

Exploring the Philosophical Terrain of the Digital Divide

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Abstract

My aim in this brief paper is to present an outline of possible philosophical discussions and investigations on the digital divide. Given that philosophy, as is the case with Hegel's Owl of Minerva, usually comes after the fact, there is a need for taking a philosophical account of the digital divide that explores conceptual and normative ramifications of the phenomenon. I show that all the major areas of philosophy can make a contribution on the digital divide, including the metatheoretical consideration of whether the existing philosophical vocabularies are adequate in fully comprehending the situation or whether a new set is required. The paper concludes with a series of questions and problems designed to stimulate further thoughts and research.

Keywords: philosophy, digital divide, ethics, epistemology, education, culture.

1 Introduction

It goes almost without saying that the digital divide is one of most talked about phenomena when the topic of the relationships between information technology and society is raised. Searching the term in search engines such as Google resulted in more than eight hundred thousand entries. However, considering the fact that philosophers are usually fond of reflecting and commenting on current affairs and situations, it is rather surprising that the digital divide has received a relatively scant attention from philosophers. In his book, *The Internet: A Philosophical Study*, for example, Gordon Graham (2002) hardly talks about it. Hubert Dreyfus, in *On the Internet* (2001), does not talk much about it either. A collection of papers on computer ethics, *Cyberphilosophy* (Bynum and Moore 2002), has just come out and one does not find a chapter on the digital divide in it. In fact only a handful of philosophers have taken up this topic. Luciano Floridi's article (2002) deals with the digital divide in relation with his theory of information. Jeremy Moss (2002) looks at the phenomenon in terms of power, based on the thought of

Michel Foucault. Moreover, a recent issue of *Ethics and Information Technology* also publishes a number of articles dealing with the ethics of the digital divide. However, many of these papers are not written by philosophers, and the usual tools that philosophers are all familiar with have not been much used. I think this is quite a loss, considering that philosophical analysis could well shed much light on this very complex issue.

So I would like in this paper to contribute to filling this lacuna through exploring and surveying the philosophical terrain surrounding the digital divide phenomenon. In fact, if one considers literature on related fields, such as sociology, library science, or economics and others, one finds that most works on the issue focus, naturally enough, on its empirical aspects and on policy recommendations for alleviating the situation. This is based on the assumption that the digital divide is something that needs to be eliminated. However, what seems to be lacking from this voluminous empirical literature is a clear and well formulated idea as to what the digital divide actually is and its myriad conceptual ramifications, which can touch on virtually every branch of philosophy, as I shall show in the paper. I would like to argue that contribution to philosophy could be made if philosophers paid more attention to the digital divide. The connections that the digital divide has on many traditional philosophical problems, as well as its potential to open up new avenues of fresh philosophical research programs, would provide philosophers with fertile fodder for their creativity and imagination, not to mention the possible impact on policy making on a global scale.

Exploring the philosophical terrain of the digital divide can take place in two related ways. One is to discuss how the already existing conceptual, philosophical tools can be used in order that the phenomenon is better understood. Another is to search for new sets of tools that are more appropriate in analysing the situation, or to find new ways of using the available tools in order to take account of the phenomenon. I think both are important and as we are only beginning to see how the empirical phenomenon is unfolding, both using the available tools and developing new ones are actually needed. Moreover, there can be further discussions and studies at the meta-theoretical level as to which way is more appropriate: Is the digital divide just another empirical phenomenon that can be adequately grasped by existing philosophical vocabularies? Or does it require a new set? Investigating this issue could well make contribution to other areas of philosophy also.

In the following I shall outline the conceptual ramifications that the digital divide phenomenon poses

for philosophy. More specifically I shall talk about the various ways in which philosophy can deal with the digital divide, keeping in mind of the both ways of using the philosophical tools mentioned in the last paragraph. I start, naturally enough, with the analysis of the concept itself.

1 Analysis of the Concept 'Digital Divide'

Many works in the related disciplines are already talking about the need for a clear definition of 'digital divide', and many have offered their own versions. For example, Mark Warschauer (2003) argues that the term should not be used at all, instead it should be replaced by 'social inclusion' which sounds more positive and does not presuppose that there is a separation between those who are 'inside' or 'outside' or on 'this side' or 'that side' of the divide. Warschauer believes that this kind of talk may not lend itself easily to a smooth implementation of policies because one starts from the beginning with a separation. Moreover, Erszter Hargittai (2002) coined the term 'second-order digital divide' in order to refer to a related phenomenon where the level of literacy is a key factor in realizing the potential of information technology and the Internet. For her the first-order divide between those who have and do not have the technology is not adequate, since it says nothing about how that technology is being used. It is often the case that some of those who have access to the technology and the network benefit nothing because they do not know how best to use them in order to achieve whatever goals they would like to achieve.

