

## New forms of knowledge design and their presence/absence in Central Europe. Prolegomena to the issues. Current\*

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It seems that similar as in the case of digital media spreading to the process of literary creation, the production of scientific publications has also been subject to the growing strength of their influence. In the field of literature, attention has been paid to investigating the material aspects of the medium in a comprehensive analysis (not a necessarily digital one, see *Media-Specific Analysis* by Katherine Hayles, 2007). The inclusion of digital media into academic work processes often raises questions regarding media innocence, autonomy of scientific publications and beliefs about the constancy of scientific standards. It is possible that digital media together with artificial intelligence are causing permanent changes in scientific communication and in the design of scientific studies, including scientific publications. Similar tendencies may be observed in the cases of “born-digital” media, such as the scientific publications initiated by the editors of the *American Historical Review* or the academic video project of Audiovisual Thinking. How do these tendencies and initiatives fare in the environment of the humanities at Central European universities? We have conducted an inquiry into this issue within a pilot research project named *Interfaces of Science*.

### NEW FORMS OF DESIGNING SCIENCE/KNOWLEDGE

The work of Joichi Ito encourages us to accept an understanding of science which opens scientific research to the new challenges of civilization instead of tightly keeping to existing structures. As this concerns not only the discovery of “scientific truths” but also important ideas, thoughts, views and related social practices, the founders of the anti-disciplinary *Journal of Design and Science* envision the future of science through analogy and cooperation with design. On the one hand, science turns into a set of projects whose scope includes the production of new systems which may become out of control; on the other hand, a researcher is no longer an external actor in relation to the project but rather an active participant:

Design encompasses many important ideas and practices, and thinking about the future of science in the context of design – as well as design in the context of science – is an interesting and fruitful endeavor. Design has also evolved from the design of objects both

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physical and immaterial, to the design of systems, to the design of complex adaptive-systems. This evolution is shifting the role of designers; they are no longer the central planner, but rather participants within the systems they exist in. This is a fundamental shift – one that requires a new set of values [...] Also, as a “participant” we can engage at each of these scales if we are aware of and able to use all of our lenses by being aware of the systems that we are in and being continuously perceptive. This would be much more of a design whose outcome we cannot fully control – more like giving birth to a child (Ito 2016).

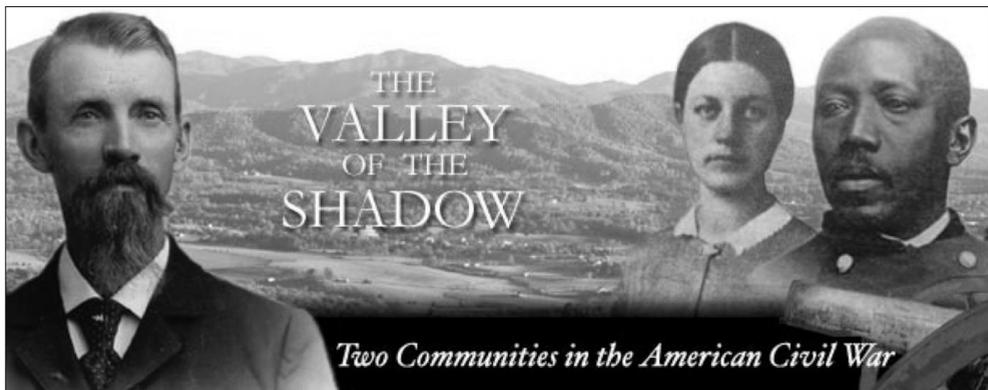
The new design of science is accompanied by new phenomena in academic work which also permeate educational processes (Senchyne 2016). Based on the humanities as an example, Jeffrey T. Schnapp describes the issue accurately in his recent publication entitled *Knowledge Design: Incubating New Knowledge Forms, Genres, Spaces in the Laboratory of the Digital Humanities* (2014). Instead of a general notion of science, he works with the concept of “knowledge design”, a reaction to the digital entanglement of contemporary humanities.

