# Speculative Fiction of Digital Futures in Higher Education

NERA 2023

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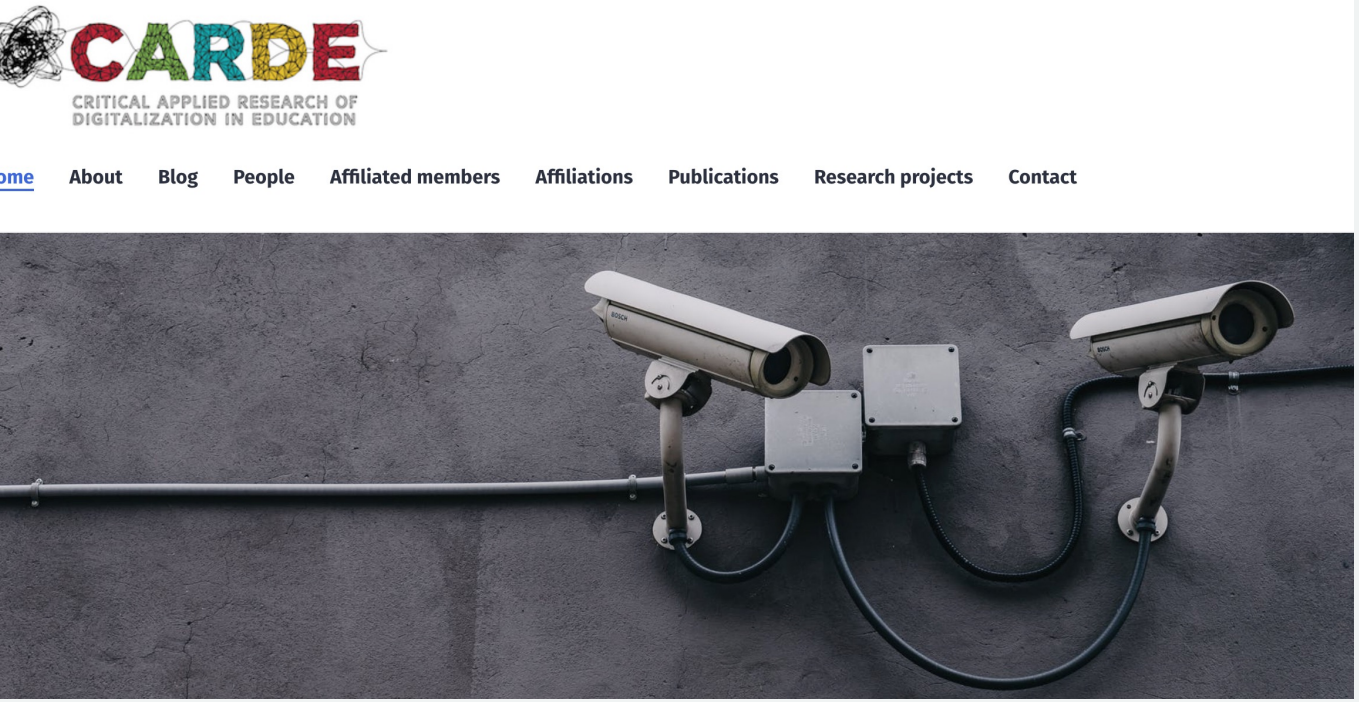
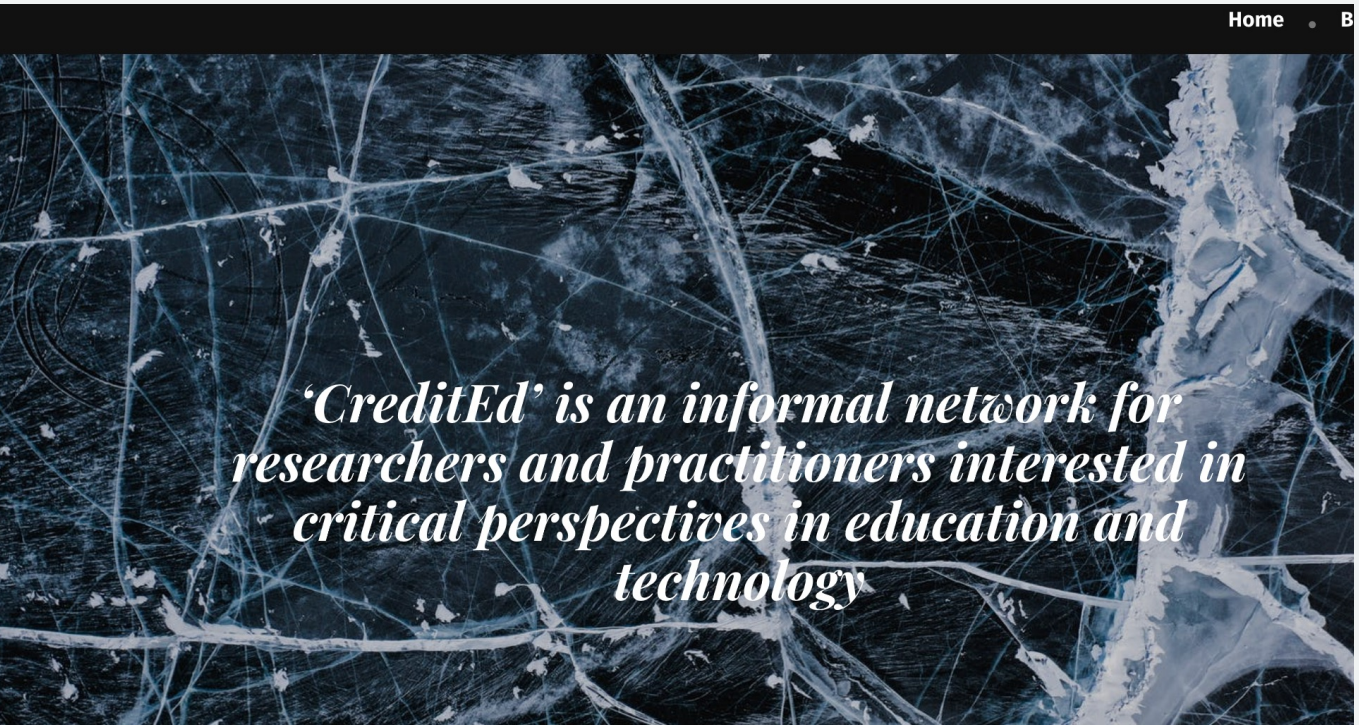
CARDE
CRITICAL APPLIED RESEARCH OF DIGITALIZATION IN EDUCATION




