

Introduction to IN4150

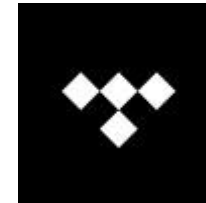
Digital ecosystems

Raissa Pershina
Daniel Svendsrud

Lecturers

- Raissa Pershina (raissap@ifi.uio.no)
- Daniel Svendsrud (daniessv@ifi.uio.no)
- Ole Hanseth (oleha@ifi.uio.no)
- Guest lecturers, scholars and practitioners

Raissa



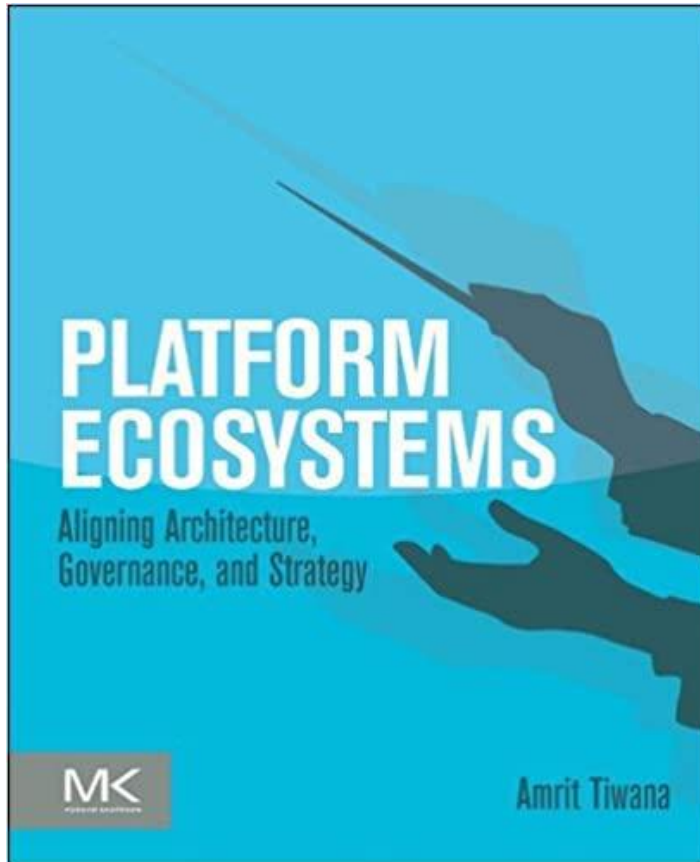
simula



Daniel

- Daniel Stedjan Svendsrud, PhD research fellow, Department of Informatics, University of Oslo
- Background: Master in Political Science and Management
- Research interests: Platform ecosystem development in the Oil and gas sector, the increasing role of digital data
- Lens: Ecosystem orchestration

Recommended book



Tiwana, A. (2014) Platform Ecosystems: Aligning Architecture, Governance, and Strategy. Elsevier Inc.

Lectures and group seminars

- 14 lectures (incl. in-class activities, quizzes, discussions);
- 14 seminars (reading, group work and presentations, discussions, various activities, feedback on group projects);
- All lectures will take place in room [KN](#), [Lille auditorium](#) from 10:15 – 12:00 and all group seminars in room [OJD](#), [Seminarrom Logo](#) from 10:15 – 12:00
- We strongly encourage attendance of at least 80% of all lectures and group seminars.
- This course is designed as an interactive class and active participation is expected.



Webpage

- <https://www.uio.no/studier/emner/matnat/ifi/IN4150/h22/timeplan/index.html#FOR>

IN4150 - Høst 2022

Timeplan

Fellesundervisning

Vis alle aktiviteter (utskriftsversjon)

