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The Future of Metalexicography: Reaching for the Mesosphere

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Abstract: In this research article, a quantified look is taken at the metalexicographic endeavours of the past half century, starting in 1971. It is argued that the year 2021 represents a tipping point, and for that reason, when illustrations are needed in the article, those are preferably taken from the work of Sue Atkins, who passed away in 2021. It analyses the formation of the various continental lexicography associations, as well as their conferences and linked proceedings, and ends with the current and future role of the global lexicographic alliance. In addition, a comparative bibliometric study is undertaken of the four main journals of our field. It is shown that the number of metalexicographic studies and the impact these have continued to grow, to the point where dedicated tools and databases are currently needed for the efficient examination and use of the now many thousands of conference papers, journal articles, and other publications. A brief section also deals with modern dictionary user research, which is, according to current thinking, subsumed under metalexicography. With and from this vast amount of data, the future direction of metalexicography is extrapolated. The undertaken research is thus very much data-driven, and refrains from thought experiments to arrive at that future.

Keywords: LEXICOGRAPHY, METALEXICOGRAPHY, DSNA, EURALEX, AUSTRALEX, AFRILEX, ASIALEX, AMERICALEX-S, ELEX, GLOBALEX, CONFERENCE PROCEEDINGS, JOURNAL ARTICLES, *DICTIONARIES: JOURNAL OF THE DSNA*, *LEXICOGRAPHICA*, *INTERNATIONAL JOURNAL OF LEXICOGRAPHY*, *LEXIKOS*, *LEXICOGRAPHY: JOURNAL OF ASIALEX*, BIBLIOMETRICS, GOOGLE SCHOLAR, DICTIONARY USE, *ELEXIFINDER*

Samenvatting: De toekomst van de metalexicografie: Op weg naar de mesosfeer. In dit onderzoeksartikel wordt een gekwantificeerde blik geworpen op de metalexicografische inspanningen van de afgelopen halve eeuw, beginnend in 1971. Er wordt beweerd dat het jaar 2021 een kantelpunt vertegenwoordigt, en om die reden maken de meeste illustraties in het artikel gebruik van het werk van Sue Atkins, die in 2021 overleed. Dit artikel analyseert de ontwikkeling van de verschillende continentale lexicografieverenigingen, evenals hun conferenties en gekoppelde conferentieverslagen, en eindigt met de huidige en toekomstige rol van de wereldwijde lexicografische alliantie. Daarnaast wordt een vergelijkende bibliometrische studie uitgevoerd van de vier belangrijkste tijdschriften uit ons vakgebied. Er wordt aangetoond dat de hoeveelheid metalexicografische studies en de impact die deze hebben blijven groeien, tot het punt waarop vandaag speciale tools en databases nodig zijn voor het efficiënt doorzoeken en gebruiken van de nu vele duizenden conferentiepapers, tijdschriftartikelen en andere publicaties. Een korte rubriek gaat ook over modern 'onderzoek naar het gebruik van woordenboeken', dat volgens de huidige opvat-

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tingen onder metalexicografie valt. Met en uit deze enorme hoeveelheid gegevens wordt de toekomstige richting van de metalexicografie geëxtrapoleerd. Het uitgevoerde onderzoek is dus sterk data-gedreven en onthoudt zich van gedachte-experimenten om tot die toekomst te komen.

Sleuteltermen: LEXICOGRAFIE, METALEXICOGRAFIE, DSNA, EURALEX, AUSTRALEX, AFRILEX, ASIALEX, AMERICALEX-S, ELEX, GLOBALEX, CONFERENTIEVERSLAGEN, TIJDSCHRIFTARTIKELEN, *DICTIONARIES: JOURNAL OF THE DSNA*, *LEXICOGRAPHICA*, *INTERNATIONAL JOURNAL OF LEXICOGRAPHY*, *LEXIKOS*, *LEXICOGRAPHY: JOURNAL OF ASIALEX*, BIBLIOMETRIE, GOOGLE SCHOLAR, WOORDENBOEKGEBRUIK, *ELEXIFINDER*

1. Metalexicography: From zero to the stratosphere in 50 years (1971–2021)

The discipline of metalexicography is generally considered to have started in earnest with the publication of the *Manual of Lexicography* by Ladislav Zgusta (1971). From humble beginnings only half a century ago, this discipline reached stratospheric heights in 2021. The year 2021 also literally represents a milestone: a first rocket was discarded and a second one took over. As is the case for so many other (if not most) aspects of human life, COVID-19 undeniably supercharged the change in gears. In the year 2021, we were treated to more (virtual) conferences, more research articles, and more innovative dictionaries (being the basis for more metalexicographic research) than ever before. Even though some of it may be seen as the backlog from 2020 being released, metalexicographers have now tasted the future, and the future is here to stay.

Given that metalexicography has now entered the future, we may contrast that 'present + future' with the 'past', as done in Table 1: the first line being a summary of the preceding paragraph; the next four lines summarising Sections 2 to 5 to follow.

Table 1: The discipline of metalexicography: From humble to stratospheric

§	Past	Present & Future
1	° with Zgusta in 1971, in a face-to-face world	entered the virtual world as of 2021; will become hybrid
2	from none to a few continental associations	associations for all continents, and an active world body
3	a few publications	massive amounts of research output
4	questionnaires and surveys to research dictionary use	unobtrusive logging and analysis of dictionary use
5	slow science via personal and public libraries	fast science accessible via dedicated databases and tools

Regardless of the fact that Grefenstette (1998) famously asked: "Will there be lexicographers in the year 3000?", which is of course a long shot, De Schryver (2023) established that there is still a chance for our dictionaries and our lexicographers to survive into the (near) future. If that is indeed the case, it also makes sense to look at the future of the scientific research devoted to lexicography, that is, the future of the discipline of metalexicography.

