Dictionaries and endangered languages

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Endangered Languages Workshop
La Trobe University, 30 November 1999

Earlier version presented at
1999 Perth Congress of the Applied Linguistics Association of Australia,
26-29 September 1999.

'A good dictionary is one in which you can find the thing you are looking for preferably in the very first place you look' Mary Haas. (Haas 1962)

DRAFT 21 January 2000

1. INTRODUCTION[1]

Linguists have seen creating dictionaries of endangered languages as a key activity in language maintenance and revival work. However, like any approach to language engineering, there are concerns to address. The first is the tension between language documentation and language maintenance[2]. The second is the role of literacy. A lot of effort has been put into vernacular literacy, on the assumption that it assists language maintenance, as well as language documentation. In some respects this is a dubious assumption, because writing a language does not necessarily lead to speaking it or maintaining the language. Moreover, in some cases putting effort into writing the language can detract from efforts to encourage learners to speak the language. It is certain that much more effort should be put into oral language development.

In this paper, however, we focus on the structural issues arising from this relation between language documentation and maintenance, discussing literacy to the extent that varying levels of literacy result in different abilities to use dictionaries, as well as uses of, and attitudes towards dictionaries.

Historically, dictionaries for endangered languages have been mainly concerned with the task of preserving the languages for future study or revival. The major audience for these dictionaries was felt to be other people from literate traditions, such as linguists and researchers (Schebeck 1983). To this end most of the literature on the subject deals with the problems of representing the particular language as exhaustively as possible in a written form (Corris 1999). Such 'documentation dictionaries' are, in principle, vast and encyclopaedic as they attempt to capture most of what the lexicographer thinks a speaker knows, if they know the meaning of a given word and can use it.

Another use for dictionaries has been providing evidence for the speakers and others of the status of the minority language as a 'real' language, one that is recognised as an equal of the language of wider communication (LWC). We could call this the 'symbolic' function of the dictionary.

Documentation is still very much an issue for speakers of some languages. However, emerging literacy among speakers of the endangered languages creates a new range of users and uses for dictionaries. We will call these the 'maintenance dictionaries' (although their range can include language renewal). The structure of these is the focus of this paper.

[1]We thank many people for their help: Mary Laughren for access to the *Warlpiri Dictionary*, Robert Hoogenraad, Jenny Green and Myf Turpin for arranging Miriam Corris's work in Central Australia; Mark Donohue, Lipiyus Biniluk and Johnson Haan for help with Corris's work on Lani and Adang; Denise Angelo and Margaret Sharpe for arranging Susan Poetsch's work; Carmel O'Shannessy, Elizabeth Ross Nungarrayi, Margaret Carew, Marija Tabain and Robin Hardiman for help with Jane Simpson's work; Margaret Florey, Kevin Jansz, David Nash, Peter Oram and the audiences at the Central Australian Linguistics Circle, the Applied Linguistics Association of Australia's Annual Congress, the University of Sydney Linguistics Postgraduate Seminar, and the Endangered Languages Workshop. The work was funded in part by Australian Research Council small grants to Manning and Simpson in 1998 and 1999.

[2] The term 'preservation' is often used in discussion of language endangerment. However, it is used ambiguously between preserving a language for science in the future by documenting it, and preserving it for the speakers as a living language by helping them maintain it.

When designing a dictionary for an endangered language (EL), we have to consider first the uses that the speakers may want to make of the dictionary, and then the useability of the dictionary for such users. In the first part of the paper we discuss uses by looking at the views on potential dictionary organisation of some speakers of endangered languages. In the second part of the paper we summarise some of our findings on useability of dictionaries of Australian Aboriginal languages.

Generally speaking, dictionaries for endangered languages have similar macrostructures, and differ mostly in the amount of information in certain parts of the microstructure.

Macrostructure.

EL dictionaries are almost always bilingual, because the makers are usually not speakers. The main body is usually arranged as EL-LWC. Occasionally, such dictionaries have LWC-EL finderlists, sometimes separated into semantic domains. The EL-LWC direction is important for two reasons.

(i) This arrangement is typically most useful for speakers of LWC (including the lexicographer) trying to learn, understand or explicate the EL, in other words for decoding EL.

(ii) It can also be put down to the symbolic function of the dictionary. Speakers sometimes feel that EL-LWC is the only direction that could truly be described as a dictionary of the EL. Having the EL first gives it a kind of primacy.

Microstructure.

