Lětopis 71
2024

Zeitschrift für Sorabistik und vergleichende Minderheitenforschung
Časopis za sorabistiku a přirunowace mjeńšinowe slědźenje
Casopis za sorabistiku a psirownujuce mjeńšynowe slěźenje
Journal for Sorbian and Comparative Minority Studies

Anca Claudia Prodan

Überlegungen zu einer Konzeptualisierung der sorbischen digitalen Kultur (im Sinne des Neuen Materialismus)

Die Gegenwartskultur ist geprägt von der weltweiten Präsenz digitaler Technik in allen Lebensbereichen. Sie wird auch von den Sorben intensiv genutzt, so dass sich im Laufe der Zeit eine sorbische digitale Kultur entwickelt hat. Diese ist jedoch noch nicht erforscht, und es gibt viele unbeantwortete Fragen, von denen die grundlegendste lautet, wie die sorbische digitale Kultur zu definieren ist. In diesem Artikel werden Überlegungen zu dieser Problematik angestellt, indem Definitionen der sorbischen Kultur bzw. der digitalen Kultur allgemein geprüft werden. Es zeigt sich, dass die Berücksichtigung der materiellen Infrastruktur der digitalen Technologie eine Voraussetzung für die Definition der sorbischen digitalen Kultur ist. Der Neue Materialismus wird als möglicher Ansatz vorgestellt und mit Beispielen untermauert.

Reflections on a (New Materialist) Conceptuali-zation of Sorbian Digital Culture

Contemporary culture is characterized by the omnipresence of digital technology in all areas of life, all around the world. The Sorbs also use digital technology intensively, lead-ing to the development of a Sorbian digital culture over time. However, this has not yet been researched, leaving many unanswered questions, the most fundamental of which is how to define Sorbian digital culture. This article offers reflections on this question by reviewing definitions of both Sorbian culture and digital culture. It shows that considering the material infrastructure of digital technology is a precondition for defining Sorbian digital culture. New materialism is introduced as a possible approach, and examples are provided to support this argument.

Serbski Sorbisches institut Institut

DOI
https://doi.org/10.59195/lp.2024.71-45

Reflections on a (New Materialist) Conceptualization of Sorbian Digital Culture

Anca Claudia Prodan

1. Introduction

Digital technology and its ubiquitous presence in all areas of life has reconfigured human practices of connecting, sharing, and communicating worldwide and has prompted the emergence of new forms of collective expression and experience. Scholarship calls this phenomenon "digital culture", and several authors are engaged with theorizing it and explaining its characteristics (e.g., MILLER [2]2020; BOLLMER 2018; GALLOWAY 2014; GERE 2008). A recently published technical report on the use of digital technology by the Sorbian minority in Germany shows that many applications and diverse digital content and tools have been developed in the Sorbian context as well (SCHENK 2021). Examples include translators such as "Sotra" (sotra.app), online dictionary sites (soblexx.de, obersorbisch.de, niedersorbisch.de), text to speech readers such as "Juro a Matej" (tts-juro-matej.serbski-institut.de/) and "Bamborak" (digiserb.de/projekt/bamborak/), online games such as "Krabat" (www.rapaki.de), social media such as "Kostrjanc" (www.kostrjanc.de), OCR software, data registers, interfaces for the most popular platforms and many others.

While the quantity of content and tools has been gradually increasing, research has been slow in tracing and analyzing these developments; in fact, it has been very modest, almost absent. A few works concerning language practices or the presence and use of online applications exist (e.g., MCMONAGLE 2022; PETZOLD 2017; NITZSCHE 2015; SCHÄFRIG 2010). However, none engage with how we can define and analyze Sorbian digital culture; no theorization exists so far and thus also no theoretical framework for studying it. The article at hand addresses this gap. While it does not provide a theoretical framework p e r s e , it provides reflections that can motivate scholars to adopt a perspective anchored in New Materialism.[1] The relevance of such an approach is twofold. It allows us to extend the understanding of Sorbian culture through a new materialist perspective, which so far has been absent, and to consider the material aspects of digital technology, which is a key component of anything created digitally.

My reflections on the conceptualization of Sorbian digital culture lie at the intersection of two types of scholarship: that concerning Sorbian culture and that concerning digital culture. First, the paper draws on a review of sources theorizing and analyzing Sorbian culture and identity. The review reveals that there are plenty of empirical studies and descriptions of Sorbian culture that focus on material aspects, e.g. folk costumes, monuments; however, there are very few attempts at theorizing or explicitly defining Sorbian culture in an abstract way and in these attempts the relevance of the material aspects is underestimated. This review is then contrasted with a theoretical body of sources on conceptualizations of digital culture, which shows that incorporating a material dimension is

[1] The reflections presented here represent research in progress and are part of a broader project on the impacts of digital technology on Sorbian culture. The broader project is developing a theoretical framework and applying it to selected digital objects, tools, and projects.

