

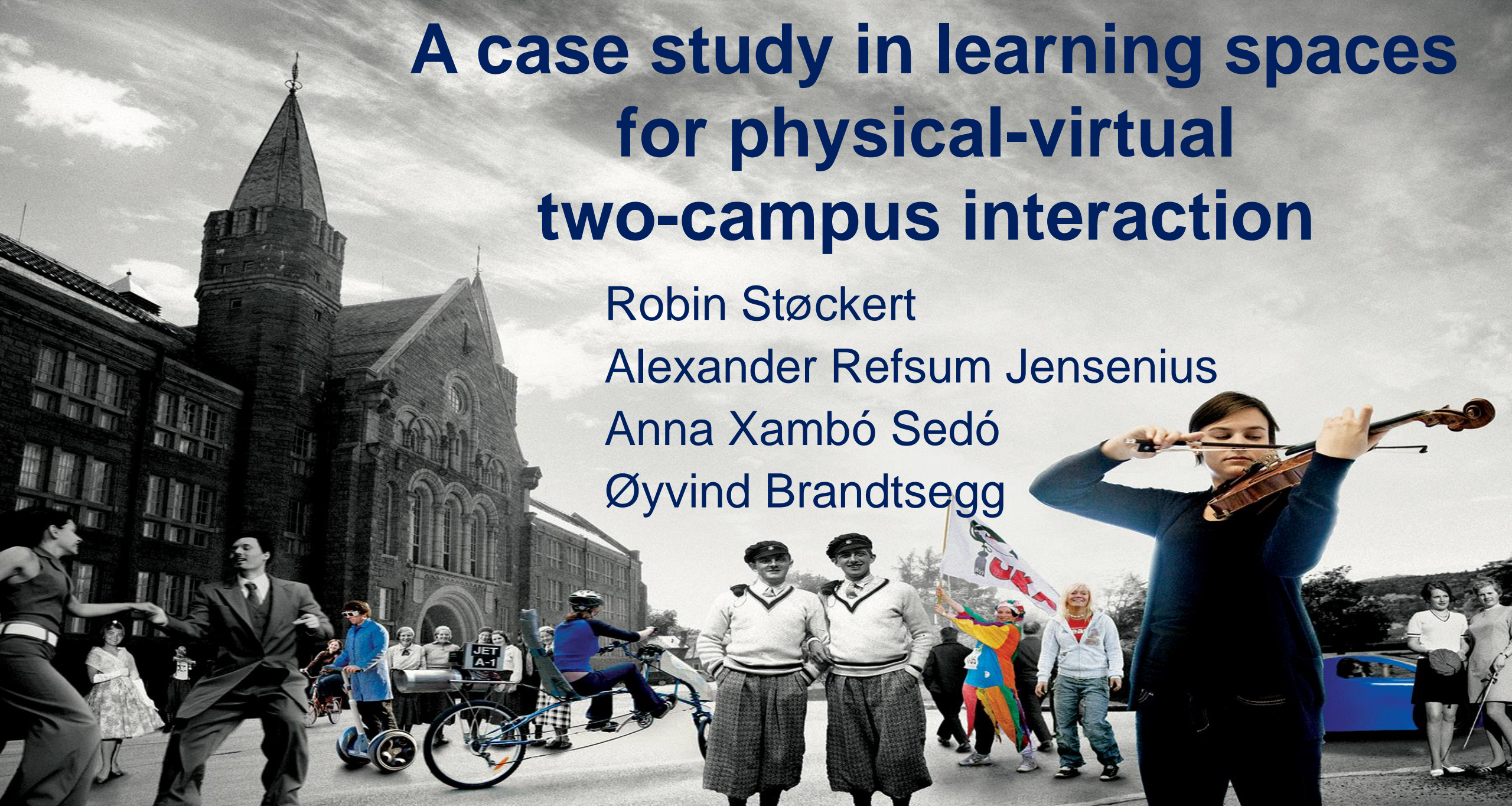
# A case study in learning spaces for physical-virtual two-campus interaction