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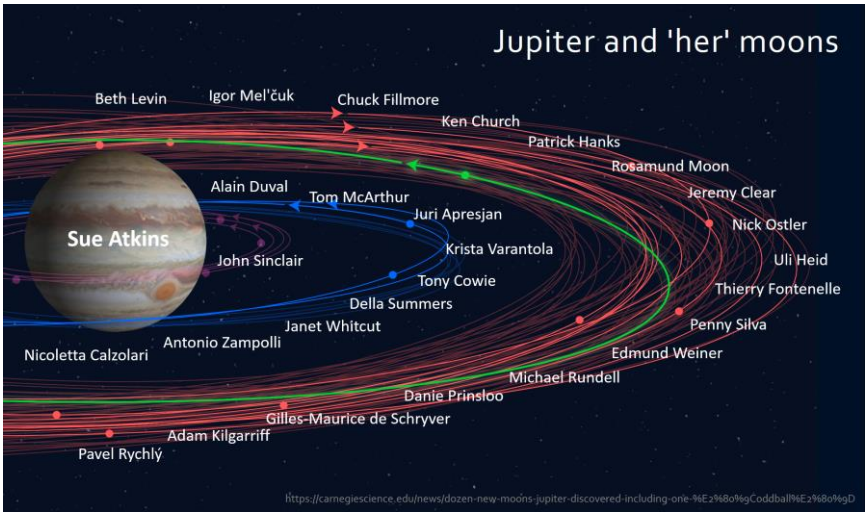

Figure 1: Visualisation of the past half century of (meta)lexicography, as seen through the eyes of Sue Atkins (1931–2021)

In what follows, various aspects of the metalexicographic endeavour will be looked at, and in places the metalexicographic repercussions of the *Grande Dame* of practical lexicography, Sue Atkins, who sadly passed away in the milestone-year 2021, will be studied. During the obituary read at the EURALEX congress the week following her passing, the then president of EURALEX, G.-M. de Schryver, urged every member of the lexicographic community to (re)watch her last interview (in conversation with Michael Rundell)[1] in which she masterfully surveyed the past half century of (meta)lexicography. The visualisation shown then, and reproduced in Figure 1, was an attempt to illustrate her interactions with all the (meta)lexicographers she mentioned during the interview. This will be addressed later.

2. Conferences of the continental associations for lexicography

Soon after the publication of Zgusta's manual, the first continental association for lexicography was formed, namely the DSNA in 1975, for the North American continent. Over the next two decades, this effort to form continental associations (over and above local, national and regional ones) was copied on several other continents (see Table 2). EURALEX saw the light eight years later, AUSTRALEX another seven years later, AFRILEX following five more years, and ASIALEX after a further two years. Key figures in setting up these associations were J. Edward Gates for the DSNA, Reinhart Hartmann and Sue Atkins for EURALEX, Bill Ramson for AUSTRALEX, Danie Prinsloo and Rufus Gouws for AFRI-

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LEX, and Amy Chi and Gregory James for ASIALEX. For a very long time there was no association covering Central and South America, however, a problem pointed out over a decade ago in the metalexicographic literature (De Schryver 2012b: 482). An opportunity to do something about this situation arose at the DSNA 2019 congress, where G.-M. de Schryver met with both Spanish and Portuguese-speaking lexicographers to discuss the ins and outs of establishing such an association. Three years later, in 2021, a working group was eventually formed with representatives from all over Latin America and the Caribbean, which baptised itself AMERICALEX-S. This working group will hold its first conference in October 2023, in São Paulo (Brazil), at which occasion the last continental association will be officially inaugurated.

Table 2: Continental associations for lexicography

Continent	Association	Acronym	Founded
North America	Dictionary Society of North America https://dictionarysociety.com/	DSNA	1975
Europe	European Association for Lexicography https://euralex.org/	EURALEX	1983
Oceania	Australasian Association for Lexicography https://www.australex.org/	AUSTRALEX	1990
Africa	African Association for Lexicography https://www.afrilex.co.za/	AFRILEX	1995
Asia	Asian Association for Lexicography https://www.asialex.org/	ASIALEX	1997
Central & South America	Association of Lexicography for the Americas: South, Center, Caribbean and Mexico https://www.americalexs.com/	AMERICALEX-S	(2023)
n.a.	*Electronic lexicography in the 21st century* https://elex.link/	*eLex*	*2009*
World	*Global Alliance for Lexicography* https://globalex.link/	*GLOBALEX*	*2018*

It is worth mentioning here the eLex conference series as well, first organised in Belgium by Sylviane Granger in 2009, which focuses exclusively on 'e-lexicography in the 21st century'. While not a continental association, given its focus, it certainly has the potential to go around the world (De Schryver et al. 2019a: 672-673). Cross-cutting these efforts, and merging Ilan Kernerman's wish to bring all of us together as 'Peoplex' (Kernerman 1997: 7) as well as the attempt to view all continents as one, hence as 'PangaeaLex' (De Schryver 2008: 113-114), a global alliance for lexicography was eventually set up in 2018, called GLOBALEX. For the first time in human history, then, *all* continents (save Antarctica (Adams 2014: 4)) will have their lexicographic association by the end of 2023, with a global alliance set to become ever more active.

