, as long as we keep in mind that the capability approach is a very flexible framework of wellbeing and freedoms that can be used in a wide variety of contexts, but needs to be adapted and fine-tuned before it can be used in those contexts (Robeyns, 2017).

What are the strengths of capabilitarian accounts of wellbeing in comparison with other accounts, such as purely subjective accounts of

wellbeing (happiness or satisfaction with life measures), abstract accounts of desire-satisfaction, or measures that narrow down to the material side of wellbeing by, for example, focusing on household incomes? Let me highlight four strengths that are particularly important.

First, the capability approach provides us with a conceptual language that corresponds closely to people's lived experiences. Several empirical studies have pointed this out. When Joanna Coast and her colleagues empirically investigated the wellbeing of elderly people in the UK using a traditional health economics framework, they discovered that the elderly describe their own wellbeing in terms of functionings and capabilities (Coast et al., 2008a, 2008b). Ina Conradie also found, when investigating the wellbeing and aspirations of poor women living in a township in South Africa, that they use the language of the capability approach (Conradie, 2013). These are examples of bottom-up studies that do not start with the capability approach as the theoretical framework for doing empirical analysis, but rather studies of which the researchers discover - when doing the analysis - that interviewees formulate their own wellbeing in capabilitarian terms.

The second strength of the capabilitarian account of wellbeing is its multidimensional nature. In contrast to monistic accounts of well-being, the capability approach claims that wellbeing consists of many different aspects, such as physical health, mental health, social relationships, the environment in which we live, meaningful labor or other activities, and so forth. Monistic accounts of well-being, such as hedonism which focusses on the balance of pleasures and pains, will always be able to give exact comparisons of the wellbeing levels of different individuals or groups. In contrast, on a pluralistic account such as the capability approach, in many circumstances we might have to conclude that we cannot univocally say whether one person is, all things considered, better or worse off than another person, when it is the case that one person is scoring better on some dimensions of wellbeing, yet the other person is scoring better on another dimension. There are ample cases in life for which we observe that some person or group scores low on some dimensions, and higher on other dimensions, and that the overall judgement depends on how we weight these different dimensions. If we want to develop an account of wellbeing that is close to our lived experiences, then pluralism of dimensions seems to be a very desirable property of a wellbeing account.

The third strength of the capabilitarian account of wellbeing is that it gives us enough handles for developing interventions and policies to improve people's wellbeing. This is a consequence from the fact that, although being comprehensive and with theoretical foundations, a capabilitarian account of wellbeing still operates at a relative low level of abstraction. For philosophical accounts of wellbeing that are highly abstract, it is often much more difficult to see how they could be used for policy making and other forms of social change. Take a highly abstract theory of wellbeing, such as desire fulfilment accounts of wellbeing. Often, in order to deal with counterintuitive and undesirable consequence, desire-fulfilment accounts of wellbeing are refined by stipulating that the desires must be fully informed and not unduly influenced by morally objectionable phenomena, such as racism or sexism (Sumner, 1996). But while policy makers can try to make sure that citizens know about options open to them, and might try to combat morally objectionable desire formation, in the short run their wellbeing policies would need to focus on increasing the level of desire fulfilment of the citizens. This is too abstract and unpractical to work with. On the other hand, if one moves to a lower level of abstraction, and asks what those desires are, one often finds (as the work by Coast and Conradie and others shows) that people desire improvements in their functionings and capabilities, as well as an increase in the inputs of those capabilities (e.g. disposable income and discretionary time) and changes in other policies that enhance capabilities, such as better urban planning or environmental policies.

Fourthly, following an argumentative strategy deployed by Stephen Campbell, Sven Nyholm and Jennifer Walter (Campbell et al., forthcoming), one could argue that capabilitarian accounts of wellbeing could

serve as a less-abstract account of wellbeing to which each of the more abstract accounts of wellbeing can relate. In [Section 2](#), I pointed out that, following Parfit's original work, philosophers often distinguish between three main theories of wellbeing. Hedonistic theories focus exclusively on happiness, but the expansion of valuable capabilities and the elimination or reduction of negative functionings surely improves people's happiness. Valuable functionings and capabilities are thus the sources of our happiness. Desire-fulfilment theories argue that our wellbeing is the fulfilment of our desires, yet those capabilities and functionings that make up wellbeing are highly likely to be the objects of our desires (or their elimination in case of negative functionings). Finally, objective list theories stipulate that certain things make up our wellbeing - and functionings are those things. In sum, capabilitarian theories of wellbeing could be conceptually carved out as the space where the three traditionally most influential philosophical theories of wellbeing meet; it is where they can meet at a slightly lower level of abstraction, which also opens the door to informing policies and other social changes.

