

Design and Prototypical Implementation of a Dashboard System for Visualizing Semi-Structured Data in a Traceable Way

Kickoff Presentation

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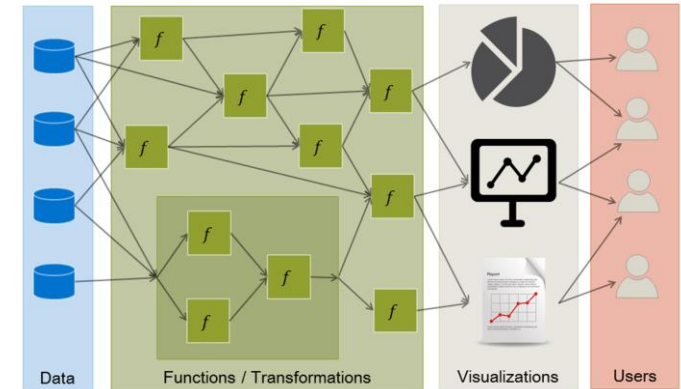
www.matthes.in.tum.de

UMBRELLA PROJECT

Spreadsheet 2.0 – User-oriented tools for analyzing complex linked data

Addresses shortcomings of existing spreadsheet applications, e.g.:

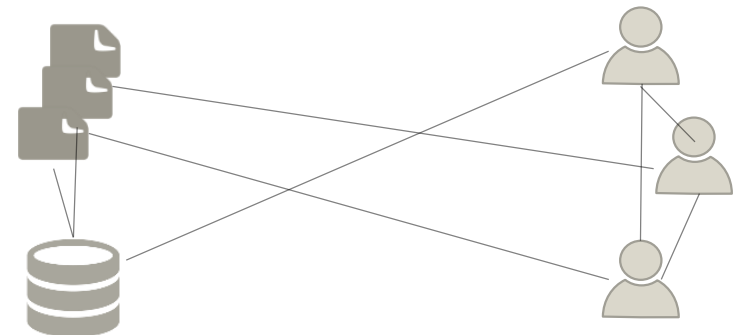
- Lack of transparency of a spreadsheet's design
- Lack of support for complex linked data
- No support for custom visualizations
- Lacking support for stakeholder-specific views



CONTEXT

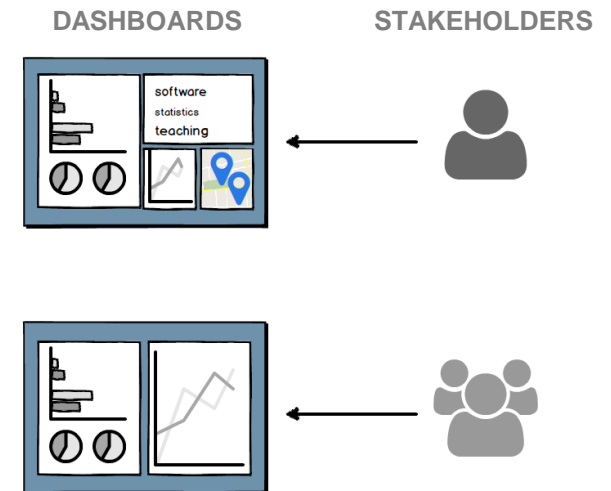
SocioCortex – A Social Content Hub

- Integrates data from various sources
- Hybrid Wiki data model
- Typed query language: **MxL**
- Holds a version history for all content items



“a Dashboard System for Visualizing Semi-Structured Data in a Traceable Way”

“a **Dashboard System** for **Visualizing Semi-Structured Data** in a **Traceable Way**”



“a Dashboard System for Visualizing Semi-Structured Data in a Traceable Way”

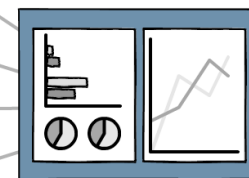
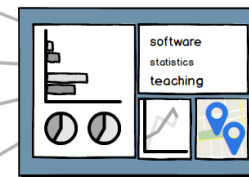
VISUALIZATIONS