DOI: https://doi.org/10.59195/lp.2024.71-45

useful, even necessary. Drawing these points together, the paper introduces New Materialism and continues by explaining, based on selected examples, why such an approach is fruitful for understanding and studying Sorbian digital culture.

2. Sorbian Culture

Who the Sorbs are seems to be easy to understand … at first glance. Written sources tell us that they are a Slavic minority living in Germany in an area known as Lusatia, extending over the federal states of Brandenburg and Saxony. Lusatia has been their homeland since the beginning of recorded history (BÜNZ 2008), and parts of it are now recognized as a "Sorbian settlement area" by the laws concerning the rights of the Sorbs, for short the Brandenburg Sorbian/Wendish Law and the Saxon Sorbian Law.[2] Today there are still about 30,000 Sorbian speakers (POHONČOWA/WÖLKOWA 2014), but their number was estimated to be twice as high by official sources twenty years ago (TSCHERNOKOSHEWA 2000: 34–40).[3] Various revitalization and language maintenance measures are in place, but according to research, language is not an exclusive criterion for explaining who the Sorbs are today, at least not everywhere, such as in parts of Lower Lusatia (e.g., TSCHERNOKOSHEWA et al. 2011: 124–125; LASCHEWSKI/JACOBS/NOWAK 2021: 55).

Understanding more clearly who the Sorbs are requires that we go beyond language and turn our attention to how Sorbian culture and identity have been conceptualized. The review includes works with a theoretical interest (e.g., KOSCHMAL 1995) and empirical studies and analyses, based on definitions of culture borrowed from other contexts (e.g., TSCHERNOKOSHEWA et al. 2011; LASCHEWSKI/JACOBS/NOWAK 2021). The following section does not provide a comprehensive overview but it only reviews selected works that explicitly define Sorbian culture and identity. They are arranged in chronological order, which indirectly reveals the evolution of thinking about culture within Sorabist scholarship and the philosophical trends that were adopted over time.

In 1995, Walter Koschmal noted the lack of a critical, external perspective on Sorbian culture, which up to that point had been both carried and described primarily by the Sorbs themselves and some sympathizers (KOSCHMAL 1995: 8). For the purpose of intercultural dialogue and cross-cultural comparison, however, Koschmal felt the need for an additional, metacultural, external perspective. Consequently, he undertook a first attempt at developing such an overall view of the Sorbian cultural model in its basic features (ibid.: 8). According to Koschmal, others who before him carried out research on Sorbian culture focused only on selected aspects,[4] such as literature or music, except for Paul Nedo, who reflected more broadly on cultural history (ibid.: 11). However, Koschmal disliked Nedo's approach (ibid.: 12).

Following Herder's philosophy, Nedo believed that any cultural history first required producing a complete cultural inventory (KOSCHMAL 1995: 12). For Koschmal, this was

---

2 The official names are: Gesetz über die Ausgestaltung der Rechte der Sorben/Wenden im Land Brandenburg (Sorben/Wenden-Gesetz – SWG), of July 7, 1994 (GVBl. I/94, [No. 21], p. 294) last amended by Article 2 of the Act of October 15, 2018 (GVBl. I/18, [No. 23]) and Gesetz über die Rechte der Sorben im Freistaat Sachsen (Sächsisches Sorbengesetz – SächsSorbG), dated March 31, 1999 (SächsGVBl. p. 161), last amended by Article 19 of the Act of December 20, 2022 (SächsGVBl. p. 705).

3 These figures should be treated with caution, as pointed out by the cited author.

4 Some authors mentioned by Koschmal on this point are Martin Völkel, Josef Páta, or Gerald Stone.

both unnecessary and impossible, and he turned to Ernst Cassirer's philosophy of symbolic forms, which allowed him to study not the details of culture – the great number of "cultural facts" accumulated over history – but the totality of culture or culture as a whole (ibid.: 12–13). To position himself in the academic discourse, Koschmal turned to anthropology, highlighting its three branches – social (institutions and society), material (tools and artefacts), and cultural (ideas and values) – and explained that he focused on the latter, following a semiotic approach (ibid.: 15).

Koschmal's intention is relevant, since indeed it does not appear fruitful to develop a definition of culture from an inventory of its manifestations. Nevertheless, Koschmal's semiotic approach is somewhat limiting, leading him to state that over the centuries the Sorbs have hardly developed any social and material culture of their own. Sorbian identity had to be guaranteed by, and could only be explained through, the mental culture (KOSCHMAL 1995: 21). We will return to this argument later in the paper. For now, it is necessary to emphasize that this focus on the mental, the ideal, or the symbolic is present in several other conceptualizations of Sorbian culture, as the review below shows.