Learned societies exist not just in name; their main activity is for their members to meet. As may be seen from Table 3, all continental associations have met regularly since their foundation, typically biennially, with only AFRILEX opting for an annual format, and ASIALEX having switched to that format recently. EURALEX purposely chose to organise its conferences in the off-years of the

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DSNA, and then later eLex chose to organise theirs in the off-years of EURALEX. In half a century, over a hundred such conferences were organised, or thus two continental meetings per year on average. This average hides an important fact: Over time, there are simply ever more continental meetings, from just one every two years, to five annually, as shown in Figure 2.

Table 3: Conferences organised by the continental lexicography associations (up to 2022)

Association	Founded	Conferences	Proceedings?
DSNA	1975	biennial, in odd years (1977–2021): 23	No
EURALEX	1983	biennial, in even years (1983, 1986–2018, 2020>2021, 2022): 20	Yes
AUSTRALEX	1990	mostly biennial (1990–1998, 2000–2004, 2009–2021), some annual (1999, 2005–2008): 20	some online
AFRILEX	1995	annual (1996-2019, 2020>2021, 2022): 26	No
ASIALEX	1997	initially biennial (1997–2015), now annual (2016–2019, 2020>2021, 2022): 16	Yes
AMERICALEX-S	(2023)	t.b.a.	t.b.a.
eLex	*2009*	*biennial, in odd years (2009–2021): 7*	*Yes*
GLOBALEX	*2018*	*workshops that co-locate with conferences: 4 with LREC & 4 with -lex*	*Yes for LREC*

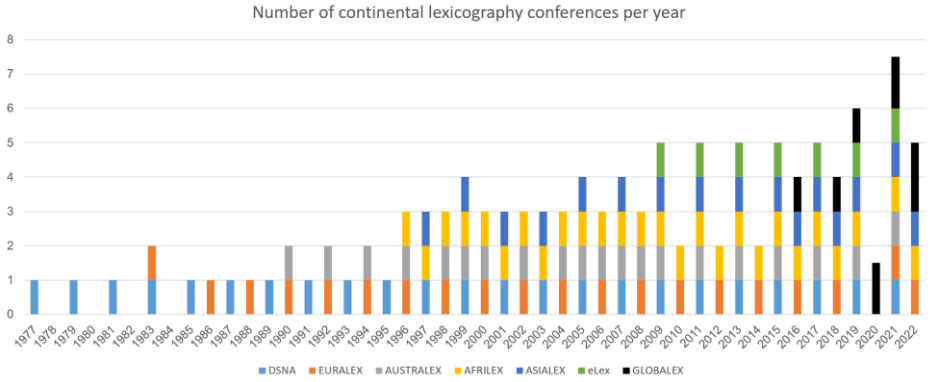

Figure 2: Number of continental lexicography conferences per year

Due to the COVID-19 pandemic, the year 2021 even saw the conferences of the DSNA, ASIALEX, AFRILEX, eLex, AUSTRALEX and EURALEX, as well as two GLOBALEX workshops (co-located with the last two), organised in a timespan of just four months. While there were very few colleagues who attended all eight meetings,[2] many colleagues attended several up to a handful. This was made possible by turning a necessity (the worldwide travel restrictions) into a virtue (move to a virtual format). Here is not the place to sing the praises of the virtual format — yes, it is comparable to the move from paper to digital dictionaries — but it may convincingly be argued that the future of our meetings

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will be hybrid: Some of us will be physically present; others will attend via the streamed version; either in full or in part, including via the format of single-day registrations. As a matter of fact, EURALEX 2022 included a (free) hybrid day. All of this, then, means that lexicographers will have far more opportunities than ever to continue to meet in the future.

Another added advantage also became apparent: While previously only eLex had made a serious effort to record its presentations (at its physical meetings) to be streamed live as well as to be offered online after the event — at no charge, available to everyone —, in 2021 the presentations at each and every one of the continental lexicography conferences were recorded, and most of these also remain available to the world at large without any restrictions, as may be seen from Table 4. Going forward, Table 4 suggests that this will now become standard practice (cf. the entries for '2022').

Table 4: Recordings of the (2021) continental lexicography conferences (up to 2022)

Association	Rec < 2021?	Rec in 2021?	Online location, if any
DSNA	—	+	• 2021: all talks pre-recorded and shared with all participants after the congress
EURALEX	2018	+	• 2018: https://videolectures.net/euralex2018_ljubljana/ • 2020>2021:[3] https://videolectures.net/euralex2021/ • 2022: https://videolectures.net/euralex2022_mannheim/
AUSTRALEX	—	+	• 2021: recordings made during the congress but not yet shared
AFRILEX	—	+	• 2021: https://www.youtube.com/playlist?list=PLQbpi7xMa_B8VfxtJg20d509L99LZa7g3 • 2022: https://www.youtube.com/playlist?list=PLQbpi7xMa_B-40KX-4Yma0Z5VQqW4Skmw
ASIALEX	—	+	• 2021: https://drive.google.com/drive/folders/120H6oWP1Y29YFoJiiy3-cp_A7ehDE36G
eLex	*2011–2019*	+	• *2011: https://videolectures.net/elex2011_bled/* • *2013: https://www.youtube.com/channel/UCDSa1Xvt2bnZ03Y0mELxQJA/videos* • *2015: https://www.youtube.com/channel/UCDSa1Xvt2bnZ03Y0mELxQJA/videos* • *2017: https://www.youtube.com/channel/UCDSa1Xvt2bnZ03Y0mELxQJA/videos* • *2019: https://videolectures.net/elexconference2019_sintra/* • *2021: https://www.youtube.com/channel/UCDSa1Xvt2bnZ03Y0mELxQJA/videos*
GLOBALEX	*2020*	+	• *2020: https://www.youtube.com/channel/UCxy9euhLou92uhf6LQqnMxA/videos* • *2021: https://www.youtube.com/channel/UCxy9euhLou92uhf6LQqnMxA/videos*

