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## **SYMBOLIC SIGNS IN DIGITAL COMMUNICATION**

### **Abstract**

The article concerns the relations between digital and symbolic signs. Digital technology shapes the forms of functioning of symbolic signs in contemporary culture. Semiotics was the theoretical background for our research.

### **Key words**

signs, symbolic sign, digital, communication, text, medium

## 1. INTRODUCTION<sup>1</sup>

The processual nature of civilisation is, among other phenomena, reflected in technological change, the products of which are cultural texts in and of themselves, as well as tools used in the production of other texts. Technological change has a crucial role in defining the nature and structure of signs which comprise texts.

We make the assumption that technological changes result in subsequent changes in the structure of the signs and in the organisation of texts and discourses. Existing theories of the sign acknowledge and incorporate the aforementioned technological aspect to a relatively small degree.

Ferdinand de Saussure described the linguistic sign as a combination of the signifier (*signifiant*) and the signified (*signifié*), whereas Louis Hjelmslev made the distinction between the expression plane and the content plane, while also differentiating between the form and the substance of both planes. Roland Barthes considered Hjelmslev's sign model (and his introduction of substance in particular) as a good point of departure towards defining the nature of the semiological sign, which is also comprized of the signifier and the signified, but differs from the linguistic sign in its expressive substance, the existence of which does not form part of the meaning itself<sup>2</sup>. The iconic sign is present in the scholarship of Peirce, for whom the sign has a triadic structure and is something that replaces something else in some manner or due to some feature<sup>3</sup>. It is also present in the scholarship of Charles Morris, according to whom „something is a sign only because it is interpreted as a sign of something by some interpreter”<sup>4</sup>, as well as Eco, who supplements Morris's definition with Lewis's notion of semiotic convention and states that „there is a sign every time—a human group decides to use and to recognize something as the vehicle of something else”<sup>5</sup>.

The expression plane and the various material anchors of the sign are the main differentiating factor between the various theories of the sign. Here we make the assumption that within digital communication, linguistic, iconic,

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<sup>1</sup> We presented the main theoretical background of this paper in the following chapters: E. Szczęsna, Znak digitalny. U podstaw nowej semiotyki tekstu, [in:] E. Szczęsna (ed.), Przekaz digitalny. Z zagadnień semiotyki, semantyki i komunikacji cyfrowej, Kraków 2015, pp. 15-32; M. Kaźmierczak, Znak symboliczny w Internecie, [in:] ibidem, pp. 35-54.

<sup>2</sup> R. Barthes, *Eléments de sémiologie*, Communications 4, 1964, p. 106.

<sup>3</sup> U. Eco, *A Theory of Semiotics*, Indiana 1979, p. 16.

<sup>4</sup> Ibidem.

<sup>5</sup> Ibidem, p. 17.

acoustic, and mixed signs are in fact signs of the same type – i.e. all have the same status as digital signs, which can be combined and altered at will. The status and structure of the sign underwent a significant change, which warrants further explanation. What has not changed, however, is the sign's relational nature, which still remains the essential feature of each sign.

The sign is a sequence which manifests itself in the interaction of its components. Regardless of whether we assume the triadic<sup>6</sup> or the dyadic<sup>7</sup> structure of the sign, in either case the outcome will consist of functionalized relations, a set of components which are related to one another in a specific manner.

The sign is also a structure; a combination of the following aspects: material, semiotic, semantic, syntactic, and pragmatic (communicative). It manifests itself in the interaction of these components. Furthermore, the sign in its essence is arbitrary. According to Jurij Lotman, equating images with their corresponding material object is indicative of a naïve consciousness, whereas each text should be approached with the awareness of its semiotic convention<sup>8</sup>. Being a combination of components and arbitrariness both characterize the digital sign as well.

We describe the relationship between the symbolic sign and the digital sign, as well as the modifications which the symbolic sign is subjected to within the new media environment. This publication contributes to research, the purpose of which is to describe the specific nature of digital communication and its characteristic features, which are the deciding factor behind the most recent cultural shift.

