# Changes in communication; the impact of digitalisation on children's communication and language use

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#### Abstract

In the digital information age, the relationship between language and text has been placed on a new footing, and this is of great importance, as it can be a major step forward in our development and culturalisation. These technical achievements have the potential to make a significant impact on the development of humanity, which we all feel. It is reflected in our culture, in our scientific disciplines, and in our individual lifestyles. The electronic environment has also brought many changes to verbal, vocal, and non-verbal communication. The concept of discourse cannot be avoided in the study of electronic information flows. On one hand, it emphasises the analysis of the use of language; it is based on the natural language used by the subject and focuses on regularities rather than rules. On the other hand, it is a speech event that is indirectly produced according to the expectations of a situation. With regard to the grouping of written and spoken discourse, the differentiation between informal and formal written and spoken language is further related. The topic of my writing is the study of language use and communication in today's children. Their communication is quite different from that of previous generations. They have a different milieu, a different medium. These differences are partly due to digitalisation and partly to the way they lead their lives in a rapidly changing world. This has a natural impact on both communication and rhetoric. The changes in the world, the digital environment and social phenomena have had a huge impact on the way we speak and communicate. This is natural, but how does it affect our children and young people? Do they in the communication with their peers find ways how to express themselves in each situation in the perception of the constant presence of the digital medium?

Keywords: communication; electronic information flow; digital era; digital language use Subject-Affiliation in New CEEOL: Social Sciences – Communication Studies – Media Studies

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The virtual environment in the lives of virtually all young people today has an impact on communication and language use. Since personality, individual communication skills and language use are interlinked in complex ways, the effects of the virtual environment are also complex. As a first step, it is worth identifying which generations have already been exposed to the digital space and what characteristics they possess. Generation Z includes those born between 1996 and 2000. They are what is known in the literature as digital natives. They have good attention-splitting and abstraction skills, but their increased virtual presence can lead to difficulties of compliance and a lack of companionship. Virtual space affects their human relationships and communication, and the online world becomes a significant factor in the development of their identity (Pais, 2013). Generation Z is exposed to virtual networks from birth, and the digital environment plays an important role in their linguistic socialisation. This is characterised by multimedia text production, rapid and simplified language use and the relativisation of the role of their mother tongue (Bódi, 2020).

Generation alpha is the generation born after 2010. Demographically, they are close to Generation Z, but little information is yet available to researchers. Research points to "an increase in aggression on one hand and the emergence of elements of quieter, more subdued behaviour on the other" (Pais, 2013: 15).

Helsper and Eynon (2010) question whether the generational definition of 'digital natives' is as clear-cut as some of the literature claims. Young people have been called the net generation, the Google generation or the millennial generation: most of these terms seek to highlight young people's relationship with technology and the important role it plays in the lives of new generations. According to several authors, new technology has become so dominant in the lives of younger generations that it has become a fundamental change in the way young people communicate, socialise, create, and learn. They argue that this change has profound implications for education. One argument is that this is also causing changes in the structure of the brain, which alone is changing the way information is processed. This may be due to multitasking, i.e. the ability to perform several tasks at once, as well as to the fact that images and diagrams are processed before text content.

In reality, however, there is very little evidence that young people's use and processing of information is radically different from that of previous generations. The theory of neuroplasticity has been invoked to argue that young people's brains develop differently from adults' because they have grown up in a world surrounded by new technologies. However, we do not yet know what differences, if any, there are in the brain structures of adults and young people using the internet and other new ICTs. Recent research also points out that young people of the same generation use the Internet in very different ways, for example, typically more often than older generations, but with large differences in effectiveness even within the same generation (Kruzslicz, 2013).

However, the authors' research points out that the concept of 'digital natives' cannot be used solely on the basis of age. Many factors play a role in how a person's relationship with ICTs develops. The results confirm that younger people have more ICT devices in their households, tend to use the Internet first, have higher levels of Internet self-efficacy, perform more tasks and use the Internet for fact-checking and formal learning activities. However, age was not the only significant variable explaining these activities: gender, education, level of ICT experience, and use also play a role in shaping them. In fact, in all cases, immersion in the digital environment (i.e. the range of activities people do online) is the most important variable in predicting whether someone is a digital native in terms of their use of technology (Helsper and Eynon, 2010).

