The Language of Images in Technologically Modified Environments

Václav Řeřicha
Libor Práger

Abstract
Each technology amplifies human functions, with photographs and videos enhancing vision and memory. The appeal of photography results from the fact that the stationary single eye is technologically extended. The technology of photography exceeds the limits of the eye, as the camera is a total stationary light catcher without the blurred edges of human vision. Photographs are "magical" and appealing because they suddenly offer an improved eye, another more powerful and extended recorder of visual events for eternity outside our memory. Recorded events are felt to have more reality than the original, while a photograph as an experience translated into a new medium "bestows a delightful playback of earlier awareness."[1] *These are therefore ideal means of communication for the platforms of the digital environment of social media and esports. The rapid development of digital photography has had the effect of returning the user to the content of historical technologies, with video clips flipping back to mediaeval performances, social media communicating with images and symbols of the non-literacy environment of the Middle Ages, and 3D imaging flipping back to sculpting. Non-print perceptual learning is becoming more prevalent, with literate cultures rendered obsolete by the inclusive and instantaneous digital environment.*

Keywords
digital environment, lineal literacy, enhanced perception, photography, involvement, communication

The appeal of photography

People have always been fascinated by extensions of themselves through any material other than their own physical bodies and by any technology that amplifies some human function,[2] e.g. photographs and videos enhancing vision and memory, mobile phones digitally augmenting vision and hearing, cars enhancing movement and speed, clothes as skin and boats as swimming; the list of examples is as long as the number of applications of new technologies. It may be more precise to say that the fascination is the effect of the extensions, that is of the new technologies. As we remain unaware of new technologies themselves as well as of the newly instituted environment, we can only be aware of the effects of the technology as evidenced by its users.

Discussions about photography have been numerous and subjective and have often considered the content of photographs.[3] Nevertheless, most authors agree that there is something "magical" about them. "This space and time peculiar to the image is none other than the world of magic," notes Vilém Flusser,[4] while Susan Sontag mentions "properties peculiar to images taken by

1 Marshall McLuhan, *Understanding Media. The Extensions of Man* (London: Abacus, 1974), 233.

2 Amplification is the major topic of McLuhan´s *Understanding Media. The Extensions of Man.*

3 Graham G. Scott, Elizabeth A. Boyle, Kamila Czerniawska, and Ashleigh Courtney, "Posting photos on Facebook: The Impact of Narcissism, Social Anxiety, Loneliness, and Shyness," *Personality and Individual Differences* 133 (2018): 67–72, accessed May 18, 2021, <https://www.sciencedirect.com/science/article/pii/S0191886916312272?via%3Dihub>; Libor Práger, and Václav Řeřicha, "Temptations of the Didactic Illustration," *Hradec Králové Journal of Anglophone Studies* 7, no. 1 (2020): 12–21.

4 Vilém Flusser, *Towards a philosophy of photography* (London: Reaktion Books, 2013), 9.

cameras."[5] Roland Barthes stresses that "the perfection and plentitude of the photograph has every chance of being mythical."[6] The observations made by McLuhan[7] and Ernest H. Gombrich[8] are discussed in detail below. In other words, all of these theoreticians have noticed that the photograph has a distinct effect on visual perception, that users are affected by photographs.

It seems that this effect is inherent in every photograph irrespective of its content, as the "magic" is a result of the technology of photography, which creates a unique visual experience. This unique visual experience cannot be provided by a stationary single eye. Photography technologically enhances the viewer's visual perception, offering previously unknown and therefore involving and irresistible sensory knowledge. Focusing on content cannot help us understand the effect of photography, although the awareness of the technological effect can help us analyse the impact of photography on the changing patterns of perception in our environment and in learning obtained consciously or subconsciously through both social media and traditional educational institutions.

The stationary single eye is technologically extended by photography

Our explanation of the technology of the medium of photography starts with Gombrich's visual representation. Although Gombrich does not deal with photography, but with complex issues of paintings, i.e. hand-made images from the viewpoint of the natural eye, his approach can be applied to the medium of photography to show that the powerful effect of a photograph results from the new medium extending our senses, from the technology overcoming deficiencies of the eye that obviously could not have been evident or considered to be deficiencies before the introduction of the medium. Every new technology reveals physical, sensory, or cognitive "deficiencies"; the linear alphabet revealed deficiencies of memory,[9] a telescope deficiencies of the naked eye, a rifle deficiencies of muscular strength, etc.