## 2. UNIQUE FEATURES OF THE SYMBOLIC SIGN IN A DIGITAL ENVIRONMENT

Various definitions of the symbolic sign are in circulation, but none acknowledge the specific character of media – the different carriers of this particular kind of sign. According to Lalande, for example, symbolic signs are all material signs which refer, through their natural relation, to something

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<sup>6</sup> S. Brier, *Cybersemiotics: A New Foundation for Transdisciplinary Theory of Information, Cognition, Meaning, Communication and Consciousness, Signs* – International Journal of Semiotics 5, 2011, p. 82.

<sup>7</sup> F. de Saussure, *Cours de linguistique générale*, 1, ed. R. Engler, Wiesbaden 1989, pp. 147-158; L. Hjelmslev, *Prolegomena to a Theory of Language*, Wisconsin 1961.

<sup>8</sup> Y.M. Lotman, *Universe of the Mind. A Semiotic Theory of Culture*, New York 2001, p. 55.

absent or impossible to perceive (this is the classical definition)<sup>9</sup>. According to Jung, the symbolic sign is the most perfect possible shape of some relatively unknown object, which we would be unable to point to directly in a more precise fashion<sup>10</sup>. However, symbolic signs exist above the media, but at the same time make use of the specific communicative character of media which store, disseminate, and model the social and cultural referents of signs. This refers to digital media as well.

The symbolic sign in digital communication retains attributes, which allow for the continued existence of its cultural-communicative identity. These attributes are: being able to refer to abstract meanings and referring to the impossibility of experiencing something that the sign might refer to directly. The symbolic sign under the condition of digital communication is one variation of symbolic signs in general. While it does not lose its cultural status, the digital media does have an effect on its storage, adaptation, and use.

Prior storage media did not allow for the processing of symbolic signs on a global scale, nor did it allow for such fast and comprehensive changes in regard to the production and use of symbolic signs. Symbolic signs in a digital environment are global and interactive. They can be multiplied and processed to an extent governed by their ontic mode of being – namely that of the digital sign. The specific nature of the digital sign is the product of the influence that digital technologies had on the existing features of the sign (e.g. a sign's material character, the methods of its presentation, and its meaning), the modification of their interrelations, as well as the introduction of new features, which all result in the remodelling of the sign's construction and functions. The symbolic sign is thus sensual – it is anchored in matter, but it does not have to refer to something apparent to perception. Nevertheless, the symbolic sign in a digital environment is constructed in such a fashion that it references a sphere of meanings associated with the virtual image of an object or a subject, which reveals itself in the act of communication.

A good example of such a relation is the construction of an arbitrary identity<sup>11</sup> for the user – an avatar which functions as the user's symbolic representation – in the online virtual world Second Life. After all, an avatar implicates into the virtual world something which was not present there before – the user. What is unique about this particular sign and stems from the fact

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<sup>9</sup> A. Lalande (ed.), *Vocabulaire critique et technique de la philosophie*, Paris 1948.

<sup>10</sup> G. Durand, *L'imagination symbolique*, Paris 1986, p. 23.

<sup>11</sup> S. Turkle, *The Second Self: Computers and the Human Spirit*, Cambridge 2005, p. 254.

that it is a digital sign is that it is open to repeated multiplication, processing, and use. An avatar as a symbolic sign is as much an interactive sign as it is a tool, because through it the user can manipulate the virtual world on a local and global scale. What is also unique about an avatar as a symbolic sign is that it can influence the user's identity. For some reason, some users (in this case: gamers) tend to equate in their minds people existing in the real world with their Second Life avatar-counterparts<sup>12</sup>, which in an extreme case leads to dangerous social behaviours. The world of fiction is conflated with the world of real representations – a development which constitutes a major cognitive cultural paradigm shift.

Whenever we consider symbolic signs in a digital environment, we should bear in mind the notions of storage and depiction. Storage is a notion which pertains to the medium tier, whereas depiction is a notion which pertains to the communication tier, a tier which allows for the dissemination of meanings (signs create meanings and are created by meanings). A particular example of this phenomenon would be signs which undergo secondary remodelling. Such signs are present in digitized forms of audiovisual communication, one of the most important factors contributing to the popularity of social media sites such as YouTube. YouTube allows for the storage of processed, and thus already interpreted texts as components of various media. YouTube channels include excerpts from media belonging to different audiovisual genres, i.a. feature films<sup>13</sup>. Selected scenes from e.g. historical movies become symbolic signs which reflect particular axiological or cognitive orders. The source of such alterations are, for example, selected scenes from the feature film *Schindler's List* (1993), which are used as symbolic signs in disparate media found on YouTube<sup>14</sup>. The complexity of symbolic signs on this level is governed by their intertextual adaptations and referential character. The example provided above illustrates another unique phenomenon associated with the existence of symbolic signs in a digital environment. YouTube is a service, the cognitive and communicative foundation of which rests upon the mechanism of almost continuous semiotic re-coding of meanings.