In an expert report on the locality of Proschim from 2011, the authors state that being Sorbian is always just a partial identity and that it belongs to the ethnic aspects of culture (TSCHERNOKOSHEWA et al. 2011: 125). This follows from an earlier study by Elka Tschernokoshewa, in which she analyzed media discourses by employing the concepts of alterity and otherness and convincingly showed that there is no pure Sorbian culture and identity (TSCHERNOKOSHEWA 2000). Other authors underlined this recognition, even claiming that a pure culture suppresses the living culture and excludes those who do not conform to the "standard", prompting us to question identity preservation in favor of identity development (NEUMANN 2008: 56). The report on Proschim reiterates such arguments on empirical grounds (TSCHERNOKOSHEWA et al. 2011: 121), and it indicates a move away from an essentialist conceptualization of culture towards culture as a social process.

In Proschim, not only "customs and folk costumes, buildings and stories" were investigated, but also "the meanings that lie behind them, their background and what they express: emotions, values, norms, control mechanisms or motives for actions" (TSCHERNOKOSHEWA et al. 2011: 132). The researchers proceeded on the understanding that "cultural goods are not just material but far more immaterial goods" as framed by European cultural policy, a view they followed in defining the task, approach, and design of their survey (TSCHERNOKOSHEWA et al. 2011: 132). Their argument echoes the broadening of culture from "tangible" to "intangible", which is present in UNESCO's recent normative instruments. This was an important development from the perspective of international legislation but is at odds with the empirical reality around us.[5] The immaterial expresses itself through the material and vice versa. Dividing the material and the immaterial only leads us back to seeing culture in terms of its manifestations. Instead of following international cultural policy, often divorced from local realities, it is more fruitful to re-embed theorization in specific cultural and geographical settings.

Lutz Laschewski and Fabian Jacobs advance such an approach in their critical engagement with the spatial conceptualization of Sorbian culture, framed in essentialist terms in the laws for the Sorbian minority (SächsSorbG, SWG). Following Esser, they sketched an alternative spatial perspective, which integrates a dynamic understanding of

[5] The discourse on the intangible emerged to address gaps in legislation and it followed an older change that shifted the humanistic understanding of culture to an anthropological one.

cultural identity (LASCHEWSKI/JACOBS 2018: 123). In this sense, they highlight that cultural practices are tied to material and physical conditions (in particular space), as conceptualized in Bourdieu's social theory, not by historical materialists (ibid.: 141). This conceptualization stands out by considering the material aspect, although focusing on the mental has remained a trend, as we can see in the most recent expert report carried out in the Senftenberg-Spremberg area in 2021 (LASCHEWSKI/JACOBS/NOWAK 2021). The authors approached culture as a knowledge resource, following Andreas Reckwitz's understanding, for whom culture is a contingent meaning system providing people with a collectively shared repertoire of interpretation schemes, symbols, and codes for adapting to life (LASCHEWSKI/JACOBS/NOWAK 2021: 13).

The works on Sorbian culture and identity reviewed above share a dynamic understanding of culture as an alternative to essentialist perspectives; however, they also tend to disregard the relevance of the material in the constitution of culture. In a journal article, Reckwitz studied the status of the "material" in cultural theory, where it is usually considered the "non-cultural", following the classical dualism between idealism and materialism existing in modern European thought (RECKWITZ 2002: 195). According to Reckwitz, three phases can be distinguished in how the material has been conceptualized: moving from the material understood as social structures to the material as a symbolic object, and most recently to the material as an indispensable component of social networks or practices (ibid.: 196). Juxtaposing this division with the conceptualizations of Sorbian culture reviewed above, we can loosely recognize the first understanding – the material as social structures – in the work of Laschewski and Jacobs, while the second understanding – the material as a symbolic object – encompasses all other definitions. However, the third understanding – the material as a component of social networks – has not yet been considered in relation to Sorbian culture, although it informs recent definitions of digital culture, as will be shown below.

