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Epistemic injustice of the digital divide

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Abstract: This article examines the problem of the digital divide through the lens of social epistemology, focusing on such aspects as the knowledge gap and epistemic injustice. The authors uses the method of comparative analysis and conceptual analysis to explore the epistemic characteristics of the digital divide and proposes new approaches to overcoming it. The article emphasizes the importance of achieving the UN Sustainable Development Goals related to education and access to knowledge in the hyperinformation age. The originality of the study is that the phenomenon of the digital divide is seen as a knowledge gap. The authors illustrate the digital divide with the example of the problem of equitable access to AI in education and medicine. As a result, the study is not only theoretically significant but also has social implications, stressing the need to bridge the digital divide as a condition for equitable access to information and knowledge for all segments of society.

Keywords: Digital divide, Epistemic injustice, Knowledge gap, Social epistemology, Sustainable development.

1. Introduction

Initially, the term "digital divide" emerged as a journalistic turn of phrase to describe the uneven access to digital technologies as well as to new media. Later on, the concept came to be used as an official designation of an urgent social problem. Therefore, it has been studied by a large number of disciplines of a social and humanitarian nature. Most often this problem is the subject of sociological, legal, and cultural analysis. These disciplines aim to describe this phenomenon and to develop specific recommendations for social transformation. The problem of the digital divide is much less frequently discussed in philosophical literature, although it has direct links with such fields as ethics, virtual reality ontology, and epistemology. The difference between philosophical analysis and applied research in this area lies not only in the speculative, i.e. theoretical, modus of the discussion but also in the endeavor to discover the normative dimension of the digital divide are and what management practices are proposed to overcome it. It is more important to give an account of our assessments of the digital divide as a negative phenomenon. Note that these assessments may concern not only moral or political intuitions but also epistemic ones.

This paper is a philosophical article. Therefore, the problem of the digital divide is discussed by relating it to areas of social epistemology such as the knowledge gap and epistemic injustice. After an overview of the methodology and theoretical framework, the concept of epistemic injustice is explored and different types of this phenomenon are investigated. An account is also given of whether instances of the digital divide can be classed as performances of epistemic injustice.

Such a study is not only theoretically but also socially relevant. The UN Sustainable Development Goal number 4 states the following: "By 2030, ensure that all learners acquire the knowledge and skills

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necessary to contribute to sustainable development." [1] It is reasonable to assume that achieving such a goal in the hyperinformation age is impossible without adequate political and social responses to the facts of the digital divide. All this is also relevant in the context of the "infodemic" declared by WHO [2].

This article argues that bridging the digital divide is linked to the broader task of overcoming epistemic injustice. The latter, in turn, can be explained as a kind of social injustice referring to the discrimination of individuals as knowers.

The study's hypothesis is the following. If we apply the conceptual schemes of social epistemology in the context of the discussion of the digital divide, we can formulate a rationale for the normative evaluation of this phenomenon as an instance of epistemic injustice.

The above hypothesis is proved through the study of discussions within the framework of social epistemology — an actively developing direction of the modern theory of knowledge. A substantive review of theoretical works on epistemology is presented in the section "Methods and Theoretical Setting" of this article. The aim of the section is to show the argumentative power of social epistemology as a discipline that substantiates the connection between knowledge acquisition, social interactions, and evaluations of individuals. In the following sections, a definitional analysis of the concept "digital divide" is carried out. This concept is then correlated with traditional concepts of epistemology such as belief, truth, information and knowledge. The works of the following authors are used for this purpose: M. Fricker [3], J. Medina [4], M. Lugones [5].

The mentioned authors justify the need to apply social epistemology to address local issues, among which the issue of belief transmission and the knowledge gap is particularly important. It is argued that cases of the digital divide are epistemically examples of the dysfunctionality of the digital environment, which is described as a tool for the growth and preservation of information and knowledge.

2. Methods and Theoretical Setting of Social Epistemology

This article is theoretical in its form and belongs to the field of social epistemology, which determines the use of approaches peculiar to philosophy. The achievement of the research objective is carried out through the use of two main methods.

