IN5320 - Development in Platform Ecosystems
Lecture 8: *Project cases and exercises*

8th of October 2018
Department of Informatics, University of Oslo
Magnus Li - magl@ifi.uio.no

Today

1. Project cases
2. Project process
3. Evaluation and grading
4. Defining platforms (discussions)

Tomorrow

Presentations of available master-theses at the Information Systems research group.

- 16:00
- Room Prolog (2nd floor)
- Pizza

Tittel	Publisert	Veileder(e)
Security and DHIS2	8. okt. 2018	Johan Ivar Sæbø, Terje Aksel Sanner, Petter Nielsen
Corporate use of Social Media Platforms	6. sep. 2018	Jens Johan Kaasbøll, John Alphonse
Videos for training and health promotion	16. aug. 2018	Jens Johan Kaasbøll, Mari Iversen, Chipo Kanjo
Graph of previous values on data input	16. aug. 2018	Jens Johan Kaasbøll, Mari Iversen, Chipo Kanjo
Messages for patient referrals	16. aug. 2018	Jens Johan Kaasbøll, Chipo Kanjo, Mari Iversen
Android dashboard for Community Health Workers	16. aug. 2018	Jens Johan Kaasbøll, Chipo Kanjo, Mari Iversen
Design-principles and guidelines for usability	28. mai 2018	Magnus Li
Meta-design: tools for user interface customization	28. mai 2018	Magnus Li
Methods and techniques for end-user participation in diverse cultural contexts	28. mai 2018	Magnus Li
Internships + master	16. aug. 2017	Jens Johan

3

Project cases

Project

- 5 cases that describe context and use-case.

- Select one.

- Flexibility.

- Presentation 1 & 2 to provide guidance.

- Justify decisions in final presentation.

- The group teachers are available for guidance throughout the process

Group project

In the right-hand menu, you'll find five different cases to solve in the group project. Your group shall select one case, and design and implement a working solution as an app for DHIS2. The cases provide a description of the use-case, users and context. After the first group presentation, we will add some technical details to the cases that will help you with the DHIS2 API and implementation.

You are provided with substantial flexibility on how to solve your selected case as long as you cover the basic functionality outlined, and your solution is sensitive to the users and the context described. Please feel free to design and implement additional useful functionality, and to design the app in any way you think is best. You will have to justify your decisions regarding design, functionality, and implementation in the final (graded) group presentation.

Throughout the process, you will be able to discuss ideas for design, functionality, and how to implement this with the group teachers on the seminar groups.

The group project process

Week 40 – 43, and presentation 1

The first part of the project work is to elicit and define requirements

Cases

1. Doctors diary

2. Commodity dispensing

3. Data entry interface

4. Data entry dashboard

5. Org. unit management

Resources

- What is DHIS2?

- DHIS2 API documentation

- DHIS2 demo

Evaluation and grading

- To be published soon

Next two weeks

Project timeline

Week 41 -

Week 42 - Group presentation 1

Week 43 - lecture on DHIS2 as platform

Requirements and low-fidelity

Week 44 - lecture on DHIS2 development

Week 45 -

Week 46 - Group presentation 2

Week 47 -

Week 48 - Final presentation

Implement high-fidelity and communication with DHIS2

First two weeks + presentation 1

The next two weeks your group should:

1.   Decide on a case.
2.   Analyze the case description thoroughly.
3.   Discuss and brainstorm to define requirements.

Think about the following:

  a.   Functionality (functional requirements)
  b.   UI and non-functional requirements
  c.   Implementation (just abstract, until lecture on dhis2 development).
  d.   What you need from the DHIS2 API
  e.   Assumptions and unclarities in the case.

  4. Present requirements and visualizations/prototypes (e.g., paper-sketches of UI, data storage, what communication is needed with the API etc.). **Discuss assumptions and unclarities.**

