

An Integrated Modeling Environment for Social Applications

Master's thesis kick-off presentation

Jan Schalkamp, 23.03.2015, Garching b. München

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

www.matthes.in.tum.de

1. Introduction

- Context
- Problem definition

2. Research Question

3. Proposed Solution

- Integration with SocioCortex
- Technologies and Standards

4. Evaluation

5. Timeline

Social Software

End-user development Software

- Collaboration
- Social Interaction
- Communities



WIKIPEDIA
The Free Encyclopedia



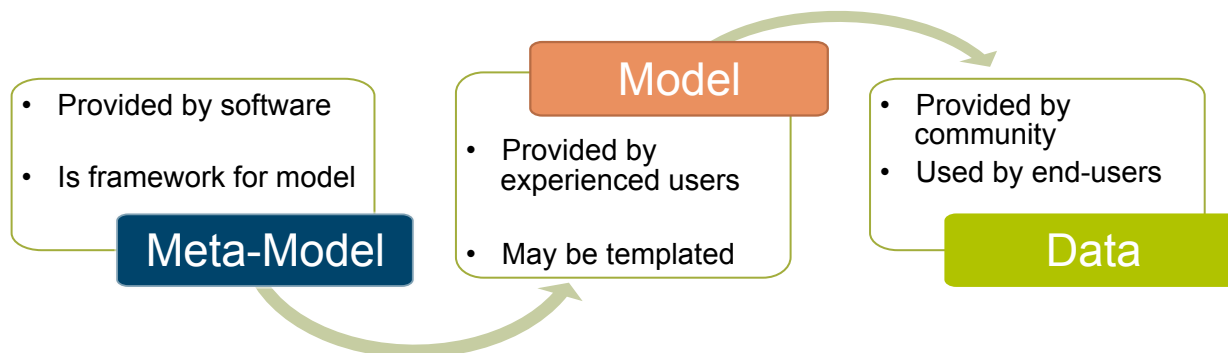
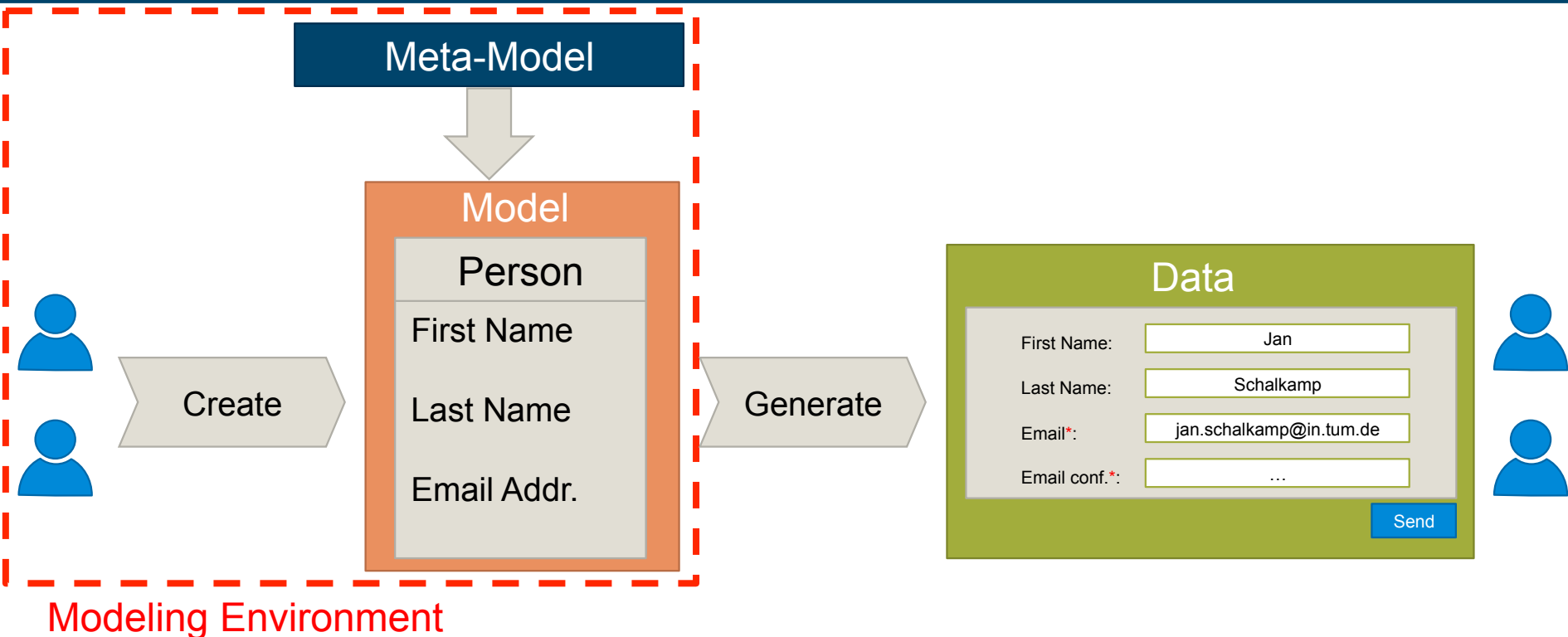
infoAsset Tricia