**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

# BUKA Project

## Advancing Equity and Access to Higher Education Through Open and Distance Learning

The aim of the project is to promote equity and access to higher education in Malaysia, Indonesia and Philippines through the use of inclusive instructional design (ID) and learning analytics (LA) in online and blended learning, especially in the context of Open and Distance Learning (ODL).

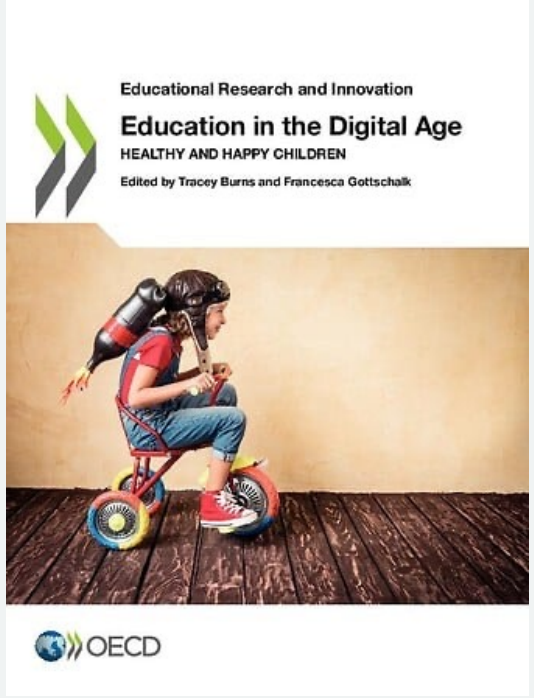
In memory of Professor Dr Zoraini Wati Abas

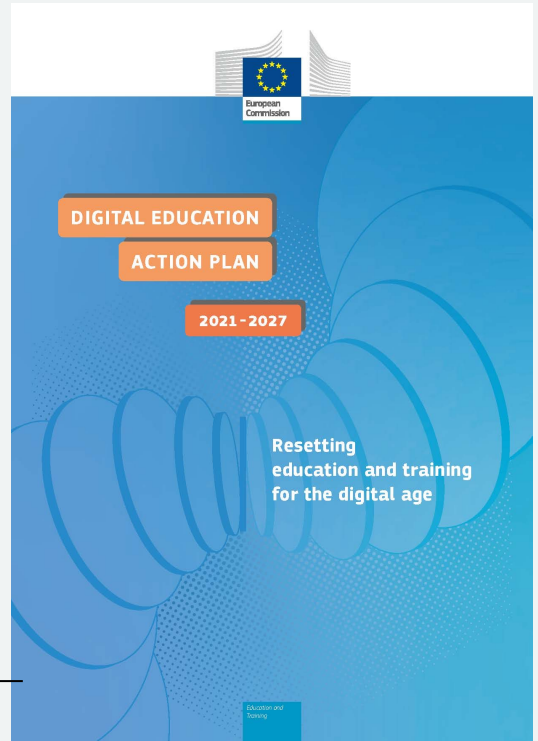
# Current research project

- “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

Our journey so far
with the research
of digitalization

# Future visions





# Future visions

Sitra, the Finnish Innovation Fund, is an independent public foundation which operates directly under the supervision of the Finnish Parliament.

MINISTRY OF EDUCATION AND CULTURE

Search

Areas of Expertise + | Current issues | Project and legislation | Publications | Subsidies | Ministry | Contact information

OPETUS- JA KULTTUURIMINISTERIÖ / EN / AREAS OF EXPERTISE / HIGHER EDUCATION AND RESEARCH / POLICY AND DEVELOPMENT IN HIGHER EDUCATION AND SCIENCE / VISION 2030

## 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.

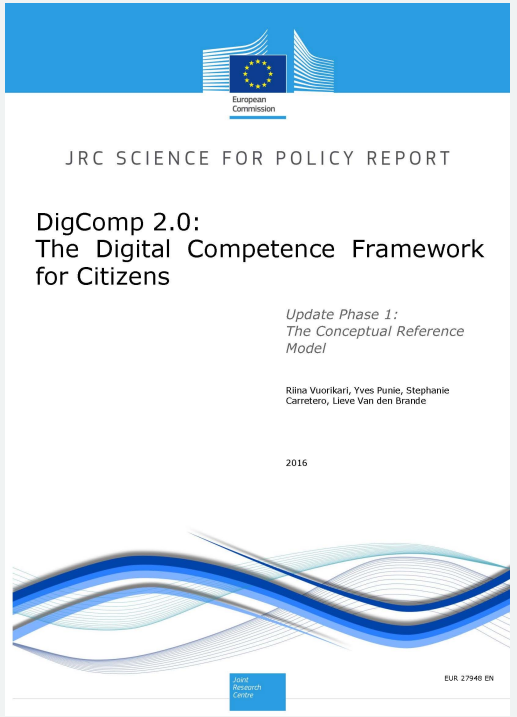
The work was carried out in broad and open cooperation with the higher education institutions and their staff, students and stakeholders.

