

Sesotho Online: establishing an internet-based language knowledge community

Abstract

Online knowledge communities can contribute towards the influencing of the status of languages within the internet linguistic landscape. Despite the prominence of English in the online environment, multilingualism is increasingly being promoted in online environments.. It is against this background that the status, presentation and representation of African languages are being investigated. This article reports on the contribution of the website *Sesotho Online* to the establishment of an internet-based language knowledge community for the language Sesotho.

The article involves a literature review of the concept of language knowledge communities and the internet language landscape in particular relating to Sesotho. Furthermore, an overview of website usage statistics and qualitative research by means of a descriptive study borrowing from methodologies of autoethnographical enquiry of the author's experiences was provided. Online trends over the past twenty years are mirrored in the development of the researched website. From reflections on this website some recommendations towards future developments – in other African languages for example – were noted. In conclusion, through *Sesotho Online* clear lessons have been learned for the development of other internet-based language knowledge communities within the South African and other minority language contexts.

Introduction

The internet is increasingly regarded as a linguistic landscape or a virtual linguistic landscape (Crystal, 2006:1-3, 6-10; Crystal, 2011:1-2; Ivkovic & Lotherington, 2009:17, 19) that can be employed and even researched in the same manner as any other context where languages are present. Contrary to the belief that language usage on electronic devices is having a negative effect on language standards, literature points to other reasons such as the attitudes toward languages (Baron,

2008:161-181). Research for this article is aimed at an investigation of the presence of Sesotho in the online environment and especially how online contexts can benefit languages.

The focus of this article is a reflection and evaluation of the creation of an online knowledge community for Sesotho in influencing the online status of this language. The internet as platform to support revitalized languages, is acknowledged by Danet and Herring (2007:21) as well as Baron (2015:202). The need for the use of languages on the internet other than English is even linked to the ecology of language and the recognition of biolinguistic diversity (Ivkovic & Lotherington, 2009:26-27). Therefore, sustaining the use of African languages in online contexts is essential.

As the language Sesotho is at the heart of this research, some background is provided. The language Sesotho is considered a Bantu language (Malete, 2016:326) as part of the Sotho-Tswana language group (Herbert & Bailey, 2002:68). According to Herbert and Bailey (2002:68) Sesotho 'was the first to be codified, and it is the most homogeneous of the group'. Furthermore, the language is one of the eleven official languages of South Africa and is the seventh largest language in the country with 3 849 563 speakers (Statistics South Africa, 2012:23). Sesotho is also an official language in the Kingdom of Lesotho where it has around 1 770 000 speakers (Ethnologue, 2016).

English is widely considered the language of the internet (Barton & Lee, 2013:43; Crystal, 2006:229; Crystal, 2011:78; Cunliffe, 2007:137; Danet & Herring, 2007:3, 22; Ivkovic & Lotherington, 2009:27-28). As such, research has shown that users of African languages do not mind using or in some cases prefer English website interfaces (Blignaut & McDonald, 2006:166, 170). Literature, however, does show evidence of a growing multilingual internet (Baron, 2008:24-25; Barton & Lee, 2013:43-44, 64; Crystal, 2006:229-236; Crystal, 2011:79-82, 91; Danet & Herring, 2007; Ivkovic & Lotherington, 2009; Warschauer, 2001). Therefore, it is imperative that internet content, other than English content, is investigated within a South African context.

The focus of most research studies on the use of language on the internet is mainly based on and biased towards English (Crystal, 2006:236-237; Danet & Herring, 2007:5). In this regard, most studies focus on general descriptions of online

language use (Baron, 2008; Crystal, 2006; Crystal, 2011) or computer-mediated communication where the nature and contexts of the online use of the language is investigated (cf. Barton & Lee, 2013:5; Danet, 2001). Of relevance to this study is the observation by Barton and Lee (2013:64) that '[a]n emerging direction for future research is how small languages are also represented discursively, metalinguistically, and ideologically in new social media such as YouTube and Facebook'. This research study falls within the type of research relating to smaller languages such as Sesotho (in comparison with English within the Internet context).

Within the internet context, it is clear that there is also a need for South African languages to be promoted in the internet language landscape. Good practices, especially in terms of terminology, are evident in this regard for many African languages. Examples thereof are: the Comparative Bantu Online Dictionary (CBOLD, 2016) of the University of California in Berkeley which includes an extensive lexicographic database; the Kamusi Project (2016) started initially with a Swahili dictionary but then extended to more languages; the multilingual dictionary website Lexilogos (Negre, 2016) as well as the human language technology company TshwaneDJe (2016) that provides dictionary- and language-related software. However, this article relates to the Sesotho internet language landscape and specifically the *Sesotho Online* website (Olivier, 2016a; 2016b). This website was established in 1996 and now, twenty years later, it is appropriate to consider the development and state of this website. The problem driving this research could be phrased as follows: How does a website such as *Sesotho Online* contribute to the establishment of an internet-based language knowledge community?

To answer this question, the research study explores the wider and specifically the South African and Sesotho internet language landscape, provides an overview of the development of *Sesotho Online*, reports on the usage of statistics and citations by the website and presents a critical reflection on the content and development of the website. Finally, some suggestions are proposed towards the establishment of effective internet-based language knowledge communities.

