

Forschungsplattform "Bildung in der digitalen Welt" Quarterly Newsletter

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Photo by Yan Krukov: <https://www.pexels.com/photo/group-of-people-sitting-on-chair-in-front-of-table-8199558>

## The ForBild Newsletter:

### Re-envisioning digital learning based on the experiences made in educational settings during the pandemic

By *Prof. Dr. Eva Gredel*

For the last two and a half years, the COVID-19 pandemic has been disrupting education affecting 1.6 billion learners worldwide. The most vulnerable learners, for example in the Global South (UNESCO 2022), were particularly affected by the pandemic. Despite efforts of many governments and educational institutions to quickly implement Remote Emergency Teaching, the lack of connectivity and equipment prevented at least a third of learners from pursuing distance learning. In this context, also significant digital gender gaps persist in many regions of the world limiting especially the capacity of girls and women to keep up with online distance learning (UNESCO 2021). Beyond impacts on health and well being, the pandemic disruption caused learning losses and upended educational trajectories of an entire generation. Against this background, it is important not only to recover from the pandemics, but to transform educational systems by developing projects, initiatives and multi-stakeholder networks such as the UNESCO "Global Education Coalition" that re-envision and redefines the "base line" of education in the digital world. It must be a priority to develop and use technology and innovation in the long term to provide systematic responses to needs and crises in education systems through in-depth guidance, technical support and the development of platforms as well as resources (e.g. OER). Key questions in science are then: What roles do digitally supported teaching and learning concepts play? What socially relevant changes are associated with the digitalisation of education? How do important stakeholder deal with the issues of education and how can they be supported? In this sense: Keep the international discourse on education in the digital world going to make educational systems worldwide more resilient so that they fulfil the right to education in future times of crisis.

UNESCO (2022): COVID-19 Education Response. <https://covid19.uis.unesco.org>UNESCO (2021): #HerEducationOurFuture: keeping girls in the picture during and after the COVID-19 crisis; the latest facts on gender equality in education. <https://unesdoc.unesco.org/ark:/48223/pf0000375707>

If you would like to contribute to this newsletter please contact [irene-angelica.chounta](mailto:irene-angelica.chounta@forbild.de)

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## EVENTS

### Upcoming:

- The First Multiplier Event of the Erasmus + Project **DigiReady+** will take place in the University of Duisburg-Essen on Thursday, October 13<sup>th</sup> 2022. The event aims to bring together people involved in higher education including HEI administration, government, staff, faculty and researchers to discuss how the integration of digital technologies in Higher Education changes the landscape, the challenges it can introduce and how to develop strategies towards supporting digital readiness. Participation in the event is free, but registration is required. Registration link: <https://forms.gle/f9Snv8T3btfcMz99> If you have questions about the event please contact [Prof. Dr. Irene-Angelica Chounta](#)
- The final conference of the research program "**Digital Society**" will take place by the end of September 2022. The topic will be "Quo vadis Digital Democracy? Strengthening and Preserving Democracy in the Digital Age" (<http://konferenz-datafizierte-gesellschaft.de>). The junior research group "Digital Citizenship in Network Technologies" (led by Jun.-Prof. Dr. German Neubaum) will present an overview of their results and its implications for the intersection of digital and political education.

### Past event: 1<sup>st</sup> International ForBiD Symposium (June 13 2022)

The 1<sup>st</sup> International ForBiD Symposium was held at the Mercator House in Duisburg with the theme: "Reimagining and redesigning digital learning and teaching in the postpandemic world". The Vice-Rector for Studies, Teaching and Education, Prof. Dr. Stefan Rumman issued a greeting on behalf of the University of Duisburg-Essen and welcomed approx. 30 participants who attended the full-day event.