### See also

Roadmap for Implementing Vision 2030 PDF 736kB 31.1.2019

Proposal for Finland PDF 467kB 24.10.2017

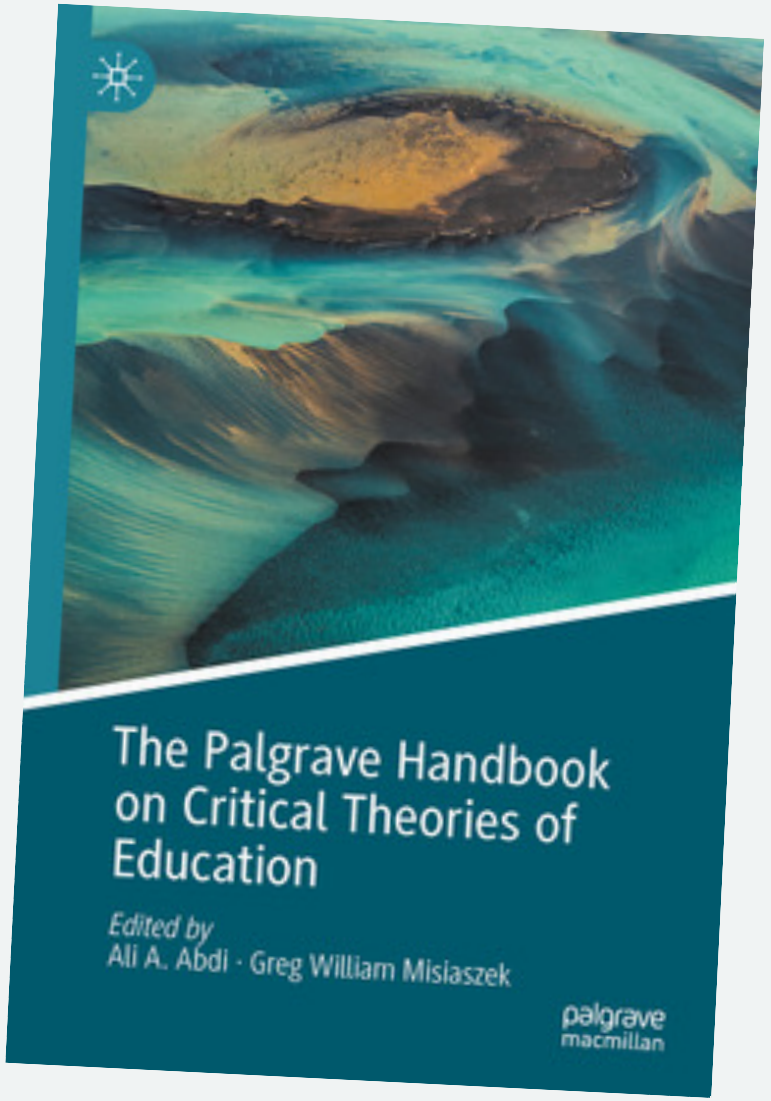
OECD report on collaboration among higher education institutions PDF 1.1MB 17.11.2017