Language knowledge communities

In this research, the concept of a *language knowledge community* stands central. This concept can be linked with a move in online content from the so-called Web 1.0 to Web 2.0. In relation to this view, Barton and Lee (2013:44) state that '[w]ith the advent of social media and Web 2.0 technologies, we expect that self-generated content in social media such as YouTube and Flickr to further encourage and reinforce multilingual writing online'. Therefore, the establishment of these communities is essential towards the furthering of a multilingual internet.

The concept of Web 2.0 refers to a trend on the internet where more emphasis is placed on interactivity and social interaction as opposed to the older Web 1.0 where the focus was on static content. Bonk (2009:41-45) notes that with Web 2.0 any person can contribute to the publication of online content. Hence, there is a close association between Web 2.0 and social media platforms such as wikis and blogs.

The concept of a knowledge community has been explored in terms of e-learning and learning management contexts (Chen & Hsiang, 2007; Earl, 2001; Lindkvist, 2005). A *knowledge community* implies a group of individuals sharing their knowledge and generating new knowledge collaboratively. This concept can also be expanded to refer to a wider language community working towards the extension of online resources for particular languages. This establishment of language knowledge communities implies covert or implicit language planning actions (Shohamy, 2006:46) often through language management by individuals (Spolsky, 2009:5) from a bottom-up grassroots level (Webb, 2009; Wright, 2002) that could enhance both the corpus and status planning of languages (Kloss, 1969:85). These actions are considered and implemented within the wider and language-specific internet landscape.

The internet language landscape

Opportunities provided by the internet language landscape

The importance of the internet language landscape, especially in terms of minority or endangered languages, is evident from Crystal (2000:142) when he states that 'Information Technology (IT) – and the Internet in particular – offers endangered languages which have been written down a fresh set of opportunities whose potential has hardly begun to be explored' especially since unlike traditional print and

broadcast media where languages (or speakers) with more economic resources tend to be at an advantage 'with the Internet, everyone is equal'.

Despite the opportunities provided by the internet, Crystal (2011:82) notes, in terms of internet presence, that 'for many languages, [that] the amount of data is quite small and often specialized, and sometimes has little more than a symbolic role'. In terms of international policy, Crystal (2011:82-86) relates how bodies and groups such as UNESCO, the World Summit on the Information Society, the International Telecommunications Union (ITU) and the Internet Corporation for Assigned Names and Numbers (ICANN) have committed themselves towards the promotion of a multilingual internet. However, for this research the emphasis is more on online grassroots development.

The internet provides many opportunities in terms of making languages visible to a greater audience (Cunliffe, 2007:133). However, one of the greatest hampering factors, especially in terms of minority languages (cf. Cunliffe, 2007:134; Cunliffe & Herring, 2005:131-132), is access to the internet – the so-called *digital divide*. In this respect, Lesame (2005:3) observes that '[t]he term "digital divide" refers to the gap between the access of individuals, households, organisations, countries and regions at different socio-economic levels to ICTs and Internet usage' and specifically 'the digital and ICT chasm between the African continent and the developed world'.

In the next section, the South African internet-based language landscape is briefly explored as this is the wider context in which the website *Sesotho Online* functions.

The South African internet language landscape

Internet access is increasing in South Africa. However, according to the 2011 South African national census, only about 35,2% of households have internet access (Statistics South Africa, 2012:101) and Baron (2015:203) supports this statement by stating that half of the South African population does not have access to the internet. However, in terms of this research it is important to note that internet access should not be regarded as a sole requirement for contributions to language development.

Existing literature in terms of the broader South African internet landscape should also be considered. Studies have been done in terms of the promotion of African languages through the use of the web (Maseko *et al.*, 2010) as well as how websites are perceived by users of different languages (Blignaut & McDonald, 2006; Masoeu

& De Villiers, 2001). Maseko *et al.* (2010:316-317) state that '[w]hile information is available (in other languages) about African languages, there is not much content available in the African language themselves'. This problem is the focus point of why websites such as *Sesotho Online* as well as research on these websites are necessary.

From literature, lists of sources on and in African languages are provided, such as content in Xhosa for example (Maseko *et al.*, 2010:317), or overviews of online dictionaries (Prinsloo, 2010). The following important statement regarding the use of African languages in online contexts is made by Maseko *et al.* (2010:318):

Efforts to make the web available in African languages are by small organisation (sic) and few individuals who mostly do so voluntarily. Although these efforts are interesting and should be applauded, they have little potential to impact on the bulk of the African population. The experience of many current projects support the arguments perpetuating the exclusion of African languages from the ICT domain, i.e. lack of resources, of support among their own speakers and of coordination amongst the various efforts.

The true nature of the impact of these websites is, therefore, questioned in terms of this statement. It is clear that more empirical research is required in this regard.

Furthermore, Cunliffe and Herring (2005:135) as well as Crystal (2011:80) note the limited internet presence of African language speakers. The importance of mobile devices within the African context is, conversely, clear due to the widespread use of mobile phones (cf. Crystal, 2011:81). From the 2011 South African national census (Statistics South Africa, 2012:101) and the 2013 General household survey (Statistics South Africa, 2014:52) it is also apparent that the majority of South Africans access the internet from their cell phones. Website designers and authors should keep this kind of interface in mind.

