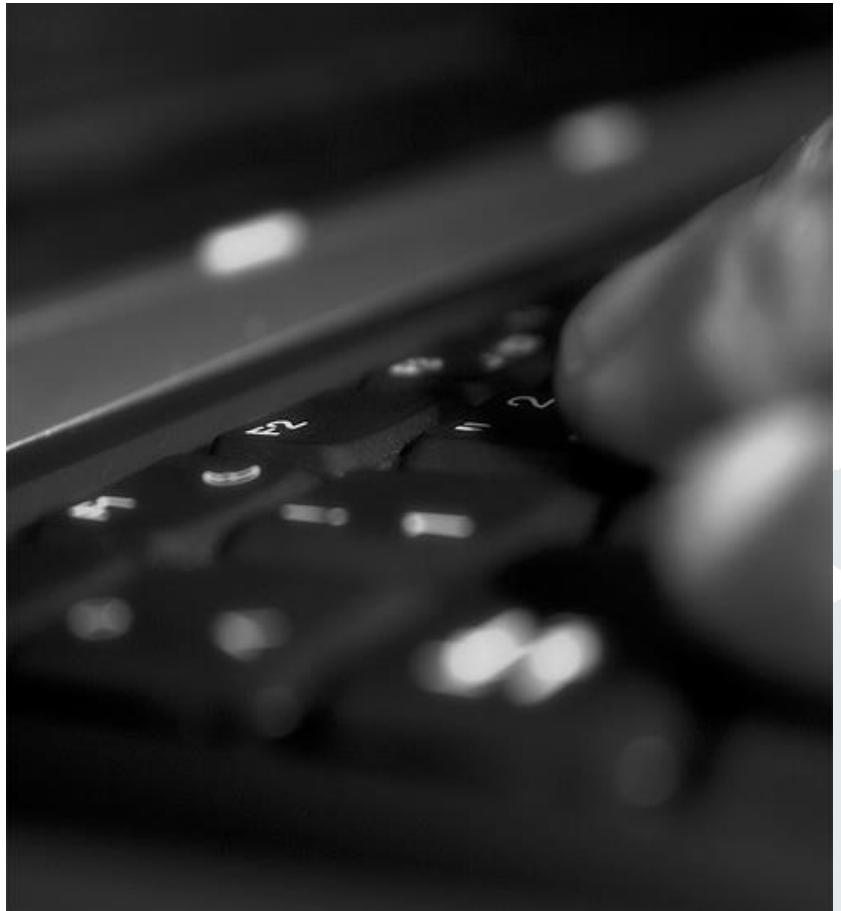


Mentorium 1  
Business Informatics 2 (PWIN)

Course Organisation  
myPlace Scenario  
Information Systems

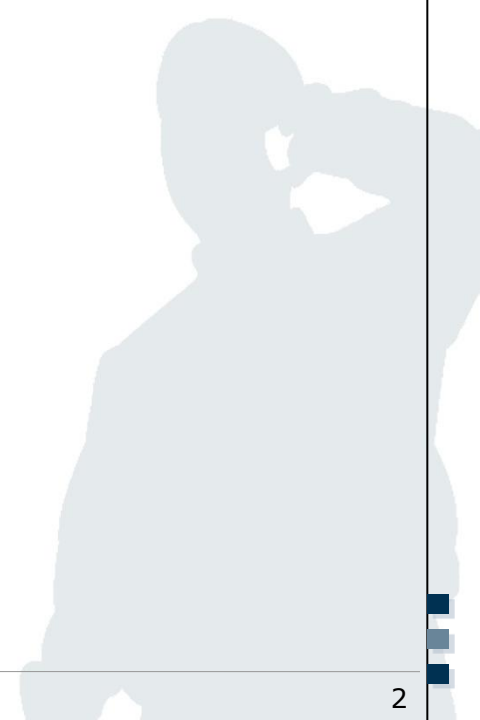
SS 2019

Ann-Kristin Lieberknecht  
[www.m-chair.de](http://www.m-chair.de)

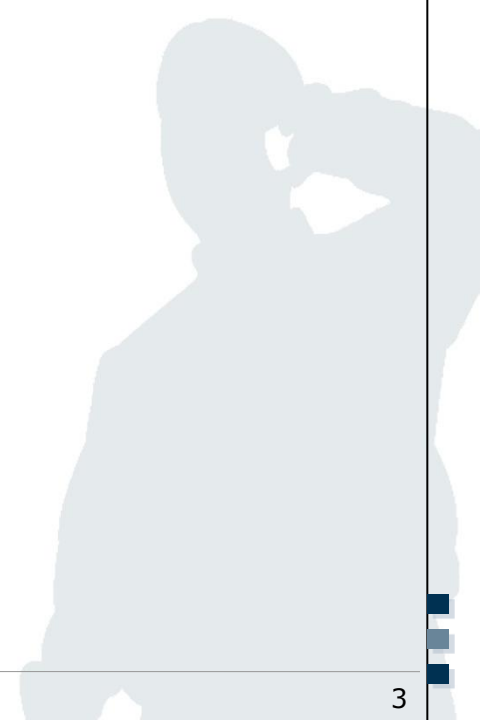


Jenser (Flickr.com)

- Course Organisation
- myPlace - A mobile location-based service
- Information Systems
  - Information and Application Systems
  - Models and Meta-Models
  - Enterprise Modelling

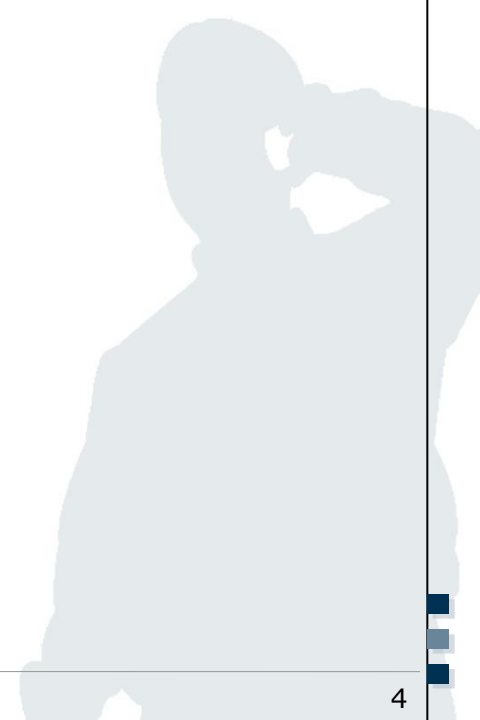


- Course Organisation
- myPlace - A mobile location-based service
- Information Systems
  - Information and Application Systems
  - Models and Meta-Models
  - Enterprise Modelling