While the current picture may look a bit messy (YouTube channels, YouTube Playlists, a Google Drive, as well as VideoLectures) all this variation will surely converge, so that it will become ever easier in future to hear and see one another's talks and the discussions that ensued — both live and stored forever in the cloud. That, of course, does not mean that the video-format will replace the written-out texts that appear in conference proceedings.

3. Publications of the continental associations for lexicography

From Table 3 it is evident that EURALEX, ASIALEX and eLex religiously publish conference proceedings, AUSTRALEX and GLOBALEX only for some, with the DSNA and AFRILEX not at all. Even so, at the current rate, it still means that an average of about a thousand extra pages with conference papers on dictionaries,

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dictionary makers and dictionary research appear each year — an amount that has been growing over the years as well. An analysis of the first fifteen EURALEX conference proceedings has shown (cf. De Schryver 2012a) that the impact of those publications also grows from conference to conference. Looking into the future, it seems there are no signs that this continuous upward trend will curb down.

As apparent in Table 5, all but one of the continental lexicography associations also publish their own journal: the DSNA has *Dictionaries*, EURALEX has the *International Journal of Lexicography* (IJL), AFRILEX has *Lexikos*, and ASIALEX has *Lexicography*. In an early and beautiful example of cross-continent cooperation, the DSNA and EURALEX also joined forced to produce the journal *Lexicographica* (in addition to the book series *Lexicographica. Series Maior*). All these journals started appearing some time after their respective associations were founded, except for *Lexikos*, a journal initially (and still) published by the *Bureau of the Woordeboek van die Afrikaanse Taal* (WAT) which became the mouthpiece of AFRILEX. GLOBALEX is the champion of cooperation, however. Four of its workshops took place at LREC (the biennial *International Conference on Language Resources and Evaluation*), in 2016, 2018, 2020 and 2022, so those workshop papers appeared in the LREC conference proceedings. While the GLOBALEX workshops that co-locate with LREC tend to focus on NLP lexicography, a second track of GLOBALEX workshops solely focuses on neologisms and runs in parallel with the various continental lexicography conferences. The first *Globalex Workshop on Lexicography and Neology* (GWLN) took place at DSNA 2019 and its papers were published in *Dictionaries* 41(1) in 2020, the second took place at EURALEX 2020>2021 and its papers were published in IJL 34(3) in 2021, the third took place at AUSTRALEX 2021 and its papers were published in a book volume of *Lexicographica. Series Maior*, the fourth took place at EURALEX 2022 and its papers were published as part of that conference's proceedings. (The fifth is to be held in conjunction with ASIALEX 2023 and its papers will be submitted for publication in *Lexicography* 10(2) in 2023.)

Table 5: Journals of the continental lexicography associations

Association	Founded	Journal	Publisher	Since
DSNA	1975	*Dictionaries: Journal of the Dictionary Society of North America*	self	1979
DSNA + EURALEX	1975 + 1983	*Lexicographica: International Annual for Lexicography*	Max Niemeyer	1985
EURALEX	1983	*International Journal of Lexicography* (IJL)	OUP	1988
AUSTRALEX	1990	— (*in local/regional linguistics journals*)	—	—
AFRILEX	1995	*Lexikos*	WAT	1991
ASIALEX	1997	*Lexicography: Journal of ASIALEX*	Springer; Equinox (as of 2021)	2014
AMERICALEX-S	(2023)	t.b.a.	t.b.a.	t.b.a.
eLex	*2009*	*n.a.*	*n.a.*	*n.a.*
GLOBALEX	*2018*	*— (in LREC proceedings; in other lexigraphy journals; in lexicography book series)*	—	—

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A detailed analysis of some of these journals — as was undertaken for *Lexikos* (De Schryver 2009b) and IJL (De Schryver 2012b) — indicates that ever more material appears in them, even where the publisher sets page limits. The latter is for instance the case for IJL, where, starting with the June 2018 issue, they simply introduced a different typeface, a much smaller font size and a new layout, so they could cram in more text on the same number of pages. But is 'more' — ever more publication outlets, ever more pages, and/or ever smaller font sizes to include even more articles — also 'better'? What is the true impact of all this increased publishing? Are we now ending up with hundreds, perhaps thousands, of research articles that are simply never being cited? To try answering this question in a concise way, Google Scholar profiles were manually created for each of the four main journals that are linked to the continental associations: *Dictionaries*, IJL, *Lexikos* and *Lexicography*.[4] Given that the main topic of this contribution is not bibliometrics in lexicography (see De Schryver 2009a), the present study is limited to the basic outcomes only. All screenshots and counts which follow here and in the subsequent sections refer to the situation on 13 February 2023.