Robin Støckert

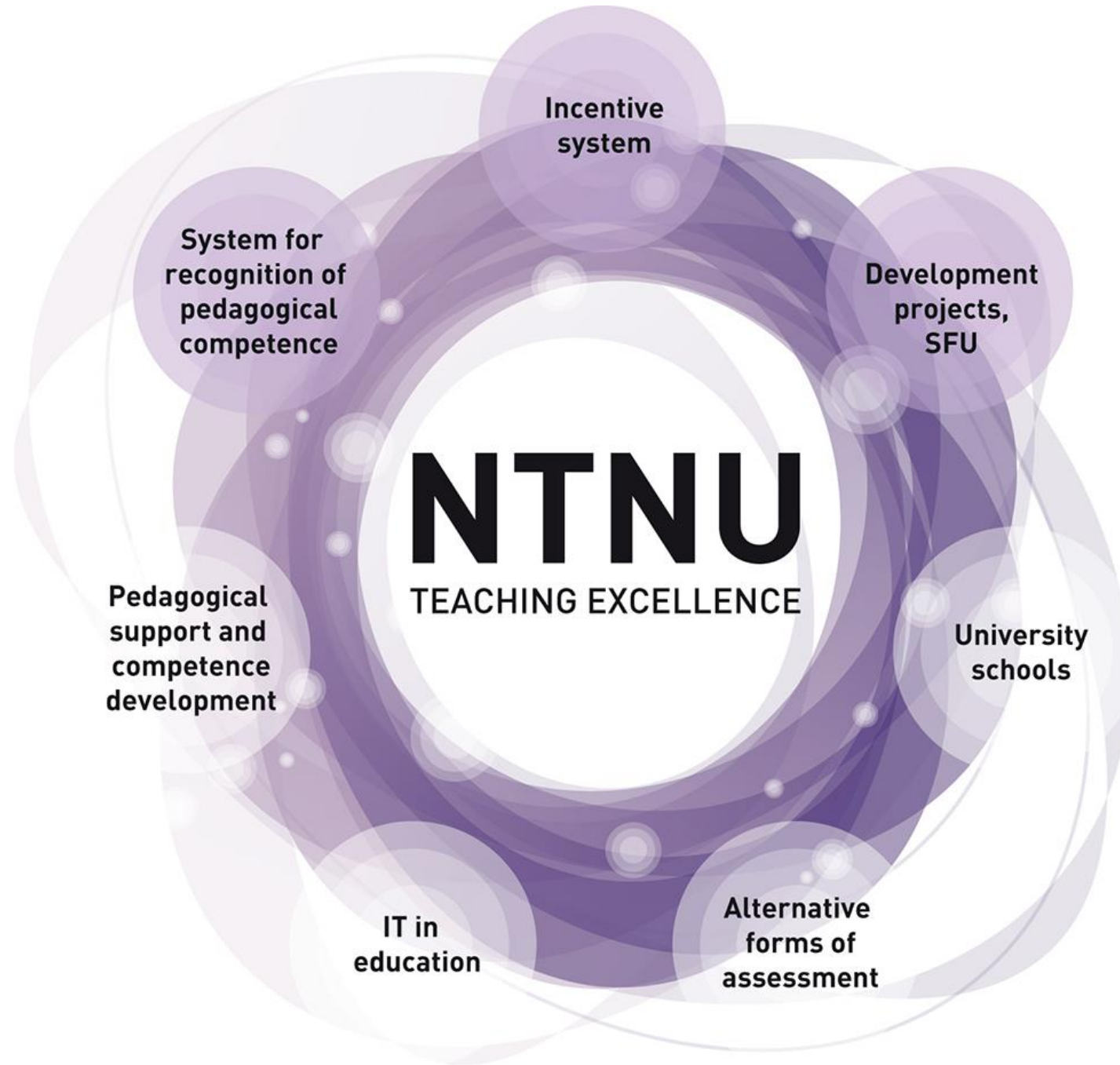
Alexander Refsum Jensenius

Anna Xambó Sedó

Øyvind Brandtsegg







# SALTO

*Student Active Learning in  
a Two campus Organization*

# International joint Master's programme in Music, Communication & Technology



UiO : **University of Oslo**

[www.ntnu.edu/studies/mct](http://www.ntnu.edu/studies/mct)  
[www.uio.no/mct-master](http://www.uio.no/mct-master)



**NTNU – Trondheim**  
Norwegian University of  
Science and Technology

***MCT***

# ***PORTAL***

ZOOM

LOLA DANTE ST2021

STREAMING

LMS & SM

CONTROL

INTERACTION

COMMUNICATION

COLLABORATION

BYOD

SHARING

NETWORK

PORTAL NTNU

PORTAL UIO

Group rooms

Workspace

Decompression  
Chamber

Labs/studios

Other local  
resources

Group rooms

Workspace

Decompression  
Chamber

Labs/studios

Other local  
resources

EXTERNAL PARTNERS  
AND RESOURCES

# ***SALTO LIVING LAB***

***EVALUATE & ELABORATE  
RESEARCH BASED  
PEDAGOGY  
METHODOLOGY  
COMMUNICATION  
COLLABORATION  
STUDENT ACTIVE  
TEAM BASED  
FLIPPED LEARNING  
DEVELOP LEARNING SCENARIOS  
SCALABILITY***

