



## **Bachelor's Thesis Kick-Off Presentation**

# A Prototypical Implementation of a Smartphone App for Ad-Hoc Process Documentation

Alexandra Fritzen, 20.10.2014

Software Engineering for Business Information Systems (sebis) Department of Informatics Technische Universität München, Germany

wwwmatthes.in.tum.de

# Agenda



Motivation – Why document processes?

Comparison of Business Process
Documentation Methods

The Solution: Informal Process Documentation

4 Implementation

Conclusion & Outlook

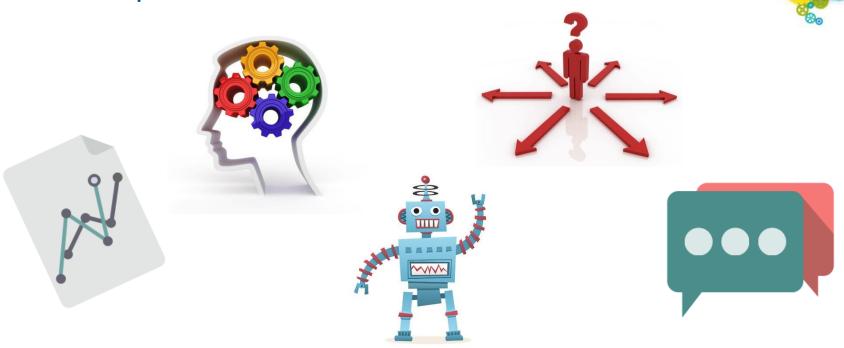
## Motivation – Why document processes?



#### Business process:

"Basic unit of business value within an organization" (Verner 2004, p. 83)

Business process documentation:

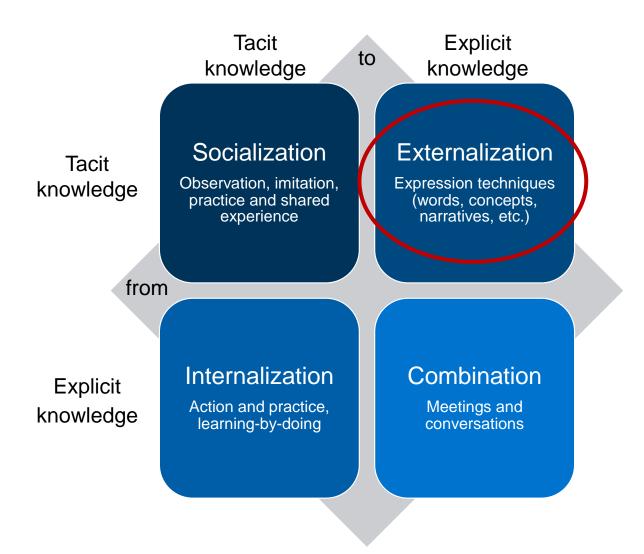


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## The Theory of Organizational Knowledge Creation