Figures 3 to 6 show the number of citations that the various articles in the four journals attract per year. With ever more material, the number of times that material is cited year after year indeed goes up for *Dictionaries*, *Lexikos* and *Lexicography*, although this seems to have plateaued for IJL over the past decade, with an average of about 1,300 citations per year. So the 'more' for IJL seems not to have an increased impact. On the other hand, that plateau for IJL is way above the current number of annual hits for *Dictionaries* (about 230), *Lexikos* (about 600) and *Lexicography* (about 100).

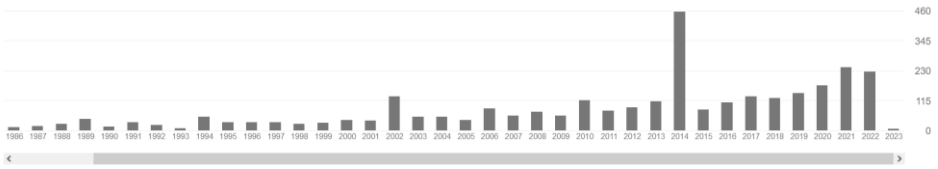

Figure 3: Number of cites per year for *Dictionaries*

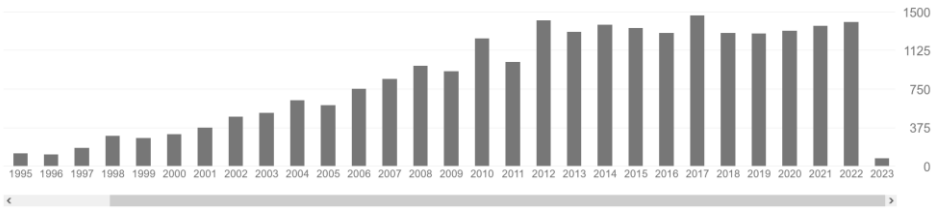

Figure 4: Number of cites per year for *IJL*

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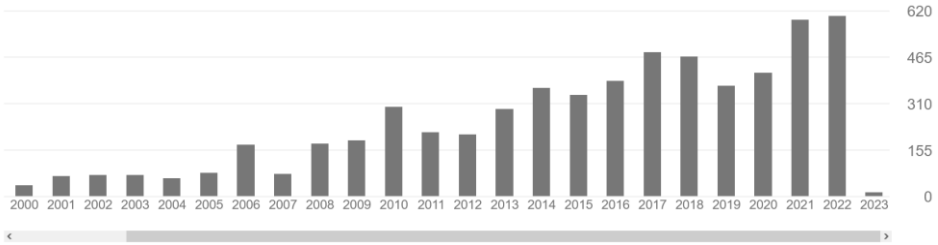

Figure 5: Number of cites per year for *Lexikos*

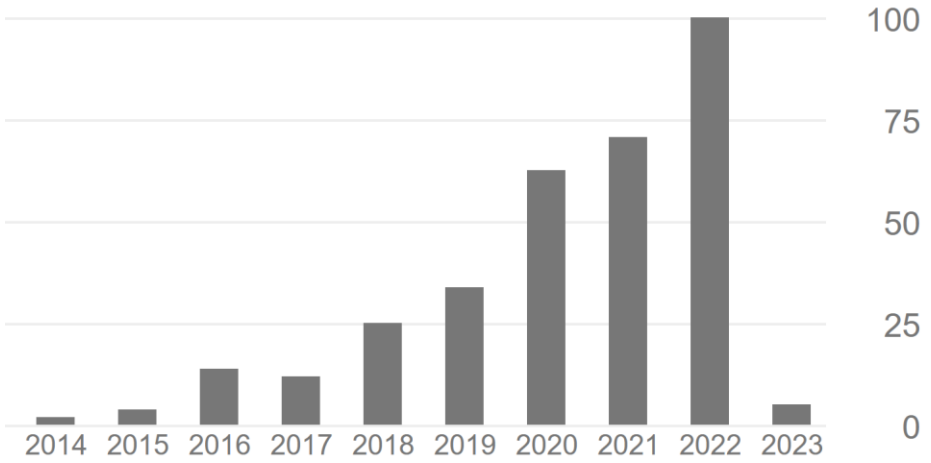

Figure 6: Number of cites per year for *Lexicography*

With regard to the number of citations depicted in Figure 6 for the journal *Lexicography*, it is important to point out that Kilgarriff et al.'s (2014) contribution 'The Sketch Engine: Ten Years on' (published in this journal) is not included, as Google Scholar lumps its citations with Kilgarriff et al.'s earlier (2004) 'The Sketch Engine' (published in the EURALEX 2004 proceedings). This single article actually carries the entire journal, as it must have attracted about one thousand six hundred citations since 2014, compared to 345 for all other articles together over the same time period.

A single article can also produce a huge spike for just one year in the data, dwarfing everything else, as is the case for the number of hits in 2014 for *Dictionaries*. The reason for the spike is a jubilee article by David Jost (2014) which quotes every single item that had been published during the 34 preceding years in the journal. In order to smooth out spikes, working with windows that cover a number of years is a solution. Two metrics are presented to that effect in

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Table 6: 'overall' (= 'all') and 'across the last five years' (= 'since 2018'). Also shown are the *h*-index and the *i10*-index: the "*h*-index is the largest number *h* such that *h* publications have at least *h* citations", while the "*i10*-index is the number of publications with at least 10 citations".