software
statistics
teaching



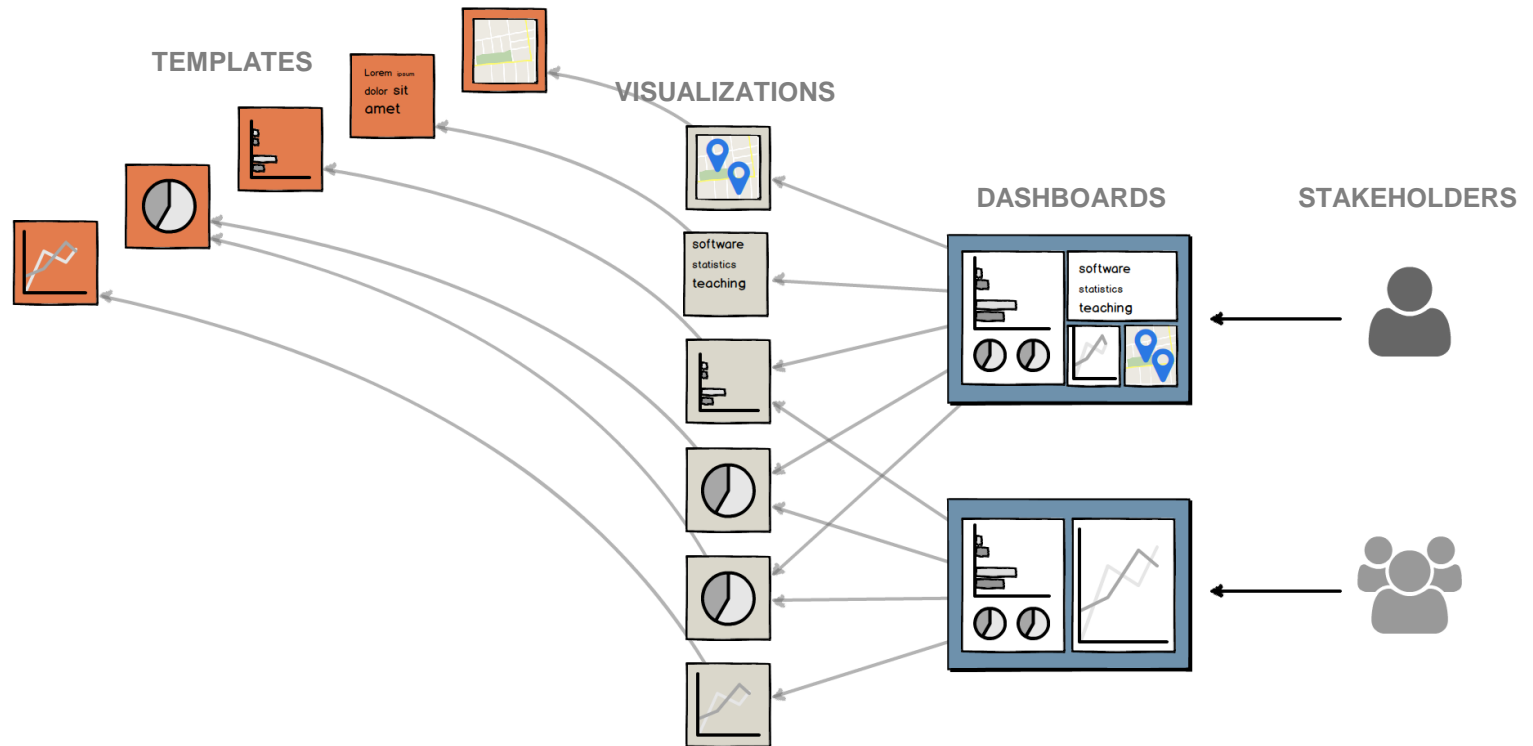
DASHBOARDS



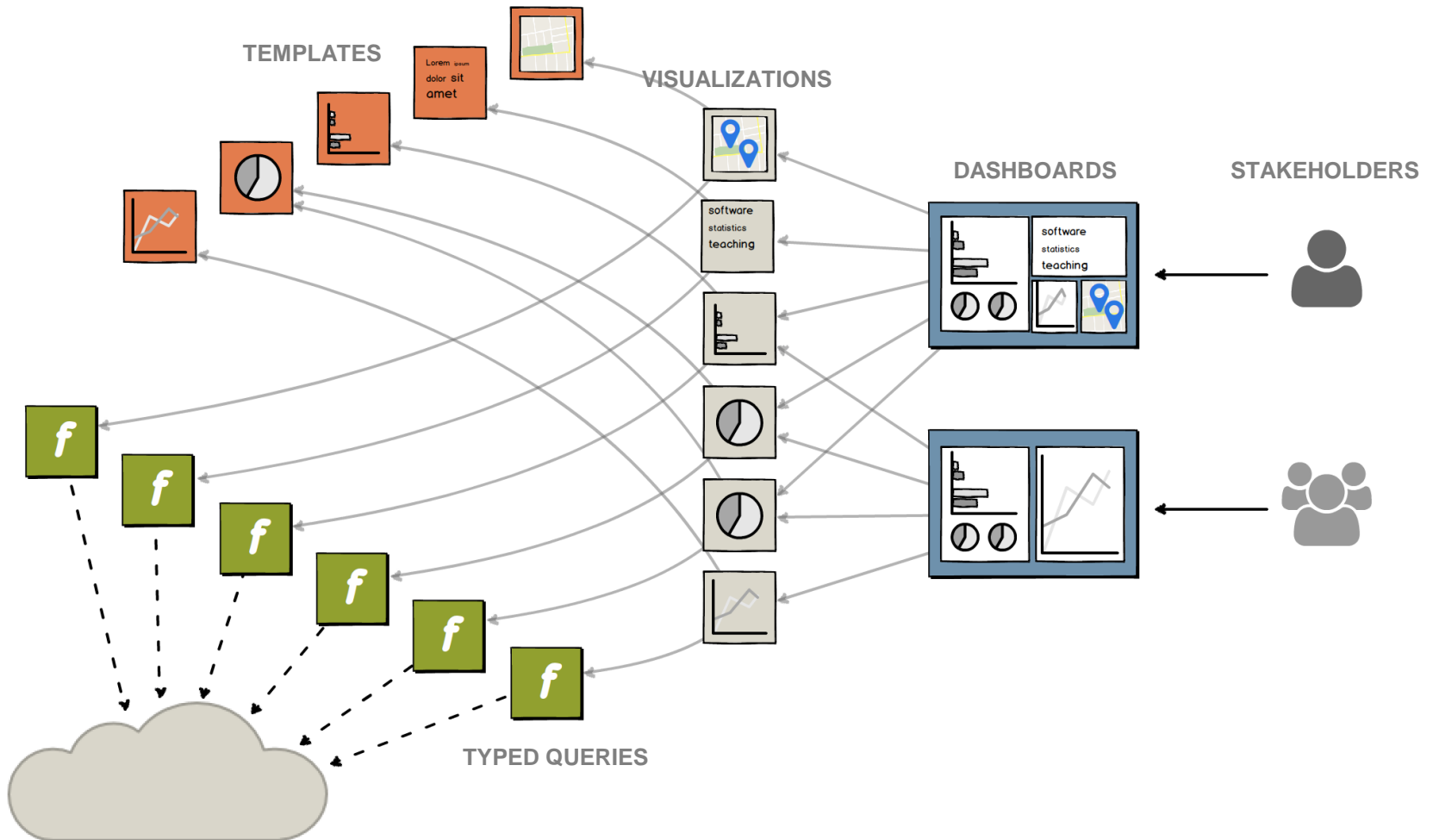
STAKEHOLDERS



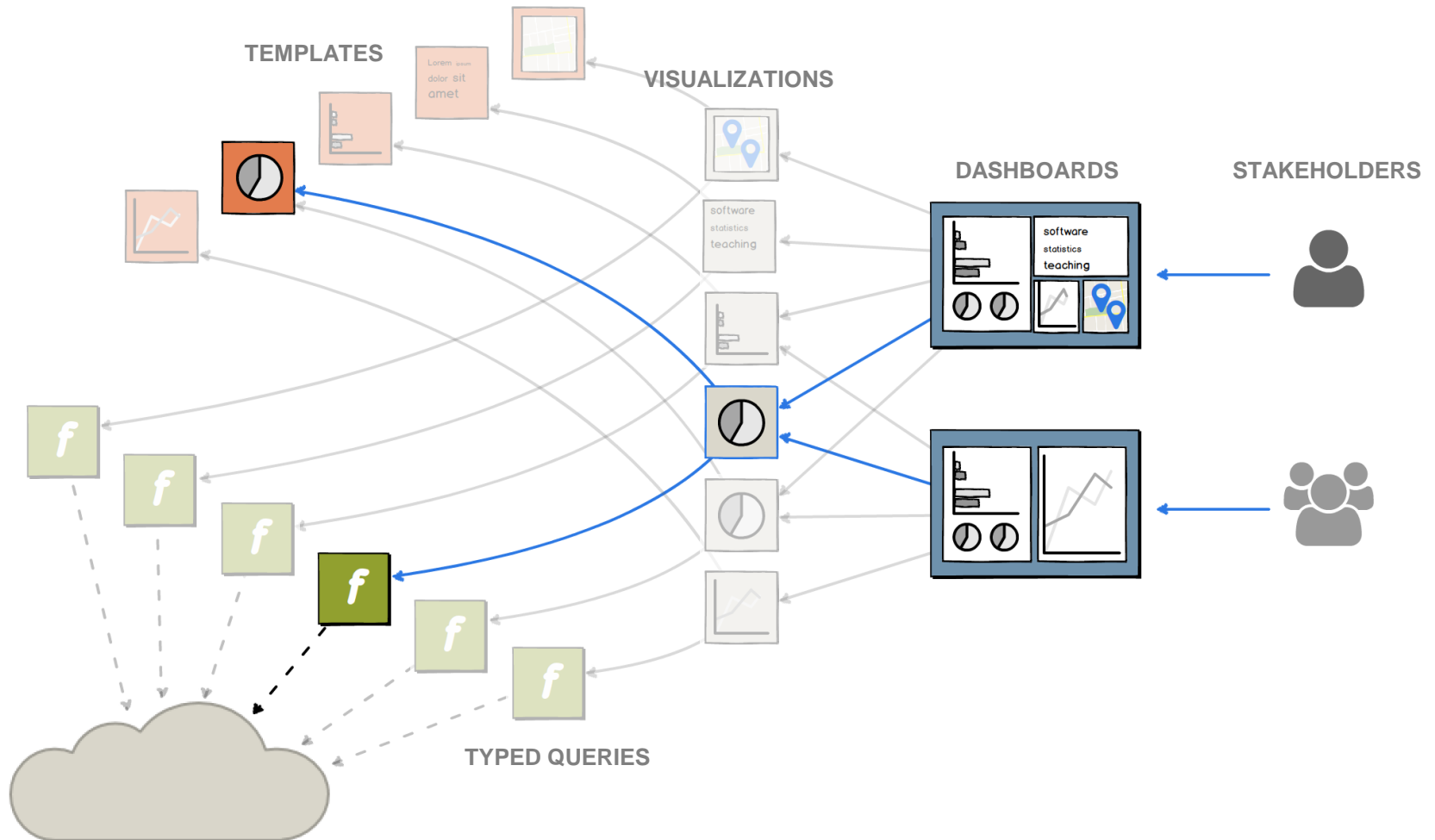
