



Trust Patterns in Modern Web-API based Service Architectures – more than technical security aspects

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Presenter



Sandro Hartenstein is a security analyst and engineer. With his professional experience as software developer since 2001 and the security know how of the master study in Security Management 2010 he advises enterprise companies on secure software development. Currently he is working as a research assistant primarily on his dissertation on the development of trusted software in the research project at the HWR Berlin.





Research Topics

- Trustworthiness Software Development & Web-Services
- Trustworthy KI Web-Services
- Privacy in Web-Services
- Automated conflict resolution approaches für Web-Services
- <https://blog.hwr-berlin.de/schmietendorf/forschungsthemen/>

Agenda



- Introduction
- Related Work
- Concept
- Future Work



Introduction



- rapid digitization of services is enabled by the use of WebAPIs
- must be trustworthy in order to be successful
- Trustworthiness is not only characterized by security measures
 - Vendor and user-related aspects must also be considered
 - A broader view is needed
- The trust of users is the aim



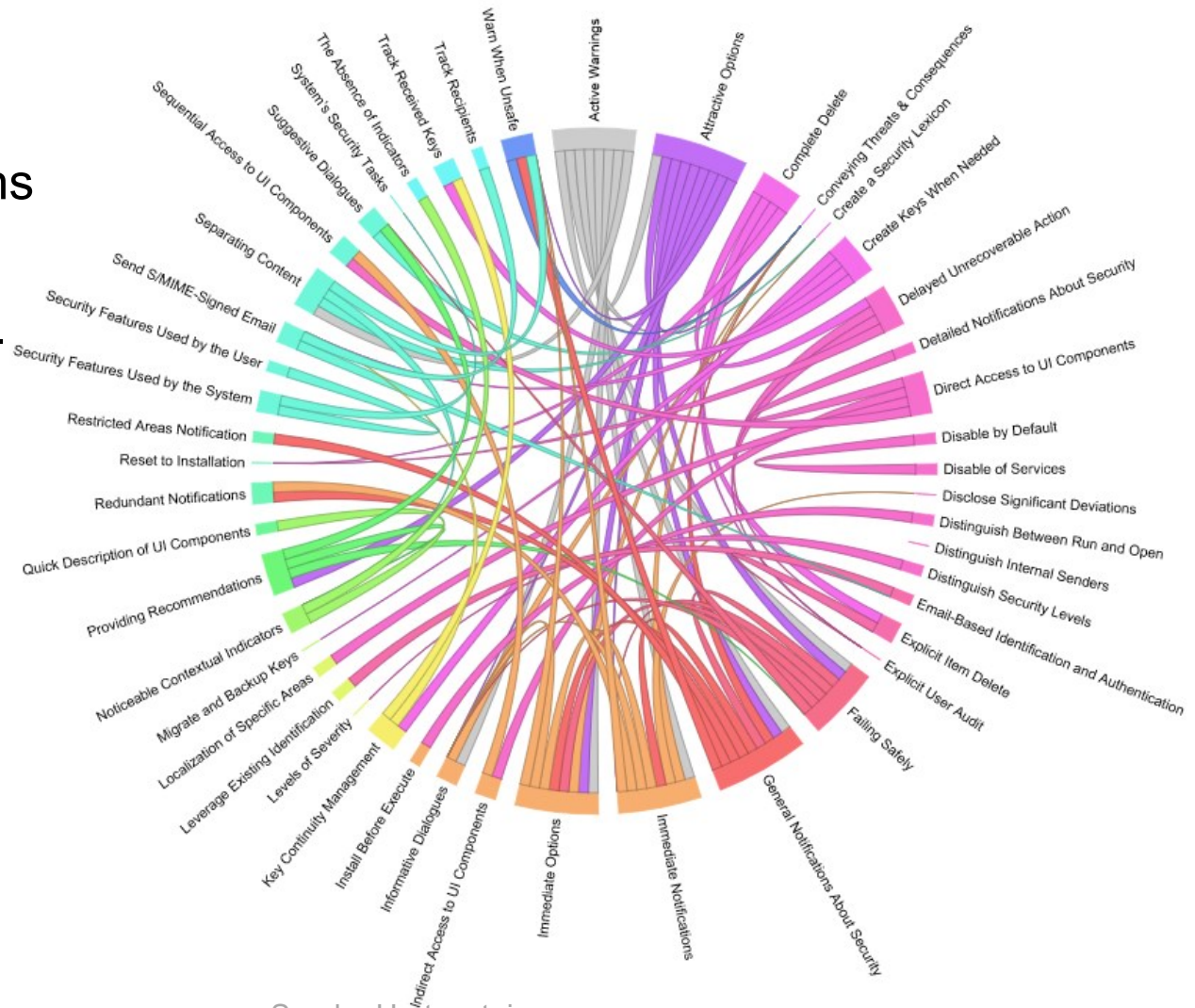
Related Work



Related Work

Trust Patterns

- Trust Patterns
TH-Koeln [2]
- Warn-When-Unsafe

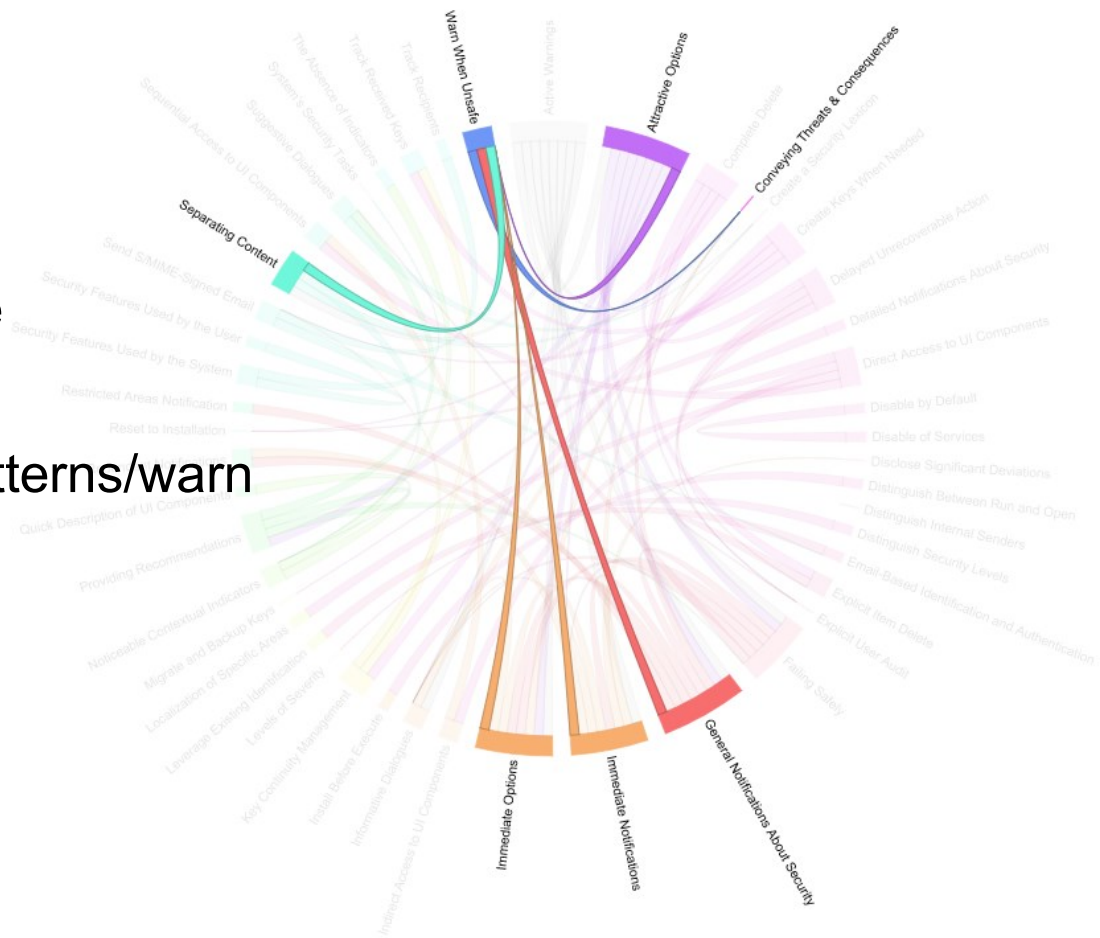




Related Work

Trust Patterns

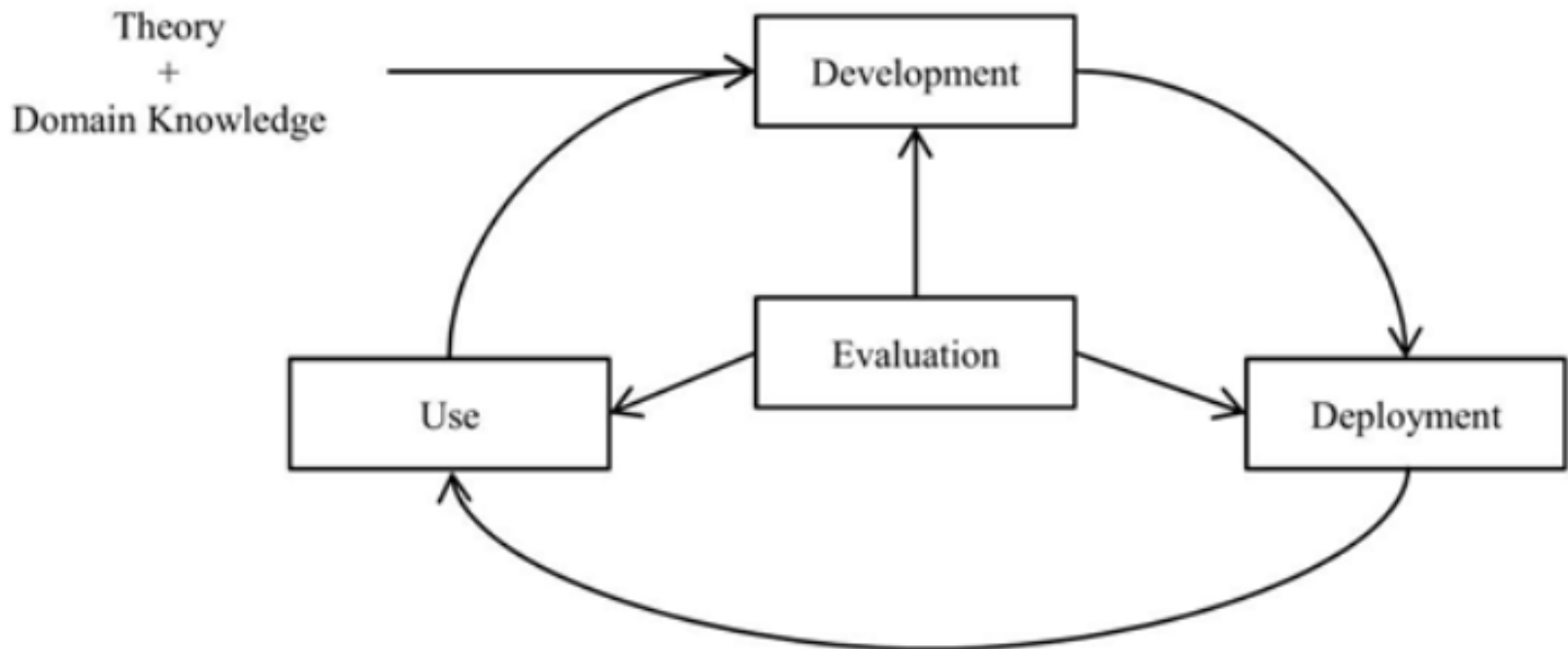
- Trust Patterns
TH-Koeln [2]
- Warn-When-Unsafe
- <https://das.h-brs.de/usecured/patterns/warn-when-unsafe>