Content signs are transformed into symbolic signs. The fact that a selected excerpt of a feature film is uploaded onto a social media site is in itself a pos-

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<sup>12</sup> T. Boellstorff, *Coming of Age in Second Life: An Anthropologist Explores the Virtually Human*, New York 2010.

<sup>13</sup> J. Kim, The institutionalization of YouTube: From user-generated content to professionally generated content, *Media, Culture & Society* 34, 2012, pp. 53-67.

<sup>14</sup> YouTube [access: 2016-01-17]. Available at: <<http://www.youtube.com/watch?v=gUJCCK2kH1Q>>.

sible, digitized form of compilation, which also makes it a transposition and a semio-cultural shift. Transforming analog signs and all other signs into digital signs forms the basis of shifting and transposing media in a digital environment. Entire excerpts of Schindler's List could be considered as intertextual components of authorial presentations (first case), amateur audiovisual compilations on the Holocaust (second case), or „best of” quotes from the feature film, the uploading of which to YouTube is meant to foster a community of users who experience similar (in an aesthetic and moral sense) video adaptations (third case).

In the first case, the excerpt of a feature film as a symbolic sign conventionalizes the statements made by the YouTube user, as well as the manner of speaking about historical events. In the second case – i.e. amateur audiovisual compilations of selected excerpts from the feature film as digitized symbolic signs refer to a level of knowledge associated with the individual understanding of historical events. In this case, an excerpt from the feature film as a symbolic sign (even one frame of part of a frame) stimulates the symbolic imagination and shifts its meanings from a linear level to a hypertextual level (which is possible due to the operating function of the digital sign). In the third case, the symbolic sign delineates the boundaries of possible aesthetic and axiological perception<sup>15</sup>. In this context, the role of the symbolic sign is to develop new, predominantly peripheral (in the common understanding of the word: on this level being peripheral does not exclude being global), expedient modes of thought, which for the most part question the forms of interpretation which are promoted in cultural centres. The reduction of some content leads to the semiotic strengthening of selected content included in the processed media.

The functioning of the symbolic sign in a digital environment is governed by the structure and functioning of the digital sign. The shift from the digital sign to the symbolic sign is a shift from the binary level to the level of meanings, or, in other words – the level of culture itself. It constitutes a projection of technology onto cultural content and values. The digital sign is the blueprint for various kinds of signs, including symbolic signs in a virtual environment. Its unique character – being anchored in an algorithm of pre-programmed relations – impacts the functioning of the symbolic sign as well. For example, if a programmer implements the permanent option to add new friends to a Facebook profile, than even if a user suddenly dies, their profile will remain

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<sup>15</sup> D.C. Greentham, *Theories of the Text*, Oxford 1999, pp. 38-39.

„active” nonetheless – other users will still be able to add it to their network of friends. In effect, the functioning of digital signs determines the functioning of their superstructure – the symbolic sphere, the scope of which is in most cases first defined by the algorithm of the program, and only later by the users themselves. The cultural concept of what a person close to us means to us is redefined by social networks. The potential friends we can add to our Facebook profile are determined by an algorithm, we can just accept or reject their friend requests.

