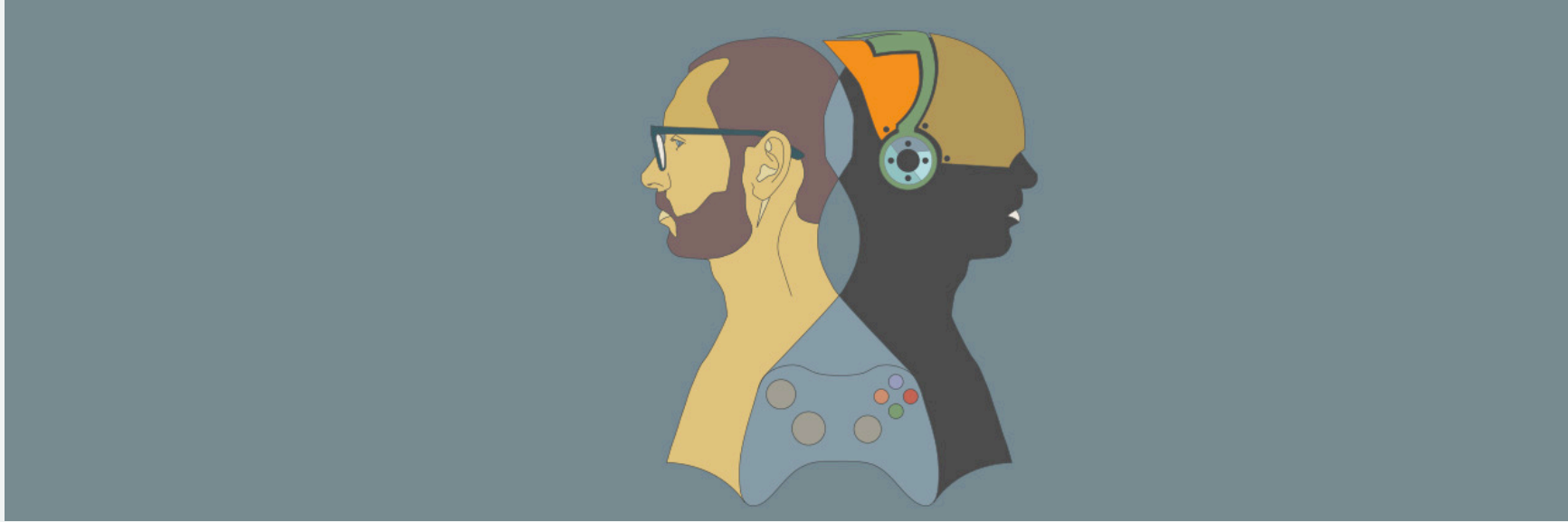


From Global Utopias to Local Alternative Futures of Digitalisation and Datafication

King's College London CPPR Lunchtime Seminar
20 June 2022

Dr Marko Teräs (PhD)
Social Sciences, Sociology
Tampere University, Finland

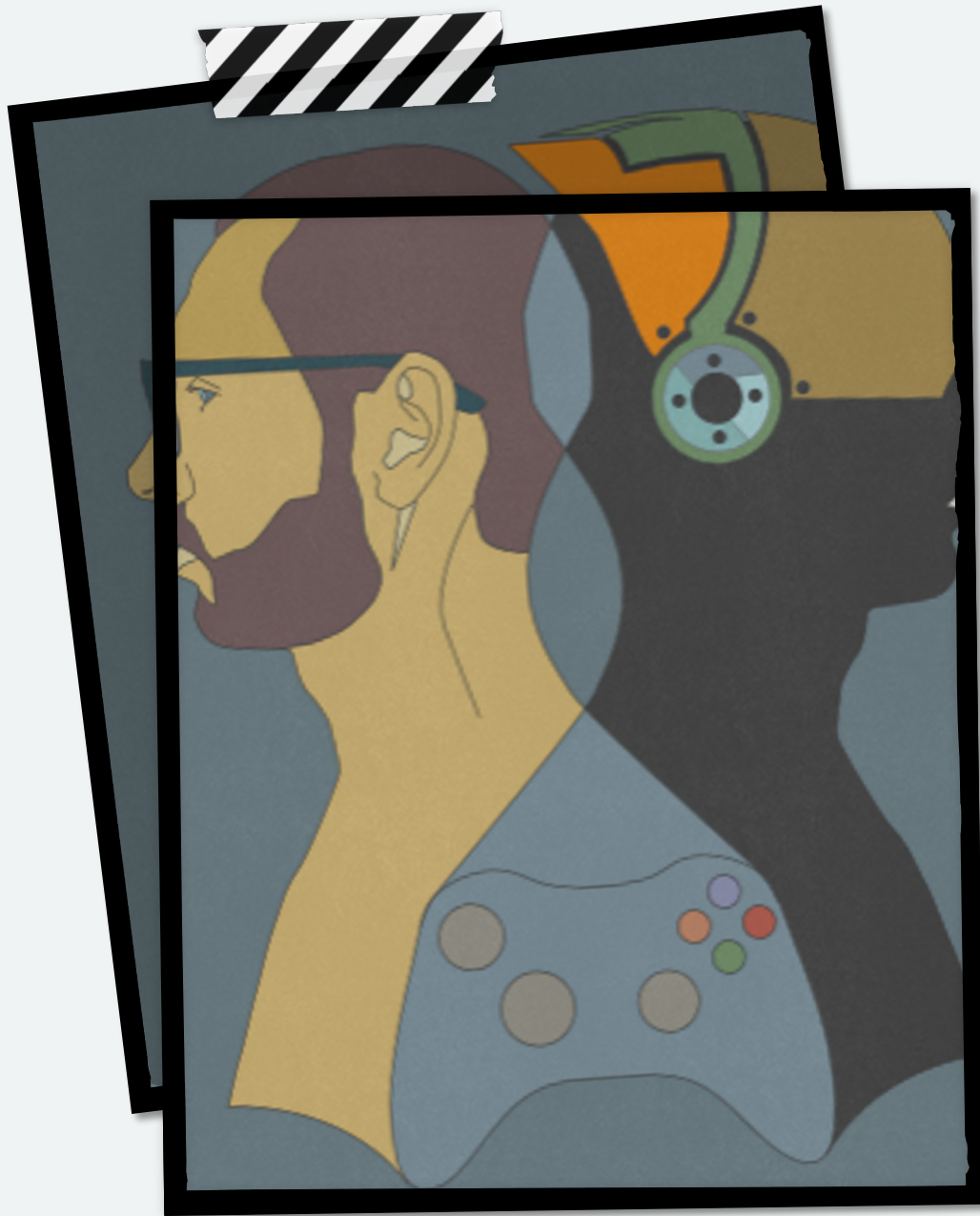




Background

Developer, educator, researcher in human-computer interaction, online learning, virtual environments, learning analytics, digitalization and datafication the past 15 years





My background with “digitalisation”

- + Teacher training in e-learning and online learning (Tanzania, UAE).
- + Learning platform transition project (University of Wollongong, Australia)
- + Using virtual environments and VR in hazardous environments training in gas and chemical sector (Curtin University)
- + APOA project: Learning analytics in Universities of Applied Sciences (Finnish Ministry of Education and Culture funded national project)
- + BUKA project: Advancing Equity and Access to Higher Education Through Open and Distance Learning in Malaysia, Indonesia and Philippines through the use of inclusive instructional design (ID) and learning analytics (LA).