First, the method of conceptual analysis. It is realized through the assessment of discursive consistency of such philosophical concepts as knowledge, digital divide, belief, information, and injustice. For such analysis, the goal is to identify the constituent elements of the concept and its further reconstruction, which is understood as a rearrangement of elements and their orderly and logically coherent arrangement [6]. This method involves identifying the conceptual core of the term by comparing different contexts of its use.

Second, the study uses the method of comparative analysis. This method implies a comparison of theories proposed by different philosophers with a preliminary determination of the basis for comparison. The condition for an adequate comparison is a consistent reconstruction of the history of ideas in the field under consideration, so we adhere to the principle, which in recent studies has been called "methodological non-violence" [7]. Unlike conceptual analysis, for which the unit of meaning is a concept, the comparative method is realized at the level of a set of arguments, i.e. at the level of theory.

The main subject of the study is the epistemic characteristics of the digital divide, so social epistemology is used as a theoretical setting. This section of epistemology emerges from the problematization of the issue of belief transfer through testimony. It is therefore often referred to as the epistemology of communicative knowledge since the beliefs received in this case are the result of a message [8]. Consideration of external (relative to knowledge) factors such as the institutional nature of society, perceptions of other people's and one's own identities, and reasons for imputing credibility are essential in determining the epistemic status of testimony. All this distinguishes social epistemology from individual epistemology. The latter focuses on analyzing propositional knowledge and the sources of its acquisition through cognitions (like sense perception or memory). At the same time, classical

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individual epistemology often treats testimony as a reducible cognitive source, and thus not worthy of specific attention.

The situation changed in 1992, when C. Coady's seminal work "Testimony: A Philosophical Study" was published, which argued against the "reductionist thesis" [9]. Coady's innovation lies not only in the fact that he proposed a classification of approaches to the epistemology of testimony, but also for the first time asks the question of how to explicate the argumentative possibilities of testimony. The latter further enabled Alvin Goldman to argue that the epistemic status of testimony is determined by its justificatory potential, since "the problem of testimony is a problem of justification." [10] In the case of social epistemology, however, justification is not only understood in evidentialist terms, as moral, political, and cultural reasons can be factors of justification. This sensitivity to the social contexts of knowledge and belief production and transmission seems relativistic to some. It also makes researchers delegate the question of the status of testimonial evidence to empirical sciences. For example, E. Mamchur gives the following definition: "Social epistemology is a direction in the sociology of knowledge, which proceeds from the fact that traditional epistemological problems should be solved by sociological methods and means." [11] This definition can be called radical sociological, since it is based on the thesis that knowledge is determined by social interactions.

In this article, social epistemology is presented in a less radical version. While agreeing with Coady's thesis about the ubiquity of testimony, it is not necessary to agree with a sociologizing view. The point is that testimony itself, as a process of belief transmission, is described in terms of information transmission. Although the forms of information transmission may depend on social practices, information itself is a kind of neutral medium. E. Fricker calls information transmission practices "telling" in a broad sense: "Tellings are a subset of assertions. In a paradigm and felicitous telling, the teller rightly takes herself to know that P, and seeks to share her knowledge with her intended audience, whom she believes ignorant, or possibly ignorant, as to whether P. Telling is the proprietary linguistic means-often the only practicable way of achieving this, and almost always by far the easiest of letting someone else know what one already knows oneself." [12] Telling is socially conditioned, if only because it is reproduced by specific agents in certain social circumstances. It is conceptually significant to demarcate between the epistemic and the non-epistemic in the process of telling. This is the central task of social epistemology.

Another thesis of social epistemology that will be important for further discussion is the consideration of the "two-way" nature of testimonial knowledge. This means that, unlike direct knowledge, testimonial narrative, as J. Lackey has pointed out, requires two agents — the transmitter and receiver of beliefs [13]. They have different epistemic requirements, but their interaction must be described as a single epistemic process. In this connection, J. Greco introduces an important notion of "epistemic caregivers" [14]. This is what he calls agents who realize special social roles. The status of epistemic caregivers is realized in a specific environment. For example, a licensed physician is an epistemic caregiver of a patient in a situation where a diagnosis is being discussed. It is assumed that caregiver status betrays an inflated credibility credit to the informant regarding his or her testimony. In other words, the epistemic effect of adopting beliefs and knowledge through testimony is achieved as a result of the social attribution of the speaker as an epistemic caregiver in the context under consideration.