In contrast with the digital sign, which cannot exist outside of digital technologies, the symbolic sign can detach itself from the virtual world and be transferred to different kinds of media. It can also be created in the interaction of different media. Its universal character stems from the anchoring of the symbolic sign in culture, as well as its openness to repeated remediation. This phenomenon is visible in the case of symbolic signs present in computer games<sup>16</sup>, in *Second Life*, or in the media found in social networking sites. For example, whenever the player’s avatar dies in a computer game, that moment is depicted with the use of the symbolic sign of blood, in the form of the colour red, which fills the entire game world on the computer screen. The colour red is a certain frame of reference within general culture. It allows the recipient to view blood, if only symbolically – it is a pre-existing association (in the function of the interpretant). Within computer games in particular, however, the entire computer screen turning red is a symbolic sign which refers to the wounds of the avatar and in such a context most often refers to its death. In this case, the meaning of the symbolic sign depends on algorithms, which allow for the depiction of this symbolic sign as a component of the computer game, as well as on other signs, which enable the user to understand the cultural implications of this particular sign<sup>17</sup>.

Symbolic signs appear in social networks as the result of adapting traditional cultural signs or in the process of creating new signs, which the users then freely adapt. Sometimes, with the use of such newly-created symbols the users of new media constitute their group identity or define the hierarchies of their shared aesthetic or ethical values.

A good example which illustrates the creation of media symbols in virtual space is a discursive event which happened on YouTube. In September 2011, Jonah Mowry created a video, in which he shared his insights on his own

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<sup>16</sup> M. Eskelinen, *Cybertext Poetics: The Critical Landscape of New Media Literary Theory*, London 2012.

<sup>17</sup> J. Simon, *Philosophie des Zeichens*, Berlin 1989, p. 47.

existential suffering. Crying in front of the camera, the man revealed one paper sign after another, each with his own thoughts and experiences. The visual message was supplemented with a soundtrack, which imposed a particular style of reception on the viewers<sup>18</sup>. In the course of his video, Mowry mentions suicide. In-between that, which is recognizable (a song, a written message on Mowry's paper placards) and that, which is inexpressible (the silence of the speaker, his loneliness, his feeling of desolation, the senselessness of existence), emerged an order of performance, which turned into a convention distinguishable by a considerable number of the video's recipients. The silence of the speaker became a symbolic sign (Mowry was later emulated by other Internet users, who referenced his message). The speakers' voice was replaced with showing one written message (placard) after another. Most of the messages included words of support for Jonah. In keeping with his convention, a massive number of YouTube users responded to Jonah's „call for help". Silence replaced with showing one written message after another became the symbol of compassion, fellowship, and support for the suffering individual.

The same sign-behaviour gained new meanings with the use of familiar cultural references. What is unique about the symbolic sign in the digital environment in this particular context is that in the process of adding new meanings to the symbolic sign, alternative interpretations of the sign are constantly brought forward. This phenomenon reveals another feature of the digital symbolic sign – its processual character. The symbolic sign as an interactive sign is created in the process of making new meanings, which are often agreed upon on a global scale (over eight million people from all over the world responded to Mowry), but are often expedient in nature (the users did not adapt this new convention to suite other communicative actions). The expedient character of the discursive action prevents its temporal universalisation. Phenomena *en masse* become consolidated in culture, but not their particular components in and of themselves. In other words, the possibilities of adapting symbolic signs and performing certain actions on them become ingrained in the digital environment, but particular symbolic signs might in turn become forgotten or dispersed. The symbolic sign, which was created in this manner and has its roots in the digital sign, has thus revealed its unique character, which differentiates it from symbolic signs disseminated

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<sup>18</sup> J. Mowry, Whats goin on [online]. YouTube [access: 2016-02-21]. Available at: <<http://www.youtube.com/watch?v=TdkNn3Ei-Lg>>.



on other carriers of meaning. Indeed, the immediacy, directness, and multi-coded complexity of the message which this particular sign became an component of would not be possible if not for the unique construction and function of the digital sign.

The global scope of presence is another unique feature of the symbolic sign in the digital environment. This global scope and interactive character of the symbolic sign (the recipient's participation in the act of creating the symbolic sign) facilitate the symbolisation (and perhaps even the allegorisation) of the sign, although the essence of this symbolisation does not need to be stable and universal. Universality, understood as the stability of symbolic signs, is in modern times replaced with globality. Digital environments of communication enable the almost instantaneous dissemination of signs, but at the same time, the fact that this dissemination is instantaneous becomes their cultural restriction – we are no longer sure whether new symbolic signs will last a year or a decade. It took a long time to preserve the functioning of symbolic signs under the conditions of traditional media. The slow dissemination (due to the communicative restrictions of old media) of symbolic signs to various groups of recipients allowed for their continued existence in the singular and collective consciousness. Modern symbolic signs appear too rapidly and undergo multiple changes too easily for us to declare with certainty that they will outlive their traditional cultural precursors.