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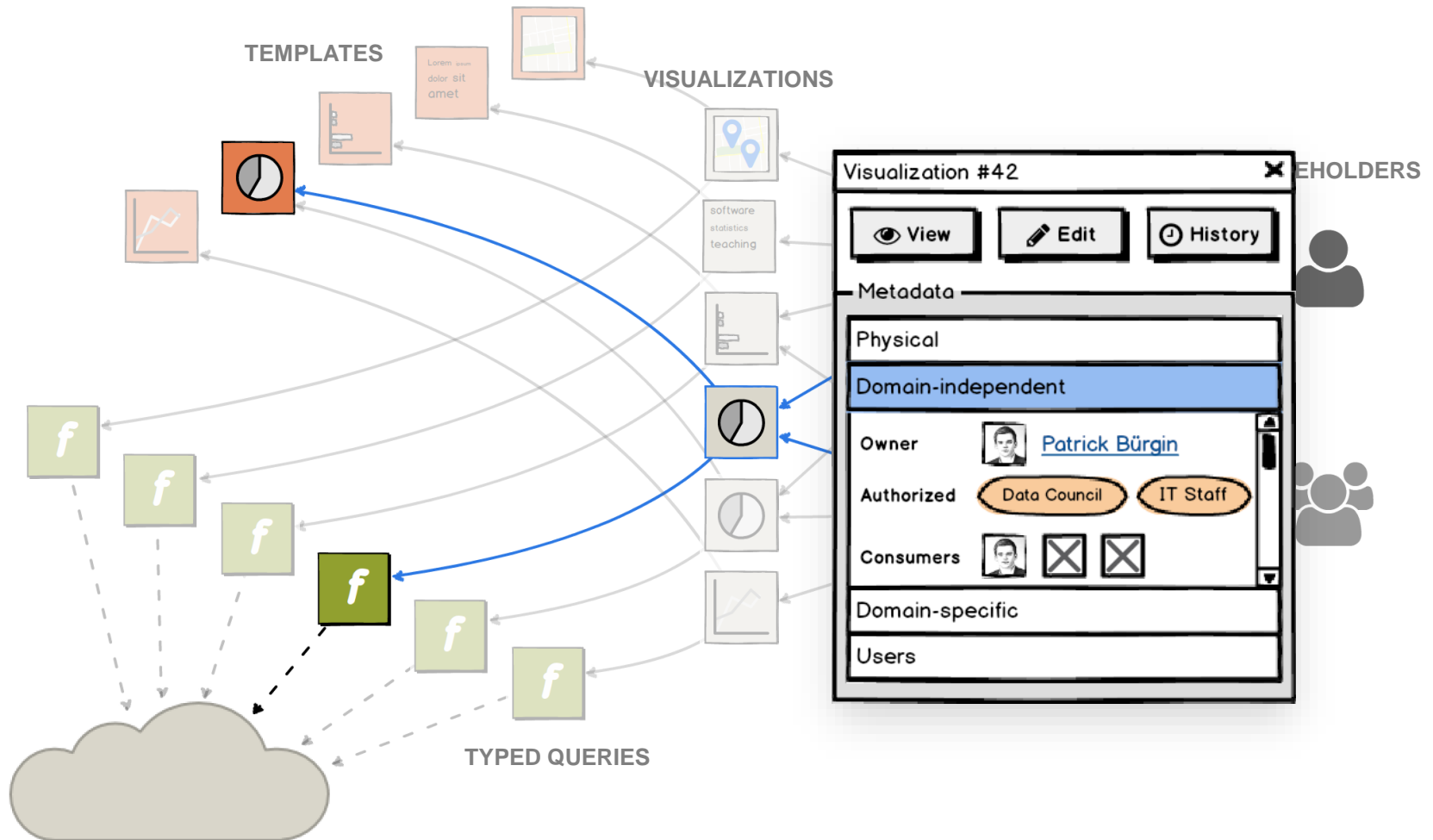
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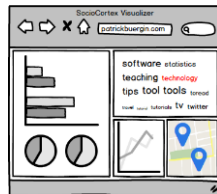
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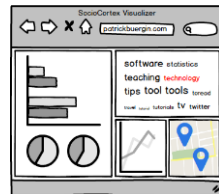
“a Dashboard System for Visualizing Semi-Structured Data in a Traceable Way”