*‘CreditEd’ is an informal network for
researchers and practitioners interested in
critical perspectives in education and
technology*

CARDE (Critical Applied Research of Digitalization in Education) research group. Lead and co-founder.

<https://carde.group>

CreditEd network. An informal network for researchers and practitioners interested in critical perspectives in education and technology. Co-founder.

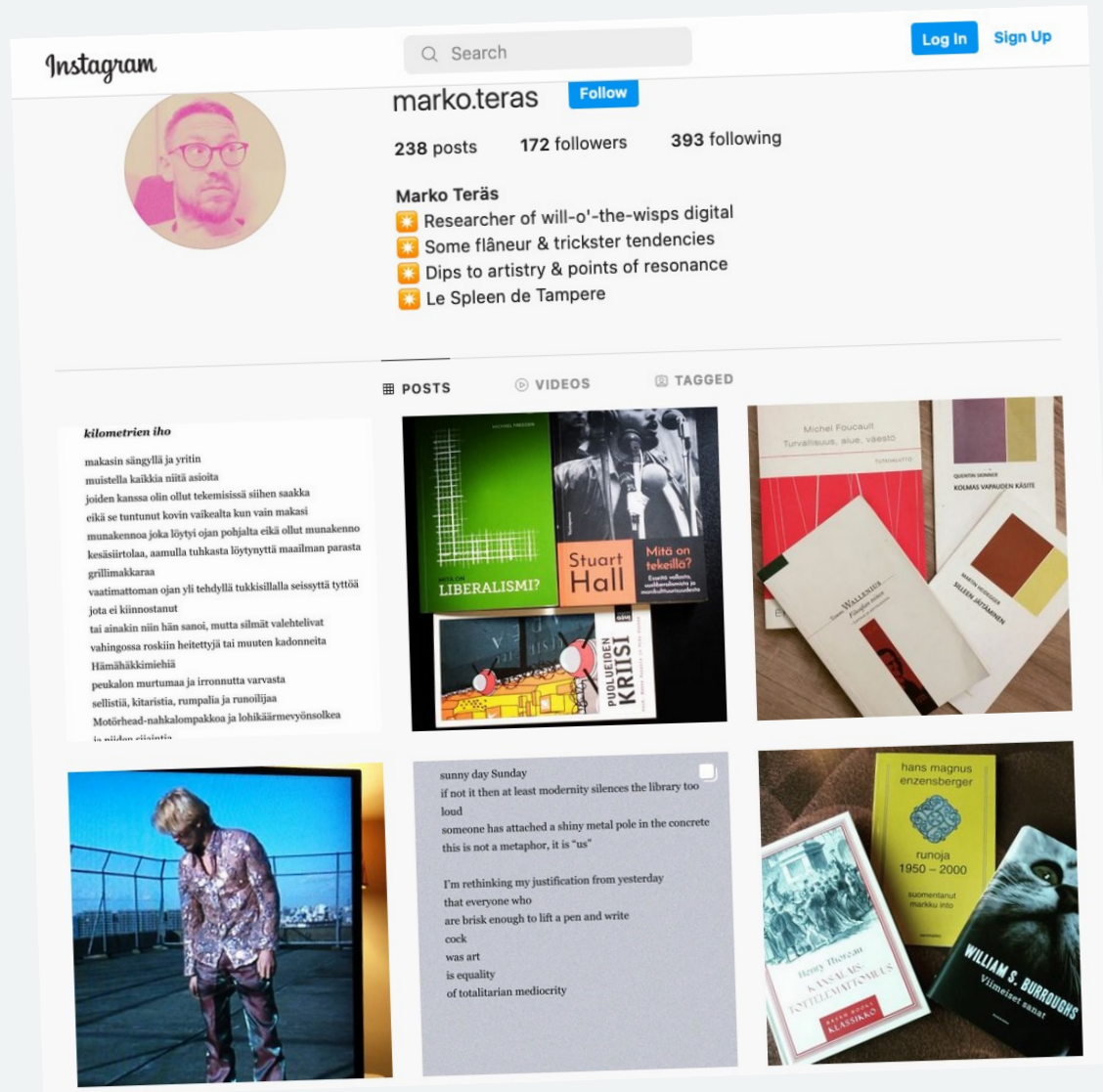
<https://creditednetwork.wordpress.com>



Current research project

- “Speculative social science fiction of digitalization in higher education: Towards a humanized digital future”
- Funded by the Academy of Finland
- More at <https://carde.group>





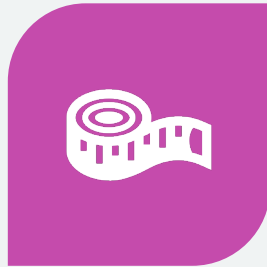
Studies of digitalization, datafication and technology through poetry, music, performance arts, theater



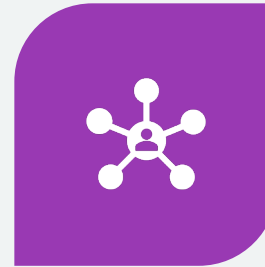
Presentation structure



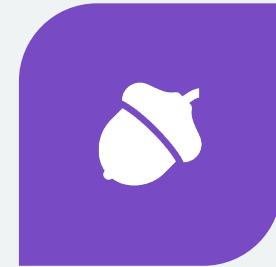
OFFICIAL DOCUMENT
UTOPIAS



DIGIVISIO 2030
NATIONAL
INITIATIVE



GENERAL
PROBLEMATIZATIONS



CALL FOR
IMAGINATION



A photograph of a winding, elevated highway bridge with orange guardrails, curving through a dense, green forested valley. The bridge is supported by concrete pillars. In the background, a hazy town is visible on a distant hillside. The sky is overcast and grey.