Seminar	Group id				
1	Friday 10:15 - 12:00				
	1	runehovd	marcusrg	jakobko	einarvh
	2	alexanms	geiroal	axelboi	marensei
	3	skjale	masolhe	edvardjb	anastko
	4	matsbla	baardcj	lawrenb	jonashhi
	5	eeaarset	josteiol	muhamsha	magngs
2	Tuesday 12:15 - 14:00				
	6	jorgborg	sindrgro	sebasno	espentno
	7	lucasp	henriksv	kaijc	tomolavb
	8	arieldk	johntj	fangronf	yingh
	9	mattisbr	wahidulm	yamikanp	felixha
	10	haavaws	zenonjm	pmzemer	perori
	11	rebekkhe	arneroe	annikgr	yast
3	Friday 12:15 - 14:00				
	12	hanshsa	kimsh	evenroge	walidh
	13	evenosi	sigurhae	shamilm	fridesk
	14	alexamga	valentka	erlendmu	tomec
	15	npskrind	eanilsen	gagandek	sebastrt
	16	shwetavw	punithas	namraha	ngoctn
4	Wednesday 10:15 - 12:00				
	17	marlarn	rambin	adriaha	tidemant
	18	tonjro	kristijb	emilima	liveab
	19	isabelfi	terjeug	moritzt	johanabe
	20	jkriland	henriktk	eliskir	egwene
	21	zuitaom	krolse	axelhha	theaht
	22	fredrgle	bendihe	bragewb	nicolaei

Evaluation and grading

Evaluation of project

Presentation 1 & 2 - for your group to get feedback and supervision (not graded)

Presentation 3 - demonstrate solution and reflect on process (graded)

Final solution/product will be tested and investigated before the presentation.

Evaluation of project

Reflection upon work
- Decisions on functionality
- Decisions on design
- Decisions on implementation
- Process

Functionality
- Solves key issues
- Additional functionality
- Usefulness
- Robustness

Implementation / code
- Use of API (efficiency, etc.)
- Quality of code (modularization, etc.)

Design
- User-friendliness
- Sensitive to context

Evaluating and grading the projects

A – Excellent

An excellent performance, clearly outstanding. The candidate demonstrates excellent judgement and a high degree of independent thinking.

B – Very good

A very good performance. The candidate demonstrates sound judgement and a very good degree of independent thinking.

C – Good

A good performance in most areas. The candidate demonstrates a reasonable degree of judgement and independent thinking in the most important areas.

D – Satisfactory

A satisfactory performance, but with significant shortcomings. The candidate demonstrates a limited degree of judgement and independent thinking.

E – Sufficient

A performance that meets the minimum criteria, but no more. The candidate demonstrates a very limited degree of judgement and independent thinking.

F – Fail

A performance that does not meet the minimum academic criteria. The candidate demonstrates an absence of both judgement and independent thinking.

Evaluation of project

Part	A	C	E
Reflection	Demonstrates excellent judgement and a high degree of independent thinking.	Demonstrates a reasonable degree of judgement and independent thinking.	Demonstrates a very limited degree of judgement and independent thinking.
Functionality	Beyond expected. The application has a variety of useful and *robust* functionality beyond solving the fundamental challenges.	As expected. The app provides robust functionality needed to solve the fundamental challenges.	Less than expected. Functionality that partly solves the fundamental challenges.
Implementation	Excellent use of API in terms of efficiency. Code is robust and very well structured and modularized.	Sufficient use of API and the code is relatively robust, structured and modularized.	API are not used optimally, and the code is unstructured.
Design	The application is clearly designed with the users and context of use in mind.	The application is relatively user-friendly and sensitive to the context of use.	Context and users have clearly not been of focus in the design.

Defining platforms

IN5320 - Development in Platform Ecosystems

Theoretical assignments

These assignments are not mandatory. We do however recommend working with these questions throughout the semester to improve your theoretical understanding. Also, some of these questions might appear on the final individual written exam, thus, having reflected on and formulated thourough answers to these could be of considerable benefit.

1. Information systems and complexity

1.1 What is the difference between complicated and complex systems?

1.2 What do we mean by socio-technical systems? Does this focus in any way help us understand how information systems function, fail, succeed and evolve?

1.3 Do you have any examples of information systems?

1.4 What is the role of standards in information systems?

1.5 If we define information systems as socio-technical: can you give an example of an organization that does not currently have any information systems?

1.6 If you were to introduce a new software system into a large organization with already existing information systems and practices: are there any possible challenges?

1.7 What do we mean by governance and architecture?

1.8 What is modularization?

2. Platform Ecosystems – fundamental concepts

2.1 Tiwana (2013) and Baldwin & Woodard (2008) both define platforms. How do they define them? And

Platform Ecosystems

Reflect alone, or discuss with fellow students:

- -

Choose two examples of platform ecosystems that you know.