What can a philosopher say about this very philosophical enterprise of giving definition? Perhaps one can start with the standard way in which 'digital divide' is understood, i.e., an inequality of access to the Internet and information technology in general. But this formulation has a lot of problems. Firstly, talking about the digital divide as a kind of social inequality presupposes that access to and usage of information technology is a good. The age-old divide between the rich and the poor is created by the fact that the former have the money, whereas the latter do not, and this becomes a problem because money or wealth seems to be universally desired. One does not talk about there being a divide between those who prefer hot and spicy food and those who don't, simply because particular food preferences, for hot and spicy food, say, are not as universally desired as wealth or health is. If I don't happen to have the penchant for hot food, I don't try to change my habit and acquire the same preference as those who do prefer. Or to put the matter in another way, I don't regard myself, as one who does not prefer hot and spicy food, as being unequal to those who do prefer hot food, simply because this just a matter of taste and I don't consider food preferences to be a good in such a way that, if I happened not to possess it (the penchant for hot food), I would not consider myself to be disadvantaged in any significant way. Also those around myself would not

consider my food preference to be a disadvantage. On the other hand, having access to information technology means that one gains a significant advantage over those who don't, because having access means one is able to acquire benefits such as information, access to up-to-date data, knowledge, and so on, which would not have been possible if she did not have the access.

However, it is possible that not everybody agrees that having access to information technology is a good. One might argue that the current enthusiasm around information technology is in fact a symptom that should be cured. I have no intention to argue for or against the idea that information technology is a good in this paper; I merely would like to point out that the analysis of the term 'digital divide' has at least one philosophical ramification.

1 Social and Political Philosophy

Naturally the digital divide concerns many issues in social and political philosophy. It is clear that the digital divide is an aspect of the problem of social inequality. There is the divide between those who have access to information technology and those who do not. Furthermore, as there are many dimensions to inequality, so there seem to be many dimensions to the digital divide also. This can be seen when access and effective use of information technology is considered a mark of social inequality comparable to other criteria such as income, social status and gender. Thus there could be a divide between men and women when men in general enjoy better access to the technology, and there could well be a divide within a gender group, such as between affluent urban women who have access and poor rural women who do not. Hence Michael Walzer's conception of 'complex equality' can well be applied to discussions on the digital divide. According to Walzer, one should not talk about equality as if it is a single concept applicable across the board. Instead equality is a complex matter, which in one sphere may be necessary and in another equality may not be needed.

So an avenue of further research could focus on what kind of sphere according to Walzer is an appropriate one where the equality that is presupposed by attempts to bridge the digital divide should be the aim of social action. For example it is clear that in the sphere of education the digital divide certainly creates unjust inequality, but in using the Internet purely for entertainment the divide may not be as crucial, for there are other channels for entertainment where access to the Internet is not needed. The question becomes what is the appropriate sphere in which the digital divide is a concern. Another question could be whether it is the case that the digital divide should be bridged no matter what sphere one finds oneself in. If one does not feel that one's values and goals are threatened by that fact that one finds oneself on the wrong side of the digital divide, then attempts to bridge it at any cost would at least be not quite relevant.

In addition, there is the problem of the *global* digital divide where the dividing line is not found within one particular society or nation-state, but is found dividing one group of nation-states from another. The most obvious divide of all is between the so-called 'developed' and 'developing' worlds. Many empirical data have been cited in support of this phenomenon. Adequately taking stock of this philosophically would require that one bring in the debates and theories on global justice. Basically what is at issue is whether there can be a conception of justice that is valid across national and cultural boundaries (Hongladarom 2001). And it seems clearly a question of justice when one is confronted with data detailing how the so-called developing countries lag behind the developed ones in the use of information technology, and in the percentage of population who are connected to the Internet. The global digital divide is a problem of global justice because the divide clearly indicates an inequality between the two worlds, and hence it is a matter of justice to find out ways to redress the situation in the most appropriate manner. The metatheoretical discussion of whether there be a conception of justice that is valid across cultural boundaries is also relevant because the theory would inform the discussion at the more concrete levels.