Let us conclude. I argued in this section that the capabilitarian account of wellbeing is helpful for analyses that aim to inform policies and social change, and that it is appealing because it stays close to the lived experiences of people. These advantages are likely the reason why the capability approach has found wide resonance among scholars in a variety of field where policies and social change are important, e.g. those who study the intersection of health and well-being [e.g. ([Coast et al., 2008a, 2008b](#); [Venkatapuram, 2011](#))] or among educational scholars [e.g. ([Unterhalter, 2003](#); [Walker, 2010](#); [Vaughan, 2016](#))]. We can now move to the question: is the capabilitarian theory of wellbeing also helpful for scholars interested in studying the role that place and space play in our wellbeing? And what does a focus on place bring to the capabilities approach?

4. Place-based capabilities

Could the capabilitarian account of wellbeing be equally suited to understand the importance of place for wellbeing, whereby place is used as a shorthand for places, spaces, and environments? It seems to me that that is indeed the case. It may be helpful to distinguish between two different ways in which 'place' is relevant for capabilities: constitutively and instrumentally. First, there are functionings for which place is a constitutive aspect. A clear example is "feeling at home", or "having a home", which are capabilities that are unavoidably place-related. People who have fled their homes and are on the run do not have those capabilities; settling down in a place is a necessary (but not a sufficient) condition for having those two functionings. There are also negative functionings that are constitutively related to place, such as being homesick, which leads to ill-being, especially if it becomes persistent.

Second, some functionings and capabilities are affected by what the places and locations in which we live can offer us. Here the relationship between place and wellbeing, understood in terms of functionings and capabilities, is more instrumental. For example, research shows that having green areas (trees, parks) in one's living surrounding positively affects mental health ([Wood et al., 2017](#)). Similarly, if urban planning, concentration of traffic and environmental policies are such that the living environment of a group of people has dangerous levels of fine dust, then the quality of that place is affecting people's physical health, either in the short-run or long-run.

We could take the capabilities that constitutively depend on places and spaces, as well as those that instrumentally are influenced by places and spaces together, and call them "place-based capabilities". Yet one might object that almost all functionings and capabilities are to some extent influenced by dimensions of space and place. I think this is a valid comment. Our capabilities to hold valuable work is influenced by the labor market in the place in which we live; our capability for mental health is influenced by the size, quality and location of our house; and our capability to enjoy beauty and avoid ugliness depends on the

places and spaces where we can go, and those that we cannot avoid. Obviously, if all capabilities are at least to some extent influenced by place and space, then the set of "capabilities" equals the set of "place-based capabilities", making the use of the latter term otiose. Therefore, one might limit the capabilities that belong to the group of "place-based capabilities" to those where place is constitutive, as well as to those capabilities where place is one of the most important contributing factors (determinants). One could also think of other inclusion-criteria, e.g. to include capabilities for which place-based interventions are among the most important handles that policy makers and other actors of change can use. For present purposes, it suffices to show that using a capabilitarian account of wellbeing is promising for scholars who are studying the importance of place and space for wellbeing, while noting that this might be a question that could deserve more attention in future scholarship.

We could also ask the question of whether the introduction of the category of "place-based capabilities" strengthens (applications of) the capability approach.¹ What, if anything, does it contribute to draw attention to the fact that for some capabilities, notions of "place" and "space" play such an important role, whether constitutively or instrumentally?

