

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

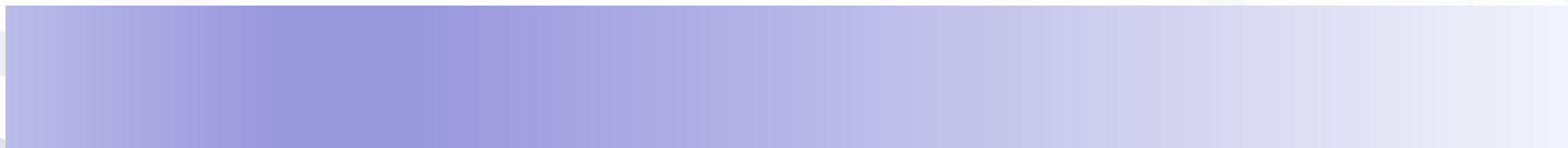
Exercises

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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 to 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 and 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?

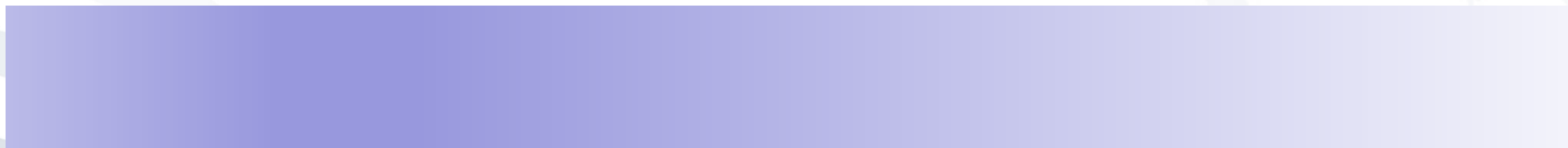
- What is unique Mobile business application and what is an Online business replica?
 - Mobile Web Banner Advertisement
 - Mobile Mail
 - Location-based Service
 - Mobile News

- 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 for Online 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?

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 data 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 and celebrities.

- Discuss the statement: “Advertisers rather selling attention than advertising space”.
- What are the characteristics of attention as an 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 on their business model if personal data about individuals would be no longer available?

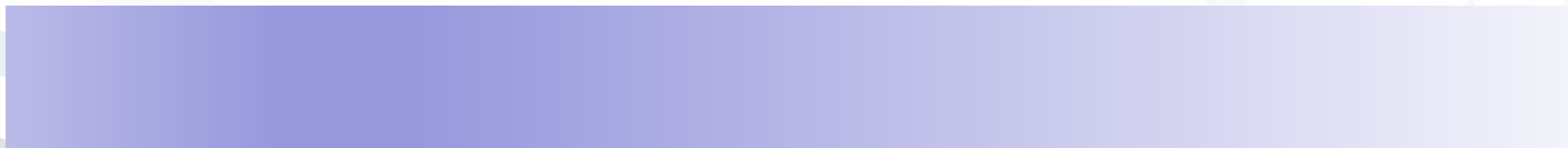
- Why does Amazon set up a own delivery fleet and experiments with drones?
- Why does Amazon offer a free gaming rendering engine?

- What problems do Telecommunication Providers have with the Big Four?
- So, the Big Four foster the usage of the Internet and thereby user subscriptions. Why aren't the Telcos happy?

- What personal data do Telecommunication providers have about its subscribers (compared to the Big Four)?

- Why is Microsoft currently giving Windows 10 away for free?
- Why will there allegedly be no Windows 11, 12, 13, ...?

Lecture 6: Online Profiling



- How can target persons be distinctly identified?
- How can different information about a person be cross-referenced?
- How can the quality of profile information (e.g. updateness of information) be assessed?
- Allows automatic profiling 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 mobile “yellow pages” service.
 - 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 ...
 - your network operator
 - your mobile community provider
 - your friends
 - any other involved Third Party

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

- What is a general (non-privacy) problem if content is personalised or products are recommended
 - From a service provider perspective
 - From a user perspective