The phrase Knowledge Design describes the situation in the contemporary humanities that most closely engages my own work as both an analog and digital humanist: which is to say, a setting in which neither the methods that produce humanistic knowledge nor the forms and genres into which such knowledge is shaped are givens. The tools of humanistic inquiry have become as much objects of experimentation and research as have their modes of dissemination. Statistical methods press up against one edge of the qualitative human sciences; graphic and information design press up against another. Laboratories arise with a team-based ethos, embracing a triangulation of arts practice, critique, and outreach, merging research, pedagogy, publication, and practice. The once firm boundary line between libraries, museums, archives, and the classroom grows porous as scholarship, deprived of its once exclusive print-based home, shuttles back and forth between pixels and the page, the stacks and the streets, galleys and the gallery. Micro- and macro-scale modes of inquiry flourish side by side, giving rise to new challenges: how to construct arguments that zoom back and forth between the micro, the meso, and the macro, perhaps even overlapping those middle layers of analysis and narrative that once constituted the home turf of the arts and humanities disciplines? How to weave together forms of visual and verbal (and – why not? – acoustical, tactile, and olfactory) evidence? How to chunk information in a world that demands short as well as long forms, and where iterative and multichannel publishing is increasingly the norm? (Schnapp 2014)

Thus, these new forms of publication indicate a role of participation in the production of information, not only in the meaning coined by Marshall McLuhan (the medium is the message), but also in the one preferred by Lev Manovich within the perspective of infovis (2011), arguing that visibility – as an aspect of structuring and designing information – is an important aspect of the production of scientific publications. There are many examples of this, but particularly noteworthy are the projects in the varied portfolio of the Dig@Lab website (diglab.org). In this paper, we will describe two projects, one focused on the production of fully “born-digital” scientific publications and the other dealing with the publication of audiovisual academic recordings.

In the 1990s, there was a tide of enthusiasm concerning the new possibilities of hypertext technology – apart from being a profitable business tool (enabling contact

with customers through web browsers) and a new field of exploration for artists (net art, New Media art) and writers (literary hypertexts), it also inspired new academic environments for the humanities. The new challenge was to produce fully “born-digital” scientific publications. One of the contemporary examples is the initiative of the editors of the *American Historical Review*, who started experimenting with various forms of scientific publication based on an existing structure of digital archiving of historical sources. They offered this possibility to several historians and the initiative led to several projects being started: in 2000, Robert Darnton published *An Early Information Society: News and the Media in Eighteenth-Century Paris*; in 2001, Philip J. Ethington published the hypertext project *Los Angeles and the Problem of Urban Historical Knowledge*; and in 2003, William G. Thomas published the article *The Differences Slavery Made: A Close Analysis of Two American Communities*, which is also available in a hypertext version, created for the website of the *American Historical Review* in cooperation with Edward L. Ayers – all of these three projects can be accessed online. Starting from his cooperation with Thomas, Ayers went on to produce a greater project, a platform entitled *The Valley of the Shadow: Two Communities in the American Civil War*, which was launched in 2002, receiving the James Harvey Robinson Award from the American Historical Association (AHA) as the best teaching project.



*The Valley Project details life in two American communities, one Northern and one Southern, from the time of John Brown's Raid through the era of Reconstruction. In this digital archive you may explore thousands of original letters and diaries, newspapers and speeches, census and church records, left by men and women in Augusta County, Virginia, and Franklin County, Pennsylvania. Giving voice to hundreds of individual people, the Valley Project tells forgotten stories of life during the era of the Civil War.*

This project is particularly significant for us not only because it offers a fully digital genealogy (created with digital tools and presented in a digital environment) but also because after a few years of existence one of the authors recounted its creation both from the author-participant perspective (self-ethnography) and from the perspective of a participant in digital scientific communication. In an article titled *Writing a Dig-*

*ital History Journal Article from Scratch: An Account* (2007), William G. Thomas reports on the production process of a “new scientific rhetoric” (Thomas 2007) in his digital history project (wider, digital humanities, Robertson 2016).<sup>1</sup>