**PORTAL NTNU**

**PORTAL UIO**

Group rooms

Workspace

Decompression  
Chamber

Labs/studios

Other local  
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Group rooms

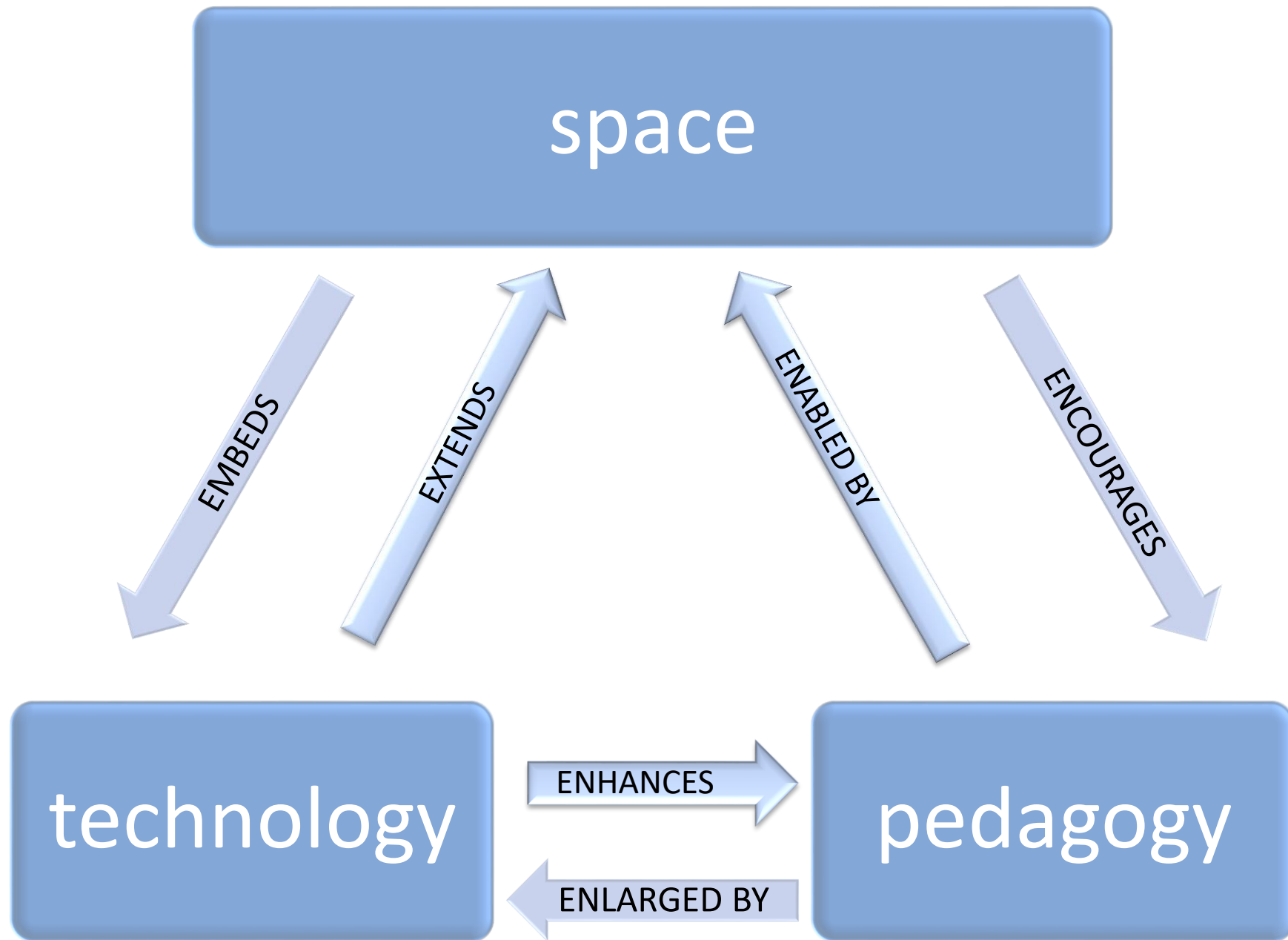
Workspace

Decompression  
Chamber

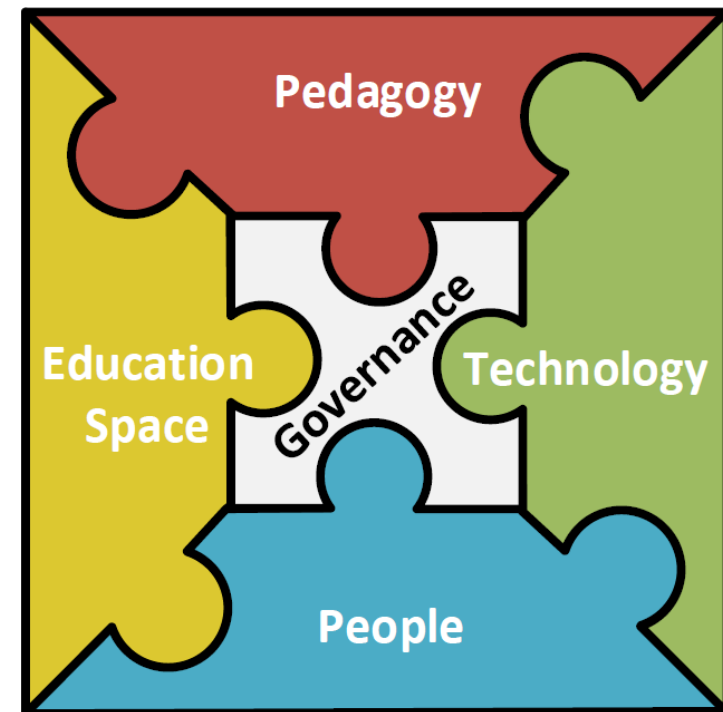
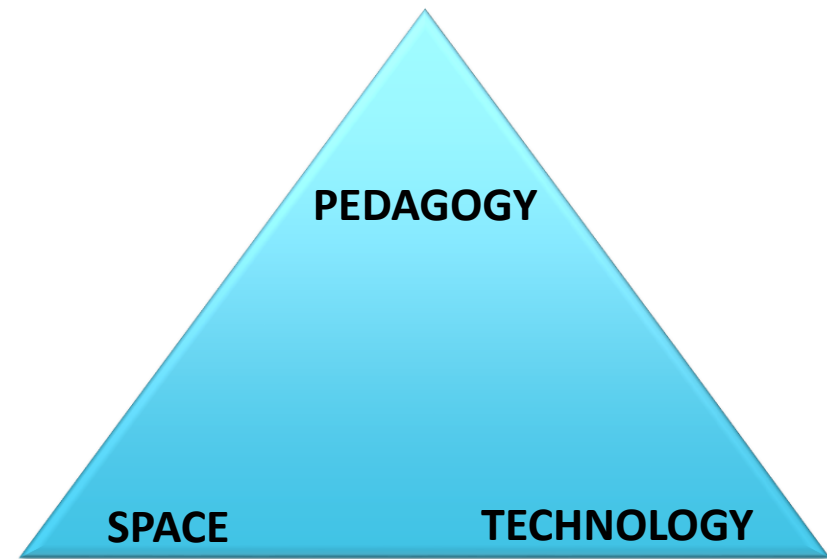
Labs/studios

Other local  
resources

***EXTERNAL PARTNERS  
AND RESOURCES***









# Student Active learning

1. Shorter group projects with a duration of one week, aimed as a specialization in subject-specific topics
2. Problem-based learning in the form of semester-long projects with external clients.
3. Setting up, running and documenting the portal



The Opening Ceremony done by Rector Gunnar Bovim(NTNU)  
and Rector Svein Stølen (UiO)





The Opening Ceremony: Performance: "Superstring theories" by Øyvind Brandtsegg & Bernt Isak Wærstad





The Opening Ceremony: Performance: "Stillness under Tension"  
(UiO-NTNU muscle band)