- Tools to allow non-programmers to program
- Users can create and modify software artifacts



MINDSTORMS
EV3



Introduction

Example – Tricia

Fakultät für Informatik
Technische Universität München

sebis

Explorer

Search

+ sebis Intranet

+ sebis Public Website

+ Team

+ Research

+ Publications

+ Teaching

+ Theses & Guided Research

+ Events

+ Sponsors & Partners

+ Career Opportunities

+ Contact

+ Datenschutzerklärung

+ SocioCortex - Internal Wiki

+ SocioCortex

+ Alines Wiki

+ BEAMS

+ E.ON Wiki

+ EAM Pattern Catalog

+ Photos

+ sebis Article Archive

+ sebis Infrastructure (Serverliste)

+ Sebis Kontakte

+ Sebis Research News

+ Sebis Student News

+ svnexport

+ SyCa@Ni

+ SyCaStore

+ SyCaStore - Backup

+ System Cartography Wiki

+ TEAMT

+ Track Enterprise Transformation at ECIS 2014

+ Wik4EAM

+ AK Unternehmensarchitektur

+ Download

+ EAM Training (sebis)

+ SocioCortex Blog

+ New Workspace

Deleted Items

My Tricia

Activity Stream

Users & Groups

Find pages, users, groups, ...

+ New

Sebis Public Website

Types

Settings of type Student Project

Instances

Templates

Settings

Versions

Watch

Settings

Settings for type Student Project in workspace Sebis Public Website

Created May 3, 2013 - Last modified by Alexander Schneider May 27, 2013

Information

Information

Name (singular)

Student Project

Name (plural)

Student Projects

Icon Name

Name generation pattern

Counter for name generation

0

Applies to

Pages

Allows Free Attributes and Attribute Suggestions

Show in explorer

Show "New" button

Hide Subpages

Show in global "New" dialog

Types of Subpages

Show free attributes in instances table

Attributes of type Student Project

+ New Attribute

Change Attribute Order

Attribute Name	Frequency	Attribute Type	Default Values	Read Only	Show in Tables	Multiplicity	Help for Editors	Action
Title (de)	149/158 (94 %)	Text		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Exactly one value		Edit Delete
Title (en)	141/158 (89 %)	Text		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Exactly one value		Edit Delete
Project	75/158 (47 %)	Reference Content Type: Page Research Project		<input type="checkbox"/>	<input checked="" type="checkbox"/>	At most one value		Edit Delete
Type	158/158 (100 %)	Enumeration Options • Bachelor's Thesis • Master's Thesis • ...	Default Values • Bachelor's Thesis • Master's Thesis • ...	<input type="checkbox"/>	<input checked="" type="checkbox"/>	At least one value		Edit Delete

Back to top

Modeling Environment

Introduction

Example – Drupal

Person

Home » Administration » Structure » Content types » Person

LABEL	MACHINE NAME	FIELD TYPE	WIDGET	OPERATIONS
Title	title	Node module element		
Body	body	Long text and summary	Text area with a summary	edit delete

Add new field

Label

- Select a field type -

Type of data to store.

- Select a widget -

Form element to edit the data.

