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PAPER

What else can databases do to assist translators? Illustrating a rated inventory of Web dictionaries

Data storage is one of the computer facilities that translators frequently rely on. The so-called 'translation memories' allow the creation of multilingual lexical archives which function as customized dictionaries, and are particularly suitable for highly specialized translations in which interlinguistic (Jakobson, 1971) lexical equivalence is more stable, as specialist words are almost monosemous.

As a matter of fact, not every translator is a one-field specialist, and the need for a sporadic expertise could be of crucial importance for professionals working with journals, press agencies and media in general. In these contexts, but also in many others where the promptness of information is as important as its accuracy, the Internet becomes the most useful encyclopedia, offering a large amount of inexpensive data, also to be found in the form of dictionaries. The question is thus how to get to the best source available as quickly as possible, since the overproduction of information on the Web eventually turns into "information death", as Tarp [2010: 41] calls it. Search engines are too generic to be of any assistance to users with these tasks, and metalexicographical resources have started to appear. The quickest searches are offered by metadictionaries¹, which show definitions taken from different vocabularies on one page, a system that doesn't seem to be completely effective, because terminology archives - and hence the number of definitions provided - are either too small to cope with users' needs or too big to solve the problem of quick access to information.

¹ See, for example: *TERMIUM Plus*, *Grand dictionnaire terminologique*, and *MetaGlossary*.

From this point of view, the World Wide Web poses stimulating metalexicographical issues, some of which will be outlined here while presenting a new lexicographical tool for guided searches on the Web, namely a rated inventory of free specialised dictionaries, managed through a relational database which allows users to carry out multiparametric searches.

1. Information accessibility

The issue of knowledge accessibility led to the creation of dictionaries, since:

[t]he truly unique thing about dictionaries is not the various types of data they employ in covering the information needs of users [...]. Such data can generally be incorporated into other types of book and text as well. The truly unique thing is the way in which this data is made accessible so users can quickly and easily find the exact data they need. [Tarp 2008: 101]

Nowadays lexicographers focus their work on the customization of dictionaries for their users, and different approaches have been proposed in order to achieve this aim. One in particular is useful not only for writing vocabularies, but also for their critical evaluation, since it offers a synthetic procedure to define the parameters a dictionary must have in order to fulfill its desired functions. Therefore the theory has been named lexicographical function theory, and has finally been formulated by Sven Tarp [2008; also Tarp, 2009, 2010] as a result of long metalexicographical reflections and debates carried out by the research group of the Aarhus University (Denmark) [Nielsen 1994; Tarp, 1992; Geeb, 1998; Bergenholz & Tarp, 1995], also questioning the assumptions of some other distinguished scholars [Tarp, 2008: , 37-39; Wiegand, 2001]. According to this theory, dictionary functions must be identified on the basis of the kind of users, as well as the situations in which the vocabulary is employed, therefore the compilers must think about the specific context in which the need for vocabulary consultation arises [Tarp, 2008: 81]. For example, dictionaries may be used in situations of proofreading by students for their homework, or by professional editors for books to be published, or even in the less common situation of young people that read religious books, in such a case the dictionary «should only explain the meaning of a word or of phrase and noting more» [Bergenholz, 2012: 245]. Therefore the more specific the target is, the easier it is to tailor the dictionary to the users' desired functions. As a consequence, the traditional generalist dictionaries (or polyfunctional dictionaries), offering resources for the two most basic situations - namely cognitive and communicative environments, without further tailoring of the information provided are judged as inefficient, since:

[they] are in many cases so overloaded that this causes information stress and in the worst case may even cause the search to be abandoned if the user cannot find the needle in the haystack [Bergenholz, 2012: 251].

The alternative model proposed is the monofunctional electronic vocabulary, extracted from lexical databases using search forms that allow users to tailor the entry to their needs. For example, if the dictionary must supply assistance for text production in an L2, the database will provide a dictionary article displaying grammar information, «synonyms, collocations and examples» [Bergenholz, 2012: 253]. Conversely, if the user must understand a text, this information is probably inadequate and certainly not the most important.

Lastly, by fixing explicit parameters that guide good practices of dictionary writing, the theoretical framework of the *lexicographical functions* proves to be suited for the opposite task too, namely dictionary evaluations, which can be undertaken not only in general review terms [see Nielsen, 2009, 2011], but also in a more lexicographical direction, employing the same parameters as orienteering tools among the existing lexicographical resources.