Forelesninger - man. 10:15-12:00

Abonner på disse aktivitetene

Dato	Tid	Aktivitet	Sted	Foreleser	Ressurser/pensum
ma. 22. aug.	10:15–12:00	Course introduction & overview	KN, Lille auditorium	O. Hanseth R. Pershina D. S. Svendsrud	Core literature: Skjul mer... Thomas, L., Autio, E. (2020). Innovation Ecosystems in Management: An Organizing Typology, Oxford Research Encyclopedia, Business and Management, Oxford: Oxford University Press.
ma. 29. aug.	10:15–12:00	Platform ecosystems	KN, Lille auditorium	O. Hanseth R. Pershina D. S. Svendsrud	Supplementary readings: - Tiwana, A. (2014). Platform Ecosystems: Aligning Architecture, Governance, and Strategy, Elsevier Inc, Chapter 1: The Rise of Platform Ecosystems. - Michael G. Jacobides, M.G., Cennamo, C., & Gawer, A. (2018). Towards a theory of ecosystems.
ma. 5. sep.	10:15–12:00	Ecosystem architecture	KN, Lille auditorium	O. Hanseth R. Pershina D. S. Svendsrud	
ma. 12. sep.	10:15–12:00	Launch & Scaling of platform ecosystems I: Entrepreneurs	KN, Lille auditorium	O. Hanseth R. Pershina D. S. Svendsrud	
ma. 19. sep.	10:15–12:00	Ecosystem governance	KN, Lille auditorium	O. Hanseth	

Gruppeundervisning

Gruppe 1 - tir. 10:15-12:00

Abonner på disse aktivitetene

Dato	Tid	Aktivitet	Sted
ti. 23. aug.	10:15–12:00	Gruppe 1	OJD, Seminarrom Logo
ti. 30. aug.	10:15–12:00	Gruppe 1	OJD, Seminarrom Logo
ti. 6. sep.	10:15–12:00	Gruppe 1	OJD, Seminarrom Logo
ti. 13. sep.	10:15–12:00	Gruppe 1	OJD, Seminarrom Logo
ti. 20. sep.	10:15–12:00	Gruppe 1	OJD, Seminarrom Logo
ti. 27. sep.	10:15–12:00	Gruppe 1	OJD, Seminarrom Logo
ti. 4. okt.	10:15–12:00	Gruppe 1	OJD, Seminarrom Logo
ti. 11. okt.	10:15–12:00	Gruppe 1	OJD, Seminarrom Logo
ti. 18. okt.	10:15–12:00	Gruppe 1	OJD, Seminarrom Logo
ti. 25. okt.	10:15–12:00	Gruppe 1	OJD, Seminarrom Logo
ti. 1. nov.	10:15–12:00	Gruppe 1	OJD, Seminarrom Logo

Are you familiar with Canvas?

Group seminars: Important dates

- Sept. 27th & October 4th - Feedback sessions on project work
- November 1st & 8th – Presentations of group projects.
- Any questions so far?

Two main assignments

(see .doc)



Group project: Summary

- Main aims:
 - 1) To get you thinking strategically about platforms and their development;
 - 2) Apply concepts and theories to practice;
 - 3) Develop analytical skills, research skills, other “soft” skills...
- **Contribute to the group work (see .doc)**
- Start early!