The event hosted three keynote talks from international scholars around challenges for research, learning and teaching emerging from digitalization:

- **Prof. Dr. Shirley Ho** (Nanyang Technological University, Singapore) discussed how digital media literacy interventions help us address misinformation and what is the role and responsibilities of scientists.
- **Dr. Ioana Jivet** (Educational Technologies, Leibniz Institute for Research and Information in Education, Germany) talked about learning analytics possibilities for supporting students' agency in the digital era elaborating on the role of actionable feedback.
- **Prof. Dr. Jennifer Olsen** (University of San Diego, USA) discussed how to support flexibility in post-pandemic higher education with adaptive collaboration scripts and classroom orchestration strategies for coordinating and moving between different tasks aiming at maximizing engagement time.

Additionally, a poster session was held where PhD and postdoctoral researchers had the opportunity to present their research and receive feedback. The symposium ended with a panel discussion reflecting on "the good, the bad and the silver linings" from our experiences over the past two years. We wrapped up this "collective exercise" with a note that maybe what we need now is time - time to recover, time to think and put our experiences into perspective, time to reflect how to move forward without forgetting what we've learned.



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## TEACHING

- In the winter term 22/23 Jun.-Prof. Dr. German Neubaum will offer a practical project on how sex education can succeed through health influencers in social media. Students will outline different strategies to communication and analyze which of those lead to the greatest gains in sexual education.
- Irene-Angelica Chounta will offer for WiSe 2022 two Computer Science practical projects for Bachelor and Master students:
  - Design and implementation of an analytics dashboard for Moodle, LSF Link: <https://tinyurl.com/4xesrjsv>
  - The tribes of hackathons: exploring community formation in hackathons using data, with Cleo Schulten, LSF Link: <https://tinyurl.com/2rf86u5a>
- Cooperation with Amplonius Gymnasium continues: In the coming winter semester, Master's students (Lehramt) can also work together with teachers from the Amplonius Gymnasium in Rheinberg and jointly design demand-oriented problems in the sense of service learning



## RESEARCH

- The Council of Europe (CoE) organizes the working conference “Artificial intelligence and education. A critical view through the lens of human rights, democracy, and the rule of law”. The conference will be held in Strasbourg, France, on 18-19 October 2022 with the aim to take the first steps towards establishing an actionable set of recommendations for Member States on the application and teaching of AI in education for the common good. The conference will host keynotes by Professor Dagmar Monett (Berlin School of Economics and Law, Germany) and Dr Ben Williamson (University of Edinburgh, UK). Prof. Irene-Angelica Chounta contributes to the conference organization as an Artificial Intelligence in Education Expert.
- Irene-Angelica Chounta presented in the International Conference of Artificial Intelligence in Education (AIED 2022) their research on teachers' perceptions of AI as a tool to support their practice <https://tinyurl.com/28vcyfkt>  
A short video of the talk is available at: <https://youtu.be/XlKqKW4S3yQ>

## Projects

- Irene-Angelica Chounta received **funding** by the European Commission for the project “**augMENTOR**” under the HORIZON Research and Innovation Actions (RIA), Topic: *Integration of emerging new technologies into education and training* (HORIZON-CL2-2021-TRANSFORMATIONS-01). The project consortium consists of 13 partners from all over Europe who will work together towards developing a novel pedagogical framework that promotes both basic skills and 21<sup>st</sup> century competencies by integrating emerging technologies. This framework will be supported by an open access AI-boosted toolkit that builds on the strengths of big data and learning analytics to provide different types of stakeholders with explainable recommendations for smart search and identification of educational resources, as well as for designing personalized learning profiles that consider individual actors’ characteristics, needs, and preferences. The project is expected to start on January 2023 and will have a 3-year duration. UDE will lead one workpackage and will be responsible for delivering Ethical, AI-powered learner models.
- Having been approved by CAIS in the spring, the first meeting of the working group “**Corpora as Digital Educational Technologies**” will now take place from 14.09.2022 to 16.09.2022 at CAIS in Bochum. Scientists from linguistics, computational linguistics and other disciplines will discuss how digital corpora as large collections of natural language data can be used to develop new digital teaching-learning scenarios for schools and universities. Eva Gredel and Michael Beißwenger, as coordinators of the working group, will also discuss with the 12 participants from different countries how learners acquire data literacy when working with corpora.

