mobile business

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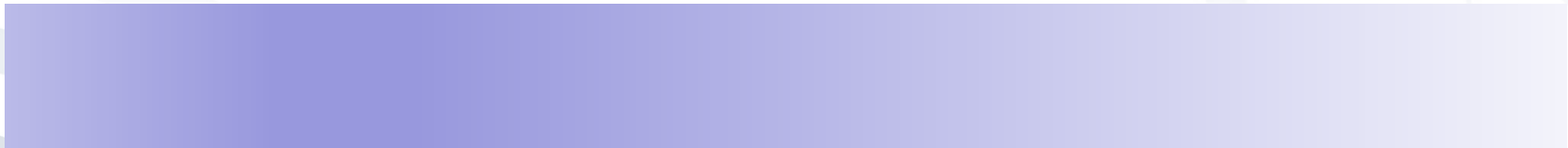
Exercises

SS 2017

Dr. Andreas Albers

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Lecture 2:
Mobile Information Systems

Online vs. Mobile Business

- 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?

Mobile Apps vs. Mobile Web Apps

- 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?

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- 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
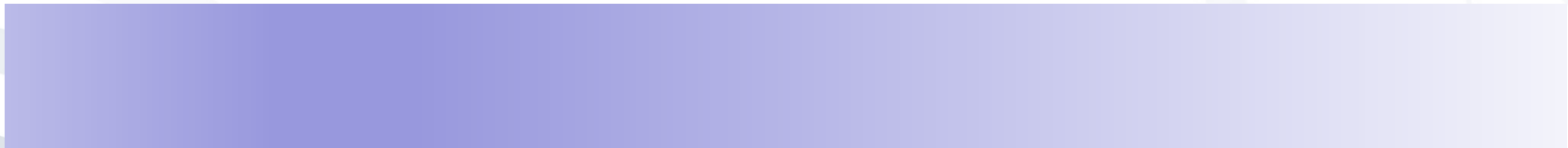
- **Describe the business model of a mobile location-based mobile community service**
  - Value Proposition
  - Revenue Model and Alternatives
    - Pricing Model
  - Architecture of Value Creation

- **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?

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

Business Models for Selling homogenous goods

- 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
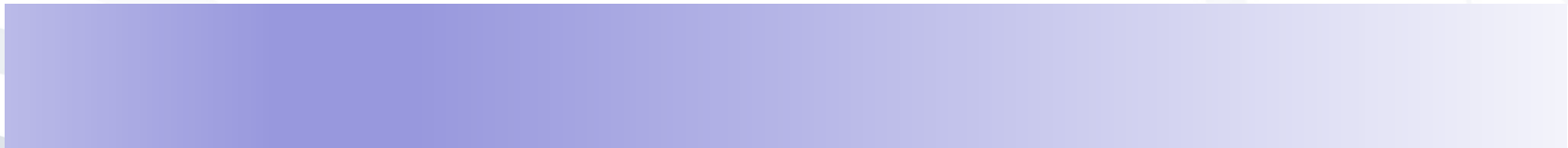
- Explain the term "First Copy Costs".

- 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?

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- 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.
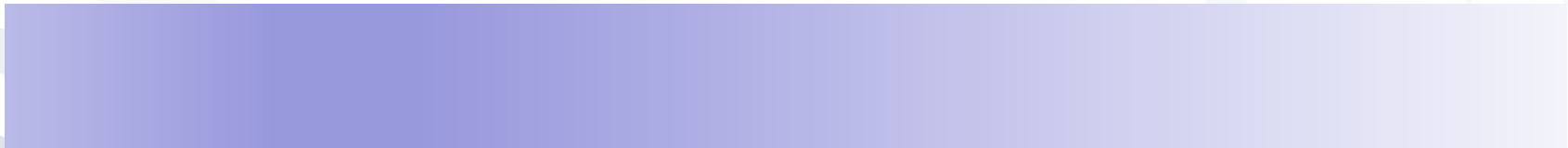
- Discuss the statement: "Advertisers rather selling attention than advertising space".

- What are the characteristics of attention as an economic good?

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- Name an example for an long tail business model?

Lecture 5:

The "Big Four" in the digital Economy

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- 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?

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- Why does Amazon set up a own delivery fleet and experiments with drones?