Add existing field

Label

- Select an existing field -

Field to share

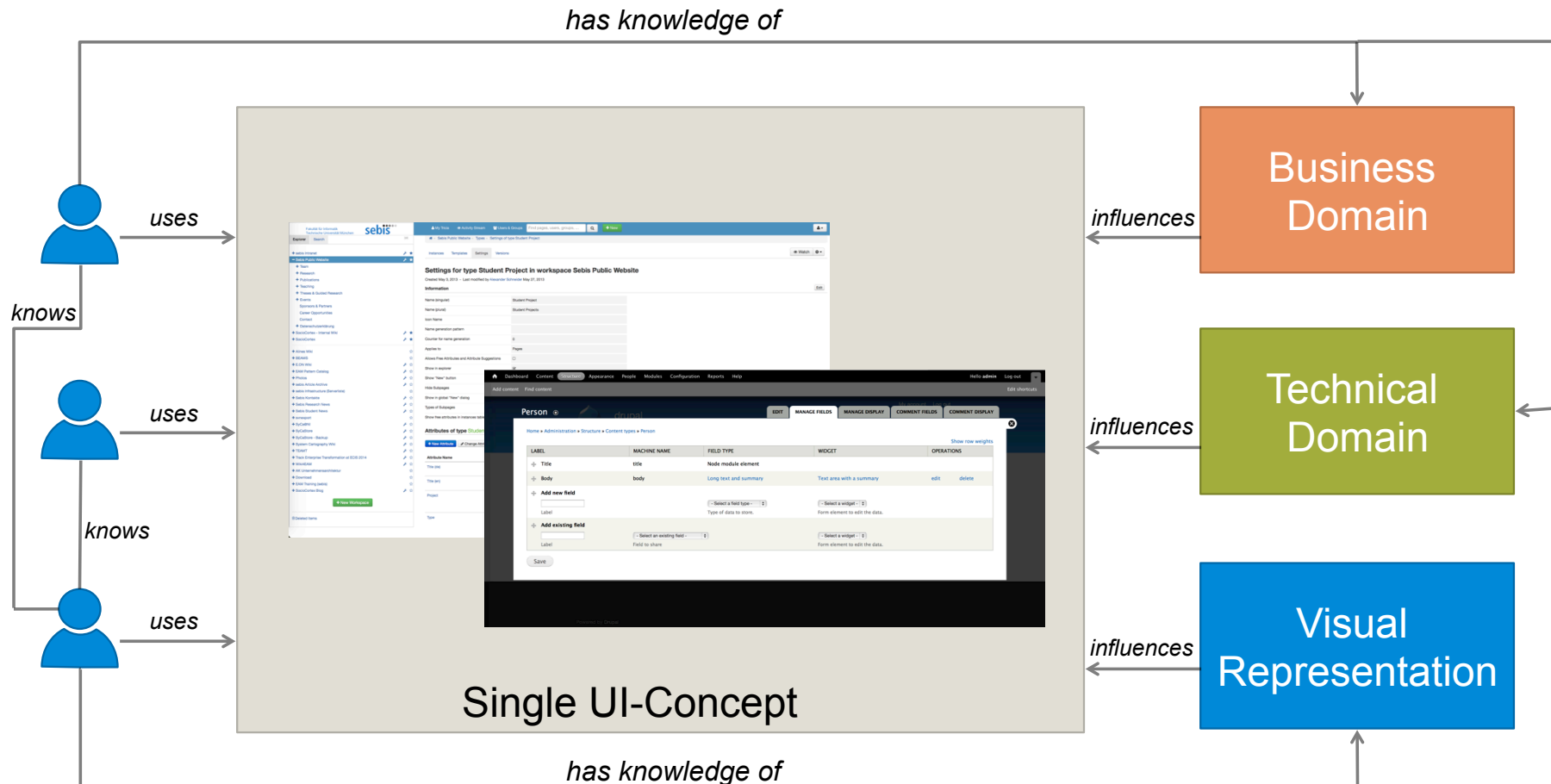
- Select a widget -

Form element to edit the data.