If it is the case that discussion of ethical implications of information technology should require at least a novel set of vocabulary in addition to what is available in traditional ethical theories, then there seems to be something extra in the fact that what divides these two groups of countries from each other concerns computer technology. If the question of impact of technology on social life is a legitimate subject for philosophy, then it seems that discussion of the global digital divide cuts across many issues in and many traditional branches of philosophy itself.

1 Metaphysics and Epistemology

Prima facie it would seem far-fetched to see that the digital divide has any connection with issues in metaphysics and epistemology. It is a truism that computers influence much of today's reality. People write with a computer, airline booking and much else are done online, etc., but that is a simple causal connection and does not tell us directly how reality or knowledge can be transformed in a fundamental way. However, Michael Heim says in *Metaphysics of Virtual Reality* (1993), the spread of computer technology has created a new type of reality, a 'virtual' one; this shows how computers and reality are related, and thus merits some kind of philosophical investigation. Thus, it seems that at least the digital divide could at least give rise to a discussion on whether or how reality is influenced by it. For one thing, since the digital divide is a phenomenon where social concern (a group of population being 'divided') is intersected by technology (the division being effected through the use of a technology), then it would seem that we have in our hands a new kind of reality, which can be

at once considered in social and technical terms. This is not to say that the digital divide has created a totally new world where everything is not the same anymore. The digital divide and the technologies that gave rise to it did not have the power to build up a new world, though they undoubtedly have changed the face of the world significantly. What I mean by 'a new kind of reality' is merely that the changes brought about by the information technologies and others have created a situation where at least a new way of thinking or of using the old tools may be required. Heim's view that computers generate new kinds of reality, or new vocabulary for the same reality, such as 'simulation', 'interactivity', 'artificiality', and so on, then can be supplemented by this new way of looking at reality through lens afforded by the digital divide and its conceptual ramifications. Thus some metaphysical questions here might concern how and to what extent the digital divide shapes up reality and whether there is a new kind of reality that demands a new way of thinking about it that is caused by it.

If issues in metaphysics appear to be really far fetched, then epistemology seems to be much closer to the center of the philosophical attention over the digital divide. I am talking here about traditional concern in epistemology, and not about issues in philosophy of education, which is reserved under its own heading in the paper. One might wonder whether and how the digital divide has any bearing on a conception of knowledge. For example, one may have a view that knowledge exists on a network, but what would happen to that conception if it turned out that the network does not penetrate to all sectors in a society? Does this mean that the value of the knowledge is lessened since it is shut out from a large number of population who might benefit from it? If one subscribes to the view that knowledge derives its value (or justification) from being on a network, then the fact that the network is limited to only a portion of the population would seem to show that the value of that knowledge could well be improved, and thus the value is not a complete one.

1 Philosophy of Education

The digital divide lends itself neatly into discussions in philosophy of education. One of the most talked about topics on the digital divide has to do with the role that the network is supposed to bring to each sector of the population the kind of education and information and knowledge that would be very difficult to obtain otherwise. We have been led to believe that solving the digital divide would mean that each sector of the population would benefit from increased knowledge and information which would help them in many ways. Moreover, there have also been talks that bridging the digital divide simply by providing more people with computers and Internet access is not going to be effective enough in combating problems that educators face. It is not simply the case that when a group of people are brought computers and Internet access, then suddenly

they become knowledgeable. In order to be able to benefit fully from the knowledge and information brought about by the technology, people must first be equipped with a good amount of knowledge so that they know what they are looking for and be able to learn from the information provided by the Internet.

There is an anecdote well known in Thailand about an attempt by the previous government to bridge the digital divide by providing each and every school in the kingdom with a computer and Internet access. Millions of computers were dispatched to each school, some of which lie in very remote villages. The problem was that in some of these villages there was not even electricity, much less qualified teachers who could teach students how to operate the computer. The government apparently thought that simply giving away computers would make the digital divide problem disappear. In reality, however, the computers given to these schools just stayed there as a sacred object, a token of the government's 'generosity' toward its people. The villagers were not even given the infrastructure needed to run the computer, nor did they have the skills required to work on one. It is clear that the digital divide problem will not go anywhere in this kind of situation.