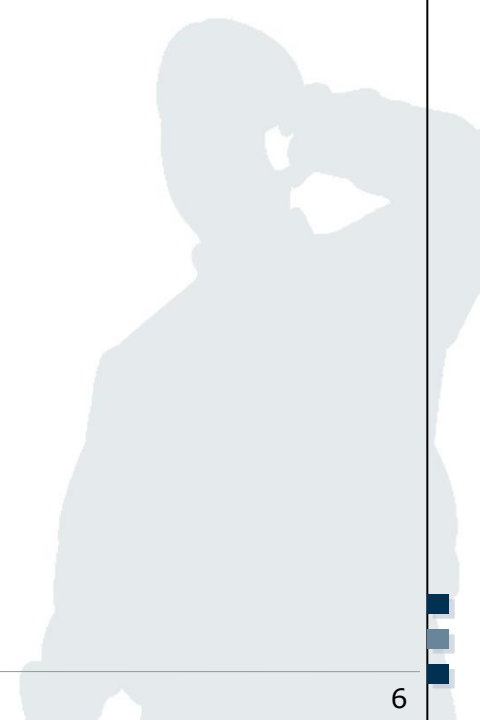
For the Mentorium, there are 3 options:

- Option 1: Tuesday, 2pm (c.t.)
- Option 2: Thursdays, 10am (c.t.)
- Option 3: Thursdays, 2pm (c.t.)



- The aim of this Mentorium is to **practice and deepen** the contents of the *Business Informatics 2 (PWIN)* lecture based on a fictitious service for the mobile Internet.
- For this, fundamental concepts of the mobile service *myPlace* are going to be developed, presented and discussed within the seven Mentorium sessions.

- Course Organisation
- myPlace - A mobile location-based service
- Information Systems
  - Information and Application Systems
  - Models and Meta-Models
  - Enterprise Modelling



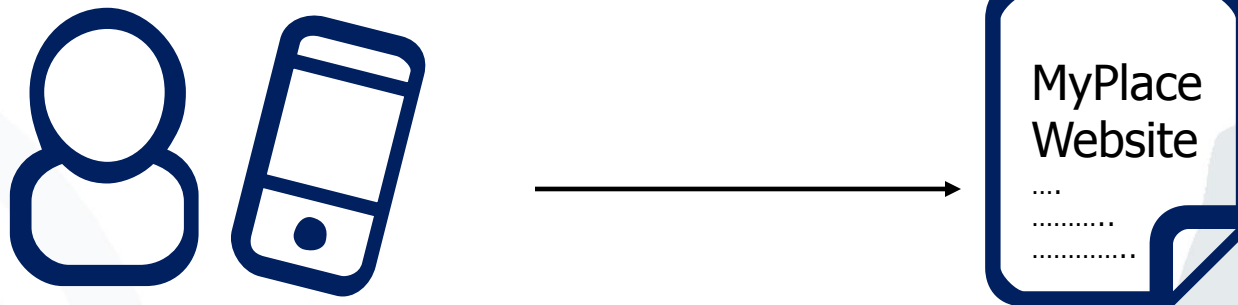
# One application scenario for all Mentorium sessions

- *myPlace* service aims to enable users to search for and navigate to any **Point-of-Interest (POI)**



# Features of myPlace service

- Users sign up for *myPlace* service using stationary online website
- *myPlace* service generates **user preference profile (UPP)**
- This profile contains e.g. user's gender, age, and personal interests (hobbies, favourite type of readings or movies, etc.)





# Features of myPlace service

- When a user accesses the *myPlace* service, their mobile device is **identified** and automatically associated with the **corresponding user preference profile (UPP)**.



- **Current time of use** determined and...



- ... (assuming the user's consent) the current **geographic location** is determined.



# Features of myPlace service

- All obtained information is aggregated to a **dynamic context-based user profile (DCUP)**



Location



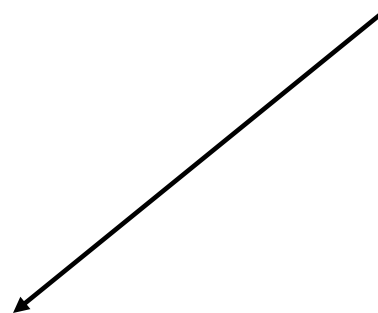
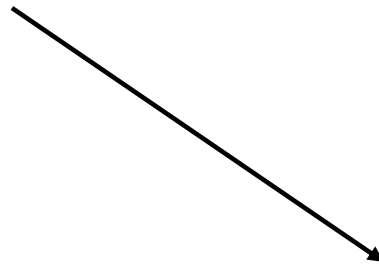
Current time



User Preference Profile  
(UPP)

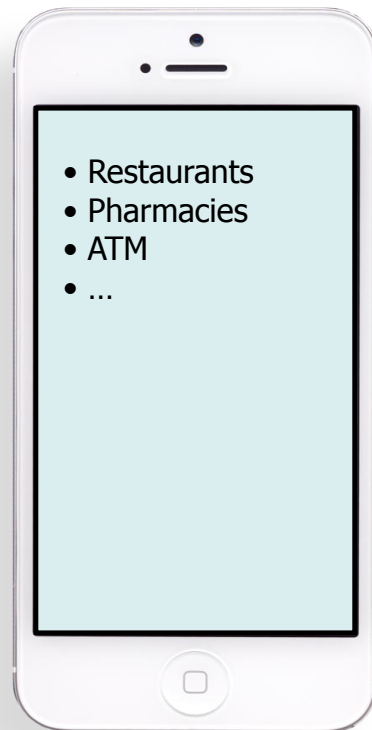


Dynamic Context-based User Profile (DCUP)



# Features of myPlace service

- When using *myPlace* service, user is presented with overview of **various POI categories** (restaurants, cinemas, etc.) or - alternatively - a text field for entering a **search query**



