

Digital Culture and Inclusive Educational Practice

Author: Thomas Köhler

Digital culture is a concept that describes how technology, and the internet are shaping the way we interact as humans or groups. It is always a shared, collective phenomenon that is learned from one's environment. One may narrow it down to mean for example: An organization or digital reality, which leads to focused concepts. Digital culture is the way we behave, think, and communicate within the current society (Gergen, 1991; Frindte & Geschke, 2019). In this interpretation, digital culture is the product of digital technology, which we are finding evermore around us– and is itself transformed through our use of technology.

Digital culture arose from covering cultural and social perspectives on information technology, electronic text and edition, semantic web, and the philosophy of networked knowledge society (Apollon & Desrochers, 2014). Following Hofstede (1984), a culture is "The programming of the human mind by which one group of people distinguishes itself from another". Meanwhile, due to the widespread distribution of technologies and practices, everyday life can be seen as digital cultural practice (Köhler, 2003). Nevertheless, such practice is not new and not restricted to *digital* technology (Bijker, Hughes & Pinch, 1987)

Additionally, digital culture is the result of technological innovation, and through the adoption of these innovations, has led to changing cultural practices for social entities (Fischer, 2012). Digital culture is applicable to almost any topic. Thus, it not only has a societal, but also an overarching, epistemological meaning (Koschtial, Köhler & Felden, 2021). It is to be expected that any relationships between humans will also include a relationship with and via technology (Kahnwald, 2013; Köhler, 2021).

What does that mean for education? If we consider digital technology becoming a means of cultural practice we should accept its relevance in the realm of education as well, especially in light of the recent corona pandemic. Obviously educational practices could have profited from the inclusion of digital media. However, only if a changing (dynamic) educational culture is accepted can it be considered innovative in terms of supporting accessibility and heterogeneity in any educational context, for example learning at home or without the support of teachers.

Inclusive educational practice may be in conflict with formal education, namely general and higher education, as it does not always have an educational mandate and is encouraged to

submit innovative offers for social participation. Teaching at school and university - so that it is accessible to everyone - must be more clearly oriented and personalised to an individuals various learning skills and characteristics. In particular, digitally supported forms of micro learning may be offered. In addition, databased approaches to learning behaviour open up diverse, and above all, new methods of teaching staff – Learning analytics and tailored training (Köhler & Kahnwald, 2005).

It is suggested that the implementation of digital technologies within the educational system provides considerable benefits to educators by eliminating routine work and can additionally assist children with disabilities in fulfilling their tasks (Akhmetova et al., 2020). Yet to allow such a shift, digitalization and the use of artificial intelligence must be mastered, leading to new teaching concepts (Köhler et al., 2019). Thus, some attention is given to modularized online-based formats for the individual Therefore, modularized online-based formats for the further, individual development of teachers, must be taken into account in order to prepare them for inclusive educational practice (Akhmetova et al., 2020; Open School Doors Project, 2019).

While recent research deals, for example, with the user experience and the usability evaluation of personalized adaptive e-learning systems (Hariyanto, Triyono & Köhler, 2020) as well as the function of peer groups in response to digital exclusion of older adults (Barczik & Köhler, 2019), it did and does not always systematically address the domain of digital culture. Moreover, developments are often driven by either technological opportunities or special conditions of a specific case. Yet, with the wide distribution of smart devices and their combination with new digital assistants and augmented technologies, the landscape of technical artefacts has become much more diverse, powerful, and ubiquitous (Moebert et al., 2019), i.e. influencing every activity in a very broad sense. Digital technology with a fine inclusive potential is everywhere (Zörner, Moebert & Lucke, 2017). Taking this assumption to mind, inclusive educational practice may serve as a concept to suggest a review of recent approaches in formal and continuous education, which apply digital technologies for inclusive practices. Resultantly, it is expected that both theoretical consideration and case-based practices may contribute to a broader image of an inclusive digital culture, providing evidence of effective measures and dysfunctional approaches as well.

Conceptually one may focus on educational technologies as an interface between computer science and educational science, ideally located to detect and reflect the potential application toward inclusive practices in an inspiring way. Yet, perhaps the most astonishing feature of

digital culture is not the speed of technical innovation, but rather the speed by which society takes all of these for granted and creates normative conditions for their use. Within months, a new capacity becomes assumed to such a degree that, when it breaks down, we feel we have lost both a basic human right and a valued prosthetic arm of who we now are as humans." (Miller & Horst 2012, S. 28).

