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Bookmap – A Topic Map Based Web Application for Organising Bookmarks

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Overview

- Introduction
- Motivation
- Specification
- Implementation
- Ontology
- Benefit
- Conclusion
- Discussion

Introduction

- Existing TM-applications:
  - Mostly generic
  - Flexible, but complex
  - Knowledge of TM-model necessary
- Aim: usage of TM-model in an application:
  - Specific structuring challenge
  - User and use oriented
  - Target group as large as possible
  - Not TM centered, but TM based

Motivation

Organising bookmarks as structuring challenge:

- Forget
- Organise
- Find
- Comment

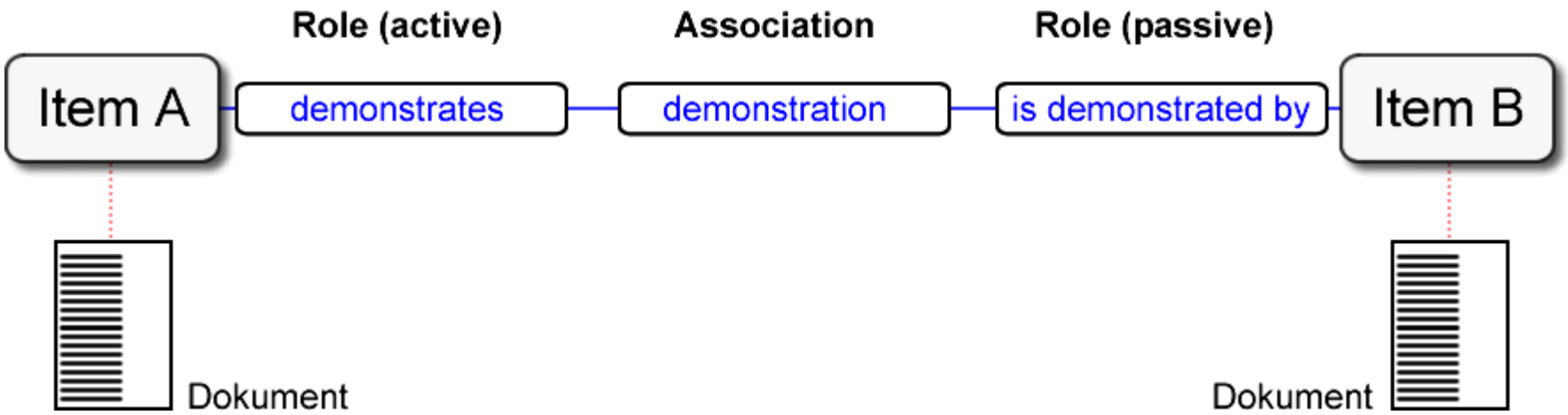
Specification/Data modeling

- Topics
  - Bookmarks -> Items
  - Folder -> Container
  - (Keywords)
- Occurrences (internal)
  - Short description
  - description
  - dates (visited, created, modified)
  - Order of elements (chained list)
- Scope
  - Mapping of hierarchical structures
  - Refers to the parent container of an element

Specification/Data modeling

Associations

- Currently only pairs
- Predefined Association Types (explanation, interpretation, demonstration…)
- Description of the relation between two documents



Specification/Technical constraints

- Web-application
  - Central storage and modification of bookmarks
  - Platform and machine independant
  - Avoid distributed collections
- Multi-user system
  - Following established social bookmarking systems
  - Personal recommendation system -> social community
- Browser based user interface
  - Avoid local installation
  - Avoid browser plugins
  - Development of a user friendly user interface
  - Interaction standards (context menus, drag&drop)

Specification/Functionality

- Basic Functionality
  - Administration of bookmarks (items)
    - Create
    - Edit
    - Delete
  - Hierarchical structure (container)
  - Describing metadata
- Extended functionality
  - Semantic relation between system elements
  - keywords
- Group functionality
  - Public <> private bookmarks (optional)

Specification/Functionality

- Interaction
  - Abstraction of the data model
  - Familiar interaction mechanisms
- Integration
  - Import and export functionality
  - Integration in users‘ processes
- Extensibility
  - Separation of logic and layout
  - Development of an API
  - Public domain software
- Field of use
  - Central server
  - Private copy on own server

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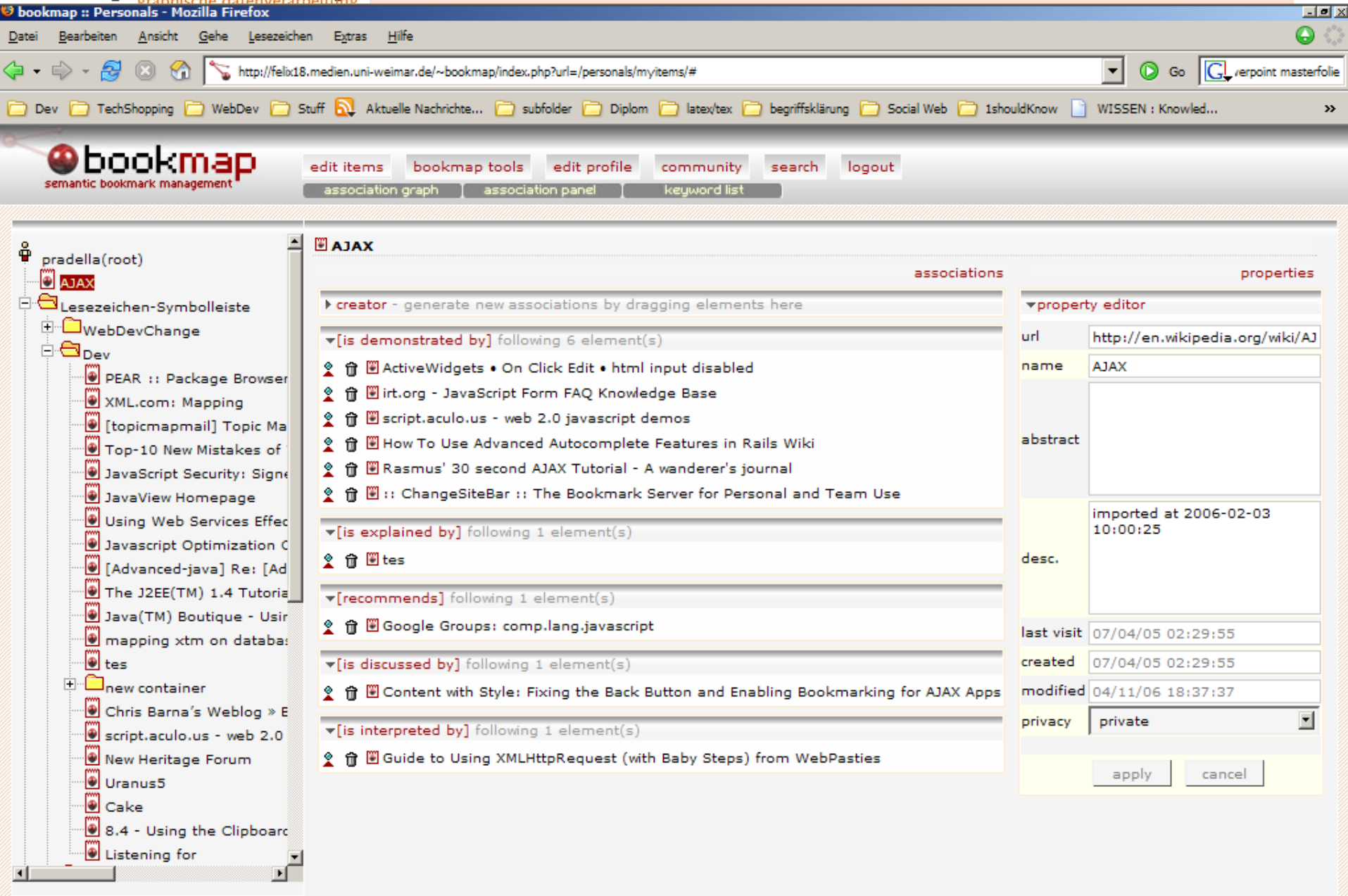
Implementation



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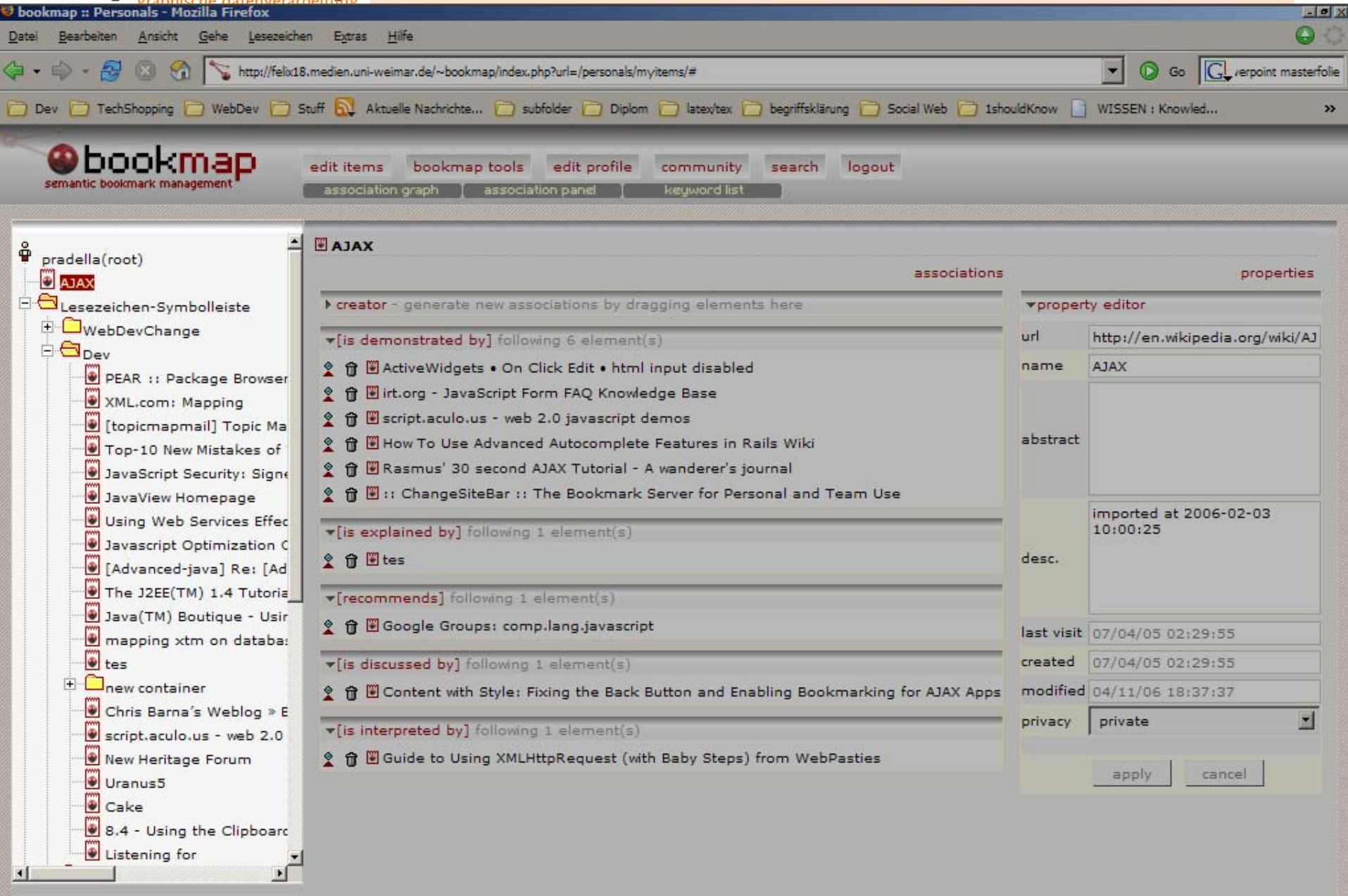

