

MDIGNITY IN THE GLOBAL VILLAGE: REFLECTIONS ON THE DIGITAL DIVIDE, CAPABILITIES, AND NEW INFORMATION TECHNOLOGIES

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Abstract. How can ethics of information and communication technologies (ICTs) contribute to understanding and coping with the global digital divide? Developing suggestions in the literature that the Capability Approach (CA) can helpfully address the problem of the global digital divide, this paper argues that (1) the CA enables us to move beyond the view that we must ensure ‘access’ to ICTs or that we must give people the abstract ‘right to communication’: as a normative theory of justice, it demands that ICTs be used to empower people who are on the ‘wrong’ side of the divide, that we ensure that their capabilities and functionings are enhanced by means of the new technologies. This requires (2) the development of the right kind of information skills. Responding to on-going discussions about information technology and the digital and taking into account new information about the use of ICTs in so-called developing countries, the paper further argues that (3) the divide may diminish due to the increasing availability of mobile technologies in developing countries, although this does not necessarily solve the problem of justice, and that, in so far there is still a gap, (4) this gap can only be adequately addressed by the CA if it recognizes that ICTs are not mere tools (means), but are changing the very meaning of human capabilities and indeed of human dignity (ends). The paper concludes that if in order to live in dignity and to function and flourish as a human being in this global world we need the ICTs of our time, then making sure that all people participate in and benefit from the effective, skilful and meaningful use of new ICTs (including mobile technologies) is a direct, not indirect demand of justice.

1. Introduction: The global digital divide

The idea that there is a global ‘digital divide’ usually refers to global disparities in access to information and communication technologies (ICTs). For instance, Castells has argued that ‘the rapid diffusion of the Internet is proceeding unevenly throughout the planet’, creating a digital divide [Castells, 2002, p. 260]. The digital divide – which is not only a gap between North and South, but also runs through developed countries – creates a barrier between insiders and outsiders. Given the enormous influence ICTs have on our lives, this is highly problematic: it creates ‘insiders’ and ‘outsiders’, ‘haves’ and ‘have nots’. As Floridi has argued, the outsiders ‘are not merely marginalized, they actually live under the shadow of a new digital reality, which allows them no interaction or access, but which can influence their lives profoundly.’ [Floridi, 2001, 3]

However, the phenomenon is far more complex than captured by the term ‘access’. For a start, the gap does not only concern access as such, meaning possession and experience of but also skills and usage opportunities. [Van Dijk and Hacker, 2003; Fuchs and Horak, 2006]. Much depends, for example, on education. Castells already suggested that in the information age people need to learn different skills. Rather than memorizing information, people have to

learn to search for, and effectively use, information and they have to turn it into knowledge: ‘what is really required is the skill to decide what to look for, how to retrieve it, how to process it, and how to use it for the specific task that prompted the search for information’ [Castells, 2002, 259]. The extent to which people learn this, depends on the quality of their education. This means that even if the gap regarding possession and experience is closing (see also Section 3), there may be disparities in skills and usage. And as Van Dijk argues, disparities of this kind may even increase, thus widening the gap. For instance, he found that people with low levels of education and income tend to use ICTs mainly for entertainment rather than for work (which could improve their social position) [Van Dijk 2006; Fuchs and Horak, 2006].

Furthermore, as the issue of education already suggests, the digital gap is connected to other gaps: social, economic, and political gaps. For example, Fuchs and Horak have argued that the global digital divide ‘is mainly an aspect of the economic divide’ since in poor countries people ‘are much less likely to be able to access ICTs, to know how to use them, to benefit from usage, and to participate in embedding institutions. Developing countries are not only economically excluded, but also deprived of political power and cultural skills needed for active participation in the information society’ [Fuchs and Horak, 2006, 102]. They suggest that there may exist a new class structure in the information society. For example, Van Dijk distinguishes between an information elite with high income and high skills, a participating majority who have access but possess fewer information and strategic skills, and the disconnected and excluded without access and without skills [Van Dijk, 2006, 174; Fuchs and Horak, 106].

Is this the main problem, and how can ethics of information and communication technologies (ICTs) contribute to understanding and coping with the global digital divide? In this paper I will discuss this problem in three steps. First I will articulate a capability approach to the global digital divide, then I will discuss the use of ICTs in development countries, and finally I will argue for a non-instrumental understanding of ICTs and its relation to capabilities, and for more attention to the ‘how’ of ICT use.