Gombrich's main issue when dealing with paintings is the subjectivity of the truth of our visual experience.[10] He considers the decisions an artist must make about what things that he cannot focus on with the stationary single eye may look like in the picture. The eye of an artist whose theme is material reality can never be innocent since the deficiencies of the eye always force them to be selective. Artists have to decide what to leave out or what to add in their hand-made images. The photograph is not an artistic rendering of material reality (unless the artist tries chemically "painting" with the new technology), nor a snapshot of the stationary single eye, but a record of a material reality by the new technology.

The limits of the eye necessitate that peripheral vision is lacking in the perception of shapes and colours. However, Gombrich points out that the periphery of the eye is responsive to

5 Susan Sontag, *On photography* (New York: Picador, 2001), 120.

6 Roland Barthes, *Image Music Text* (S. Heath and London: Fontana, 1977), 19.

7 McLuhan, *Understanding Media. The Extensions of Man*.

8 Ernst H. Gombrich, "Standards of truth: The arrested image and the moving eye," *Critical Inquiry* 7, no. 2 (1980): 237–273, accessed May 18, 2021, <https://www.journals.uchicago.edu/doi/abs/10.1086/448098?journalCode=ci>.

9 Václav Řeřicha, and Libor Práger, "Lamenting the Transitional Moment of Literacy Environment," *Silesian Studies in English* (2018): 18–26.

10 Gombrich, "Standards of truth," 261.

movement when the eye "can track the moving object without letting it go out of focus, while the rest of vision recedes from our awareness."[11] This observation would be important if we were to make a comparison between the different perceptions of the photograph and the video.

As stated above, it is necessary to think through and consider the consequences of the insufficiencies of the eye vis-à-vis the medium of photography. Gombrich does not specifically address this issue, but his insistence on the relationship between artistically depicted reality and the physical snapshot vision of the stationary single eye as well as his contention that we can "shift the point of focus at will, but in doing so we lose the perception, and all that remains is its memory"[12] have strengthened the view that the high level involvement of the photograph must be analysed primarily as a problem of the new technology impacting on vision.The technology of photography cancels the limits of the eye. It is attractive because it records "everything" within the frame. In comparison with the limited snapshot vision of the stationary single eye, which is necessary blurred in the places we do not focus on, the camera is a total stationary eye without limits. The physical stationary eye can focus only on a specific area which becomes a centre selected from the perceived reality. The photograph extends the limits of the eye because the photograph does not differentiate between centre and periphery; it records and includes all the details equally. It is involving because suddenly we have acquired an improved eye, another extended sense. Photography confirms McLuhan's concept of technologies that "are extensions of our physical and nervous systems to increase power and speed."[13]

Not only does the technology of photography cancel the limitations of the blurred periphery of the stationary eye, it also cancels the loss of perception when we shift the point of focus at will and records the visual event for eternity outside our memory. The irresistible appeal of the photograph, at the time the most complete visual and historical record of all the details of the material reality of the arrested moment, therefore lies in the fact that we, being aware that the photograph is a technological translation of a snapshot of the physical eye, are impressed by our new ability to perceive and preserve the reality with all the details without the limitations caused by insufficiencies of the eye (and memory). However, the extended perception and archiving should be considered independently of each other, even though they will always have a joint impact on the viewer of the photograph. The photograph shows us what we were not able to see.

Photography and image in the digital environment of social media and esports

Two important digital social networks, Instagram and Facebook, depend on images. Both are predominantly visual platforms. Instagram was founded by a photographer as a simple-to-use platform for sharing everyday snapshots. Instagram aims to make life more beautiful, lately with "skinfluencers" seeking to achieve the best skin tone. It has adjusted its visual content into

11 Gombrich, "Standards of truth," 262.

12 Gombrich, "Standards of truth," 266.

13 McLuhan, *Understanding Media. The Extensions of Man*, 103.

a smorgasbord promoting what looks best, curating and selecting the most attractive visual content for users.

Any new technology creates a new environment. The new environment changes human perception and the changed perception has cognitive and cultural consequences; it changes both behaviour and society. McLuhan remarked in a letter that "Once a new technology comes into a social milieu it cannot cease to permeate that milieu until every institution is saturated."[14] The technology seems to saturate different institutions differently. We believe that the level of saturation is directly proportional to the depth of the perceptual and emotional immersion, the intensity of the involvement.