The microstructure of EL dictionaries differ according to how big the dictionaries are. Most of the bigger ones include vernacular definitions and example sentences for some words; these are useful because they can contain cultural and grammatical information. This information is also useful for further study and documentation as well as for speakers maintaining the language. Actual definitional practice varies from one or two LWC glosses, to structured entries. Part of speech information is usually included.

Many of these properties of the macro- and microstructure have been taken for granted by lexicographers. Now, the emerging literacy among EL speakers means that these properties now have to be reconsidered.

Linguists and lexicographers hope that EL dictionaries can free learners (both of language and of literacy) from dependence on teachers, allowing them to learn independently. To some extent this view is shared by literate speakers of indigenous languages. It seems that EL speakers often agree that documentation and maintenance are important functions of a dictionary (Carroll 1999). There is also anecdotal evidence to suggest that the dictionary is important in the minds of speakers as symbolic of the status of the language. But there is little record[3] of negotiations between speakers of endangered languages and dictionary makers, in particular of speakers' views on dictionary structure (perhaps because in some cases the speakers were not previously aware of dictionaries) (but see McConvell et al 1983, Carroll to appear, and Stebbins 1999).

2. SPEAKERS' ATTITUDES TOWARDS, AND REQUIREMENTS OF, DICTIONARIES

We started to realise the importance of understanding speakers' attitudes towards, and requirements of, dictionaries as a consequence of testing an electronic interface to a dictionary of Warlpiri (Laughren et al in prep.), and looking at the useability and uses made of dictionaries of two other Australian Aboriginal languages (Sharpe 1999, Simpson in prep.). The computer interface is described further in Jansz et al. (1999), and our testing is further described in Corris et al. (in prep). We felt it might give additional context if we expanded the study to speakers of ELs who had prior experience with bilingual dictionaries (of English/Indonesian).

Corris then interviewed speakers of two Trans New Guinea Phylum languages, Lani (spoken in the highlands of West Papua) and Adang (spoken on the island of Alor), about their wishlists for

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[3]Dictionaries made by speakers themselves need further investigation. Margaret Florey (p.c.) reports two wordlists made by speakers, one with the order LWC-EL, and the other with the order EL-LWC. Both are trilingual with just single word definitions in each language. Supusepa (1998) is a professionally published sketch grammar and wordlist for the language of Saparua Island, central Maluku. The wordlist order is Dutch - Malay (Melayu Sini, the Dutch Malay variant) - Saparuan. Tamaela (1998) is a typed manuscript sketch grammar and wordlist for the Amahai language of Seram Island, central Maluku. The wordlist order is Amahai - Malay - Dutch.

dictionaries of their languages. Subsequently she has been working with Lipiyus Biniluk and Mark Donohue to put some of the ideas into practice in a Lani dictionary (Biniluk 1999).

For both Adang and Lani the language of wider communication is Indonesian. Neither language has a widely used dictionary at the moment[4]. The two speakers who Corris worked with (LB, Lipiyus Biniluk, the Lani speaker, and JH, John Haan, the Adang speaker), are literate in Indonesian and English and have frequently used dictionaries in both these languages.

The main questions Corris asked were: What do you see as the uses of a dictionary for your language? What do you think it should look like? We discuss the answers for each language in turn.

LANI

The[5] *Ethnologue* (Grimes et al 1996-99) lists about 180,000 Lani speakers, (also known as Western Dani) in the 1993 Church registeries census, and additional 97,500 speaking closely related languages with orthographies based on the Lani one. There may now be as many as 300,000 Lani speakers in Irian Jaya[6]. There has been a strong missionary presence among the Lani for more than thirty years. As a result of early Bible translation[7] there is an established orthography, based on Indonesian letter values, with some characters having special values. On the initiative of Lani educators basic Lani literacy is taught in the lower classes of primary school, but Indonesian is the primary language of instruction. About 10% of Lani speakers are semi literate in Indonesian (Grimes et al 1996-99); there are no figures for Lani literacy, but LB says that only a few people (mostly with religious training) are likely to have Lani literacy skills.

LB feels that Lani people would use a Lani dictionary because they want to learn Indonesian and English. That is, he wants an **LWC learner** dictionary.

This should have repercussions for the macrostructure, since the most common kind of existing learner dictionary is a decoding dictionary, that allows you to decode texts or speech from the target language. Implementing LB's desire for an LWC learner dictionary would require LWC-EL directionality. However, the main LWC decoding capabilities of traditional EL dictionaries are usually the finderlists.