**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)



# 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

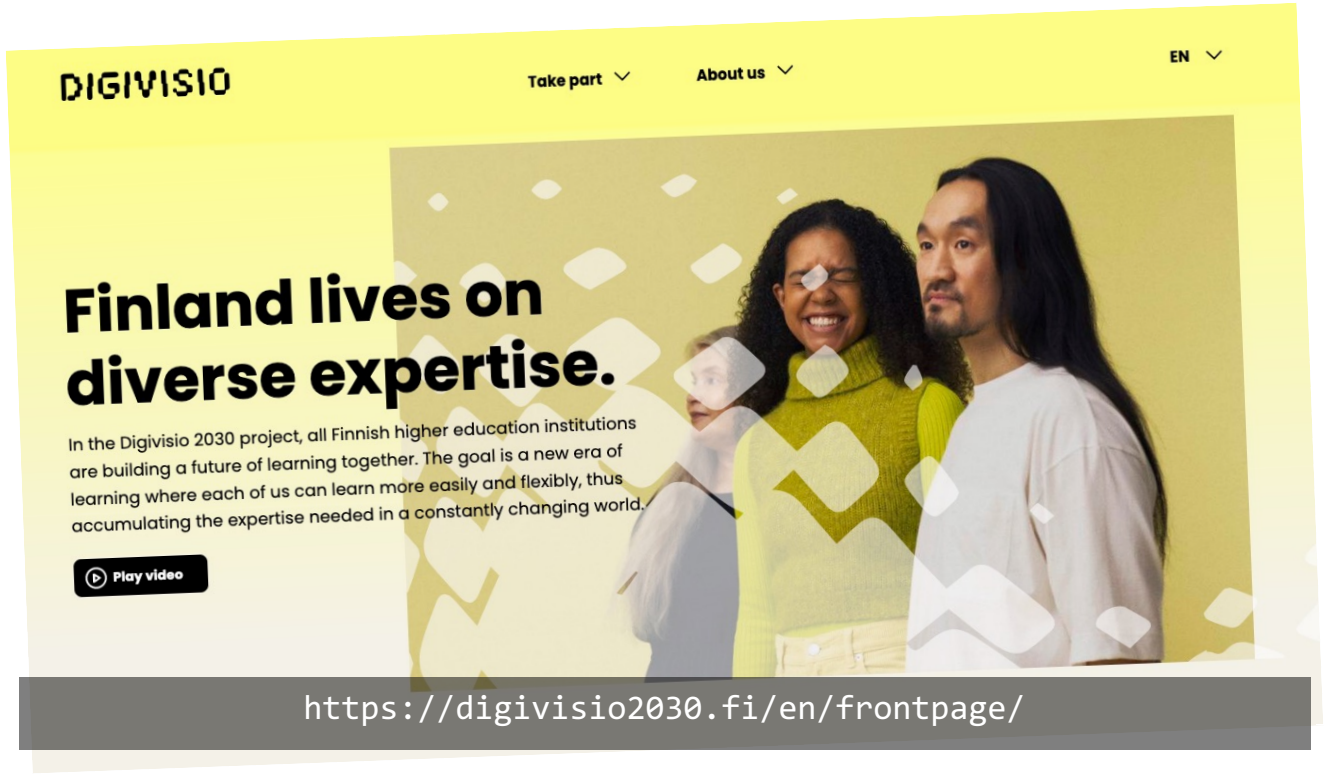
“Utopia”:
Thomas More coined the word as the title and locus of his 1516 Utopia in a pun which conflates *outopos* or no place and *eutopos* or good place. Consequently utopia is widely understood as an imagined perfect society or wishfully constructed place which does not and cannot exist. (Ruth Levitas,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

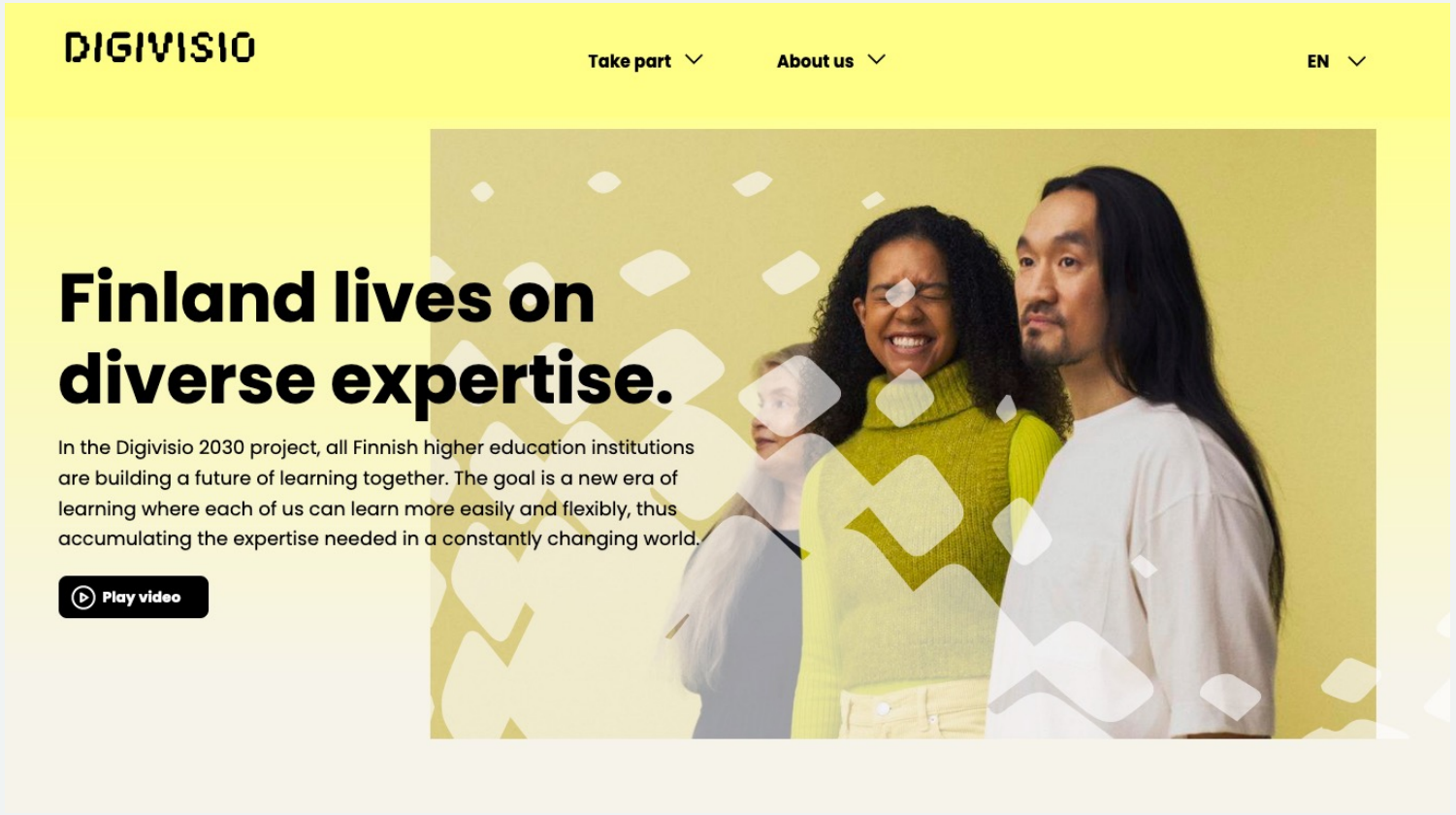
# Digivisio 2030: Operationalizing a technological utopia?