Related Work

Evaluation

- Used Pattern Lifecycle for evaluation

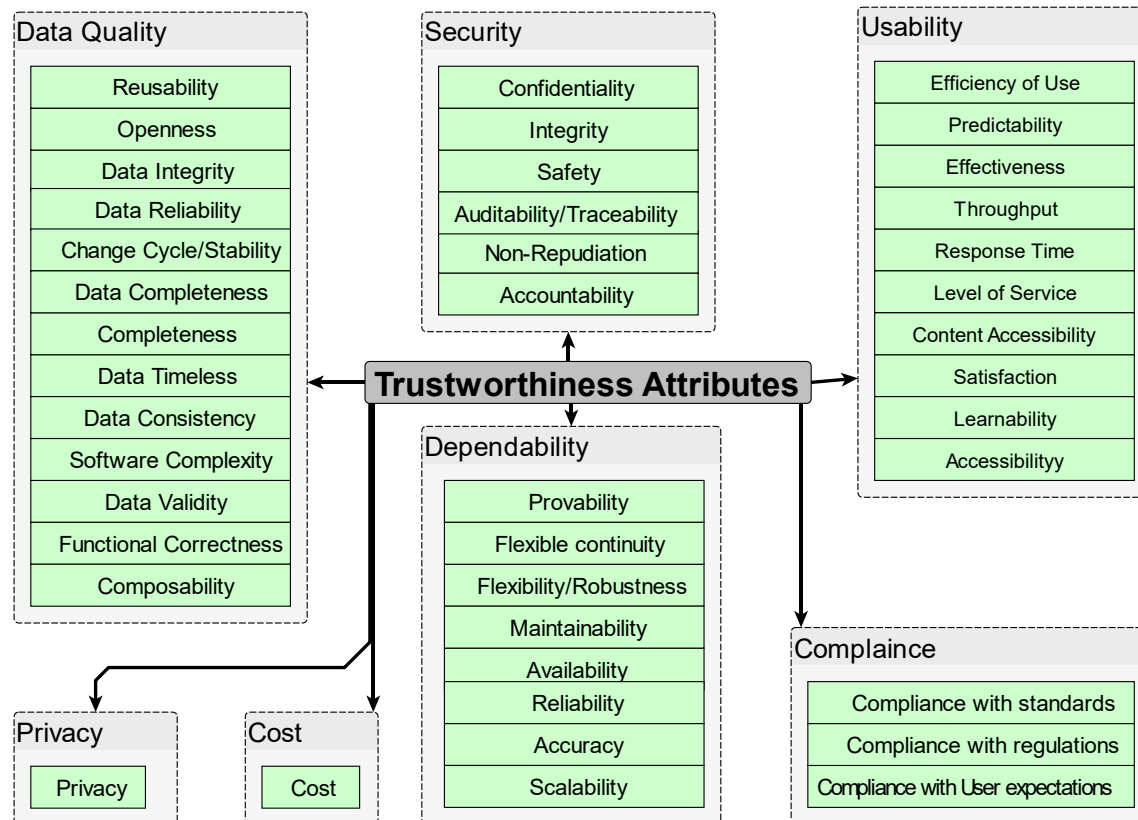


[3, p. 4]

Related Work

Trustworthiness Attributes

- Trustworthiness attributes of web-based software identified by literature review [4] and survey [5]