To my mind, there are at least two significant advantages for capability analyses being aware of the fact that "place" plays such an important role in some capabilities. The first advantage is that becoming aware of "place" for wellbeing will prompt those using the capability approach (whether they are scholars, policy makers, civil society organizations, and so forth) to become more sensitive to the role of "place" in the selection of the dimensions of wellbeing. For example, a well-known site of contestation in development contexts has been the displacement of peoples, often tribal groups, to build massive dams that would generate electricity but at the same time put the villages of those peoples under water, hence making their habitats uninhabitable ([Kothari, 1996](#); [Penz et al., 2011](#)). The critiques of those projects have not only been that these peoples have been forced to leave and that sometimes violence has been used against them. A deeper critique has been that a roof over your head and rice on your spoon is not all that matters when we wonder what is needed in order for it to be justified to move peoples for the sake of national development. Many of the harms done to displaced people are not visible to those who only look at material goods, but do become visible when we look at aspects of people's beings and doings that are more in the relational and social sphere, as well as such important functionings as being treated with respect, feeling safe, and feeling at home. And those immaterial things are often threatened by displacement. As Peter Penz, Jay Drydyk and Pablo Bose [([Penz et al., 2011](#)), pp. 1–2] put it, "dislocated often find themselves in places where they are treated as threatening outsiders or inferiors, discriminated against or exploited in their vulnerability, and excluded from whatever influence on decision-making the incumbent populace has". This example of the displaced shows that the place one lives can have a huge impact on the wellbeing of people. Researchers, who are often relatively privileged in terms of the places they live, should not overlook that dimension.

The second reason is related yet slightly different. Capability scholars often use groups-based analysis of dimensions of wellbeing to examine relevant inequalities, whereby the groups are generally distinguished on demographic grounds, such as gender, ethnic/racial groups, or by age. Arguably, sometimes it might also be relevant to make comparisons between people living in different places, such as those that were displaced versus those that were not, or people living in cities versus those in rural areas. Apart from prominent geopolitical dimensions of 'the global North' versus 'the global South', capability scholars haven't put such dimensions central in their groups-based analyses. Doing so might improve the quality of their research.

¹ I am grateful to a referee for prompting me to address this question.

5. The impact of technologies on place-based capabilities

I would now like to illustrate the usefulness of a capabilitarian account of wellbeing by showing how one could analyze a societal development and its impact on wellbeing, understood in capabilitarian terms. We could perform such an analysis for various economic, social, demographic, ecological and political changes. In this paper, I will focus on technology. Specifically, I will ask to what extent technologies can enhance our wellbeing, or protect us from illbeing, specifically in relation to place-based capabilities.

In the example with which I started this paper, I already noted that the train and other means of modern transportation enable people to travel, and also make migration much easier. Modern ICTs have protected people's social relationships if they are far away from their relatives and friends. It has made it much easier for migrants to transfer money back to their relatives in resource-deprived regions, which is very important for poverty reduction and wellbeing enhancement on a global scale (Yujuico, 2009; Elmi and Ngwenyama, 2019). ICTs have allowed peasants, many of whom were previously stuck in poverty, to receive better prices for their agricultural production, since they didn't have to physically travel to markets to find out what the prices would be. These higher incomes in turn can result in improvements in a number of functionings, such as avoiding starvation, better health, higher levels of education, and so forth. Living a long distance from the nearest marketplace in the nearest town therefore becomes less costly in terms of avoiding poverty and destitution (Torero, 2013).

These examples illustrate the more general claim that technologies play a crucial role in the enormous increase in wellbeing that we have witnessed over the last centuries, including those dimensions of wellbeing that are entangled with questions of place and space. But, of course, the general argument by ethicists of technology that the effects of new technologies on wellbeing and the related notions of social progress and development are a mixed blessing and depend significantly on how societies embed, regulate and engage with those technologies also holds for place-based capabilities. In the case of ICTs, scholars who work in the field of ICT for development (ICT4D) are also documenting the downsides, such as growing inequalities given that billions do not have access to ICTs; the discrimination ICTs enable; and the dislocation of opportunities which might harm those who do not have access to those ICTs (Kleine and Unwin, 2009; Graham, 2019).