Literature:

Akhmetova, D., Artyukhina, T., Bikbayeva, M., Sakhnova, I., Suchkov, M. & Zaytseva, E. (2020). Digitalization and Inclusive Education: Common Ground. *Higher Education in Russia*. 29(2), S. 141-150.

Apollon, D. & Desrochers, N. (2014). *Examining Paratextual Theory and its Applications in Digital Culture*. Henley: IGI Publishers.

Barczik, K. & Köhler, T. (2019). Peer-Groups als Antwort auf die digitale Exklusion – Best Practise Beispiel zur Förderung digitaler Fähigkeiten bei älteren Erwachsenen; In: Köhler, T., Schoop, E. & Kahnwald, N. (Hrsg.). *Communities in New Media. Researching the Digital Transformation in Science, Business, Education & Public Administration. Proceedings of 22nd Conference GeNeMe 2019*. Dresden: TUDPress.

Bijker, W.E., Hughes, T.P. & Pinch T.J. (1987). *The Social Construction of Technological Systems. New Directions in the Sociology and History of Technology*. Cambridge: MIT Press.

Fischer, H. (2012). *Know Your Types! Konstruktion eines Bezugsrahmens zur Analyse der Adoption von E-Learning-Innovationen in der Hochschullehre*. Universität Bergen.

Frindte, W. & Geschke, D. (2019). *Lehrbuch Kommunikationspsychologie*. Weinheim: Beltz-Juventa.

Gergen, K. J. (1991). *The saturated self: Dilemmas of identity in contemporary life*. Basic Books.

Hariyanto, D., Triyono, M. B., & Köhler, T. (2020). Usability evaluation of personalized adaptive e-learning system using USE questionnaire. *Knowledge Management & E-Learning*. 12(1), S. 85–105.

Hofstede, G. (1984). *Culture's Consequences: International Differences in Work-Related Values*. Beverly Hills: SAGE Publications.

Kahnwald, N. (2013). *Informelles Lernen in virtuellen Gemeinschaften. Nutzungspraktiken zwischen Information und Partizipation*. Münster, New York, München, Berlin: Waxmann.

Köhler, T. (2003). *Das Selbst im Netz. Die Konstruktion des Selbst unter den Bedingungen computervermittelter Kommunikation*. Opladen: Westdeutscher Verlag.

Köhler, T. (2021). Didactic modeling of a digital instrument for the perception, construction and evaluation of ethical perspectives in AI systems. *8th International Conference on Learning Technologies and Learning Environments*.

Köhler, T. & Kahnwald, N. (2005). Does a class need a teacher? New teaching and learning paradigms for virtual learning communities. *Online Communities and Social Computing*. New York: Lawrence Erlbaum Associates.

Köhler, T., Wollersheim, H.-W. & Igel, C. (2019). Scenarios of Technology Enhanced Learning (TEL) and Technology Enhanced Teaching (TET) in Academic Education. A forecast for the next decade and its consequences for teaching staff. *Proceedings of the 8th International Congress on Advanced Applied Informatics*.

Koschtial, C., Köhler, T. & Felden, C. (2021). *e-Science. Open, social and virtual technology for research collaboration*. Berlin: Springer.

Moebert, T. & Schneider, J. & Zoerner, D. & Tscherejkina, A. & Lucke, U. (2019). How to use socio-emotional signals for adaptive training. In: Augstein, M., Herder, E. & Wörndl, W. (Hrsg.). *Personalized Human-Computer Interaction*, S. 103-132.

Miller, D. & Horst, H. A. (2012). The Digital and the Human. In: Horst, H.A. & Miller, D. (Hrsg.) *Digital Anthropology*, S. 3-35.

Open School Doors (2019). Open School Doors Training Framework. Von <http://openschooldoors.westgate.gr/> abgerufen.

Zoerner, D. & Moebert, T. & Lucke, U. (2017). IT-gestütztes Training sozio-emotionaler Kognition für Menschen mit Autismus. *Informatik-Spektrum*, S. 546-555.