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

- 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/

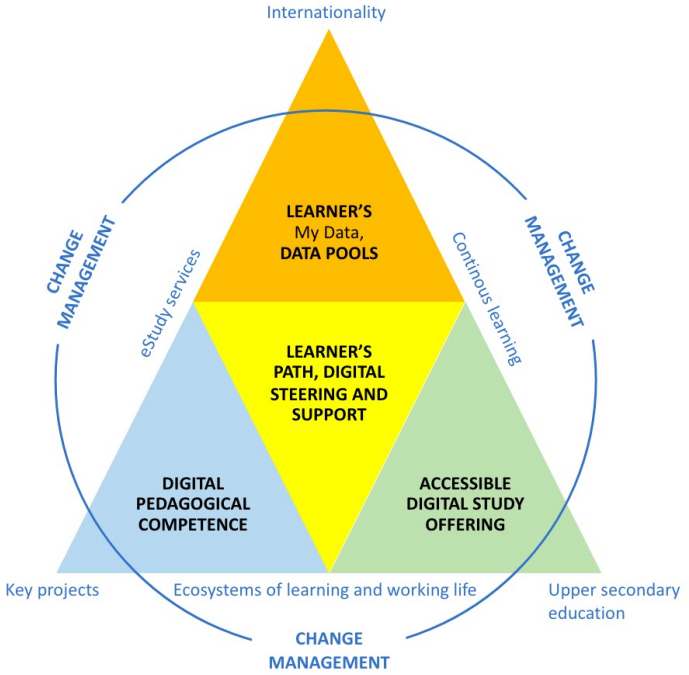
## 4 “promises” of Digivisio 2030

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

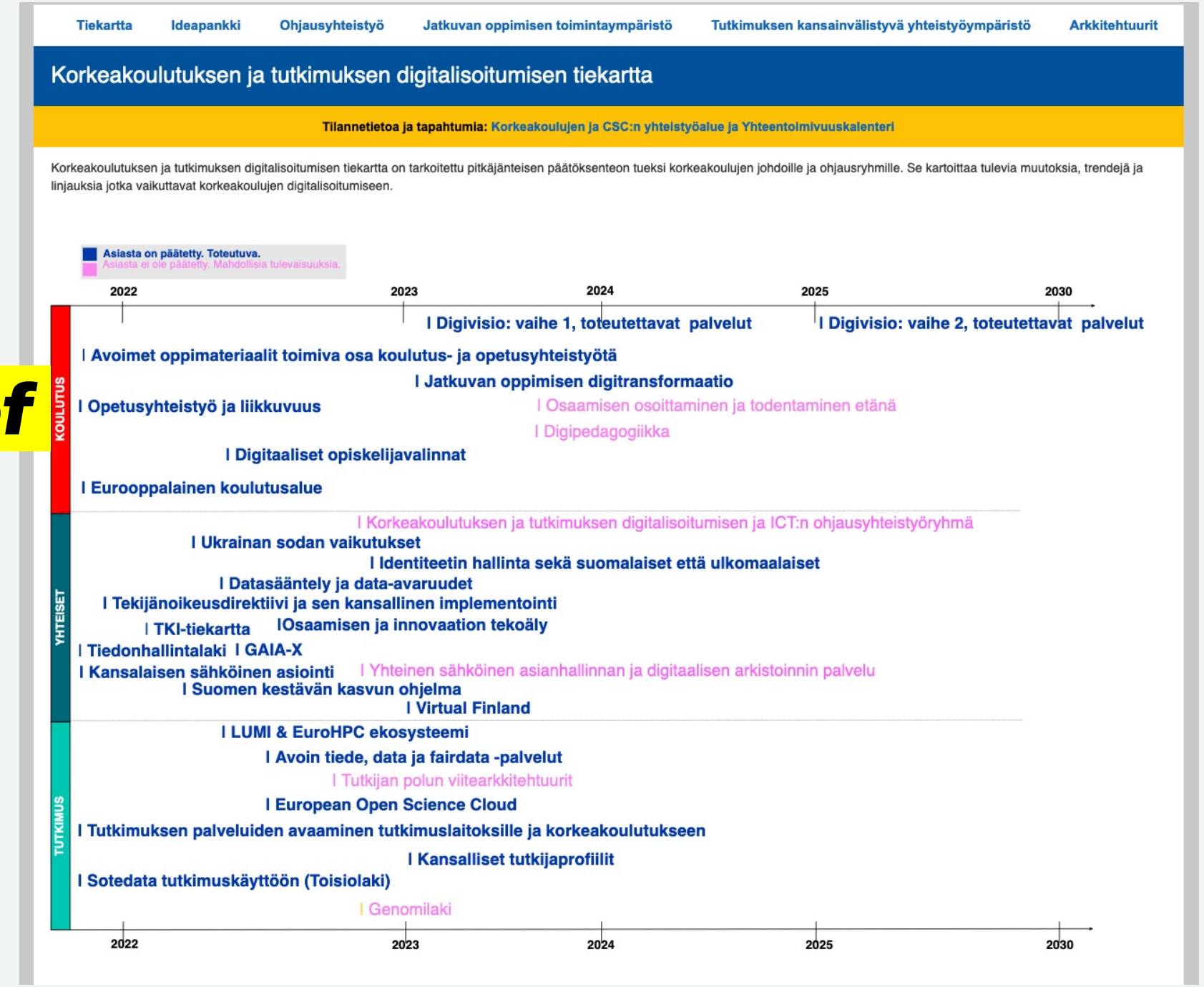
1. **A National digital service platform that**
   a) enables the compatibility of digital services between higher education institutions,
   b) provides the learner's "my data" service and integrates the accumulation of the learner's competence before and after the higher education institution to the 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 reguires changes to legislation