LB is not particularly interested in a decoding dictionary for English or Indonesian (that is, a dictionary with Lani definitions of English or Indonesian words). He is adamant that the direction be Lani-Indonesian-English. This seems to be part of the symbolic importance of the dictionary; an English-Lani or Indonesian-Lani dictionary is not a Lani dictionary. So here there is a tension between the symbolic function of an EL dictionary and its usefulness as an LWC Learner Dictionary. A way to resolve this tension is to put more effort into an LWC-EL finderlist for such a dictionary, and to make it as accessible as possible.

Micro structure.

LB does not see the need for vernacular definitions, because learning about Lani is not the primary use he envisages for the dictionary. He does not recognise Lani as an endangered language, saying with confidence that Lani people know Lani language and culture. He accepts that for non-Lani speakers vernacular definitions would be useful, but for the most part he is interested in a dictionary that tells Lani speakers about English and Indonesian.

ADANG

Adang is spoken by about 5-10,000 people (Haan p.c.[8]). It is spoken as a first language by children, but Indonesian rapidly takes over at school. Most adults can speak Adang but their Indonesian is stronger. As yet Adang has no established orthography (but see Haan (in prep.)). There is no written support of the language in schools. 80% of Adang speakers are literate in Indonesian (Haan p.c.).

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[4]There is said to be a Lani-Dutch dictionary, but LB says it is not used at all, and we have not traced it. There is also an unpublished Lani-English dictionary (Dale 1993), describing a dialect different from LB's. The introduction notes its use for decoding bible translations.

[5]We thank Mark Donohue and Lipiyus Biniluk for most of the information in this paragraph.

[6]This estimate takes into consideration the use of Lani as a lingua franca in central and northern Irian Jaya, the number of Lani people living in cities, and the population increase due to improved health care and diet.

[7] Bible portions have been translated since 1966, and the New Testament appeared in 1981 (Grimes et al 1996).

[8]The *Ethnologue* (Grimes et al 1996-99) classes, with reservations, Adang as a dialect of Kabola, and notes that the number of speakers of Kabola is doubtful, perhaps 10,000. Haan does not consider Adang as a dialect of Kabola.

JH feels that preserving Adang language and culture is the main reason to have a dictionary. That is, he wants a **documentation** and **maintenance** dictionary. He is happy with the EL-LWC directionality of traditional EL dictionaries, but he is also interested in having a monolingual dictionary, as English has. Because he is worried about the loss of cultural and linguistic information due to the encroachment of Indonesian, he is keen to have explanations of Adang words in Adang language, as well as example sentences,

The interviews with LB and JH suggest a division of EL dictionaries into several types.

• Documentation dictionaries

The normal EL-LWC format is appropriate for these, since such a dictionary is in effect a historical record that must remain interpretable in the absence of native speakers. Reversals and abridged versions of the documentation dictionary can be created later if future revival movements need them.

• Maintenance dictionaries

These maintain the EL among speakers and their descendants. They may take different forms depending on the users and on what use they will make of the dictionaries. These include:

(i) providing resources for EL speakers to learn the LWC, such as LWC-EL learner dictionaries.

(ii) providing resources for EL speakers wanting to maintain the EL, such as monolingual EL dictionaries with substantial definitions.

(iii) providing resources for descendants of EL speakers wanting to learn the EL, such as learner dictionaries , both decoding (EL-LWC) and encoding (LWC-EL).

Thus, in creating EL dictionaries, the lexicographer needs to consider what uses people think they will make of dictionaries (McKay 1983:58-9), what uses they actually make of dictionaries, and how dictionaries can be made more useable to support these different uses. We turn now to the uses that we observed speakers and learners of Australian Aboriginal languages making of dictionaries of their languages, and the useability of these dictionaries.

3. USE AND USEABILITY OF DICTIONARIES OF AUSTRALIAN ABORIGINAL LANGUAGES

In Central and Northern Australia we investigated dictionary use among seventy-two people affiliated with indigenous languages. As in many EL situations, the only dictionaries available were documentation dictionaries. The important properties distinguishing these users and the uses they made of these dictionaries were:

- level of knowledge of the indigenous language
- level of attainment of literacy in the indigenous language
- level of attainment of English literacy
- familiarity with dictionaries
- job-related uses of literacy in the indigenous language
- level of knowledge of the indigenous language in the community, both of the spoken language and of the written language

The first five properties relate to individual competence, while the last describes the environment that users find themselves in, which conditions their dictionary practice. We expand on the last point.