Save

Modeling Environment

Complexity of the modeling environment



1. Introduction

- Context
- Problem definition

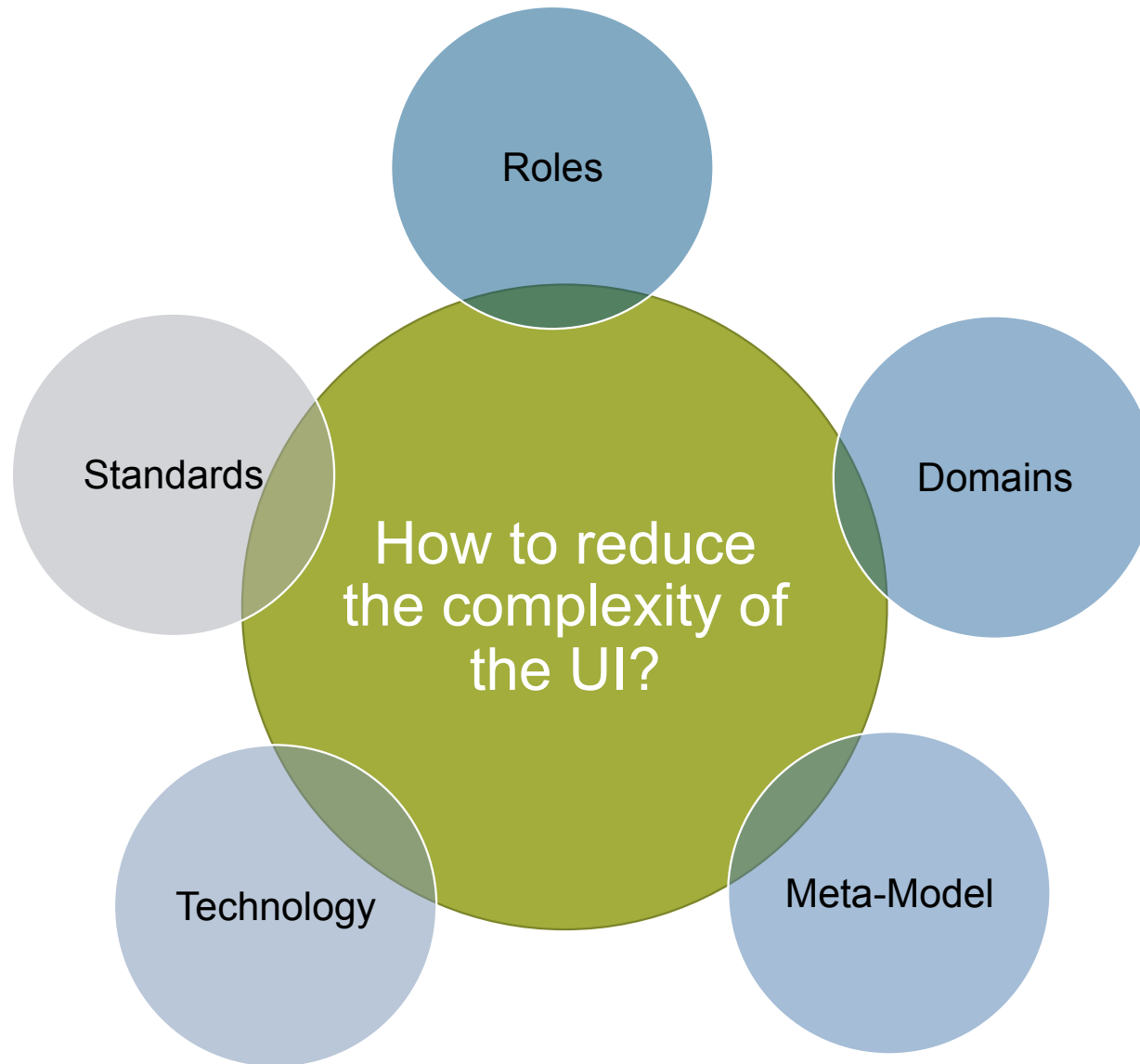
2. Research Question

3. Proposed Solution

- Integration with SocioCortex
- Technologies and Standards

4. Evaluation

5. Timeline



1. Introduction

- Context
- Problem definition

2. Research Question

3. Proposed Solution

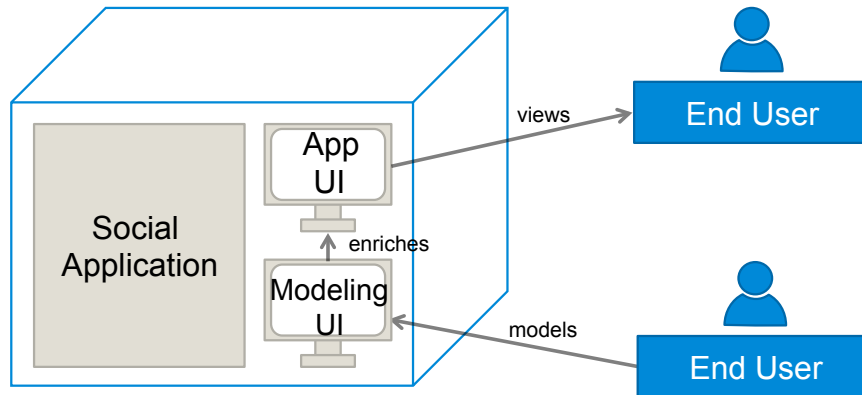
- Integration with SocioCortex
- Technologies and Standards