The fundamental difference was not only the change of cognitive framework for conceptualizing the project but also the framework of electronic communication. The promising technological innovation turned out to be very problematic. Consistent use of available digital formats (HTM) was completely destroying the structure of coherent disquisition and clear reasoning used in printed articles. The challenge was to find a way of using digital hypertext – a structure of nodes and links – as a means of coherent argumentation (“We wanted to explore how we might integrate the digital form of presentation with the argument we hoped to make”; Thomas 2007). The project’s authors wanted to make sure that it would be based on the three pillars that are essential for every scholarly publication in the field of history: facts, argumentation and disquisition. However, using hypertext technology as a communication framework, it seemed almost impossible to include these pillars in the project’s structure. How can one perform the fusion of form and content, if the cobweb structure of the text fragments the disquisition and reveals the beginning of the argument? It makes it difficult for the reader to follow the correlation between facts and argumentation. The project did not end up a failure only thanks to the discussions during conferences dedicated to hypertext technologies and also consultations with programmers, researchers also specialized in the Civil War period, and students of history (as critical users and advisors).

As a result of the discussions and consultations (during which it was programmers who expressed the greatest deal of optimism regarding the effectiveness of using HTM technologies in the project), a description of the research premises was added to the project, the proportion of generated content was constrained, and the project also received a new feature: a tracking system following the trajectory of a particular reader as he or she moves through the hypertext. Participants may now successfully explore not only historical information but also information about the objectives of the project, one of which is to use a seemingly homogenizing history of a phenomenon – in this case slavery in the US South – to uncover its regional variants. In this regard a set of maps presenting particular parameters in the two examined regions turned out to be irreplaceable – they seemed to be much more effective than the text presentation. Within a few years of release, this “born-digital” academic publication entered the curriculum of several universities’ postgraduate programmes in history. Still, among professional historians, printed articles remain more popular. Meanwhile, the number of guests on the project’s website keeps growing. They are probably students or passers-by looking for information about the Civil War (which begs the question of who the target audience of these digital projects is).

It seems that the experience of the project’s authors played a significant role in determining the official and unofficial recommendations developed by AHA precisely for the assessment of digital history projects,<sup>2</sup> which in the subsequent year were taken over by the Association of Japanese Historians. As a result, the use of digital methods and media must have substantive grounds<sup>3</sup> (for instance when there

are audiovisual sources) as well as exhibit reasonable utilization of new methodologies. Digital projects should support the transformation of scientific communication. The projects must respect the interest of maintaining the respective discipline's research standards, presenting scientific values and supporting the development of the discipline. On the other hand, the Association (AHA) appreciates new forms of scientific communication (blogs, online publications, community portals), declares support for researchers interested in digital tools and recognizes the need for a wider engagement of researchers in the process of creating a new digital environment for historical research. It seems to reject the discrimination against digital publications within scientometric systems.

The founders of the Internet journal *Audiovisual Thinking: The Journal of Academic Videos* have a much more radical opinion of the use of digital media in scientific publications. In a short proclamation, the editors describe the declining dominance of text as well as everyone's right to an autonomous choice of medium for scientific communication.

For hundreds of years, scholars have been limited to the written word and the occasional 2D illustration, but today, the revolution in affordable audiovisual technology is challenging the dominance of text as the primary means of communication and expression. We believe that scholars should also have the right to express themselves and their research and ideas in any (and as many) formats and media that they see fit (*The Academic Video Manifesto*).<sup>4</sup>

At the same time, the editors aspire to maintain scientific standards analogous to those of text-based journals, such as to

- disseminate new observations, knowledge, insights or theories, thereby adding to the existing body of knowledge,
- acknowledge previous knowledge, insights or theories, and build upon the existing body of knowledge,
- credit all sources and references, be they visual, written or oral,
- be self-critical and self-reflective (*The Academic Video Manifesto*).<sup>5</sup>

The radicalness of the editors of *Audiovisual Thinking* likely springs from a need to protect the interests of researchers using audiovisual media who contend with the necessity of presenting audiovisual material in a textual form, as there are many aspects that are infeasible to be represented in text/language, including emotions, affects, sounds and complex spatial artefacts. The editors are convinced that academic video must subordinate text to audiovisual means (all submissions must be audiovisual) and it must do so in such a way that content comprehension is not dependent on identifying the semantics of individual words.