3.1 BACKGROUND

Table 1 provides basic information on the situations of speakers, and descendants of speakers, of the three languages that we investigated.

TABLE 1

Language	**Community**	**Type of Dictionary**	**Language requiring...**	**Bilingual programme**[9]
Alawa	Minyerri	paper	revitalisation[10]	no, LOTE
Warumungu	Tennant Creek	paper	revitalisation	no

[9]Lack of bilingual programme means that no one has much chance to write the indigenous language, let alone have any literacy reinforcement, through for example, newsletters and public notices.

[10]'Revitalisation' in this context means that children do not speak the indigenous language.

Wakirti Warlpiri	Tennant Creek	paper	revitalisation	no
Warlpiri	Alice Springs Yuendumu Willowra Lajamanu	paper and electronic	maintenance	yes

We discuss each language group in turn.

ALAWA

Alawa is a language which some speakers and descendants of speakers are trying to revitalise. They have never had bilingual education programmes. Only elderly people are competent speakers. However they are unlikely to be able to read or write their language competently. Children and young adults do not speak Alawa as their first language, and nor do they write it. The language that people aged six to fifty were most likely to be literate in is English; they were less likely to be literate in Kriol; and they were unlikely to be literate in Alawa.

WARLPIRI (LAJAMANU, WILLOWRA, YUENDUMU)

Warlpiri is the first language of the community in all three places. People of all ages speak Warlpiri, although at Lajamanu children and young adults speak Kriol and English, and language shift appears to be in progress. At Willowra and Yuendumu the English spoken is closer to standard English. As a result of bilingual education programmes in all three communities, many people write Warlpiri as well as English, but inevitably literacy skills differ according to age; most old people are illiterate. Young to middle age adults who are literate in Warlpiri are likely to be comparably literate in English as well. There is Warlpiri literacy reinforcement through the presence of the school, newsletters, and some public notices.

EASTERN WARLPIRI AND WARUMUNGU

Eastern (Wakirti) Warlpiri and Warumungu in the Tennant Creek area are in similar positions. Both are languages which some speakers and descendants of speakers are trying to revitalise. Only middle-aged and elderly people are competent speakers. They have never had bilingual education programmes. A few can read or write Wakirti Warlpiri and Warumungu as a result of adult education courses. The language that people aged six to thirty are most likely to be literate in is English; they are less likely to be literate in Wakirti Warlpiri and Warumungu. There has been no attempt to provide Kriol literacy. With respect to speaking skills, they are likely to be most proficient in Kriol, less proficient in English and least proficient in Wakirti Warlpiri and Warumungu.

3.2 ACTUAL USES

Unlike LB, the main use that all the Australian Aboriginal people we worked with had for dictionaries of their language was for maintaining and learning the EL, their languages. They had many other ways of learning English, the LWC. The seventy two people fell roughly into two types: speakers who needed maintenance dictionaries, and descendants of speakers who needed learner maintenance dictionaries. Within these two rough categories, people had different uses for dictionaries, and different problems in using dictionaries.

We observed their use of dictionaries, both when they were showed them for the first time, and in literacy courses, where dictionaries were lying around. We also got some of them to carry out tasks using dictionaries. We discussed dictionaries with many of them.

At the moment, the lack of availability of dictionaries of indigenous languages and the low levels of vernacular literacy restrict the uses of dictionaries by speakers and their descendants. We saw no systematic use of paper dictionaries of indigenous languages in school classrooms, whether LOTE or bilingual. The few instances of natural uses we have observed include:

1. people doing translation jobs and documenting paintings used the paper Warlpiri dictionary for decoding, to find out meanings for Warlpiri words now used only by older speakers.

2. people used the dictionary for encoding the EL in two main ways, making materials for school language programmes, and checking spelling in literacy classes.

3. when people were given dictionaries they browsed them, often stopping to check unfamiliar words or to find out how familiar words are represented in the dictionary.

In general, the indigenous people most able to use dictionaries and most keen to have them were those who had been through adult education courses in linguistics and indigenous language literacy.