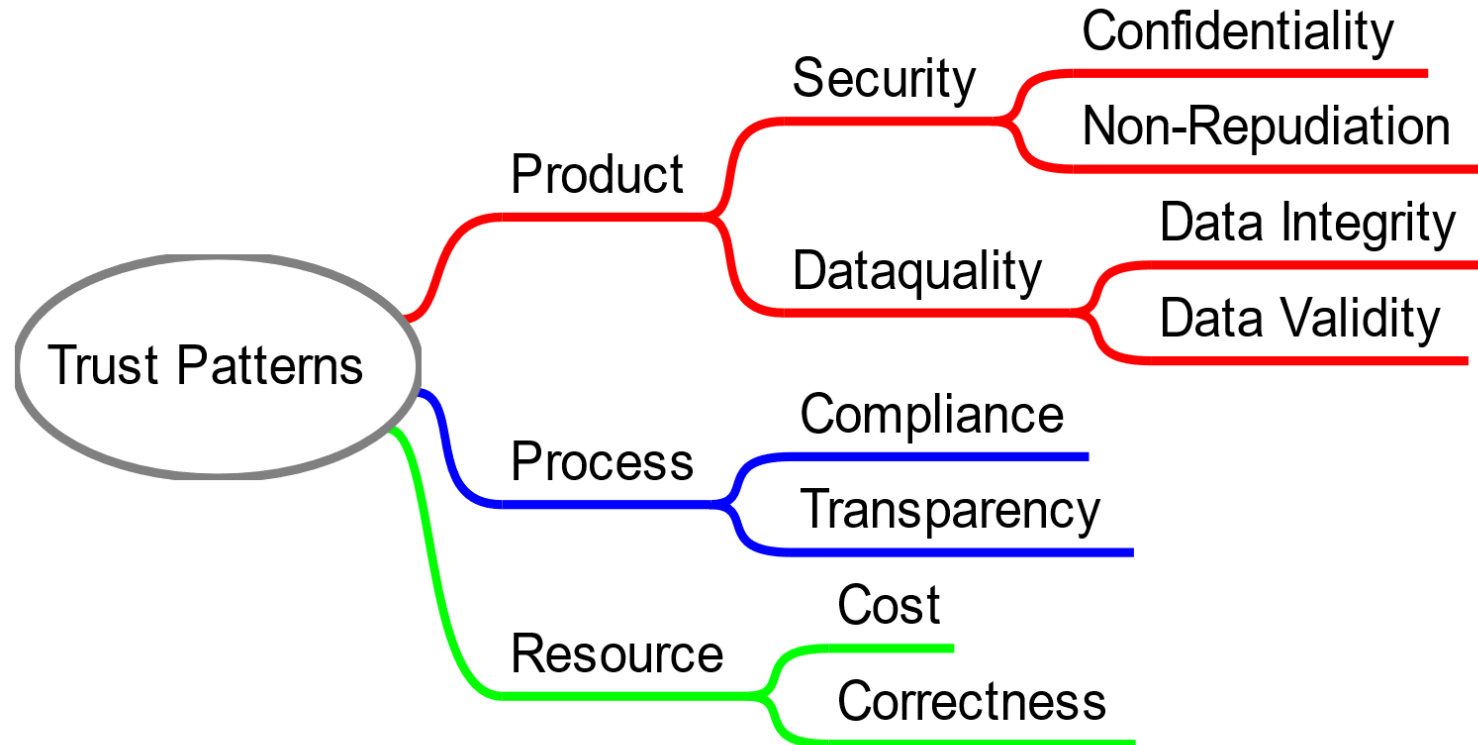


Concept



- Holistic, multi-dimensional view of the trustworthiness of WebAPIs
 - Product view
 - Process view
 - Resource view
- Results can be Trust Patterns for each view
 - provide a good way to address non-functional and functional requirements