Visualization Environment

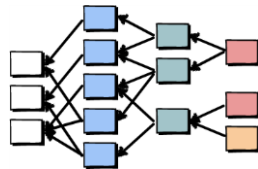
- Complex Linked Data
- Custom Visualizations
- User-Specific Views

“a Dashboard System for Visualizing Semi-Structured Data in a Traceable Way”



Visualization Environment

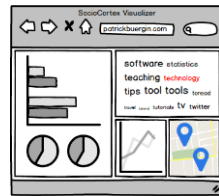
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Traceability Environment

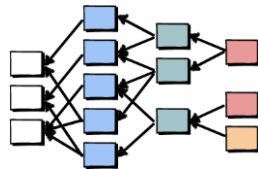
Who? What? When?

“a Dashboard System for Visualizing Semi-Structured Data in a Traceable Way”



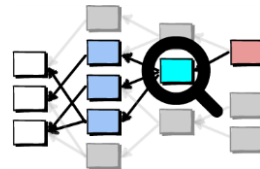
Visualization Environment

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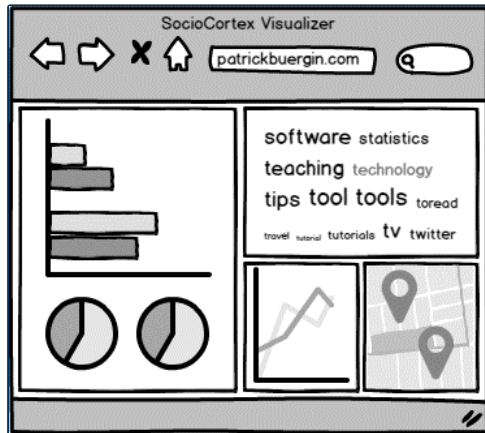
Traceability Environment

Who? What? When?