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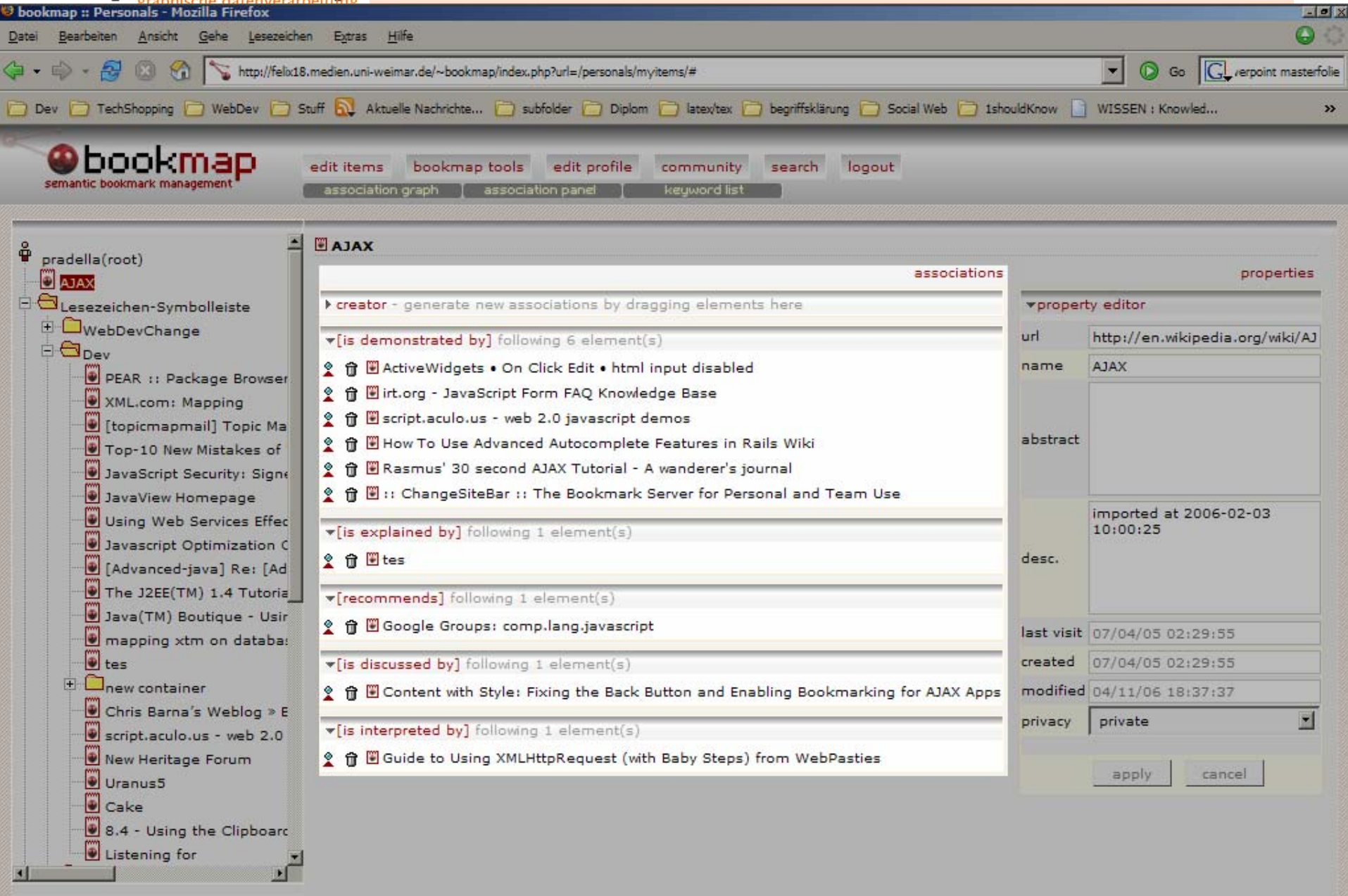

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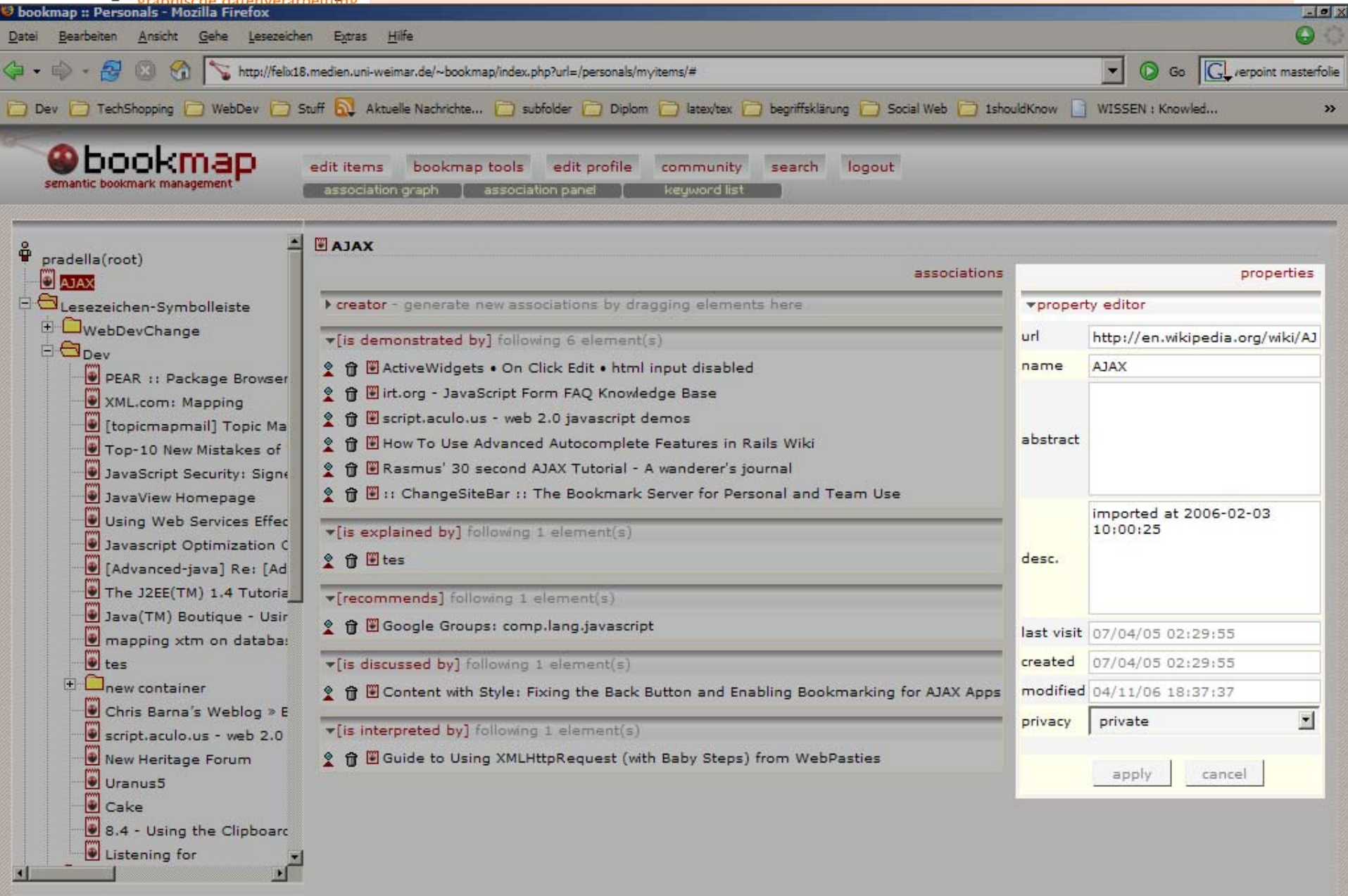

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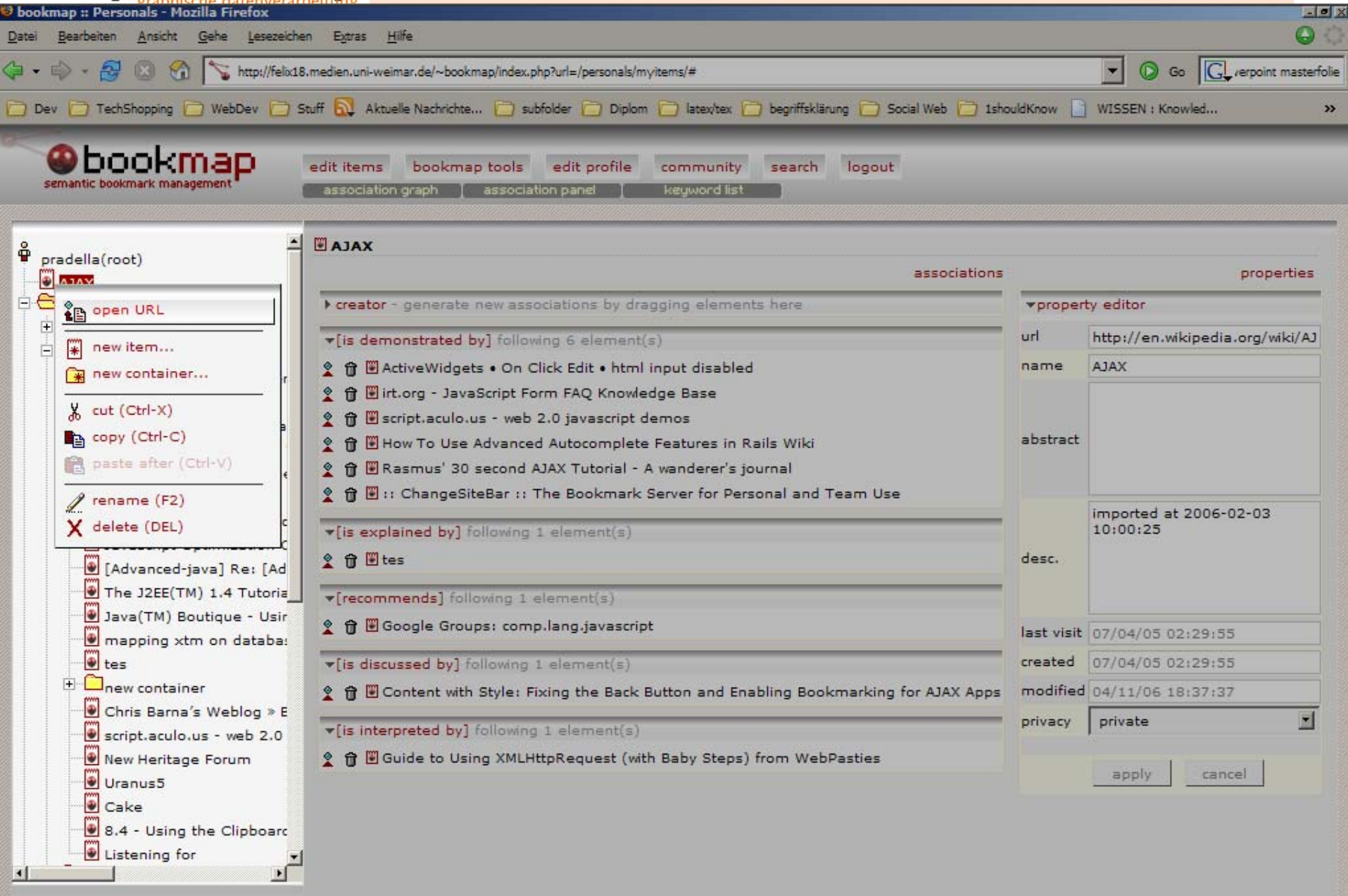