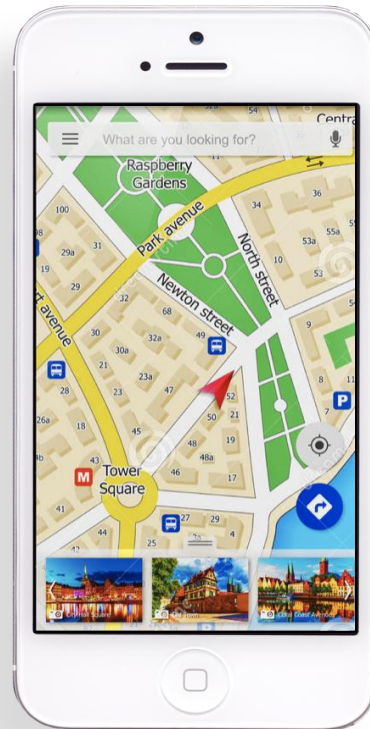
# Features of myPlace service

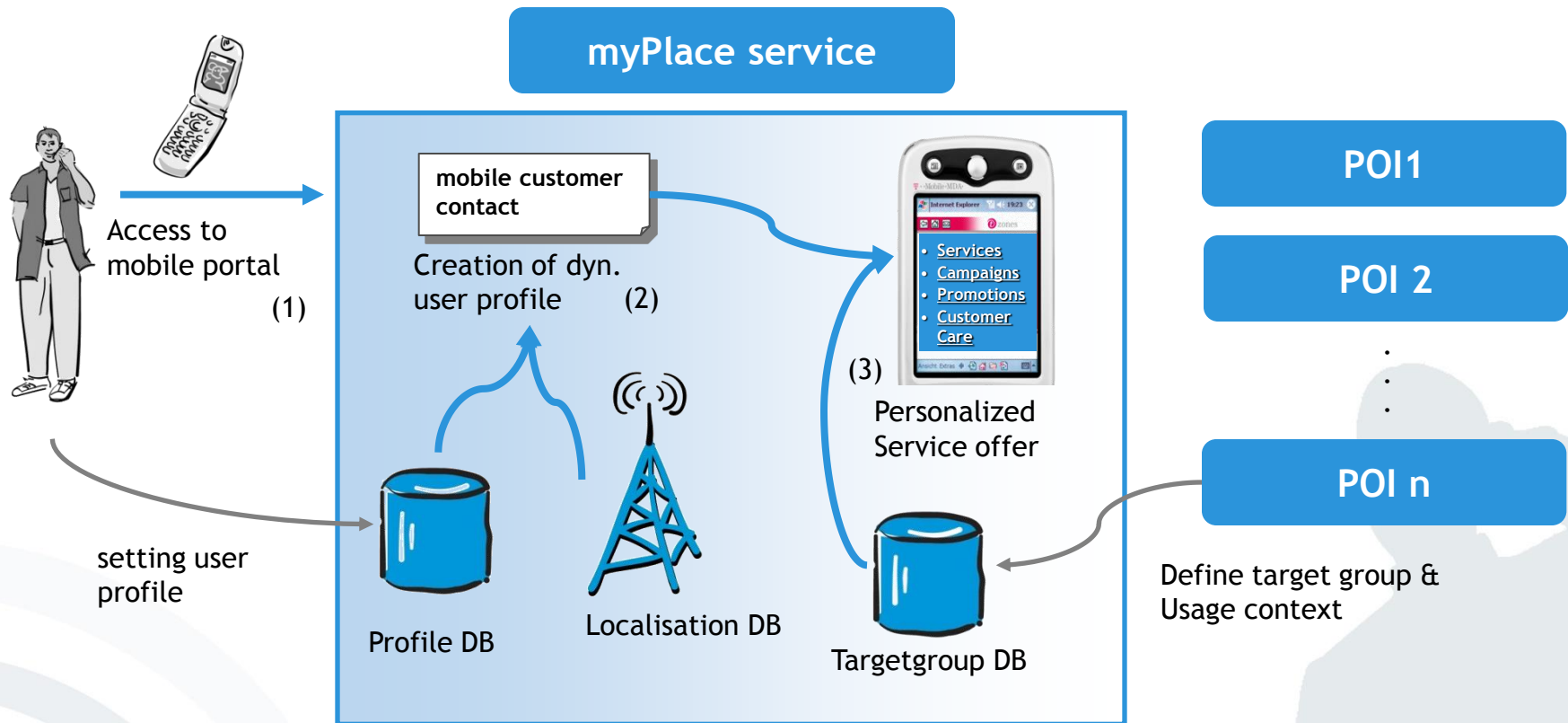
- User sends out a **POI request** for a category of choice
- *myPlace* service generates a **list of potential POIs** based on user's DCUP
- Only POIs in **close proximity**, **open** at the current time of day and **matching to the user's preference profile** are returned as search results



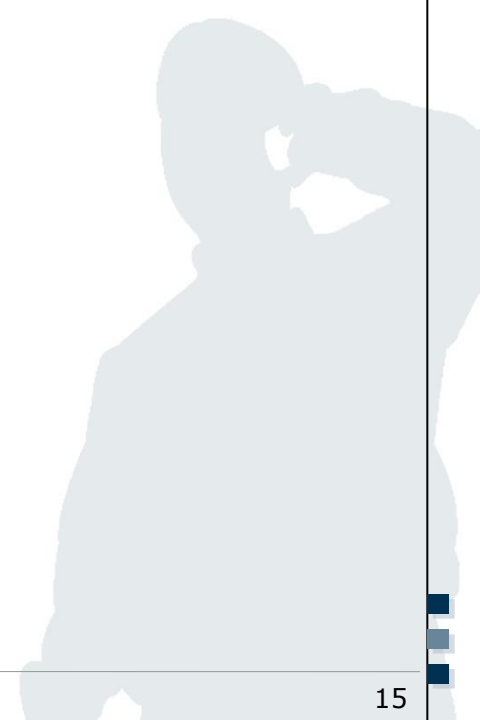
# Features of myPlace service

- When user selects a POI from the results list, the mobile device presents **POI location, map and navigation directions.**



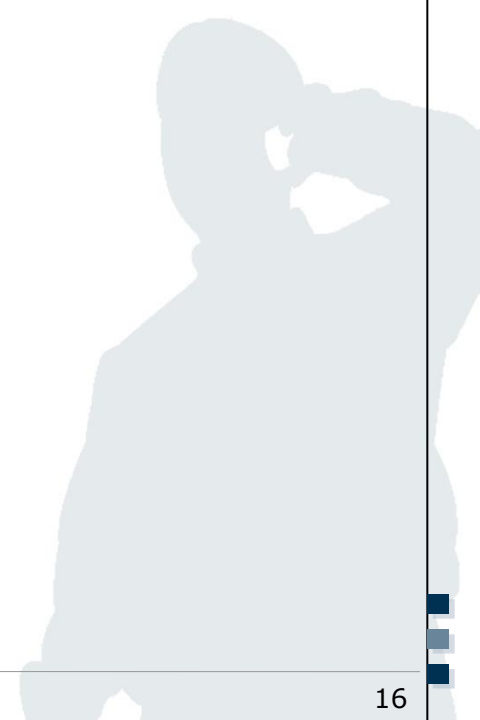


- Course Organisation
- myPlace - A mobile location-based service
- Information Systems
  - Information and Application Systems
  - Models
  - Enterprise Modelling