- Why does Amazon offer a free gaming rendering engine?

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- 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?

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- 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?

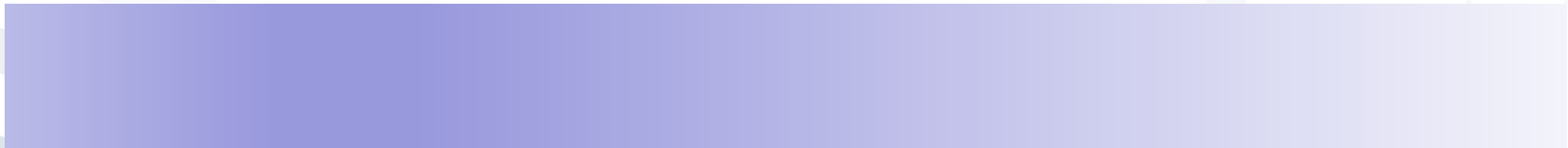- Why will there allegedly be no Windows 11, 12, 13, …?

Lecture 6:
Online Profiling
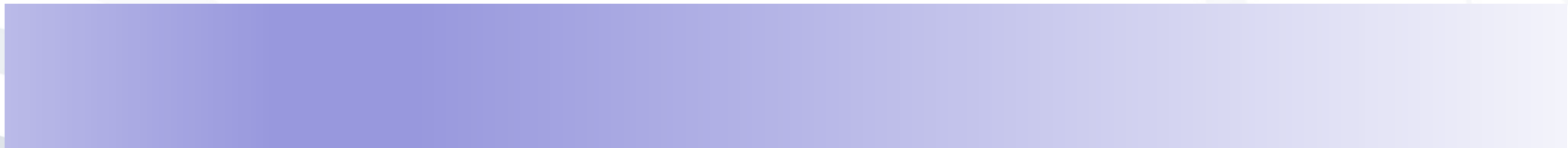
- How can target persons be distinctly identified?

- 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?

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- What is the motivation of manual profiling?

- What is motivation for automatic profiling?

- What are possible consequences for profiled indviduals?

Lecture 7 + 8:
Personal Data Collection & Usage

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- 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?

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- Imagine your 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
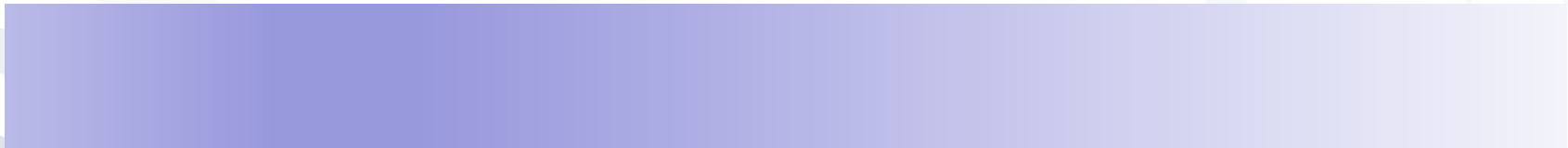   - any other involved Third Party

- 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?

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- 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?

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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?