One of the basic concerns of philosophy of education is over the aims and purpose of education. But if the aim of education were just to provide information, then bridging the digital divide would bring the desired result. However, it is almost a truism that being in possession of information, no matter how much, is a far cry from being educated. And if this so, then it is an open question how much educational benefit attempts to close the digital divide would bring. Sure enough, being on the right side the divide may be a necessary condition, but then one would need to find other conditions that would make it sufficient for one to be really educated. And even the point that bridging the divide is a necessary condition has been criticised by a number of philosophers and educators. Some, like Hubert Dreyfus (1999), are highly sceptical about the effectiveness of distance learning as a means to education. Hence the philosophical terrain here is whether the digital divide has any bearing on the issues of concern in philosophy of education, and if so, exactly how.

1 Philosophy of Culture and Non-western Philosophy

Perhaps it is a little surprising to see that philosophy of culture and non-western philosophy has anything to do with the digital divide. In fact they have a good deal. On the one hand, much empirical research has shown that attempts to close the divide will not be effective unless one takes into consideration cultural concerns of the society in question. Thus culture plays a large role, and hence philosophical considerations of culture could presumably help illuminate the issues involved. Since culture, in the anthropological sense, is the sum of the beliefs, practices, and values of a group of

people who define themselves together as a group through these shared symbols and sets of beliefs, presumably it is profitable to see how differences in cultures could explain there being a divide, digital or otherwise, between groups who do not share the same cultures with each other. And since cultural differences happen within a nation-state (as is the case with the differences among various ethnic groups in a country) and internationally, consideration of cultural factors is viable at many levels and dimensions.

Charles Ess is one of the not too many philosophers today who have been active in showing how culture shapes up behaviours in computer-mediated communication in many different regions of the world, as well as what kind of philosophical insights can be gleaned from it. In a series of papers, he shows that cultures play a very large role in explaining how social behaviours toward the technology are shaped, and how these different practices result in different ways in which the technology is adopted into the fabric of each culture. Hence, it would be very instructive to learn how these insights from the philosophical perspectives on computer-mediated communication could shed light on the digital divide problem. Ess argues that the findings from field research in communication and cultural studies show that soft determinism is to be preferred over either technological determinism or technological instrumentalism. In other words, he argues for a middle ground between the position that sees technology to be an autonomous threat that we can do nothing about, and another that sees technology to be merely neutral tool (2002). One could apply the insight in one's attempt to solve the digital divide problem. One thing that should be done is to investigate how the inequality that is presupposed by the digital divide is infused by culture, and what are the normative aspects of such infusion. More specifically, is the attempt to close the divide itself a kind of technologically deterministic thinking that is predicated on the belief that the technology should be made available to every individual on the planet regardless of his or her possible tradition-bound preferences otherwise? And if so, how can Ess's soft determinism come to the rescue?

Another important area of future research is to see how non-western philosophies, such as Buddhist or Chinese, can shed light on the digital divide problem. This has become all the more urgently needed as many countries and regions in the world are experiencing the digital divide but do not have the same intellectual traditions and resources that those in the West do. Thus a fruitful area could be to see how non-Western philosophy has anything to say about this matter.

1 Conclusion

The foregoing has been a very rough survey of the philosophical investigation that can be done over the digital divide. Please note that I do not claim any comprehensiveness at all. Philosophical discussion has a

way of ramifying beyond one's possible imagination. But let me nonetheless conclude the paper by summing up the main questions or agenda so far:

- How is the concept 'digital divide' going to be analysed?
- Are the already existing philosophical tools adequate in analysing the digital divide phenomenon, or are new sets of vocabularies and tools needed?
- Since the digital divide presupposes a notion of equality, how could that notion be understood in light of current theories in social and political philosophy?
- Since the digital divide concerns both computers and ethics, its investigation lies squarely within the domain of computer ethics. Then the question is: How could we proffer first-order normative pronouncements on the digital divide? (Of course this is the most basic question to be asked, and it naturally involves thinking clearly about a host of other related matter.)
- How do the concept and the actual phenomenon of the digital divide affect thinking on the nature of reality and knowledge?
- How is the digital divide to be taken as a topic in the philosophy of education? Or perhaps an intersection between philosophy of education and philosophy of technology? Or perhaps more?
- How are the current thinkings and findings on the role of culture in technology and computer-mediated communication related to the digital divide?
- What can the non-western philosophical traditions say about the digital divide?

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