Within the South African context a number of good examples in the establishment of knowledge communities and especially in terms of the promotion of languages exist. In this regard, a website such as the *Afrikaanse Woordelys en Spelreëls* (Pharos, 2016) or *Afrikaans Word list and Spelling rules*

(<http://www.woordelys.co.za/>) is worth mentioning. This website provides a list of all the words contained in the standard authoritative work on spelling for this language. In addition, there is also the *Virtuele Instituut vir Afrikaans* or *Virtual Institute for Afrikaans* (<http://viva-afrikaans.org/>) which combines different language resources (such as dictionaries, corpora, a grammar guide and a language advice service). Finally, there is also *LitNet* (<http://www.litnet.co.za/>) which not only promotes Afrikaans literature on different levels, it also drives online debates, provides educational material and promotes Afrikaans research by means of an online journal (*LitNet Akademies*). All of these resources can also be implemented for any of the other South African languages.

It is within this context that the need for African language internet-based landscapes is to be explored and extended. As this research focused on a website in the Sesotho language, it is also necessary to provide a brief overview of the wider Sesotho-related internet context.

The Sesotho internet language landscape

Apart from a few online sources, very little research in this regard has been published in the Sesotho internet language landscape. Despite the existence of some online content, the amount of content and academic discourse in this regard is limited. The online status of a language such as Sesotho is clear in the approach by publishing and broadcasting brands associated with the language. For example, not even Sesotho printed publications, such as *Bona* (Caxton Magazines Digital, 2016) and the radio station *Lesedi FM* (SABC, 2016) have Sesotho localized websites.

Apart from the particular website discussed in this article, few other attempts have been made to promote the language online. However, the website *Nalane ya Mosotho* (Futhwa, 2015) needs to be highlighted. Fezekile Futhwa, the creator of this website, was approached for comments for this research and he was willing to co-operate and he provided informed consent for his replies during an e-mail interview (included in this article). Futhwa (2016) describes *Nalane ya Mosotho* as 'a resource for the Sesotho language' that 'focuses on the broader question of heritage, language usage and development, orthographies and the role of Sesotho in science and technology'. This website is one of the few with almost exclusive Sesotho content. . When Futhwa (2016), the author of this website, was asked what the

implications of his website are for the status of Sesotho, the following reply was received: 'The growth and development of Sesotho is greatly assisted by sites like *Nalane*. Written language is a big part of language development, and sites like *Nalane* are doing a great job at keeping Sesotho alive.' (Futhwa, 2016).

The low number of Sesotho-based websites remains a concern. In terms of the Sesotho internet landscape, Futhwa (2016) also notes:

I personally had hoped that by now there would be a proliferation of online spaces using indigenous languages. Unfortunately this has not come to fruition. I am not seeing new resources established to play in this space. I used to be part of the Sesotho chat forum where Sesotho linguists meet about Sesotho, but even that turned out to be more work-focused than for the development of Sesotho in general.

Clearly, the need for further development of the wider Sesotho internet language landscape is necessary and this is where the work done by individuals, such as Fezekile Futhwa, becomes essential towards the online maintenance and promotion of a language such as Sesotho.

A further significant contribution relating to Sesotho is the word list of new words provided by the website *Ba re e ne re Literature Festival* (2016). This website presents new words with a definition in Sesotho and English. Figure 1 displays an example of one of these new words:



Figure 1: Dictionary entry – *Ba re e ne re Literature Festival*

(Screenshot taken from: <https://bareenere.files.wordpress.com/2015/02/26-tsappa.jpg>)

Table 1 gives an overview of the type of Sesotho-based content that is available. This is by no means an exhaustive list, but an attempt in providing a list of the types of content available.

Table 1: Overview of the type of Sesotho-based online content

Types	Examples
Localized search engines	<i>Google</i> – https://www.google.co.za
Wiki-based websites	<i>Sesotho Wikipedia</i> – http://st.wikipedia.org/ <i>Sesotho Wiktionary</i> – http://st.wiktionary.org/
Language and culturally significant websites	<i>Nalana ya Mosotho</i> – http://nalane.org.za/ <i>Ba re e ne re Literature Festival</i> – http://bareenere.com/

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Governmental documents	Various documents – http://www.gov.za/
Religious websites	<i>PanSALB</i> – http://www.pansalb.org/sesotho.html <i>Bibele e Halalelang</i> (1909, 1961) – https://www.bible.com/versions/273-ss061so-bibele-e-halalelang <i>Bibele</i> (1989) – https://www.bible.com/versions/274-ss089so-bibele <i>Lipaki tsa Jehova</i> – https://www.jw.org/st/ <i>Difela tsa Sione</i> – http://www.difelatsasione.co.za/sotho
Language instruction websites	<i>UNISA free online course</i> – http://www.unisa.ac.za/free_online_course/sSotho/sSotho.html
Children's literature	<i>Nal'ibali</i> – http://nalibali.org/
English language introductions and overviews	<i>Ethnologue</i> – http://www.ethnologue.com/language/sot <i>Wikipedia</i> – https://en.wikipedia.org/wiki/Sotho_language
Cultural and general resources	<i>Morija</i> (well-known Lesotho-based publisher) – http://www.morija.co.ls/
Sesotho corpora and spelling checkers	<i>Resource Management Agency</i> – http://rma.nwu.ac.za/ <i>Spel.co.za</i> – http://spel.co.za/en/product/african_spelling_checkers/ <i>Translate</i> – http://www.translate.org.za/
Blog on Sesotho	<i>On Sesotho</i> – http://sesotho.blogspot.co.za/

Clearly, a relatively wide variety of information is available and a lot of these sources could be useful in the compilation of Sesotho corpora. However, there is a need for more Sesotho-based content and research thereof. The next section deals with the empirical part of this article where *Sesotho Online*, as an example of an internet-based language knowledge community, is explored.