The following sections will show how the described theoretical setting of social epistemology allows the facts of the digital divide to be discussed as examples of social situations. It is argued that these situations have epistemically relevant effects and should be explained not only as examples of the uneven distribution of technological benefits, but also as causes of the knowledge gap.

3. Results

3.1. Digital Divide and Knowledge Gap

This section reviews the existing literature on what the digital divide is and what its consequences are. The aim is to point out the inadequacy of the available classifications that do not emphasize the

purely epistemic consequences of the digital divide. We will argue that the digital divide leads not just to social or technological inequalities, but also to discrimination against individuals and entire demographic groups as agents of knowledge translation.

Apparently, the first use of this term in a bureaucratic context was recorded in the mid-1990s in the United States, where a special report "Falling Through the Net" was prepared, touching on this topic [15]. In the nineties, the concept of the digital divide gradually became the subject of social and political science academic research. The former is characterized by an explanation of the digital divide through an assessment of unequal access to technology, primarily the Internet. In this respect, these studies are no more than a continuation of discussions on property inequality and its social consequences. On the other hand, in political science, the digital divide refers to inequalities in access to information broadcast through new media. Such inequalities are assumed to affect the timeliness of information on socially relevant issues, political self-identification, and, ultimately, political participation in democratic processes. Digital divide research is then a form of political media theory.

These early studies revealed an important aspect of the digital divide that would later become the starting point of the debate on this issue. This aspect is that the referent of the term "digital divide" can be at least two phenomena — the divide in access to technology and the divide in access to information. Building on this dichotomy, P. Attwell introduces the notions of a "first" and "second" digital divide [16]. The first divide is the difference between those for whom new technologies are available (the "technological haves") and those for whom access to them is significantly impeded (the "technological have-nots"). The second divide is realized at the level of competence and awareness. As M. Castells notes: "The differentiation between Internet-haves and have-nots adds a fundamental cleavage to existing sources of inequality and social exclusion in a complex interaction that appears to increase the gap between the promise of the Information Age and its bleak reality for many people around the world." [17]

Attwell's classification was later seen as insufficient because it only describes processes at the level of individuals and demographic groups. P. Norris believes that it is also necessary to talk about the levels at which the digital divide is realized [18]. Therefore, he distinguishes global, social and democratic digital divides. The first is technological inequality between states and regions, the second is inequality in access to information between social groups, and the third is inequality in the ability to use acquired information for political and social activism.

These classifications are limited and insufficient to be used for social epistemology purposes, as they emphasize the social and political implications of the digital divide, leaving no room for ethical or epistemic assessments. They focus on discussions of property inequality, of which inequality in access to information technology is an obvious consequence. It is also not clear how to apply these categorizations to discussions of the digital divide.

New media theorist Van Dijk proposes a classification based on causes [19]. He suggests that the digital divide is an inequality in access to information and knowledge, which is realized due to material (no access to devices), psychological (no desire to master technology, fear of innovation, technological discomfort), competence (no relevant user experience) and/or administrative (no legal possibility to use new technologies) barriers. In this categorization, the technological and social aspects are again the most significant. But it seems potentially productive to separate the "mental (psychological) divide" into a separate group. Here Van Dijk draws attention to the fact that the digital divide can be related to the experience of an individual as a separate person, not only as a representative of a social group. Further, guided by Van Dijk's idea, we will show that in addition to purely psychological aspects of the digital divide, we can talk about epistemic effects close to them.