In *Reflections on Academic Video*, Eriksson and Sorensen (2012) present a justification for this kind of proclamation. They mention various audiovisual communication practices such as recording academic lectures and making them available to students in audiovisual form, playing relevant videos in class or recommending useful audiovisual material on the internet. In spite of the opposition of the representatives of academic disciplines, the authors call for introducing audiovisual forms into academic practices on equal terms with textual discourse. In this regard, they quote authoritative research on digital convergence and its influence on how one

may produce, watch and make digital content available. They stress that academic video and video-essays are not mere futuristic expectations – these tools are already utilized and many of their aspects have been a part of the scientific discourse for a long time. The authors recount their own experiences as authors of academic video to prove their claims (autoethnography), also using Brodeker’s concept of the specificity of an original personal documentary, the practices of visual ethnography and the rules of *Dogme 95*<sup>6</sup> devised by Lars von Trier, which sought to liberate film from technical and technological embellishments. Subsequently, they describe examples in anthropology, visual sociology, history and sociopolitics (alternatively socioaesthetics, Wodiczko 2015). Their work empirically implements the academic video-essay requested by the editors of *Audiovisual Thinking*.

*Reflections on Academic Video* is a kind of publication that is frequently used nowadays – the authors report on their own projects, focusing on the academic work process and sometimes exemplifying the used method. Apart from autoethnography, we can observe here the phenomenon of designing new research fields (new systems) as well as designing the research activity performed inside the project itself (Ito 2016), which can be interpreted as a conscious (or subconscious?) adaptation of academic work to new technological possibilities. It can be said that the proclamation becomes an essential component in emphasizing the processual character of designing academic work processes.

### THE VISUAL INTERFACE OF SCIENCE

In the last few years, a lot of publications have appeared in the Western environment referring to digital humanities (DH) movements. It can be concluded that the fundamental tendencies, themes and issues of the humanities have become only a sub-standard that disregards the DH perspective (including quantitative methods). However, this tendency does not concern the humanities in Central Europe, which very often operate within the analogue tradition of science, and thus they – seemingly – contend with the dilemma of functioning “between” humanities and digital humanities, i.e. between what are currently two opposing presentations of “knowledge” – between the analogue tradition and digital humanities practices. Some researchers have been trying to move away from the “analogue foundation” in which the humanities of this region are stuck and have been frequently confronted with the reality of digitization and mediatization of science. This has occurred, for instance, through their occasional participation in Western European projects, which demonstrated the rather limited, though diversified, employment possibilities of these institutions and revealed their weak (but still diversified) background of digital infrastructure. We have no knowledge of any research aimed at mapping the activities of digital humanities’ centres or digital projects in the fields of literature, culture or general humanities in Central Europe. This fact has allowed us to carry out a non-professional survey in a small community of academic teachers, which, however, does not deal with the activities of researchers in the DH movement of this region. In a very limited scope, the survey presents the “openness” of the region’s academic community in the humanities to the digital environment. Due to a lack of

institutional support in developing interest in DH in our region, we have decided to take a look at this “openness” in a mini-pilot project titled *Interfaces of Science* making use of a substitute issue, namely the aspect of “visuality”, which along with the DH material base can set up inclusive relations (Hayles 2012).

Since this is a pilot survey of the scope of openness to technologically motivated changes, it covers a small group of teachers of academic disciplines in the humanities in Slovakia, the Czech Republic and Poland. We have decided to survey the aspect of openness/readiness of researchers to the digital environment through the prism of the researchers’ approach towards visual aspects of the performed disciplines and have tried to examine to what extent they use visuality, or what hopes and expectations they have in relation to it.

Encouraged by the presence of visual anthropology, visual sociology (Sztompka 2017) and the distribution of tools and applications to perform a presentation on the one hand, and because of the intense invasion of visuality into the internet versions of natural science journals (e.g. in the form of graphical abstracts<sup>7</sup>) on the other, we wanted to find out what opens humanist researchers to visuality and vice versa, and what impedes or slows them down. Finally, we aimed to find out which university teachers in the Central European region have become involved in the processes of “inventing/finding digital media” (Murray 2012).