Methodology

This article relies – apart from website usage statistics and a review of relevant literature – on qualitative research by means of a descriptive overview of the Sesotho online landscape and insights from an autoethnographical reflections. The autoethnographical research method was chosen as the author was involved in the compilation of the website discussed in this article. Autoethnography entails the investigation of the researcher's own experience by means of an analysis of a

personal narrative or reflection (Adams *et al.*, 2015:1-2, 21-23, 29; Ellis, 2008:48-51; Ellis *et al.*, 2010).

Despite the researcher himself and the website being the field of research, it was still important to take ethical considerations into account and as such this research was done with the necessary respect for persons, beneficence and by ensuring justice in terms of the distribution of research benefits (cf. Adams *et al.*, 2015:57).

In terms of autoethnographical research reliability, validity and generalizability were also considered. Reliability relates to the credibility of the narrator – in this instance the researcher and creator of the website. In terms of validity, Ellis *et al.* (2010) note that '[f]or autoethnographers, validity means that a work seeks verisimilitude; it evokes in readers a feeling that the experience described is lifelike, believable, and possible, a feeling that what has been represented could be true'. Finally, it is clear that research limited to a single phenomenon and one respondent does not imply a traditional approach towards generalizability and rather 'the focus of generalizability moves from respondents to readers, and is always being tested by readers as they determine if a story speaks to them about their experience or about the lives of others they know; it is determined by whether the (specific) autoethnographer is able to illuminate (general) unfamiliar cultural processes' (Ellis *et al.*, 2010)

In this article, the researcher's experience during the creation and extension of an online resource over a period of twenty years was also considered. In this way an 'insider's perspective' (cf. Adams *et al.*, 2015:31) could be gained with regard to the researched phenomenon. The next section relates the development of the *Sesotho Online* website.

Development of the *Sesotho Online* website

Historical overview

In 1996, the *Sesotho Online* website was established as part of a personal homepage by the researcher. The page consisted of a very short introduction to the language with some basic phrases and translations. At the time, the researcher was studying this language at a 'third language level' as his mother tongue is Afrikaans and English is considered his second language.

The website also included the following aspects by 1997: forms of greeting, a list of general phrases, a list of general verbs, basic sentence constructions, formation of words (specifically deverbatives), reference information (days of the week, months, seasons etc.), a list of differences between the Sesotho orthographies in South Africa and Lesotho as well as links to related websites. Examples of the differences between the orthographies of Sesotho as it is utilised in the Republic of South Africa and the Kingdom of Lesotho include amongst others: the use of /ch/ in Lesotho and /tjh/ in South Africa for tjhelete/chelete; // in Lesotho and /d/ in South Africa for dula/lula or /kh/ in Lesotho and /kg/ in South Africa in kgomo/khomo (Malete, 2016:327-328). Further clarification of these differences falls outside the scope of this article and existing literature in this regard can be consulted (Malete, 2016:327-328; Thamae. 2007). From the start, the website was presented in English. Figure 2 below shows how the website looked in 1997:

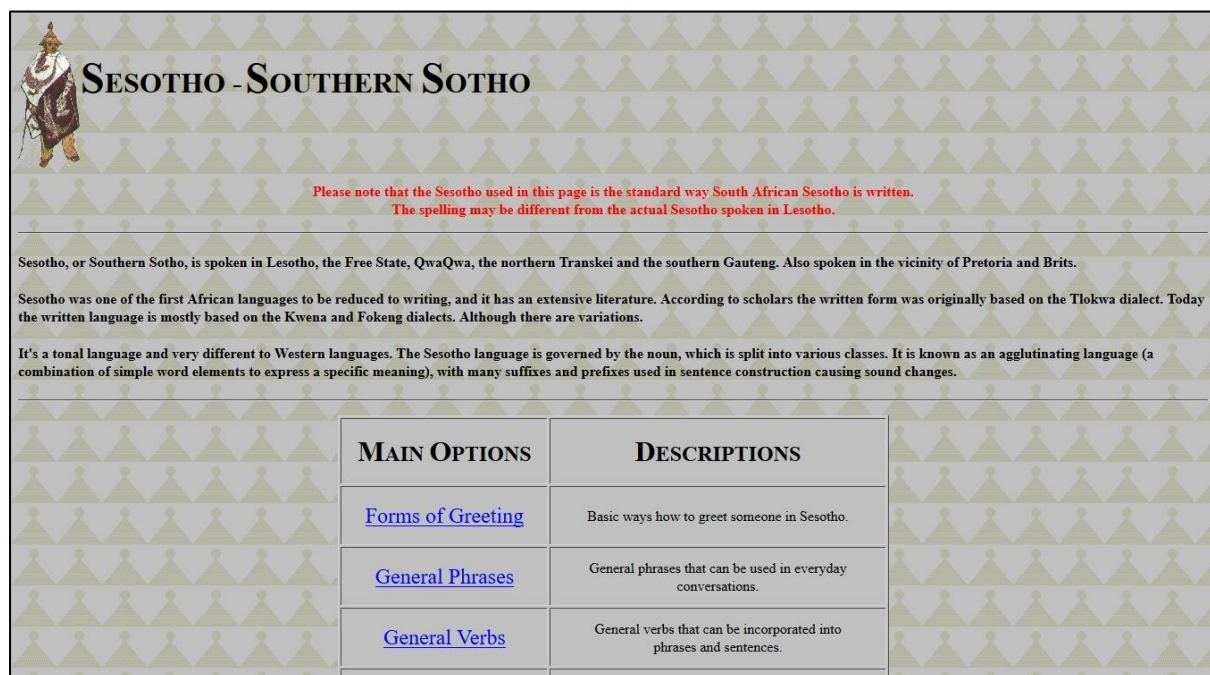


Figure 2: *Sesotho Online* website in 1997

The website moved to a domain of its own by 2002 and could then be accessed from <http://www.sesotho.web.za> (Olivier, 2016b). Although the topics remained the same, a lot more information was included. Figure 3 shows the revised website in 2002:

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Figure 3: *Sesotho Online* website in 2002

The website underwent a radical change in 2003 in terms of layout, volume of content and quality of information. From this period onwards more individuals started to contribute to the website and the importance of a wider knowledge community towards the success of a website, such as *Sesotho Online*, became clear. Figure 4 shows the new layout and displays a link to the electronic dictionary *Bukantswe* (Olivier, 2016c) added in 2004. *Bukanstwe* refers to a very basic English-Sesotho online dictionary (cf. *Bukantswe: an online Sesotho dictionary*) also compiled by the author of the website.



Figure 4: *Sesotho Online* website in 2004

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This layout (cf. Figure 4) was kept from 2003 up to the end of 2007 at which point the first online version of *Bukantswe* was introduced and the new (currently used) layout and format were introduced (cf. Figure 5). The current structure is discussed in the next section.

Current structure

The current website structure as well as the additional international mirror website <http://www.sesotho.org> was launched in 2008. Apart from the researcher, other Sesotho mother tongue contributors, such as Rethabile Masilo (a Mosotho poet living in France) and Tebello Thejane (Sesotho-speaking computer programmer) (who gave consent to be mentioned in this article), also provided information and aided with the quality control of this website. As can be seen in Screenshot 5, the menus had by that time been extended and the dictionary *Bukantswe* was fully integrated into the website itself.

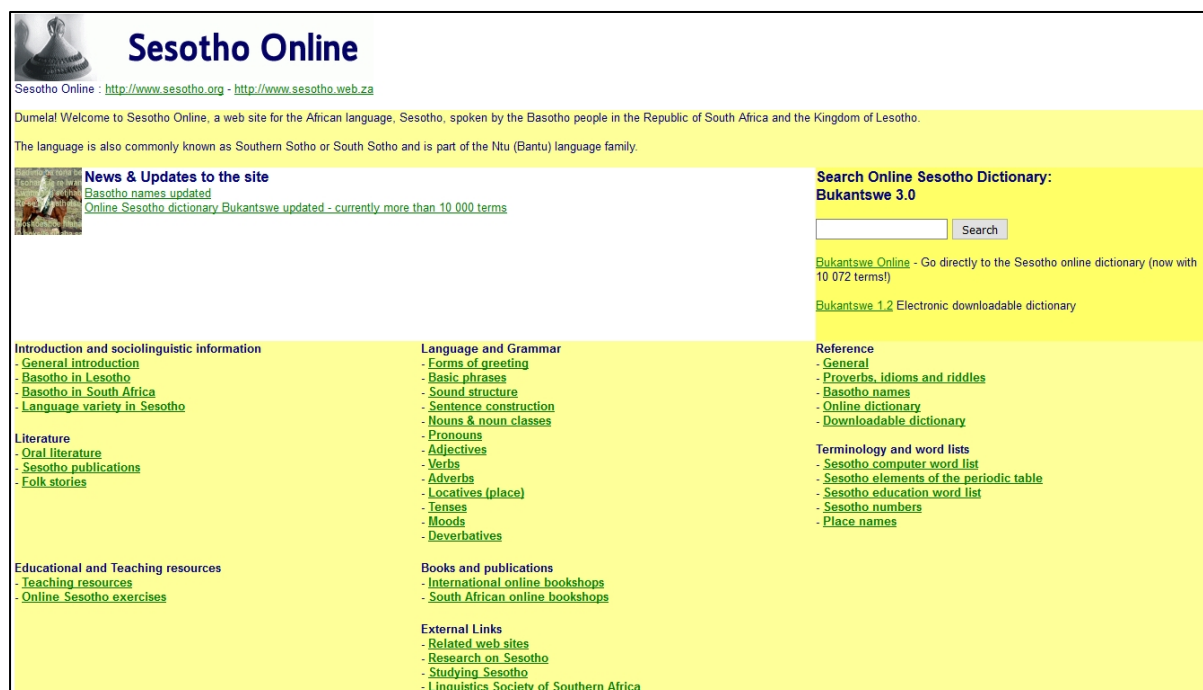


Figure 5: Sesotho Online website in 2016

The current website contains eight distinct sections which include web pages, additional downloadable material and links to external websites.

The section containing the introduction and sociolinguistic information involves a historical overview of the language (in terms of both the South African and Lesotho contexts) and basic information on language varieties of Sesotho. The general introduction also includes information on the number and distribution of speakers as determined by national censuses.