We should therefore differentiate between:

a) perceptual transfer, in which activities from the physical world are translated into the digital world. Examples of this includes audience participation in esports or participation in technologically enhanced TV and digital games, and
b) entirely new visuals resulting from the technical possibilities offered by digital technologies. These possibilities are limited only by the human imagination and include any process using digital enhancement of photography.

Discussing the impact of social media, Peter Fader describes the potential digital transfer of a TV reality show: "Now imagine having a 30-person reality show all filmed live and you can take the perspective of one person and then watch it again from another person's perspective."[15] The suggestion of translating TV's reality shows into the digital world confirms McLuhan's maxim: "When a medium first appears, it uses the content of another medium exclusively for its content until its users have learned to exploit the new medium to develop new forms of expression."[16] Fader's proposal of a more involving marketing of a 30-person reality show exploits the earlier type of television content enhanced by digital technology. The digital technology would be able to offer the TV audience 29 more first-person perspectives of the same story according to their preferences.

Digital esports as visually and acoustically enhanced physical reality

Esports are another typical example of perceptual transfer; esports, digital games played in front of an audience, and digitally-based social media are different. Watching esports has the same effect on the audience as watching physical sports. The emotional experience and physical reactions are identical, as is the context; fans buy tickets, have allocated seats in a stadium (often exclusively designed for esports), cheer on their team, and place bets.

In esports, only the players, often described as athletes, are deeply immersed in the visual digital world; they perceive it as a different reality, an authentic world and authentic experience (the best players are awarded esport scholarships), however, without physical involvement. Yet the fans cheer for their teams in the physical world, admiring digital games presented on large screens.

14 Marshall McLuhan, *Letters of Marshall McLuhan* (Toronto: Oxford University Press, 1987), 198.

15 Peter Fader, "The Impact of Social Media: Is it Irreplaceable?," *Knowledge@Wharton.* The Wharton School, University of Pennsylvania (2019), accessed May 18, 2021, <https://knowledge.wharton.upenn.edu/article/impact-of-social-media/>.

16 McLuhan, *Understanding Media. The Extensions of Man*, 8.

The perception of the audience had previously been primed to appreciate esports by TV's dramatic and highly involving dynamic visual translation of physical sports, e.g. basketball. Television had intensified the visual sense of its viewers, making the audience ready for new visual media.

The esport players themselves may be even more cognitively immersed in the game than the physical players in historically traditional sports. Digital games provide greater involvement, a deeper immersion for the players, as their fantasy playground world digitally enhances the possibilities of the physical world and the visuals are more involving and dramatic, changing the digital visual world into an instant adventure. Digital games are a hybrid system with the components of a fantasy world such as ultrafast action, instant response, a background of fighting or adventure, and, most importantly, highly effective graphics (visuals) offering a "reality" which is more relevant for the narrative of the digital game than the "slow" physical reality could ever be. The speed of these components creates a synergy, releasing new forms of emotional energy and enabling immersion that is not available in the physical world. However, the immersion is a result of an ongoing instantaneous comparison of the viewer's physical world and its possibilities as well as their translation into the fantasy world, the environment of the digital world. If the translation becomes too remote from the original physical environment it might become incomprehensible for the audience. The action, the plot based on fighting or adventure, and the enhanced perceived skills of digital avatars remain firmly embedded in our physical reality. To remain a fantasy, the fantasy world has to be visibly derived from our physical world to provide the desired effect, i.e. involvement.

Playback of earlier awareness

In a letter, McLuhan notes that "once an event has been recorded the recording is, mysteriously, felt to have more reality than the original. This, by the way, must be the effect of the instant replay."[17] Elsewhere he observes that "an experience translated into a new medium bestows a delightful playback of earlier awareness."[18] These are psychological statements that may be relevant for both audio and video recordings, as both of these media are technologically enhanced perceptions. There may not be many systemic analyses of audio recordings compared to non-enhanced perception of voice. But our everyday experience with playback, e.g. with the first tape recorders, confirms the enhanced reality effect. Where photographs are concerned, we believe their "mysteriousness" can, among other factors, be explained by the effect of the extended eye. A similar argument may be analogously used for audio recordings.

Environmentality of the photograph

It has been noted above that any new technology creates a new environment. The technology itself is not visible; we are aware of it only through its effects and the changed behaviour of its users.