During the research, we interviewed 19 researchers (including 4 women), who represent various scientific disciplines in Slovakia, the Czech Republic and Poland. The interviews were conducted between October 2016 and March 2017 and concerned two aspects. The first addressed the use of the internet and digital media to promote science, extend the efficiency of scientific work, improve contacts between scientists, and so on. The second aspect directly tackled the issues of this article and concerned questions about the attitudes of scientists towards visualization and visuality in science. The research focused on how much they are attached to traditional interfaces and structures of presenting research results, as well as to what extent they have opened up to possibilities provided by the new media as far as visualization of work results and the publication thereof are concerned.

The research was of a qualitative nature, so the results cannot be extrapolated to any extensive group of researchers in the countries in question. The respondents answered the following questions about visualization in science (these questions were just a starting point and were frequently extended and made more specific):

1. Do you imagine your discipline of science in the visual form?
2. (4) What technical devices and media, in your opinion, do scientists need in today’s world? Which of them could you do without?
3. (8) Do you prepare multimedia presentations of your papers or lectures? If so, when you prepare a presentation, do you skip any stages of the work, e.g. when you write an article?
4. (9) Do you think that in your field it will be possible for a multimedia journal to exist? Could the scientific publications in your field have other multimedia/visual forms? What criteria should such a publication meet to be treated as scientific (review, annotations, what else)?

5. (10) Could a visual form of scientific publications exist independently or only as a complementation, component or comment? What other functions may it have (i.e. clarification, facilitation of understanding)?

In the part of the survey *Interface of Science* in which we ask about consent to intensive “visualization” of the performed disciplines, references are made to “academic video” – meaning that an analysis of an academic essay presented by the initiators of *Audiovisual Thinking* (AT) might constitute an analogy for organizing responses given by the representatives of philosophy, philology, sociology, marketing and new media. The answers obtained from Slovak and Czech male and female researchers, as well as a Polish female researcher, are not treated as elements of statistical research, but we solely want to disclose the views of a small group of academic workers employed in universities in Central Europe, and thus show the opinions of providers of knowledge about the *modus operandi* in contemporary performance of science, and possibly also to provoke a discussion, taking into account the recipients of knowledge as well.

The initiators of academic video were criticized for their idea (*Reflections on Academic Video*) by representatives of Dutch and Swedish academics – one stressed the superfluousness and inadequacy of the audiovisual mode in scientific discourse, that at best it was recognized as an unrealistic chimera, while another declared a strong attachment to the primacy of words over pictures and the inability to go beyond the word-picture dichotomy. In comparison, our respondents presented a great variety of opinions:

a) Philosophers were convinced that it was necessary to focus on language forms, as well as on the reading and text-interpretation process; but there was also a strong belief that philosophy might and should use visual forms; some also appreciated e.g. philosophical cartoons (Doxiadis – Papadimitriou: *Logicomix. An Epic Search for Truth*, 2009); some were curious to adopt visual forms for the purposes of academic discourse.

b) Marketing researchers presented, even more consequently, the belief that visual components are important and indicated the equivalence of language and picture components.

c) Philologists stressed the fundamental role of language – both at the level of examined objects as well as in academic literary discourse; only one response indicated the importance of visualization in DH projects (in reference to the Czech Academy of Sciences and its project focusing on a quantitative analysis of a Czech poem).

d) Sociologists were strongly in favour of the logocentrism of their own discipline.

For our respondents, the *sine qua non* condition for possible visual publications was an anonymous review process. Could it be because the implementation of visual materials may decrease the degree to which the rules of coherent argumentation are respected and linear text is supplanted, because such a form of publication would have to be the subject of fragmentation, hypertext practices of structuring information? Would an anonymous review eliminate these occurrences? Or would it resolve the issue of “suitability”<sup>8</sup> between the form and content of a publication?