4. Evaluation

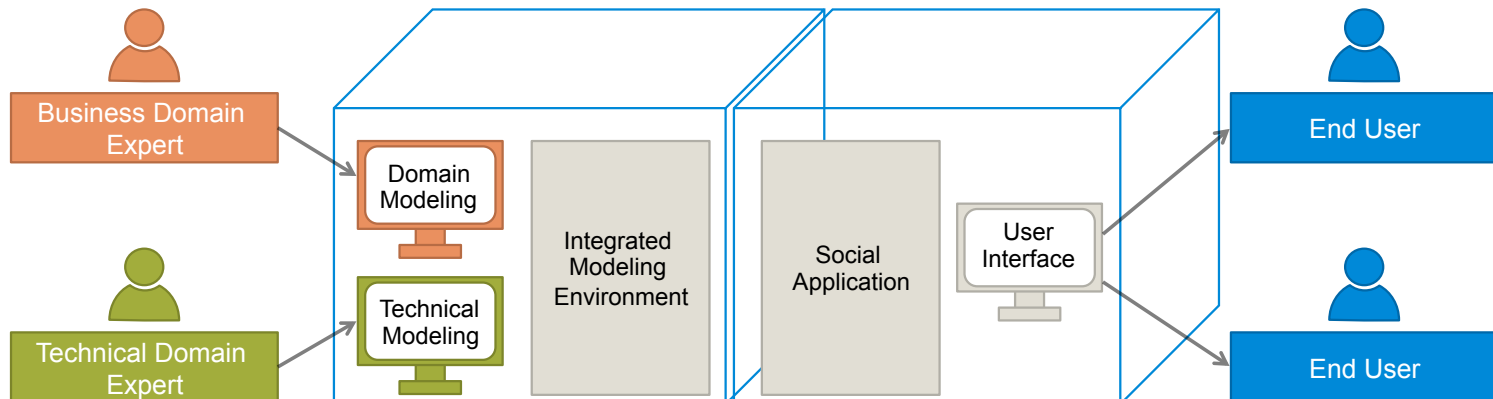
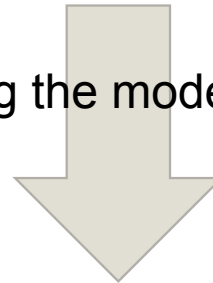
5. Timeline