17 McLuhan, *Letters of Marshall McLuhan*, 460.

18 McLuhan, *Understanding Media. The Extensions of Man*, 233.

The new items the environment consists of are those that "create demand."[19] For example, in the environment of transport new technology replaced the demand for steam engines with the demand for cars and the unsustainability of cars with petrol engines has created the recent demand for alternative transport (such as electric scooters, bicycles), the types of which have come to be seen as more environmentally sustainable, creating demand.

The obsolete steam locomotive as a part of the content of the new electronic environment has become an art form, e.g. the Southern Railway 1401 displayed in the National Museum of American History in Washington is not a part of the present-day transport environment. Similarly, the new technology of instantaneous digital photography has rendered traditional portrait photography, now an art form, obsolete and created the demand for selfies. The large screens of contemporary mobile phones have rendered traditional Polaroid cameras obsolete. The high environmentality and the high demand for selfies may have an additional psychological cause; McLuhan remarked, having visited an Andy Warhol exhibition, that "any high-definition image can be made environmental and involving by repetition."[20]

Applications of digital technologies that render response time obsolete have made digital visuals the main instrument of communication as they share the characteristics of the digital environment. The photograph is an ideal medium for the digital environment because:

1. it does not have a context, it does not have a story or etymology, it does not have a point of view
2. it is simultaneously accessible to many viewers
3. it can be perceived without any prior knowledge
4. it can evoke instantaneous emotional responses
5. it provides instant replay

Digital photographs are an instrument of communication. Narrative texts, stories, or poems have the relatively slow technology of the linear alphabet, which is not suitable for the digital-speed environment. Texts lack the instantaneity and appeal of instant replay and they may rely on the awareness of references that would provide a complex and knowledge-based background for narrative texts.

The content of the new environment is the old environment. The new environment is always invisible. It is invisible until it has been superseded, enveloped by new environments. It is the digital environment that has made us aware of the previous environment, of literacy in the linear alphabet, and of the shortcomings of lineal text. Only the content, or rather its effects, shows, and yet only the environment is really active as a shaping force. We believe that where the new technology creates a new product it will reflect this new technology, sharing its characteristics. It is consistent with the opinion above concerning the behaviour of a new technology "that cannot cease to permeate any previous social milieu until every institution is saturated."[21]

The new technologies and their applications have observable effects encouraging creativity, e.g. Tik Tok and Instagram turn users into performers, producers, and authors/commentators,

19 McLuhan, *Letters of Marshall McLuhan*, 352.

20 McLuhan, *Letters of Marshall McLuhan*, 297.

21 McLuhan, *Understanding Media. The Extensions of Man*, 198.

Facebook into accomplished amateur photographers and models, etc. Tik Tok and Instagram dramatize short, usually amusing narratives with their videoclips, thus flipping back to mediaeval performances in a marketplace. The new literary genre, memes, must be visuals because they are a product of digital technology and share its features of accessibility, instantaneity, replay, and a lack of context. These forms confirm McLuhan's opinion that "in a technologically prepared environment language assumes new roles over and beyond confrontation on the printed page."[22] Educators are becoming aware of the effect of text-free learning provided by social media.

The changing social functions of photography result from new technologies. Technology is a medium creating the environment, and therefore traditional photography, like the steam locomotive, changes into an art form at the moment it becomes the content of the new (digital) medium. In the digital environment, historical photographs have changed to an art form from the form of a document. This was the same process as when photography changed hand-made portraits into an art form. The first photographic portraits necessarily had to imitate drawings, as they were the only content that could have been known. As we noted above in describing interactive TV, a new medium uses the content of another medium exclusively for its content until its users develop new forms of expression. The purpose of the media is to create an event that would be effective on screen. The popularity of Tik Tok is based on the synergy of visuals and rhythm; dance is "visualization of rhythm."[23] The effect of the new digital photography in social media has led to the abandonment of the photograph as a document. The images are instead concerned with evoking the strongest instant emotional reaction possible. This effect seems to depend on the content of the digital photograph, but it is actually a process resulting from the characteristics of digital technology. The emotional reaction is a feature of the recent digital environment, which does not allow its users time and space for a deductive lineal narrative, this environment being, as shown above, without context or a point of view. It demands instantaneous (and often empty or fleeting) emotional responses and provides the potential for psychologically satisfying instant replay.

