Innovative approaches to references in electronic dictionaries –
Bridging gaps between media, different projects and general or specialist dictionaries

Ulrich Apel
Overview
Overview

• WaDokuJT dictionary project
• references within the dictionary
  – main entry and corresponding subentries
  – synonyms, antonyms, reading variants, transliteration variants, abbreviation version and corresponding long version etc.
• references to other projects, e.g.:
  – cooperating projects
  – dictionaries without copyright protection
• references to non-text media
  – pronunciation audio data
  – graphical data in SVG format with links back to dictionary entries
  – kanji stroke order animations
• conclusion
WaDokuJT dictionary project
WaDokuJT dictionary project

• started 1998 at Osaka University
• more than 110,000 main entries (lemmata)
• total of more than 270,000 records
• the most comprehensive Japanese-German dictionary
• look-up of German translation equivalents possible
• dictionary was designed as database with the possibility to reduplicate major functions of printed dictionaries
• user collaboration on <wadoku.de>
• representation in different formats:
  – online, also <wadoku.eu>
  – EPWING electronic dictionary format
  – part of applications
  – iPhone app.
Database relation between a main entry and subentries

- reference from main entry to subentry via database relation
- joint representation of main entry and its subentries
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Mark-up of subentry type
Database relation between a main entry and subentries
– representation in a dictionary look-up program called *Jamming*
Database relation between a main entry and subentries

- representation in a dictionary look-up program called *Jamming*
Database relation between a main entry and subentries

– representation of a main entry and its subentries on web page <http://www.wadoku.eu/>
Database relation between a main entry and subentries

– representation of a main entry and its subentries on web page <http://www.wadoku.eu/>
Other references within the WaDoku dictionary

– synonyms
– reference to corresponding entry via its ID
– system generates link
Other references within the WaDoku dictionary

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Other references within the WaDoku dictionary

- click leads do corresponding synonym entry
- similar: antonyms, reading variants, different transcriptions of foreign words, abbreviations and full version
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Other references within the WaDoku dictionary

– reference from abbreviation to unabbreviated form
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New references in the WaDoku dictionary

– references to other dictionaries and projects
– collaboration with Japanese-German archaeology dictionary by Werner Steinhaus
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- link opens corresponding page in Google Books
- data presentation arranged according to subject
- extension of collaboration including University of East Anglia for trilingual dictionary
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- references to other dictionaries
- Kimura (1952/91) - *Großes Japanisch-Deutsches Wörterbuch*
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<th>DaJapanisch</th>
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<th>DaDeutsch</th>
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<tr>
<td>あえぎ (喘ぎ)</td>
<td>あえぎ</td>
<td>(&lt;POS: N.&gt;) &lt;MGr: &lt;TrE: HW n: Keuchen&gt;&gt;; &lt;HW n: Asthma&gt;&gt;. (&lt;KimuLem: 8&gt;)</td>
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<tr>
<td>あえて (敢えて; 敢</td>
<td>あえて</td>
<td>(&lt;POS: Adv.&gt;) (&lt;LangNiv.: schriftspr.&gt;) [1]&lt;MGr: &lt;TrE: Prior_1&gt; gewagt;</td>
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<td>あえない (敢えない</td>
<td>あえない</td>
<td>(&lt;POS: Adj.&gt;) [1]&lt;MGr: &lt;TrE: traurig&gt;; &lt;TrE: beträubt&gt;; &lt;TrE: tragisch&gt;&gt;. [2]</td>
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<tr>
<td>あえ物 (和え物; 和</td>
<td>あえもの</td>
<td>(&lt;POS: N.&gt;) &lt;MGr: &lt;Dom.: Kochk.&gt;;&lt;TrE: HW n: Aemono&gt;&gt;; &lt;TrE: &lt;Expl.:</td>
</tr>
<tr>
<td>亜鉛; Zn</td>
<td>あえん</td>
<td>(&lt;POS: N.&gt;) &lt;MGr: &lt;Dom.: Chem.&gt;;&lt;TrE: HW n: Zink&gt;&gt; (&lt;Def.: bläulich</td>
</tr>
<tr>
<td>青目</td>
<td>あおがい</td>
<td>(&lt;POS: N.&gt;) [1]&lt;MGr: &lt;Dom.: Muschelk.&gt;;&lt;TrE: HW f: Napfmschel&gt;</td>
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- Kimura dictionary here more comprehensive
- contains more information for users with Japanese native language (gender, plural etc)
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- Japanese and German *Wikipedia*
- text book and JLPT vocabulary
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Presentation of non-text media

- Pronunciation as MP3 file spoken by former TV announcer
- e.g. a‘tsui (厚い) vs. a‘tsu‘i (暑い or 熱い)
Presentation of non-text media

- reference from dictionary source text to graphic file
- embedding of SVG image in webpage
- link to bigger size picture
Presentation of non-text media

- reference from dictionary source text to graphic file
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Presentation of non-text media

- SVG image in original size
- link from image annotation to corresponding dictionary entry
Presentation of non-text media

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- link from image annotation to corresponding dictionary entry
Presentation of non-text media

– corresponding entry from image annotation
Presentation of non-text media

– stroke order animation from *KanjiVG* project
– at the moment only application *Tagaini Jisho*<tagaini.net>*
– planned feature for WaDoku.eu
Conclusion
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- new possibilities for text in electronic dictionaries
  - references in printed dictionaries: text condensation and redundancy reduction
  - new approaches: interconnecting entries via database connection or hyperlink
  - picking up ideas from print dictionaries to bridge the gap to electronic dictionaries

- new possibilities in the relation to other dictionaries and projects
  - cooperating with other projects and refer to other dictionaries => transparency
  - each project shines with its special characteristics => easier, decentralised collaboration (archaeology dictionary, Buddhist lexicon project, Staatsbibliothek Berlin and other projects)
  - better adaptation to user needs
  - bridging gaps between projects and partners, or general and special dictionaries

- new approaches by embedding of multimedia data
  - audio data, static graphics, animations
  - bridging the gap between text and other media
Thank you very much for your kind attention!

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