2. The capability approach and the digital divide

The digital divide can be, and has been, addressed by a variety of ethical and political theories. When we want to discuss how to approach the issue as an ethical and political issue, the first question to ask is: What kind of problem is it? For instance, do we want to frame it as a problem of freedom? Or is it a problem of equality? Is it about the quality of our society or about individual dignity, or both? Is it about ‘the system’ or about what individuals choose and do? In this paper I will start from the premise that the digital divide raises, among other things, a problem of justice. Sometimes the term ‘equity’ is used, especially by international policy makers at European and international level (e.g. the UNESCO and the WHO), but I will use ‘justice’ since the term ‘equity’ might have the connotation of equality, and equality and justice are two different concepts.

Once we have established what kind of problem we want to address, there are further questions about how to conceptualize justice. A common approach, especially in the West, is to discuss justice in terms of (human) rights. From this perspective, one could argue that in order to bridge the global digital divide, we need to make sure that people’s right to communication and to have access to contemporary ICTs is respected. Perhaps we could say

that such rights are human rights, or could at least be derived from them. However, the (human) rights approach has often and rightly been criticized for being too abstract and ineffective, for example – but not exclusively – in the Marxist tradition. An alternative, non-Marxist approach to justice is provided by the capability approach (CA).

The CA has been developed by Sen and Nussbaum as a response to narrow, economic definitions of human development. Instead of viewing human development only in terms of the growth of the gross national product or the growth of personal income, the CA focuses capabilities and functionings, that is, on what people can effectively do rather than on the means that make this possible. In Sen's words, it calls attention to the 'real freedoms that people enjoy' [Sen, 1999, p. 3]. In Nussbaum's version of the CA, the CA is construed as a theory of justice [Nussbaum, 2006]. Based on a variety of theoretical sources (including Aristotle, Grotius, and Marx), her version of the CA focuses on the dignity of the human being. Thus, justice is re-conceptualized in terms of dignity. According to Nussbaum, human dignity requires 'an appropriate threshold level' [Nussbaum, 2006, p. 75] of a range of 'central' human capabilities, which include life, bodily health, bodily integrity, being able to use your senses, imagination, and thought, emotions, practical reason, affiliation, other species, play, and control over one's environment' [pp. 76-78].

It is easy to see how such a theory of justice can inspire and feed an attractive ethical and political framework for thinking about human development. It seems relevant to dealing with all kinds of social, economic, and political divides. In addition, it calls attention to individual well-being, but is at the same time sufficiently sensitive to communal, societal, and cultural dimensions of that individual well-being. But what has this approach to the problem of justice, framed in terms of human dignity and capabilities, to do with *technology*? The CA was meant to move beyond the economist's focus on resources. And technology seems to be a resource for well-being, capabilities, and human dignity. Or can we arrive at a different view of technology and its relation to dignity and capabilities?

Let me first outline the instrumental view of that relation and its implications for thinking about the digital divide. The capabilities can be seen as the ethical goals (or sub-goals, if human dignity is the main goal), which we can achieve by using various means, including ICTs. This means that we can use the CA to evaluate technology, including ICTs. Indeed, some authors have suggested that we could use the CA to understand and evaluate ICTs [e.g. Johnstone, 2007; Coeckelbergh, 2010, 2011, 2012]. Usually these authors assume an instrumental relation between technologies and capabilities (or functionings). For example, Johnstone has argued that the CA – both Sen's and Nussbaum's version – can be a valuable conceptual tool in computer ethics and, more generally, in ethics of technology. She writes: 'technological artefacts are, after all, resources' [Johnstone, 2007, p. 78] and ICTs can be considered as cognitive resources [p. 79], that is, resources for 'knowledge capabilities' [p. 83], and as resources for other functionings. More generally, the CA stresses that what matters is that we empower people, that we achieve better functionings and better lives (aim) by means of the technology.