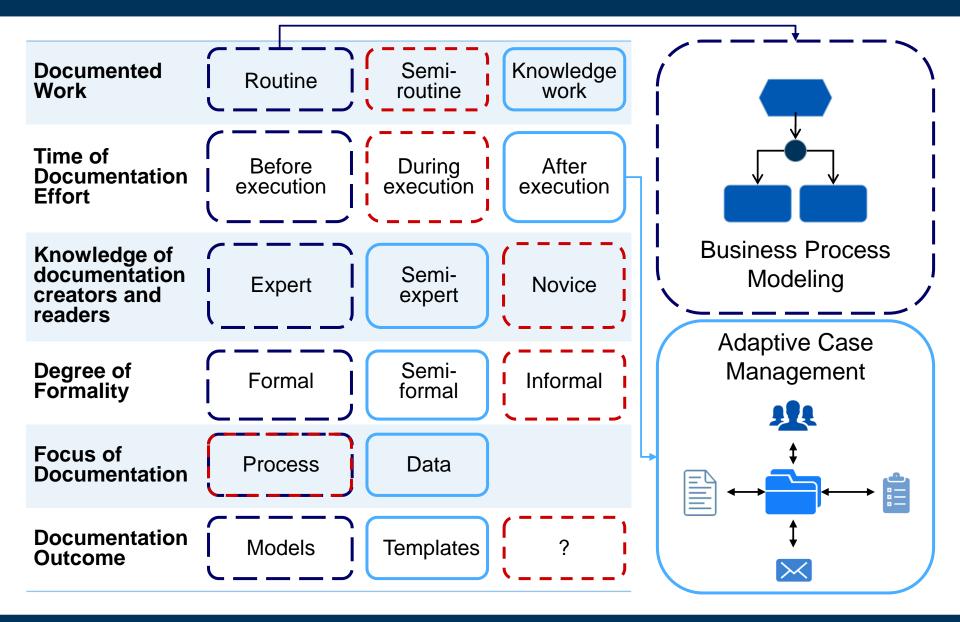


(Nonaka 1994, p. 19)



#### **Business Process Documentation Methods**

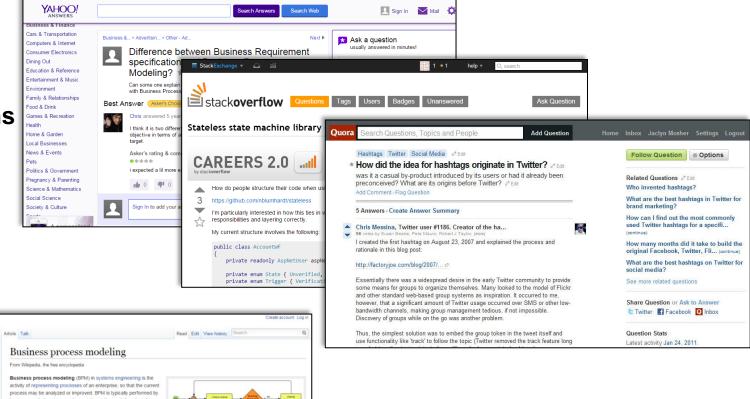




#### The Solution: Informal Process Documentation







#### Wikis

WIKIPEDIA Contents Featured conten Current events business analysts, who provide expertise in the modeling discipline; Random article by subject matter experts, who have specialized knowledge of the Donate to Wikipedia Wikimedia Shop processes being modeled: or more commonly by a team comprising both. The business objective is often to increase process speed or reduce cycle time: to increase quality; or to reduce costs, such as About Wikipedia labor, materials, scrap, or capital costs, in practice, a management decision to invest in business process modeling is often motivated by Recent changes the need to document requirements for an information technology Contact page Change management programs are typically involved to put any improved business processes into practice. With advances in software Related changes design, the vision of BPM models becoming fully executable (and capable of simulations and round-trip engineering) is coming closer to reality. Upload file Special pages Contents [hide] Permanent link Page information 1 History Wikidata item 2 RPM topics Cite this page 2.1 Business model 2.2 Business process

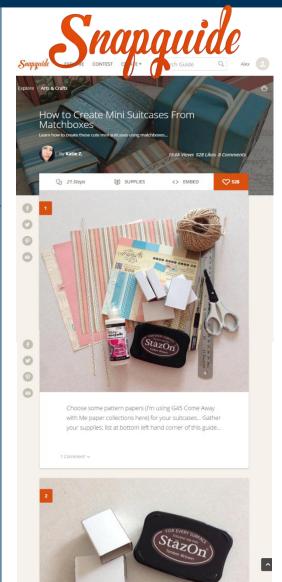
#### The Solution: Informal Process Documentation

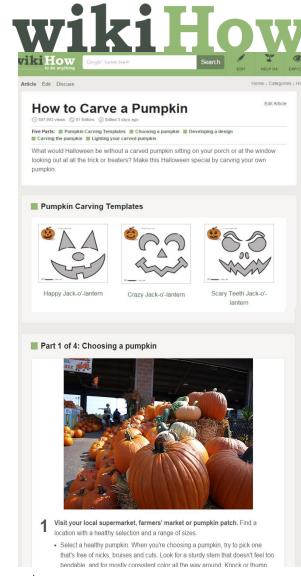


#### Tutorials

- Information literacy
- Application usage
- DIY & crafting



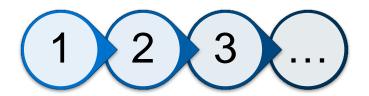




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#### The Solution







#### → Understood by all users



→ Emergence of **best** process documentation



- → Low barrier of entry
- → Ad-hoc process documentation→ Touch screen: easy manipulation of process elements