***Our journey so far
with the research
of digitalization***





Educational Research and Innovation
Education in the Digital Age
HEALTHY AND HAPPY CHILDREN
Edited by Tracey Burns and Francesca Gottschalk



OECD Skills Outlook 2019
THRIVING IN A DIGITAL WORLD



Future visions

WORLD
ECONOMIC
FORUM

COMMITTED TO
IMPROVING THE STATE
OF THE WORLD

Platform for Shaping the Future of the New Economy and Society

Schools of the Future Defining New Models of Education for the Fourth Industrial Revolution

January 2020



DIGITAL EDUCATION

ACTION PLAN

2021 - 2027

Resetting
education and training
for the digital age

Education and
Training



International
Labour
Organization

ILO Flagship Report

World Employment and Social Outlook

The role of digital labour
platforms in transforming
the world of work

2021



Higher education and research

Higher education institutions and science agencies

Policy and development in higher education and science

International strategy for higher education and research

Steering, financing and agreements

Higher education and degrees

Science and research

Statistics

Vision for higher education and research in 2030

The vision for the Finnish higher education and research in 2030 was drawn up in cooperation with higher education institutions and other stakeholders and was published in October 2017.

NB: This project has ended and the webpage will no longer be updated.

The purpose was to formulate a future scenario which enables the development of a high-quality, effective and internationally competitive higher education system in Finland by the year 2030.

In the course of this work, different alternatives and models for improving the Finnish higher education system were examined and their impacts and feasibility assessed. The development needs of the Finnish higher education and research were reviewed and the future desired state defined on the basis of the changes in the national and international operating environment.

The work was carried out in broad and open cooperation with the higher education institutions and their staff, students and stakeholders.

See also

[Roadmap for Implementing Vision 2030](#) PDF 736kB 31.1.2019

[Proposal for Finland](#) PDF 467kB 24.10.2017

[OECD report on collaboration among higher education institutions](#) PDF 1.1MB 17.11.2017



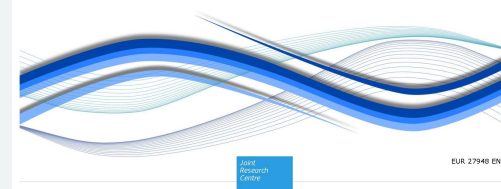
JRC SCIENCE FOR POLICY REPORT

DigComp 2.0: The Digital Competence Framework for Citizens

Update Phase 1:
The Conceptual Reference
Model

Riina Vuorikari, Yves Punie, Stephanie
Carretero, Lieve Van den Brande

2016



EUR 27948 EN



EXECUTIVE SUMMARY

REIMAGINING A new social OUR FUTURES contract for TOGETHER education

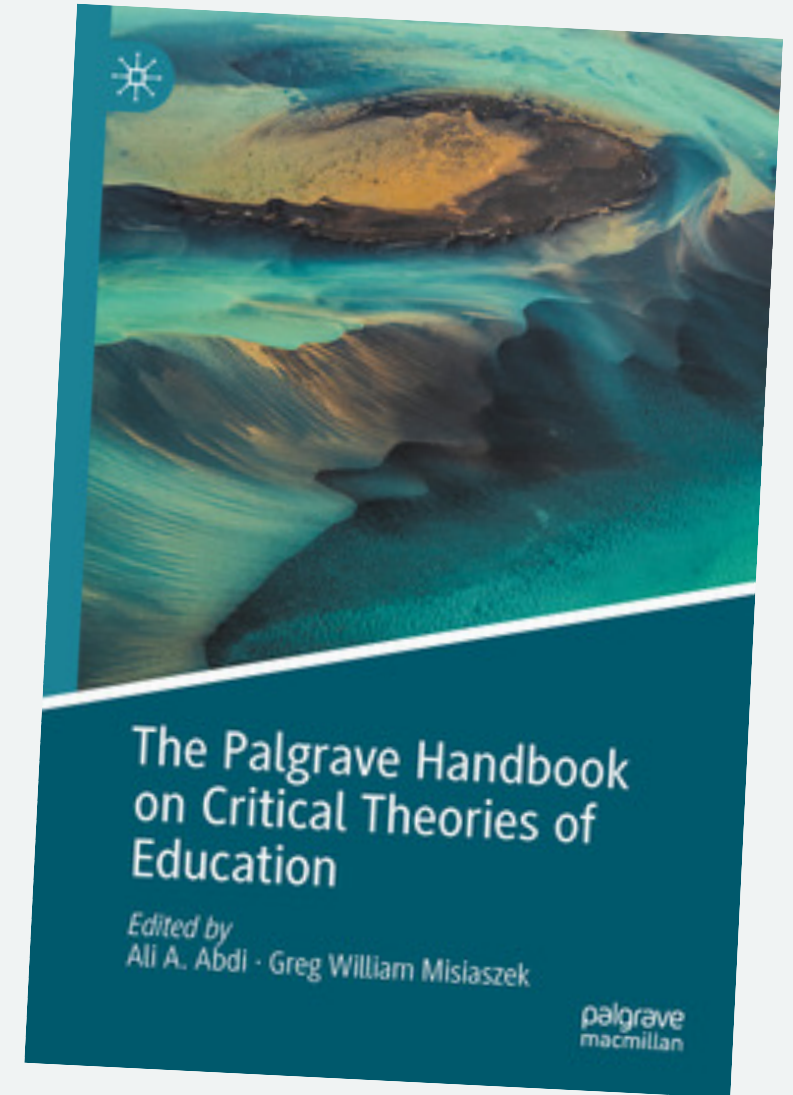
REPORT FROM THE INTERNATIONAL COMMISSION ON THE FUTURES OF EDUCATION

**Future visions
and policies**



Critical Document Discourse Analysis

- Critical discourse analysis of intergovernmental and governmental, international and national documents
- Reports and working papers from the OECD, World Economic Forum, UNESCO, EU, International Labour Organization, Finnish Ministry of Education, Finnish National Agency for Education, Finnish Government, Microsoft (with McKinsey & Co, educational influencers), Google (e.g. with The Economist)
- Digivision 2030 initiative documents: “Finland as a model country for flexible learning, and a global pioneer in higher education” (<https://digivisio2030.fi>)



Some sources: OECD

- OECD. (2019). *OECD Skills Outlook 2019: Thriving in a Digital World*. OECD.
<https://doi.org/10.1787/df80bc12-en>
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<https://www.oecd.org/education/education-in-the-digital-age-1209166a-en.htm>



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- UNESCO. (2020). *Responding to COVID-19 and beyond, the Global Education Coalition in action*. <https://unesdoc.unesco.org/ark:/48223/pf0000374364>
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(WEF)

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https://www3.weforum.org/docs/WEF_Upskilling_for_Shared_Prosperty_2021.pdf
- World Economic Forum. (2011). *Personal Data: The Emergence of a New Asset Class* (p. 40). World Economic Forum.