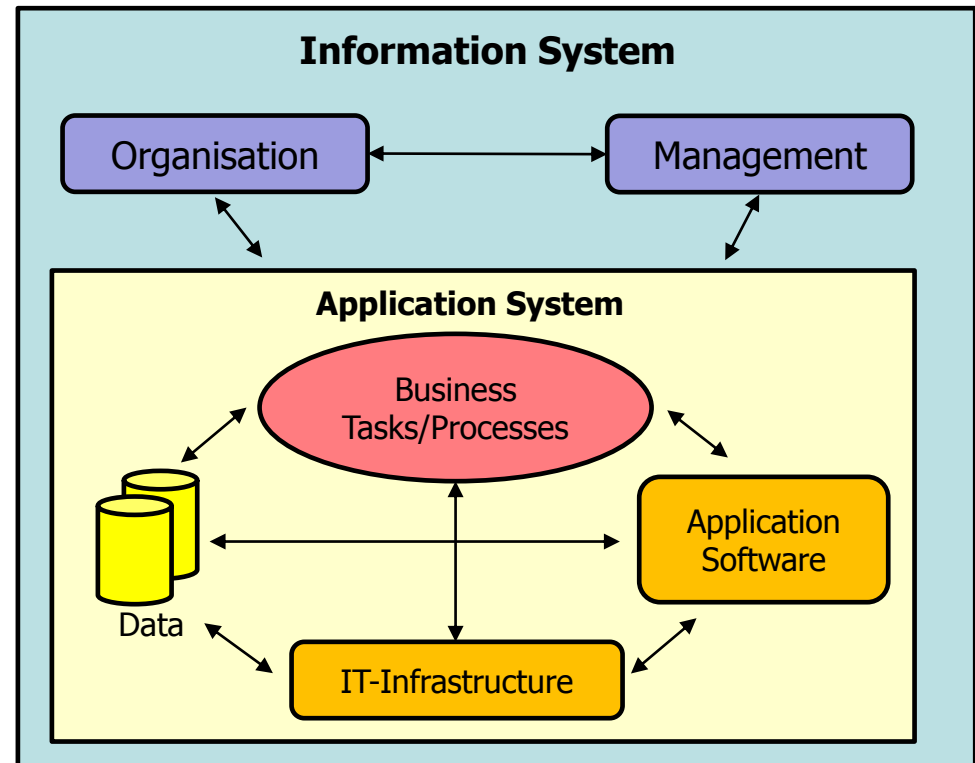
## Exercise 1: IS vs. AS

Referring to the MyPlace, give an example for an Information System as well as an Application System and describe their relation to each other.

