Context Spaces as the Cornerstone of a Near-Transparent & Self-Reorganizing Semantic Desktop

German Research Center for Artificial Intelligence

DEMO 257

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Motivation

- existing Semantic Desktops:
  - rather complicated to use
  - not scaling well
  - no real "killer app" available
- 2 categories of Semantic Desktop apps:
  - newly created semantic ones
  - plug-ins to enhance traditional non-semantic ones

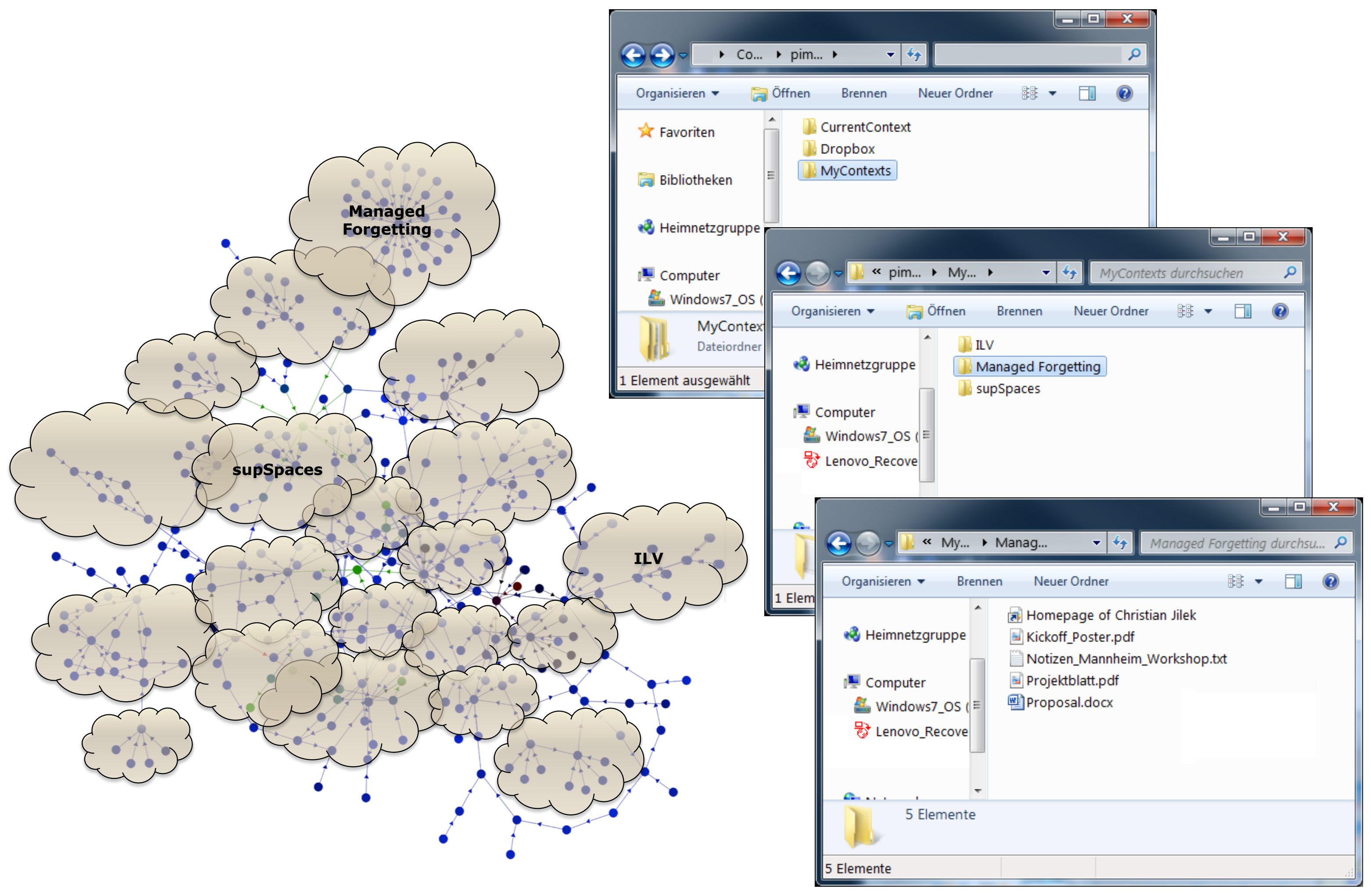
Abstract

Existing Semantic Desktops are still reproached for being too complicated to use or not scaling well. Besides, a real "killer app" is still missing. In this paper, we present a new prototype inspired by NEPOMUK and its