Some sources: Finnish Ministry of Education (OKM)

- *Digivision 2030 project implementation in higher education institutions launched.* (2021). https://okm.fi/en/-/digivision-2030-project-implementation-in-higher-education-institutions-launched?languageId=en_US
- *Korkeakoulujen Digivisio 2030 -hankkeen toteuttaminen vauhtiin.* (2021). https://okm.fi/en/-/digivision-2030-project-implementation-in-higher-education-institutions-launched?languageId=fi_FI
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- Opetus- ja kulttuuriministeriö. (2017d). *VISIO 2030. Työryhmien raportit.* Opetus- ja kulttuuriministeriö. https://minedu.fi/documents/1410845/12021888/Visiotyöryhmien+yhteinen+taustaraportti_v2.pdf/d69fc279-d6a9-626d-deac-712662738972/Visiotyöryhmien+yhteinen+taustaraportti_v2.pdf
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Some sources: Finnish National Agency for Education (OPH)

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- Nyyssölä, K., & Kumpulainen, T. (2020). *Perusopetuksen ja kouluverkon tulevaisuudennäkymiä. Raportit ja selvitykset 2020:25*. Opetushallitus.
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Key discursive statements

1. “The future is more uncertain than ever”
2. “Digitalization is disrupting/transforming education and work” (digitalization as challenge)
3. “There is huge potential in digitalization to transform education and work” (digitalization as potential)
4. “Education is outdated/not yet fulfilling its potential”
5. “Digitalization of education can ensure a better future”



Note on the authority and power of these documents

- An example from a Finnish National Agency for Education report
- 23 international sources on digitalization:
 - + 5 company websites/blogs
 - + 1 Market research website
 - + 2 Company and analyst websites/blogs (HolonIQ, Microsoft)
 - + 3 Newspapers and other publication websites/blogs
 - + 6 Intergovernmental organization and actor reports
 - + 3 Associations and non-profit organizations
 - + 1 Conference paper
 - + 1 Academic publisher website
 - + 1 journal editorial
 - + 0 Peer reviewed research articles



Utopian elements in the documents

“Utopia”:

Thomas More coined the word as the title and locus of his 1516 Utopia in a pun which conflates *outopos* or no place and *eutopos* or good place. Consequently utopia is widely understood as an imagined perfect society or wishfully constructed place which does not and cannot exist. (Ruth Levitas, Utopia as Method, 2013, p. 3)

1. There is something wrong with the current state of things (also posing a sense of ‘crisis’)
2. (Technological) solutions or blueprints on how the world could be changed “better”
3. Implicitly defining what is desirable or “better”



“Official Document Utopias”



- These documents are devices that factualize the future which can be ensured with digitalization/datafication
- They build a future they only claim to predict
- Possible futures become *a* future



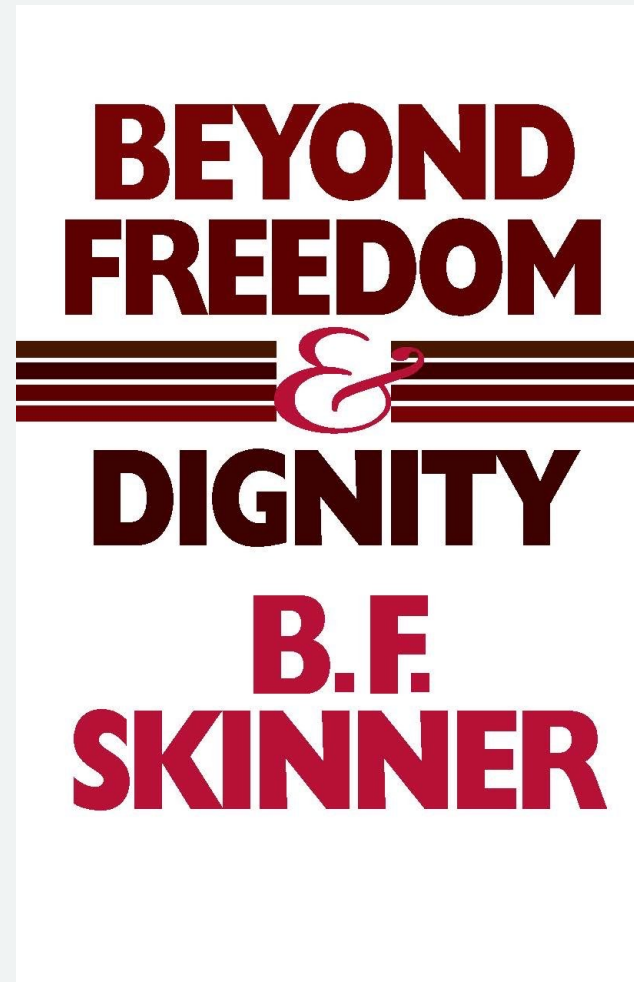
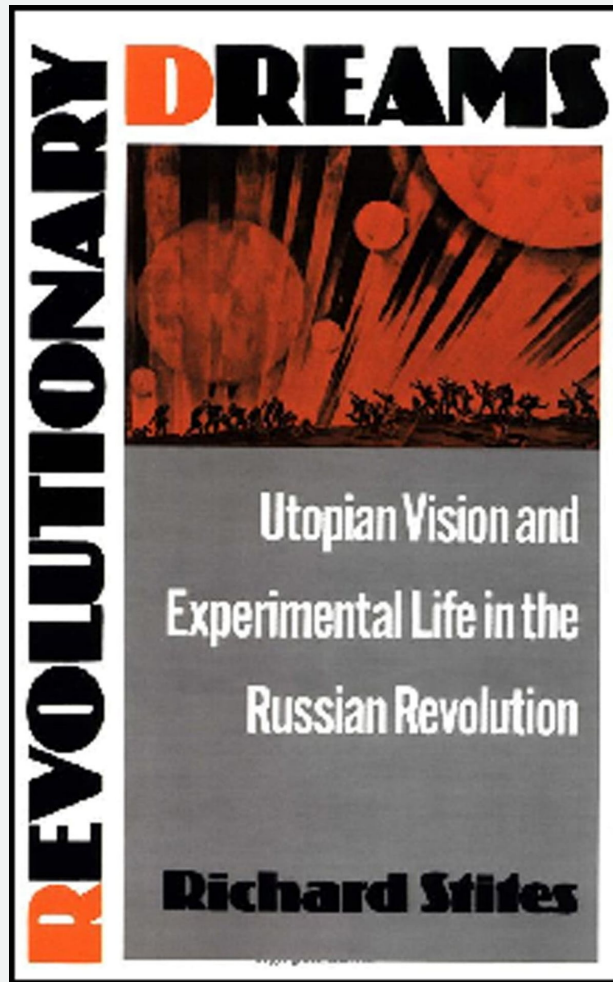
Official Document

Utopias (ODU)

“Official documents (reports, discussion papers and the like) that describe or predict the future and its desirable state of things which in fact are narratives written and developed by public officials, consultants, and educational influencers often with ‘engaging’ relevant stakeholders in workshops under certain parameters of the future.