In the future when the digital photograph has been replaced, e.g. enveloped by a tactile technology of 3D imaging, the new visuals will, on the one hand, flip back to sculptures and, on the other, they will change the recent two-dimensional photograph into an art form. Therefore, digital photography must be viewed as a product of electronic technology; it is a different product from the film-based photochemical method of photography, which has a very different effect on perception and particularly on social behaviour. That is, we have to analyse digital photography in the same way as any other technological product; its content is accidental.

Each new technology, when compared to the previous technological environment, seems more primitive, more vulgar. McLuhan notes that "The new medium is never considered an art form, but only a degradation of the older form."[24] An environment communicating with images (photographs, emoticons, pictorial adjuncts) seems more primitive than an environment communicating with text. Driving a car is less "artistic" than riding a horse. The images provided by mass digital photography are not considered artistic photography. The linear alphabet has adjusted

22 McLuhan, *Letters of Marshall McLuhan*, 311.

23 McLuhan, *Letters of Marshall McLuhan*, 458.

24 McLuhan, *Letters of Marshall McLuhan*, 308.

the senses to the process of visual perception of lineal text. Digital photography is instantaneous and has a complex effect. Therefore, digital natives flip back in their communication with images, videos, and music to the Middle Ages, to the pre-text non-lineal communication.

We have mentioned the effect of flipping back as a consequence of new technology twice now: Tik Tok and Instagram videoclips presenting short, usually amusing narratives and thus flipping back to mediaeval performances in marketplaces as well as social media communication with images and symbols flipping back to the non-lineal environment of the Middle Ages.

The tetrads[25]

The reversal of a technology pushed to the limits is the fourth question of tetrads, the main object of analysis in McLuhan's Laws of Media. We are not able to cancel the consequences of new technologies and their impact on our environment, but we can try to increase intellectual awareness of them instead of their outright rejection and fear. McLuhan's tetrads are four questions providing a consistent mode of analysis of all media, i.e.:

> What does the technology amplify, enhance, or enlarge?
> What does it render obsolescent?
> What does it retrieve or bring back from a distant past? (Probably something that was scrapped earlier.)
> What does it flip or suddenly reverse into when pushed to its limits?

The tetrads are a specific issue that would obscure our topic of the language of images in a technologically modified environment; however, it is interesting to note that the effects of the technology of digital photography, pushed to the new limits, result or will result in the pre-lineal alphabet literacy behaviour of the users. As noted above concerning 3D imaging, the new visuals will flip back to sculptures.

Background of the photograph and background of the text

If the background had been deleted in the historically first portrait photographs, nothing would have happened to the content, as the "background" of the portrait was the portrait itself (the postures and expressions of its objects). The desired effect was that objects would find the photograph to be an appropriate, true-to-life image, a document of the time. Today, the world is travelled in search of the best background for selfies. The first portraits did not have a set background; the later sumptuous or romantic historical hand-painted backgrounds were provided in photographic studios because the concept of the desired effect of the photograph had changed. The desired selfie effect of an international influencer cannot be achieved in a photographic studio. However, there are pictorial backgrounds of video conferencing systems that flip back to the hand-painted studio props, similarly to the way in which 3D imaging flips back to stone sculptures and Tik Tok videos to mediaeval marketplace performances. The background of the text of social media is provided by visuals, such as emoticons. Emoticons communicate the instantaneous emotions of the author to

25 Marshall McLuhan, and Eric McLuhan, *Laws of Media: The New Science* (Toronto: University of Toronto Press, 1988).

the "reader." They create an emotional background, a rhythm and a style of the written text, *a basso continuo*; they have the same effects as a film score, providing a purely emotional background. A concert of film scores without the film being shown is an absurd experience; the music seems superficial; it is analogous to emoticons with the text deleted (see below). The emotional effects of visuals become evident from a comparison with a text with the emoticons verbalized (b), cf.

a) I will meet you later 😘, do not talk to anybody 🤐, they would be unhappy 😟…

b) I will meet you later (a kissing face), do not talk to anybody (a zipped mouth), they would be unhappy (a crying face) …

c) 😘, 🤐, 😟…

Conclusion

The photograph creates a unique magical visual experience that cannot be provided by a stationary single eye. The photograph is not an artistic rendering of material reality, but a record of material reality created with new technology. The limits of the eye make peripheral vision lacking in the perception of shapes and colours but the periphery is responsive to the movement. The technology of photography cancels the limits of the eye. In the comparison with the limited snapshot vision of the stationary single eye, necessarily blurred in the places we do not focus on, the camera is a total stationary eye without limits. The photograph extends the limits of the eye because it does not differentiate between centre and periphery; it records and includes all the details equally. It is involving because suddenly we have acquired an improved eye, another extended sense.