It is often claimed that young people's language use is deteriorating and their literacy and expression skills are poor. The language used by young people is different from that used by adults, with distinctive stylistic features, and this is not a recent phenomenon. At the same time, the media are becoming more and more exemplary as young people devote more time to them in their daily lives. The impact of info-communication tools often turns spoken language into written language. creating specific interactions. Computer-mediated communication, such as that supported by social media, although in written form, has similar features to speech. This change is then reflected in other areas of young people's written communication, such as school essays. In other words, young people are becoming less aware that spoken and written language are two separate registers. Another consequence of the Internet is that communication between people is becoming faster and more instantaneous, with less and less time spent on spelling and accuracy. Digital communication is creating a new linguistic norm that is different from the linguistic norms of the non-Internet language community and traditional literacy. In this way, a new quality of language and thinking emerges (Buda, 2011). Changes in language use and communication are reflected in many areas. On one hand, the role of visuality within communication is increasing, but on the other hand, the new medium is creating new language use, which is leading to structural changes.

Visual education in the 1930s was still primarily linked to art education and self-expression. Then, in the 1960s, the psychological evaluation and analysis of children's drawings began. By the turn of the millennium, technological progress had widened the scope of visual culture to an unprecedented extent: new visual languages had opened up, and the tools of classical and contemporary media were available. The image, visual representation and visual communication are now closely linked to other forms of communication, to the possibilities and expectations of the individual (Simon, 2015). However, visuality in education is much more than that; I am thinking here, for example, of visual text comprehension. The use of emoticons 'clogs up' speech. Géza Balázs (2007) summarises this phenomenon by saying that the attributes of Internet communication are brevity, speed, the use of gestures or the prevalence of visual practices. In other words, in our present world, the putting of ideas on paper is determined by the disappearance of the traditional visuality of the text; the emergence of a new, holistic language.

According to McQual Denis (2003), the new term for digital rhetoric is e-rhetoric, which refers to electronic rhetoric. It refers to the digitalisation of all rhetoric and to specific communication in electronic space.

Its characteristics, according to Jenő Kiss (2011), are speed, which has a very significant text-forming effect on the level of content, language, or even grammatical correctness. Another important effect is access and accessibility, which is of fundamental importance today. In other words, the emphasis is less on persuasion and more on access. Based on the digital changes, literature and linguistics, like the numbering of industry, have evolved into Literature 2.0, which represents a transformation and functional evolution. According to Balázs (2015), new technologies provide a complete alternative for the following communication functions:

- correspondence
- information retrieval
- contact with others, with immediate feedback
- Meetings, discussions, forums
- two-way or multi-directional communication (instant)
- sharing information with the masses
- information gathering
- building relationships

Digitalisation has also brought many changes to the types of communication. In her communication, Éva Andó (2010) mentions the written and spoken, and the monologic and dialogic varieties. When analysing electronic information exchange, discourse is the basis of analysis.

The notion of discourse is contested among certain linguistic trends. Andó (2010) compares several definitions in her study. On one hand, she emphasises the analysis of language use, focusing on the natural language used by the subject, and not on rules but on regularities. Andó (2010) considers that chat communication can be classified as a transitional group, because it is written in form and has the characteristics of a live speech. Antalné (2008) argues that the characteristics of texts on the internet and in the digital world have a significant impact on young people's spelling. Studies have shown that digital language is becoming more and more prevalent in students' oral and written expressions.