The ODU process and actors give the documents and their future an aura of authority, creating a force that does not only describe or predict the future, but produces it and impact educational systems.”





**Technological
and science
utopias**

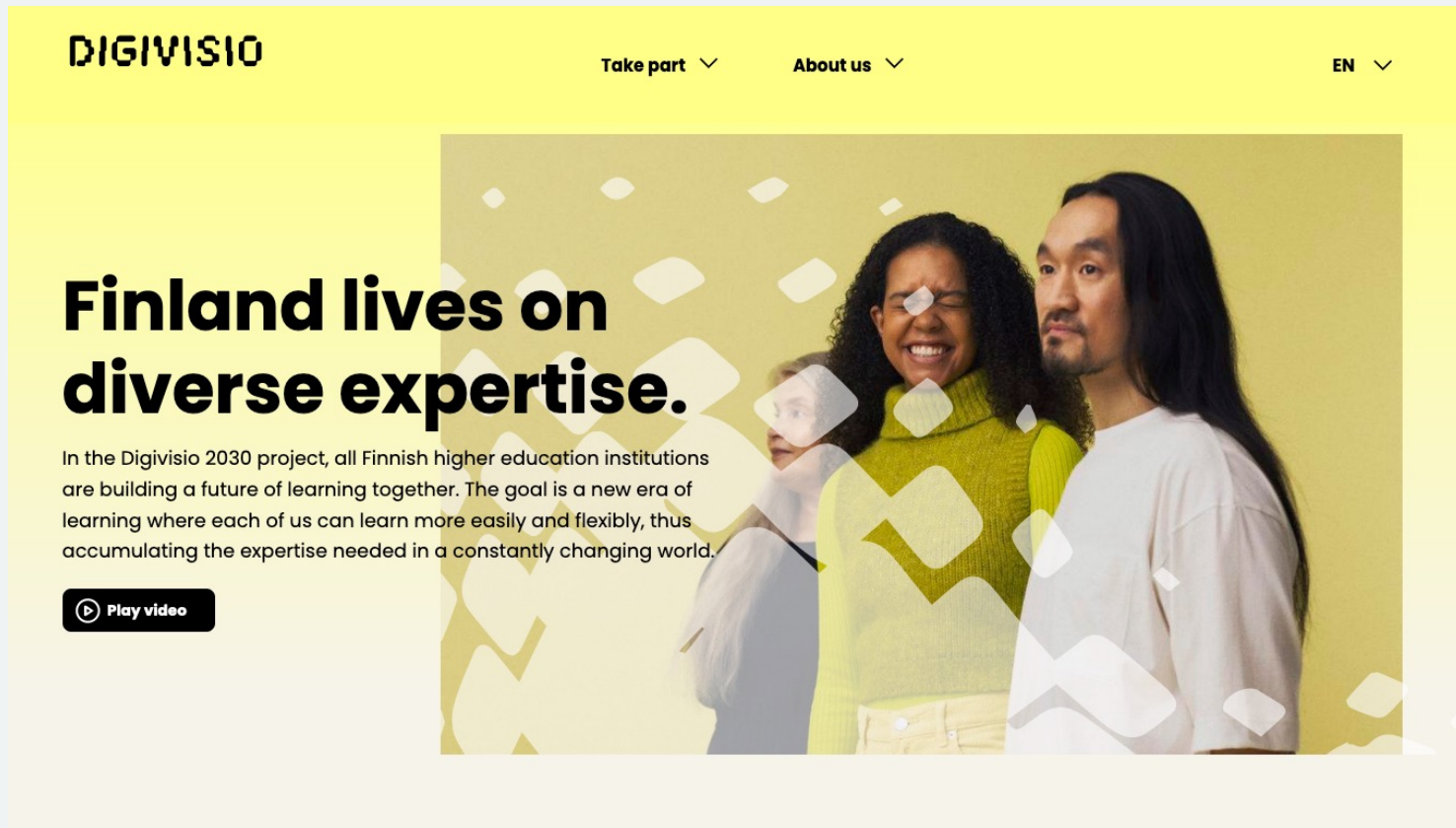


Digivisio 2030: Operationalizing a technological utopia?



- Funded by the Finnish Ministry of Education and Culture
- Involving all Finnish higher education institutions, Digivisio 2030 is a joint project whose aim is to create a future for learning that benefits higher education institutions, learners and our society as a whole. All 38 Finnish higher education institutions have signed the project's participation agreement, and the project office was established at the end of 2020. (<https://digivisio2030.fi/en/basic-information-on-the-digivisio-2030-project>)

Digivisio 2030: Operationalizing a technological utopia?



<https://digivisio2030.fi/en/frontpage/>

4 “promises” of Digivisio 2030

1. Learners have access to their own learning data and profile as well as the latest information on the trends and needs in the labour market.
2. Learner's benefit at the centre of development
3. Higher education institutes become open communities led with information
4. National learning data reserves are opened for use by individuals and society. This brings international competitiveness for the whole of Finland. Nationally shared and refined information about learners, competences, learning and study contents becomes a unique success factor.



A national digital service platform

The objective of the program is to create, as mutual and stakeholder cooperation, by 2030