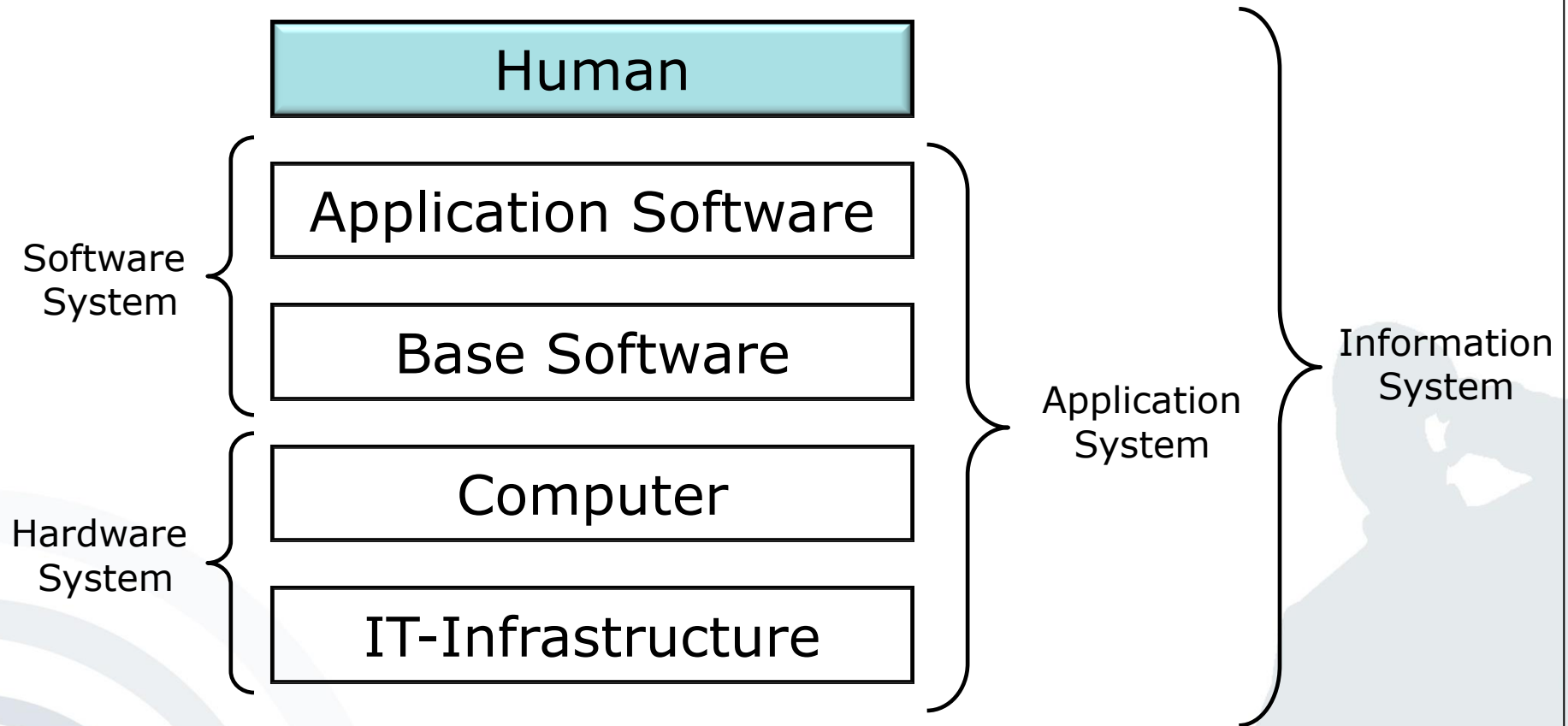




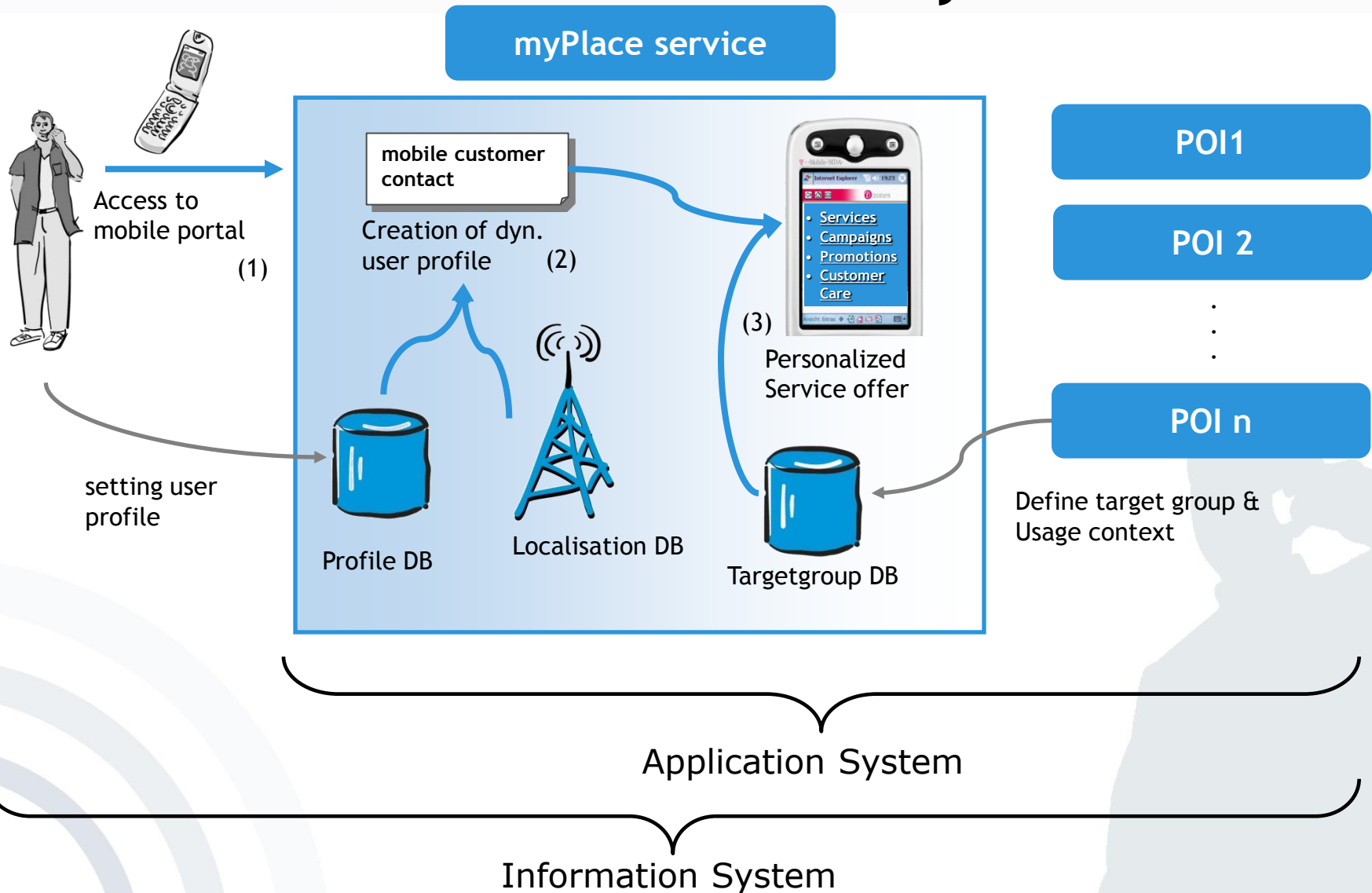
- **Information System (IS):**  
A system which was built to be used in a part of an enterprise. It contains all relevant application systems and is embedded into the organisation and management of an enterprise.
- **Application System (AS):**  
A system, which consists of business tasks and processes it supports, the underlying IT-infrastructure, the application software and the data it required in order to accomplish its objectives.



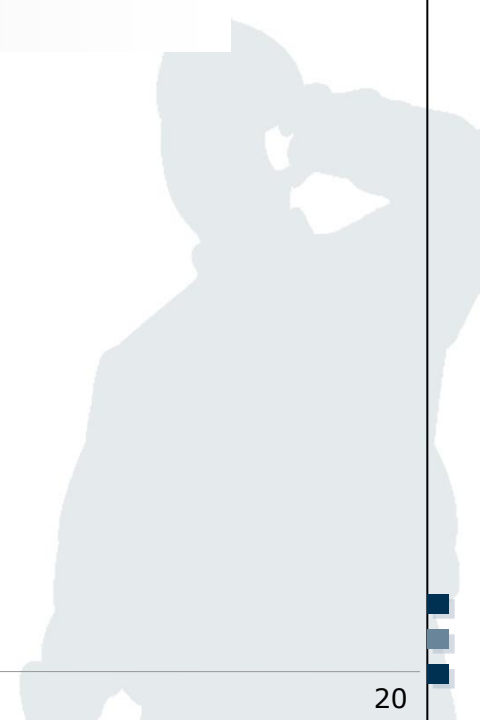
Source: Laudon, K.C., Laudon, J.P., Schoder, D. (2010)



Source: Teubner (1999)

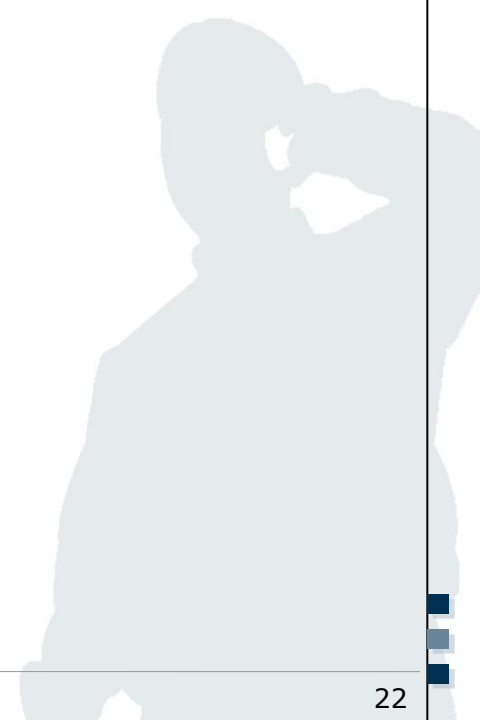


- Course Organisation
- myPlace - A mobile location-based service
- Information Systems
  - Information and Application Systems
  - Models
  - Enterprise Modelling