All respondents provided a very laconic and almost identical answer that requires

interpretation, because when we asked about the potential form of scientific journal the responses gave preference to the internet over print – we found this agreement very surprising. We are aware that the communication framework of the survey is completely different from the framework of making such proclamations public. It is because the AT editorial section has not only taken the risk related to promoting the experiment but also assumed the responsibility connected with possible attacks from opponents/critics. However, the answers provided by our respondents seemed very cold and formal to us. Formal, because at best they copy the structure of forms used by editorial sections of scientific journals in the peer-review process in our region and respond to the question about the relativeness of the issue in academic publications, as well as in the bibliography used therein. To a degree, they only formally refer to the needs for securing scientific publication standards. And cold, because the chances for innovative forms of one's own discipline or journals were small due to the conservatism present in the environment of the individual disciplines, even though the researchers declared an open attitude. One would expect that along with the declaration of openness and greater interest, some open thought and the ability to conceptualize might appear. One of the explanations for this state of affairs is the fact that we indeed asked deliberately about image, which is closer to a mental experiment than an exemplification or description of any new occurrence, or a new object. If the media researchers who claim that they are still in an emergence condition are right (Murray 2012) – that the usage processes and occurrences of diversified communications related to them (including the scientific ones – Schnapp) decide on direction (emergence) – then, in this context, a question remains concerning the nature of the attitude presented by academics in our region. The answers collected by us suggest little involvement. Some justification of this state may lie in the low interest in being “self-critical and self-reflective” in the academic discourse in our geographical region, the conservative attitude of the academic environment, the funding structure of universities – namely, underinvestment of universities (?) – or conservative university study programmes. However, the simplest justification can be connected with the low value of such publications in binding scientometric systems, which results in a lack of practical contact and little experience with using audiovisual tools.

#### **METHOD, DISCUSSION AND FUTURE WORK**

Our method relied on qualitative research, but only insofar as it was based on written/live responses to the survey questions carried out in a small (but international) group of university teachers. We also managed to meet our interviewees one more time to broaden the interviews by asking additional questions. However, it has turned out that the interviewees simplified the tasks for themselves and often answered routinely, which resulted in a lack of understanding of the subsequent questions, or that they avoided questions that were inconvenient to them – mostly when we were interested in the intensity of intellectual endeavours and the establishment of new intellectual contacts through online platforms. In this respect, our survey should be repeated and we should interview everyone face-to-face. By the way, we should not only reveal to the interviewees that we wished to find out how much

they are interested in new challenges in the humanities today but also should disclose the fact that we did not ask about the DH issue straight away, in order to avoid having to check their competence or scrutinize their knowledge of DH issues.

“Fooling” the respondents participating in the empirical research (Szpunar 2010) could not have harmed them (however, one person reserved the right not to give their consent to disclose their identity and wanted to participate anonymously), because we did not plan to use the results to describe different or similar cases (*causa*) but wanted to use the answers to create a new task (research creation). In other words, we aimed to set the direction for the aspects of visuality in humanistic cognition, all rooted in the technology shift (in forecasting meaning), in what is happening with the visible interfaces of science. In this respect, the survey results determine a new field of exploration through questions that are fundamental to us: do the researchers imagine that their discipline, including scientific communication in professional magazines, anticipates visual forms or visuality? The respondents revealed what is important to them within the context of our questions (blurring disciplinary boundaries, declarative and rather pragmatic opening to visuality – different only with those who work with visuality more intensively – as well as a conservative approach to coherent text culture and consistent argument). In terms of the attitude of the respondents and academics working in the humanities towards visual forms of a discipline or publication, our survey has, albeit slightly, still shown a tendency towards integrating the anthropological approach in the qualitative research (Forlano 2015).

However, in conclusion, our survey pays attention to the need for a greater interest – in the academic environment of our region – in the current necessity of an emerging/new image of the humanities, in communication with the scientific humanities. In this context, the following points seem to be significant:

1. Pondering of the general requirements in relation to a digital project and new-media reflection of literature in the context of digital history experiences and the audiovisual academic essay.