In the context of the Internet and language, the question of language decay was initially raised before the turn of the millennium: English words often had no Hungarian equivalent. Later, the emphasis shifted to structural issues: for example, because of the reparability of the language, it was not necessary for the communicator to plan in advance what they wanted to write, which often led to overwriting and to the loss of meaning of what was being said. Another problem is that, in the case of chat, for example, the fatal elements of communication are brought to the fore, even at the expense of meaning. Furthermore, intertextuality that is increasingly present in the Internet and ICT tools disrupts linear reception, and the carrying of text fragments also raises the problem of text coherence (Buda, 2011).

According to Pikó (2018), time spent in the digital community has an impact on a child's social life. While some social activities are already taking place in the digital space, the focus is more on the proportion of social time spent online or in person. By the age of 13 or 14, a significant proportion of time spent with peers moves to the digital space. Communication with classmates in this age group also shifts towards online communication and less face-to-face activity. In addition to conversations, it is important to mention video sharing sites, picture viewing and interactive use of sites. Sharing one's own content is a serious editing process, but only for those who are adept at using the programmes. According to Pikó (2018), for young people, the internet is an endless companion of videos, movies, pictures and other content. The exposure to this content can be so interesting for the child that it can also neglect traditional values, family life, social life, and real communication of the intellect.

Verbal communication can traditionally be divided into spoken and written communication. Digital communication, however, differs from this: Balázs (2005) calls the resulting form spoken language. He defines it as an IT-based oral or written communication characterised by transitivity. That is, it uses language that is close to speech (e.g. containing slang) and also contains images approaching but not identical to live speech. The new colloquialisms in language not only affect the vocabulary, but also trigger grammatical and phonetic changes.

In the context of images, it is important to expand our knowledge of visual communication, but the definition of visual communication within communication theory is not entirely clear. The classical division of communication is into two areas of verbal and non-verbal communication, within which visual communication is often classified as the latter, where mimicry, the interpretation of body language, is done through vision. However, visual communication is also defined as when messages are conveyed by images. In its broadest definition, visual communication includes all the signals that we perceive with our eyes. The codes of visual communication are culture-specific and include elements of structure, attention, emphasis and dynamics. Simon (2015) also points out that digitalisation has transformed the traditional notion of 'image', as well as the use of different communication channels. We need to gain a better understanding of the processes of digital image-making and reception, as the knowledge and use of visual language is also essential for equal opportunities.

Other researchers see visual signals as a component of digital communication. According to Veszelszki (2015), digital communication provides different ways and opportunities to express emotions compared to traditional written communication. In traditional written communication, some emotion is either written down or can be indicated by punctuation marks. In comparison, in digital communication, emoticons and reaction glyphs are available. Emoticons are graphic signs expressing emotions, which can be either displayed graphically using the keyboard or inherently. The interaction between text and emoji creates a unit, whose elements interpret and complement each other: studies show that without text, emojis are unintelligible (or very limited). Moving emojis are already related to reaction gifs. Reaction gifs are moving images used in digital communication to express emotions in a conversational situation, sent in response to a given communication, are more intense than emoticons and, stylistically, tend to use exaggeration. According to Ágnes Veszelszki's research, the two main reasons for respondents' use of reaction gifs are:

- if it is more pithy than the possible verbal response
- if they want to use the humorous effect in their communication.

From the point of view of the recipient of the communication, the use of gifs depends on the following conditions: the age of the recipient, whether the recipient himself is used to using gifs, and the closeness of the relationship between the communicating parties (Veszelszki, 2015).