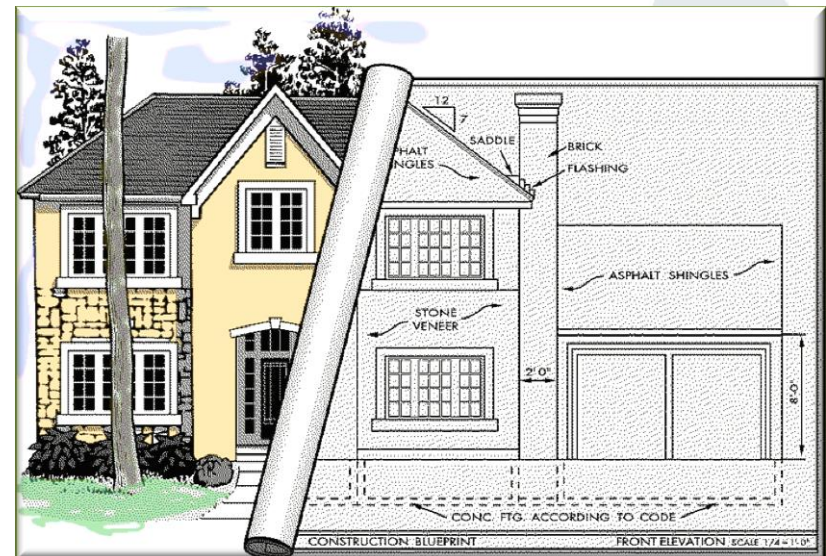
- a) What is a **model**? Give an example in relation to the myPlace service.
- b) Explain briefly the abstraction mechanisms “aggregation” and “generalisation” in the modelling context. In addition, give an example for each of the two mechanisms with regard to MyPlace.

a) What is a **model**? Give an example in relation to the myPlace service.

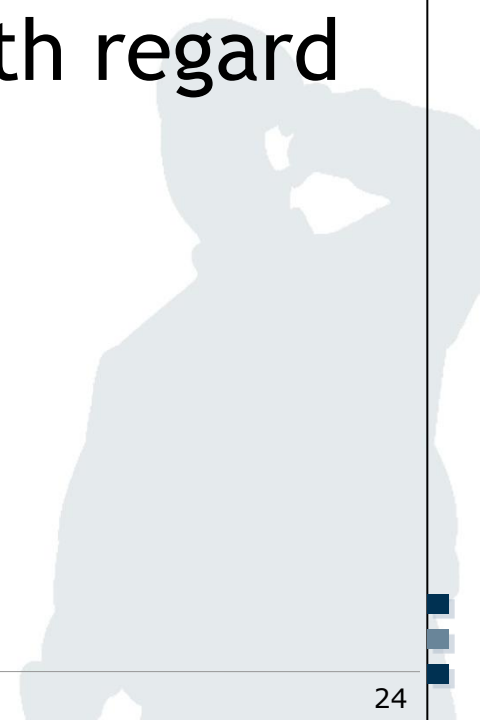


## Exercise 2: Models

- A model is a representation of a the real world with the following properties
  - **Representation:** A model is always representation of natural or artificial objects, which themselves can be models.
  - **Abstraction:** Models are typically an excerpt of reality.
  - **Pragmatism:** The contents of a model are relativized through the following questions: For whom? Why? For what?
  
- *Example for MyPlace:*
  - Real life directions vs. app navigation

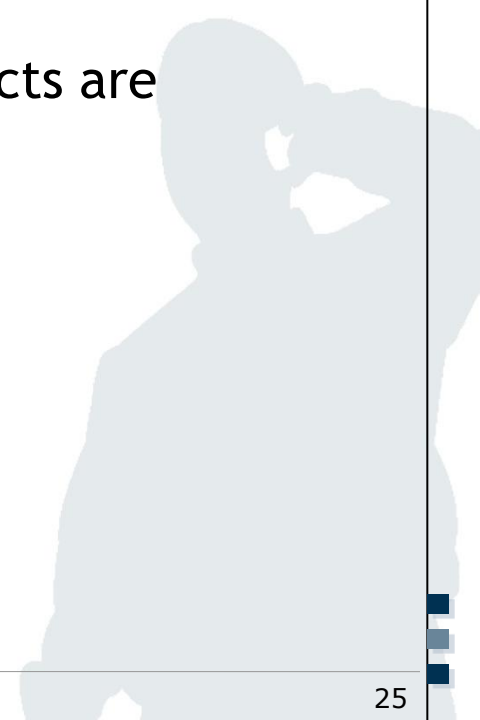


- b) Explain briefly the abstraction mechanisms “aggregation” and “generalisation” in the modelling context. In addition, give an example for each of the two mechanisms with regard to MyPlace.