successors having a semantic graph and ontologies as its basis. In addition, we introduce the idea of context spaces that users can directly interact with and work on. To make them available in all applications without further ado, the system is transparently integrated using mostly standard protocols complemented by a sidebar for advanced features. By exploiting collected context information and applying Managed Forgetting features (like hiding, condensation or deletion), the system is able to dynamically reorganize itself, which also includes a kind of tidy-up-itself functionality. We therefore expect it to be more scalable while providing new levels of user support. An early prototype has been implemented and is presented in this demo.

Intuition: every action is performed in a certain context → every stored information item is related to ≥1 contexts

Context Spaces

- extend Semantic Desktop technology with context spaces
- enable users to directly interact with and work on these context spaces
- make existing applications respect these context spaces without further ado



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Favoriten
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CurrentContext
Dropbox
MyContexts

MyContexts
Dateiordner

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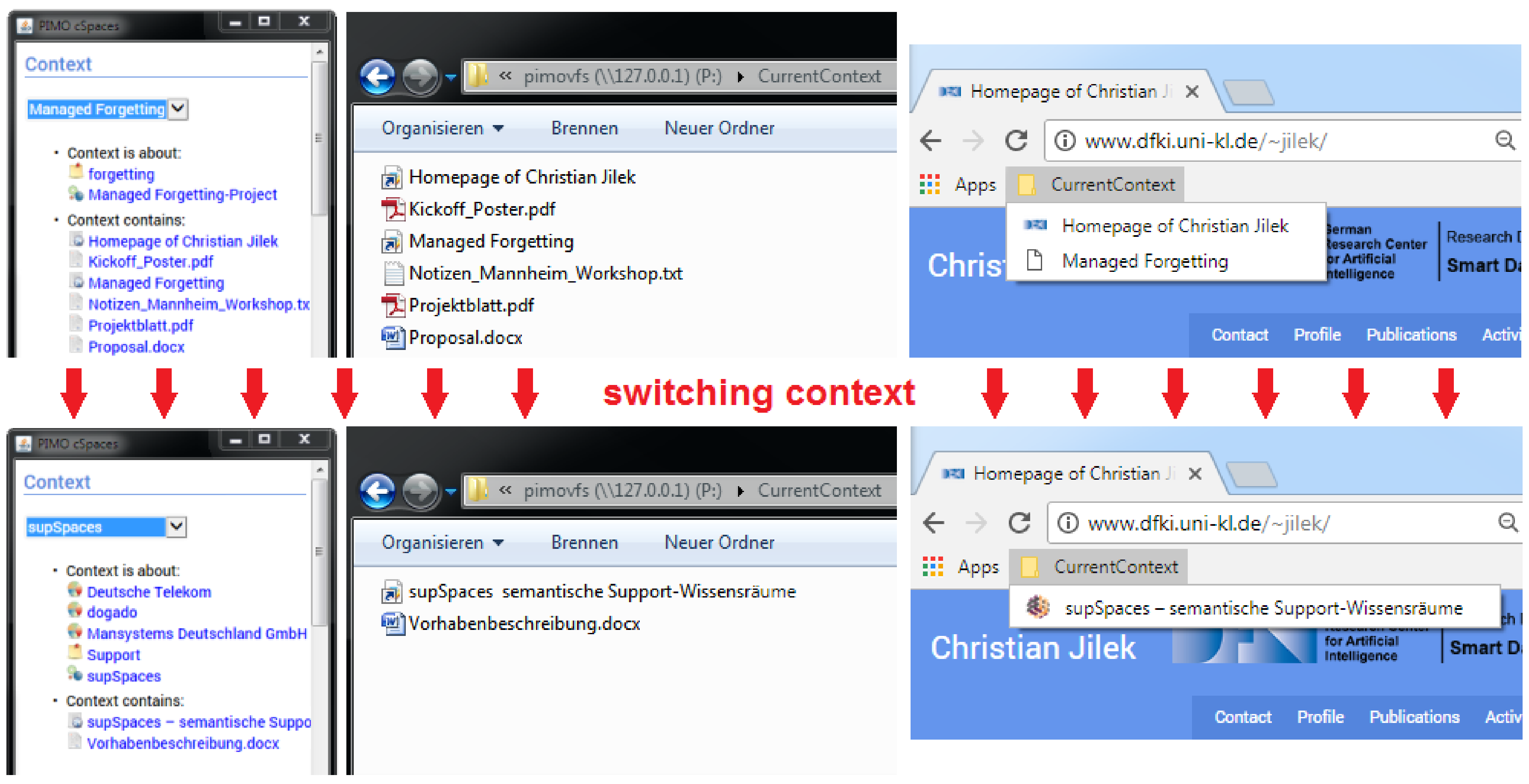
Homepage of Christian Jilek
Kickoff_Poster.pdf
Notizen_Mannheim_Workshop.txt
Projektblatt.pdf
Proposal.docx