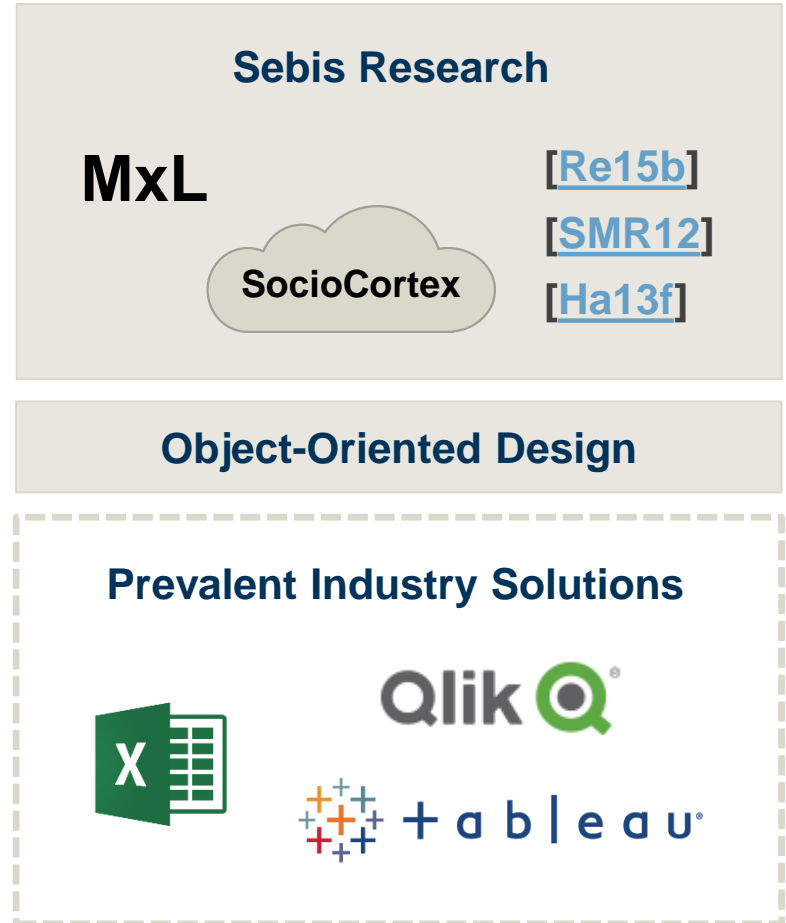


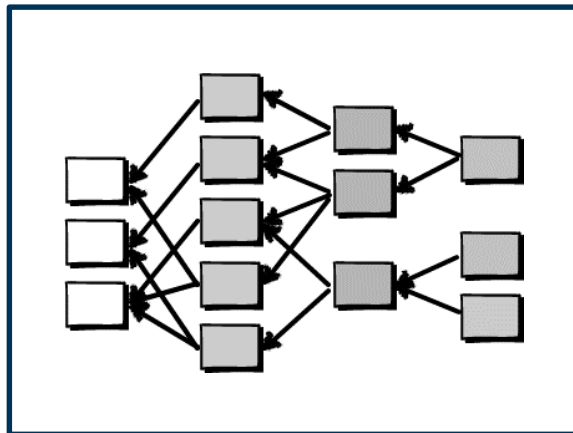
Outlook: Data Exploitation

What if? Why? ...