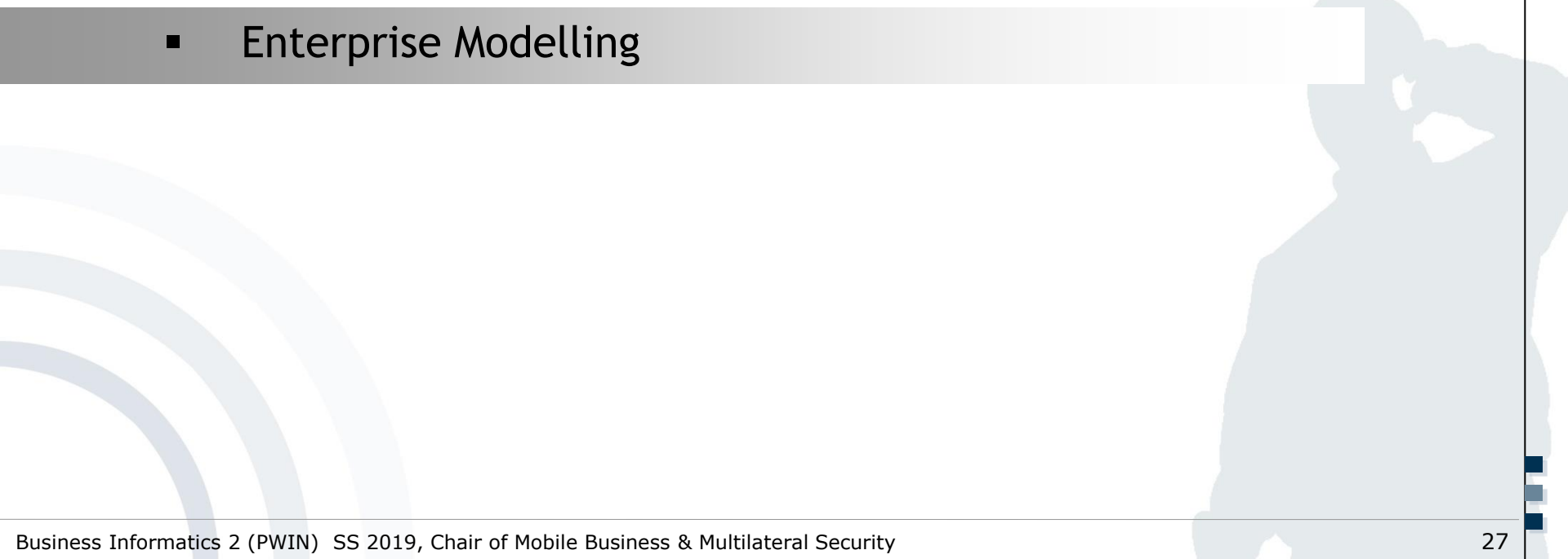


- Models are used for the purpose of **simplification and complexity reduction**
- Abstracting mechanisms in this regard are:
  - **Aggregation** (vs. Disaggregation): Different objects are combined to a new object.
  - **Generalisation** (vs. Specialisation): Similar objects are abstracted to become a new high-level object.



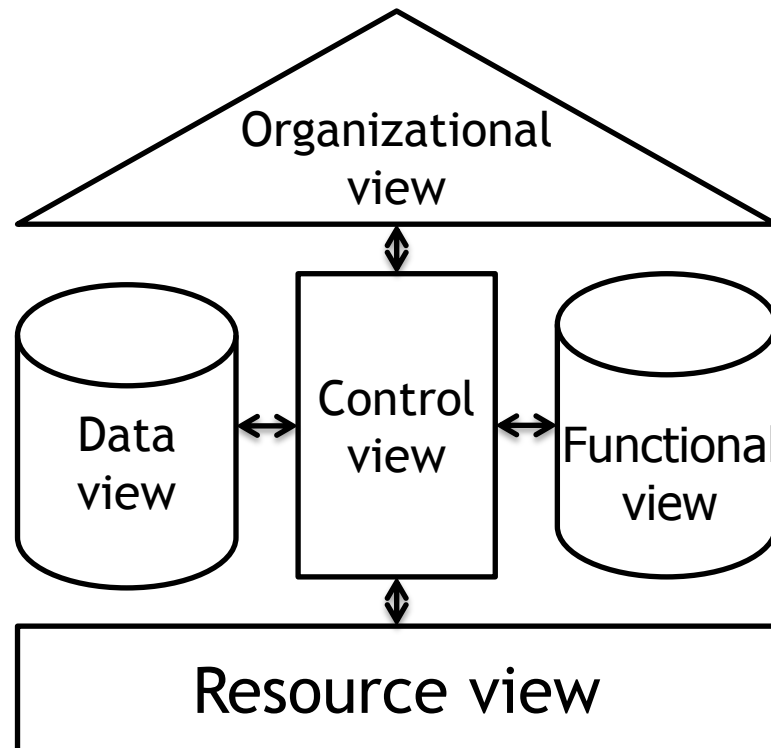
- Models are used for the purpose of **simplification and complexity reduction**
- Abstracting mechanisms in this regard are:
  - **Aggregation** (vs. Disaggregation): Different objects are combined to a new object.
  - **Generalisation** (vs. Specialisation): Similar objects are abstracted to become a new high-level object.
- InstaMatch Examples
  - **Aggregation**: Map, location, directions, Smartphone  
→ Mobile Navigation
  - **Generalisation**: Restaurants, pharmacies, ATMs  
→ Point of Interests

- Course Organisation
- myPlace - A mobile location-based service
- Information Systems
  - Information and Application Systems
  - Models
  - Enterprise Modelling



## Exercise 4: Enterprise Modelling

- Develop a high-level Enterprise Model of the myPlace Service using the ARIS approach.