5 Elemente

5 Elemente

Self-Reorganization

- exploit this contextual information to provide new levels of user support
- e.g. self-(re)organization by means of Managed Forgetting:
  - an escalating set of measures: temporal hiding, condensation, adaptive sync, archiving & deletion



PIMO cSpaces

Context

Managed Forgetting

- Context is about:
  - forgetting
  - Managed Forgetting-Project
- Context contains:
  - Homepage of Christian Jilek
  - Kickoff_Poster.pdf
  - Managed Forgetting
  - Notizen_Mannheim_Workshop.tx
  - Projektblatt.pdf
  - Proposal.docx

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Homepage of Christian Jilek
Kickoff_Poster.pdf
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Homepage of Christian J ×

www.dfki.uni-kl.de/~jilek/

Apps | CurrentContext

Homepage of Christian Jilek
Managed Forgetting

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PIMO cSpaces

Context

supSpaces

- Context is about:
  - Deutsche Telekom
  - dogado
  - Mansystems Deutschland GmbH
  - Support
  - supSpaces
- Context contains:
  - supSpaces – semantische Suppo
  - Vorhabenbeschreibung.docx

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supSpaces semantische Support-Wissensräume
Vorhabenbeschreibung.docx

Homepage of Christian J ×

www.dfki.uni-kl.de/~jilek/

Apps | CurrentContext

supSpaces – semantische Support-Wissensräume

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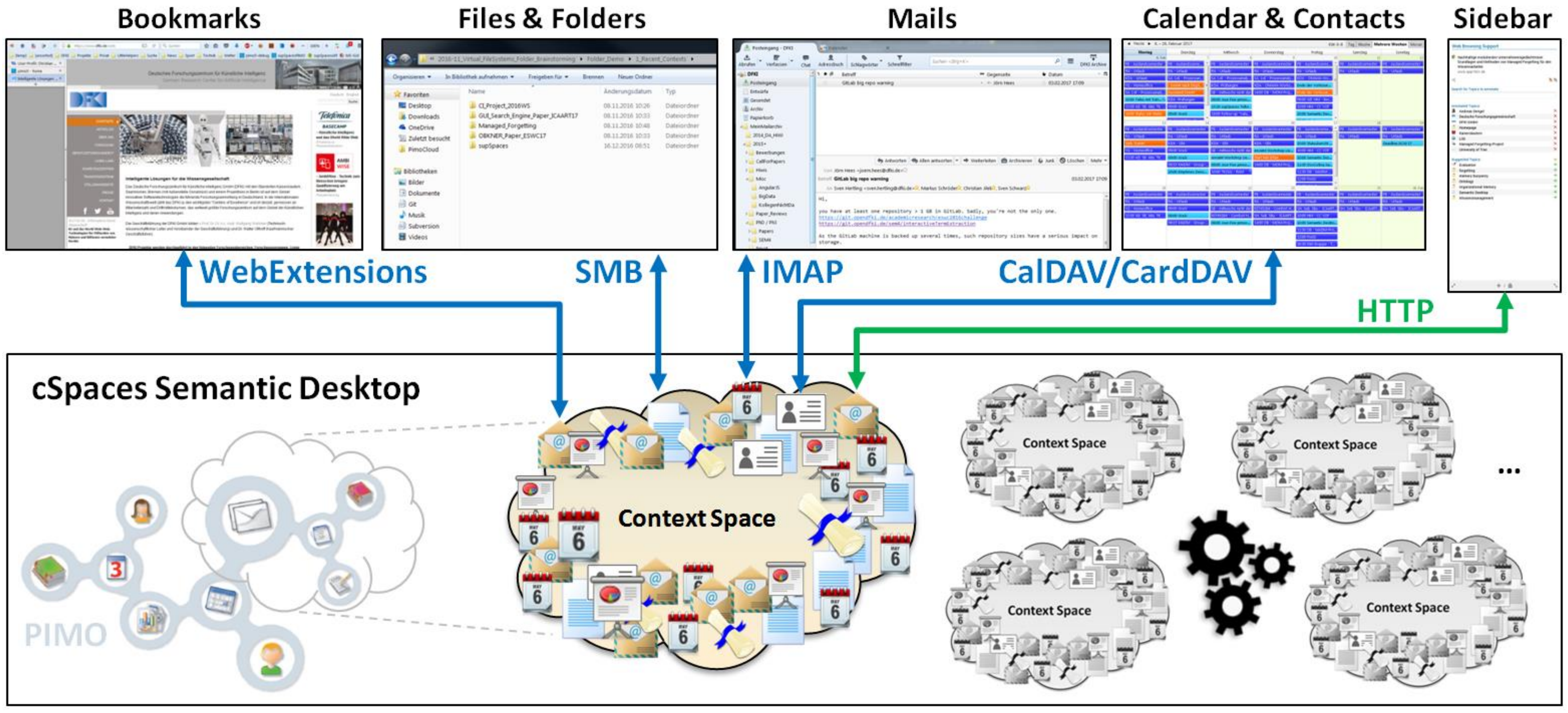
Near-Transparent Integration

- transparent integration into the rest of the system using standard protocols
- a context space is not just a folder
  - → more contextual information, e.g. a context space could represent a meeting
  - → additional information: date & time, repetition (if applies), location, attendees, organizer, etc.