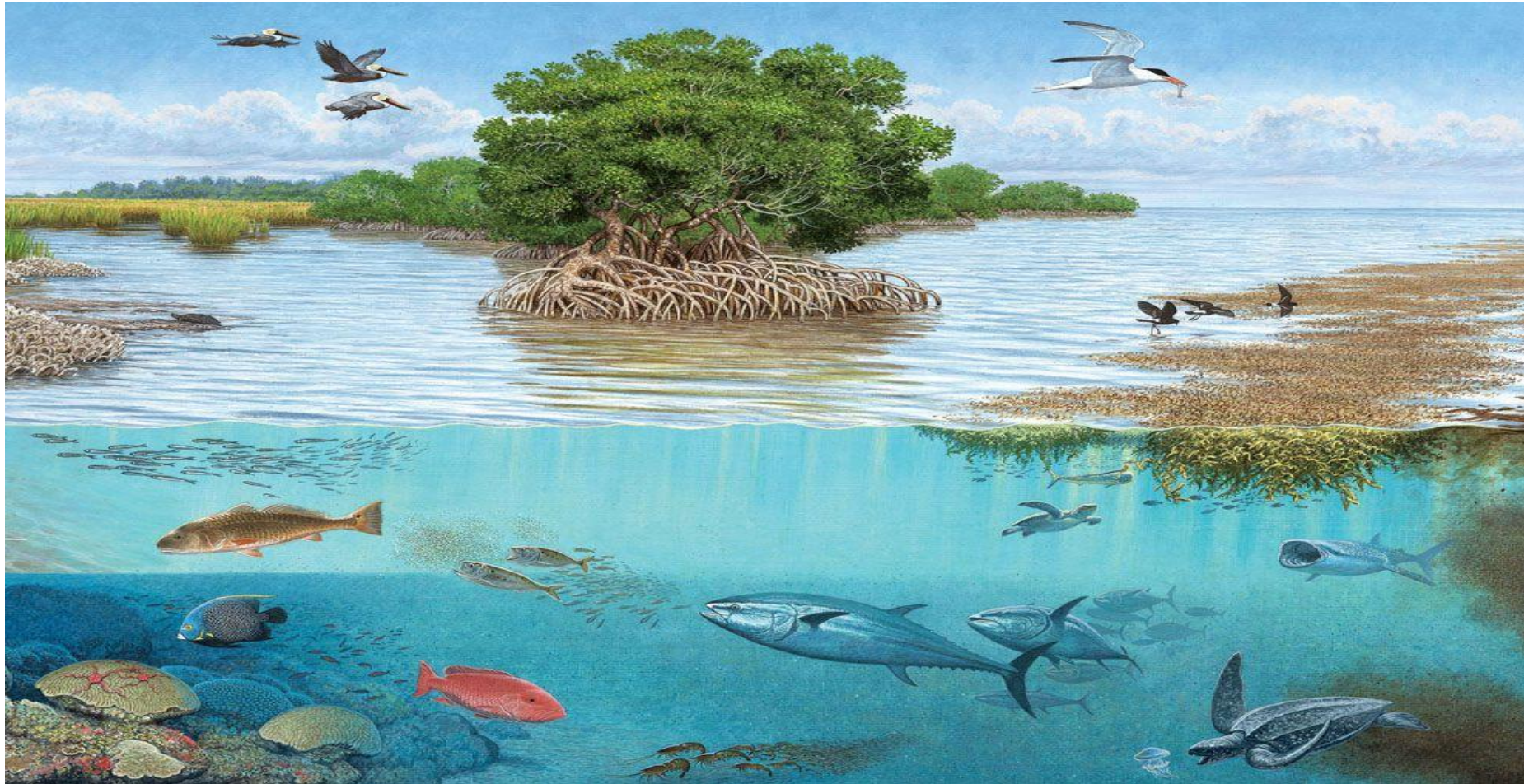
Assigned Groups



Digital ecosystems

- What is ecosystems?
- What makes ecosystems digital?

Ecosystem as a metaphor



The origins behind the term

- James F. Moore, 1993: «ecological» understanding of strategy
- More complex environments:
 - Organizations
 - Institutions
 - Individuals
 - Customers
 - Suppliers
 - Governments
 - R&D institutions

Ecosystem as a concept

- An abstraction we make of a phenomenon to make sense of it
- Go through different conceptions of the ecosystem phenomenon

Different ecosystem concepts

- Platform ecosystems, innovation ecosystems, industrial ecosystems, knowledge ecosystems, entrepreneurial ecosystems, business ecosystems, technological ecosystems
- **Platform (innovation) ecosystems**
- As a specific type of a *meta-organizational* arrangement, a platform ecosystem has a larger *innovation potential* than other forms of organizations

Meta-organization

- Ecosystems as a production system: input – throughput – output
- Formal (single) organizations, interorganizational networks and meta-organizations
- Meta-organization: several *autonomous* organization and/or individual persons working together to achieve a *common (system-level) goal*
- Decision-making and coordination

Innovation potential

- Generative capacity: innovation that «runs» by itself
- Underlying phenomena: digitalization opening up new ways for companies to share ideas and knowledge and flexibly combine their outputs without contract-based coordination

A broad definition of ecosystems

- “a community of hierarchically independent, yet interdependent participants who collectively generate an ecosystem output” (Thomas & Autio, 2020, p. 16)

Four defining characteristics

1. Participant heterogeneity
2. Ecosystem outputs
3. Participant interdependence
4. Non-contractual governance

Participant heterogeneity

- Members from several industries
- Can span the public/private divide
- Both collaborators and competitors
- Span customer segments

Ecosystem outputs

- Ecosystems are intentionally initiated
- A coherent system-level goal of collaboration

Participants interdependence

- Technological interdependence
- Economic interdependence
- Cognitive interdependence

Non-contractual governance

- Important part of what separates ecosystems from other organizational collectives
- What the overall ecosystem is to produce cannot be determined beforehand
- There exist not a contract that can say how the different apps are to be used by customers for what purpose