

UiO : Department of Informatics
University of Oslo

Sustainable and resilient Information Systems



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UiO has already hired a vice-rector for climate, environment and cross-disciplinarity.

*In our election platform, we emphasized **sustainability** as the basis for everything we do. A **sustainability** initiative will be a*

***Sustainability** is also about ourselves, and the choices and priorities each of us make on a daily basis.*

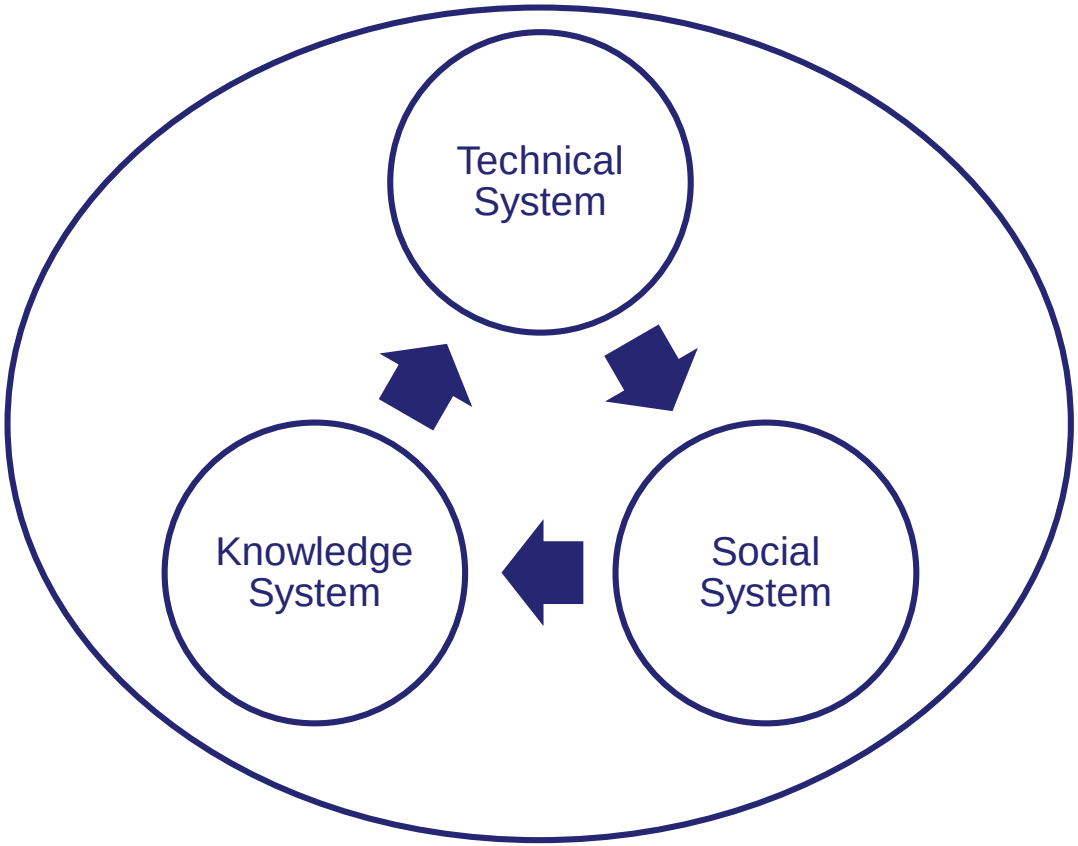
*e even better and more specific in our research on areas of great importance for **sustainability**. We especially highlighted research on climate, energy, environment and health, and with data- and computational science as key factors for success.*

(Kristensen et al, 2021)

Agenda

- Information systems
- Sustainability
- Resilience
- Sustainable information systems
- Sustainability in relation to resilience