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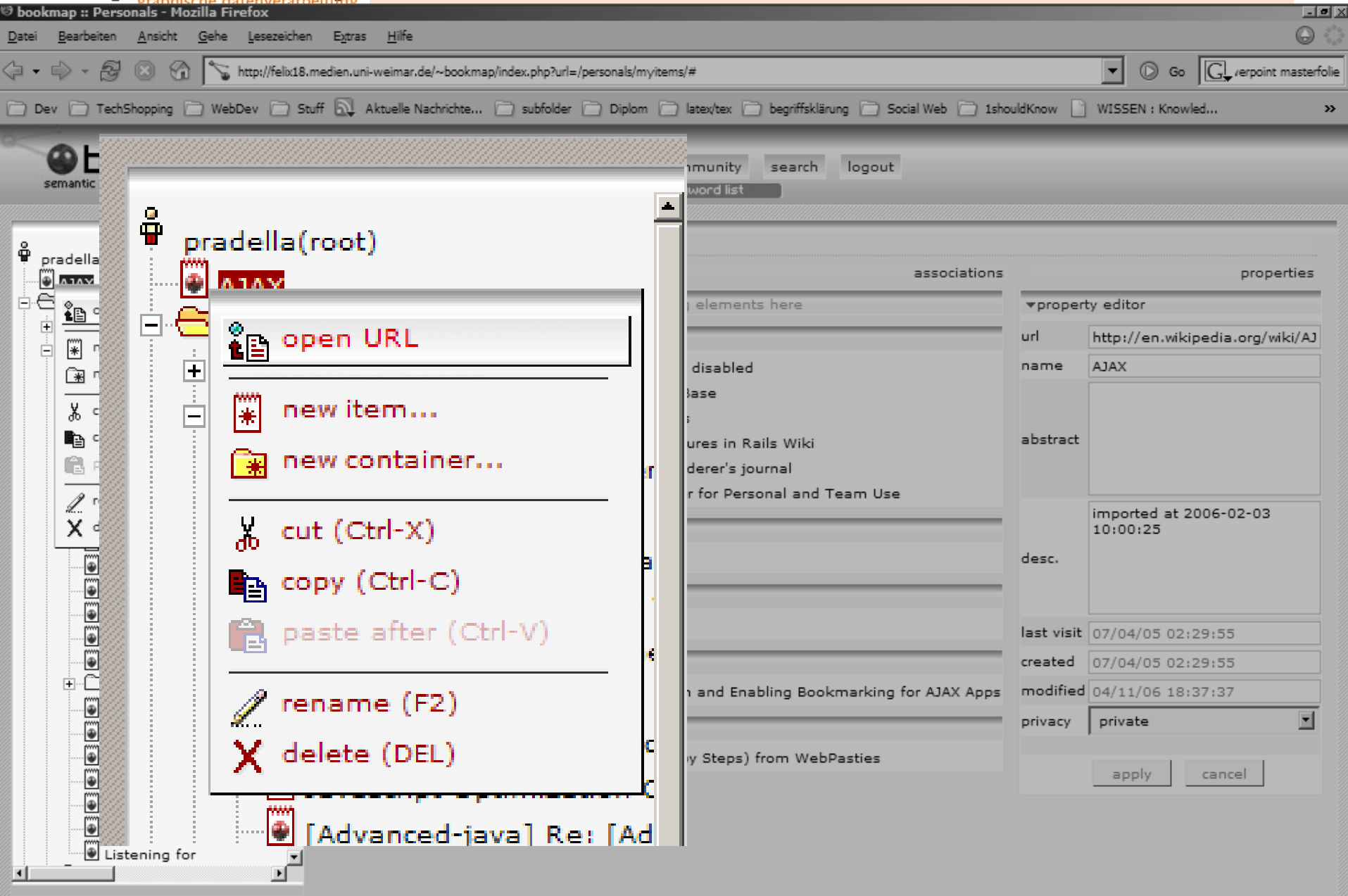

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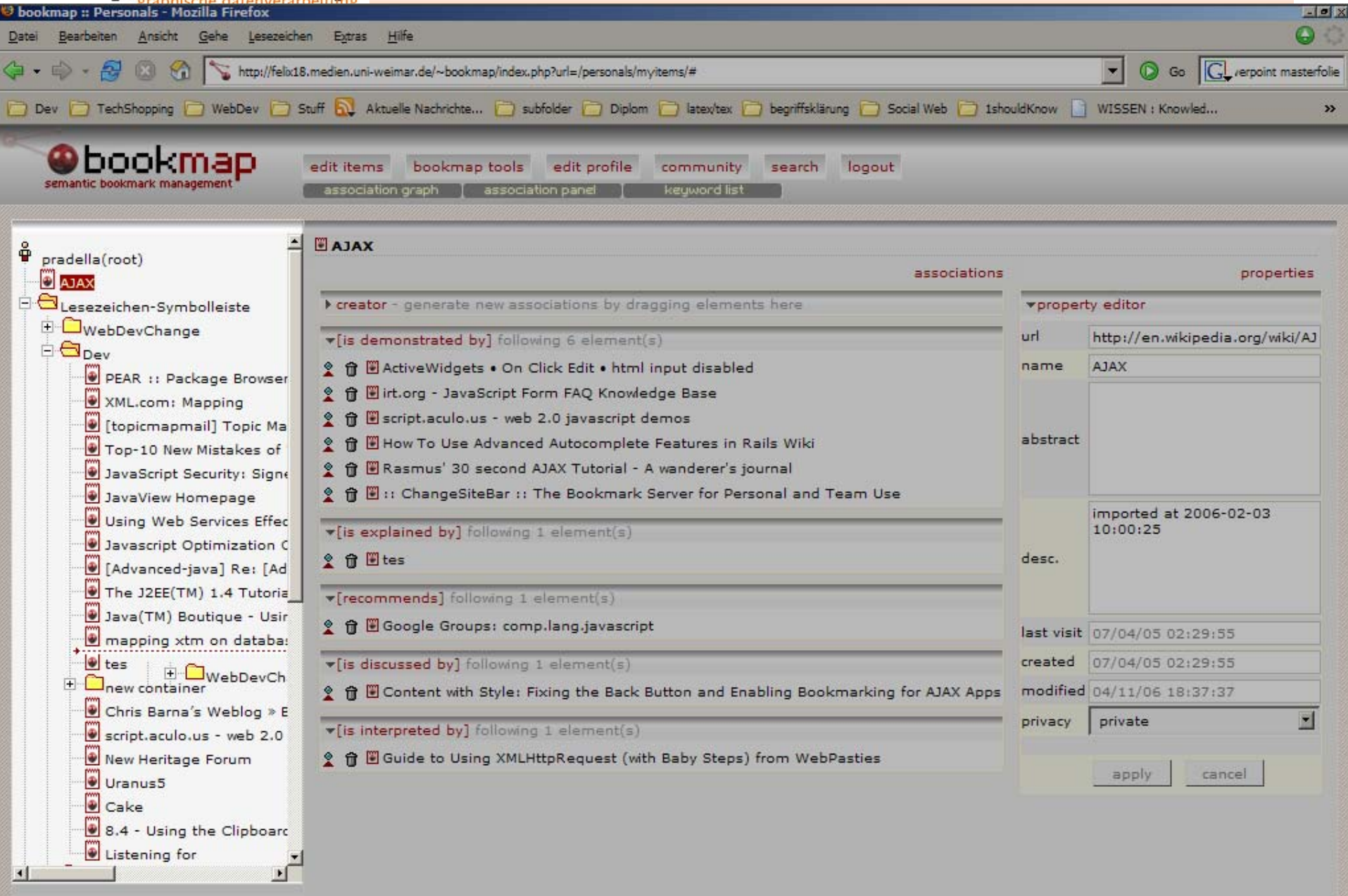

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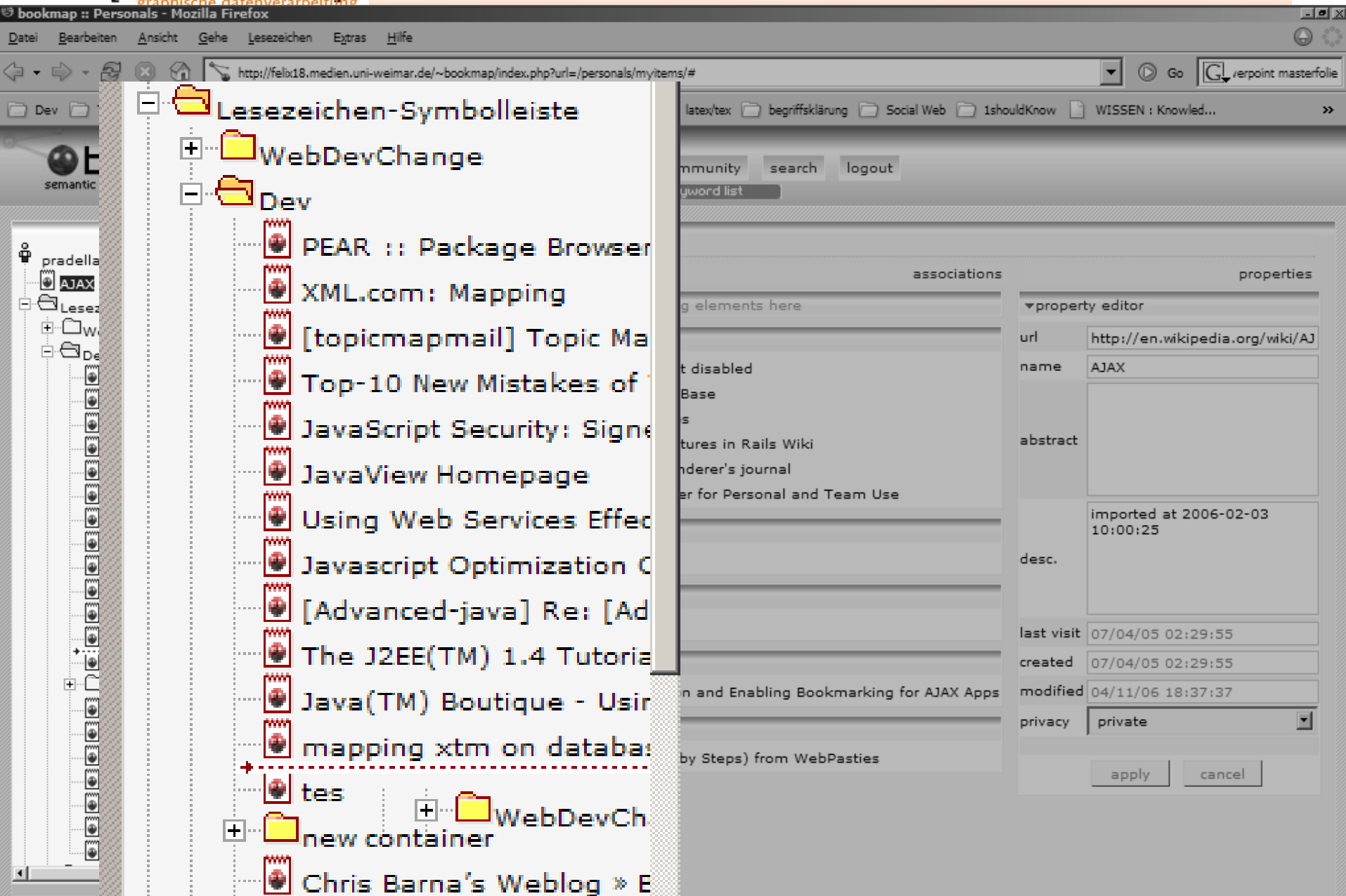