Given this focus on justice and given this view of the relation between ICTs and human development, we can use the CA to address the problem of the global digital divide, as Johnstone already suggested in the conclusion of her article [p. 86] and as I argued in recent talks at the UNESCO World Summit on the Information Society (WSIS Forum 2011, Geneva) and at the 'eHealth and Equity in the Global Health Communities' workshop (European Commission, Brussels, 2011). The CA is particularly helpful to support the

argument that formal and physical access to ICTs is not enough to close the global digital gap. The CA enables us to move beyond the view that we must ensure ‘access’ to ICTs or that we must give people the abstract ‘right to communication’: as a normative theory of justice, it demands that ICTs be used to empower people who are on the ‘wrong’ side of the divide, that we ensure that their capabilities and functionings are enhanced by means of the new technologies. In other words, what matters is not giving people (more) technology but shaping the conditions that enable people to live better lives.

In this way, the CA can make a useful contribution to ongoing discussions information technology and the digital divide [e.g. Grodzinsky and Tavani, 2007; Cannellopoulou-Bottis and Himma, 2008], which already pay attention to the global digital divide as an ethical issue and an issue of (global) justice, but do not generally use the capability concept, which enables us to meaningfully link the individual dimension of the problem to the societal, political, and cultural dimension, and which comes with a theory of justice: it more fully explains why we should care about the divide, has a clearer normative focus and also more normative substance. Nussbaum’s version of the CA provides a substantial view of what justice and dignity consists in. And if we agree that bridging the global digital divide is not only a matter of ending ‘life-threatening poverty’ but also a matter of promoting human ‘flourishing’, as Cannellopoulou-Bottis and Himma argue [p. 633], then the CA offers a framework that integrates both concerns: justice and ‘the good life’.

But are ICTs mere tools, resources for capabilities, as these authors suggest? In the final section of this paper I will question this assumption. However, before further discussing the relations between capabilities and information technology, let me revisit the initial concern with ‘the digital divide’ in light of recent information about ICTs in developing countries.

3. ICTs in developing countries: Hopes and worries

Although as I mentioned the digital divide also runs through Western countries, when it comes to (global) justice the main worry is about people in so-called development countries. But who and what are we talking about? How wide is the gap really?

New data about the use of ICTs in developing countries raise the hope that the divide may diminish due to the increasing availability of mobile technologies in these countries. For instance, Aker and Mbiti report ‘rapid adoption of mobile phones’ and growth of mobile phone coverage ‘at staggering rates’ in Africa: moving from no coverage in most countries in 1999 to 65 % in 2008, the mobile phone has ‘leapfrogged the landline in Africa’ [Aker and Mbiti 2010]. The authors quote Paul Kagame, President of Rwanda, who already said 5 years ago (on the Connect Africa Summit, October 29, 2007): ‘In 10 short years, what was once an object of luxury and privilege, the mobile phone, has become a basic necessity in Africa’. A more recent UNDP report, significantly called ‘Mobile Technologies and Empowerment’ suggests that most people in poor countries have access to a mobile phone (which does not necessarily mean that all of them *own* one, they might share it with other people in their community), and observes that ‘mobile phone subscriptions in the developing world are rapidly outpacing those in the developed world and costs are coming down’ [Zambrano and Seward, 2012, p. 8]. This is starting to have an impact on human development, ‘enhancing democratic governance and other development areas such as health, education, agriculture, employment, crisis prevention and the environment’ [p. 8]. For example, mobile phones can empower women, help people to develop their own businesses, etc. Moreover, people do not

only talk on the phone and use sms [Aker and Mbiti 2010]; in recent years people in developing countries have started to use (cheap) smartphones, which gives them access to the internet (provided the infrastructure is there) and hence opens up new opportunities. These developments raise hope and expectations. Is the digital gap closing? Do we still need to worry? Do we still need our ethical and political theories if the problem is disappearing?

One problem concerns the empirical basis of these claims: it is difficult to assess the impact of the phones (and, more generally, of ICTs) on human development – let alone on justice and human flourishing. Given the complexity of the issue, there are no straightforward causal relations which we can easily be detected. Therefore, some precaution seems appropriate here.

A different problem, which relates to the more-than-access issue mentioned before, is that it not enough to have access to a phone. What matters is how phones are used. If more people have access to the internet, but mainly use it for entertainment purposes, then the impact on their development, on justice, and on human flourishing is at least questionable.

Furthermore, it is unclear if people (in developing countries but also elsewhere) are sufficiently educated and received *the right kind of* education to learn to turn information into enhanced cognitive and other capabilities. Again we must insist that there are differences between information, knowledge, know-how, and capabilities.