Baldwin and Woodard (2008) define platform architectures as something consisting of

1)   A set of stable components
2)   A set of complementary components that vary

What are these in your example?

Platform Ecosystems

Reflect alone, or discuss with fellow students:

Tiwana (2013): *"A software platform is a software-based product or service that serves as a foundation on which outside parties can build complementary products or services"*

Does this apply for your examples?

If no: find another example and try again.

If yes: Who owns the platforms? Who can build complementary products? And what can they build?

Platform Ecosystems

Reflect alone, or discuss with fellow students:

"To successfully build platform ecosystems, the focus of the platform owner must shift from developing applications to providing resources that support third-party developers in their development work" - Ghazawneh & Henfridsson 2013 p 174

→ Boundary resources: resources enabling third party development through tools and regulations

---

What boundary resources exists within your examples of ecosystems?

How do they impact and shape the activities in the ecosystems?
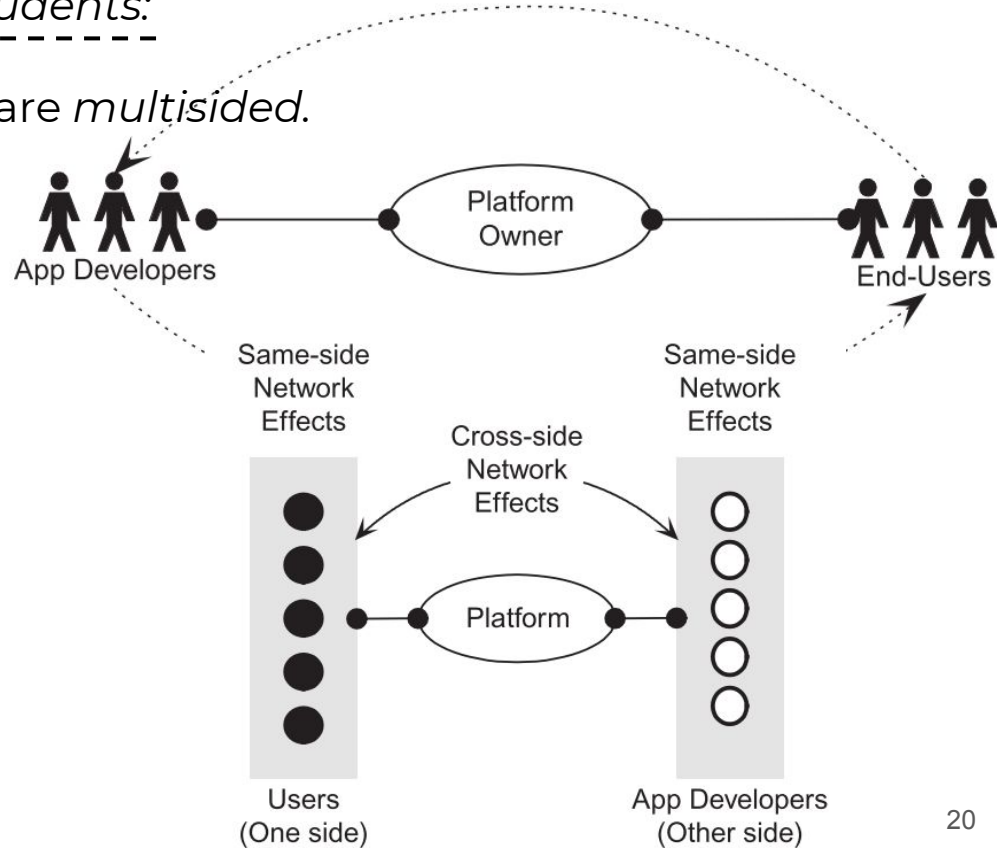
Reflect alone, or discuss with fellow students:

According to Tiwana (2013), platforms are *multisided.*

What "sides" exist in your examples?

Are there any network effects?

Cross-sided, same-sided?

Platform Ecosystems

Reflect alone, or discuss with fellow students:

Tiwana (2013) argues that multihoming, tipping, lock-in, competitive durability, and envelopment are typical phenomenons / aspects of platform ecosystems.

In relation to your examples, discuss:

- *Multihoming*
- *Tipping*
- *Lock-ins*
- *Competitive durability*
- *Envelopment*

(Definitions can be found on the slides for last weeks lecture)