For now, note that all of these classifications can serve to justify the view that the digital divide leads to a knowledge gap. The latter refers not just to differences in awareness, but also to significant differences in access to verified, relevant and valid information. Technological inequality (Attell's first gap) favors the technologically advantaged to have more timely information. At the level of the second gap, they are also able to use this information to consolidate their dominant position. J. Lemert introduces the important concept of "mobilizing information", which refers to the body of knowledge required for political participation. He writes that, "Mobilizing information is any information that allows people to act on the attitudes and desires they already have." [20] The divide in access to technology leads to inequalities in information, which in turn leads to political differentiation. Let us assume that a similar process occurs at the epistemic level. The first digital divide makes it difficult for epistemic agents to access beliefs, the factors that justify them, and the ways in which they are communicated. As a result, agents can ignore and impose independent constraints on their epistemic experience. This has the effect of giving their testimonies an undervalued degree of credibility. Repeated instances of the knowledge gap result in the epistemic experiences of such epistemically marginalized agents being not just ignored, but seen as undesirable. Ultimately, this reinforces performances of epistemic injustice, as will be discussed in more detail in the next section.

3.2. AI Divide: Towards Equitable Access to AI Technologies

The disparities between those with access to new technologies and those without are becoming more and more worrying. This became evident in the problem of equal and fair access to AI technologies. Researchers are speaking out for equitable access to artificial intelligence (AI) tools, such as ChatGPT, to avoid limiting their benefits to a privileged few [21]. Commercialization of AI entails that it becomes less inclusive due to rising costs of subscription and unequal distribution among institutions in different countries and within one country. Even if resources are distributed formally equally within a certain country it does not always entail equity. Equity means spending more resources for those from disadvantaged socio-economic or ethnic groups. The researchers use the term "AI divide" to describe a growing gap between countries, companies, universities, and individuals with regard to using AI technologies [22]. In this section, we will consider in brief two prominent spheres where these tendencies apply: education and healthcare.

When discussing digital divide in education, we are not talking just about computer rooms or providing free Wi-Fi across campuses which became a standard for most schools and colleges in the West but is still a problem for many developing countries. According to the concept "Education 4.0", proposed by the World Economic Forum in 2024, AI holds "immense potential to revolutionize teaching methodologies, personalize learning experiences and streamline administrative processes" [23]. The application of AI in education is widening exponentially [24]. The main areas where AI can change the outlook of education are automated content creation for teachers, personalizing learning content for students, predictive analysis of student performance, AI-enabled virtual mentors, AI-enabled tools designed to support learners with special education needs, etc. AI technologies are transforming modern education and all students regardless of their background should have equal access to these technologies [25]. Those students who come from disadvantaged backgrounds or live in poorer countries and therefore don't have access to these technologies will be less competitive workforce in the future, further widening the gap between rich and poor.

The digital divide in access to healthcare services supported by AI refers to differences in: 1) physical access to certain infrastructure and equipment; 2) lack of skills in certain socio-economic groups for using modern apps that offer automated health diagnosis and treatments [26]. The WHO views inclusiveness as a core ethical principle in the development and use of AI technologies: "Inclusiveness requires that AI used in health care is designed to encourage the widest possible appropriate, equitable use and access, irrespective of age, gender, income, ability or other characteristics" [27]. In the same document WHO stresses that it is the responsibility of the governments and industry to ensure that the "digital divide" regarding the access to novel AI technologies within and between countries is not widened. Modern medicine has been penetrated by AI at a rapid pace in recent years improving primary care [28] and revolutionizing clinical oncology, especially diagnostics of cancer [29]. However, people living in specific areas or coming from specific socio-economic groups, or even of specific ethnicity are less likely to enjoy its benefits. For example, most current AI models use unrepresentative datasets that include mostly white populations. Therefore,

if such a model "incorrectly categorizes a patient as being from an ethnic group with a higher incidence of a specific cancer subtype, this could lead to incorrect treatment decision-making." [30]

Researchers are considering virtue ethics as a viable tool for developing the idea of a fair and responsible AI aimed at human flourishing [31]. In the following section, we will apply the concepts of virtue ethics to the phenomenon of digital divide.

4. Discussion: Epistemic Injustice and Digitalization

Speaking of the "mental divide" in the case of digital technologies, Van Dijk notes psychological presuppositions in the use of new media information technologies. These presumptions, of course, do not arise from nothing. They characterize the personality of their bearer. The personality and psychological traits of an individual determine the format of his/her user experience. At the same time, previous user experience can influence the emergence of a mental digital divide, indulging negative attitudes towards the digital environment. In other words, the psychological conditions of the digital divide are a "two-way road" where external discrimination can coexist with personal prejudices. The described situation is extremely similar to what social epistemologists write about such a phenomenon as epistemic injustice.