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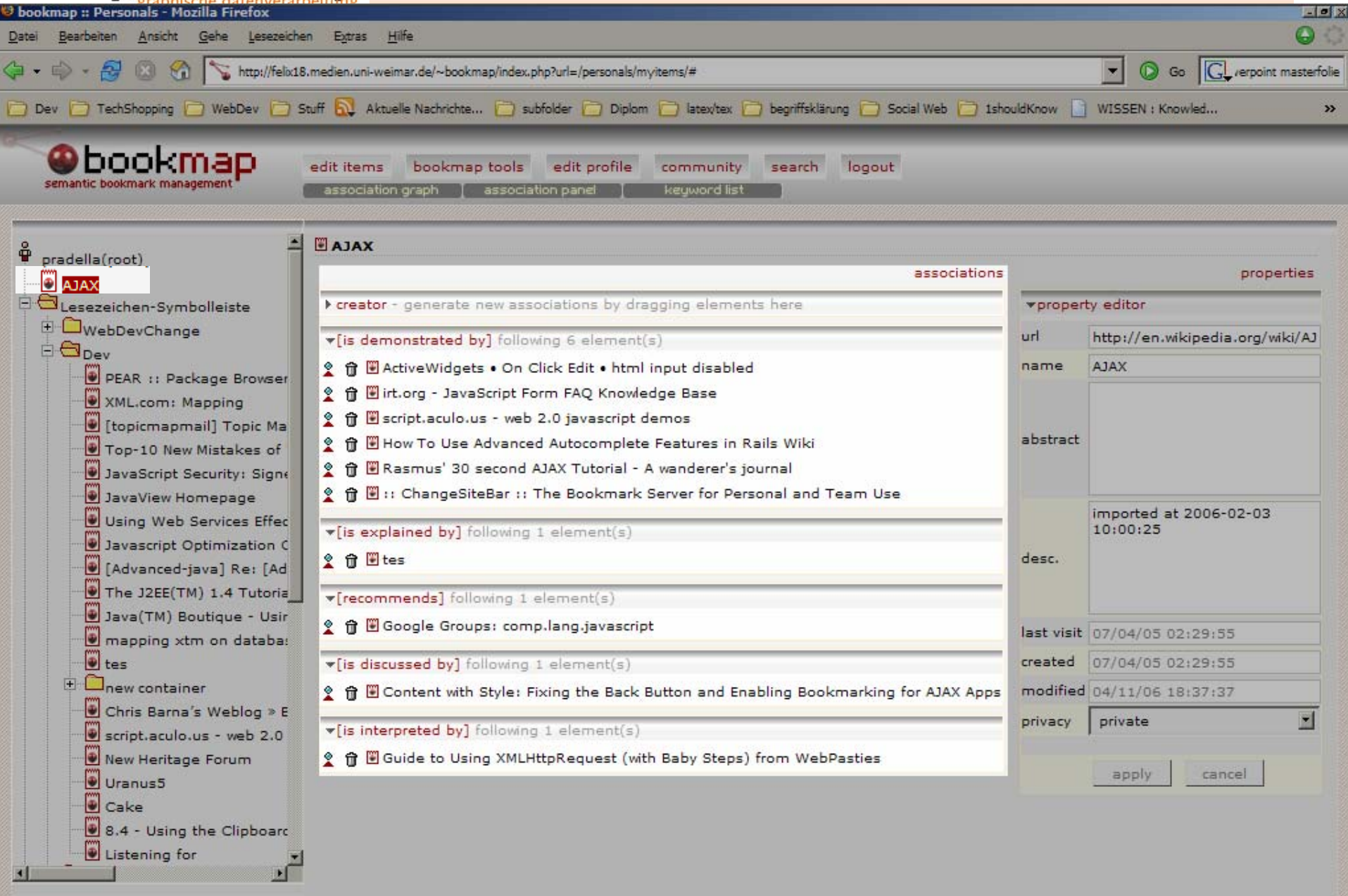

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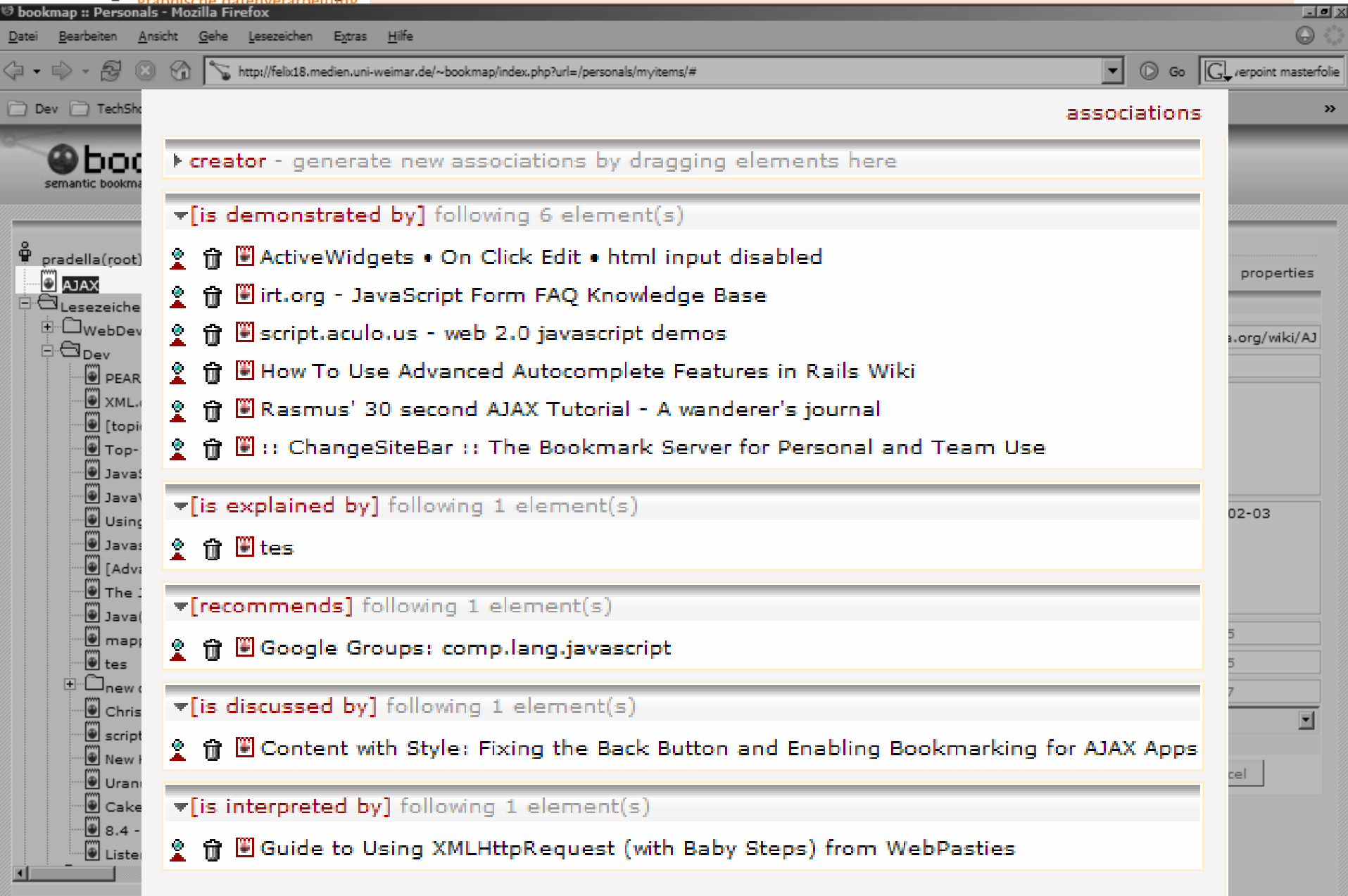

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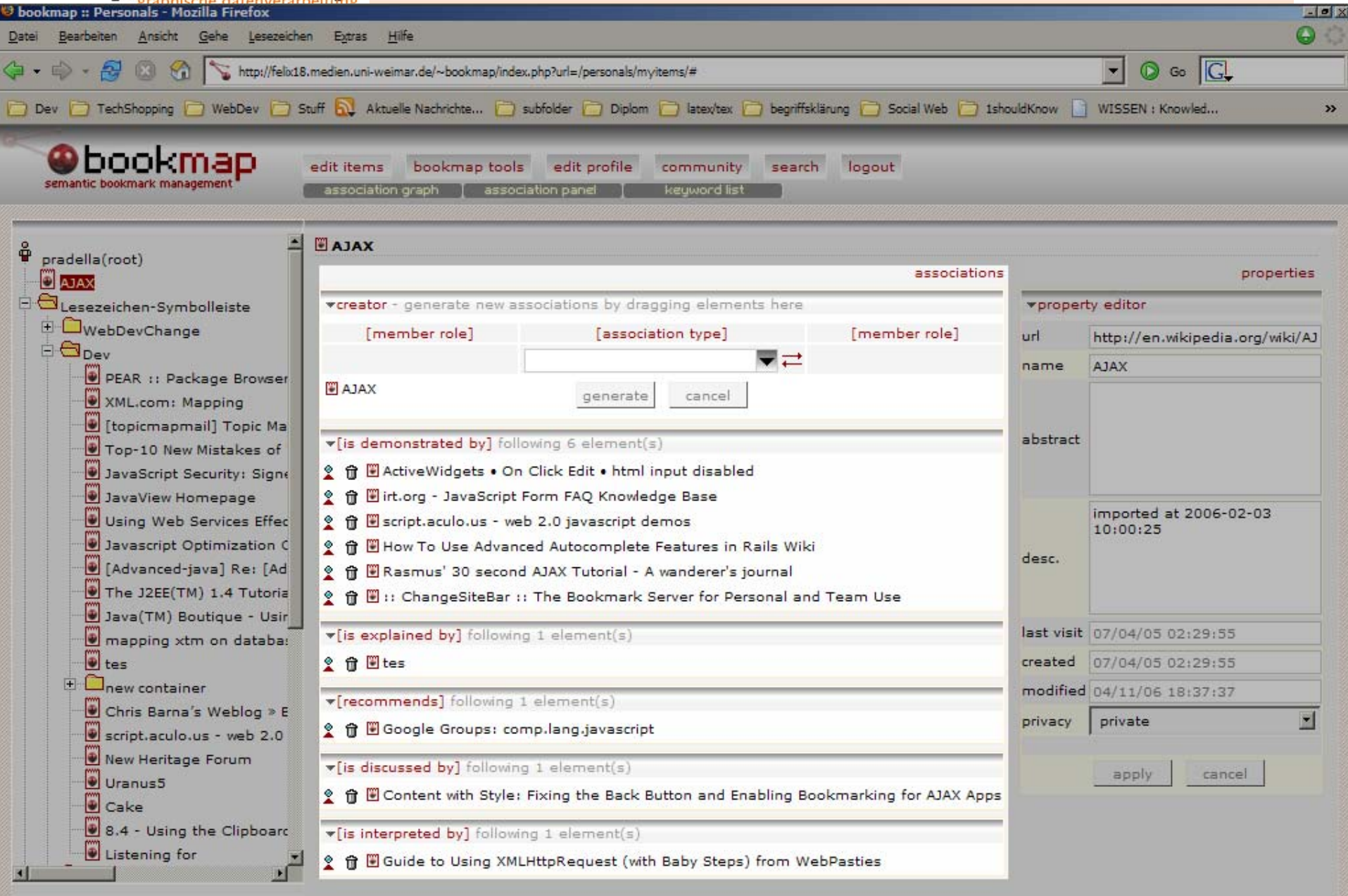

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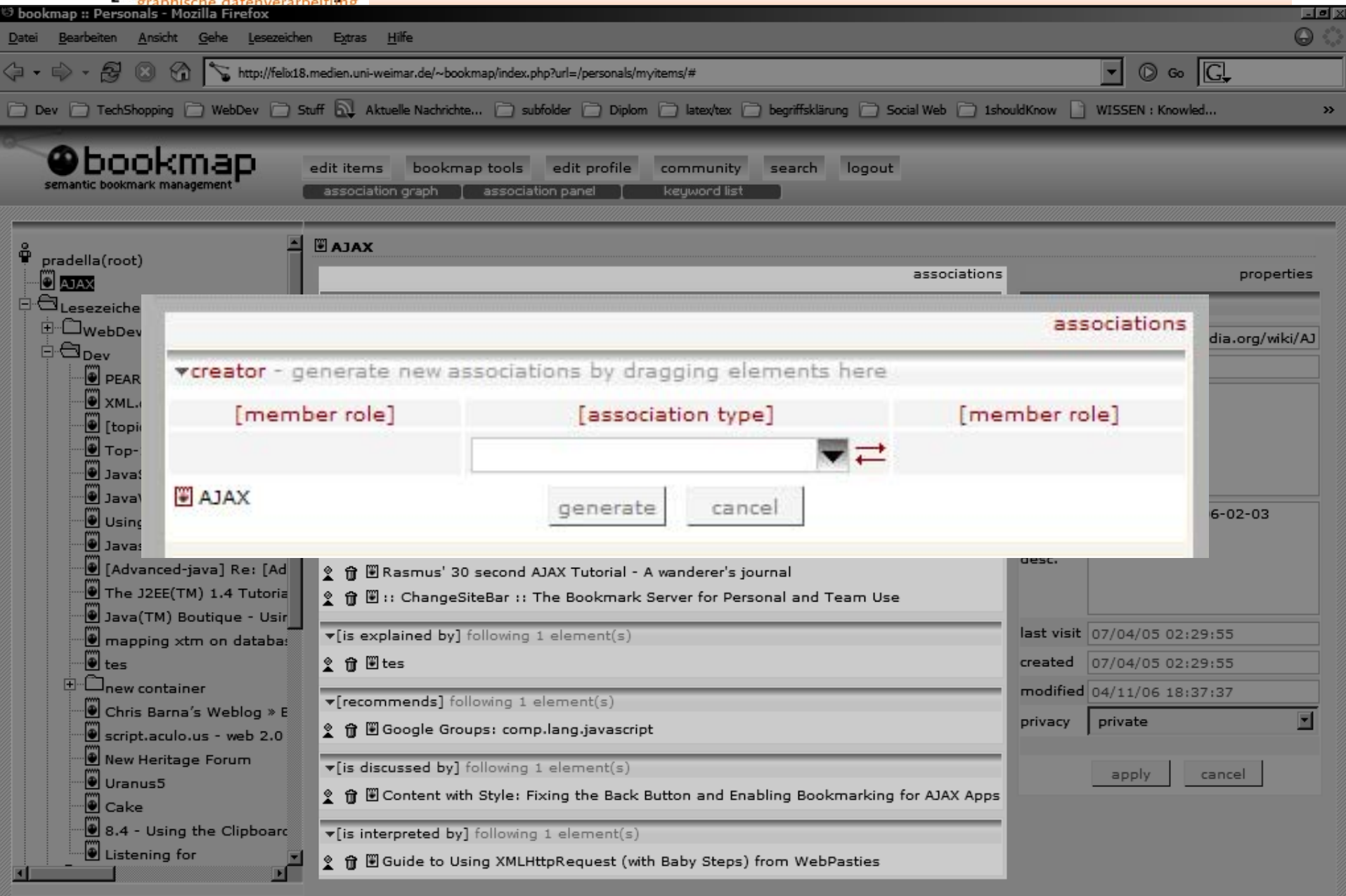