Symbolic signs in the digital environment are open to various interpretations due to their richness of cultural meanings and references. At the same time, symbolic signs can function as tools of interaction between the user and the medium, as what differentiates symbolic signs in the digital environment from symbolic signs anchored to other kinds of media is primarily its communicative duality. Symbolic signs are both the carriers of meanings and cultural values, as well as tools which enable the user to communicate with the computer. What also differentiates symbolic signs embedded in digital technologies from symbolic signs which are a „unified whole”<sup>19</sup> and which are anchored to other media is the fact that users can apply them in completely different contexts on the pragmatic level. The digital environment of the symbolic sign modifies the sign's meaning and functions. It also alters the structure of the sign (the digital sign is active on this level), reshaping it through implicating the sign into various forms of reproductions, relations,

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<sup>19</sup> E. Cassirer, *Symbol, Technik, Sprache: Aufsätze aus den Jahren 1927-1933*, ed. E.W. Orth, J.M. Krois, collab. J.M. Werle, Hamburg 1995.

and references, which trigger alternative methods of understanding and depicting the world as described through signs.

Another crucial characteristic of symbolic signs in the digital environment rests in the fact that such signs are „democratic” in nature. This feature is tied to the one we described before, that is, the interactive character of the sign and its status as a tool. Each user can create new variations and adaptations of the symbolic sign – the existence of a singular cultural centre, which would determine the existence and the scope of influence of signs, is no longer possible. The variety of symbolic signs allows for the creation of a diverse number of discourses and cultural orders, e.g. peripheral culture interweaves with centralized culture. Perhaps a fluid and merely functional cultural centre is constituted by those discursive events, which create in their midst symbolic signs that gain multiple new meanings and references. We could even claim, albeit in a tongue-in-cheek fashion, that just as almost a century ago Duchamp granted the urinal, thus far a sign connoting popular culture, entrance into the space which shapes the cultural centre and named his piece of art „Fountain”, in modern times signs first regarded as forming part of the cultural centre shift towards cultural peripheries. This mechanism explains, for the most part, why the Oedipal myth became simplified and appropriated by Internet-based narratives, which function without referencing its cultural source<sup>20</sup>.

Digital environments such as the Internet form a space of heterogeneous social and cultural activities which are not limited to the intellectual elites alone<sup>21</sup>, but are instead open to various social groups, facilitating the democratisation of symbolic signs. Previously, culture made an attempt at preparing us for the fact that symbolic signs can indeed come into existence on cultural peripheries. Traces of thinking about the symbolic sign in the digital environment can be found as far back as the scholarship of Duchamp. Interactivity, globality, expediency, communicative duality, and democraticity as features of symbolic signs in the digital environment demonstrate that digital culture is both revolutionary and evolutionary in nature. Its revolutionary character pertains to sociocultural changes, which are the result of e.g. the emergence of new modes of function for symbolic signs. Its evolutionary character, on the other hand, pertains to all communicative and social events, which pre-

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<sup>20</sup> J. Wishnow, *Oedipus the Movie* [online]. YouTube [access: 2016-01-27]. Available at: <<http://www.youtube.com/watch?v=NydKPClhYgM>>.

<sup>21</sup> D. Everitt, S. Mills, *Cultural anxiety 2.0.*, *Media, Culture & Society* 31, 2009, pp. 749-768.

figured cultural changes that happened due to the presence and proliferation of symbolic signs based on digital signs.

Research on symbolic signs in digital media is not just semiological, but also anthropological in nature, as it inevitably adapts a knowledge-based approach to the subject, which posits the need for evaluating various different factors. The symbolic sign functions in a particular cultural, medial and cognitive context: it is a source of meanings, as well as a carrier of meanings. We could make the claim that on the level of cultural references, the symbolic sign opens itself up to repeated alterations, which leads to the diversification of signs into simple and complex signs. A good example of a simple sign in new media is e.g. a sign functioning as a tool in the form of a hyperlink. A complex sign in new media is e.g. the semiotized virtual reality of *Second Life*<sup>22</sup>.