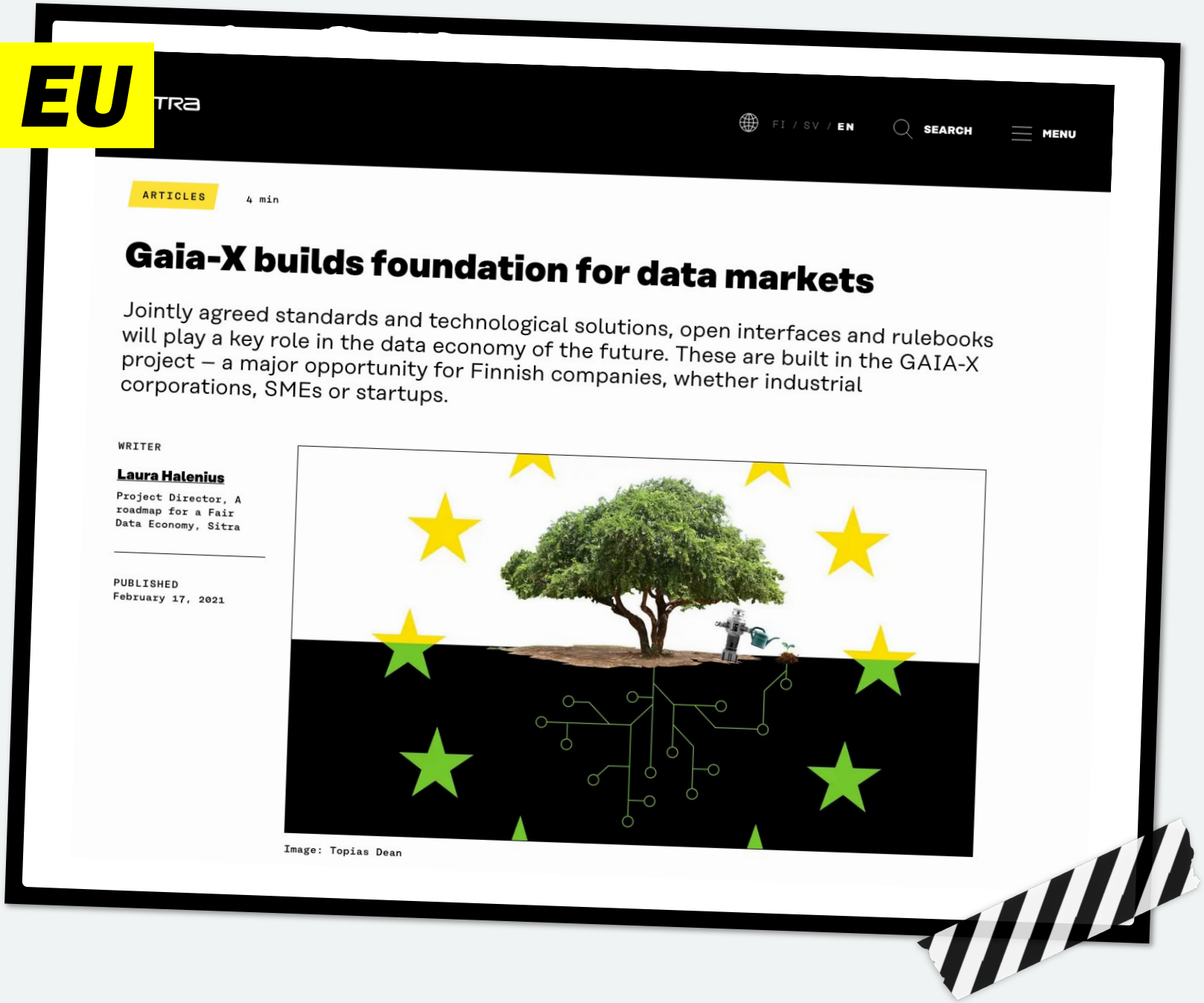
# Roadmap for digitalization of Finnish higher education and research



# 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/CSCTICTOR/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

# Some general problematizations

+ Abstract technological promises (e.g. “use analytics to support the student learning”) & developments that go gainst 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.