The term "epistemic injustice" was coined by philosopher Miranda Fricker, who wrote a book of the same name $\lceil 3 \rceil$. In her work, she defines epistemic injustice as the injustice that occurs when bias causes the listener to give the speaker's words an undervalued level of credibility. Thus, epistemic injustice is a type of bias. It can be realized in two modus operandi: as a manifestation of deficit (the most common case) and excess of trust when evaluating the evidence of epistemic agents. In this case, deficit is assessed not just as more common, but also as a more dangerous modus of epistemic unfairness manifestation, because "in general, excess will be favorable and deficit will be disadvantageous" for the witness $\lceil 3 \rceil$.

Fricker believes that there are two main types of epistemic injustice —testimonial (realized at the level of prejudicial distrust of individual testimonies) and hermeneutic (when a subject or group has no opportunity to interpret their cognitive experience, i.e. systematic silencing of testimonies). Regarding both types, it can be said that they are characterized by the harm done to individuals as knowers because of the identification of their non-epistemic characteristics. That is, we encounter epistemic injustice whenever the ascription of beliefs and knowledge is influenced by epistemically irrelevant criteria such as membership of a particular racial or gender group. For example, if a woman's testimony is deemed less valuable on an issue precisely because she is a woman, that subject is damaged as a knower. Fricker argues that at the heart of epistemic injustice is a structural bias that is reproduced systematically. It becomes not only socially, but also epistemically significant when it is repeated over time and traceable in a number of different communication contexts.

It is important that within the framework of social epistemology testimonial injustice is not considered as just a type or continuation of deliberative injustice. The reason for this thesis is that trust is not a finite resource, and therefore its distribution in society does not have to be in strict correspondence with the distribution of material goods. As Fricker herself remarks on this point, "There is no puzzle about the fair distribution of credibility, for credibility is a concept that wears its proper distribution on its sleeve" [3]. An adequate way of allocating credibility, then, is to evaluate exclusively epistemically relevant characteristics of epistemic agents. These might include, for example, reliabilist and responsibilist intellectual virtues, but they do not include social identity. Hence the conclusion that in just communities, trust is distributed proportionately, depending on the extent to which the truth and reliability of the speaker's testimony can be expected.

There are at least three major negative consequences to which acts of epistemic injustice lead. The first negative consequence is that the instigator of the act of injustice himself is likely to miss information and knowledge by ignoring the testimony of those he is biased against. The second negative consequence is that the one whose testimony is biased loses cognitive bearings, i.e., refuses further acts

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of testimony. Finally, the third negative consequence is that the biased informant, "Does something ethically bad — the speaker is wrongfully harmed in their capacity as a knower." [3]

These negative consequences of acts of epistemic injustice are explained by more fundamental concepts from the field of social epistemology. In particular, to argue his thesis, Fricker uses the ideas of E. Craig [32] and B. Williams [33]. These theorists insist that being a "knower" is one of the most important conditions for the formation of human personality. They define sociality as the possibility to participate in an "epistemic collective". That is, to be part of an information chain, to act as the transmitter and receiver of beliefs, is socially significant. Social epistemologists explain the importance of participation in such collectives through evolutionary, psychological and rational dispositions.

Evolutionary conditioning is provided by the fact that for the survival of the organism and the species, humans must endeavor to accumulate true beliefs about the environment. Those who receive truth and avoid lies are more likely to be successful in adapting to the world. As an example, communities of primordial people for whom it was existentially significant to have true beliefs about useful and poisonous plants and animal habitats. In such communities, the epistemic stakes of accepting testimony as common knowledge were radically high. That stake was, literally, the life of the entire collective. So to be a good informant in such a community was to be a useful member of the community, while to be a bad informant was to be an enemy.

