

Privacy vs. Data: Business Models in the digital, mobile Economy

Exercises

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Lecture 2: Mobile Information Systems



- What is the difference between Online and Mobile Business?
- Name common and different characteristics of Online and Mobile Business from a
 - Technical perspective (e.g. regarding terminals)
 - Business perspective (e.g. for content providers)
 - Legal perspective (e.g. regarding personal data)
 - Application perspective (e.g. for yellow pages)

- What are explicit characteristics of mobile devices?
- What are advantages/disadvantages of these characteristics
 - for mobile services/apps providers?
 - for users?

- What is the difference between Mobile Apps vs. Mobile Web Apps?
- Describe the characteristics of a restaurant finder as Mobile App and Mobile Web App?
- Why are Mobile Web App likely to prevail in the future?

- What kind of unique characteristics of mobile data communication makes Mobile Marketing attractive for advertisers?
- What are the risks of conducting Mobile Marketing campaigns for advertisers?
- Develop a Mobile Marketing campaign, which takes advantage of location, time and profile information about users.

Lecture 3: Business Models, Markets and Ecosystems



- Describe the business model of a mobile location-based mobile community service?
 - Value Proposition?
 - Revenue Model? Alternatives?
 - Pricing Model?
 - Architecture of Value Creation?
- What kind of personal data does this service require?

- Name the current pricing models offered by eBay for selling products
- When or for which product should a certain pricing model be used?

- What is unique M-Business application or what is an Online Business replica?
 - Mobile Web Banner Advertisement
 - Mobile Mail
 - Location-based Service
 - Mobile News

- Explain the issues of offering homogenous goods in competitive commodity markets?
 - Give an example for a business or an industry
 - Why does the Internet intensify these issues?
 - How can the situation be improved by an companies?
 - Which role can personal data play for mitigating these issues?

- Chicken & Egg problem is one characteristic of a two-sided market
 - Name two more characteristics
- Apple successfully introduced the AppStore
 - Does the AppStore constitute a two-sided market?
 - If yes, how did Apple solve the Chicken & Egg problem here?

- What connects the stakeholders of an ecosystem?
- Who manages and drives an ecosystem?
- What makes an ecosystem successful?

Lecture 4:

Characteristics of Goods in the Digital Economy



- Explain the term “First Copy Costs”
- What is the issue of “pricing” information?
 - What are suitable pricing models?
- Give an example for
 - Search Goods
 - Experience Goods
 - Credence Goods
- How to transfer an experience good into a search good?

- What characteristics does personal information have?
 - Is a commodity?
 - Is it homogenous?
 - How about first copy costs?
 - What is its purpose?
 - ...

- Give an example for an Attention Economy beyond the advertising or celebrities.

- Discuss the statement: “Advertisers rather selling attention than advertising space”.
- What are characteristic of attention as economic good?

- Name an example for an long tail business model?

Lecture 5: The “Big Four” in the digital Economy



- How do the Big Four build their business model around personal data of individuals?
- What are the impacts of their business model if personal data about individuals is no longer available?

- Isn't Microsoft the "big fifth" player in the digital economy?
- If not Microsoft, then anyone else?
- If yes, what is going to be the next prosperous business model?

- What problem do Telecommunication Provider have with the Big Four?
- The Big Four drive the usage of the Internet and thereby user subscriptions?
So what is the problem?

- What personal information do Telecommunication providers have (compared to the Big Four)?

Lecture 6: Online Profiling



- Who can target persons be distinctly identified?
- How can different information about a person be cross-referenced?
- How can the quality (e.g. updateness of information) be assessed?
- Can automatic profiling produce better results?
- How about a combination of manual and automatic profiling?

- What is the motivation of manual profiling?
- What is motivation for automatic profiling?
- What are possible consequences for profiled individuals?

Lecture 7 + 8: Personal Data Collection & Usage



- Does an IP-address allow service providers to uniquely identify and subsequently track a user?
 - Differentiate between stationary and mobile Internet
- What other means of user identification exist?

- Imagine you are operating a location-based yellow pages mobile web portal?
 - Do you need user identification & tracking for your service?
 - If yes, what means of user identification would you implement for your site and why?
 - What are the benefits / issues of your solution

- Imagine you are using a location-based mobile community service, which allows you to see where your friends are and interact with them
- What kind of personal data is being disclosed about you? To ...
 - the network operator
 - the mobile community provider
 - to your friends
 - to any other Third Parties

- The Ad-Network XYZ is tracking your
 - online behaviour on the web
 - mobile online behaviour using certain apps
- What kind of personal data can the Ad-Network collected using these tracking measures?
- For which purpose can this personal data be used?

- What are the problems regarding personalisation of content or recommendation of products based on personal information for service providers?