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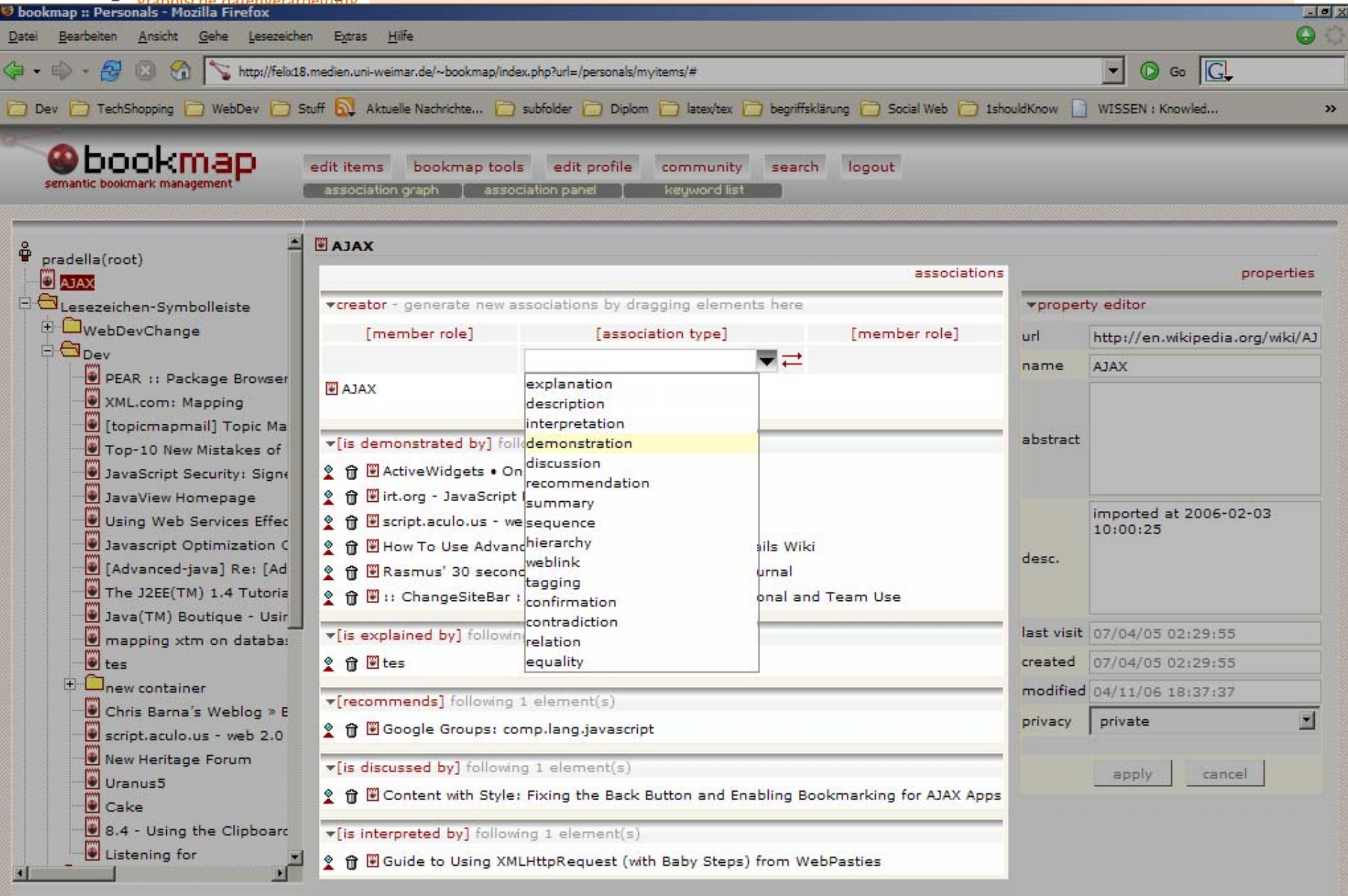

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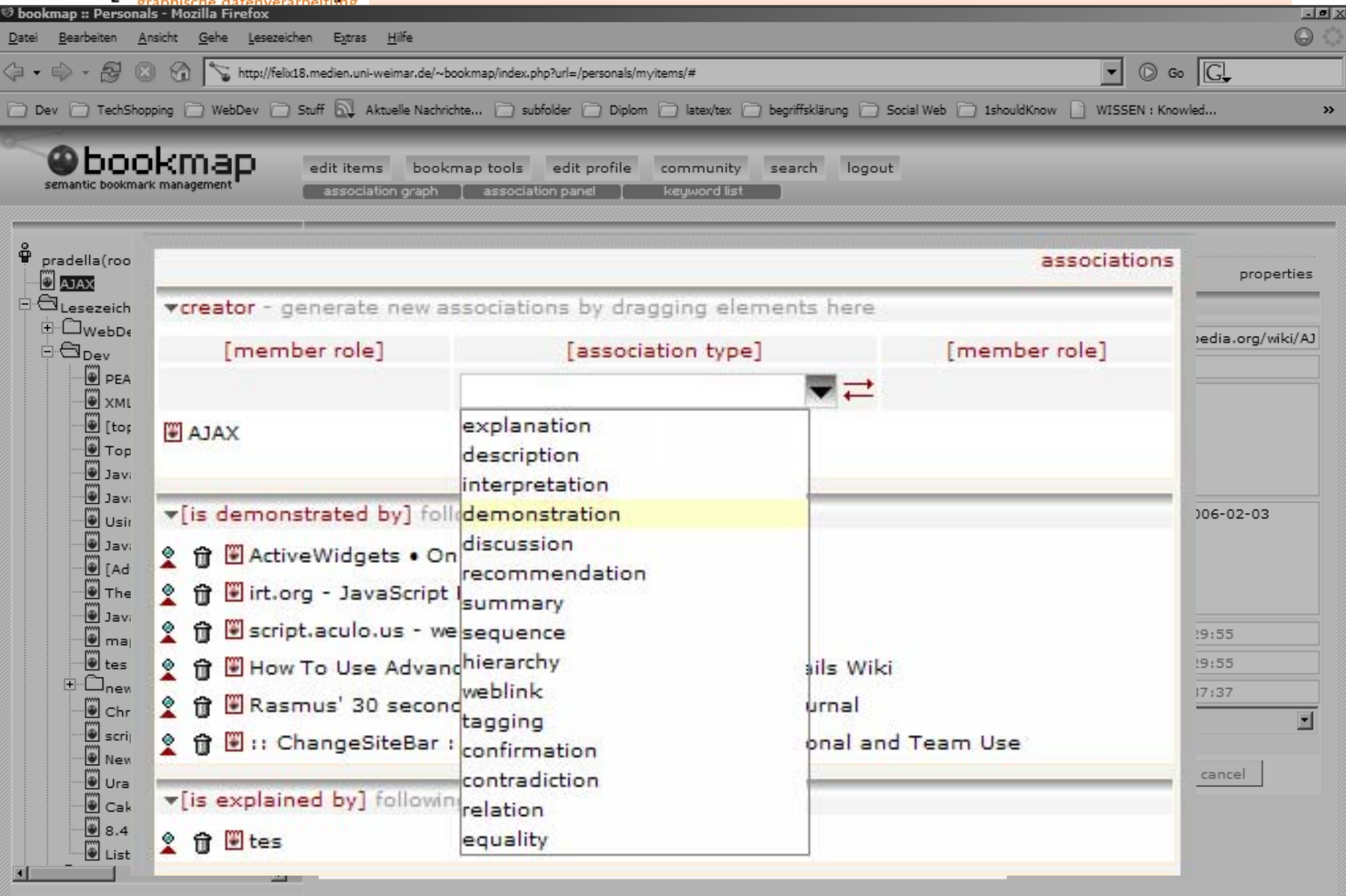

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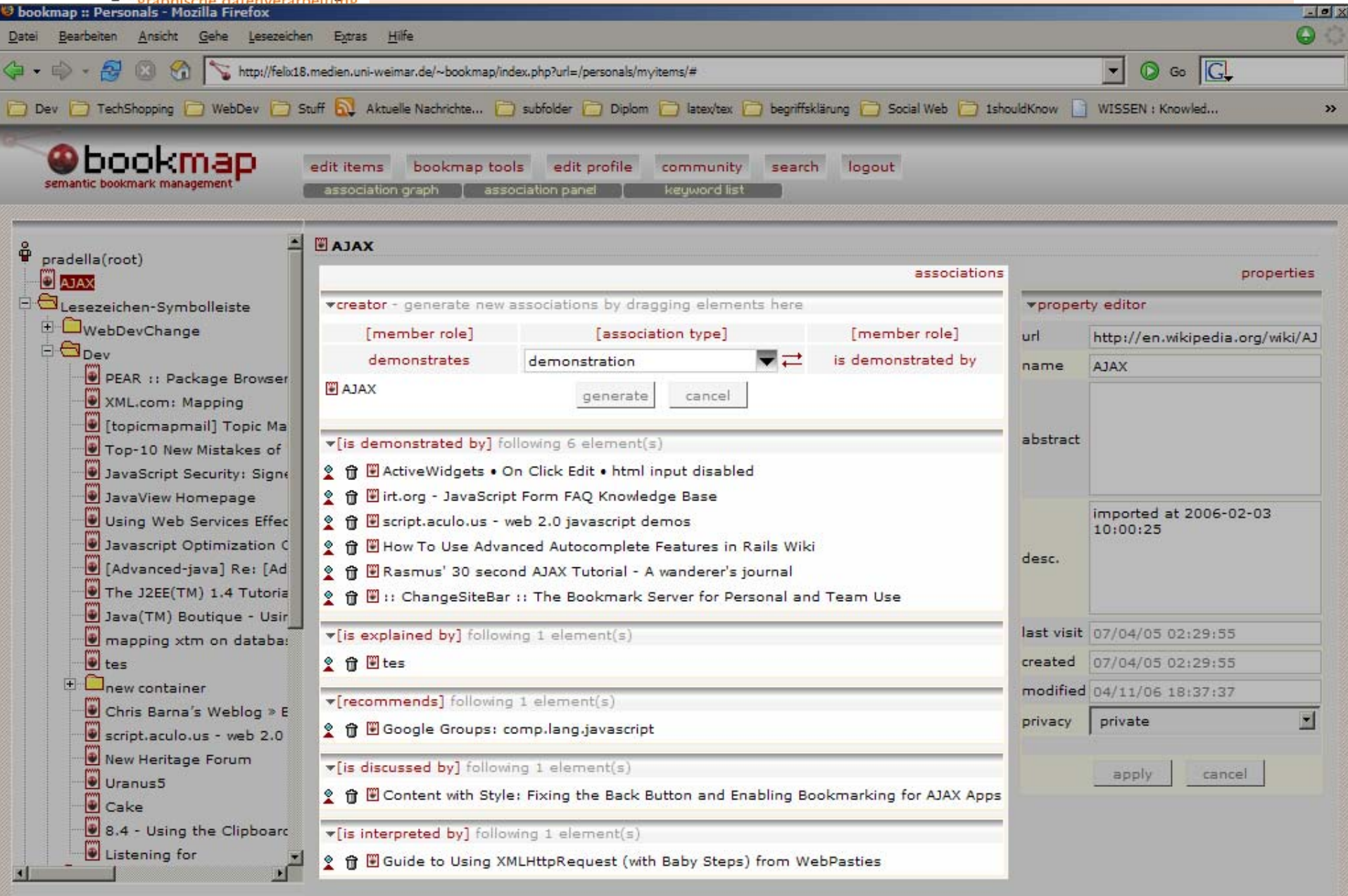