3. Digital Culture

"Digital" is a word that all of us are using today, but we often conceptualize it as the opposite of the word "analogue". In engineering or computer science, where these terms may refer to signal transmission, the distinction makes sense, but otherwise it is misleading (e.g., BOLLMER 2018; STALDER 2016; FRANKLIN 2015). Although "digital" is most often associated, even if only implicitly, with today's computing tools, there is no necessary relationship between them since "digital" may refer to any system that operates on the basis of binary calculations. Morse code is an example. In fact, computers are not entirely digital because the processes they carry out consist of a complex set of symbolic transformations by which a bit, stored as a binary value of 0s and 1s, is converted into a voltage and then back into a binary value. It is a kind of digital-to-analogue and analogue-to-digital signal processing (KIRSCHENBAUM 2004: 104). Following this rationale, texts, images, and other digital objects we see on the screen exist only in a computer memory's transistor cells, and they all come down to signifiers of voltage differences (KITTLER 1999).

The opposition between "analogue" and "digital" is complex even from a technical perspective, as we can see, but it is problematic when applied to culture. D i g i t a l is sometimes used interchangeably with the concept v i r t u a l and defined, as in *The Cambridge Dictionary*, as being that which is "created by computer technology and appearing to exist but not existing in the physical world" (CAMBRIDGE ONLINE DICTIONARY sub

voce "virtual"). Here, the "virtual" is that which is opposed to the "real", since it only appears to exist but in "reality" it does not. On deeper reflection, we cannot help but wonder how this could be the case, since the substrate of the virtual (which is in fact digital) is a very material infrastructure located in the physical world, not something that exists in separation from it. The opposition only reminds us of the ontological dichotomy between idealism and materialism mentioned above, which makes even less sense in relation to digital culture, whose manifestations exist solely in the material infrastructure that generates it.

Charlie Gere remarked that today "culture is becoming so thoroughly digital that the term digital culture risks becoming tautological" (GERE 2008: 7). Simply put: culture is digital. While Gere referred specifically to today's cultural manifestations enabled by computers (ibid.: 16), for Alexander Galloway the digital is a process of distinction that underlies culture at all times and is independent of technology (GALLOWAY 2014). According to Galloway, "the digital is the basic distinction that makes it possible to make any distinction at all. The digital is the capacity to divide things and make distinctions between them" (ibid.: xxix). Some theoreticians of digital culture considered Galloway's perspective impractical; since we make sense of our world through differentiation, it only leads to defining everything as digital (BOLLMER 2018: 61–62). Galloway's theory may present an understanding of digital culture detached from digital technology, but it is not fruitful if we want to understand their interplay.

Following Raymond Williams' broad definition of culture as a way of life, Gere argued that "the term digital can stand for a particular way of life of a group or groups of people at a certain period in history" (GERE 2008: 16). For him, "digital refers not just to the effects and possibilities of a particular technology. It defines and encompasses the ways of thinking and doing that are embodied within that technology, and which make its development possible" (ibid.: 17). For Gere, the digital consists of tools, concepts, and practices encompassing both the material and the non-material. He followed a work by Deleuze from 1977 and the view that "the machine is always social before being technical" to argue that digital technology is a product of digital culture (ibid.: 17). This could be read as socially deterministic, but Gere simply wanted to avoid technological determinism in favor of integrating aspects: "technology is only one of a number of sources that have contributed to the development of our current digital culture", along with many other factors, including techno-scientific discourses and avant-garde art practices (ibid.: 18).

Grant Bollmer in turn seeks to explain digital culture by following a more recent work by Deleuze co-authored with Félix Guattari in 1987, which allowed him to show that the material and the discursive are equally present in the digital: "the physical materiality and a symbolic order are articulated at the same time … Symbols, meaning, and materiality are all necessary parts of understanding culture, and are all articulated together. One does not precede another, with technology determining culture or culture determining technology" (BOLLMER 2018: 36). The intermingling of culture and digital technology is emphasized by some authors through the observation that "the online sphere is no longer a realm separate from the offline 'real world', but is fully integrated into offline life" (MILLER [2]2020: 1). This state is best expressed by the notion of digitality, which has already been subject to complex theorizing, especially from the perspective of Media Studies. It emerges from the joining of the words "digital" with "materiality" or "reality", and it has been employed by those who want to emphasize the material dimension of digital culture, not in opposition to the ideal dimension but alongside it.

According to Gere, "digitality can be thought of as a marker of culture because it encompasses both the artefacts and the systems of signification and communication that most clearly demarcate our contemporary way of life from others" (GERE 2008: 16). Gere does not elaborate further on this concept, but other scholars have analyzed it in more depth. Seb FRANKLIN (2015), for example, defined digitality as a substrate of what we do in the physical world, and, by drawing on Critical Theory and Science and Technology Studies (STS), he sets digitality in relation to capital and control. Starting from a critique of narrow conceptualizations of the digital as synonymous with computers, Franklin argues that the digital is not only the logical-technical substrate through which machines operate but also the "predominant logical mode with which to address both individual social actors and … 'society'" (ibid.: xviii). For Franklin, digitality is a cultural logic, and he studied how digital conceptualizations of various phenomena emerge, are normalized, and function within cultural, social, and political spheres (ibid.: xix).