The Opening Ceremony: Performance: "Stillness under Tension"  
Behind the scenes





The Christmas Concert





A cross-university campus course

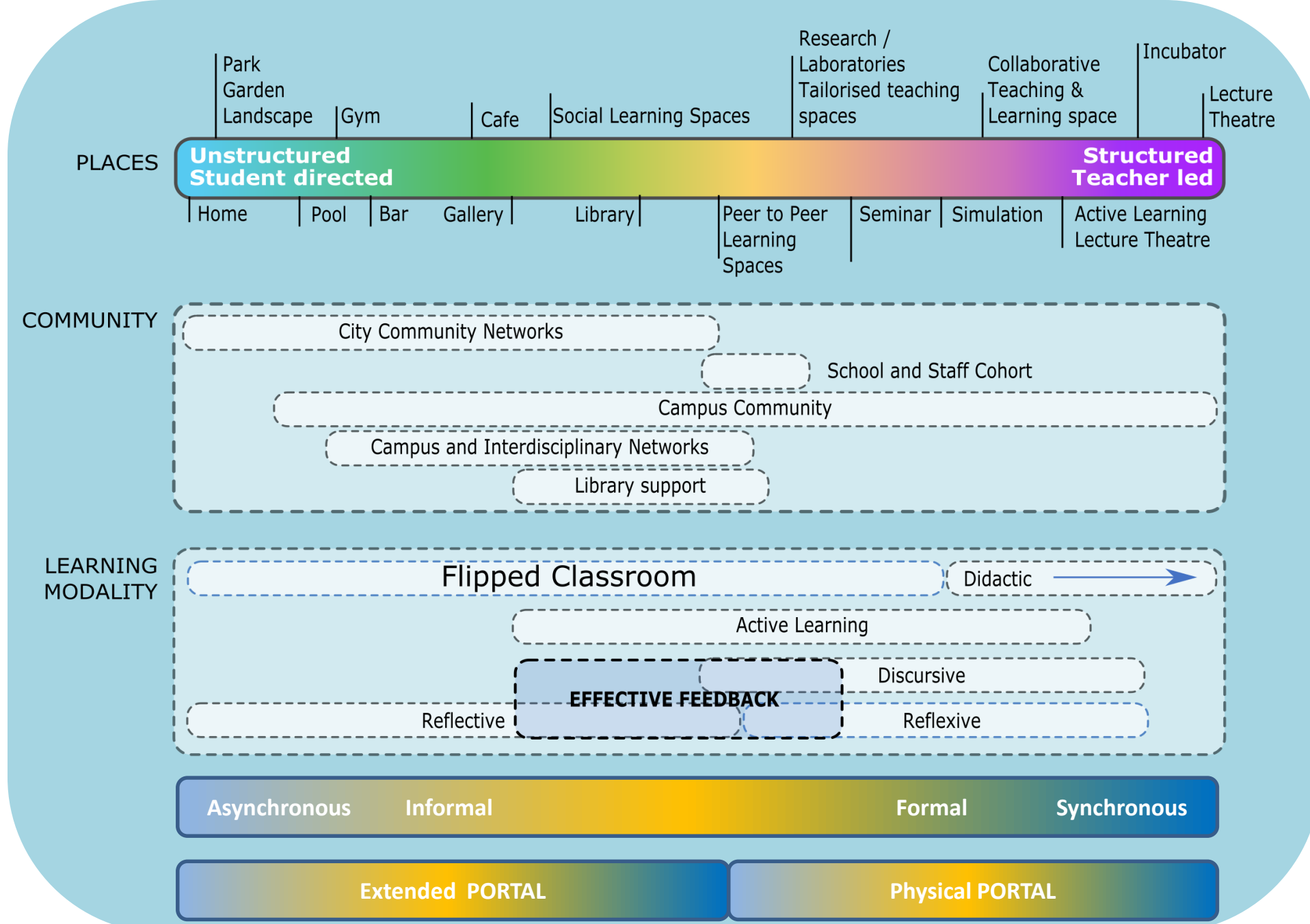
## *Identified challenges*

- **Network**
- **Audio-visual Quality**
- **Seamless Experience**
- **Other Factors**



# Future work

- Define and refine basic building blocks
  - Pedagogy/methodology
  - Space
  - Technical solutions
- Learning scenarios
- Anchor



“the success of creation spaces can be traced back to careful design at the outset by a small group of people who were very thoughtful about the conditions required to foster or “scaffold” scalable collaboration, learning, and performance improvement.”

— John Seely Brown, [The Power of Pull: How Small Moves, Smartly Made, Can Set Big Things in Motion](#)

# Potential

- Teamwork: real world. Real complex problems
- Be part of drawing the future of learning platforms
- Be part of unique experiences
- Meet and work with incredibly talented people
- Be exposed to the latest technologies
- Combine skills from technical and humanist fields



# ***Challenges with implementation of student active learning***

- **Institutional inertia**
- **The quality of courses for teachers**
- **Academic leadership**

# Challenges

- Individual vs group work assessment
- Experimental vs traditional learning
- Mobility across groups (life moves fast!)
- The beginning of a master program... all is possible but many difficulties too (technical, conceptual)
- Studying abroad in an international master's program
- Do research and teaching at the same time / space

If you can design the physical space, the social space, and the information space all together to enhance collaborative learning, then that whole milieu turns into a learning technology, and people just love working there, and they start learning with and from each other.