→ Simple user interface with limited number of features

All icons from: https://www.iconfinder.com/iconsets/ionicons, https://www.iconfinder.com/iconsets/hawcons and https://www.iconfinder.com/iconsets/freecns-cumulus

#### **Research Questions**



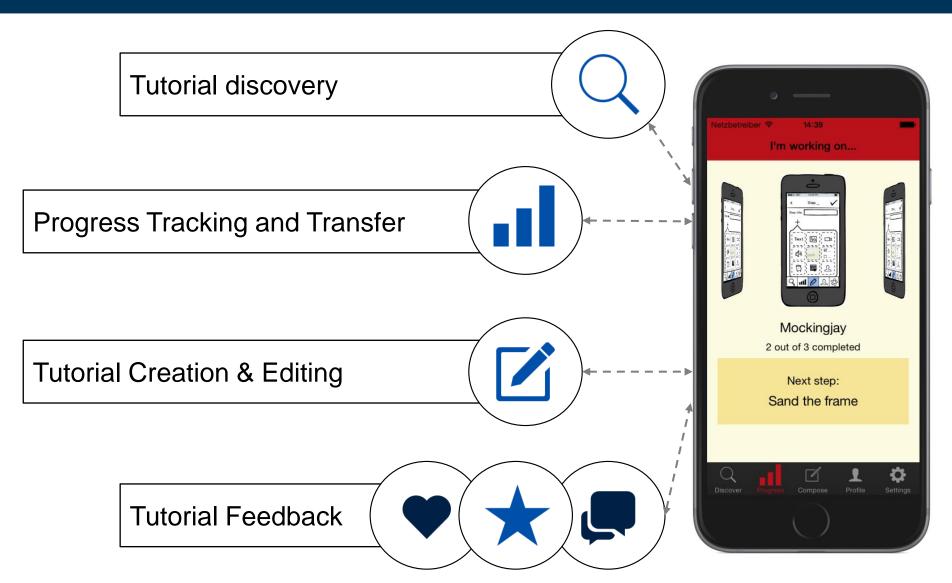
What are **strengths and weaknesses** of existing process documentation approaches?

What are the **challenges** involved in documenting a process accurately by a **step-by-step guide** and how can these challenges be **overcome**?

To what degree are step-by-step guides easier to create and to read than standard process documentation?