Using these observations as a starting point, a database has been created. The resource, accessible at the Web Linguistic Resources site, collects free specialized Internet dictionaries which often are more valuable for their unrestricted access than for their overall quality, since the Internet compilers have little or no lexicographical expertise at all. The usability of the majority of these dictionaries is therefore dependent on guides and filters that prevent users from wasting their time and being given inefficient information, in this way they can become quick reference tools for web surfers.

2. Dictionaries on the Web: the features to be rated

Instead of providing users with multiple definitions on one page, and leaving them with the task of selecting data, the Web Linguistic Resources database offers a rated inventory of dictionaries which helps to find the best resources available for free on the Web.

The adaptation of the lexicographical function theory parameters to critical principles of analysis in order to rate and filter dictionaries fulfills also the proposal of Nielsen [2009; 2011] to judge dictionaries on lexicographical, non-linguistic principles that are generally applicable in order to make dictionary reviews part of the new academic field of lexicography.

The rated inventory of the Web Linguistic Resources site is based on an evaluation form (fig. 1), managed by a relational database that allows multiparametric searches.

The 58 fields in the form (see table 1) correspond to the possible features of a dictionary, and address all the component parts of vocabularies, i. e. megastructure, macrostructure [Hausmann & Wiegand, 1989; Hartmann, 2001], mediostructure [Wiegand, 1996; Nielsen, 2003], and microstructure [Hausmann & Wiegand, 1989; Hartmann, 2001]. The features were partly set in advance, and partly added - or modified - during the data collection, in order to portray adequately the characteristics of these atypical dictionaries - they are listed in table 1 according to the parts of dictionaries they belong to².

² See Caruso [2011] and Caruso & Pellegrino [2012] for a more detailed description of the features considered.

Megastructure

- 1. Guide
- 2. Amateur Site
- 3. Blog
- 4. Commercial Site
- 5. Generalist Site
- 6. Institutional Site
- 7. Collective resource
- 8. Specialised Site
- 9. Learning resources
- 10. Bibliographic resources
- 11. Hyperlinks
- 12. User feedback
- Macrostructure
- 13. Access: Browse
- 14. Access: Search engine
- 15. Access: Advanced search engine
- 16. Entries: 0-49
- 17. Entries: 50-100
- 18. Entries: over 100
- General organisation: Concepts

- 20. General organisation: Words
- 21. Monolingual dictionary
- 22. Monolingual word list
- 23. Multilingual dictionary
- 24. Multilingual word list
- 25. Plurilingual dictionary
- 26. Specialist & Ordinary words
- 27. Only Specialist words
- 28. Bidirectionality Mediostructure
- 29. Cross-references
- 30. Related terms
- 31. Hypernyms
- 32. Hyponyms
- 33. Hypertexts
 - Microstructure - Linguistic fields
- 34. Grammatical category
- 35. Morphological information
- 36. Syntactic pattern
- 37. Phonetic transcription
- 38. Pronunciation notation
- 39. Stress information

- 40. Audio files
- 41. Syllabification
- 42. Frequency of use
- 43. Linguistic variation
- 44. Technical definitions
- 45. Translation equivalences
- 46. Example Phrases
- 47. Quotations
- 48. Idioms
- 49. Collocations
- 50. Synonyms
- 51. Antonyms
- 52. Etymology
 - Encyclopedic fields
- 53. Encyclopedic information
- 54. Examples
- 55. Domain field
- 56. Video files
- 57. Pictures
- 58. Cultural notes

Table 1. The fields in the database form that register dictionary features

The megastructure is the matter outside the entries, which can nonetheless be important for the dictionary typology and contents. In particular, the host site (numbers 1 to 8) may be a validation criteria of the dictionary quality, since it is to be expected that credited Institutions (universities, ministries, journals etc.) publish good lexical resources.

The macrostructure, however, refers to the general organization, and therefore comprises the dictionary type, whether a simple word list, a multilingual dictionary provided or not with bidirectionality (a separate field in the form, number 28), or a plurilingual (number 25), a new dictionary added to the list which is typical of the Internet, namely the dictionary within localized sites [Caruso, 2011]. These sites in fact are optimized for the market of different countries [Pym, 2004], and therefore offer many language versions of their pages that are not interlinked with each other. Since one version is completely independent from the others, the many language dictionaries therein also have no direct connection. Therefore, the user must scan the entire word list and check for correspondences in the definitions in order to find any translation equivalences.