Table 6: Basic citation metrics for the four main lexicographic journals [as of 13 February 2023]

	Dictionaries		IJL		*Lexikos*		*Lexicography**	
	All	Since 2018	All	Since 2018	All	Since 2018	All	Since 2018
Citations	3,116	911	25,376	6,768	6,222	2,454	345	308
h-index	22	11	67	36	33	20	11	10
i10-index	83	13	246	154	193	75	12	10

* Without the counts for 'The Sketch Engine: Ten Years on' (Kilgarriff et al. 2014), which number about 1,600 overall.

From the values in Table 6, one may conclude that despite the fact that *Dictionaries* is the oldest journal, IJL clearly comes out top, followed by *Lexikos*, then *Dictionaries*, and a distant last (although it is of course still a young journal) *Lexicography*.

As to the question of how many articles end up never being cited, the four journals surprisingly behave very similarly. In Table 7, the number of published items per journal up to the end of 2012 were tabulated, together with calculations of the number of items not cited so far, as well as those cited only once. After 'correcting' the values for *Dictionaries* (to subtract all the hits from the D. Jost overview), it turns out that the percentage of articles never cited in the four main journals of our field is exactly the same for IJL, *Lexikos* and *Lexicography*, namely 41%, and 45% for the journal *Dictionaries*. Given that hapaxes often mean very little in corpus studies, and to truly compare apples with apples and not oranges, the last column in Table 7 lists the number of items cited more than once, which reveals that only half of everything we write and publish in IJL, *Lexikos* and *Lexicography* is cited more than once, which drops to less than a third for *Dictionaries*.[5]

Table 7: Items 'not cited' and 'cited more than once' for the four main lexicographic journals [as of 13 February 2023]

Journal	Total items	Not cited	Not cited, in %	Cited once	Cited once, in %	Cited more than once, in %
Dictionaries	725	249	34.3%	104	14.3%	51.3%
*Dictionaries**	725	329	**45.4%**	170	23.4%	**31.2%**
IJL	658	269	**40.9%**	47	7.1%	**52.0%**
Lexikos	954	391	**41.0%**	70	7.3%	**51.7%**
Lexicography	85	35	**41.2%**	10	11.8%	**47.1%**

* In order to 'correct' for the fact that the Jost (2014) overview cites every single item that had appeared in *Dictionaries* during the preceding 34 years, all items cited only once from before 2014 actually need to be added to the 'not cited'. There are 80 such items, which means that the corrected number of items not cited is 329, which corresponds to 45.4%. Likewise for the material cited twice: those from before 2014 need to be added to 'cited once', of which there are 66 cases, so the corrected number of cited once is 170, which corresponds to 23.4%, and the 'cited more than once' then becomes 31.2%.

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On average, for every five journal articles lexicographers write, two are never cited. Given that this pattern is seen throughout, no matter whether a journal is over four decades old or just a decade old, this does imply that producing more does get you noticed. The message, however, is also that we should all focus on researching and writing the three articles out of every five that will get (you) noticed, and stop spending time on the other two — if only we knew which two. Moreover, if we wish our output to be more than just once-offs, single citations, hapaxes, we should simply cut out half up to two-thirds of everything we do metalexicographically, as that part is clearly not more than a fluke in the data, a statistical error.

Probably more interesting than knowing that over two-fifths of the material published in the four main lexicographic journals is never cited, is to know *what is* cited, and especially what attracts *most* cites. This question is answered in Figures 7 through 10, which show the Top 15 journal articles (together with their citation numbers to date) for each of these four journals. The four journals clearly have their own identity. Firstly, popular topics in *Dictionaries* include various theoretical discussions (with a link to linguistic theories as well as dictionary practice), dictionary use, translation equivalence, combinations, examples, and neologisms; popular in IJL are the various 'nets' (WordNet, FrameNet, ...), digital dictionaries, corpora and computational aspects, as well as dictionary use, and combinations; popular in *Lexikos* are various theoretical discussions (with a focus on specialised and pedagogical lexicography), digital dictionaries, corpora and computational aspects, and dictionary use; and popular in *Lexicography* is dictionary software, frame-based terminology, dictionary culture and skills, dictionary use, dictionary apps, and phraseology.

Secondly, in terms of languages dealt with in the Top 15, *Dictionaries* is heavily biased towards the various historical stages of American (and British) English; IJL is solely interested in present-day (British) English; *Lexikos* is so theoretical in the top material that it nearly appears to be 'against language', with only De Schryver et al. (2006) and Gouws and Prinsloo (1998) doing a serious effort to involve African languages, while Lew et al. (2013) produced an eye-tracking study involving Polish; and *Lexicography* is interested in varieties of Asian English on the one hand, and English as a Foreign Language (EFL) on the other.