# Implementation - Use Cases

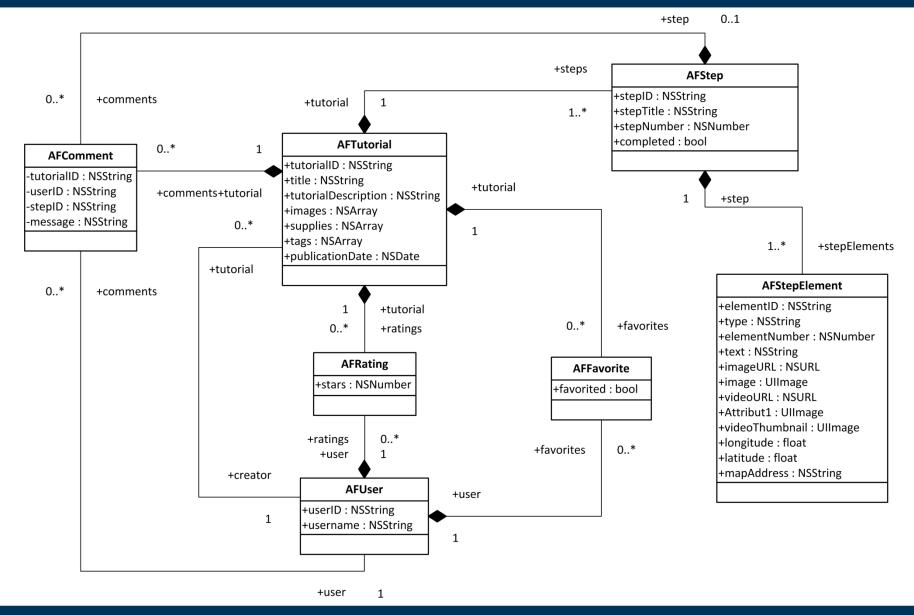




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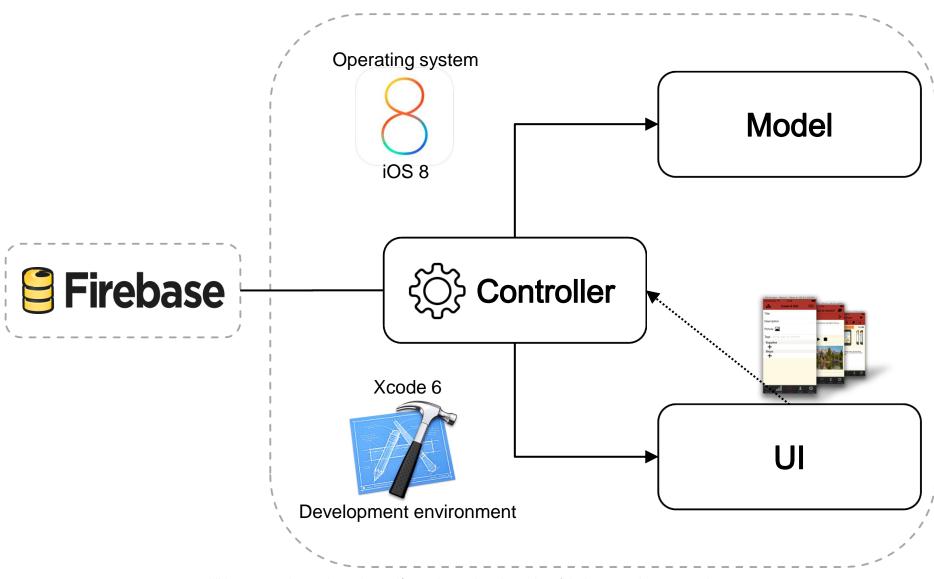
## Implementation - Data Model (UML)





# Implementation – System Design

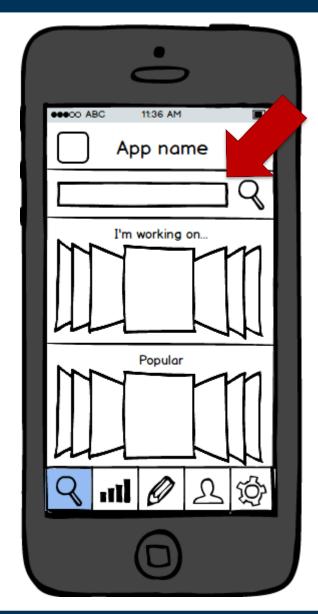


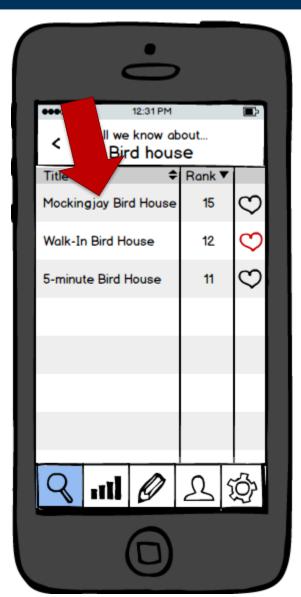


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# Mockups – Tutorial Discovery