Felix Stalder advocates a similar view, defining digitality as a cultural condition, characterized in particular by three features.[6] These are referentiality (i.e., the use of existing cultural materials to create new meanings) (STALDER 2016: 59), communality (i.e., the rise of communal formations that generate self-referential worlds) (ibid.: 85), and algorithmicity (i.e., the selection and generation of information from large amounts of data by means of automated decision-making processes) (ibid.: 103). Stalder studied these features in relation to two political tendencies, namely post-democracy and the commons, but they apply to other aspects of life, too, because, as a cultural condition, digitality defines any set of relations constituted through digital infrastructural networks (ibid.: 8). Such and similar studies show how culture and digital technology are mutually conditioned.[7] They remind us of the third and most recent phase in the status of the material within theories of culture as systematized by Reckwitz, and of the intellectual strand known as New Materialism. How such a perspective may contribute to the conceptualization of Sorbian digital culture will be discussed next.

4. New Materialism and the Conceptualization of Sorbian Digital Culture

New Materialism, often associated with terms such as the material turn, the non-human turn, or more generally post-humanism, has recently become popular within the humanities and cultural sciences, although it emerged already in the 1980s. Its development is associated with the limitations of semiotic, discursive approaches and social constructionist frameworks focusing on language, meaning, discourse, and representation at the expense of matter. Karen Barad, a prominent figure in New Materialism, articulates this dissatisfaction succinctly: "… lately every 'thing' – even materiality – is turned into a matter of language or some other form of cultural representation. […] Language matters. Discourse matters. Culture matters … the only thing that does not seem to matter anymore is matter" (BARAD 2003: 187). Thus, what advocates of New Materialism want is to bring attention back to matter in order to understand its contribution to life.

---

6 His work was originally published in German, and he used the concept "Digitalität", but in the English translation, "digital condition" is used. I nevertheless keep "digitality", which has also been used in this sense by other authors.

7 Many other fields of study observe the interplay between culture and technology, just without recourse to the term "digitality" in particular. Anthropology of Technology, Software Studies, Critical Code Studies, Medium Theory, or Media Ecology can be mentioned as examples of such disciplines.

It would be more accurate to speak of New Materialisms in the plural because it is not one unitary theory but a range of different theoretical perspectives (COOLE/FROST 2010). However, they share some common features. New Materialist theories displace the human from the center of attention and focus on the non-human and inorganic matter, believing that everything, even things of the mind, is tied to physical processes and matter. Although New Materialist scholars differ in their definitions, they all break with classical understandings of matter as being inert and passive, waiting for humans to give it form and meaning. According to New Materialist thinking, matter is living, vibrant, constantly changing, has a life of its own, and most importantly, has agency. This is a form neither of animism nor of fetishism (INGOLD 2007: 11–12), but of "thing-power" (BENNETT 2010: 6). It is the recognition that the world of materials has the power to produce effects and influence outcomes, since materials are part of the surrounding world with which they interact. "Things are in life rather than life is in things" (INGOLD 2007: 12), which imparts them with an agentic capacity (BENNETT 2010: 9).

Under this perspective, the material and the ideal are placed on the same level. In fact, another key feature of New Materialist theories is that they transgress dichotomies such as mind and matter, culture and nature, idealism and materialism. These are not seen as opposites, but relationally. Citing Barad again, "The relationship between the material and the discursive is one of mutual entailment. Neither is articulated/articulable in the absence of the other; matter and meaning are mutually articulated. Neither discursive practices nor material phenomena are ontologically or epistemologically prior" (BARAD 2007: 207). In line with such thinking, New Materialist scholars work with concepts such as more-than-human-worlds, assemblages of human and non-human entities, or entanglements. In particular, the concept "entangled" illustrates the key propositions presented above: "to be entangled is not simply to be intertwined with one another, as in the joining of separate entities, but to lack an independent, self-contained existence" (BARAD 2007: ix).

Meanwhile, New Materialism has been applied in many disciplines (COOLE/FROST 2010), but it has complex implications as a theoretical perspective for the humanities and cultural sciences due to their focus on the human. It led to what is known as anthropology-beyond-the-human, where the human is defined exclusively in relation to the surrounding non-human world (KOHN 2013: 6). Consequently, any engagement with culture requires, as Bollmer showed, taking into account "the physical means through which humans engage with each other and the world" (BOLLMER 2018: 35). This perspective, which is more narrowly tailored to the subject of this paper, necessitates taking digital technology into account when conceptualizing digital culture.