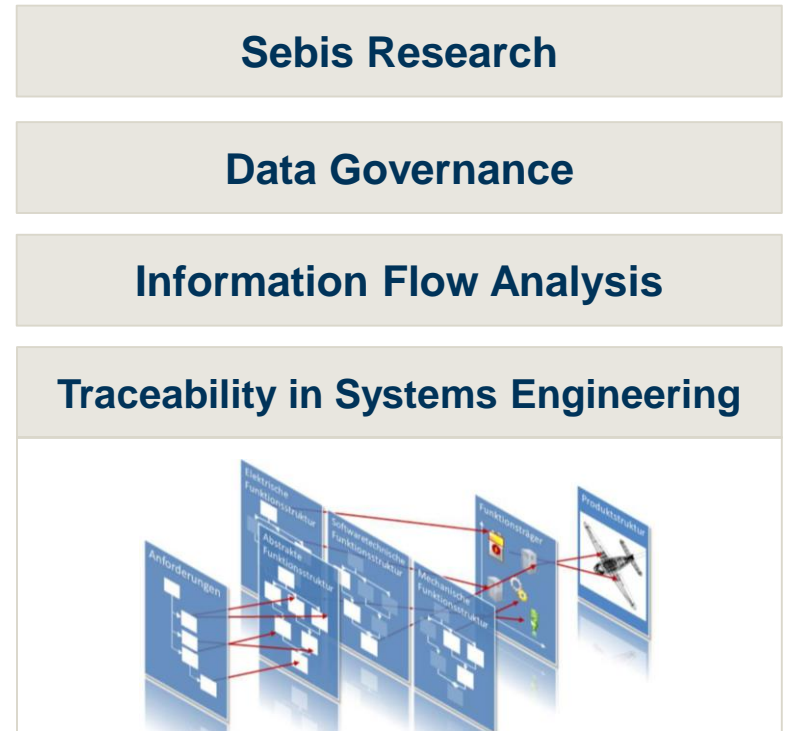


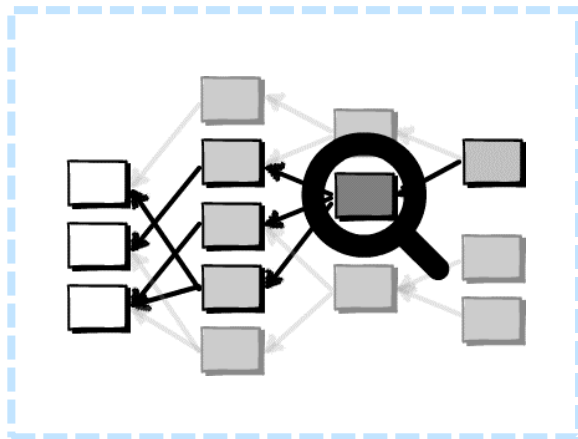
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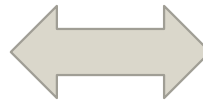


What? Who? When?





What if? Why? ...



Sebis Research

Data Governance

Information Flow Analysis

Traceability in Systems Engineering

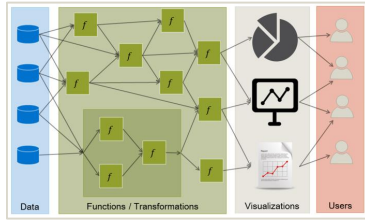
Recommender Systems

Social Computing

ENVIRONMENT



MxL



KNOWLEDGE BASE

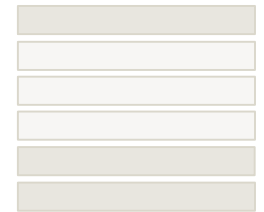
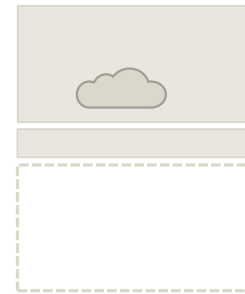
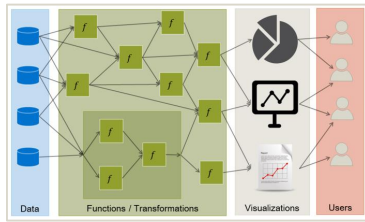


ENVIRONMENT

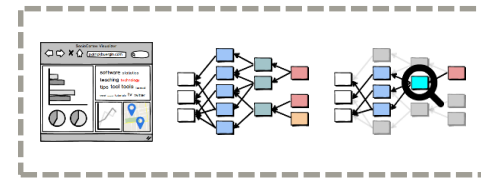
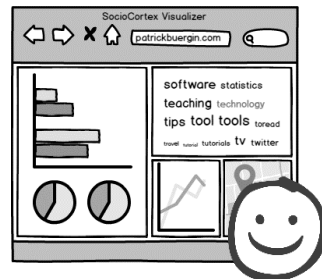
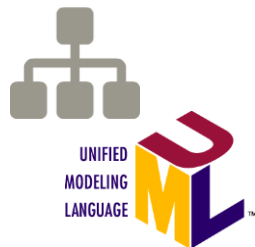
KNOWLEDGE BASE



MxL



DEVELOP / BUILD



+ TypeScript +

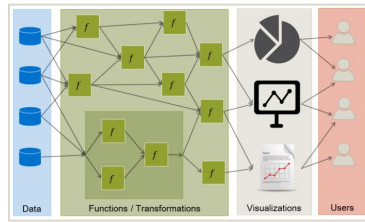
SocioCortex

ENVIRONMENT

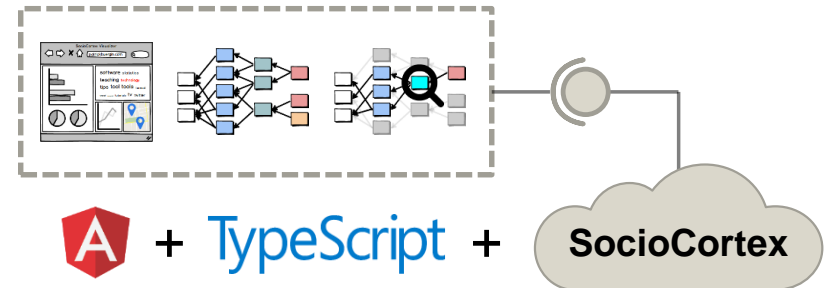
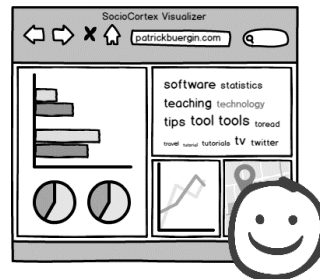
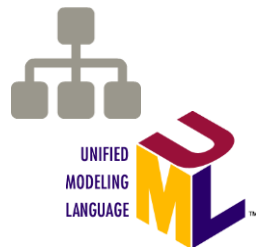
KNOWLEDGE BASE