Potentially, dictionaries of indigenous languages can play a role in classroom and non-classroom acquisition of language (McKay 1983:58-9), (allowing for our earlier remarks about the dangers of relying too heavily on a literacy-based programme). However, most people were not aware of this potential. Poetsch observed a telling example of Alawa people's lack of consciousness of the dictionary as a port of call for meaning. She engaged in two two-hour sessions with three young women on different activities with the dictionary. She then proposed that they should find the Alawa words for different kinds of kangaroo. They wrote down a handful of Kriol terms for kinds of kangaroo. They then said that they would go home (350 kilometres away), and ask the old people for the Alawa equivalents. It apparently did not occur to them to look them up in the dictionary which was there in front of them. That is, the speakers did not yet see the dictionary as a language learning tool.

Of course, asking a speaker for a word has several advantages over looking it up in a dictionary. First, you don't have to know how to write the word (whether in English or the indigenous language). Second, you can hear the sound of the word. Third, speakers may be seen as more reliable sources of information than a dictionary prepared by a lexicographer who is not a native speaker of the language. Finally people may appreciate the excuse to talk about language with a speaker (Margaret Carew p.c.).

To conclude this section, a serious problem with all potential uses is that currently, people in the communities do not have good access to dictionaries, do not use dictionaries and typically are not aware of their potential In turn this affects the actual uses people make of dictionaries.

3.3 USEABILITY

A key factor conditioning the actual uses of dictionaries is the fact that many potential users do not necessarily have all of the literacy and reference skills required to use the dictionary. Our major finding was that people's skills at using dictionaries were not developed, and thus it took them far too long to carry out tasks. Thus, for our study Poetsch designed thirteen task-based activities, assuming low levels of spoken and written competency in Alawa. In the event, she was only able to carry out the first four tasks with the users, because the time taken to complete each task was so great. For example, a crossword requiring twelve lookups took users some forty-five to sixty minutes. Simpson incorporated dictionary tasks as part of literacy and linguistics training courses, e.g. getting a literacy worker to proofread her traditional song text by looking up words in the Warlpiri electronic dictionary. Looking up twenty-six words with discussion took about two hours. Finally, participants would go through the long process of finally locating the sought EL word. They often then found that they couldn't read it, because they didn't know how to pronounce the sounds nor did they know where the stress falls.

Actual uses of dictionaries are tightly constrained by the accessibility of the dictionary, how useable it is for different purposes. Creating an accessible dictionary is subject to four competing pressures on lexicographers:

- attitudes of users and makers to dictionaries (Corris 1999)
- exhaustiveness
- functionality
- practical considerations

We have discussed the importance of ascertaining user attitudes, and noted how they may conflict with makers' attitudes, in the first part of this paper. In what follows we concentrate on the exhaustiveness and functionality points, commenting on the practical considerations in passing.

3.3.1. EXHAUSTIVENESS

People wanting to make documentation dictionaries tend to want to include as much information as is known, in terms of number of entries, kinds of words, amount and kind of information about each word. But this wealth of information can be counterproductive for users needing maintenance dictionaries.

At the macrostructure level, users are put off finding words in huge dictionaries, because they are intimidated by the size of the volume. On the other hand they are put off by not finding an uncommon word they want in a small dictionary. This is a problem common to standard modern learners' dictionaries - they have the word for *water*, but not the word for ***chutzpah***.

At the microstructure level, the amount and kind of information about each word is important. Users with low levels of literacy were intimidated by long entries. They found it difficult to ignore unnecessary/unwanted information. They found overcrowding of information confusing.

To sum up, there is a tension between the linguist/lexicographer's desire for exhaustiveness, which is essential for documentation dictionaries, and the user's need for accessible dictionaries, that is, for maintenance dictionaries.

3.3.2. FUNCTIONALITY

If indigenous Australian users are familiar with dictionaries, they are familiar with the structure of English dictionaries. Thus it makes sense to use people's skills in using LWC dictionaries as a springboard, and serious thought should be given before creating a macrostructure or microstructure which is radically different from what they have learned from English dictionaries. For example, this argues for using the same alphabetical order as the LWC, English in this case, rather than separately ordering accented letters or digraphs (Goddard and Thieberger 1997).

For proficient speakers of languages like Adang and Lani, the order should be Language-LWC, and this is useful for proficient speakers of Australian indigenous languages. But Alawa and Wakirti Warlpiri semi-speakers and descendants of speakers used the English finderlist section of the dictionary in preference to the indigenous language section. The English-Indigenous language section is very valuable for indigenous language learners with good English literacy skills, as well as for those who want to improve their English literacy (see also Zorc 1983). It is the most likely to be used and needs to be the most user-friendly. Of course this goes against the symbolic value of EL-English order, which is also the order in most dictionaries of Australian indigenous languages (Goddard and Thieberger 1997).