Moreover, Internet dictionaries may also offer special access facilities to users, such as "Advanced search engines". For example, the dictionary of the *Büro für angewandte Mineralogie* allows searches not only in the whole dictionary contents, but also in its classifying ontology: looking for "Elemente", the listing provided by the engine will include also "Periodensystem der Elemente", besides all the chemical elements in the dictionary (from "Antimony" to "Sulfur"), and the entries that contain the required word in their definitions, such as the following:

Zirconia-Coating ZR-M



- zur Beschichtung von Keramik, Faserkeramik, Graphit und Metallen
- ^agute chemische Stabilität gegenüber Metallschmelzen
- für den Hochtemperatureinsatz bis 1900°C
- enthält hochreines, monoklines Zirkonoxid (ZrO₂)

Beschreibung

Zirconia-Coating ZR-M ist ein Spezialcoating auf der Basis von monoklinem Zirkonoxid. [...] Im metallurgischen Bereich werden mit Zirconia-Coating ZR-M Tiegel, Rinnen, Kokillen und Thermo<u>elemente</u> beschichtet, um sehr reine Schmelzen und saubere Gußoberflächen zu erzielen. During the data collection, special attention has also been paid to the mediostructure, the cross-linking system within a dictionary, which is obviously a key component of electronic vocabularies. Accordingly, the evaluation form registers both "Cross-references" and "Related terms", only the former having direct hyperlinks to other entries, while "Hypernyms" and "Hyponyms" signal semantic hierarchies that also function as internal references.

Discussing instead the microstructure, or the dictionary entry components, the evaluation form takes note of its linguistic and encyclopedic aspects, and accounts for specific fields that reveal the user friendly character of these dictionaries, which generally offer non-technical definitions, and pronunciation notations rather than phonetic transcriptions (numbers 44, 37, 38 in tab. 1).

3. The rating system

Since this lexicographical project is not aimed at the detailed dictionary reviews of Nielsen [2009, 2011], but at large scale qualitative estimations that filter bad dictionaries or, at least, dictionaries not suited for a specific function, we limit the critical system to a few lexicographically relevant situations and only some types of users.

The most general situations of dictionary use are, according to Tarp, communicative and cognitive contexts, in which someone needs to produce texts or know something - in the database we name them Communication and Knowledge -, to these we add two others, which are more specific and are expected to be the most typical for web surfers: contexts in which someone needs to translate (*Translation* in the database) or learn something (*Learning*). However, since communication and knowledge are so basic and abstract, we don't consider them as situations (unlike Tarp, who does) but as the most basic *functions* that the web dictionaries should fulfill. Therefore our inventory is made up of three *lexicographical parameters*: three kinds of users, two basic dictionary functions, and two situations of use. The kind of user parameter is thus limited to laymen, experts, and semi-experts of one field, e. g. economy journalists who are not economists themselves [Bergenholtz & Kaufmann, 1997; Hartmann, 1989].

To the parameters, feature frequency has been added, in order to keep track of the features that are always present and those which occur only sometimes in one dictionary, since the majority of these lexicons lack any strict lexicographical organization, and offer unsystematic assistance to users (see tab. 2).

Lexicographical parameters→					Users							Fund	tions		Situations							
Lexicographical profiles→	L	aymaı	n	Sei	Semi-expert			Expert			Knowledge			Communication			anslati	on	Learning			
Feature frequency \rightarrow	Yes	No	S.	Yes	No	S.	Yes	No	S.	Yes	No	S.	Yes	No	S.	Yes	No	S.	Yes	No	S.	
Dictionary features $igvee$																						
Megastructure																						
Macrostructure																						
Mediostructure																						
Microstructure																						
Linguistic fields																						
Encyclopedic fields																						
Maximum score		13			13			13			20		21			16			16			

Table 2. The lexicographical parameters (Users, Functions, Situations), lexicographical profiles (Layman, Semi-Expert, Expert; Knowledge, Communication, Translation, Learning), and dictionary features (addressing Megastructure, Macrostructure, Mediostructure, Microstructure) with their occurrence frequency (Yes, No, S.=Sometimes).