Thirdly, in terms of authors, each journal furthermore tends to be a microcosm. *Lexikos* is especially affected, with the same Danish scholars restating their positions. The other journals do indeed list the important figures of our field, including S. Atkins, M. Benson, H. Nesi, L. Zgusta, D. and R. Barnhart, A. Wierzbicka, G. Stein and J. Apresjan in *Dictionaries*; G. Miller (and his team), C. Fillmore, G.-M. de Schryver, W. Teubert, A. Kilgarriff, S. Atkins, K. Varantola, N. Calzolari, M. Benson and H. Nesi in IJL; and A. Kilgarriff (and his colleagues from the Czech Republic), M.-C. L'Homme, P. Faber, M. Rundell and R. Gouws in *Lexicography*. Judging from the Top 15s, *Lexicography* is probably also the most 'local' in its continentalness, with contributors like D. Salazar (Philip-

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pines), C. Winestock (South Korea), Y. Jeong (South Korea), J. Ding (China), S. Bae (South Korea) and T. Koyama (Japan). Actually, only a few names make an impact across the journals: S. Atkins, M. Benson, G.-M. de Schryver, R. Gouws, A. Kilgarriff and H. Nesi. More intriguing is that Sue Atkins's recounting of the first half century of metalexicography, as depicted in Figure 1 (starting with her brother J. Sinclair close to her, then on a first plane colleagues from A. Duval to N. Calzolari, and finally on a second plane colleagues from B. Levin to P. Rychlý), included no less than eleven of the most cited authors in the four journals under consideration: J. Apresjan, S. Atkins, N. Calzolari, G.-M. de Schryver, C. Fillmore, T. Fontenelle, A. Kilgarriff, D.J. Prinsloo, M. Rundell, P. Rychlý and K. Varantola — which thus includes, chronologically speaking, the last five from her summary. Even as a nonagenarian, then, Sue Atkins was still fully in the present and with that, predicting the future.

4. Research into dictionary use as metalexicography

As stressed by Gouws (2020: 3), while at some point in the past 'metalexicography' was considered separate from 'dictionary research' — itself subdivided into four categories (cf. Wiegand 1998: 114), one of which being 'research into dictionary use' — this distinction is no longer upheld. As result, in addition to the metalexicographic endeavours discussed so far, the actual study of how dictionaries are used is now part and parcel of the field of metalexicography.

Ironically, one aspect where Sue Atkins did lose touch with present praxis, and thus failed to foresee the future, was the direction in which research into dictionary use, to which she herself contributed a major study (Atkins 1998), was heading. Just as dictionaries have moved from paper to digital, research on dictionary use has now fully moved from (paper-based) questionnaires and surveys, as undertaken by Atkins in the 1990s, to the unobtrusive logging and analysis of real (digital, online) dictionary use.

Overviews of the current and future potential in this domain have already been written, and the interested reader is referred to those writings, the main ones being Dziemianko (2018) and Müller-Spitzer et al. (2018). Suffice it to say here that a particularly promising venue for the study of dictionary use with the aim to improve future dictionaries is the utilisation of eye-tracking during dictionary consultation (Lew et al. 2018). On a more basic level, recent studies have also shown the potential of carefully analysing up to a decades-worth of online dictionary logs, revealing not only real, unobtrusive dictionary usage behaviour, but also allowing for new insights into graphical-user-interface design in the context of lexicography (De Schryver et al. 2019b).

http://lexikos.journals.ac.za; https://doi.org/10.5788/33-1-1803 (Article)

Dictionaries: Journal of The Dictionary Society of North America

FOLLOW

publisher: Dictionary Society of North America
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Lexicography

TITLE	CITED BY	YEAR
Processing strategies and problems encountered in the use of dictionaries A Neubach, AD Cohen Dictionaries: Journal of the Dictionary Society of North America 10 (1), 1-20	134	1988
Theoretical Lexicography and its Relation to Dictionary-making BTS Atkins Dictionaries: Journal of The Dictionary Society of North America 14 (1), 4-43	90	1992
The Dictionary of Old English A Cameron, A diPaolo Healey Dictionaries: Journal of the Dictionary Society of North America 1 (1), 87-96	76	1979
A combinatory dictionary of English M Benson Dictionaries: Journal of the Dictionary Society of North America 7 (1), 189-200	54	1985
The Middle English Compendium: past, present, future F McSparran Dictionaries: Journal of the Dictionary Society of North America 23 (1), 126-141	48	2002
The role of illustrative examples in productive dictionary use H Nesi Dictionaries: Journal of the Dictionary Society of North America 17 (1), 198-206	48	1996
Guidelines for reviewers of bilingual dictionaries RJ Steiner Dictionaries: Journal of the Dictionary Society of North America 6 (1), 166-181	45	1984
Translational equivalence in a bilingual dictionary: Bāhukośyam L Zgusta Dictionaries: Journal of the Dictionary Society of North America 9 (1), 1-47	44	1987
The image of the dictionary for American college students S Greenbaum, CF Meyer, J Taylor Dictionaries: Journal of the Dictionary Society of North America 6 (1), 31-52	42	1984
Prizes and pitfalls of computerized searching for new words for dictionaries DK Barnhart Dictionaries: Journal of the Dictionary Society of North America 7 (1), 253-260	40	1985
What are the uses of theoretical lexicography? A Wierzbicka Dictionaries: Journal of the Dictionary Society of North America 14 (1), 44-78	34	1992
The best of British and American lexicography G Stein Dictionaries: Journal of the Dictionary Society of North America 1 (1), 1-23	32	1979
Some thoughts about neologisms before starting BDNE IV RK Barnhart Dictionaries: Journal of the Dictionary Society of North America 16 (1), 51-64	28	1995
Systemic lexicography as a basis of dictionary-making JD Apresjan Dictionaries: Journal of the Dictionary Society of North America 14 (1), 79-87	28	1992
Retrieving ergative verbs from a lexical data base T Fontenelle, J Vanandroye Dictionaries: Journal of the Dictionary Society of North America 11 (1), 11-39	28	1989