- The project "**Body.Images.Discourses**" analyses from an interdisciplinary perspective how pupils deal with representations, commentaries and constructions of corporeality in physical, digital and hybrid spaces. Questions about the construction of bodily norms in hybrid discourses and the development of students' body-related knowledge are at the centre of the interdisciplinary study within the context of the research platform Education in the Digital World (ForBild). Discourses about bodies do not only take place in digital spaces, but also through the (creative or consuming) use of social networks in the physical spaces of adolescents. It can be assumed that peer groups of pupils also behave towards body-related discourses in (physical) school and thus create a hybrid discourse. By reconstructing the experience of hybrid, body-related discourses, potentially relevant mechanisms of action in the development of self-related knowledge will be addressed. The project is a cooperation between Eva Gredel (linguistics) and David Wiesche (sports sciences).
- The team "**Digital Teaching and Learning in the School Context**" expands with Tristan Eckenbach, a teacher for physical education and computer science on detachment. Over the next four years, Tristan Eckenbach will work on the project "Virtual Reality in Physical Education - Design-Based Research considering Basismodelltheorie for the Development of subject-Specific and digitalisation-related competencies" and enrich the Faculty of Education.



## Publications

- Dreston, J. (2022). Mehr Social Media, weniger Wissen? In-Mind <https://de.in-mind.org/blog/post/mehr-social-media-weniger-wissen>
- Gredel, Eva (2022): Diskursdynamiken zum Gender Bias in der Online-Enzyklopädie Wikipedia. In: Deutsche Sprache 3/2022. DOI: <https://doi.org/10.37307/j.1868-775X.2022.03.03>
- De Silva, L. M. H., Chounta, I. A., Rodríguez-Triana, M. J., Roa, E. R., Gramberg, A., & Valk, A. (2022). Toward an Institutional Analytics Agenda for Addressing Student Dropout in Higher Education: An Academic Stakeholders' Perspective. *Journal of Learning Analytics*, 9(2), 179-201.
- Topali, P., Ortesa-Arranz, A., Chounta, I. A., Asensio-Pérez, J. I., Martmez-Monés, A., & Villagrà-Sobrino, S. L. (2022, March). Supporting instructors in the design of actionable feedback for MOOCs. In 2022 IEEE Global Engineering Education Conference (EDUCON) (pp. 1881-1888). IEEE.
- Roa, E. R., Raave, D. K., Chounta, I. A., & Pedaste, M. (2022). What Teachers Would Expect from a Pedagogical Agent System Working at a Classroom Level: A Focus Group Study. In *European Conference on Technology Enhanced Learning* (pp. 580-586). Springer, Cham.
- Feislachen, S., Garus, P., Wang, H., Podkolin, E., Schlüter, S., Schulze Bernd, N., Nolte, A., Manske, S. & Chounta, I.-A., (2022). Sentiment Analysis of Participants Interactions in a Hackathon Context: The Example of a Slack Corpus. In: Pfleging, B., Gerling, K. & Mayer, S. (Hrsg.), *Mensch und Computer 2022 - Tagungsband*. New York: ACM. (S. 485-489). DOI: 10.1145/3543758.3547563
- 🏆 [Best Paper Award] Aprin, F., Chounta, I. A., & Hoppe, H. U. (2022). "See the Image in Different Contexts": Using Reverse Image Search to Support the Identification of Fake News in Instagram-Like Social Media. In *International Conference on Intelligent Tutoring Systems* (pp. 264-275). Springer, Cham.



## ON OTHER NEWS

### Visiting Scholars

In August 2022, Dr. Michael Berger from Rockefeller University visited the working group Digital Teaching and Learning in School Contexts and gave a lecture on "Movement behaviour in complex environments". The neuroscientist presented his research findings on the bodily perception of peripersonal space and offered a preview of his current research, which focuses on the conscious and unconscious expressions of emotions via facial movements. The team then discussed how neural networks can also be used to analyse whole-body movements.

### Academic Functions

- Jun.-Prof. Dr. German Neubaum will step in as Associate Editor of the Journal of Media Psychology (as of January 2023) and serves as Review Editor in the Special Section "Media Psychology" of Frontiers Psychology.