On this basis, the features considered to be characteristic of one parameter receive 1 or 2 points score, conversely, negative scores (-1, -2) are given to those judged as contradictory. Thus the evaluation scale is made as follows:

- 2 points to the most characterising features
- 1 point to characterising features
- -1 to contradictory features
- -2 to the most contradictory features

The specifics of each lexicographical parameter determine what we call here a *lexicographical profile*, which is outlined by its characterizing features, and therefore in this way³:

Layman: Examples: Yes (2), Sometimes (1); Pronunciation notation: Yes (2), Sometimes (1); Quotations: Yes (-2), Sometimes (-1); Technical definitions: Yes (-2), No (2); Encyclopedic information: Yes (2); Example Phrases: Yes (2); Cross-references: Yes (1); Pictures: Yes (1); Video files: Yes (1); Institutional Site: Yes (1); Specialised Site: Yes (1).

Semi-expert: Linguistic variation: Yes (2), Sometimes (1); Quotations: Yes (2), Sometimes (1); Technical definitions: Yes (1), No (-1); Etymology: Yes (1), No (-1); Bibliographic resources: Yes (2), No (-2); Only Specialist words (LSP): Yes (2); Institutional Site: Yes (2); Access: Search engine: Yes (1); Access: Advanced search engine: Yes (1); Phonetic transcription: Yes (1); Specialised Site: Yes (1);

Expert: Etymology: Yes (2), No (-2), Sometimes (1); Quotations: Yes (2), No (-2), Sometimes (1); Phonetic transcription: Yes (2), Sometimes (1); Bibliographic resources: Yes (2), No (-2); Technical definitions: Yes (2), No (-2); Institutional Site: Yes (2); Access: Advanced search engine: Yes (1); Specialised Site: Yes (1); Access: Search engine: Yes (-1); Entries: 50-100: Yes (-1); Access: Browse: Yes (-2); Entries: 0-49: Yes (-2).

Knowledge: Domain field: Yes (2), Sometimes (1); Hypernyms: Yes (2), Sometimes (1); Hyponyms: Yes (2), Sometimes (1); Pictures: Yes (2), Sometimes (1); Related terms: Yes (2), Sometimes (1); Video files: Yes (2), Sometimes (1); Encyclopedic information: Yes (2), No (-2), Sometimes (-1); Bibliographic resources: Yes (2); Cultural notes: Yes (2); Institutional Site: Yes (2); Specialised Site: Yes (1).

Communication: Example Phrases: Yes (2), No (-2), Sometimes (1); Antonyms: Yes (2), Sometimes (1); Audio files: Yes (2), Sometimes (1); Collocations: Yes (2), Sometimes (1); Frequency of use: Yes (2), Sometimes (1); Idioms: Yes (2), Sometimes (1); Linguistic variation: Yes (2), Sometimes (1); Stress information: Yes (2), Sometimes (1); Synonyms: Yes (2), Sometimes (1); Institutional Site: Yes (2); Specialised Site: Yes (1).

Learning: Audio files: Yes (2), Sometimes (1); Grammatical category: Yes (2), Sometimes (1); Morphological information: Yes (2), Sometimes (1); Syntactic pattern: Yes (2), Sometimes (1); Monolingual dictionary: Yes (2); Multilingual dictionary: Yes (2); Learning resources: Yes (2); Institutional Site: Yes (2); Specialised Site: Yes (1).

Translation: Example Phrases: Yes (2), No (-2), Sometimes (1); Translation equivalences: Yes (2), No (-2), Sometimes (1); Collocations: Yes (2), Sometimes (1); Syntactic pattern: Yes (2), Sometimes (1); Cultural notes: Yes (2), No (-2); Bidirectionality: Yes (2); Multilingual dictionary: Yes (2); Plurilingual dictionary: Yes (2); Institutional Site: Yes (2); Multilingual word list: Yes (1); Specialised Site: Yes (1).

In addition, the scores were given the following basic guidelines:

1) profiles belonging to the same lexicographic parameter may reach the same maximum score;

- 2) complementary profiles don't share the same features;
- 3) similar profiles may share the same features.