Psychological dispositions to being a knower are related to the human need for co-operation. Participating in epistemic practice, people, as a rule, realize it collectively, joining the epistemic experience of others and passing on their own testimonies. Thus, through epistemic cooperation and division of epistemic labor, cohesion takes place. In many respects, this is determined by the fact that "cognitive robinsonade" is impossible. As Gelfert notes, the beliefs and knowledge we have "Depend for <code>[their]</code> formation, sustainment, or reliability on the knowledge (or beliefs, or other cognitive states and processes) of other epistemic agents." [34] Also importantly, there are innate and acquired cognitive differences that drive co-operation. For example, having a good sense of smell in the primordial community gains an epistemic advantage in identifying spoiled food. Epistemic differences that push for co-operation and stimulate trust in the other can also manifest themselves in more localized situations. For example, we can imagine a sentinel on a hill who has a localized cognitive advantage in knowing his surroundings. Obviously, it would be right for the community members in the low-lying area to listen to him.

Finally, there are rational reasons for participating in an epistemic community. The fact is that trust, including trust in cases of acts of communication to convey evidence, seems to be more favorable than distrust. If a epistemic agent is convinced that others are trying to deceive him, if he refuses to accept evidence from the words of others, he finds himself limited solely by the information he receives through his individual cognitive apparatus. Hence, incidentally, arises the positive evaluation of certain intellectual character traits (called virtues). For example, reliabilist accuracy in judgement or responsibilist open-mindedness are necessary for rational reasons — to acquire more beliefs and thus more knowledge. As M. Fricker notes, "Accuracy and sincerity support trust in contributing to the knowledge piggy bank." [3]. However, it is important to say that the mechanism for the emergence of intellectual virtues is identical to the mechanism for the emergence of intellectual vices. The same rationality, which implies sincerity in communication, can contribute to the development of stereotypical views, because the latter minimize epistemic efforts and are therefore beneficial in certain contexts.

Thus, we see that stereotypes are generated by the same mechanism as intellectual virtues. But unlike the latter, stereotypes cause acts of epistemic injustice, which undermines cognitive co-operation. By realizing false associations and unjustified conclusions, stereotypes act as unreliable empirical generalisation. If an agent systematically glosses over the evidence of others that points to the inaccuracy of a stereotype held in the community, he or she bears a double fault — moral and epistemic. The ethical harm here is that it discriminates against and belittles the informant who is being stereotyped. The epistemic harm is that the contribution to the division of epistemic labor, and thus to the overall growth of knowledge, is disrupted. Also, subjects subjected to epistemic injustice are degraded, since participation in the circulation of knowledge is an important condition for the formation of personality.

Everything said above about epistemic injustice can be applied to the discussion of situations of knowledge gaps resulting from the digital divide. As already mentioned, the levelling of epistemic injustice is usually realized through the cultivation of appropriate intellectual virtues. Within contemporary social epistemology, there is a widespread view that virtues are context-sensitive, that is, they must be manifested in the appropriate environment. This view is held, in particular, by E. Sosa [35] (Sosa, 2007) and L. Zagzebski [36]. This understanding of virtue is a legacy of the Aristotelian tradition, for which it is important to take into account the self-value of virtuous behavior. Applied to cognition through communication, this means that an agent has the superiority of a good witness if and only if she realizes and monitors it only for its own sake. Thus, the use of virtue is not a strict regulation, it is not codified, it changes according to the context and requires constant self-reflection.

The coupling of epistemic injustice and intellectual virtue provides a normative dimension to the discussion of our epistemic practices, which are realized also through new digital technologies. As J. Medina notes, "We have to aspire to [make] our credibility judgments as proportionate to epistemic deserts and credentials as possible, avoiding disproportions that reflect and are grounded in (positive and negative) prejudices that involve the differential treatments of members of different groups." [37] The digital divide proves to be a significant obstacle to the realization of such a principle. Unequal access to information from new media has even more negative consequences if the new media themselves do not give due weight to the testimonies of certain epistemic groups because they are not their audience. This results in the digital space failing to provide incentives to critically evaluate how prejudice affects perceptions of other people's epistemic authority. As a result, the digital divide is reinforced not only as a "first digital divide", i.e. technological inequality but also as fragmentation of shared cognitive space and the locking of siloed epistemic groups into themselves.