The digital sign influences cultural reality *via* the symbolic sign. A good example here would be virtual tombstones, which Internet users can „visit” in virtual graveyards. On the one hand, the symbolic sign of the tombstone connotes a real-world tombstone in the form of e.g. its depiction. On the other hand, however, virtual candles, which represent real-life candles, can be lit on the virtual tombstone. It is worth mentioning that a symbolic sign with a complex structure can lead to significant shifts in regard to axiological and cultural references. A graveyard in a virtual space is not the same thing as a graveyard in the real world. The digital medium impacts the mode of being and use of the symbolic sphere. Indeed, the particular feeling of remembrance which is strengthened by its images in a digital communicative environment is not identical with the feeling of remembrance which arises during a visit to a real-life tombstone in a real-life graveyard.

While the symbolic sign in „cyberspace” can mirror RL (i.e. real-life) activities. It also triggers certain phenomena which would be impossible (because e.g. they wouldn't be accepted) in the extra-medial reality. For example, on a virtual graveyard website, two tombstones can occupy the same „space” and commemorate a human and an animal, respectively<sup>23</sup>. Some virtual graveyard websites partition off a „lot” of „terrain” for people who committed suicide. They are seemingly „cordoned off”, excluded from the

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<sup>22</sup> T. Boellstorff, *Coming of Age in Second Life: An Anthropologist Explores the Virtually Human*, Princeton 2008.

<sup>23</sup> This sample virtual graveyard includes two separate entrances to the human and animal sections of the graveyards, although both graveyards occupy the same (sic!) virtual terrain [online]. *Wirtualny Cmentarz* [access: 2012-08-20]. Available at: <<http://wirtualnycmentarz.pl/>>.

realm of social acceptance, although such solutions also exist in the real world as well.

The symbolic sign undergoes repeated mediation, becoming a component, which on the level of storage cannot exist without the technology which defines the storage media. The scope of influence that this level has relies in whole on the semiosphere which constitutes the content plane of the symbolic sign in the event horizon of cultural references. No meanings and senses could exist without the participation of the subjects of communication – be it writers of text and messages, or their recipients<sup>24</sup>. What is important in this context is making the assumption that symbolic signs differ in terms of their structural complexity and their scope of their meaning-making functions.

Simple signs have an easily recognisable semantic range. In a digital environment, they often perform the function of tools – in the form of hyperlinks which refer the user from one website to another or from one level of the digital medium to another<sup>25</sup>. The functions of simple symbolic signs: linking, informing, and assimilation, are not disjunctive or mutually exclusive. Rather, they point to the fact that what differentiates these kinds of simple signs from one another is their function. The linking function pertains to links, whereas in the case of the informing function, the symbolic sign can be a new image, which is tied to meanings present in a given cultural order. The function of the symbolic sign tied to assimilation points to the fact that the sign can become a reflection of an ideology, a hierarchy of value, as well as a reflection of other meanings, which require a certain degree of cultural competence from their users. Such meanings, however, are constructed upon certain simplifications, which are a typical feature of this kind of symbolic signs.

Complex symbolic signs in a digital environment, on the other hand, deal with a combination of a considerable number of components in one particular message. Their influence stems from multivariate intertextual, inter-medial, and contextual relations on different levels of its reception. Their meaning depends, for the most part, on the users who create virtual communities.

Digital symbolic signs can shape the imagination of the subject and influence their actual beliefs and behaviours. For example, a virtual tombstone

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<sup>24</sup> U. Eco, *La struttura assente*, Milano 1991.

<sup>25</sup> L. Pauwels, *Websites as visual and multimodal cultural expressions: opportunities and issues of online hybrid media research*, *Media, Culture & Society* 27, 2005, pp. 604-613.

becomes a real tombstone in the course of cultural changes, if only because it begins to function as the equivalent of the actual object, assuming its function of remembrance. Complex symbolic signs introduce meanings – significant from a cognitive, axiological, as well as a communicative standpoint – into the realm of experience of the user, who gains their knowledge about the world from its digital extensions.