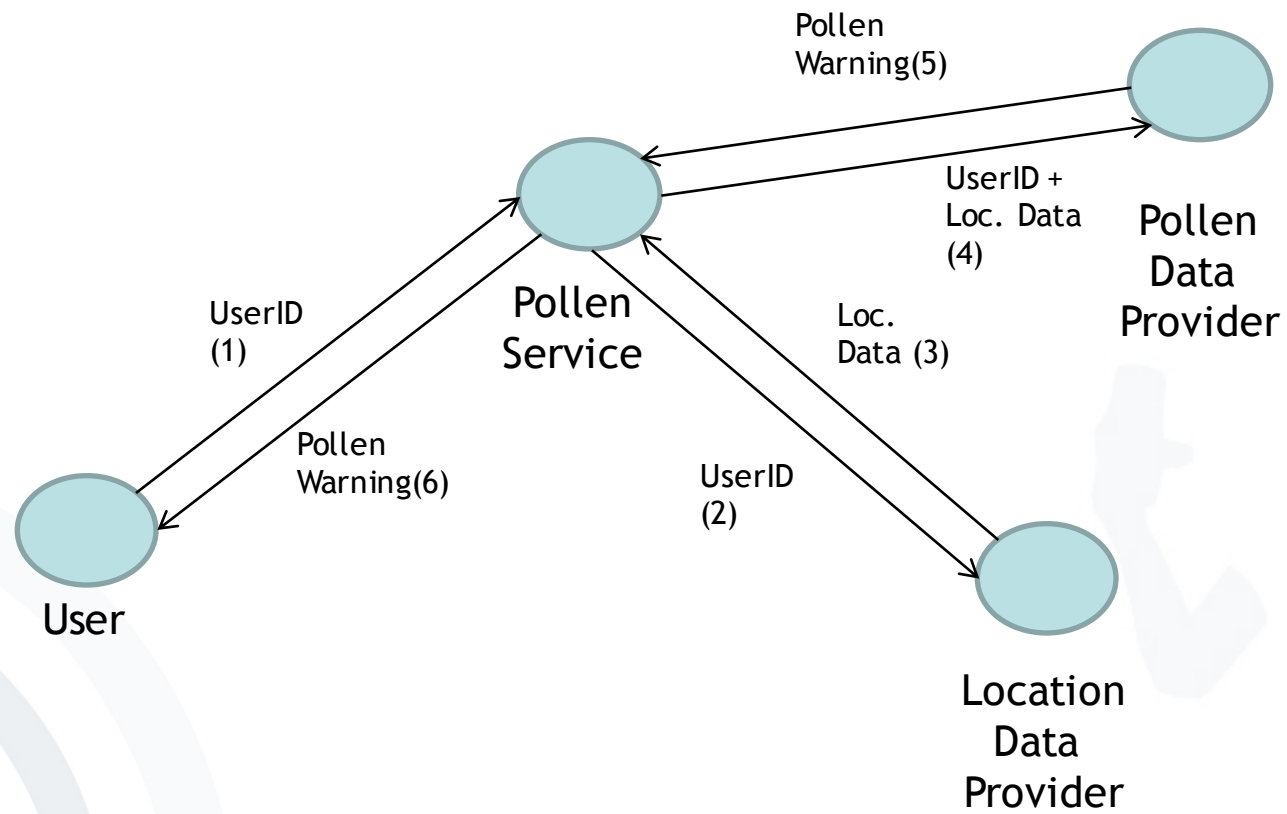
- How do (mobile) social network providers use posted personal data about its users?
- Why/how do (mobile) users consume posted personal data of other users?

Lecture 9 + 10: Privacy & Privacy Protection



- What does privacy mean to you personally (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?



- Why is Snapchat so popular?
- Why do WhatsApp users care so little about their privacy?

- 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 about Privacy by Design?
- What is the problem implementing Privacy by Design with regard to ...
 - Systems/Software Engineering Processes
 - Costs/benefits for Service Providers

- Explain the idea behind the “Right to be Forgotten”.
- What are benefits for users?
- What could technically hinder the implementation of such a right in general?
- What are potential problems of such a right for the information society?

Lecture 11:

Mobile Identity Management & Backbone Technologies of Digitalisation

- What are partial identities?
- What is a digital identity?
- How are both concepts related to each other?

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

- What are the functions 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 their users?



- Name one advantage and disadvantage of Cloud Computing from an online business and end user perspective?

- What is Big Data? Name one important characteristic.



- Name one short-term and long-term threat of AI to individuals?



- Why is it so hard to secure complex IT systems?



Lecture 12: Trade off between Privacy and Service Value



- Explain the concept “Privacy” from
 - a user’s perspective
 - an online business perspective
 - a regulatory perspective
- Are they different? If yes, are they still compatible to each other? Meaning, they can be harmonised?

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

Ads vs. AdBlocker vs. Paywall vs. ???

- Where do you think lies the future of revenue sources for content/media driven online businesses?

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

- What is the current state-of-the-art privacy for users interacting with online businesses?
- How is privacy vs. data (disclosure) current balanced?

- How can privacy become a competitive edge for Online Businesses?
- What would be the benefit and for whom?
- How close are we with this idea to reality?

Open Questions?