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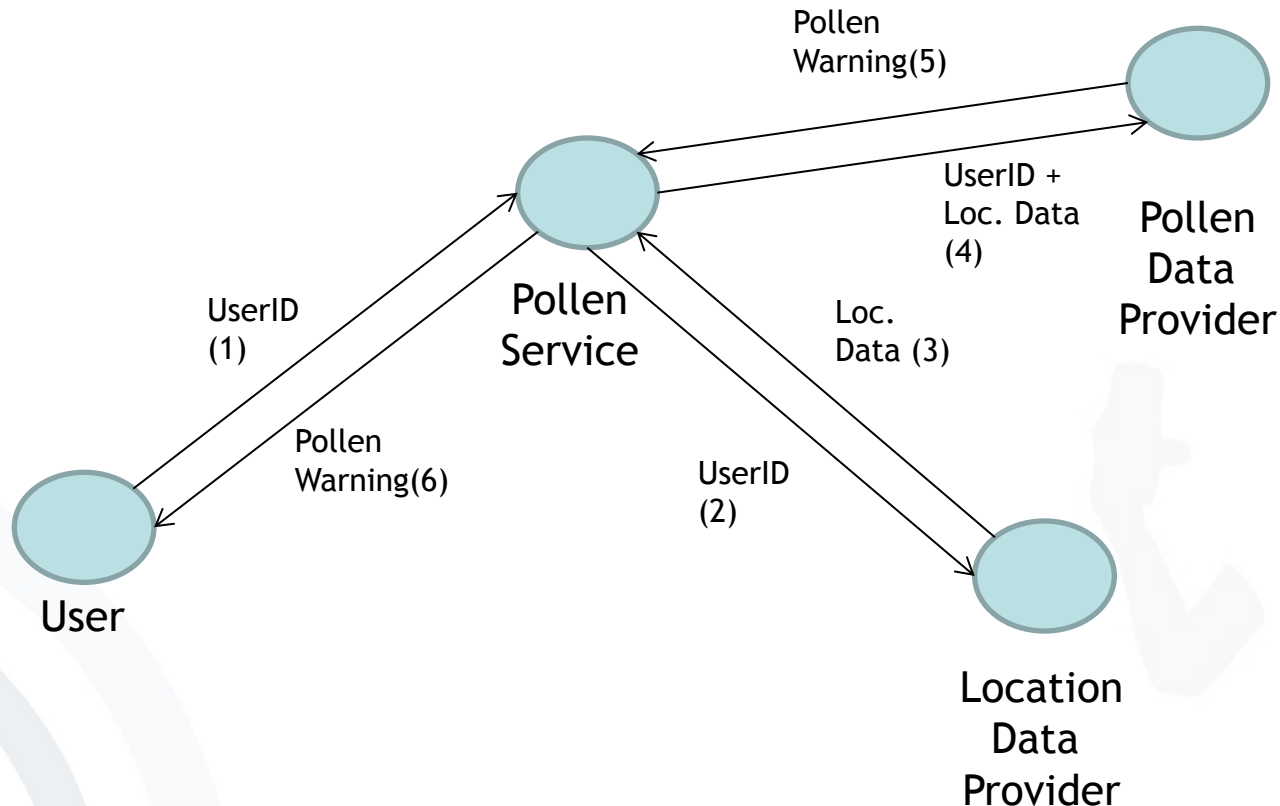
- Why is Snapchat so popular?

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

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- 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.

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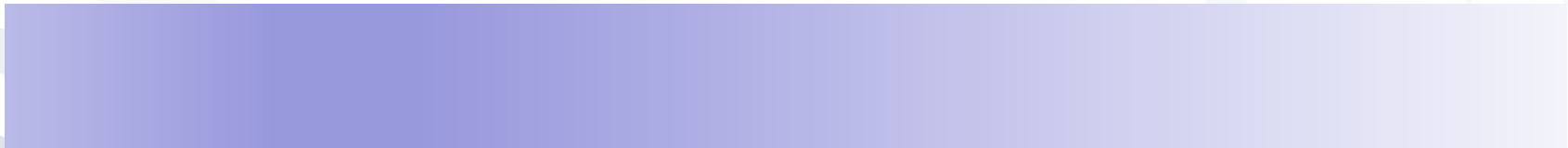
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- ## What is the idea about Privacy by Design?

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

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- 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?

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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?

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- 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?

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

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- What is Big Data? Name one important characteristic.

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

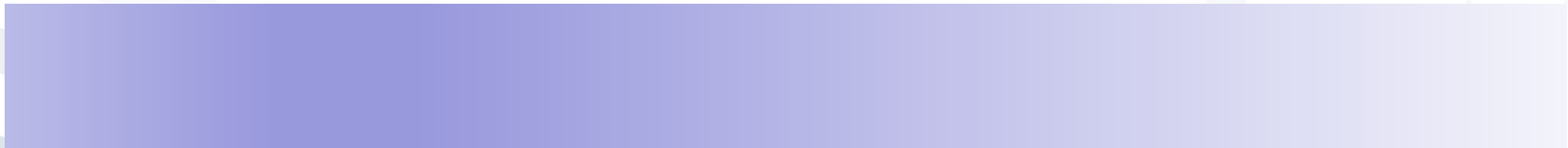Privacy vs. Data, SS 2017, Chair of Mobile Business & Multilateral Security

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- 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?

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

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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?

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- 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?

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Open Questions?