New Materialism has not been used in Sorabist scholarship yet, but it certainly prompts a general, critical theorization of Sorbian culture that considers the role of the material. Contrary to what Koschmal states, the material dimension of culture, far from being absent, must have been a key agent for articulating the mental all along. A New Materialist perspective would also prompt us to consider digital technology when defining Sorbian digital culture; however, a complex analysis cannot be conducted within the framework of this paper, since in the absence of published information such an analysis would require conducting extensive empirical research first.[8] It is nevertheless possible

[8] Empirical research on this topic is being carried out in Lusatia in 2024 within the framework of a broader project entitled "Sorbian Digital Worlds: Explorations of Culture and Technology in the 21st Century", financed by the Sorbian Institute.

to provide some reflections on how New Materialism may contribute to the conceptualization and analysis of Sorbian digital culture, as illustrated next.

In their spatial conceptualization of Sorbian culture, Laschewski and Jacobs briefly reflect on how the use of digital technology facilitates disembedding from space and time (LASCHEWSKI/JACOBS 2018: 138). While technically it does, it also brings forth visions that recall the opposition of the virtual to the real, as cited above from *The Cambridge Dictionary*. We find an example of this in a published work whose author reflects on a virtual Sorbian settlement area – in the narrower sense a public Sorbian language area – independent of the territorial, legal, and financial limits of the laws and regulations promoting the use of Sorbian language in public spaces (NITZSCHE 2015: 53). From a New Materialist perspective, this would not be achievable because the precondition for a virtual space is a physical infrastructure that offers the ground on which the virtual is built. There can be no virtual Sorbian settlement area without an infrastructure anchored in physical space and governed by its laws.

Laschewski and Jacobs acknowledge this fact by stating that in practice disembedding from space presumes a physical infrastructure whose availability and use are conditioned by a variety of factors, including political economics. Consequently, the use of digital technology cannot be dissociated from spatial relations and the broader material conditions that have an enabling or inhibiting effect on the emergence of a Sorbian digital culture (LASCHEWSKI/JACOBS 2018: 138). Indeed, Gere's work demonstrates the significant role of political-economic or other factors external to technology; however, New Materialism prompts us to examine the agentic capacity of the material infrastructure through which culture is physically built. To provide an example, we can expand on Laschewski and Jacobs' analysis, who, interested in capturing patterns of social relationships, analyzed two social media sites on Facebook (LASCHEWSKI/JACOBS 2018: 140–141).

They exclusively investigated the locations of users who pressed the "Like" button on these sites, which they interpreted as an indication of a spatial relation. However, from the perspective of New Materialism, the "Like" button serves as an active agent that initiates the establishment of relations. Bollmer showed this in his analysis of the "Like" button on Facebook, following the concept of "Kulturtechnik", i.e., material practices that generate concepts, communication and perform symbolic work (BOLLMER 2018: 54). Accordingly, pressing the "Like" button is a symbolic gesture for expressing preference, but equally a material practice tied "to invisible technological and algorithmic structures that are about defining, determining, and predicting actions and relationships". Using the "Like" button is a material, technical method that, by creating a link, differentiates relationships and participates in informing how we imagine and perform social relations (ibid.: 58).

Algorithmicity plays a role in how the "Like" button functions, but as a key feature of digitality, it underlies many other practices and tools (STALDER 2016). It can also take part in racism and enforce discrimination, as shown by research on the example of search engines (NOBLE 2018). The World Wide Web is vast, and search engines are the new paradigm for finding information. Manipulating the ranking algorithms underlying search engines is one key tool for influencing the results, which are often biased towards the interests of the majority and "respond to minority interests only in proportion to their political power" (ABELSON/LEEDEN/LEWIS 2008: 146). While in the past some authors noted the difficulty in finding information in Sorbian and about Sorbs, this was attributed to a lack of available online content or to its dispersion across the web (NITZSCHE 2015; SCHÄFRIG 2010). The role of search engines and their underlying algorithms, however, has never been questioned.

Until now, neither search engines or the "Like" button, nor any other digital tool used by the Sorbs have been subject to an in-depth, comprehensive, systematic, and critical analysis. New Materialism offers a suitable starting point. Its main strength lies in allowing us to study the role of the material in the constitution of a Sorbian digital culture without having to abandon the ideal and the discursive as its integral components. As we can see in the examples above, the role played by digital technology in knowledge production and discovery is complex, and it depends not simply on the availability of sources but also on their interlinking. The digitization efforts of the Sorbian minority have focused largely on the availability of content and tools in Sorbian, but there have been a few crucial efforts at establishing relations between various digitized sources based on Linked Open Data (LOD).