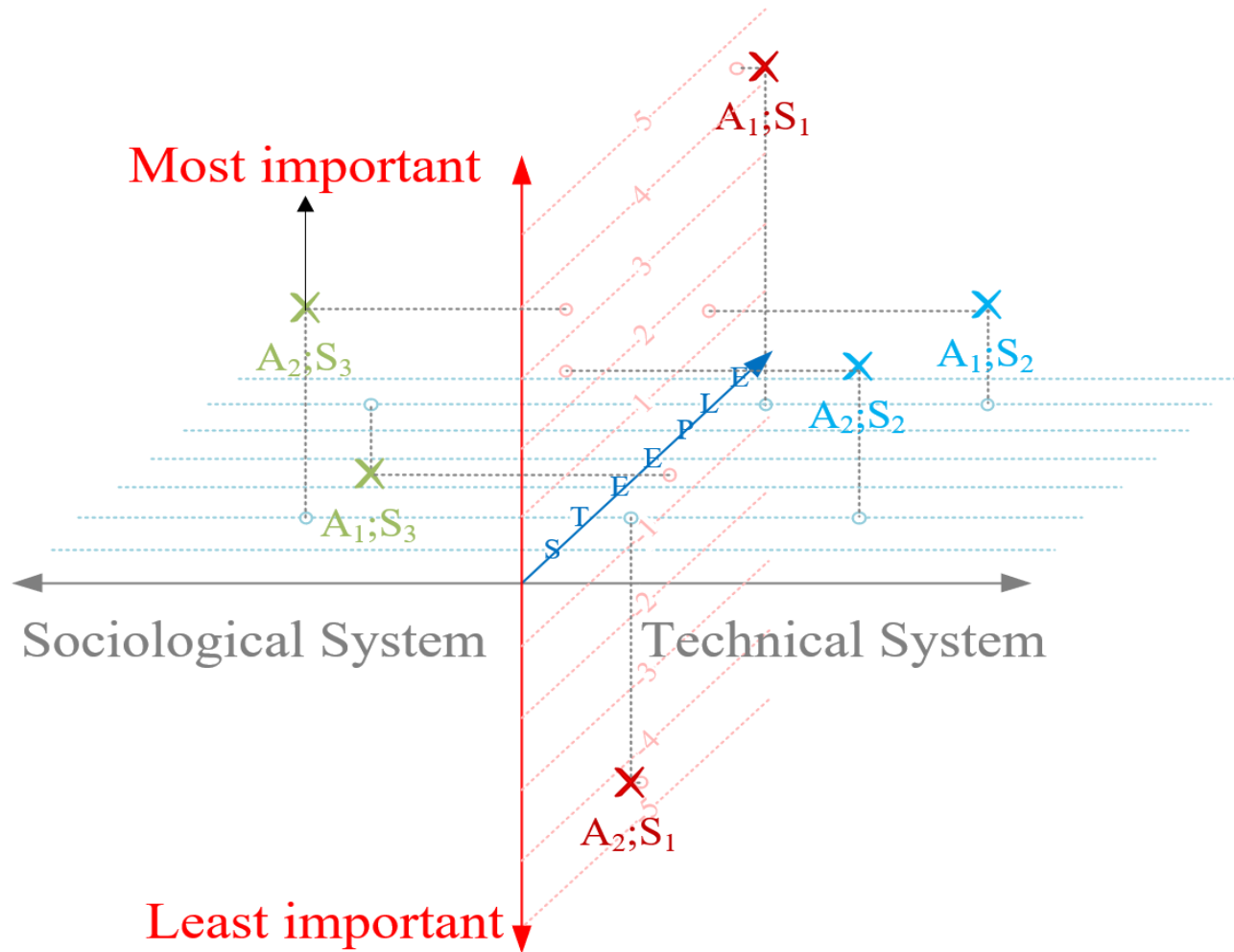
Concept





Future Work

Future Work EUMOVE



[6] p.4



Future Work

EUMOVE Project

- A multidomain Reseachteam at HWR Berlin
- Multidimensionale Analyse of Tw
 - STEEPLE Analyse of Trustworthiness for WebAPIs
 - to find weights for several Attribute in several branch
- A set of trust patterns for WebAPIs is desirable as a result

Thank you.

We will gladly answer your questions by email:

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- (6) S. Hartenstein, S. Schmidt, and A. Schmietendorf: Towards an Empirical Analysis of Trustworthiness Attributes in the Context of Digitalization. in *The Fourteenth International Conference on Digital Society*, ISBN 978-1-61208-760-3 [In Citavi anzeigen] , ISSN 2308-3956, Valencia, Spain, 2020, pp. 112–116. Accessed: Nov. 22 2020. [Online]. Available: https://www.thinkmind.org/articles/icds_2020_3_130_10047.pdf