Under the literature section, a very short introduction is presented on the concept of oral literature as well as a list (by no means complete) of publications in and on Sesotho since 1841 up to 2003. A very brief introduction is also provided in terms of the types of folk tales that occur in Sesotho. In terms of development, this part of the website shows the most important promise for improvement and growth.

One of the other sections deals with teaching and learning resources aimed at different levels of studying Sesotho at school (and even outside of that context). This part of the website even includes online and downloadable exercises that can be completed by individuals learning the language. Figure 6 displays an example of one of these exercises:



Sesotho Online

Sesotho noun exercise - family

Enter the Sesotho translation for the English word:

1. child		☐
2. man		☐
3. woman		☐
4. father		☐
5. mother		☐
6. older brother		☐
7. older sister		☐
8. grandfather		☐
9. grandmother		☐
10. boy		☐
11. girl		☐
12. children		☐

Total :

Figure 6: Example of a translation exercise on *Sesotho Online*

The section on language and grammar includes the bulk of the content of this website. Here, basic constructions – towards a communicative introduction to the language (cf. Richards & Rodgers, 2014:83 et seq.) – are provided with the listing of forms of greetings and common basic phrases. This section is complemented with some grammar items with pages on: sound structure, sentence construction, nouns and noun classes and other parts of speech. The aim of this is not to provide an in-depth linguistic overview of the language, but rather an introductory resource for language learners from varied backgrounds and literacy levels.

In addition, the website also has a reference section. The general reference page includes topics such as: numbers, seasons, months, days of the week and directions. Furthermore, other pages cover a selection of Sesotho names, proverbs and idioms ('maele') as well as riddles ('dilothe').

Apart from the online dictionary *Bukantswe*, discussed in the next section, the website also includes subject-specific terminology lists. These lists include: a computer word list, elements of the periodic table, education word list, numbers and place names. The computer word list has been a source of research for an MA study on ICT terminology by Nteso (2013). The list of elements of the periodic table includes terms from existing sources as well as suggestions towards future standardization. This list is updated as inputs are received. The place name list includes Sesotho equivalents for international and South African regions, cities and towns as well as translations of Sesotho place names.

The final part of the website includes hyperlinks to related websites, research on the Sesotho language as well as places where the language can be studied. An integral part of the website, which is actually considered a separate entity, is the online version of the Sesotho dictionary *Bukantswe*, which is also accessible from the *Sesotho Online* website.

Bukantswe: an online Sesotho dictionary

The dictionary *Bukantswe* (Olivier, 2016c) is available in two formats: version 1.2 is a downloadable MS Windows program (available at <http://www.sesotho.org/bukantswe/>) while version 3 refers to an online dictionary (available at <http://bukantswe.sesotho.org/>) which can also be accessed directly from the *Sesotho Online* website (refer to the search box in Figure 5).

Despite some overlaps with regard to the terminology, version 1.2 covers 4 159 entries with Sesotho words and English equivalents, while version 3 includes 10 075 entries again in Sesotho with English equivalents. Version 1.2 was created using Borland Delphi version 5 and does not require connectivity to the internet. Version 3; however, uses the online PHP Dictionary application and an online database and can thus only be accessed online.

Bukantswe has been evaluated and mentioned in lexicographical and general works on Sesotho dictionaries and terminology (Nteso, 2013; Prinsloo, 2010; Prinsloo, 2015). It is necessary to note some of the general concerns and points of development in terms of this dictionary as determined by the researcher:

- The number of terms could be increased.
- Definitions of terms both in Sesotho and English could be provided.
- The use of terms in context with the aid of quotations would be beneficial.
- More morphological and grammatical information could be included.
- Pronunciation guides or even sound files could be added.
- Additional searching options and resources (such as using asterisks or other symbols to replace letters users are unsure of) are needed.

The limitations of *Bukantswe* are clear, however, with the online version of the dictionary, amendments and additions can be done easily as the dictionary is still under development. A recent development has been the inclusion of the *Bukantswe* word list into the database of the national Language Resource Management Agency (Resource Management Agency, 2016). Furthermore, the next section deals with the analysis of usage patterns and the observed impact of *Sesotho Online*.

Analysis of use and impact of the website

Usage statistics

Despite the website being online since 1996, detailed statistics were only recorded from 2003. Hence, data for a period of 12 years and 8 months – from 7 July 2003 up to 6 March 2016 – are presented here. For this purpose a free online application, eXTReMe Tracking (2016), was used. This application records the IP address (unique identifying numerical label associated with devices accessing the website) of each visitor to the site and thereby recording the referring websites or search engines, details about the computer used by the visitor (such as operating system, browser type and screen resolution) as well as the geographical location. This application was chosen because it provides detailed statistics and is provided to users free of charge.

These statistics showed 249 229 unique visits to the website within this period. When reloads during the same visit by individuals are also included, the number of

visits amounts to 417 840. Moreover, on a daily basis the website is accessed on average 53 times. The day with the highest amount of visits to the website was 12 April 2010 with 181 visits.

The visits of the top fifteen countries/regions within the reported period are shown in Table 2.