According to the first rule, user profiles may reach 13 points maximum each, situations 16 and functions 20. The second principle, however, prevents the database from giving contradictory responses, such as dictionaries suited for laymen and experts at the same time. Therefore, referring to table 3 below, technical definitions are required in the vocabularies for experts (2 points), but not in those for layman (-2). The opposite is also true: if a dictionary doesn't have technical definitions, it is suited for laymen (2) but not for experts (-2). Similarly, example phrases are expected in dictionaries for laypeople, and quotations in those for experts.

³ The complete table of score assignment is provided in the *Appendix*.

	I	Laymar	ı	Sei	Semi-expert			Expert			Knowledge			Communication			anslati	on	Learning		
Dictionary features	Yes	No	S.	Yes	No	S.	Yes	No	S.	Yes	No	S.	Yes	No	S.	Yes	No	S.	Yes	No	S.
Technical definitions	-2	2		1	-1		2	-2													
Example Phrases	2												2	-2	1	2	-2	1			
Quotations	-2		-1	2		1	2	-2	1												
Etymology				1	-1		2	-2	1												

Table 3. Score giving to features according to the different profiles (Layman, Semy-Expert, Expert, Knowledge, Communication, Translation And Learning) and their occurrence frequency (Yes, No, S.=Sometimes).

On the contrary, the second guideline states that if the profiles are similar, they can share features and scores, such as a specialized host site and information on syntactic patterns for the translation and learning situations (see table 4).

Translation	Translation equivalences	Yes	2	No	-2	S.	1
Learning	Syntactic pattern	Yes	2	No		S.	1
Translation	Syntactic pattern	Yes	2	No		S.	1
Learning	Specialised Site	Yes	1	No		S.	
Translation	Specialised Site	Yes	1	No		S.	
Translation	Plurilingual dictionary	Yes	2	No		S.	
Translation	Multilingual word list	Yes	1	No		S.	
Learning	Multilingual dictionary	Yes	2	No		S.	
Translation	Multilingual dictionary	Yes	2	No		S.	
Learning	Morphological information	Yes	2	No		S.	1
Learning	Monolingual dictionary	Yes	2	No		S.	
Learning	Learning resources	Yes	2	No		S.	
Learning	Institutional Site	Yes	2	No		S.	
Translation	Institutional Site	Yes	2	No		S.	
Learning	Grammatical category	Yes	2	No		S.	1
Translation	Example Phrases	Yes	2	No	-2	S.	1
Translation	Cultural notes	Yes	2	No	-2	S.	
Translation	Collocations	Yes	2	No		S.	1
Translation	Bidirectionality	Yes	2	No		S.	
Learning	Audio files	Yes	2	No		S.	1

Table 4. Features in common for the Translation and Learning profiles.

4. How to search the database

The features and the lexicographical (or rating) profiles are the main search options of the Web Linguistic Resources database. Accessing the homonymous site, it is possible to search for the dictionary better suited for the user needs. The available options are listed in the center of the page, where the dictionaries rating are provided as a percentage, since the score gives evidence of the degree to which the dictionary corresponds to the desired profile. Figure 1, for example, shows the search for a dictionary of biology suited for a learning context. The sector "biology" is a subfield within the dictionary features, which are listed on the left, while in the upper right of the page users can choose the rating profile.

DATABASE Translation langu Arabic Chinese Czech Danish rs, languages, rating profil	uage	Languages invol Akkadian Arabic Catalan Chinese ultliple selection) an	lved (E) •	Rating profile Rating profile Knowledge Learning Expert It [] Z use AND operator) Profile Rating (%) Learning 44 Learning 19
Translation langu Arabic Chinese Czech Danish rs, languages, rating profil Museum of Paleontology (UC yo d Genetics ce Dictionary	E (CTRL for mi	Akkadian Arabic Catalan Chinese ultiple selection) an		Knowledge Learning Semi-expert I (Zuse AND operator) Profile [Rating (%) Learning [44 Learning [25]
Arabic Chinese Czech Danish rs, languages, rating profil Museum of Paleontology (UC y of Genetics ce Dictionary	E (CTRL for mi	Akkadian Arabic Catalan Chinese ultiple selection) an		Knowledge Learning Semi-expert I (Zuse AND operator) Profile [Rating (%) Learning [44 Learning [25]
Chinese Czech Danish rs, languages, rating profil Museum of Paleontology (UC ry of Genetics ce Dictionary	(E) e (CTRL for mo Site CMP) - Glossan	Arabic Catalan Chinese ultiple selection) an	(E) •	Learning Expert Semi-expert !! (☑ use AND operator) Profile Rating (%) Learning 44 Learning 25
Museum of Paleontology (UC ry of Genetics ce Dictionary	Site CMP) - Glossary	х	id then <u>Search</u>	Profile Rating (%) Learning 44 Learning 25
Museum of Paleontology (UC ry of Genetics ce Dictionary	CMP) - Glossary			Learning 44 Learning 25
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				Learning 12