1. A National digital service platform that

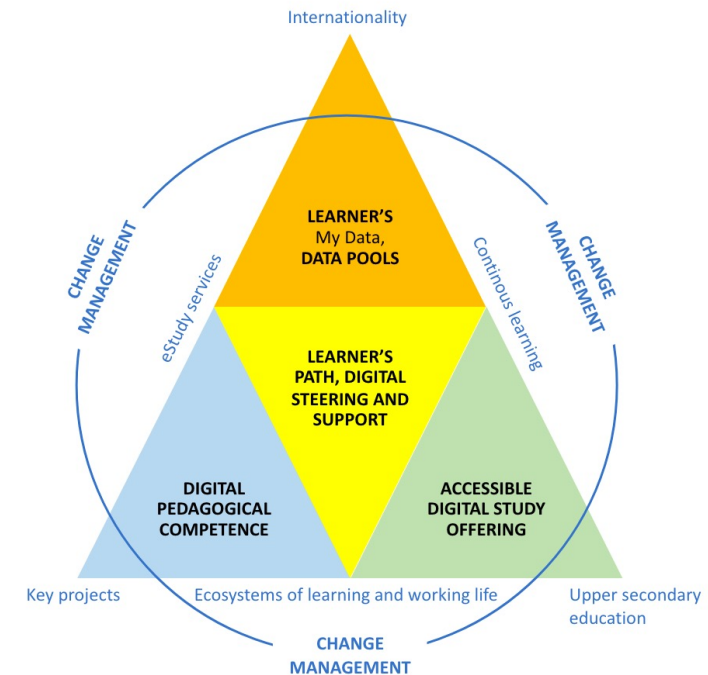
- a) enables the compatibility of digital services between higher education institutions,
- b) provides the learner's "my data" service and integrates the accumulation of the learner's competence before and after the higher education institution to the learning and career path and
- c) improves the compatibility of the actors' IT services and lowers the threshold for utilising national solutions.

2. Guidance based on digital pedagogics, the learner's path and shared data, which

- a) supports studies and student well-being regardless of time and place and in an accessible manner,
- b) Brings AI solutions as an aid in guidance, and
- c) places the learner's benefit at the centre of development.

3. Support for change management for higher education institutions, so that we can

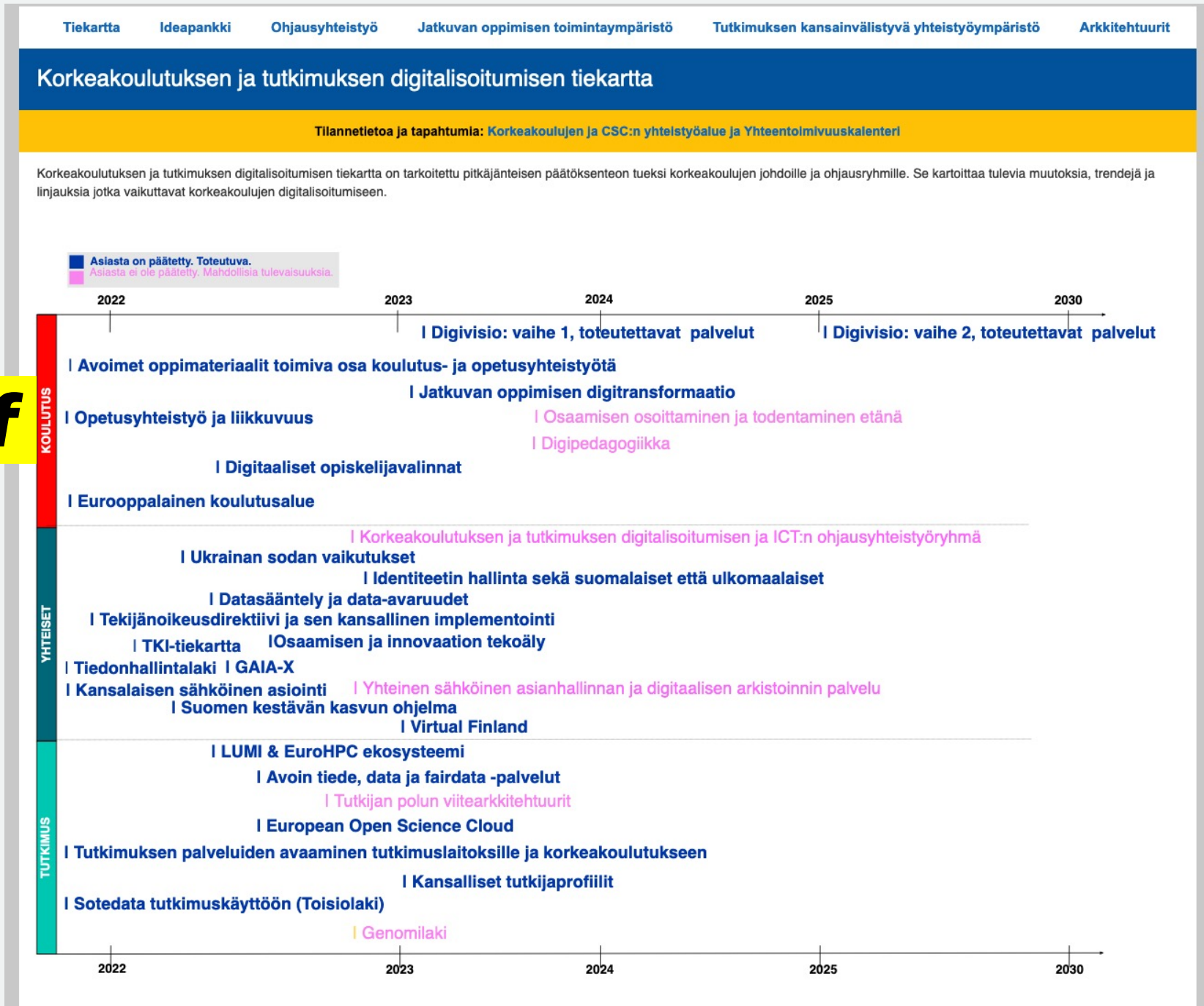
- a) introduce the national digital service platform
- b) digitize student administration processes and admission to higher education institutions,
- c) support the development of higher education institutions into open communities managed by information, and
- d) make data available for individuals and society.



<https://digivisio2030.fi/en/publications/preliminary-study-completed-changes-to-legislation/>

A preliminary study completed – the implementation of Digivisio 2030 by higher education institutions requires changes to legislation