Proposed Solution

Split modeling UI

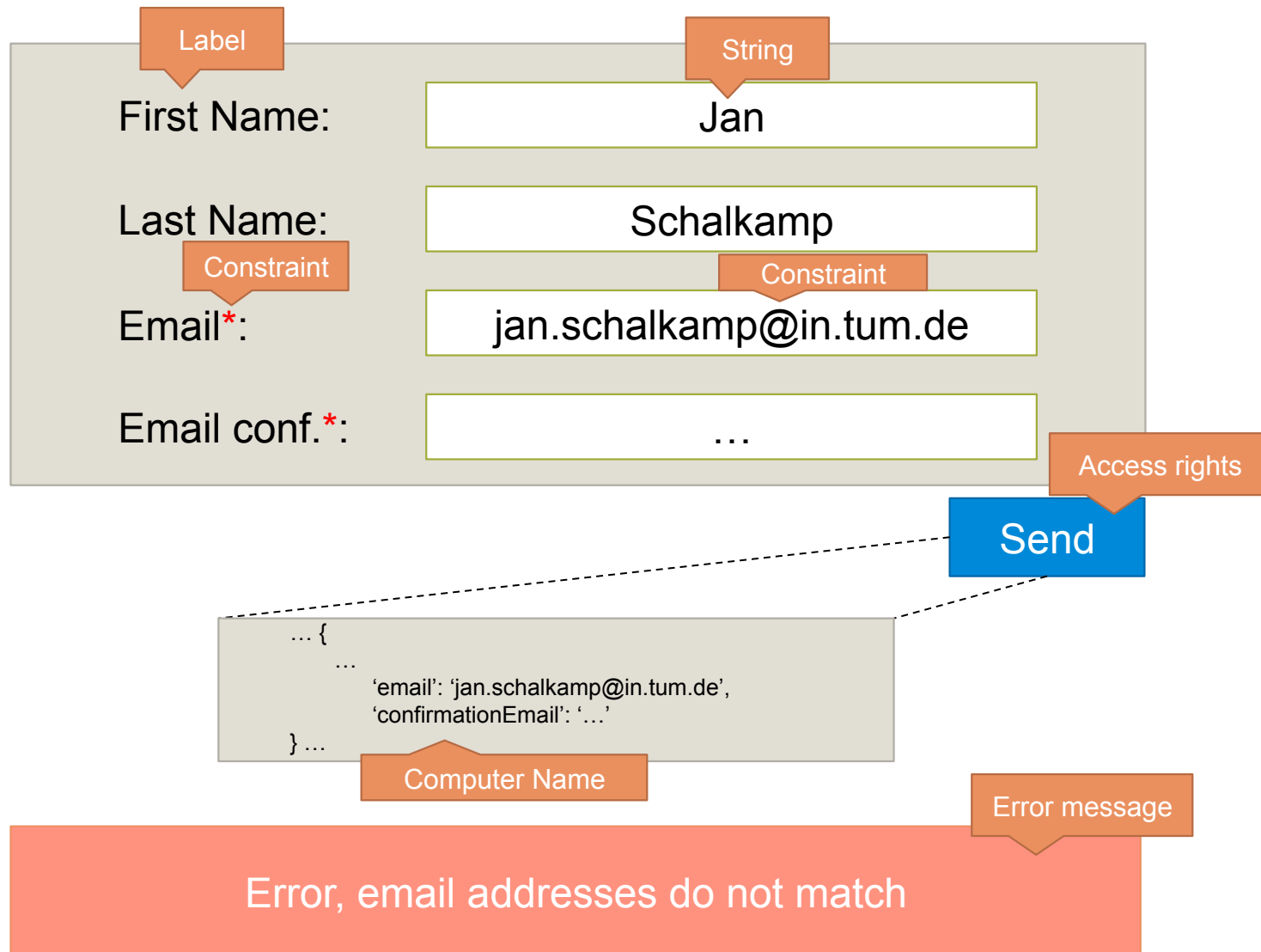


Reduce UI-complexity by splitting the modeling environment based on roles



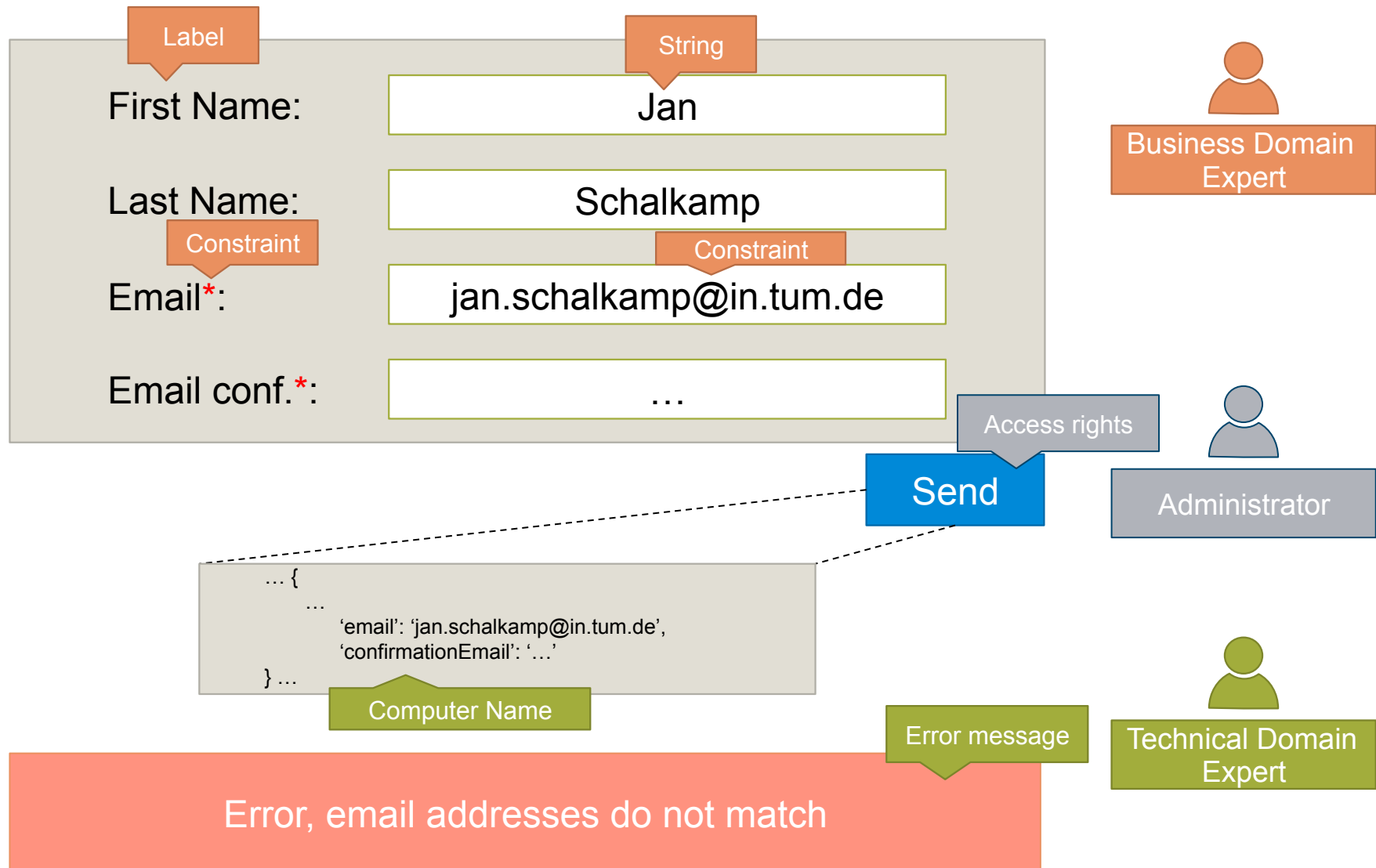
Proposed Solution

What information is needed to create a model?