Fig. 1. The search form of the Web Linguistic Resources database

The other available search options are the translation languages, the language in which the dictionary is written (*Main Language*), but also other languages present in the entry list (*Languages Involved*), for example French terms in English wine dictionaries or Latin words in German law lexicons.

5. What remains to be done

At present the evaluation system filters dictionaries only on the basis of their features, according to explicit lexicographical parameters, but it doesn't provide any assurance about the reliability of contents, which nevertheless is one of the most urgent requirements for anyone browsing the Internet. Obviously it is impossible to vouch for the quality of every single piece of information provided by the web dictionaries or by any other dictionary. What is needed is to avoid resources that rather than solving problems for users, create them. This is the case with the following explanations related to the enological term "extra dry":

Extra-Dry

Don't believe everything you read. What this really denotes is a sweet Champagne.

[Wine Terms You May Be Baffled by]

extra dry

adj. Another step on the sweetness-level scale associated with Champagne. Starting on the low end with brut zéro, the scale ascends to brut nature, extra brut, and brut sauvage (all of which are bone-dry), then brut (dry), extra dry (a hint of sweetness), sec (slightly sweet), demi-sec (moderately sweet), and doux (the sweetest of all). Why extra dry is sweeter than brut is a mystery to everyone but Francophiles. The only types of sparkling wine you're likely to see at the store are brut, extra dry, and demi-sec, of which brut is far and away the most popular. FYI, table wine that's slightly sweet is referred to as off-dry. [Wine Lovely - Glossary]

One useful discriminatory criteria might be that of referring to dictionaries published by leading institutions of one field, but whilst browsing the Internet it is possible to collect examples of the lexicographical inexperience of experts responsible for dictionary writing. Firstly, if definitions are not compiled carefully, they can give bad explanations that eventually turn into information voids, this is the case with the entry "chromosome" of the Talking Glossary of Genetics, published by the highly esteemed National Human Genome Research Institute. The definition says that: «Humans have 23 pairs of chromosomes[...], and one pair of sex chromosomes, X and Y», which is misleading, since XY is the chromosome pair of males, while women have XX, as it is clearly explained in the voice for "sex chromosome":

[...] Humans and most other mammals have two sex chromosomes, the X and the Y. Females have two X chromosomes in their cells, while males have both X and a Y chromosomes in their cells [...].

Secondly, sometimes the lack of any strict lexicographical organization prevents exhaustive meaning explanations. Consider, for example the dictionary entry scheme (fig. 2) proposed by Wiegand [1989] for a generalist monolingual dictionary, which is relative to the word "Abtragung":

'Ab·tra·gung <f.; -, -en> 1 Einebung: eine ~ des Geländes 2 Abbruch, Niederreißung: die ~ eines Hauses 3 <Geol.> Abtransport der durch Verwitterung entstanden Gesteinstrümmer mittels Wasser 4 Abzahlung: die ~ einer Schuld

Deutsches Wörterbuch in sechs Bänden, Brockhaus-Wahrig, [in Wiegand 1989]



Fig. 2. Wiegand's scheme of the meaning definition in a dictionary entry.

The dictionary article (WA:Wörterbuchartikel) is divided into comment on form (FK: Formkommentar) and comment on meaning (SK: semantischer Kommentar), which has as many sub-comments (SKK: semantischer Subkommentar) as the number of different word meanings. Sub-comments are signaled by numbers that correspond to paragraph indications (PA: Polisemieangabe). In one case, the meaning definition (number 2) is given using a pair of synonyms (SynA: Synonymagabe).