Table 2: Unique visits to *Sesotho Online* by country or region

Country	Visits	Percentage
South Africa	78 261	31,40
Unknown	69 260	27,79
USA	33 783	13,56
Europe (unknown)	17 172	6,89
United Kingdom	15 359	6,16
Germany	6 321	2,54
Norway	2 981	1,19
Canada	2 689	1,08
Kuwait	2 420	0,97
Lesotho	1 719	0,69
Netherlands	1 503	0,60
France	1 249	0,50
Sweden	1 180	0,47
Australia	1 037	0,42
Brazil	968	0,39
Rest	13 327	5,35
Total	249 229	100,00

In addition, it is also evident that apart from the 27,79% visits from unknown regions about 33,17% of the visitors came from Africa, 20,51% from Europe, 14,75% from North America, 2,35% from Asia, 0,52% from Oceania, 0,51% from South America and only 0,51% from Central America.

Traffic to websites, such as *Sesotho Online*, is driven by search engines and website links. The majority (92,46%) of the visitors used *Google* to reach the website. Most of the traffic was derived from different parts of the website and

especially the online dictionary *Bukantswe*. In addition, the following websites channelled a lot of traffic to the website:

- *Omniglot* (<http://www.omniglot.com/language/phrases/sesotho.php>).
- *Africanlanguages.com* (<http://africanlanguages.com/sesotho/>).
- *Wikipedia* (https://en.wikipedia.org/wiki/Sotho_language).

In this regard, it is also important to look at citations to the website in printed format in order to not only consider the prominence of the website online but also in other contexts. The next section provides an overview of citations in popular as well as academic contexts.

Citations

The significance of *Sesotho Online* can also be measured by means of citations to the website. Quite a number of references to *Sesotho.web.za* (Demuth, 2007:536; Foley, 2004:67; Jordaan, 2013:42; Leanya, 2013:58-59; Mohasi & Mashao, 2005:122; Mokhathi-Mbhele, 2014:14-16, 22, 26; Nteso, 2013:70; Thulare, 2011:24-26) and *Sesotho.org* (Nteso, 2013:10, 102, 107; Phindane, 2014:144) were identified. Furthermore, the online dictionary *Bukantswe* (Challis *et al.*, 2013:339; Phadi & Manda, 2010:90; Prinsloo, 2010:186; Prinsloo, 2015:280) was also cited. In addition, prominent online hyperlinks to *Sesotho Online* include:

- *Africanlanguages.com* (Joffe, 2016);
- Columbia University Libraries (2016) – African Studies: African Language Resources on the Internet.
- Eastern Cape Department of Education's Curriculum website (Province of the Eastern Cape Education, 2016);
- *Internet Library Sub-Saharan Africa* (ilissAfrica, 2016);
- *Michigan State University's An A-Z of African Studies on the Internet* (Limb & Sene, 2016);
- *Omniglot: the online encyclopedia of writing systems & languages* (Ager, 2016);
- UNESCO (2008) *Open Training Platform* – listing resources for endangered and minority languages; and
- *Wikipedia* (2016) – entry on 'Sotho Language'.

The wide variety of sources linking to the *Sesotho Online* website shows its value and relevance in popular and academic contexts. However, for the sake of this research critical reflections are essential towards the improvement of *Sesotho Online* as well as to provide suggestions towards similar websites in other languages.

Critical reflections

After twenty years of maintaining this website, a number of practical lessons have been learned which could potentially be of value for similar projects in future. Hence, some critical reflections on the process are presented here.

Even before every internet user was considered a creator of content, the relatively easy creation of a personal website or any website for that matter allowed for the 'publishing' of information online on topics such as the language Sesotho. This was also the case with the first version of *Sesotho Online*. The initial content was based on the author's knowledge of the language as encountered by everyday users and through the studying of the language at schools and universities. As time progressed and more people visited the website, comments for improvements and even corrections were received by email. In some instances these encounters bore once-off suggestions, but in other cases lasting online work and research relationships were established. Hence, speakers of languages (be it mother tongue or additional language speakers) should be encouraged to contribute to language content, however quality of content is important and standardization processes need to be taken into account. Spontaneous acts of language development (or at least promotion) should at the same time be encouraged. Even Cunliffe (2007:136) notes, in terms of an online presence for minority languages, that '[a] presence can be established by a motivated individual at a relatively low cost, with minimum technical knowledge and with access to only basic computer equipment' (cf. Warschauer, 2001).

The checking of facts and information against various sources is very important. In addition, this also implies adequate recognition of sources consulted in the process. In this regard, this approach – of consulting standard works and giving credit on the website – has been followed on *Sesotho Online* from the start. Where possible, new content is generally checked with sources available to the webmaster, in addition to checking done by other Sesotho speakers. Content generation and quality control

thereof seems to be one of the most important steps in the development of websites such as this one.

The role of additional contributors was mentioned earlier and this seems to be an important growth point. Building a resource, such as *Sesotho Online*, by oneself is possible and can be a success with the aid of peer support and quality control. Major contributors are acknowledged on the website. Ideally such collaboration could be utilised to form knowledge communities and hence greater interaction among visitors and experts on websites such as this would be advisable.

Despite costs in general being relatively low, pricing still tends to be a challenge as websites (specifically hosting and domain names) cost money. Additional costs can be lowered if the design of the website is not out-sourced. In the 1990s basic self-created websites were the norm, but current self-created websites have to compete with professionally-created websites and established brands such as Wikipedia as they gain a lot of internet traffic. However, there are still some online services (such as *Google Sites*) that allow cost free hosting and easy creation of websites.