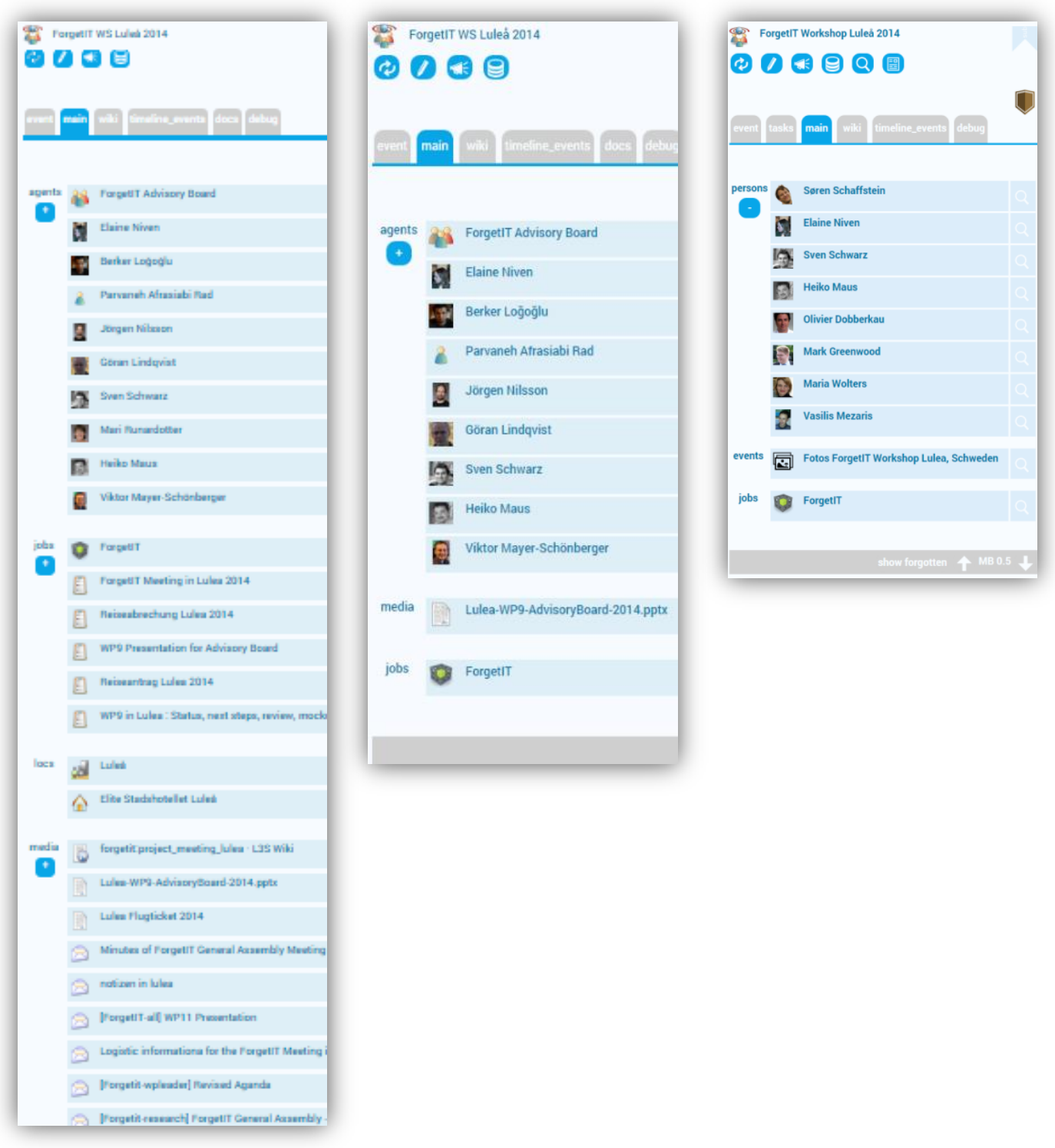
Conclusion

- established foundation for
  - enabling users to interact with and work on context spaces
  - making context spaces available in all their applications without further ado
  - providing new levels of user support by self-(re)organization