	emotion descrip- tion	Inflections and acro- nyms,	Static emoti- cons,	Dynamic emoticons	Reaction Gifs
of emotion	slow	quick	quick	quick	quick, but crawling gifs can make it more com- plicated
	not	not	yes	yes	yes
ponent	only from	only from	rarely	rarely	often
absolutely unique	relatively elaborated set, but easy to expand- able	very wide set, technical knowledge required for expan- sion	very wide set, technical knowledge required for expan- sion	a wide range of stock, gif-making sites easy to produce	
not	not	not	yes	yes	
-	-	drawn figures	drawn figures	usually real peo- ple (less often animals, cartoon charac- ters)	
not	not (up to the frequent signals knowl- edge)	rarely	rarely	often	
	oonent absolutely unique not	of emotion slow not not not not not not not not	of emotionslowquicknotnotnotonly fromonentonly fromonly fromonly fromabsolutely uniquerelatively elaborated set, but easy to expand- ablevery wide set, technical knowledge required for expan- sionnotnotnotnotnotnotnotnotnotnotnotnotnotnotinterventionnotnotinterventionnotuniqueinterventionnotnotinterventionnotinterventioninterventionnotinterventioninterventionnotinterventioninterventionnotinterventioninterventionnotinterventioninterventionnotinterventioninterventionnotinterventioninterventionnotintervention<	of emotionslowquickquicknotnotyesnotonly fromrarelyoonentonly fromonly fromrarelyabsolutely uniquerelatively elaborated set, but easy to expand- ablevery wide set, technical knowledge required for expan- sionvery wide set, technical knowledge required for expan- sionnotnotnotyesnotnotnotyesdrawn figuresdrawn figuresnotnotrarelyrarelynotnotrarelyrarelynotnotrarelyrarelynotnotrarelyrarelynotsetrarelyrarely	of emotionslowquickquickquickquickof emotionslowquickquickquickquickontnotnotyesyesonentonly fromonly fromrarelyrarelyabsolutely uniquerelatively elaborated set, but easy to expand- ablevery wide set, technical knowledge required for expan- sionvery wide set, technical knowledge required for expan- siona wide range of stock, gif-making sites easy to producenotnotnotyesyesnotnotnotyesyesnotnotyesyesyesnotnotyesyesyesnotnotyesyesyesnotnotrarelydrawn figuresusually real peo- ple (less often animals, cartoon charac- ters)often

Table 1: Comparison of ways of expressing emotions on the Internet

Boda (2007) points out that written dialogue in digital language variants is conducted with the help of some kind of ICT tool, and that an important feature is that it can be in pairs or groups. It is also characterised by the absence of certain metacommunication tools, three in number. These are precisely:

- the common space, which requires an increase in the amount of information

- gestures and mimicry (the phenomena that accompany communication), which require communication to be more direct

- modulation devices (volume, tone of voice), which are replaced by emoticons and similar symbols.

The digital language varieties that emerge in digital communication are shaped by technological opportunities: they are themselves constantly changing as a result of IT innovations. The first efforts of netlinguistics were aimed at comparing offline and online texts: the new relationship between spoken and written language was considered the main characteristic of digital communication. In fact, digital communication is conceptually related to written communication in form, but conceptually to spoken communication, so it is not surprising that it has a stronger dialogic element than written communication. Then, from the early 2000s, the view became accepted that digital communication "cannot be classified in the verbal-written dichotomy, one could say that it oscillates between verbality and literacy" (Veszelszki, 2015: 75.)

Compared to traditional written language, digital language treats norms more loosely, it can have several participants at the same time, and therefore offers the possibility of linguistic play and specific meta-linguistic reflections. The rise of info-communication technology has also given a greater role to visual communication. Within digital communication, there are several examples of the rise of visual communication, such as pictures uploaded to social networking sites, selfies, picture jokes and picture memes, emoticons, reaction gifs, and visual interfaces themselves (Veszelszki, 2015). In addition to the above, digital language varieties are characterised by linguistic economics and slanging. This is essentially the economy of characters intended to speed up communication. These take many forms, such as mergers (e.g. *eccer* meaning once), combinations of numbers and letters (e.g. 7end), or abbreviations based on the initial letter of syllables or compounds (e.g. *kv* instead of *kávé*) (Buda, 2011).

Tóth and Novotni (2019) draw attention to the harmful effects of the info-communication environment on addictiveness. This phenomenon initially emerged in the context of games, but the development of digital opportunities has also led to the generation of attractive and often addictive interfaces similar to games throughout the info-communication sphere. Some research has classified all screen-based devices as 'monitor drugs', based on the processes that take place in the brain. Online communication has also had a major impact on reading habits. For example, reading texts have become shorter and shorter, and it is becoming more common to read digital texts rather than printed ones. Reading print is associated with multisensory processes that help the brain build a more detailed and durable cognitive map of the text being read, and thus to better understand and remember the text for longer periods of time. Another explanation is that if the text is not static, hyperlinks tempt the reader to click and distract the reader even more from the original text.