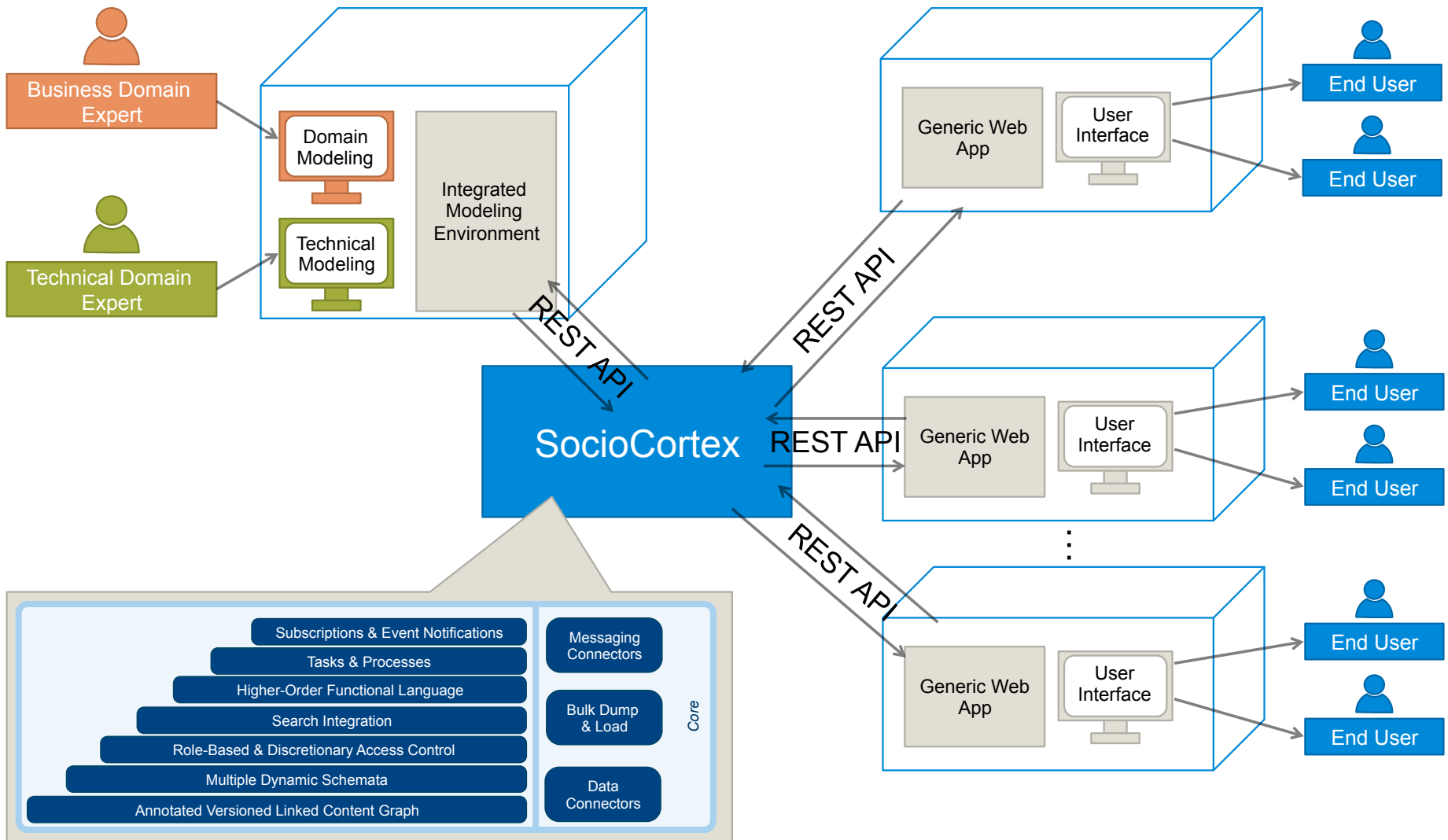
Proposed Solution

Who provides the information?