A dramatic example of the unintended effects of technological innovations can be found in the recent outbreak and spread of the COVID-19 virus, which originated from one place in China, but rapidly spread globally, thanks to great geographic mobility, which would not be possible without the technological changes enabling a massive aviation industry. As I write this, mid-June 2020, the COVID-19 pandemic has caused around half a million deaths globally, but there are serious concerns that there might also be long-lasting health effects on many who survived COVID-19. Moreover, the economic decline is expected to lead to many more indirect deaths, because in some countries such as India, poor migrants had to return to their villages, where they have much more restricted means of survival. Thus, aviation, the technology that has allowed people and consumer goods to travel on a massive scale across the globe and that has thereby improved people's wellbeing directly as well as indirectly, has now been an important facilitating factor in a global pandemic that has resulted in huge losses of wellbeing, as it facilitated the spread of the virus.

We thus come to the (admittedly not surprising!) conclusion that technologies can help to expand place-based capabilities, but might at the same time cause harm to other dimensions of wellbeing. This conclusion can be nicely illustrated by another recent development, which will be recognizable for students and professors alike. Due to the COVID-19 pandemic, in the period March-June 2020, as well as the last four months of 2020, most activities in higher education, as well as other academic meetings, went fully online. Professors gave their lectures and tutorials via online video calls, and scholars and researchers also met

online for their staff meetings and for research gatherings. On the one hand, the existence and availability of those technologies has allowed some aspects of higher education to continue. Students who were very close to getting their degrees could finish according to schedule; and even for the others, taking classes online was seen by many as a better alternative than not having that option. Professors saw previously unavailable opportunities of inviting guest lecturers from anywhere else in the world to their classes. But it would be too easy to become over-enthusiastic about these possibilities. Clearly many aspects of our wellbeing would be better if we were able to *physically meet*. Many students and scholars try hard to keep up their friendships, their professional social relations, their caring for others by making use of these technologies - yet it is obvious that wellbeing in those domains would for most people be much higher if we could meet in the same place. In addition, the online meetings are very likely to come at costs to other functionings. Right now, anecdotal evidence indicates that a meeting of the same length online is much more demanding, in mental terms, than a meeting in a physical space. There is also mounting evidence that working from home and with so much screen time takes a toll on physical health, and thus requires alertness that we might have to create new habits in order to address these new health risks. This will surely be a topic on which studies will be published in the near future, as we are faced with what empirical scholars call "a natural experiment", and hence the data is now being gathered.

Before closing, it is important to highlight that the analysis presented in this section has been merely illustrative in order to show the relevance of the capability account of wellbeing and the introduction of "place-based capabilities". Due to space restrictions, and because the primary aim of this paper has been conceptual and theoretical, the analysis in this section has inevitably remained merely illustrative. It is my hope that further analyses will deepen and expand our knowledge on new technologies and place-based capabilities.

6. Conclusion

In this paper, I have highlighted the potential of the capabilitarian account of wellbeing for students and scholars interested in analyzing the place-wellbeing nexus. One of the strengths of a capability account of wellbeing is that it allows us to theoretically and empirically analyze at a quite practical level why certain concrete things matter to people - such as their housing, their jobs, and their friendships. Some of these dimensions of wellbeing are constitutively place-related, such as "feeling at home". Other dimensions of wellbeing are affected by what the places and locations in which we live mean to us. I have suggested to take these two groups together, and call them "place-based capabilities". Using a capability account of wellbeing allows us to use social scientific research to investigate the role of social, economic, demographic, political, ecological and technological processes on wellbeing. This paper illustrates this by investigating the role of recent technologies in enabling and expanding capabilities. On the one hand, technological change has dramatically expanded those place-based capabilities. On the other hand, the use of those technologies has unintended consequences on other capabilities. My hope is that the conceptual frame laid out in this paper can be used by students and scholars of space, place and wellbeing to empirically analyze these determinants and relations in much more detail.

Declaration of Competing Interest

None.

Acknowledgment

I am grateful to Matthias Kramm, Sven Nyholm and an anonymous referee for comments on a draft of this paper, and to Joel Anderson and Uwe Matzat for related discussions. This work is part of the research

programme Ethics of Socially Disruptive Technologies, which is funded through the Gravitation programme of the Dutch Ministry of Education, Culture, and Science and the Netherlands Organization for Scientific Research (NWO grant number 024.004.031)

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