The digital space also influences the development of identity and thus affects language use. Identity is a cognitive structure formed during the socialisation of the individual, and is essentially our image of our self-identity. For a long time it was considered rather stable, but nowadays the academic view is that its core features - such as mother tongue and its associated cultural background - do not change, while the layers that are superimposed on it are less stable. Digital identity is one of these superimposed layers and is becoming an increasingly important component of our overall identity. According to another definition, digital identity is "a set of data available online that is a projection and representation of the self in the digitalized arena" (Bódi, 2020: 10). Digital identity became an academic topic after the emergence of social networking sites, when it became clear that users could consciously build their own identity in the digital space. This space operates according to virtual rules, and these rules are potentially related to non-virtual rules. As a consequence, although our digital identity may not be radically different from our personal identity, some elements of it may be transformed in the virtual space. According to Bódi (2020), avatar communication is simpler and less complex than offline communication. The impact of avatar identity on personal identity is not yet clearly mapped: that is, it certainly has an impact, but its depth is not known. However, both identity and avatar identity are shaped by communication, and simplified virtual communication can build up these simpler patterns through linguistic socialisation. This would require particular attention in the case of children, because if they typically encounter simplified forms of language at the time of active acquisition of communication processes, their communication skills will not develop adequately.

In certain segments of the virtual space, mother tongue is relegated to the background. Indeed, digital space is multilingual and multicultural, and many areas exist in English. This does not imply a loss of identity, but it does mean that the mother tongue is marginalised as a marker of identity. According to Csákvári (2016), "the spread of the internet and various digital tools has been accompanied by the development of a global - and differentiated in terms of cultural identities, i.e. 'tribal' digital networked children's culture, whose values and norms are radically different and distinct from other areas of young people's lives" (Csákvári, 2016: 53).

Consumption of content on the internet is only one segment of what makes up communication. Overall, communication consists not only of the use of words, but also of the consistency of verbal and non-verbal cues, text comprehension, coding technique, and speed. To the extent that these skills are being pushed to the fore-front or to the background by internet use, adults should pay more attention to how much and what content children are looking at on the internet and how this affects their communication.

It is a well-known fact that children are starting to use the internet at an earlier and earlier age. It is up to adults to make sure that children are confident in using the internet and that they can access safe and educational content while browsing, in an age-appropriate way. Children start using the internet as early as 7-9 years old, which has an impact on their communication, as the content they see and perceive there will definitely influence their self-expression.

It seems, therefore, that the communication characteristics of the current school-age generations still needs to be examined. While it is clear that the role of visuality is increasing and that certain linguistic changes are taking place as a result of the loss of the former spoken-written register, it is not yet possible to define precisely to what extent this is a generational feature, or whether the emergence of generational (youth) language varieties is solely a consequence of ICT tools.

## Summary

Today's children communicate in a very different way from previous generations, because they are growing up in a very different environment than the previous generation. These differences are partly due to digitalisation and partly to the way of life and accelerated lifestyles, which of course also have an impact on communication and rhetoric.

As children are now growing up in this world, it is natural for them to use the Internet, and even to have constant access to it, which they can often do from their own smartphones. As well as being an excellent source of information, the internet also harbours many dangers. This can be avoided through various filtering programmes, but in many cases the child is not supervised by the parent to a degree that would offer real protection. According to Oláh (2019), 13-14 year olds already think they can decide what content they can view online and distinguish between dangerous and unsafe sources. Presumably, this thinking gives them access to a lot of content that not only threatens their communication, but their overall development, as well. It is the joint responsibility of parents and teachers to teach children to use the Internet in a conscious, valuable, and useful way.

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