Proposed Solution

Integration to SocioCortex

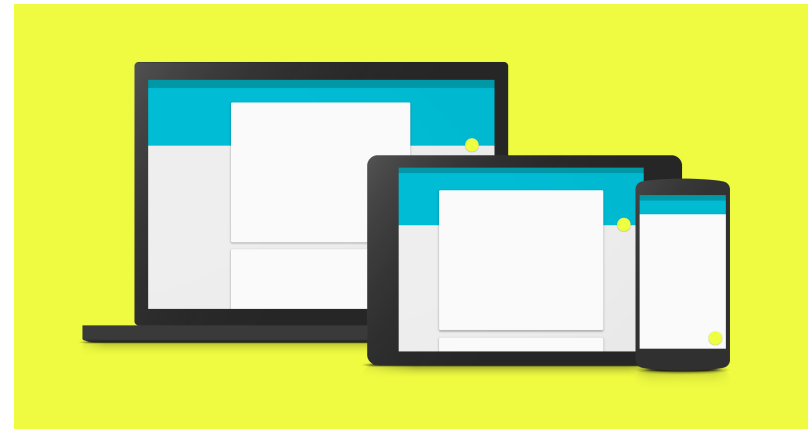




json-schema.org



Swagger



Google Material Design

1. Introduction

- Context
- Problem definition

2. Research Question

3. Proposed Solution

- Integration with SocioCortex
- Technologies and Standards

4. Evaluation

5. Timeline

Find common Use-Cases

- Create a model
- View a model
- Edit a model
- Set access rights

Select evaluation criteria

- *Where terminology is used within the system, is it familiar?*
- *Does the sequence of activities required to complete a task follow what the user would expect?*
- Prepare questionnaire

Assign roles & conduct experiments

- Execution of Use-Cases
- In Tricia, Drupal, IME
- Fill out questionnaire

Evaluate results

- Compare results
- Conclusions

1. Introduction

- Context
- Problem definition

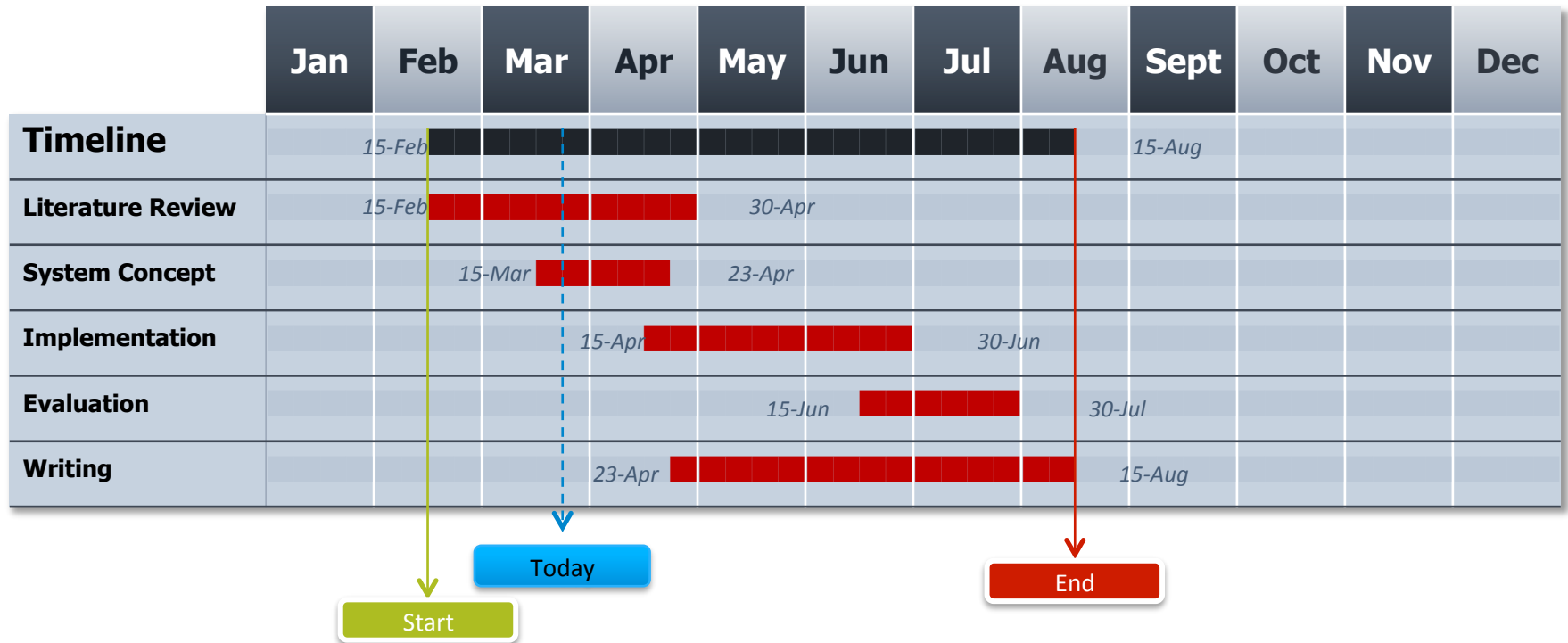
2. Research Question

3. Proposed Solution

- Integration with SocioCortex
- Technologies and Standards

4. Evaluation

5. Timeline





Thanks for your attention!



Jan Schalkamp
B.Sc.



Technische Universität München
Department of Informatics
Chair of Software Engineering for
Business Information Systems

Boltzmannstraße 3
85748 Garching bei München

Tel +49.89.289.17114
Fax +49.89.289.17136

jan.schalkamp@in.tum.de
www.matthes.in.tum.de