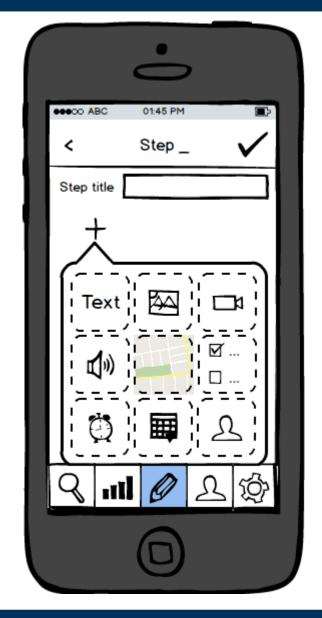




## Mockups – Create & Edit







#### Conclusion & Outlook



#### Implementation

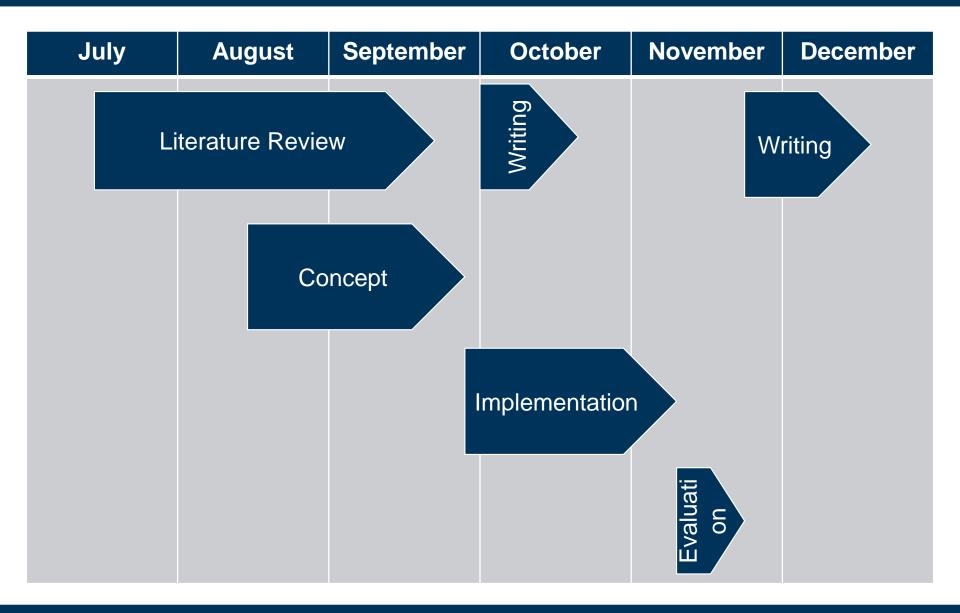
- Improving user interface simplicity
- Client-server connection
- Documentation instantiation

#### **Evaluation**

Evaluation of usability, understandability and readability

### Timeline





# Thank you for your attention!



Questions?

## Then why are many processes not documented?



"The academic world did not pay sufficient attention to an **appropriate** visualization of process models" that are user-oriented and intuitive. (Rosemann 2006a, p. 254)

Most process models and corresponding languages are rather puristic from a visual point of view (Reijers et al. 2011, p. 340)

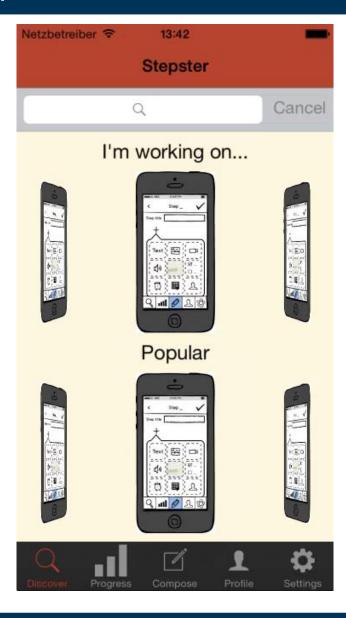
A better use of graphical representations is needed (van der Aalst, Wil M. P. et al. 2003, p. 6)

"Minimal requirements for non-expert model interaction" (Nolte, Prilla 2012, pp. 57–72):

- simpler elements of the modeling notation,
- tools with less features to support the creation of simple tasks and
- simple ways of manipulating the model e.g. using a touch screen

# Video of current implementation status





#### Sources



Nolte, Alexander; Prilla, Michael (2012): Normal Users Cooperating on Process Models: Is It Possible at All? In David Hutchison, Takeo Kanade, Josef Kittler, Jon M. Kleinberg, Friedemann Mattern, John C. Mitchell et al. (Eds.): Collaboration and Technology, vol. 7493. Berlin, Heidelberg: Springer Berlin Heidelberg (Lecture Notes in Computer Science), pp. 57–72.

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Reijers, H. A.; Freytag, Thomas; Mendling, Jan; Eckleder, Andreas (2011): Syntax highlighting in business process models. In *Decision Support Systems* 51 (3), pp. 339–349. DOI: 10.1016/j.dss.2010.12.013.

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