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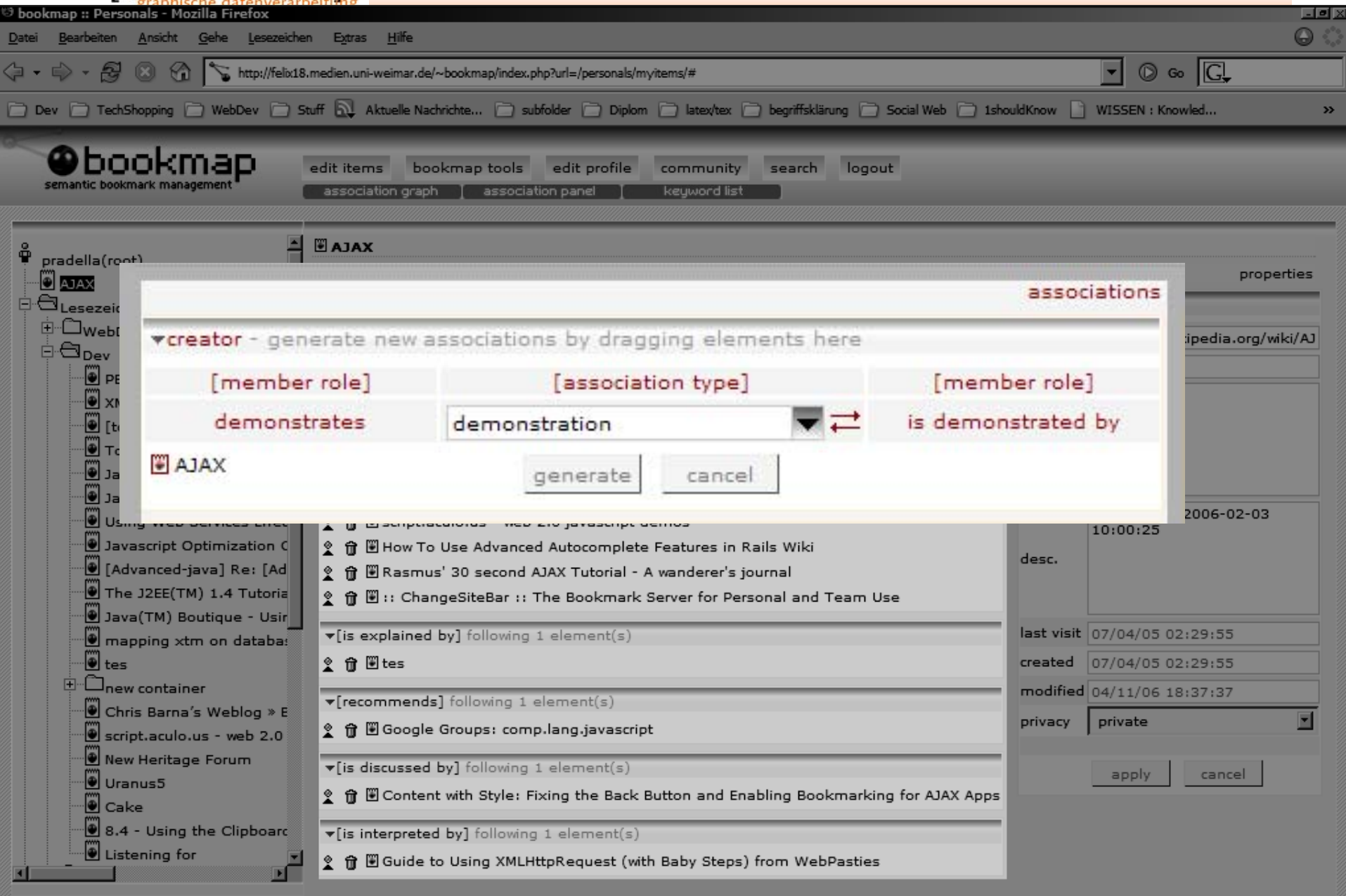

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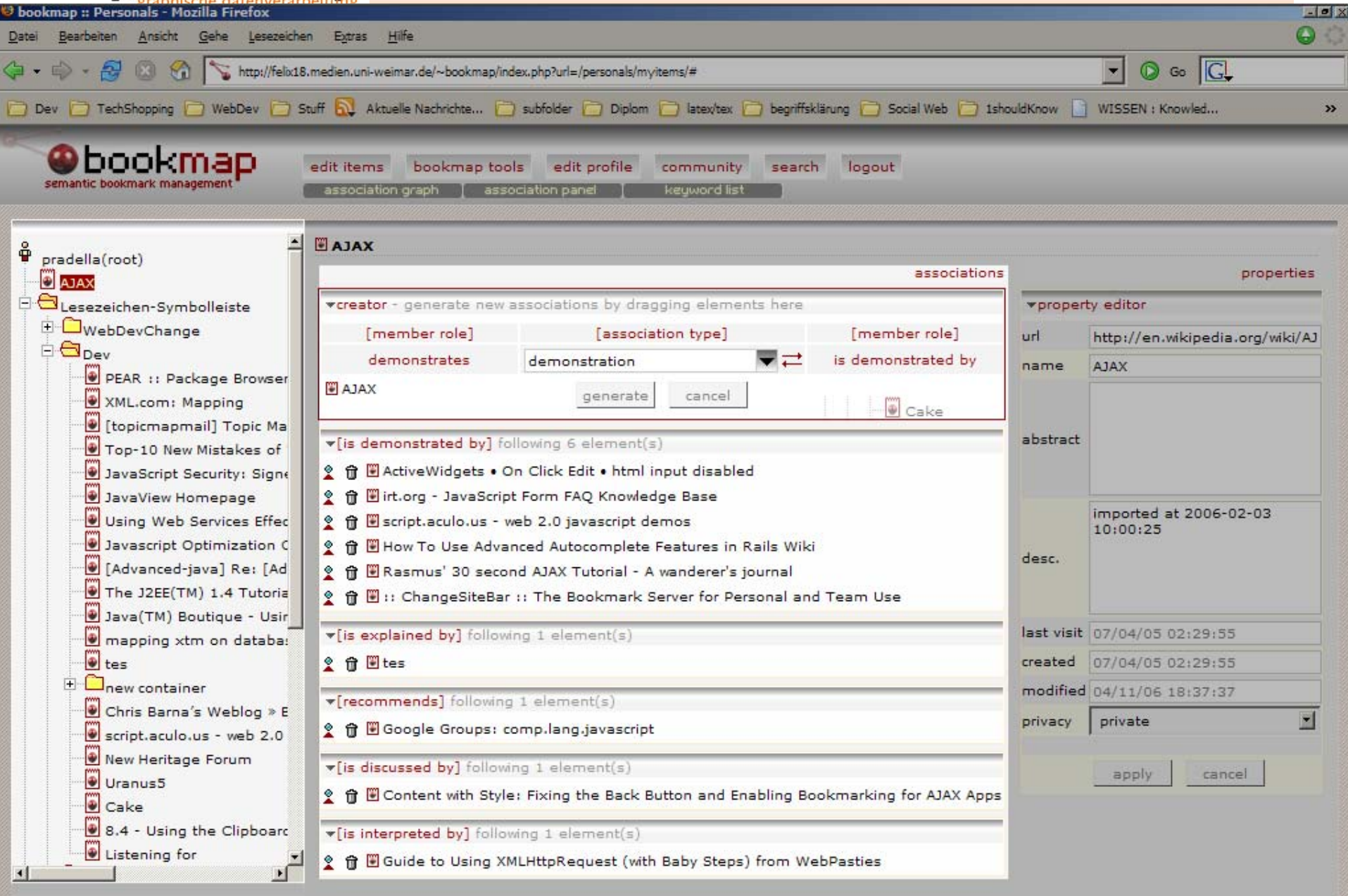

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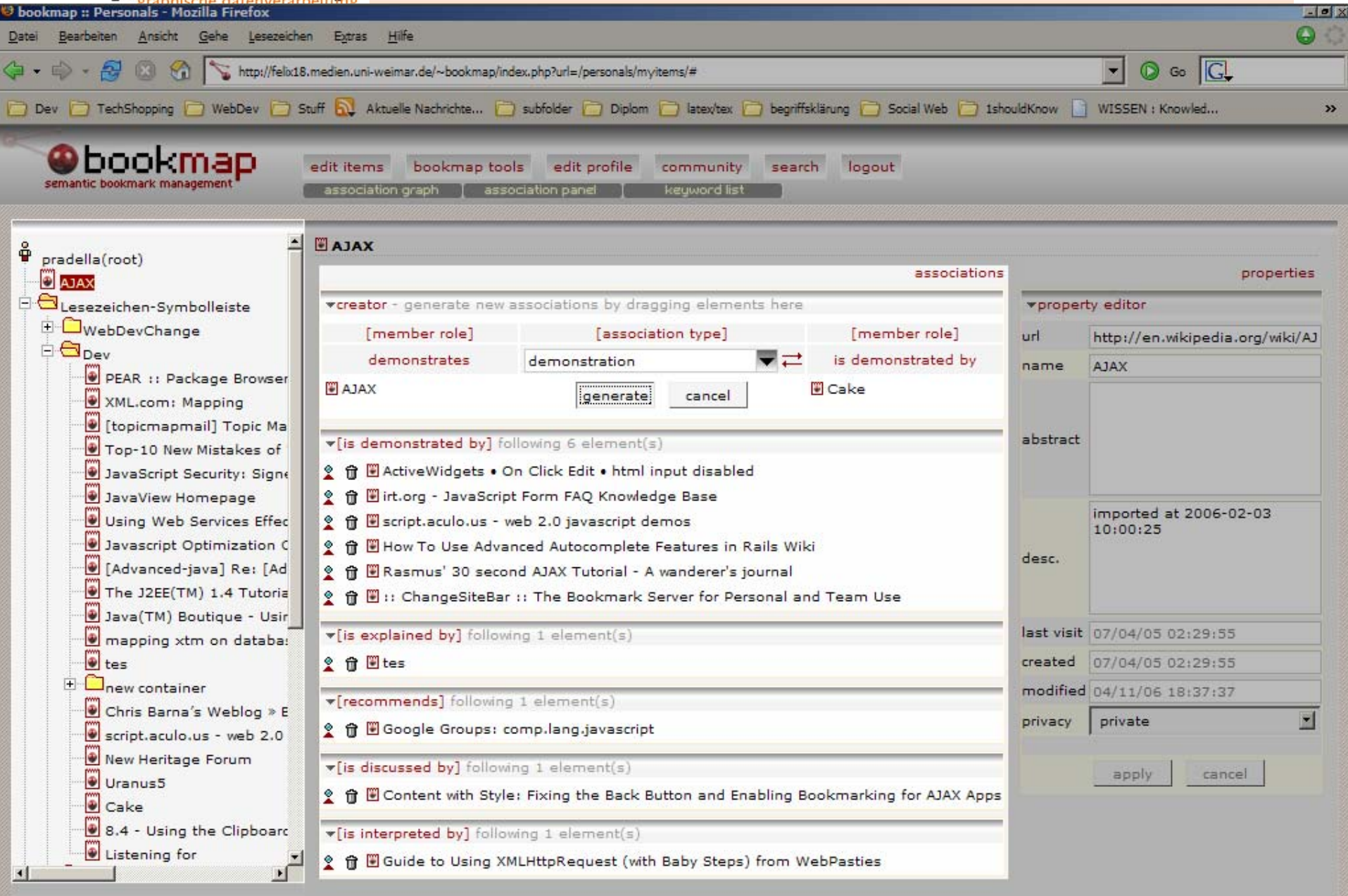