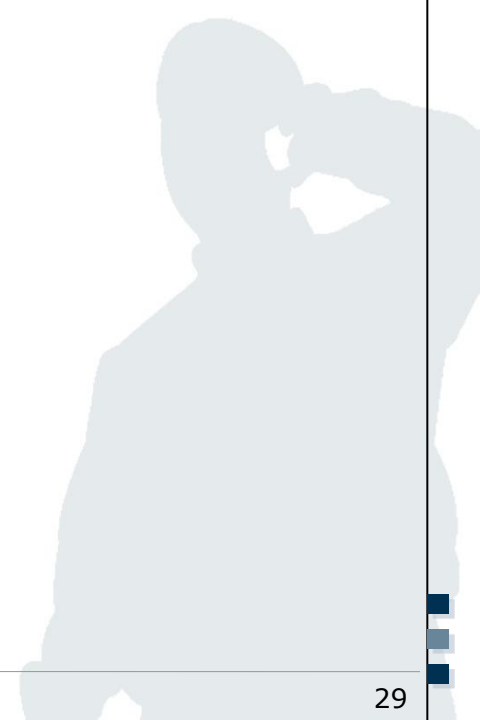


# Exercise 4: Enterprise Modelling

- Enterprise Model

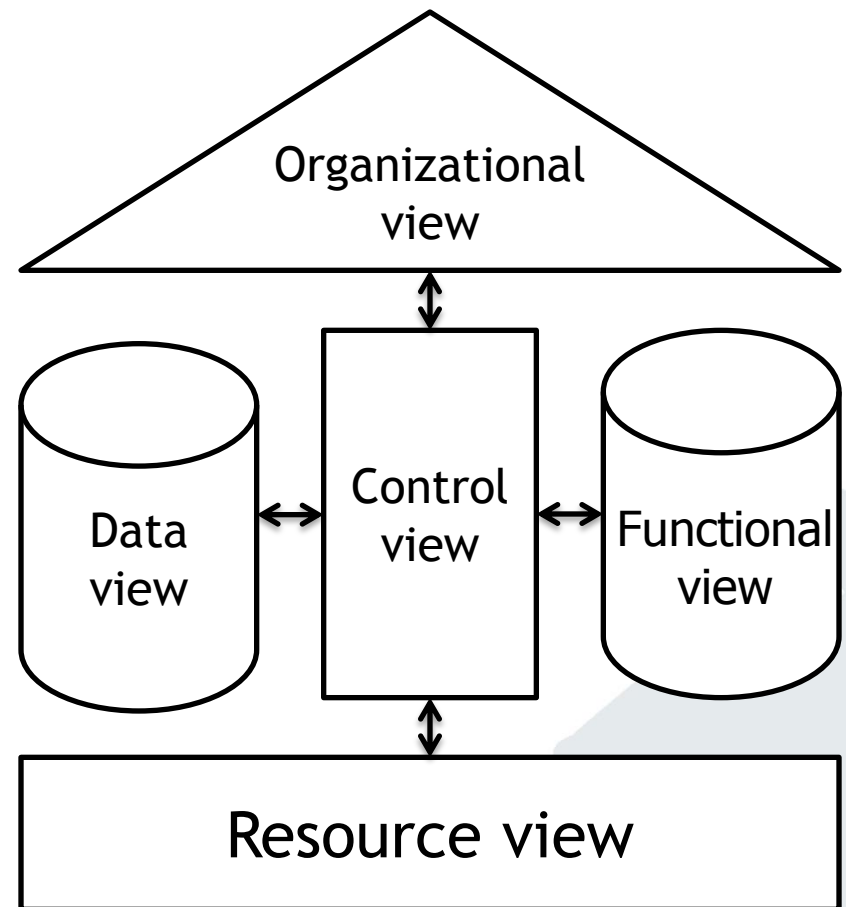
- An enterprise model is a representation of the structure, activities, processes, information, resources, people, behaviour, goals, and constraints of a business, government, or other enterprises.

(Source: F.B. Vernadat 1997)

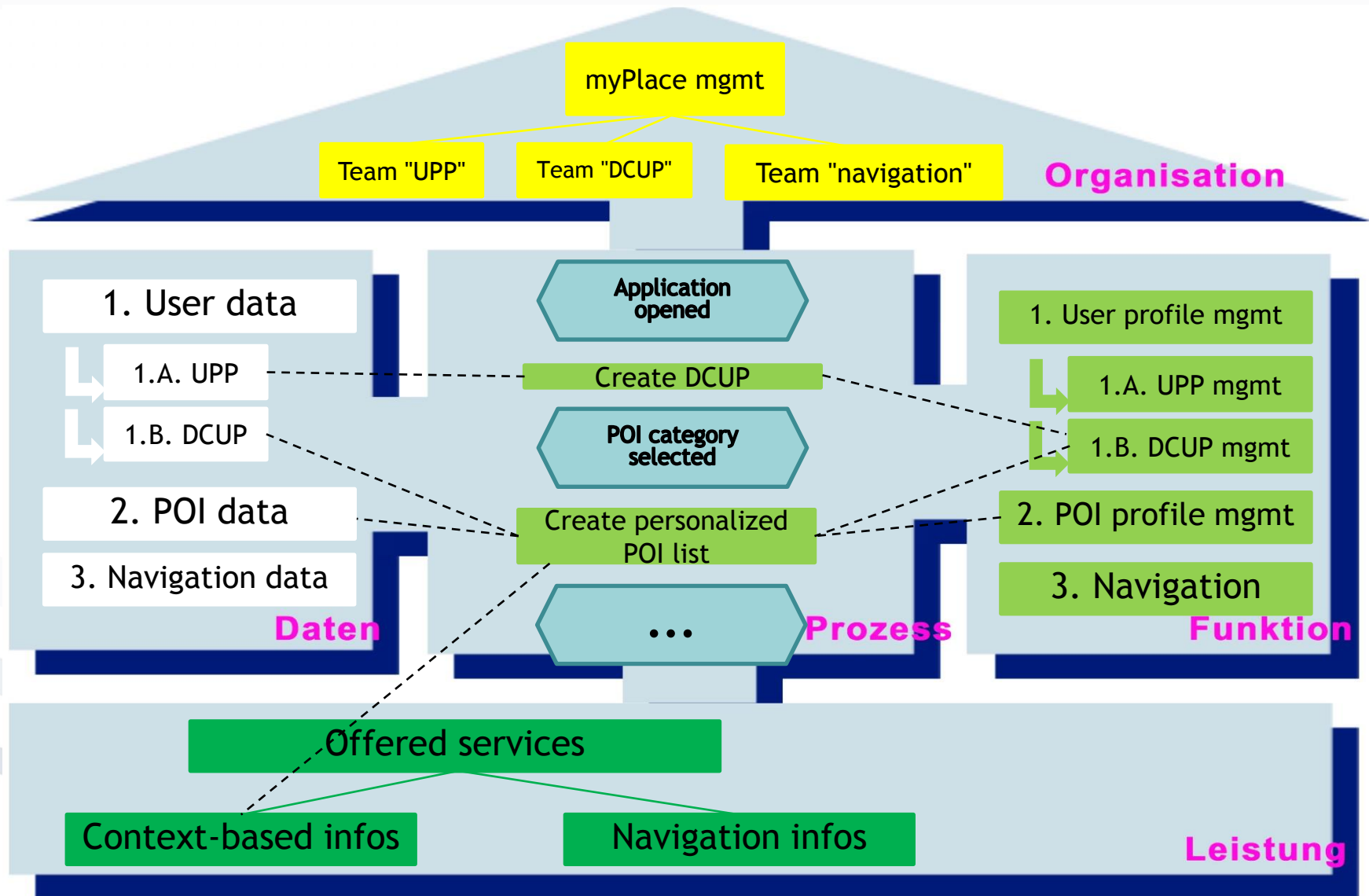


# Exercise 4: Enterprise Modelling

- **Organisational View**
  - Resources of company's organisational structure (humans, machines, hardware, etc.)
  - Organisational Chart
- **Functional View**
  - All processes generating output as well as their relation to each other
  - Function Tree
- **Data View**
  - All events generating data (e.g. documents, e-mails, etc.)
  - Entity-Relationship Model
- **Control View**
  - Integration of all other views into a logic process
  - Event-driven Process Chains
- **Resource View**
  - Services, Products and Financial Assets
  - Product Tree



# Exercise 4: Enterprise Modelling



# Thank you!