LOD presents a set of design principles for linking machine-readable data that have been used, for example, as a foundation for a Sorbian bibliographic database (BÖHMAK 2018) or the design of a register for Sorbian cultural heritage data (LORENZ/SCHERING 2023). While being a technical principle for handling data, it is also a way of thinking and acting that facilitates data sharing and community building. From a New Materialist perspective, LOD appears as an active agent that establishes spatial relations between human and non-human entities. Naturally, nothing generated by LOD can exist without LOD. In fact, any digital tool that helps to establish relationships potentially possesses such an agentic capacity and can act as a dynamic system sustaining human culture in a similar manner to the natural environment.[9] However, this can be shown only by research, which, in the light of what has been said above, and continuing the tradition initiated by Koschmal, should not focus on the details of digital culture but on its totality. New Materialism can guide us on this path by encouraging us to take as a starting point the ontology of entanglement of mind and matter and thus also the agentic capacity of digital technology.

5. Conclusions

This article set out to reflect on the conceptualization of Sorbian digital culture by bringing together two types of scholarship – that on Sorbian culture and that on digital culture. It started with an overview of relevant works, which were considered illustrative of how Sorbian culture has been conceptualized over time, with an overwhelming use of semiotic and discursive approaches. They are interpreted as a reaction against essentialist thinking that dominated in the past and can be said to reflect the "cultural turn" in social theory. Moving beyond essentialism was an important step in the history of science in general, but in this context, there have been further developments, namely a "material turn", which appears to gain more and more ground across disciplines. This has not been taken up in explicit definitions of Sorbian culture, but it could be observed in definitions of digital culture. Apart from offering a selective overview, the review on digital culture also justified the need to understand more thoroughly the material infrastructure of digital technology. In particular, the concept of digitality was useful to illustrate that understanding the material dimension of culture is not an option but a precondition for understanding digital culture. Against this backdrop, New Materialism was introduced as a theoretical perspective that helps us to overcome determinism, while acknowledging the role that matter plays in human culture in a broad sense, and digital technology in a narrow sense.

[9] This idea features in an academic strand of media theory based on ecological theory known as Media Ecology.

The analysis provided here concentrated on digital technology – but this is just one medium of communication among a range of others, starting with clay tablets. Research has already long shown that any medium of communication influences content and outcomes, ranging from changes in mentality and behavior to major structural changes, from the level of small-scale communities to large-scale nations.[10] The knowledge gain arising from the reflections provided above suggests that Sorbian culture, too, rather than just its digital condition, would have to be theorized also along the material dimension that allowed it to develop until today. Sorbian culture could never be a purely mental culture. It must have always been material-mental. It could not be just a symbolic object but a symbolic-material one. Its manifestations could never be "mainly" immaterial but equally material. New Materialism is not just an opportunity for studying the influence of digital technology, but also for understanding Sorbian culture in the light of a new ontology of entanglement.

References

ABELSON, Hal; LEEDEN, Ken; LEWIS, Harry 2008: Blown to Bits: Your Life Liberty and Happiness after the Digital Explosion. Upper Saddle River, NJ.

BARAD, Karen 2003: Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter, in: Signs 28/3, pp. 801–831.

BARAD, Karen 2007: Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning. Durham-London.

BENNETT, Jane 2010: Vibrant Matter: A Political Ecology of Things. Durham-London.

BÖHMAK, Wito 2018: Aufbereitung der Sorbischen Bibliografie Datenbank in Richtung Linked Open Data. Unveröffentlichte Masterarbeit der Humboldt-Universität. Berlin.

BOLLMER, Grant 2018: Theorizing Digital Cultures. London.

BÜNZ, Enno (ed.) 2008: Ostsiedlung und Landesausbau in Sachsen: die Kührener Urkunde von 1154 und ihr historisches Umfeld. Leipzig.

CAMBRIDGE ONLINE DICTIONARY. https://dictionary.cambridge.org/dictionary/english/virtual [28.11.2023].

COOLE, Diane; FROST, Samantha (eds.) 2010: New Materialisms: Ontology, Agency and Politics, Durham, London.

FRANKLIN, Seb 2015: Control: Digitality as Cultural Logic. Cambridge, Mass.-London.

GALLOWAY, Alexander R. 2014: Laruelle: Against the Digital. Minneapolis.

GERE, Charlie 2008: Digital Culture. London.

INGOLD, Tim 2007: Materials against Materiality, in: Archaeological Dialogues 14/1, pp. 1–16 [DOI: 10.1017/S1380203807002127].

KIRSCHENBAUM, Matthew G. 2004: Extreme Inscription: Towards a Grammatology of the Hard Drive, in: TEXT Technology 2004/2, pp. 91–125.