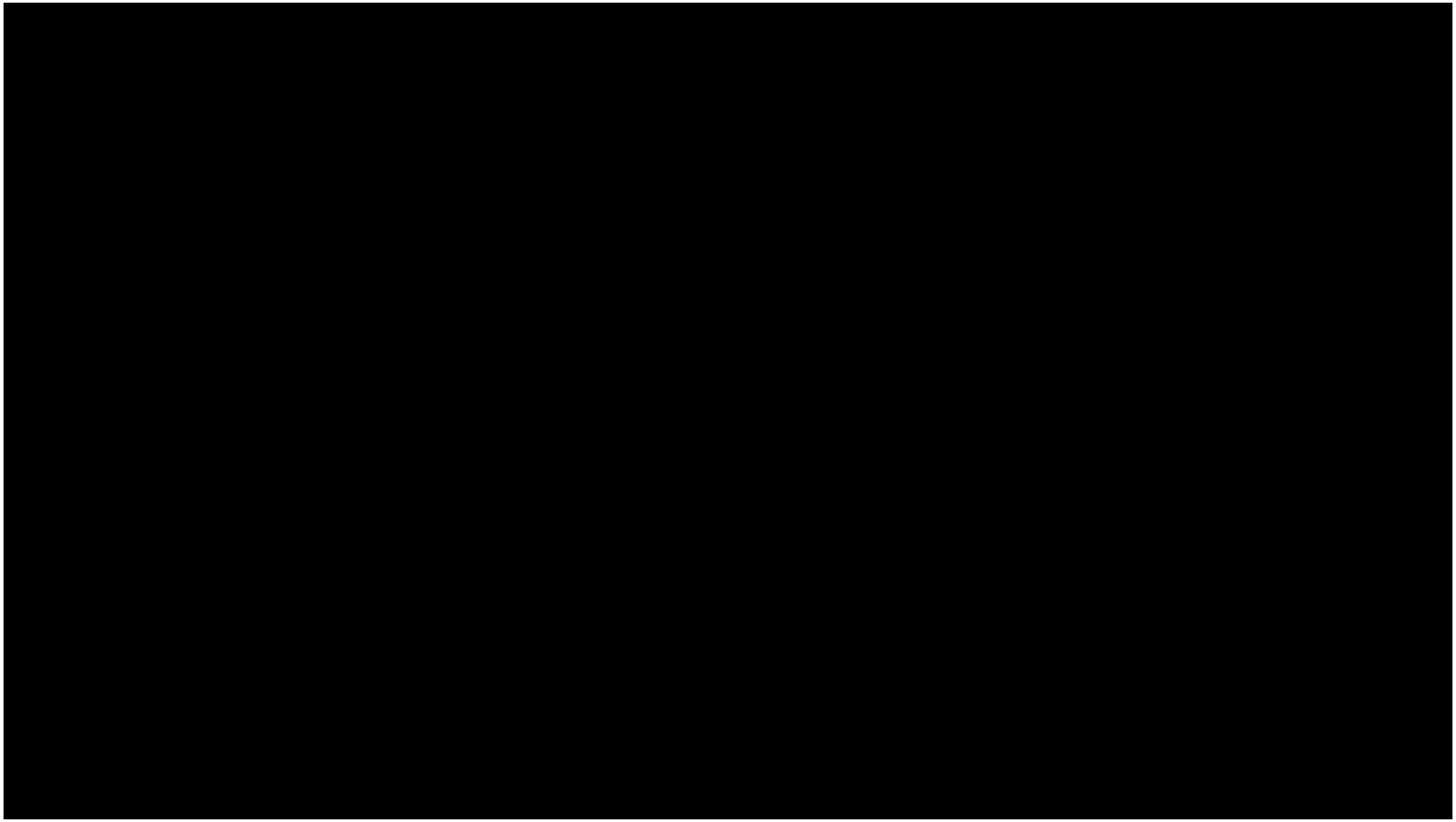
Information System



Education
Contact tracing
Health care
Police

(Lee, A.S., 2004)

Frank Wijen:



What do YOU "see" when someone mentions sustainability?



Adapt to new requirements (Asah et al., 2018)

Continuity despite threaths and opportunities (Vehkamäki, 2005)

Sustainability

In 1987 the Brundtland commission defined sustainability as meeting the needs of the present without compromising the ability of future generations to meet their own needs.

Scalability (Braa et al, 2004

Mainatin the activity despite outside shock (Bibi et al, 2020)

Different forms of sustainability?

- Economic and financial sustainability
- Technological sustainability
- Social sustainability
- Institutional sustainability
- Environmental sustainability

Are these only relevant for ICT4D? (Ali and Bailur, 2007)



Sustainable development..

- Who defines what is relevant?
- Why should it be sustained?
- How should it be sustained?

(Ali and Balur, 2007)

Sule Kutlay Gandur:



Psychology

Engineering

Resilience:
some meanings and applications

Defense/security

Adaptive cycles

Self-organizing systems

Known disturbances

«On your toes»

Resilience

Scales

Identiy

Specific resilience
vs
General rescilience

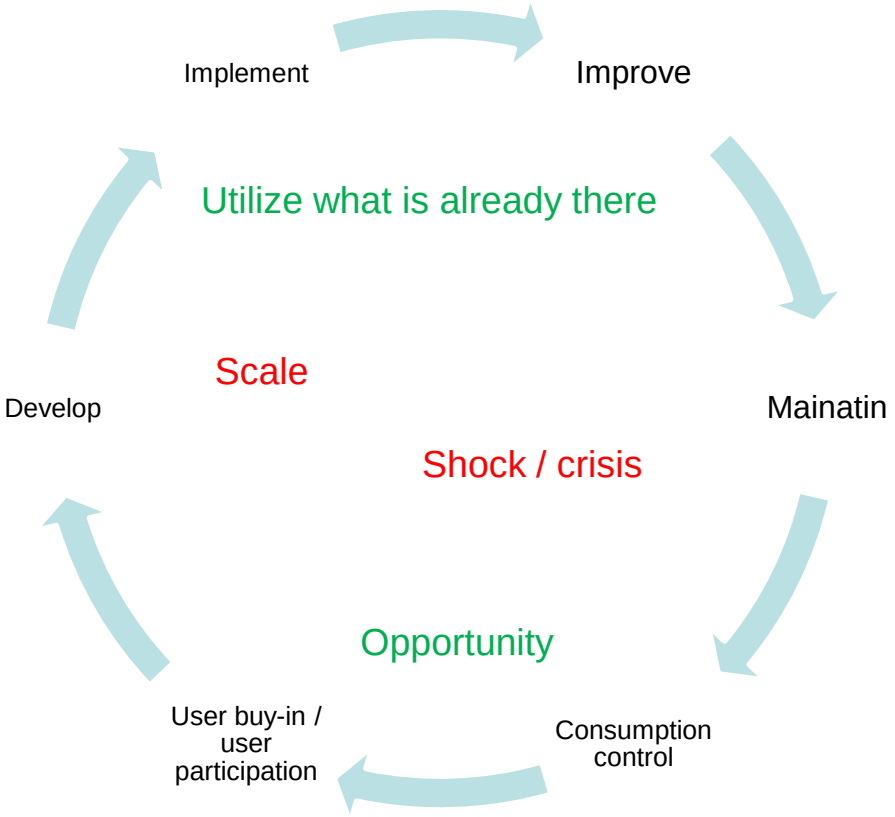
Unknown and
unexpected disturbances

«Systems optimised for efficiency are not optimized for resilience.»



What do Heeks and Ospina mean this?

Sustainable and resilient IS





Sustainable and resilient Information Systems

- Developers / implementers
- Technology
- Data
- Users

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