Many issues of design and convention cropped up in our investigation. They are discussed in detail in Corris et al (in prep.). However, we briefly list here some of the more important:

Design issues

• Dense text and small font size was a difficulty for users with low levels of literacy, as well as those users with eye-sight problems. However, practical considerations prevent printing with large fonts dictionaries with large numbers of entries.

• Locating the relevant section of the dictionary proved difficult for some users. We suggest coloured dividers as a possible solution.

• In three-way dictionaries, such as the Alawa-Kriol-English dictionary (Sharpe 1999), users were able to find the Alawa forms which were in bold typeface, but had trouble distinguishing Kriol and English forms because the typefaces were too similar.

Dictionary conventions

• Dictionary conventions were foreign to users. These include part of speech abbreviations and grammatical descriptions, as well as cryptic abbreviations such as SYN, ANT, or symbols, such as arrows. They also had trouble with definitional conventions, such as *kangaroo, plains*, since they did not realise that these are read in the reverse order, 'plains kangaroo'.

• Some participants found the idea of a citation form of verbs hard to grasp. They were disappointed when they couldn't find inflected forms of verbs in the dictionary, and they couldn't remove the necessary inflections to find citation forms. They wanted inflected forms of verbs in the dictionary.

• Lengthy, detailed entries were very hard for users not familiar with dictionaries. For example, some Alawa users had trouble recognising a definition that went on to a second line. They also became distracted where there were a lot of subentries. They would not look beyond the first one.

Many of these problems can be solved by using electronic dictionaries (Corris et al, in prep.). First, an electronic dictionary can resolve the tension between exhaustiveness and functionality by allowing different levels of interface, ranging from a simple word-definition list in large font suitable for a learner, to an encyclopaedic entry suitable for a specialist. Second, they also allow in principle solutions to the problems of space restrictions. Third, they allow access by a variety of means, by typing words, clicking on them, as well as using alphabetical order. Finally they also allow for digital sound, thus solving the problem of representing pronunciation phonetically.

In first world countries like Australia, where schools have computers, electronic interfaces are starting to be useful to speakers. Even so, users still want paper dictionaries that they can take away into the dust of the camp. In situations where computers are not readily accessible such as in parts of Indonesia, electronic interfaces will be out of reach of EL speakers for many years to come.

4. CONCLUSION

To conclude, of the four competing demands placed on a lexicographer, the first, speakers' attitudes, is essential for designing a dictionary, be it documentation or maintenance. The second, exhaustiveness, is essential for a documentation dictionary. However it conflicts with the third demand, functionality, the key property of a maintenance dictionary. whether for speakers or for learners. In turn practical considerations affect the end product. Lack of time, lack of money, lack of computer expertise among the lexicographers, all have effects on the eventual outcomes.

Some of the structural considerations are related to the fact that maintaining a language means recording the language in a way that is useful to the speakers and their descendants **now.** In most of these situations however lack of resources means that one dictionary often has to fulfil all of the above roles.

This is where importance must be placed on the design of the dictionary database. Everything the lexicographer finds out about a word can be stored in the database, thus creating the 'documentation dictionary'. However it should also be designed so that material can be printed out in whatever forms are most useful to the speakers, thus creating 'maintenance dictionaries', or LWC learner dictionaries. These will usually be smaller dictionaries of simpler structure. Some will resemble learners' dictionaries. Others will resemble children's dictionaries, or topical picture dictionaries, or very simple wordlists. While a dictionary extensively hand-edited with a particular purpose in mind will always produce the best results, even in places where electronic dictionaries cannot be regularly used, considerable value can be achieved by being able to produce good quality dictionaries customized for different user groups automatically from a single computer dictionary database. The essential ingredient for being able to do this is a syntactically and semantically well-structured database.

We have focused on redesigning the dictionary as one part of the solution. Doing this well requires community consultation, investigation of actual and potential uses, and checking useability. The other part of the solution involves training the users. Community wide dictionary skills training should be an essential part of creating EL dictionaries.

Dictionaries provide status to a language and are a means of documenting dying languages with decreasing numbers of speakers. They can be made more useful for maintenance purposes, when users, uses and useability are taken into consideration in the design of such dictionaries. However, dictionaries alone will not revitalise or maintain a language; they are but one tool in the task.

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