John Seely Brown

# MCT

Two campus Master`s  
program

Music, communication and Technology



# MUSIC, COMMUNICATION AND TECHNOLOGY



UiO • University of Oslo



NTNU



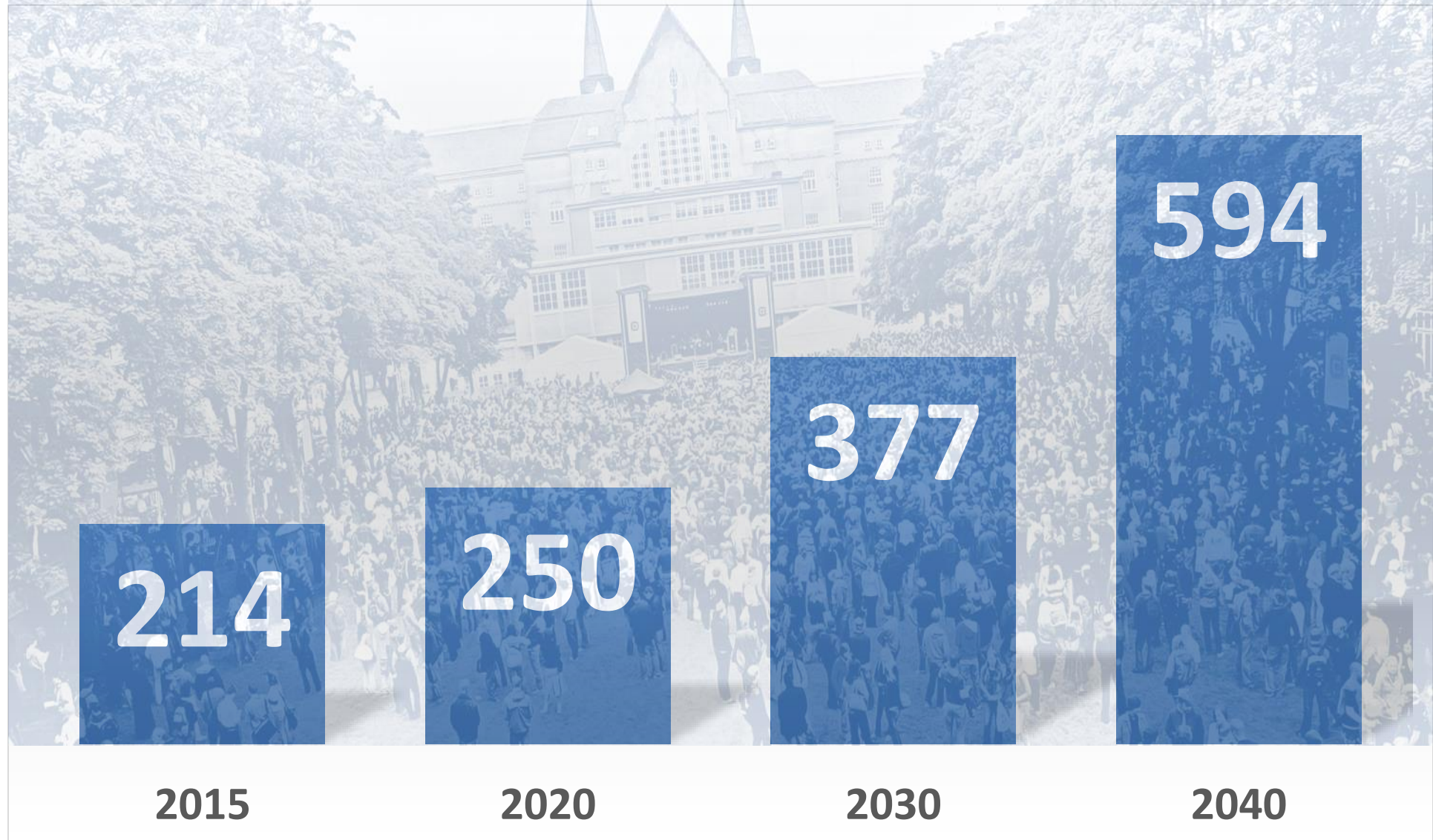
500  
Km





# Worldwide higher education enrolment

Source: Calderon, UNESCO







## 21st-Century Skills

### Foundational Literacies

How students apply core skills to everyday tasks



1. Literacy



2. Numeracy



3. Scientific literacy



4. ICT literacy



5. Financial literacy



6. Cultural and civic literacy

### Competencies

How students approach complex challenges



7. Critical thinking/  
problem-solving



8. Creativity



9. Communication



10. Collaboration

### Character Qualities

How students approach their changing environment



11. Curiosity



12. Initiative



13. Persistence/  
grit



14. Adaptability



15. Leadership



16. Social and cultural awareness

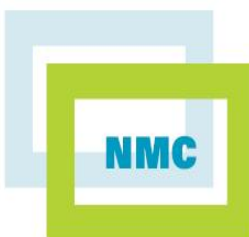
Lifelong Learning





## Horizon Report 2018 Higher Education Edition

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**Horizon Report** > 2018 Higher Education Edition  
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## LEARNING AND TEACHING WITH TECHNOLOGY IN HIGHER EDUCATION