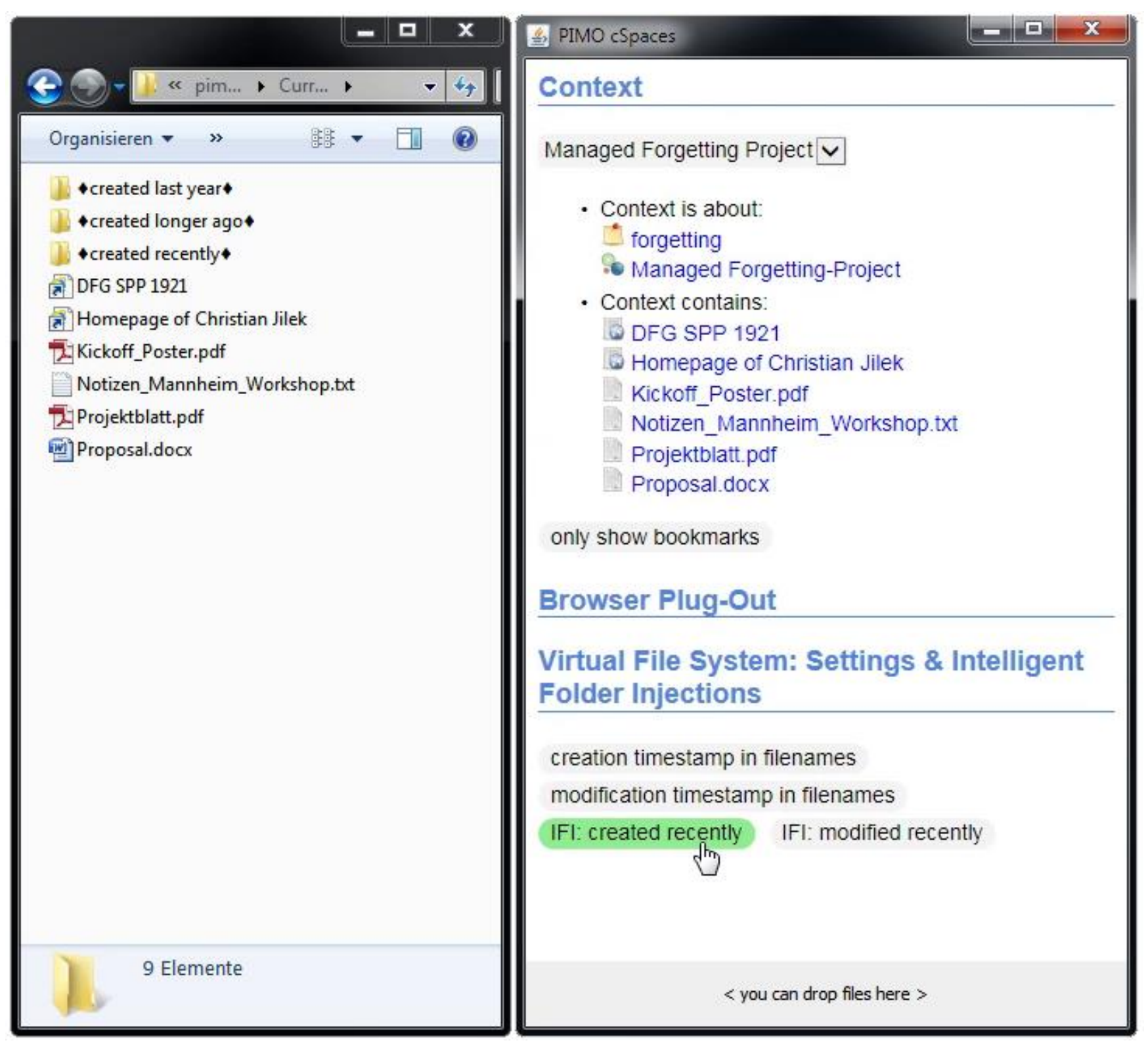
Outlook

- extensive user studies planned
- several features need to be fully implemented

Example of Forgetting



Further Self-(Re)Organization



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♦created last year♦
♦created longer ago♦
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PIMO cSpaces