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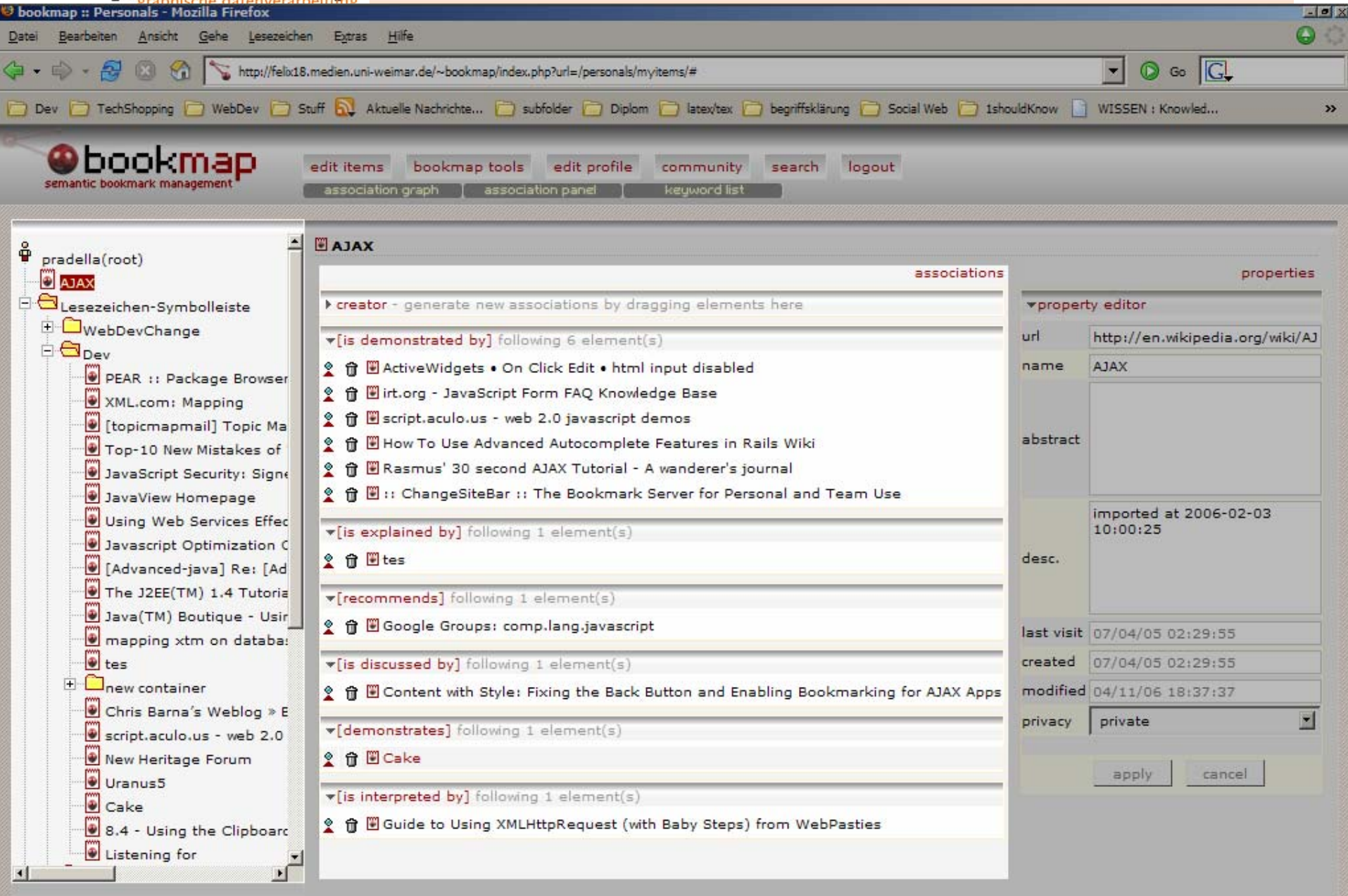

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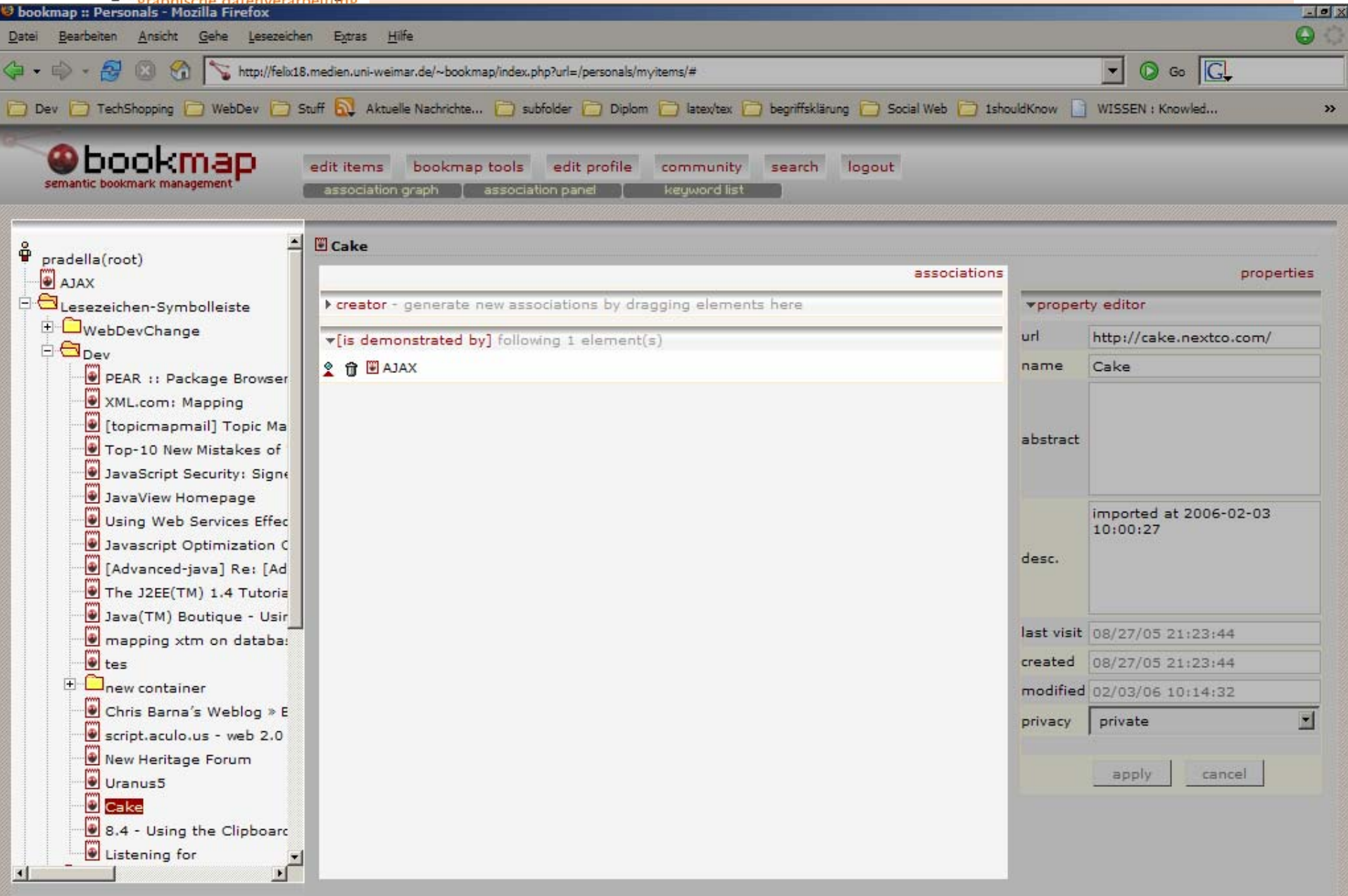

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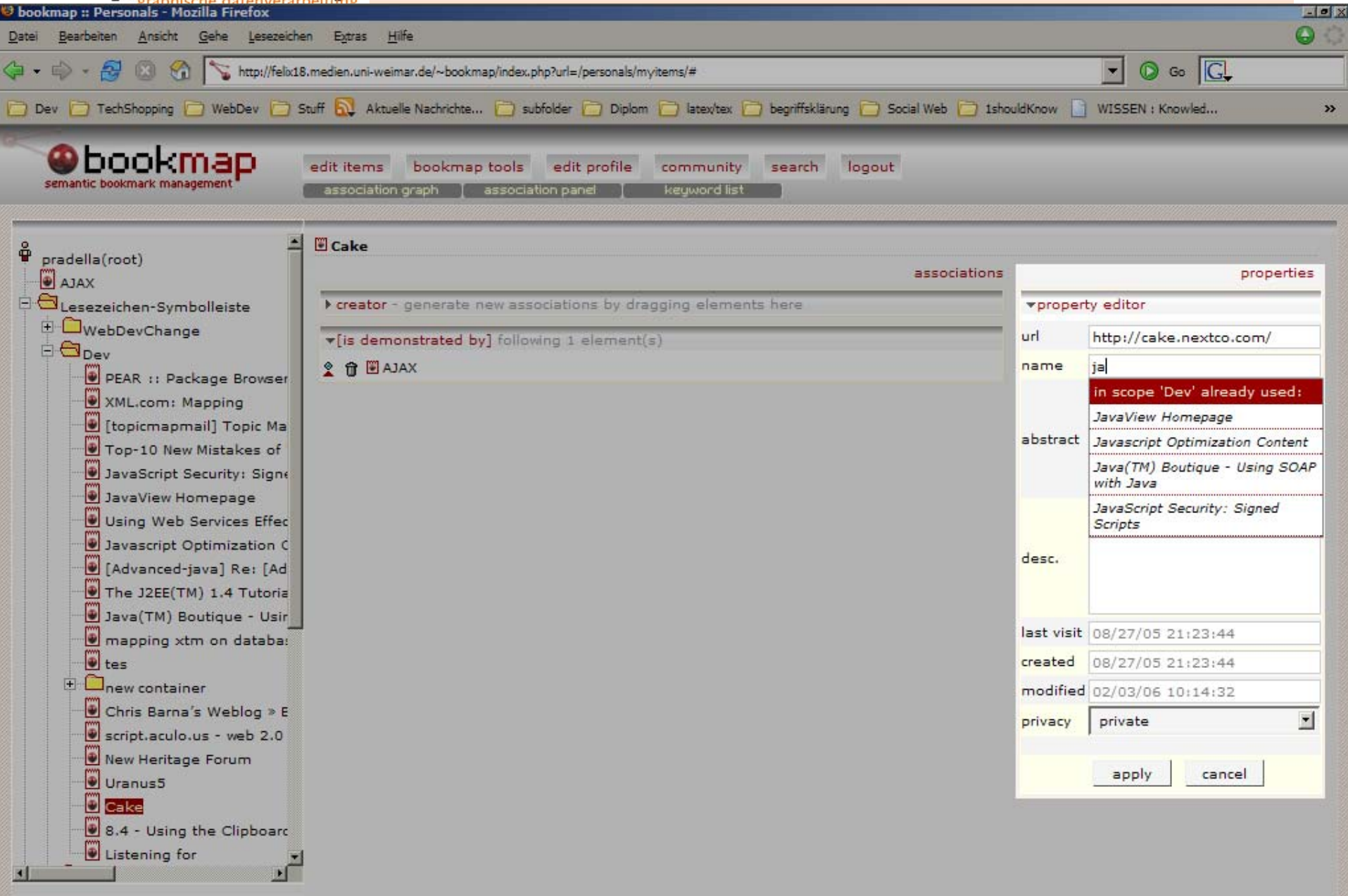