Any new technology creates a new environment. The new environment of extended images has changed human perception and the changed perception has had cognitive and cultural consequences. It has changed both behaviour and society, giving rise to the platforms of social media, digital games, and interactive TV. The high environmentality, the high demand for digital photography has, on the one hand, rendered traditional photochemical methods obsolete, but, on the other, the abrupt technological development has had the effect of the technology flipping back. McLuhan's tetrads postulate four questions relevant for an analysis of all media, with the last question asking what the new technology will eventually flip back to. Tik Tok and Instagram video clips are flipping back to mediaeval performances in a marketplace and social media communicating with images and symbols have the effect of flipping back to the non-literacy environment of the Middle Ages. Similarly, 3D imaging will to flip back to sculpting.

The visual experience acquired with the pre-digital lineal technology of the text literacy environment is experienced as difficult and artificial when applied to the digital environment. Older generations brought up in the environment of alphabetical lineal literacy experience digital media as vapid or difficult because they are reading digital media lineally as a text and are puzzled by the absence of a narrative or pragmatic context; a pragmatic context may be present, but it is not an inter-generationally shared context. Theoretically, if we impose lineal visual standards on the digital environment we will be thwarted, as the digital environment is not lineal and visual but auditory-visual and tactile. Non-print perceptual learning is becoming prevalent, although perception and literacy in the digital environment is generally not taught as a regular part of school curricula. In many environments, the only education provided is through reading and writing.

The division into inner and outer, however important this was for a literate culture, vanishes in the inclusive and instantaneous digital environment.

Bibliography

Barthes, Roland. 1977. *Image Music Text*. London: Fontana Press, 1977.

Fader, Peter. "The Impact of Social Media: Is it Irreplaceable?" *Knowledge@Wharton.* The Wharton School, University of Pennsylvania, 2019. Accessed May 18, 2021. <https://knowledge.wharton.upenn.edu/article/impact-of-social-media/>.

Gombrich, Ernst H. "Standards of truth: The arrested image and the moving eye." *Critical Inquiry* 7, no. 2 (1980): 237-273. Accessed May 18, 2021. <https://www.journals.uchicago.edu/doi/abs/ 10.1086/448098?journalCode=ci>.

McLuhan, Marshall. *Letters of Marshall McLuhan*. Toronto: Oxford University Press, 1987.

McLuhan, Marshall. *Understanding Media. The Extensions of Man*. London: Abacus, 1974.

McLuhan, Marshall, and Eric McLuhan. *Laws of Media: The New Science*. Toronto: University of Toronto Press, 1988.

Práger, Libor, and Václav Řeřicha. "Temptations of the Didactic Illustration." *Hradec Králové Journal of Anglophone Studies* 7, no. 1 (2020): 12–21.

Řeřicha, Václav, and Libor Práger. "Lamenting the Transitional Moment of Literacy Environment," *Silesian Studies in English* (2018): 18–26.

Scott, Graham G., Boyle, Elizabeth A., Czerniawska, Kamila, and Courtney, Ashleigh. "Posting photos on Facebook: The impact of Narcissism, Social Anxiety, Loneliness, and Shyness." *Personality and Individual Differences* 133 (2018): 67–72. Accessed May 18, 2021. <https://www.sciencedirect.com/science/article/pii/S0191886916312272?via%3Dihub>.

Václav Řeřicha is Associate Professor of the English language at Palacký University in Olomouc. The focus of his research and papers are contrastive Czech-English studies, communication and learning in digital environments as well as translation. Since 1989 he has given lectures at universities and colleges in Florida, Tennessee, North Carolina, Slovakia, Austria, Luxembourg, Italy and the UK and published a popular series of Czech-English phrasebooks at Lexus Ltd., Glasgow, UK. He has been involved in the national Digital Literacy Development project.

Libor Práger is Assistant Professor of the English language and teaching methodology at the Faculty of Philosophy and Science at Silesian University in Opava. The focus of his research is computer literacy, teaching methodology, cognitive literary studies and literary history. In 2009-2010 he was a teaching scholar in residence as a Fulbright professor at Mt. Mercy University in Cedar Rapids, Iowa, USA. He has been involved in the national Digital Literacy Development project.