More generally, the use of mobile phones may well increase, but if there are (still) huge differences in phone use between urban and non-urban environments, between highly educated people and others, between people who know how to use the phone for trade, agriculture etc. and people who use it only for leisure activities, etc., then the problem of *justice* remains.

Therefore, one may be optimistic in response to the current developments in phone use, but this does not mean that questions of justice are solved and which strategy to follow is a normative problem. For example, should we leave further initiatives to the free market, given the persistence of social and economic gaps? Fuchs and Horak remark about South-Africa that markets have been liberalized and that the number of ICT users increased, but that ‘the ethical digital divide has not narrowed because South Africa is still a country shaken by poverty, social polarization, an extreme unequal distribution of income, and high crime rates’ [Fuchs and Horak, 2006, 115]

To conclude, although given current developments in Africa and elsewhere we can be more optimistic about access, the ethical problem as a problem of justice is likely to persist due to lack of skills and effective, strategic usage of ICTs, which is at least partly and significantly due to the kind of socio-economic and political environments in which people live and which hinder the development of appropriate skills and usage.

This leaves us with the question: in so far as there is still a justice gap, how can we best address this gap in ethics and political philosophy? In the previous pages I have explored the option of using the CA as a normative framework in response to the digital divide, in particular Nussbaum’s version of the CA which frames the problem as a problem of dignity. One could say that bridging the divide means that we need to foster e-dignity and m-dignity (with ‘m’ referring to mobile technology), understood as the enhancement of central human capabilities. But does this mean that we can simply adopt (Nussbaum’s version of) the CA? In the next section I will question the instrumental view of technology assumed by the CA and

explore what this means for the discussion about the global digital divide. I will modify the argument in a way that takes into account developments in philosophy of technology.

4. A non-instrumental view of the relation between technologies and capabilities and its implications for m-dignity

The discussion in Section 2 assumed that there is an instrumental relation between technology and capabilities: ICTs are supposed to be resources, that is, *means* that enable us to reach ends (capabilities, human dignity, justice, etc.). But in so far there is still a digital divide, global and otherwise, this gap can only be adequately addressed by the CA if it recognizes that ICTs are not mere tools (means), but are changing, and have changed, the very meaning of human capabilities and indeed of human dignity (ends). In other words, the digital gap is already an ethical-anthropological gap ‘before’ it is construed in terms of means (technology as resource) and ends (capabilities, human dignity). Let me explain this additional, ‘deeper’ meaning of e-dignity and m-dignity.

Although the point that access to ICTs is not sufficient for capabilities, justice, dignity, and flourishing is correct, it should not be taken to mean that we should construe the relation between ICTs and capabilities as an external relation between a thing A (technology, for instance mobile phones) that causes a thing B (e.g. capability, justice) to change (or not), depending on use. Contemporary philosophers of technology understand technologies and technological artefacts not as neutral tools but as already influencing the way we think, live, and exist. Inspired by Heidegger’s view that technology is not just an instrument but a way of thinking [Heidegger, 1977], we might say that our very ideas of what particular capabilities consist in are already influenced by the technologies we use – for instance ICTs such as mobile phones– regardless of our ethical or other aims and intentions.

From a different but compatible theoretical perspective, one might say that we need an ecological approach to the relation between technology and human ends. As Floridi has argued, ‘technologies are not only tools, but also vehicles of affordances, values and interpretations of the surrounding reality’ and ‘any significant technology is always ethically charged’ [Floridi, 2001, 3]. Evaluating new ICTs, therefore, is a evaluating ourselves – our ecological selves. We must revise our conception of the relation between technology and ethics, in this case ICTs-capabilities: ICTs are not mere means, they are a way of thinking and doing.

As I have previously argued [e.g. Coeckelbergh, 2011], this need to move beyond a means-end dualism in ethics of technology requires us to modify the capability approach accordingly: we should no longer see capabilities and human dignity as ends external to technological means, but study and interpret the dynamic relations between capabilities, technologies, practices, and values. The meaning of these capabilities and indeed of the ethical principles and aims we have is no longer stable. We need a hermeneutics of capabilities and a hermeneutics of dignity, which retains its normative concern but understands this normativity in a relational and dynamic way, thus enabling a critical stance towards taken for granted ways of thinking and doing that are presupposed when we try to evaluate technologies by using the principles of the CA.