Roadmap for digitalization of Finnish higher education and research



Connection to EU

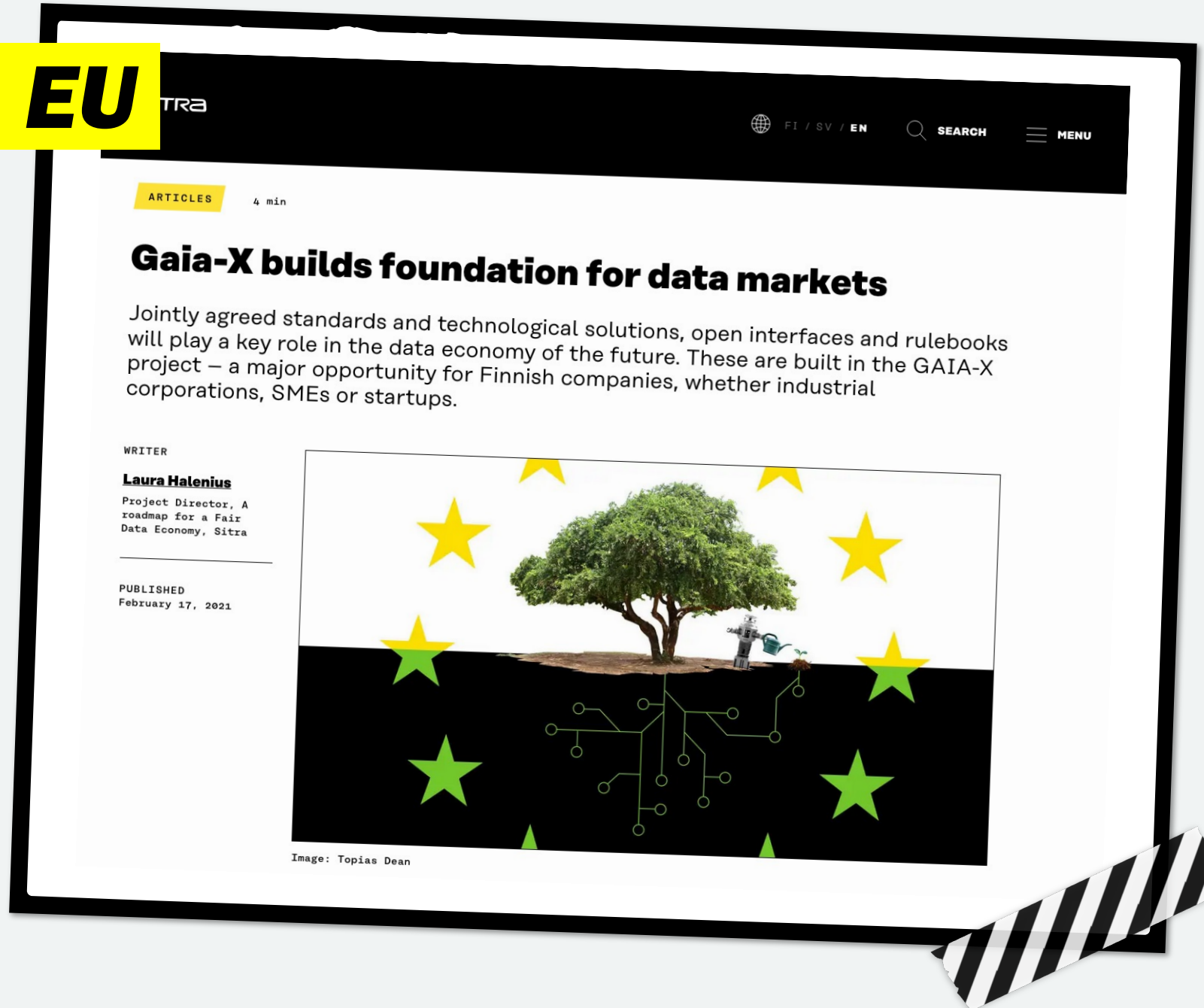
data markets

“GAIA-X is a major European initiative for trusted data sharing. It has already strong support from German and French governments and close links to European Commission. More than 300 organizations from various countries are already involved in GAIA-X. Still, the project is open to new European interested parties to join us in its development.”

<https://wiki.eduuni.fi/display/CSCTICTO R/GAIA-X>

CSC – IT Center for Science is a Finnish center of expertise in information technology owned by the Finnish state and higher education institutions.

<https://www.csc.fi/en/about-us>



***Some problematizations
and call for imagination***



In summary



Pandora's Box, E1: The Engineers' Plot (36:41)
<https://www.youtube.com/watch?v=h3gwyHNo7MI>

Pandora's Box, subtitled A Fable From the Age of Science, is a six part 1992 BBC documentary television series written and produced by Adam Curtis.



Some general problematizations

- + Abstract technological promises (e.g. “use analytics to support the student learning”) & developments that go against good pedagogical practices (e.g. “individual student paths” when a sense of community is important in online learning) (e.g. Thomas, Herbert, & Teräs, 2014).
- + Technology is multistable, it always changes human behavior and contexts in unpredictable ways (Ihde, 1998): To “work”, data, analytics and algorithms need humans to define data points and thus, abstraction of life. What happens e.g. to student experience and “learning” in such a process?
- + National data about learners as an economic “success factor” for national and international actors. A view from sociology of knowledge: There is no neutral knowledge. Anyone who says so, is not seeing it or is hiding their ideology.



- Teachers' lived experience on their work (not only teaching)
- Finnish HE teachers with 20 or more years of service
- From optimism and excitement to alienating bureaucracy
- Alienation and loss of agency hinder development

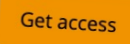
Research Article

The life and times of university teachers in the era of digitalization: A tragedy

Hanna Teräs , Marko Teräs  & Juha Suoranta 

Received 22 Apr 2021, Accepted 26 Feb 2022, Published online: 03 Mar 2022

 Download citation  <https://doi.org/10.1080/17439884.2022.2048393>  Check for updates

 Full Article  Figures & data  References  Citations  Metrics  Reprints & Permissions  Get access

ABSTRACT

Although digitalization has become an everyday phenomenon in higher education (HE), there is still limited understanding on how HE teachers experience the digitalized work environment. In this article we utilize narrative research methodology to share HE teachers' voices, addressing the following questions: What is the lived experience of being a teacher in digitalizing higher education? How has digitalization shaped the work environment in higher education? What meaning do HE teachers make of digitalization? The research participants are six university teachers with significant work experience. The findings are reported in the form of a classic tragedy narrative, which reveals that the rise of managerialism and neoliberalization in HE has changed teachers' work and the role of digital tools play in it, and teachers are experiencing an increasing sense of alienation. In conclusion, we elaborate these experiences theoretically and paint a picture of today's digitalized work environment in HE.

KEYWORDS:  Digitalization  higher education  narrative research  humanized technology



**Speculative fiction
and utopian thinking
as ways to imagine
alternative futures**

Commentaries | [Open Access](#) | [Published: 25 October 2021](#)

Speculative Social Science Fiction of Digitalization in Higher Education: From What Is to What Could Be

[Juha Suoranta](#), [Marko Teräs](#), [Hanna Teräs](#), [Petar Jandrić](#), [Susan Ledger](#), [Felicitas Macgilchrist](#) ✉ & [Paul Prinsloo](#)

Postdigital Science and Education 4, 224–236 (2022) | [Cite this article](#)

1209 Accesses | 1 Citations | 17 Altmetric | [Metrics](#)

Introduction: Unleashing Teachers' Imagination (Juha Suoranta, Marko Teräs, Hanna Teräs)

Digitalization and datafication are reshaping roles and practices in higher education. The Covid-19 pandemic has accelerated this process through the massive increase in the use of educational technology (EdTech) (Teräs et al. [2020](#)). As a part of this development, higher education is becoming increasingly data driven. Simultaneously, attempts to predict and prepare for future scenarios in education are driven by intergovernmental organization reports from OECD and UNESCO, in addition to national initiatives in digital education (Suoranta et al. [2022](#)). In these future scenarios, datafication, big data, learning analytics, and artificial intelligence promise more efficient and predictable higher education.