– a systematic review

SØLVI LILLEJORD, KRISTIN BØRTE, KATRINE NESJE AND ERIK RUUD



## CAMPUSUTFORMING FOR UNDERVISNING, FORSKNING, SAMARBEID OG LÆRING

– en systematisk kunnskapsoversikt

SØLVI LILLEJORD, KRISTIN BØRTE, KATRINE NESJE OG ERIK RUUD

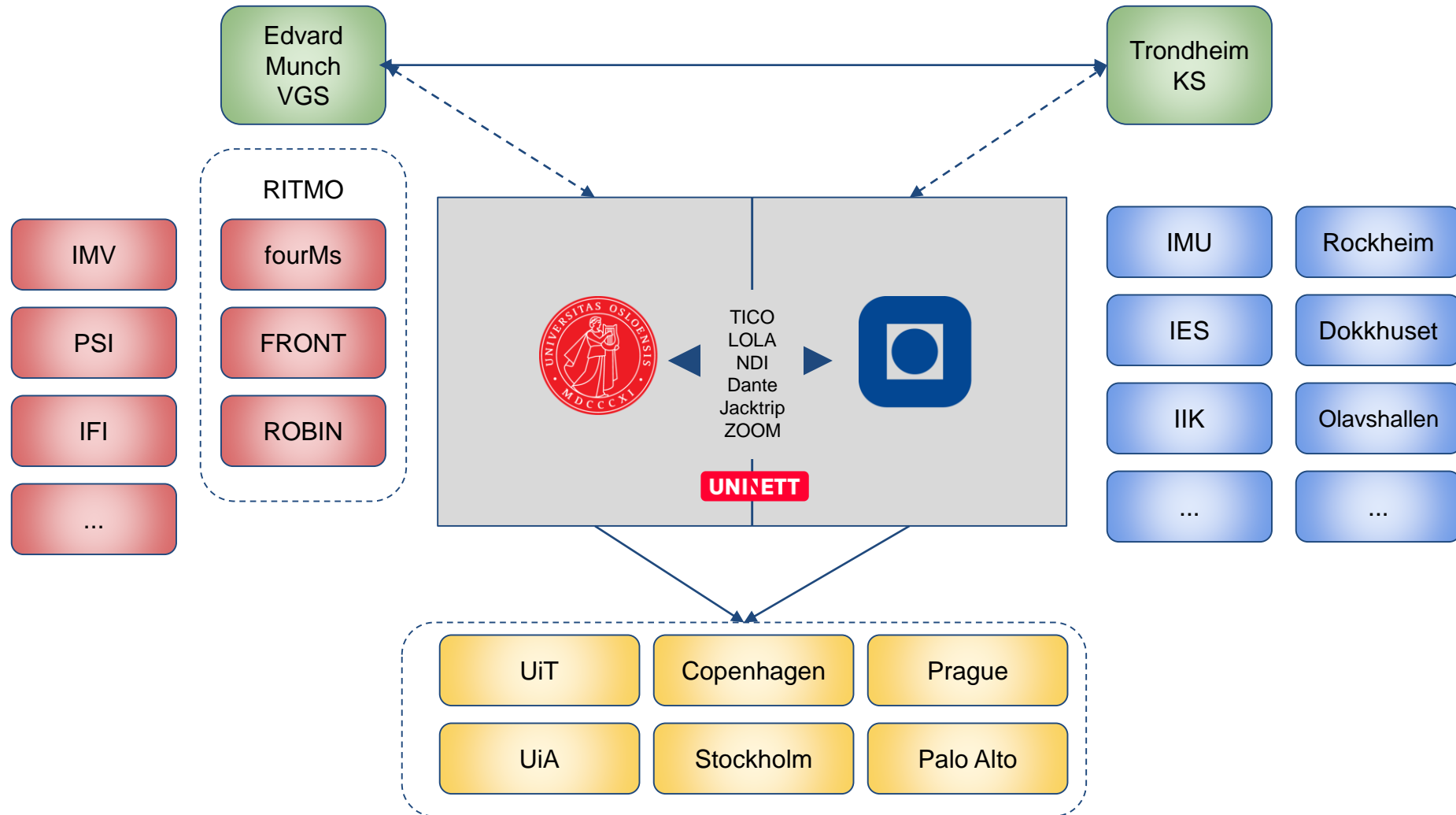




## KEY TRENDS



- Rethink how Institutions work and the Practice of Teaching
- Fostering authentic learning by experiencing, doing, and creating
- Blended learning design
- Redesign of learning spaces
  - Active learning
  - Collaboration
  - Communication
  - XR
  - Digital Learning Experience and Instructional Design