MxL



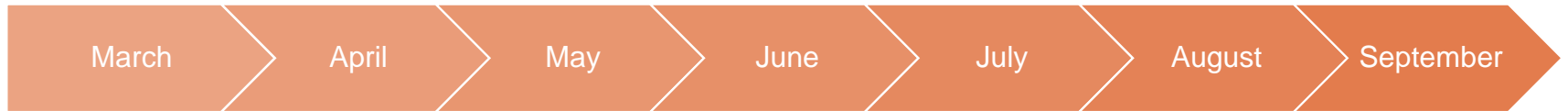
DEVELOP / BUILD



JUSTIFY / EVALUATE

Planned: **Case Study with an Industry Partner**

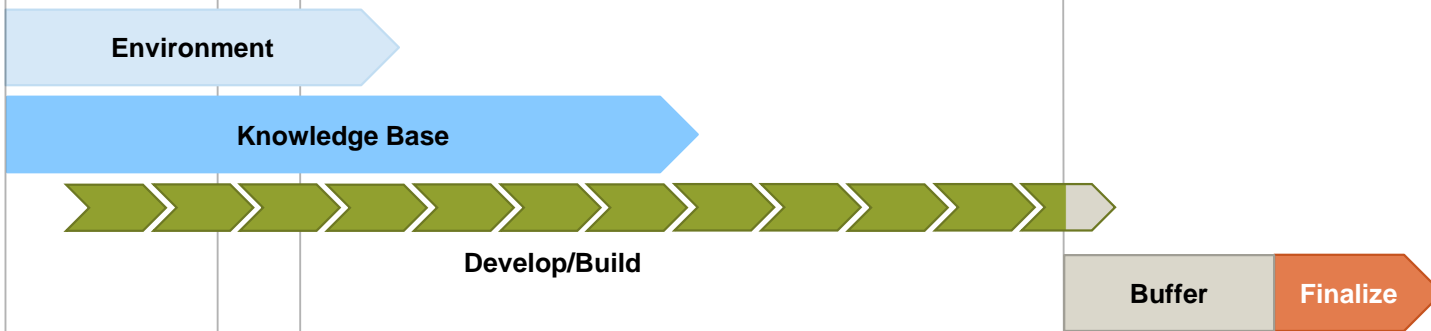
Approach Timeline

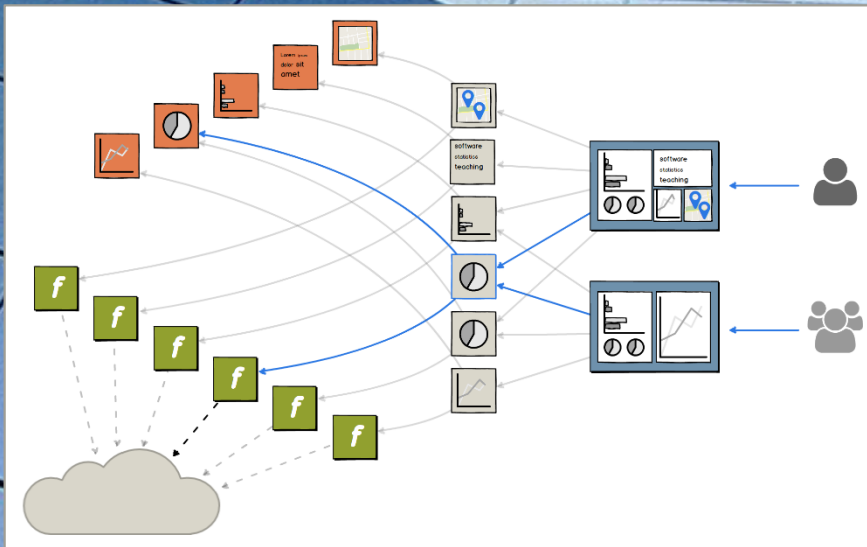


MILESTONES



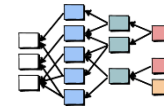
PROCESS





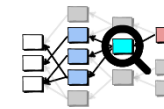
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Traceability Environment

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Outlook: Data Exploitation

What if? Why? ...



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