KITTLER, Friedrich 1999: Gramophone, Film, Typewriter (translated by G. Winthrop-Young and M. Wutz). Stanford.

KOHN, Eduardo 2013: How Forests Think: Toward an Anthropology Beyond the Human. Los Angeles-Boston.

KOSCHMAL, Walter 1995. Grundzüge Sorbischer Kultur: Eine typologische Betrachtung. Bautzen (= Schriften des Sorbischen Instituts; 9).

LASCHEWSKI, Lutz; JACOBS, Fabian 2018: Diesseits und Jenseits der Insel. Über die räumliche Konstitution sorbischer Kultur, in: Lětopis 65/2, pp. 122–151.

[10] I am referring here specifically to Medium Theory.

LASCHEWSKI, Lutz; JACOBS, Fabian; NOWAK, Měto 2021: Sorbische/Wendische Identität und Kultur im Senftenberg-Spremberger Raum: Rekultivierung sorbischer/wendischer Sprache und Kultur in einer Bergbaufolgelandschaft. Bautzen (= Kleine Reihe des Sorbischen Instituts; 34).

LORENZ, Robert; SCHERING, Alf-Christian 2023: RSK – Konzept für ein Register des Sorbisch-Wendischen Kulturerbes. Sorbisches Institut Bautzen. https://www.serbski-institut.de/projekte-zentrale-vorhaben/kulturerberegister/ [12.05.2024].

MCMONAGLE, Sarah 2022: Aspects of Language Choice Online among German-Upper Sorbian Bilingual Adolescents, in: International Journal of Bilingual Education and Bilingualism 25/1, pp. 59–79.

MILLER, Vincent ^{2}2020: Understanding Digital Culture. London.

NEUMANN, Martin 2008: Sorbische/wendische Identität als Gegenstand deutscher Politik, in: NORBERG, Madlena (ed.), Samelband zur sorbischen/wendischen Kultur und Identität. Potsdamer Beiträge zur Sorabistik 8, pp. 48–67.

NITZSCHE, Julian 2015: Das virtuelle sorbische Siedlungsgebiet wird urbar gemacht: Einige Aspekte der Digitalisierung im sorbischen Kontext, in: TSCHERNOKOSHEWA, Elka; KELLER, Ines; JACOBS, Fabian (eds.), Einheit in Verschiedenheit. Kulturelle Diversität und gesellschaftliche Teilhabe von Minderheiten auf dem Prüfstand. Münster-New York, pp. 53–70 (= Hybride Welten; 7).

NOBLE, Safiya Umoja 2018: Algorithms of Oppression: How Search Engines Reinforce Racism, New York.

PETZOLD, Thomas 2017: Global Knowledge Dynamics and Social Technology. Cham.

POHONČOWA, Anja; WÖLKOWA, Sonja 2014: Sorbisch, in: SCHÖN, Franz; SCHOLZE, Dietrich (eds.), Sorbisches Kulturlexikon. Bautzen, pp. 373–375 [published online: https://www.sorabicon.de/kulturlexikon/artikel/prov_i4l_dqr_kmb/; 05.10.2024].

RECKWITZ, Andreas 2002: The Status of the "Material" in Theories of Culture: From "Social Structure" to "Artefacts", in: Journal for the Theory of Social Behaviour 32, pp. 195–217.

SCHÄFRIG, Felizitas 2010: Das Web im Wandel – Neue Einsatzgebiete für altbekannte Technologien: Entwicklung einer personalisierten Startseite unter besonderer Beachtung der Ansprüche der sorbischen Minderheit. Saarbrücken.

SCHENK, Mirko 2021: Sorbisches Digitalkonzept: Ist-Analyse und Maßnahmenplanung für die sorbische digitale Welt. https://stiftung.sorben.com/fileadmin/user_upload/2021-05-27_-_Sorbisches_Digitalkonzept_-_Vorstellung_zur_Medienkonferenz.pdf [12.05.2024].

STALDER, Felix 2016: The Digital Condition (translated by V. A. Pakis). Cambridge-Medford.

TSCHERNOKOSHEWA, Elka 2000: Das Reine und das Vermischte: Die deutschsprachige Presse über Andere und Anderssein am Beispiel der Sorben. Münster (= Hybride Welten; 1).

TSCHERNOKOSHEWA, Elka; JACOBS, Fabian; JACOBS, Theresa; KROHN, Henrike; NEUMANN, Ines; ROGGAN, Alfred 2011: Sorbische Identität und Kultur in der Ortslage Proschim (Prožym) mit Karlsfeld, Gutachten. Bautzen (= Kleine Reihe des Sorbischen Instituts; 14).