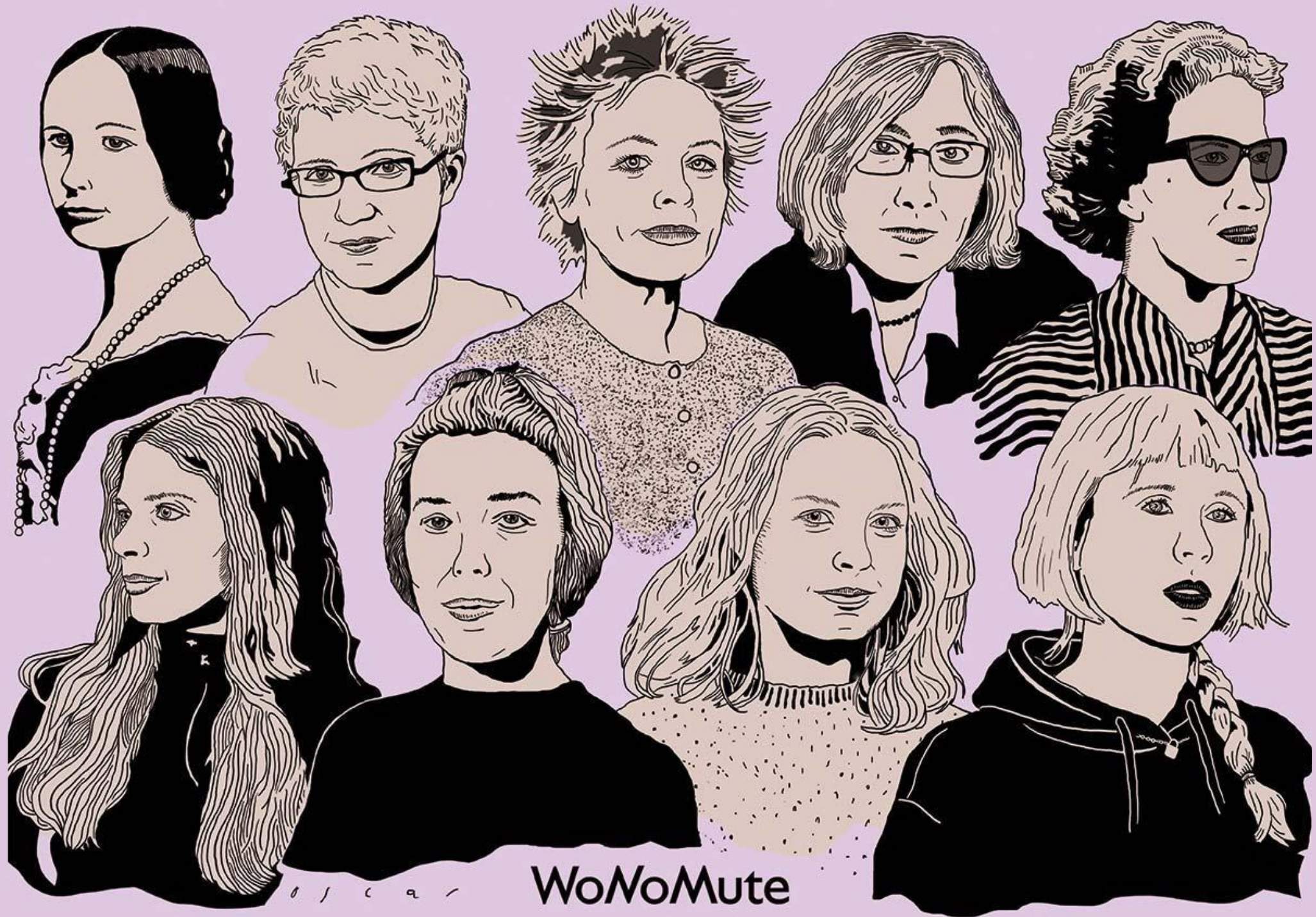


## – God digital undervisning krever bedre pedagogikk

Lærere på universiteter og høyskoler mangler nødvendig pedagogisk kompetanse for å få til god digital undervisning, ifølge forsker bak ny kunnskapsoppsummering.







o / c a /  
WoNoMute