The degree of a sign's complexity does not alter the sign's essential coherence and identity, nor does it influence the possibility of interpretation, which is dependent on the user's will and the algorithm which defines the final shape of the perceived sign. Rather, in terms of its construction, a text whose elements are symbolic signs derived from digital signs resembles fractals, as covered by Lev Manovich<sup>26</sup>. Changes to the length of the text (shortening or lengthening), as well as the various contexts which participate in the creation of its meanings, do not alter the text's internal composition of meaningful components, which constitute its coherence and unified character. One should stress, however, that even with the use of the most subtle digital technologies, understanding the functioning of the sign in the semantic range is not possible without the user–subject.

Modelling the experiences of the user with the aid of symbolic signs in a digital environment is met with the growing tendency of associating the virtual depiction of the world with the real world itself (Google Earth is a good example). The symbolic sign fills the user's imagination with ersatz-knowledge; surrogate knowledge which usurps the right to be considered the equivalent of knowledge derived from empirical experience, or, to be more precise – from non-digital experience.

The symbolic sign is constructed on various levels of communication, as well as modelled with the use of various codes. In the digital environment, it can be processed multiple times and become the image of another sign. What is essential about the process of thinking, reading, and – in the broader sense – using symbolic signs, is that these signs are viewed and used as components of digital communication and the manner in which we use digital media influences our use of the meaning content itself<sup>27</sup>. The symbolic sign in digital communication becomes not only the extension of what it means in different cultural orders, but it also reflects the experiences which constitute our insights about the world we strive to understand, often via the virtual medium alone.

<sup>26</sup> L. Manovich, *The Language of New Media*, Cambridge 2001, p. 51.

<sup>27</sup> M. Meyen, S. Pfaff-Rüdiger, K. Dudenhöffer, J. Huss, *The Internet In Everyday Life: a Typology of Internet Users, Media, Culture & Society* 32, 2010, pp. 873-882.

According to Hans Belting, images follow the laws of simulacra and maintain their presence in the world of bodies thanks to the medium which defines their place in the social realm. In such a context, the history of media as carriers of meaning becomes the history of symbolic techniques, which exist to create images. In consequence, the history of media also becomes the history of symbolic acts, which Belting defines as cognising reality as collective cultural practice<sup>28</sup>. Symbolic signs in the digital environment both maintain existing cultural references, as well as create new ones in the process of storing, processing, expanding, and disseminating different forms of media<sup>29</sup>.

### 3. DISCUSSION

Analyses of the symbolic sign reveal that existing theories of the sign prove to be useful, but insufficient in terms of describing the digital sign. This realisation calls for the need to expand our understanding of the sign, in order to encompass its bilateral construction and multivariate character (to include its mediational, operational, and meta aspects in particular), the notion that the semantics of the sign on the programming level is fulfilled in its syntactic function; as well as the fact that the sign is affiliated with multiple discursive orders at the same time.

The justification for this new concept of the sign stems from the fact that existing theories of the sign were formulated in regard to semiotic systems and discourses, which were in existence before the advent of the digital sign. The ensuing development of digital communication, at the foundation of which lies the digital sign, calls for the modification of existing categories of description in regard to the semiotic range, as well as the creation of concepts capable of describing new phenomena. We are convinced that semiological reflection with the aid of sufficiently defined notions of the sign will facilitate the interpretation of cultural phenomena, which appear in modern times as the result of the entrance of the digital environment into interpersonal communication.

Our studies show that the endless proliferation of digital technologies in modern times calls for the need to develop methodological research pertaining to the structure and the specific character of the digital sign as the sign which forms the foundation of all sign forms (semiotics) within the new

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<sup>28</sup> H. Belting, *Bild-Antropologie: Entwürfe für eine Bildwissenschaft*, München 2001.

<sup>29</sup> J.D. Bolter, R. Grusin, *Remediation. Understanding New Media*, Cambridge 1999.

media. Moreover, the relations between the digital signs and signs other than the symbolic sign in the digital environment can be researched in a manner analogous to the one described in this publication. We are convinced that research of this sort is essential in understanding and describing the paradigm shift which underlies contemporary culture.