Context

Managed Forgetting Project

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only show bookmarks

Browser Plug-Out

Virtual File System: Settings & Intelligent Folder Injections

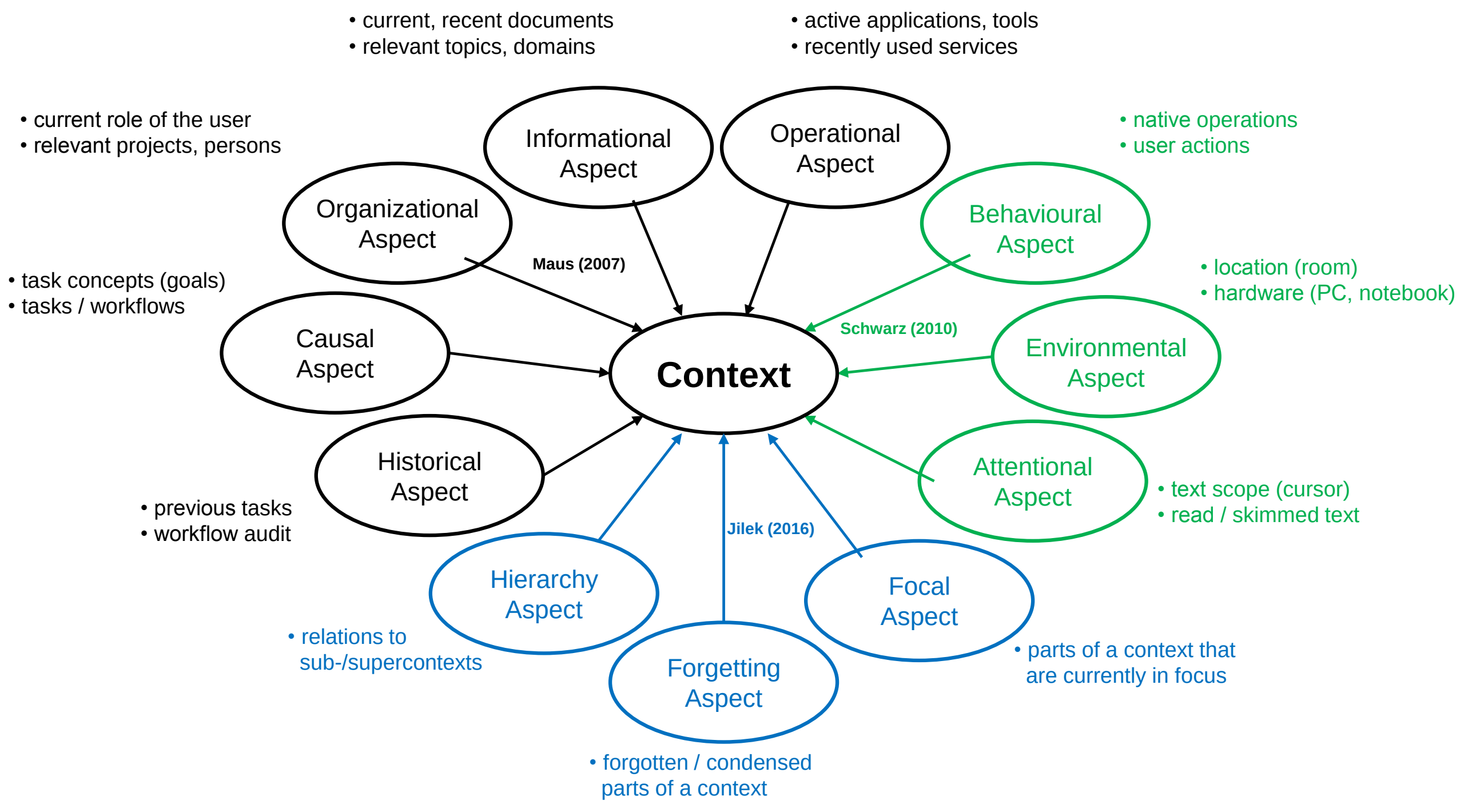
creation timestamp in filenames

modification timestamp in filenames

IFI: created recently | IFI: modified recently

< you can drop files here >

Context Model



MANAGED FORGETTING

INTENTIONAL FORGETTING IN ORGANISATIONEN

SPP 1921

Acknowledgement

This work was funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) – DE 420/19-1 (Managed Forgetting project).

demo website ▶

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