Now compare the "Abtragung" entry to the following, corresponding to the headword "basement rock", extracted from the Glossary of the *University of California Museum of Paleontology*:

basement rock -- n. The oldest rocks in a given area; a complex of metamorphic and igneous rocks that underlies the sedimentary deposits. Usually Precambrian or Paleozoic in age.

Differences are clear even at a glance, since the latter has no explicit lexicographical structure in order to organize the word meaning or meanings. In fact, since no explicit label is provided, it is impossible to decide whether the first part of the definition «The oldest rocks in a given area;» is one possible meaning of "basement rock", or if «The oldest rocks in a given area;» is a synonym of the following part of the definition, , particularly that which states: «Usually Precambrian or Paleozoic in age».

These brief examples give an idea of the kind of work that remains to be done, but not of the kind of solutions to be provided. In effect, after having established which features of the definition must be rated, two main evaluation options remain: one is to choose a pair of critical terms for each specialized field and analyze their definitions in every vocabulary, the other is to extract at random a fixed number of terms for

each resource and provide statistically relevant assessments. Speaking in general terms, the latter option is preferable, since the 'critical' terms of huge fields (e. g. medicine, economy etc.) are too numerous. Therefore, the most suitable statistical evaluation model for the matter remains to be chosen, provided that the number of the rated definitions remains the same for every vocabulary, regardless of its entry number. Since the number of definitions considered doesn't change, it is necessary to provide each assessment of the dictionary entries with the variation coefficient, i. e. the precision index of the estimation made for the lexicon considered. It is therefore unsurprising that small dictionaries will be rated more accurately than the big ones.

Appendix - score assignment (complete table)

	Layman Semi-expe					pert	ert Expert				owled	lge	Com	munic	ation	Translation			Learning		
Dictionary features	Yes	No	S.	Yes	No	S.	Yes	No	S.	Yes	No	S.	Yes	No	S.	Yes	No	S.	Yes	No	S.
Megastructure																					
Guide																					
Amateur Site																					
Blog																					
Commercial Site																					
Generalist Site																					
Institutional Site	1			2			2			2			2			2			2		
Collective resource																					
Specialised Site	1			1			1			1			1			1			1		
Learning resources																			2		
Bibliographic resources				2	-2		2	-2		2											
Hyperlinks																					
Hyperlinks																					
User feedback																					
Macrostructure																					
Access: Browse							-2														
Access: Search engine				1			-1														
Access: Advanced search engine				1			1														
Entries: 0-49							-2														
Entries: 50-100							-1														
Entries: over 100																					
General organisation: Concepts																					
General organisation: Words																					
Monolingual dictionary																			2		
Monolingual word list																					
Multilingual dictionary																2			2		
Multilingual word list																1					
Plurilingual dictionary																2					
Specialist & Ordinary words (LGP)																					
Only Specialist words (LSP)				2																	
Bidirectionality																2					
Mediostructure																					
Cross-references	1																				
Related terms										2		1									
Hypernyms										2		1									
Hyponyms										2		1									
Hypertexts																					

	L	Layman			ni-exp	pert		Expert		Kn	nowled	lge	Com	munica	ation	Translation			Learning		
Dictionary features	Yes	No	S.	Yes	No	S.	Yes	No	S.	Yes	No	S.	Yes	No	S.	Yes	No	S.	Yes	No	S.
Microstructure																					
Linguistic fields																					
Grammatical category																			2		1
Morphological information																			2		1
Syntactic pattern																2		1	2		1
Phonetic transcription				1			2		1												
Pronunciation notation	2		1																		
Stress information													2		1						
Audio files													2		1				2		1
Syllabification																					
Frequency of use													2		1						
Linguistic variation				2		1							2		1						
Technical definitions	-2	2		1	-1		2	-2													
Translation equivalences																2	-2	1			
Example Phrases	2												2	-2	1	2	-2	1			
Quotations	-2		-1	2		1	2	-2	1												
Idioms													2		1						
Collocations													2		1	2		1			
Synonyms													2		1						
Antonyms													2		1						
Etymology				1	-1		2	-2	1												
Encyclopedic fields																					
Encyclopaedic information	2									2	-2	-1									
Examples	2		1																		
Domain field										2		1									
Video files	1									2		1									
Pictures	1									2		1									
Cultural notes										2						2	-2				
Maximum rating		13			13			13			20			20			16			16	

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