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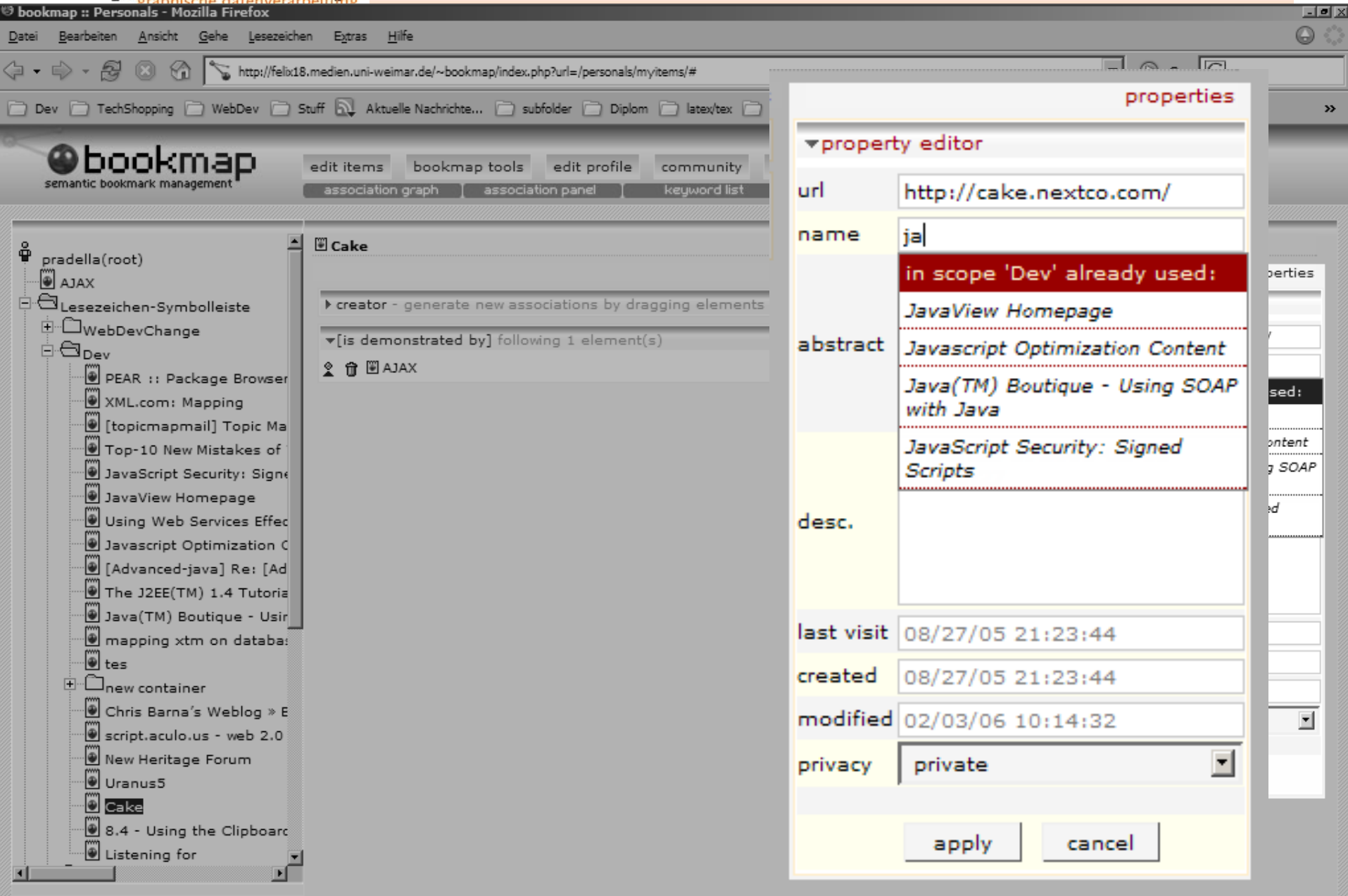

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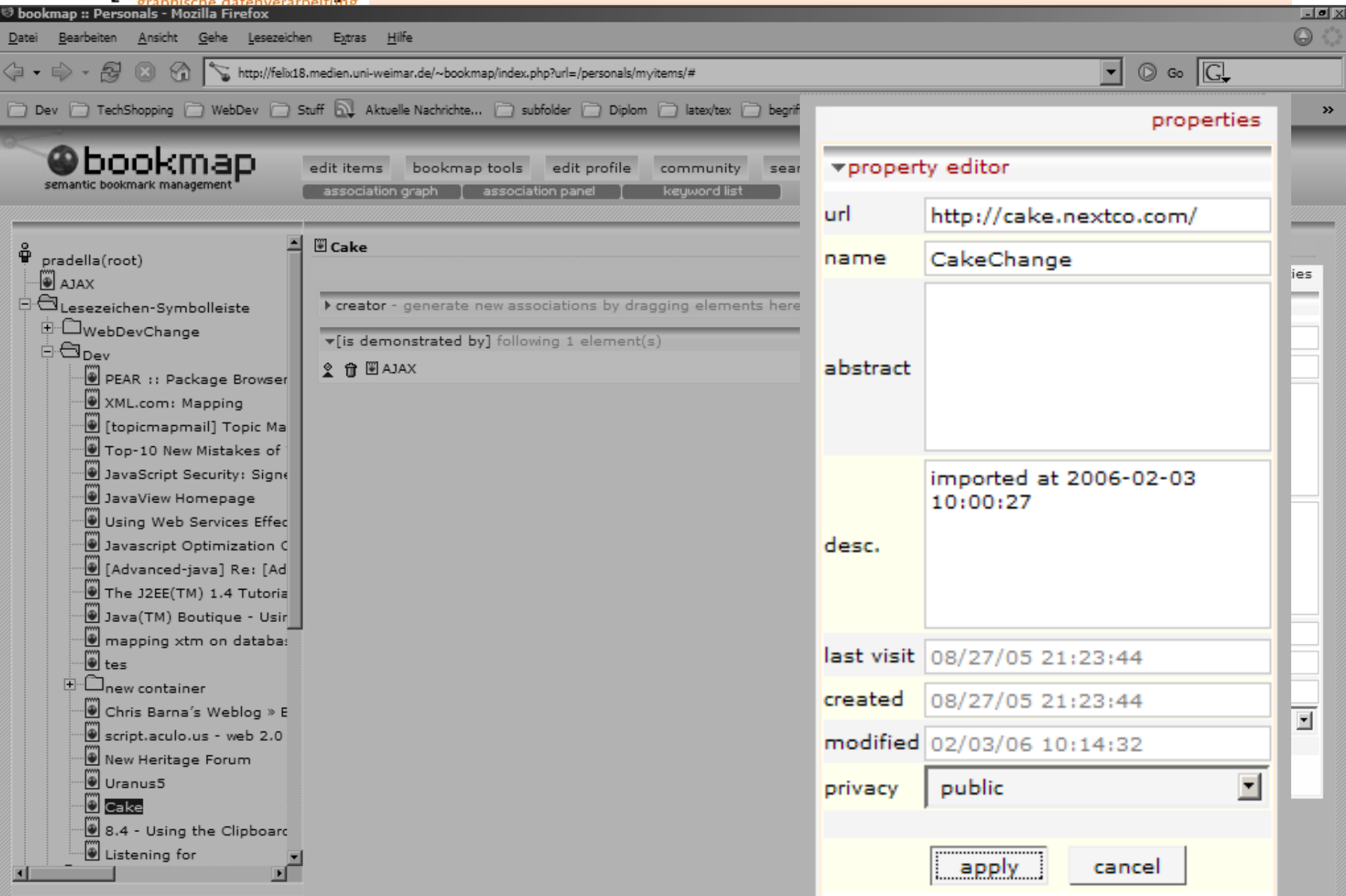

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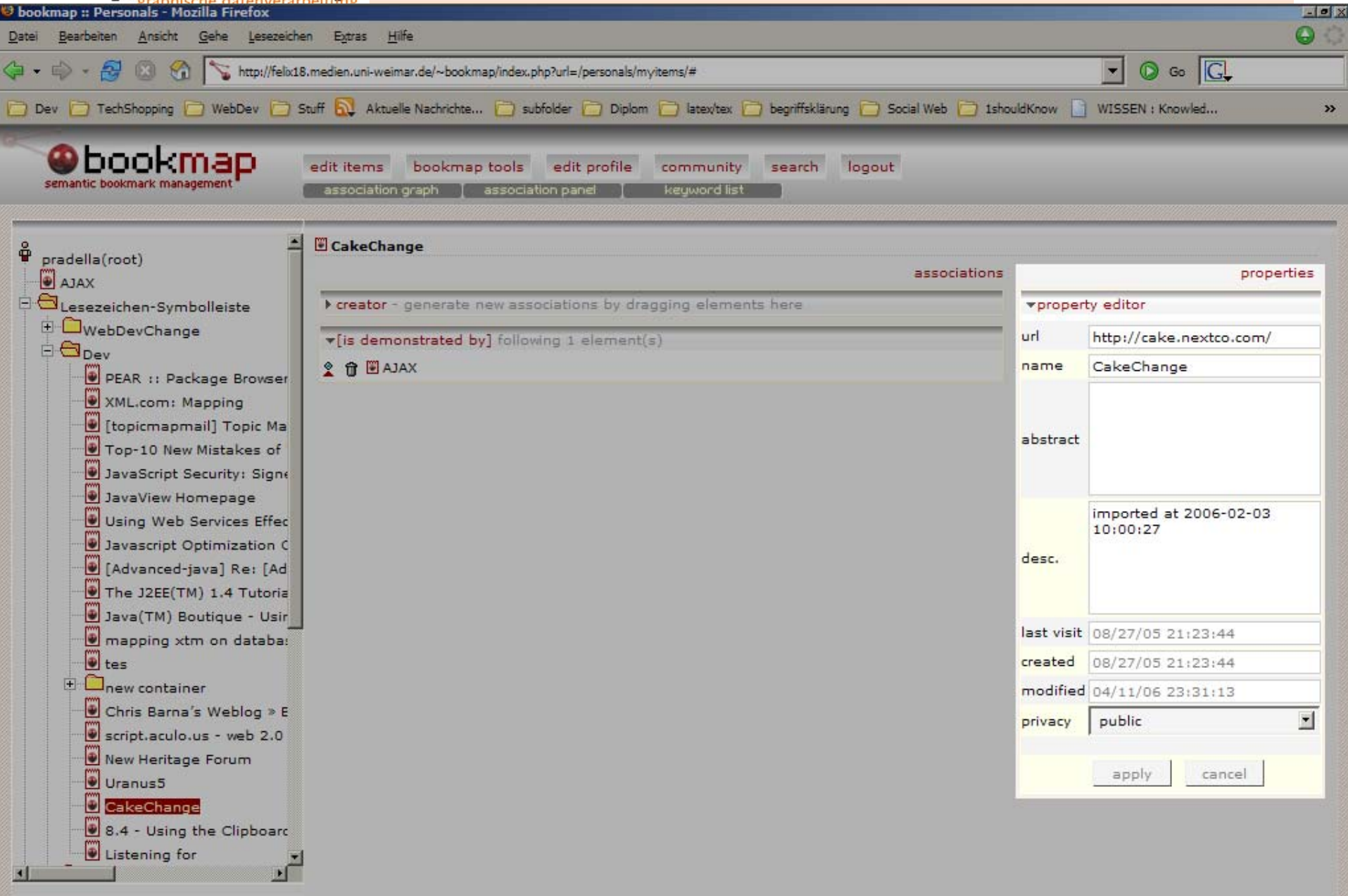

Ontology

- Hierarchical elements
  - Container
  - Bookmark
  - (descriptions, keywords, metadata)
- Associations

explanation	explains	is explained by
description	describes	is described by
interpretation	interpretes	is interpreted by
demonstration	demonstrates	is demonstrated by
discussion	discusses	is discussed by
recommendation	recommends	is recommended by
summary	summarizes	is summarized by
sequence	precedes to	follows to
part-whole-relationship	consists of	is part of
weblink	links	is linked by
tagging	tags	is tagged by
confirmation	confirms	confirms
contradiction	contradicts	contradicts
relation	is related to	is related to
equality	is equal to	is equal to

Benefit for the user

- Central storage of bookmarks
- Possibility of relating to other users‘ TMs
- Getting new insight from other users‘ semantics
- Quicker and different access to new knowledge domain

- Different from delicious? Semantics.
- Fuzzzy? Similar – Tags could be seen as folders, but we restrict users (Assoc.)

Conclusion

- Specific, problem oriented TM application
- Organisation, exploiting and navigation (association)
- Hierarchical structures (scope)
- Description and metadata (occurrence)
- Web-based bookmark management
- Independent of platform and machine
- Simple interaction (Ajax)
- Good integration (local drag&drop, shortcuts)

Future work

- Possible use of *TMAPI/PHP*
- Publication on sourceforge.net underway
- Further evaluation of prototype planned, test vs. Informal user study
- Verification of Ontology in different scenarios
- Need for users to extend/create own ontology? How?

Thanks for your Attention!

☺

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