Semiological research to date, as well as existing research into digital culture and its texts accounted for or described the specific character of digital media as regards signs to a limited degree. This article defines the possible scope of research on the influence of digital media on the structure of the sign, semiotic systems, and media transmissions. Having acknowledged the communicative changes which arise due to the existence of multiple functional information storage media – we believe that we are now facing a strong shift toward semiotics as a „trans-methodology” the aim of which is to describe and explain complex cultural phenomena. The article delineated the major directions of research, which should be expanded upon in the future – this concerns both the object level (technology, signs, meanings, interpretation) as well as the subject level (users of technology, Internet users).

The degree of inquiry we have adopted in this publication allowed us to determine the unique character of digital signs and the symbolic signs modelled around them. However, the relations between digital signs and other sign systems warrant further research, analyses, and descriptions. We operate under the assumption that the more semiotic systems available within new media confirm the properties of digital signs described herein, the more insights we will gain into the fundamental paradigm shifts of modern culture. In the course of this publication, we have established that the digital sign constitutes different kinds of signs. The publication forms part of a larger body of research, the aim of which is to redefine the fundamentals of semiology to reflect the digitisation of culture.

#### 4. CONCLUSION

Digital communication allows for the emergence of signs in variations, which thus far remained hidden within existing discourses. We understand the importance of investigating the semiotic fundamentals of virtual space, which become an alternative to real life, in research pertaining to cultural texts. We have described the unique features of the symbolic sign in a digital environment and afterward we demonstrated the strong influence of tech-

nology on modern systems of communication. Symbolic signs are the examples of functioning of the digital signs in the frames of culture and language.

The publication also described technological changes which influenced the paradigm shift in modern culture. Our research has led us to the conclusion that such influence indeed exists. We have demonstrated that the digital semiotics is a new phenomenon. We have shown that the properties of the digital sign define the mode of being of the symbolic sign, which transgresses beyond the digital environment and shapes cultural values. With the emergence of symbolic signs in a digital environment, the connoted semantic and axiological values constituting modern culture have changed – this is the premise of our research.

The characteristic features of digital signs and symbolic signs in the digital environment reflect the mechanisms of modern culture. The faster creation, the processing, the dissemination, digitisation, democratisation, openness, interactivity – all of these characteristics model meaningful activity of the users of digital media, changing the paradigm of culture. The multiplicity of signs does not imply their prolonged existence. This lack of implication is strengthened by phenomena existing in modern culture, which for the most part concentrates on present affairs. Perhaps the transient functioning of symbolic signs in the digital environment prefigures a shift in importance, in the aftermath of which that, which is expedient in nature, will hold functions, which were thus far characteristic of various cultural traditions. A large number of general phenomena pertaining to symbolic signs will remain in effect, at least on the communicative level, which cannot be said, however, about particular instances of signs.

As the aforementioned investigations have demonstrated, notwithstanding the complexity resulting from the structure of digital signs and the multitude of symbolic signs in digital media, we can nonetheless speak of their homogeneity, which is the result of the sign being anchored in technology. On the other hand, the fact that the sign is anchored in culturally and socially fluid use scenarios guarantees its complexity and openness.

Never before has the existence of signs been so tied to the technologies which enable their storage and dissemination. Digital signs and other digitized signs could not exist without the algorithms which govern the order of ones and zeroes on the most elemental level of storage. The digital sign and shaped by them symbolic signs cannot exist outside or above such algorithms – this is the most fundamental dependency, which leads to possible changes and paradigm shifts within culture.



**Ewa Szczęsna, Marek Kaźmierczak**

## **ZNAK SYMBOLICZNY W CYFROWEJ KOMUNIKACJI**

### **Streszczenie**

Artykuł zatytułowany „Znak symboliczny w cyfrowej komunikacji” dotyczy zależności symbolicznych odniesień od znaków digitalnych. Zależności te wpływają na osobiwy, podwójny status znaków symbolicznych. Zależą one od technologii, za pomocą której są rozpowszechniane, ale nie są one przez tę technologię zdeterminowane. Funkcjonalna przynależność znaków symbolicznych do mediów cyfrowych wpływa na ich specyficzną obecność w komunikacji cyfrowej. Bez wątplenia przynależność ta powoduje przemiany paradygmatów kulturowych, o czym piszemy w artykule.

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