Therefore, as Safonov and Mayakovskaya argue, "Digitization and the mass dissemination of Internet technologies turn out to be a false ally in the fight against hermeneutical injustice. By eliminating seemingly gaps in conceptual representation, the Internet creates a space saturated with information in which the voice of excluded social groups is lost. Digital technologies have made it possible to freely create, exchange and distribute information, but this has also led to information devaluation." [38] This is evident in such examples as the development of conspiracy communities on the Internet, misinformation in the media, and the deflation of expert authority. One could say that an epidemic negative consequence of the digital divide is the absence of what J. Medina calls "epistemic friction", which, as he writes, involves "actively search <code>[ing]</code> for more alternatives than those noticed <code>[immediately]," acknowledging these alternatives, "(or their possibility), and ... attempt <code>[ing]</code> to engage with them whenever possible." <code>[37]</code></code>

The digital divide has a significant impact on our epistemic practices. As a result of the marginalization of different groups in the digital space (the original cause of which is economic and social inequality), the epistemic community becomes homogeneous. The performances of epistemic injustice faced by representatives of marginalized groups make them give less trust to mainstream media, even if they try to reach new audiences through various online platforms. For example, it is known that immigrant groups in the European Union tend to consume information from anonymous telegram channels rather than the official media because they feel that the latter are biased and unrepresentative when discussing the needs of their community [39]. This situation reinforces the "mental digital divide" discussed above, as it contributes to psychological discomfort with the use of certain technologies by different demographic groups. For example, statistics show that while immigrants are inclined to consume information via telegram channels on a daily basis, locals are very wary of them, considering it an application as a place for storing and transmitting forbidden and extremist information [40]. This is a manifestation of intellectual arrogance – a rigoristic confidence in one's own point of view that excludes any outside view.

M. Lugones considers the virtue of "loving perception", the opposite of intellectual arrogance [5]. In her approach, overcoming epistemic injustice involves what she metaphorically calls "world-travelling". This involves shifting from one's own hermeneutical capacities to the epistemic resources of others in order to see the world from their perspective. This idea illustrates very clearly what a digital space without epistemic injustice can be filled with, namely, intersecting epistemic communities whose membership does not exclude membership in others.

To be able to practice world-traveling, M. Lugones believes, it is worth embracing playfulness, that is, accepting that we may appear ridiculous, incompetent, or ridiculous when trying to enter and understand someone else's world. Playfulness is, "Openness to being a fool, which is a combination of not worrying about competence, not being self-important, not taking norms as sacred and finding ambiguity and double edges a source of wisdom and delight." [5] Thus, the digital divide in its epistemic relation is surmountable to the extent that we are able to recognize that no single cognitive community is the final authority on truth production. Nor is it a complete set of hermeneutical resources. Epistemic virtues allow us to lovingly enter other worlds and gain knowledge that would otherwise be hidden from our previous perspectives. The digital divide, in turn, impedes said possibility.

5. Conclusion

The study allows us to draw several conclusions:

1. Epistemic injustice. This phenomenon is the systematic undervaluing or ignoring of certain groups as sources of knowledge, resulting in distorted information and reduced credibility.

2. Relation to the digital divide. The digital divide, which manifests itself in unequal access to technology and information, exacerbates epistemic injustice. Groups with limited access to digital resources become marginalized and excluded from knowledge-sharing processes.

3 Bridging the gap: Bridging the digital divide is necessary to address epistemic injustice. This will enable more equal access to information and opportunities to participate in the creation and dissemination of knowledge.

4. Social relevance: The issue of the digital divide and epistemic injustice has not only theoretical but also practical implications for social development and sustainability.

Thus, it can be argued that the digital divide does not only represent technological and social inequalities. It also leads to epistemic injustices that systematically exclude certain groups from the processes of knowledge creation and dissemination. Bridging the digital divide is a prerequisite for addressing these injustices, which in turn contributes to a more equal and inclusive society. It is therefore important to see the digital divide not only as a technological challenge but also as a social justice issue that requires a comprehensive approach and active measures to ensure equal access to information and opportunities for all.

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