2. Incorporation of the thought about consequences of the selection of a medium, particularly communication technology for designing the humanities (knowledge).

Communication technologies nowadays are extending scientific communication and making it a subject of new conventions. As a matter of fact, we need to develop new principles for it, which will be defined based on looser boundaries between science and knowledge, and the establishment of a new agreement on the appropriateness of scientific publications in which it is presented, i.e. a new agreement between the provider and the recipient, allowing for a variability of standards in the creation of publications (e.g. Dighub). In this process, Habermas’s (1981) views<sup>9</sup> will be important, as well as experiences of regular or new digital rhetoric.<sup>10</sup> To sum up, one should find that in relation to the challenges of modern “visible interfaces of knowledge”, it is not enough to refer to the proverbial “openness” (well known from behavioural psychology) of university teachers towards civilizational and intellectual “novelties”. The weak responses brought to our attention the fact that the value of creativeness in the work of an academic also includes active participation in the creation of the “scientific” process (because only one respondent referred

to this implicitly). As it appears, the thing that is really missing within the “openness” observed by us is intellectual curiosity and endeavour, the uncompromising and even crazy (as inquisitors) aiming at the exploration of new levels (appealing, mysterious and prohibited). The inquisitiveness and zeal presented in the behaviour of researchers in Stanisław Lem’s story *How the World Was Saved* is also one of the four basic indicators of “curiosity” which Merck studied as a conglomeration of the factors (openness, inquisitiveness, creativity, distress, tolerance) determining the achievement of creative innovative solutions. It appears that in accordance with the views of questioned workers in the USA, Germany and China, conditions favouring inquisitive follow-up through the field of new thought (theories, hypotheses, etc.) are significant for zealous curiosity, for the broadening of human thought. It seems that the answers provided by the questioned teachers highlight the fact that they do not have adequate conditions to develop and display zealous curiosity. However, this opinion should be revised and described in detail in the context of designing science and knowledge in our region.

## NOTES

- <sup>1</sup> About relationships and differences between digital history and digital humanities, cf. Robertson 2016.
- <sup>2</sup> Published in September 2015 at: <https://www.historians.org/teaching-and-learning/digital-history-resources/evaluation-of-digital-scholarship-in-history/guidelines-for-the-professional-evaluation-of-digital-scholarship-by-historians>. Accessed June 25, 2017.
- <sup>3</sup> Lopes (2009) formulated similar expectations to computer arts to be used for media in some way justified with the artist’s intention.
- <sup>4</sup> The Academic Video Manifesto. Accessed April 25, 2016. <http://www.audiovisualthinking.org/about/manifesto/>.
- <sup>5</sup> The Academic Video Manifesto. Accessed April 25, 2016. <http://www.audiovisualthinking.org/about/manifesto/>.
- <sup>6</sup> Accessed May 15, 2017. [https://en.wikipedia.org/wiki/Dogme\\_95](https://en.wikipedia.org/wiki/Dogme_95).
- <sup>7</sup> Accessed May 20, 2017. <https://www.elsevier.com/authors/journal-authors/graphical-abstract>.
- <sup>8</sup> About “suitability” and differences between convenientia and decorum, cf. Fischer 2015.
- <sup>9</sup> For example, the series *Digital Debates* 2016.
- <sup>10</sup> See Ridolfo – Davidson 2014, Douglas 2015.

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## New forms of knowledge design and their presence/absence in Central Europe. Prolegomena to the issues. Current

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Knowledge design. Interfaces of science. Digital humanities.

Along with new ideas inspiring the design of science and knowledge, we observe numerous innovations in the ways of publishing research outcomes. It is possible that digital media together with artificial intelligence are causing permanent changes in scientific communication and in the design of research and publications. In the humanities, this phenomenon has led to the production of academic video and “born-digital” publications. How do these tendencies and initiatives fare in the environment of Central European universities? We have conducted an inquiry into this issue within the pilot research project *Interfaces of Science*, and the answers given by Slovak, Czech and Polish scientists and researchers indicate that they do not enjoy adequate conditions to develop zeal and openness.

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