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

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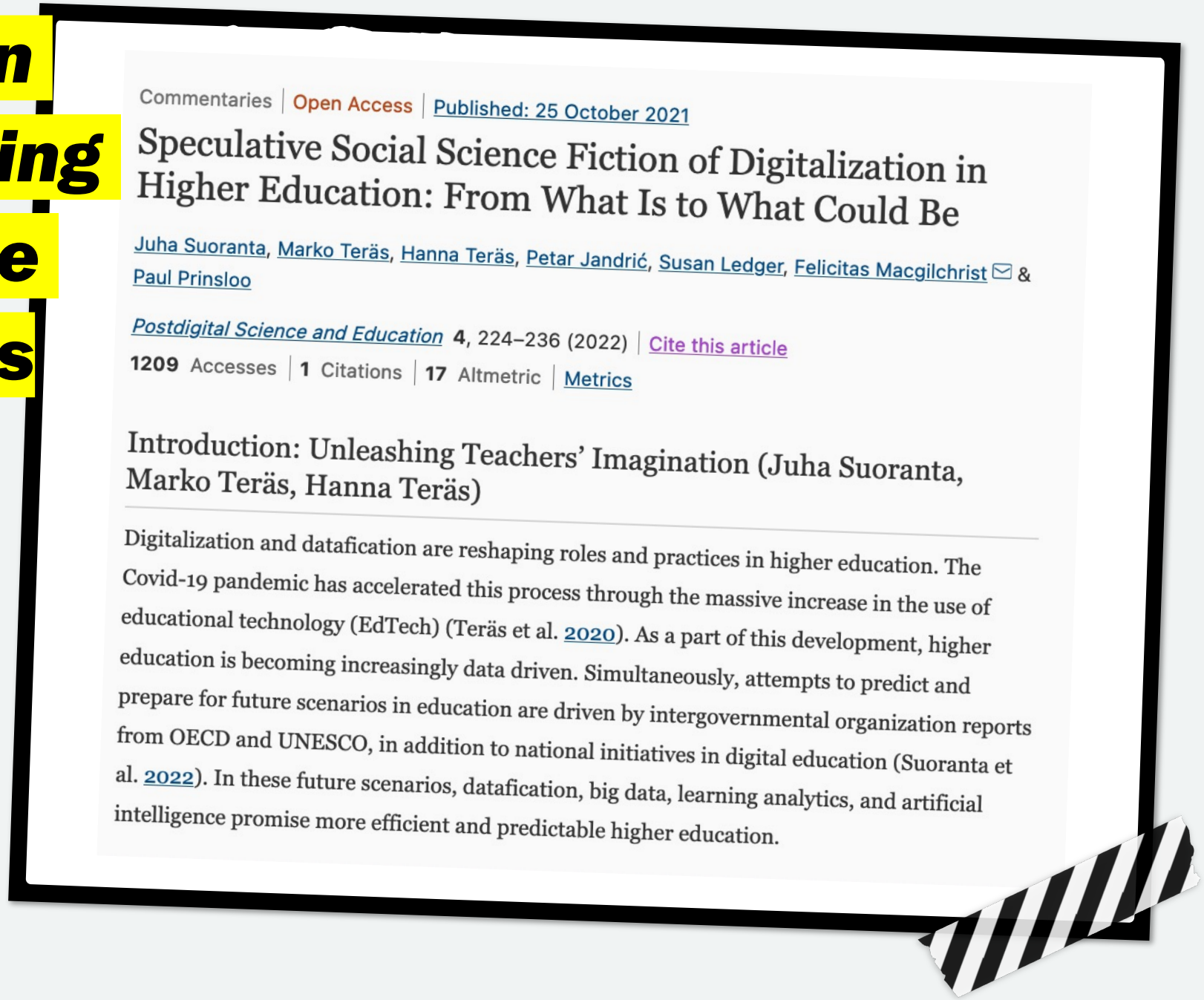
## ABSTRACT

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

- 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

# 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

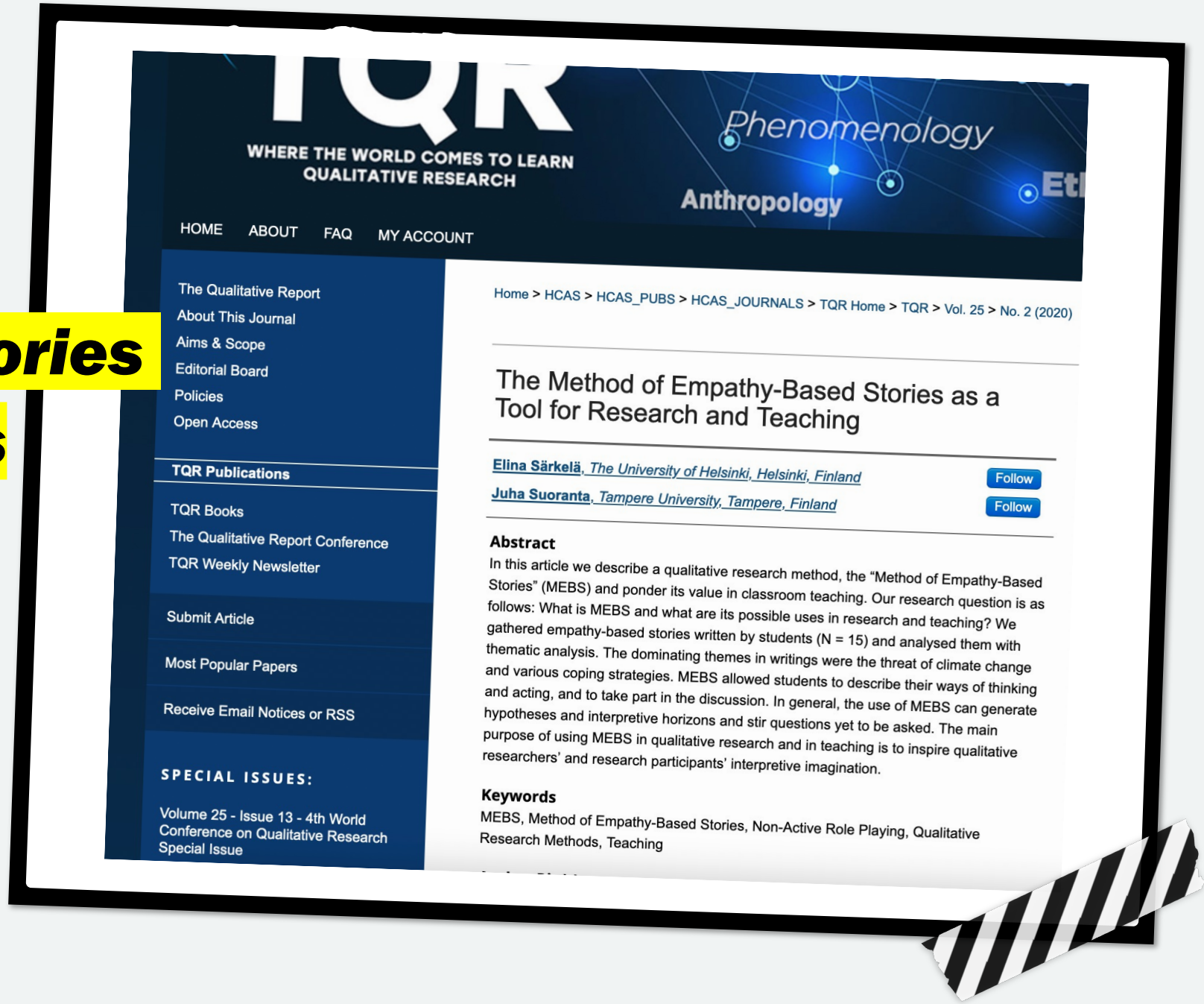
**1209** Accesses | **1** Citations | **17** Altmetric | Metrics