For the question regarding dignity and ICTs, recognizing this means recognizing that what we consider to be a life spent in dignity is not independent on the technologies we use. For

example, today we consider ICT-mediated existence as part of what it means to lead a dignified life. Similarly, capabilities are being re-defined – they change as we speak but also ‘as we use ICTs’. All capabilities are e-capabilities and m-capabilities. For example, the capability of social affiliation comes to include the use of mobile devices and new social media. It comes to be seen as part of what it is to be human: what it is to have a minimal form of dignity and what it is to maximize human flourishing. It also influences how we deal with other people and with our environment – and indeed with ourselves. In this ‘deeper’ sense, ICTs have an ethical dimension: they are not mere instruments to realize human aims, they co-define these aims. They also influence how we experience others and how we experience the problem of the ‘digital divide’. Coping with this insight requires us to reflect not only on the technologies we use and not only on the values we have, but on the very relation between the two. Do we want to live and think in this way? How, and to what extent, can we change our way of life and (at the same time) our way of thinking?

For the digital divide, this approach to technology implies that what matters is not only a gap between people who have and use particular ‘resources’ (haves) and people who do not have and use those ‘resources’ (have nots), which ‘then’ has consequences for dignity, justice, etc., but rather that there is already a gap between two (or more) different kinds of lives and two (or more) different kinds of people and two different ways of being human (enhanced by ICTs and not or less enhanced by ICTs). It means that our ideas about these lives and our ideas about justice have already been re-shaped when the technology is introduced and used.

If we reflect on our position as experiencing and interpreting subjects, it becomes clear that the “who” in the question “Who cares about the global digital divide?” is a very particular “who”: it is the subject that lives in e-dignity and m-dignity, it is the “us” that already excludes and already projects a way of life in virtue (or vice) of its existence shaped by ICTs. To think of ICTs as mere tools – even as tools for justice, tools for development, etc. – neglects this ethical and anthropological significance of ICTs (does too little justice to technology) and is blind to an important, material dimension of the ethical and anthropological project (does too little justice to ethics). An appropriate ethics of information technology, by contrast, turns to a non-dualist, ecological, and relational moral-technological epistemology.

5. Conclusion

The CA can help us to address the issue of the global digital divide by showing that the ethical-political problem does not concern the technology as such, as a resource for human development, but the relation between the ICTs and capabilities: closing the gap is possible by creating conditions under which people (learn how to) use ICTs in a way that enables them to lead a minimally dignified life, that empowers them, and that leads to flourishing – their flourishing and that of others. In this sense, it is true that what matters ethically is how to live with ICTs, what matters is our mode of e-living. In so far as there is still a global digital divide, this way of using the CA gives us an attractive theoretical framework that has immediate practical implications.

But I have also argued that there is a second, ‘deeper’ way in which ICTs are not a mere resource: they influence our very aims, indeed the way we think about capabilities, dignity, justice, and ethics. This means that if we want to address the digital gap by using the CA, we need to engage in a hermeneutical process that involves and engages with the ecological

relations between us as subjects, the values and principles we have, and the technologies (here: ICTs) we use.

Here is another way of formulating the implications of these arguments. If ICTs are only tools, closing the digital gap is an indirect demand of justice. It is only a means to reach justice; there is an 'external' relation between ICTs and human dignity. But if ICTs are more than means, then they shape what dignity, ethics, justice, capabilities consist in. Then the relation is much more direct or 'internal'. We can conclude, therefore, that if in order to function and flourish as a human being in this global world we need the ICTs of our time, then making sure that all people participate in and benefit from the effective, skilful and meaningful use of these new ICTs (including mobile technologies) is a direct, not indirect demand of justice.

Note, however, that whether or not we *ought* to bridge the digital divide, we are not the master-designers of the new ways of doing and thinking that emerge in the information age; there are limits to what we can do as humans-in-relation. If we take seriously the idea of the non-instrumentality of technology we should also conclude that humans are not absolute, unchanging ends; we are being changed by technology and our values are changed as well. Even if we want these technological, moral, and anthropological changes to go one way rather than another, it is good to remind ourselves that all these changes are interdependent. Paradoxically, technological changes require changes in human thinking and doing that are themselves dependent on ICTs and their evolution. What will happen to the digital divide depends on the emergence, growth, and evolution of e-bridges, bridges which are at the same time material and virtual, technological and human, economic, social, and political.

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