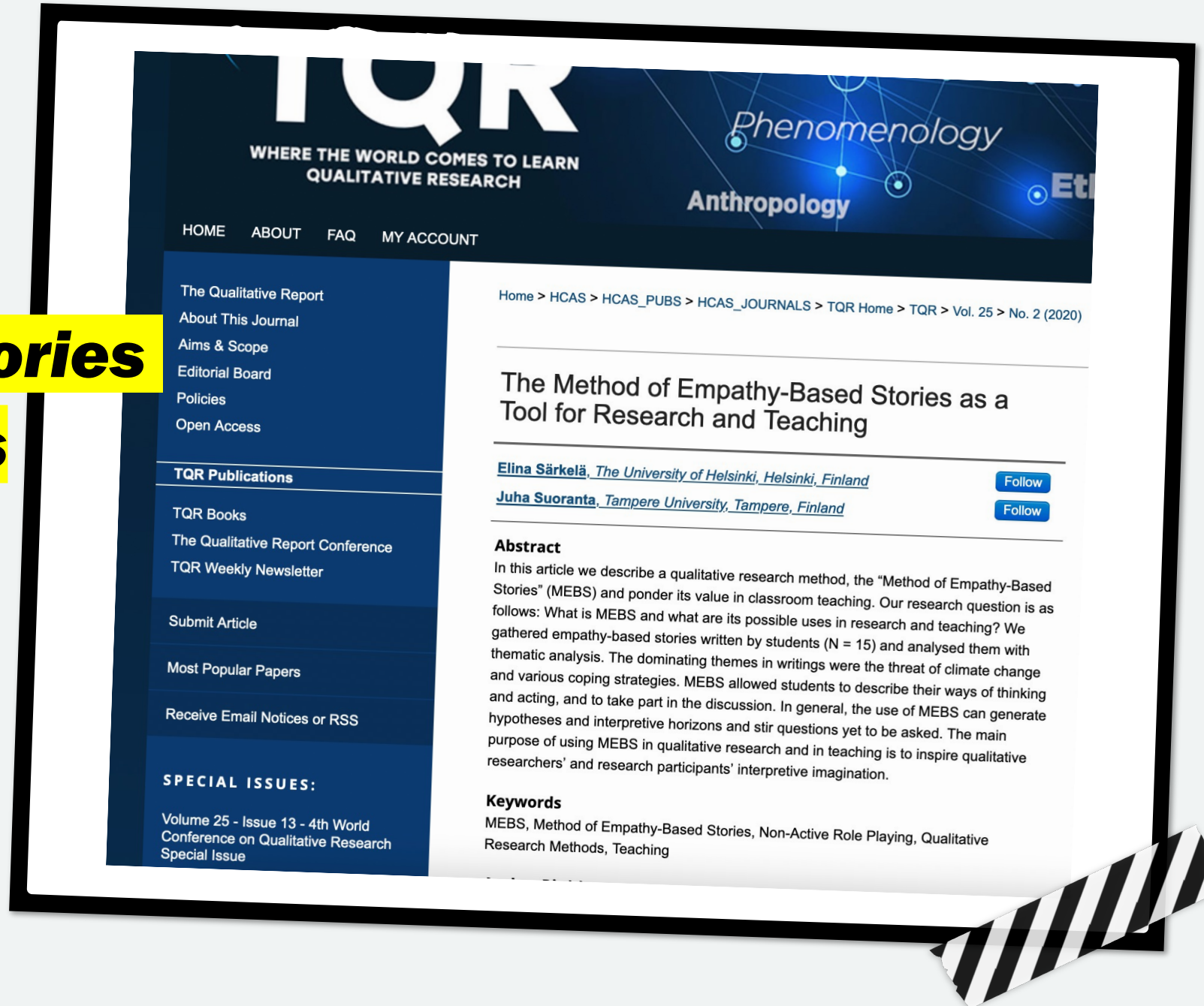
Speculative social science fiction of digitalization in higher education: Towards a humanized digital future

- The visions and practices of data-driven education tend to reduce teachers in Higher Education as objects of digitalization, rather than active subjects participating in the shaping of digital futures.
- Envisioning possible digital futures in teaching and learning.
- Teachers' perspectives of datafication.
- Development of innovative methodologies to reimagine digital education and a more humanized and emancipatory educational data science development.
- Methodology of institutional ethnography and speculative social science fiction.
- **Partners:** **Petar Jandrić** Professor of Informatics, Zagreb University of Applied Sciences & Visiting Professor of Education, University of Wolverhampton, UK; **Susan Ledger** Head of School – Dean of Education, (University of Newcastle Australia); **Felicitas Macgilchrist** Head of the Media | Transformation, Georg-August-University of Goettingen's Institute of Education, Germany; **Paul Prinsloo** Professor at University of South Africa Unisa.



Collaboration and research data collection with Empathy-Based Stories and other methods

- “It is 2050 and digitalization of education has developed further. The developments have been positive/negative for the teacher. Why? Imagine a situation and write a short story about it.”



Selected Publications

- Teräs, M., Suoranta, J., & Teräs, H. (2023). From Official Document Utopias to Collective Utopian Imagination [Manuscript submitted]. In F. Macgilchrist & A. Weich (Eds.), *Postdigital Participation in Education*. Palgrave Macmillan.
- Teräs, H., Teräs, M., & Suoranta, J. (2022). The life and times of university teachers in the era of digitalization: A tragedy. *Learning, Media and Technology*, 1–12.
<https://doi.org/10.1080/17439884.2022.2048393>
- Suoranta, J., Teräs, M., Teräs, H., Jandrić, P., Ledger, S., Macgilchrist, F., & Prinsloo, P. (2021). Speculative Social Science Fiction of Digitalization in Higher Education: From What Is to What Could Be. *Postdigital Science and Education*.
<https://doi.org/10.1007/s42438-021-00260-6>
- Teräs, M., Suoranta, J., Teräs, H., & Curcher, M. (2020). Post-Covid-19 Education and Education Technology ‘Solutionism’: A Seller’s Market. *Postdigital Science and Education*, 2(3), 863–878. <https://doi.org/10.1007/s42438-020-00164-x>



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CARDE research group: `https://carde.group`