### 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.

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

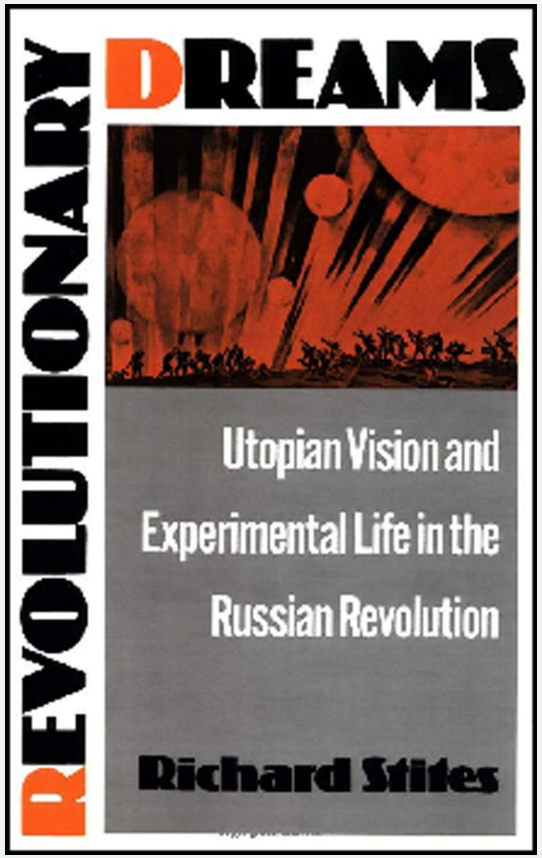
"It is 2050 and digitalization of education has developed further. The developments have been positive/negative for the teacher. Why? Imagine a situation and write a short story about it."

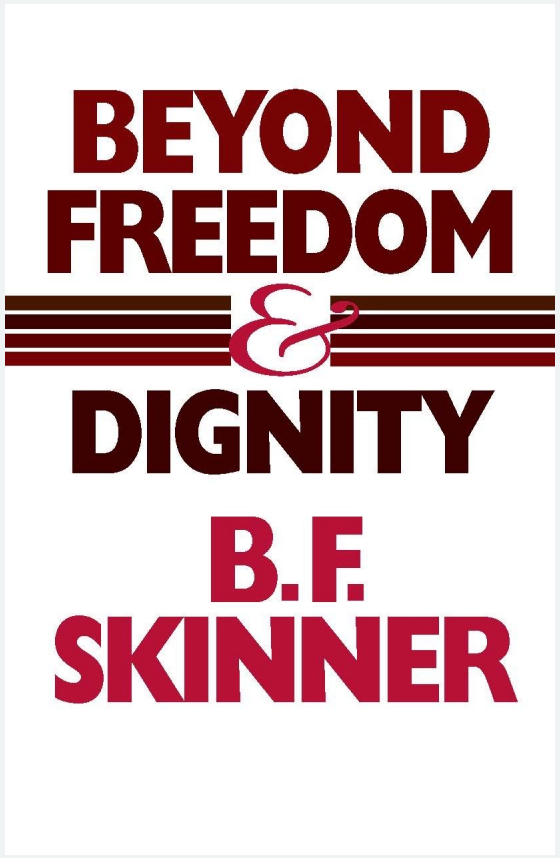


***Oh, one last thought...***

# What if digitalization is not?

# What's really new and what are the possible points of influence?




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.

# Selected Publications


Teräs, M., Suoranta, J., & Teräs, H. (2023). From Official Document Utopias to Collective Utopian Imagination. In F. Macgilchrist & A. Weich (Eds.), *Postdigital Participation in Education*. Palgrave Macmillan.

Suoranta, J. & Teräs, M. (forthcoming). Future Workshops as Postdigital Research Method. In Jandrić, P., MacKenzie, A., & Knox, J. (Eds.) *Postdigital Research Methods*. Springer.

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

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