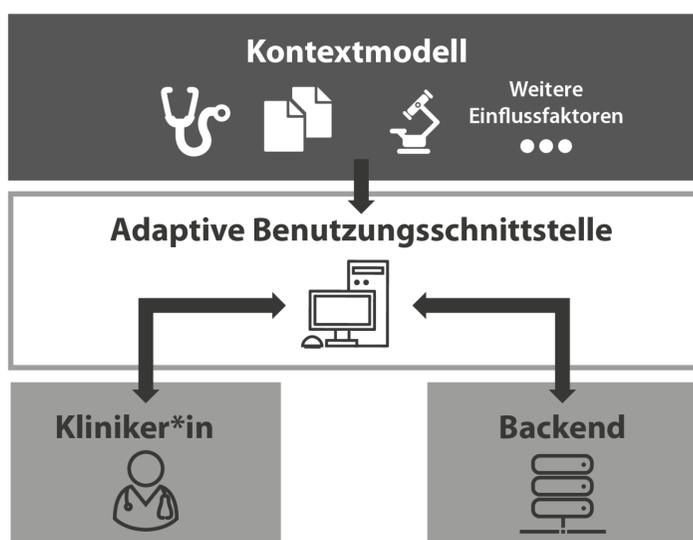


RP9 - Context modelling for the point of care

Research question

- Determination of specific point of care influencing factors
- Formalization of a specific context model based on the factors
- Adaptive user interface concept for efficient knowledge-based decision making



Context model as the basis of the user interface

Solution approach

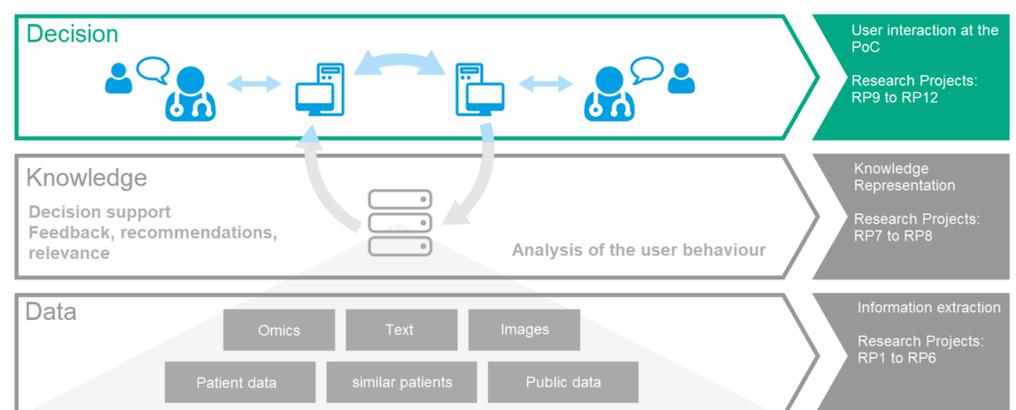
- Direct involvement of clinicians through participatory development process [1]
- Qualitative survey methods and software-technical domain-driven design [2]
- Evaluation of the possibility to dynamize the presentation based on Adaptive User Interfaces [3]
- Derivation of a context model to adapt the presentation of knowledge at the point of care
- Data protection and information security driven concept
- Ethics by design
- Validation through a software prototype

State of the art

- Existing context models from other domains can be used as a starting point [4]
- *Conceptual modelling* provides integrated models for treatment guidelines [5] and clinical pathways [6]
- Guidelines for ethically based software design are published by the Data Ethics Commission of the Federal Government [7]
- Reusable procedures for participatory approaches in software development [8]
- Microservice und -frontends as a basis for the technical realisation [9]
- These approaches need to be combined into a new overall model and missing aspects for the point of care need to be added

Integration

- The context model uses in particular knowledge representations (FP 7 & 8), and guidelines, and the SOP models (FP 1)
- The data that is to be visualized are results from the FPs 1 to 5
- Technical implementation takes place via microservices and -frontends consistently in terms of the Smart Hospital Information Platform (SHIP)
- Iterative evaluation with involved stakeholders



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