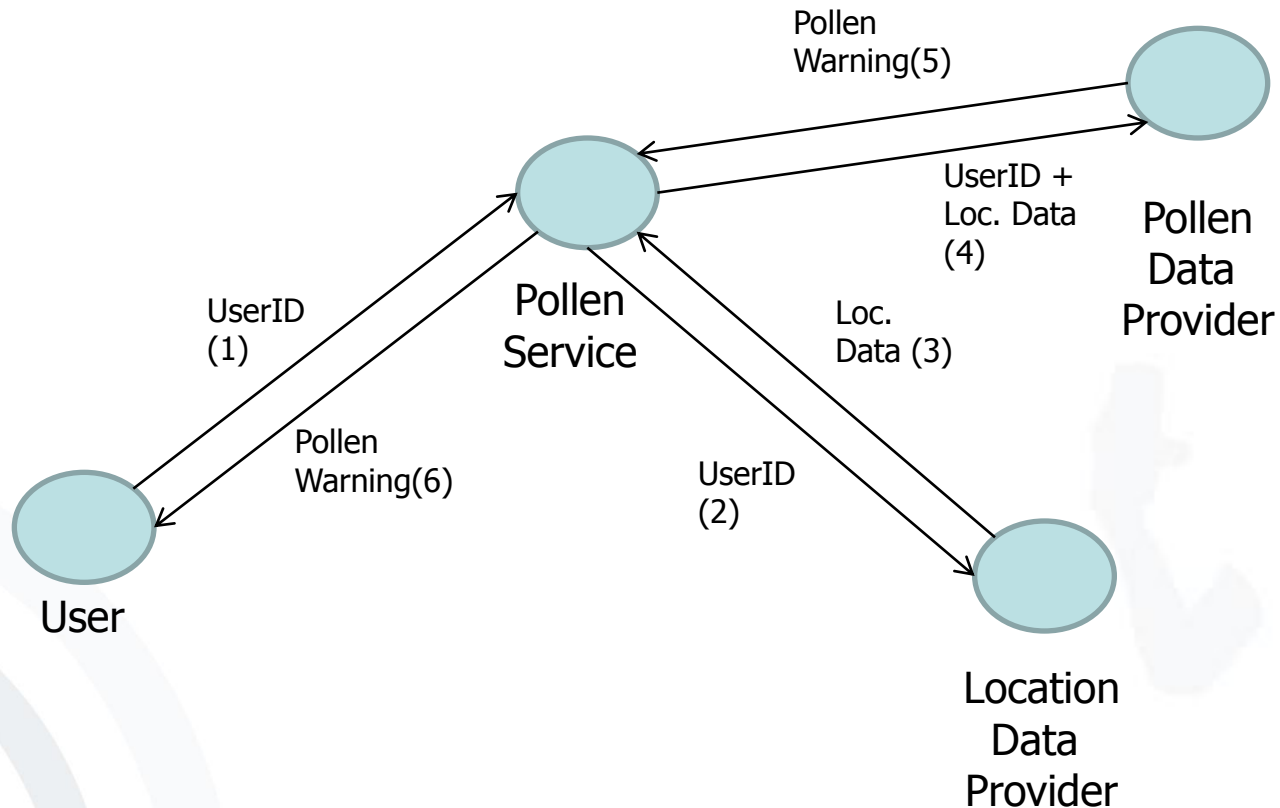
- How do (mobile) social network provider use posted personal information about its users?
- How do (mobile) users use posted personal information about other users?

Lecture 9 + 10: Privacy & Privacy Protection



- What does privacy mean for you (Online/Offline)?
- What are possible issues of privacy violations for you (Online/Offline)?

- What are privacy issues of this the Pollen Service?
- How can they be resolved?



- What are the consequences of suppressing the browser information (e.g. OS version, language) for service providers?
- Suppressing the Web Referrer information
 - How does the web referrer help service providers for their service offering?

- What are the benefits/issues of using
 - Cookie Cooker
 - Anonymizier
- while surfing the web?

- What are benefits/issues of user consent requests before collection personal information (e.g. for mobile web browser location data API)?

- Explain the idea behind anonymous credentials?
- Give an application example for anonymous credentials.

- What is the idea of privacy by design?
- What is the problem implementing privacy by design with regard to
 - Systems/Software Engineering Process
 - costs/benefits for Service Providers

Lecture 11: Mobile Identity Management



- What are partial identities?
- What is an digital identity?
- How are both concept related to each other?

- What are the concept “identity”, “identification”, and “identifier”?
- What is the difference between “Authentication” and “Authorisation”?
- How are “identification” and “Authentication” / “Authorisation” related?

- What are the function of Identity Management?
- What is Single-Sign-On and what privacy issues does it impose?

- Why do mobile phones increasingly represent the digital identity of its users?



Lecture 12: Impacts of Privacy on Online Businesses



- Why is data disclosure vs. privacy always a trade-off?

- What is the trade-off between data disclosure and privacy with regard to Online/mobile tracking?

- What is the trade-off between data disclosure and privacy in social networks?

- How can a trade-off between data disclosure and privacy be managed in a fair and user-centric manner?

Lecture 13: Research on Privacy, Identity Management and Mobile Business



- Why kind of research in the privacy vs. data area is need in the future?

Open Questions?