A major failing of *Sesotho Online* has been static content. In an online context, information has to be updated and renewed constantly in order to lure visitors back repeatedly. A website such as this one can fulfil a reference role, but also needs to adhere to requirements of a wider internet audience that requires continuous renewal.

Effective promotion is another crucial step in maintaining a website like this one. In the past, it used to be important to make sure that a website was listed in a search engine. In a context where so much more information is available it seems that having more and more websites linking to a website (in other words 'advertising' or at least 'mentioning' your website on various other websites) as well as being cited (cf. *Citations* section) is increasingly important. Based on the research and reflections, a number of recommendations can be made towards the development of similar websites in other African languages.

Recommendations for similar projects

The creation of interactive online knowledge communities is essential towards the maintenance of African languages online. In this regard, online tools such as wikis, blogs and various forms of social media platforms (cf. Cunliffe, 2007:135) could be useful. In terms of language survival, Warschauer (2001) notes that ‘it appears though, that the most important role of the Internet is not its impact on *transmission* – which must continue to occur through oral interaction in families and schools – but its impact on *will*’ [emphasis in the original]. Hence, as the transmission of languages occurs in language communities at least the presence of online viewers can contribute towards the status of languages.

Websites should reflect the shift in focus from Web 1.0 tot Web 2.0 (cf. Barton & Lee, 2013:9-10; Ivkovic & Lotherington, 2009:20-21) where the emphasis has moved from content to interaction or even from authoritative creators of knowledge to everybody being contributors. Hence, mainstream wikis such as *Wikipedia* and *Wiktionary* (as well as custom-made wikis) and any other collaborative platforms are essential tools that can be employed in further online language development.

In this regard, Maseko *et al.* (2010:318-323) identified specific roles that need to be played by government and non-governmental organizations, academic institutions as well as regular web users. Online language activists should, therefore, be supported by linguists, language organizations and even governmental bodies in order to catalogue and even support language-related initiatives.

Language-related websites should focus on serving a specific purpose and audience regarding foreign language learners, second language learners or even mother-tongue speakers with a specific language-related need. In this regard, Futhwa (2016) remarked in his email interview: ‘Websites must stay true to their purpose, audiences will generate over time’. A single website for a language might imply a very vague focus but when variation is included with regard to focus, as was displayed in terms of Afrikaans under the heading *South African internet language landscape*, it would be ideal.

The prominence of textual materials online, as opposed to oral materials, is noted by Crystal (2006:9), Cunliffe (2007:141) as well as Barton and Lee (2013:16). As such, the possibilities of online sound and video content in African languages with a rich oral literary background still need to be exploited. In this regard, a body such as the RMA (2016) has a role to play. However, the role of the online individual

generating such content should not be ignored as the development and ownership of online content by language communities themselves also is very important (Cunliffe & Herring, 2005:132).. Similarly, Baron (2015:202-203) also notes the importance of audiobooks in an African context. Futhwa (2016) also observes that '[w]riters/publishers have a responsibility to language development'.

It is important to take note that language resource websites do not necessarily imply fundraising opportunities and that advertising might not even cover hosting costs. This challenge has been experienced in terms of *Sesotho Online* and the sentiment is also shared by Futhwa (2016). In terms of this issue, Futhwa (2016) notes that '[w]e generally do not generate revenue from our websites, so the primary goal should not be to make money'. Consequently, similar projects need to keep costs – however low – in mind.

Conclusion

Within the internet linguistic landscape online knowledge communities can influence the status of African languages positively. In this article, the contribution of the website *Sesotho Online* to the establishment of an internet-based language knowledge community has been explored.

This article related to the concept of a language knowledge community. In this instance, the sharing and generating of knowledge happens within the context of the internet. In this regard, it was important to look at the wider internet and South African and Sesotho language landscapes. Clearly, the internet provides many possibilities towards the promotion of languages. In the South African context, some challenges are evident but there are also good practices that can be used as points of departure for similar projects. The Sesotho internet language landscape shows some variety; albeit limited in terms of purpose and extent in comparison with other languages outside of South Africa. Yet, it is important to note that there are a number of Sesotho-based language knowledge communities already in existence.

This study focused on the website *Sesotho Online*. The empirical part of the article involved website usage statistics and qualitative research by means of an autoethnographical enquiry. Firstly, an overview of the development of the website was provided. The development of the website mirrored developments of online

trends over the past twenty years. A significant development was the integration of the online dictionary *Bukantswe* into the website. The website, at the time of the research, contained eight distinct sections which include web pages, additional downloadable material and links to external websites covering historical, cultural, linguistic and educational spheres. From the usage statistics, it was clear that the majority of users come from South Africa. Furthermore, the most prominent online links to the website are from educational websites.

In addition, the website was critically reviewed by the researcher. Here, the importance of the role of individual advocacy, peer support, pricing, content being dynamic, building on accurate sources and effective promotion were noted. In addition, some recommendations towards future developments – in other African languages for example – were noted: online collaboration is important; institutional support could be beneficial, websites should rather focus on a specific language-related topic; oral content should be included; costs need to be considered; and the creation of interactive online knowledge communities is essential towards the maintenance of African languages online.

Clear lessons have been learned for the development of other internet-based language knowledge communities within the South African and other minority language contexts through this overview of the researcher's experience in the creation and extension of an online resource over a period of twenty years.

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