Figure 7: Top 15 most cited articles from *Dictionaries*

http://lexikos.journals.ac.za; https://doi.org/10.5788/33-1-1803 (Article)

International Journal of Lexicography

FOLLOW

publisher: Oxford University Press
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Lexicography

TITLE	CITED BY	YEAR
Introduction to WordNet: An on-line lexical database GA Miller, R Beckwith, C Fellbaum, D Gross, KJ Miller International journal of lexicography 3 (4), 235-244	7352	1990
Background to framenet CJ Fillmore, CR Johnson, MRL Petruck International journal of lexicography 16 (3), 235-250	1173	2003
Word families L Bauer, P Nation International journal of Lexicography 6 (4), 253-279	1022	1993
Nouns in WordNet: a lexical inheritance system GA Miller International journal of Lexicography 3 (4), 245-264	495	1990
English verbs as a semantic net C Fellbaum International journal of Lexicography 3 (4), 278-301	486	1990
Lexicographers' dreams in the electronic-dictionary age GM de Schryver International Journal of Lexicography 16 (2), 143-199	432	2003
The structure of the FrameNet database CF Baker, CJ Fillmore, B Cronin International Journal of Lexicography 16 (3), 281-296	301	2003
Comparable or parallel corpora? W Teubert International journal of lexicography 9 (3), 238-264	301	1996
Putting frequencies in the dictionary A Kilgarriff International Journal of Lexicography 10 (2), 135-155	280	1997
Monitoring dictionary use BTS Atkins, K Varantola International Journal of Lexicography 10 (1), 1-45	276	1997
SIMPLE: A general framework for the development of multilingual lexicons A Lenci, N Bel, F Busa, N Calzolari, E Gola, M Monachini, A Ogonowski, ... International Journal of Lexicography 13 (4), 249-263	259	2000
The structure of the collocational dictionary M Benson International Journal of Lexicography 2 (1), 1-14	251	1989
Collocations and general-purpose dictionaries M Benson International Journal of Lexicography 3 (1), 23-34	237	1990
A study of dictionary use by international students at a British university H Nesi, R Haill International journal of Lexicography 15 (4), 277-305	236	2002
Co-occurrence and antonymy C Fellbaum International journal of lexicography 8 (4), 281-303	231	1995

Figure 8: Top 15 most cited articles from *IJL*

http://lexikos.journals.ac.za; https://doi.org/10.5788/33-1-1803 (Article)

Lexikos

publisher: Bureau of the WAT
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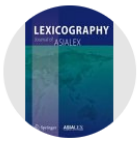
Lexicography

FOLLOW

TITLE	CITED BY	YEAR
Theoretical challenges to practical specialised lexicography S Tarp Lexikos 10	127	2000
Reflections on lexicographical user research S Tarp Lexikos 19	125	2009
The effect of lexicographical information costs on dictionary making S Nielsen Lexikos 18	95	2008
Multimodal lexicography: The representation of meaning in electronic dictionaries R Lew Lexikos 20, 290-306	79	2010
Do dictionary users really look up frequent words? — On the overestimation of the value of corpus-based lexicography GM de Schryver, D Joffe, P Joffe, S Hillewaert Lexikos 16, 67-83	79	2006
Bilingual dictionaries and communicative equivalence for a multilingual society RH Gouws Lexikos 6, 14-31	79	1996
What is lexicography? H Bergenholtz, RH Gouws Lexikos 22, 31-42	72	2012
Lexicography in the information age S Tarp Lexikos 17	71	2007
User-oriented understanding of descriptive, proscriptive and prescriptive lexicography H Bergenholtz Lexikos 13	65	2003
Basic problems of learner's lexicography S Tarp Lexikos 14	61	2004
Outer texts in bilingual dictionaries R Gouws Lexikos 14	60	2004
Cross-referencing as a Lexicographic Device RH Gouws, DJ Prinsloo Lexikos 8, 17-36	60	1998
How dictionary users choose senses in bilingual dictionary entries: An eye-tracking study R Lew, M Grzelak, M Leszkowicz Lexikos 23, 228-254	59	2013
Needs-adapted data presentation in e-information tools H Bergenholtz, TJD Bothma Lexikos 21	54	2011
Pedagogical lexicography: Towards a new and strict typology corresponding to the present state-of-the-art S Tarp Lexikos 21	52	2011

Figure 9: Top 15 most cited articles from *Lexikos*

http://lexikos.journals.ac.za; https://doi.org/10.5788/33-1-1803 (Article)



Lexicography: Journal of ASIALEX

FOLLOW

publishers: Springer (2014-2020) & Equinox Publishing (2021-)
Verified email at UGent.be - Homepage

Lexicography

TITLE	CITED BY	YEAR
The Sketch Engine: ten years on A Kilgarriff, V Baisa, J Bušta, M Jakubíček, V Kovář, J Michelfeit, P Rychlý, ... Lexicography 1 (1), 7-36	3021	2014
Maintaining the balance between knowledge and the lexicon in terminology: a methodology based on frame semantics MC L'Homme Lexicography 4 (1), 3-21	31	2018
Lacunarity, lexicography and beyond: integration of the introduction of a linguo-cultural concept and the development of L2 learners' dictionary skills J Szerszunowicz Lexicography 2 (1), 101-118	28	2015
Towards improved coverage of Southeast Asian Englishes in the *Oxford English Dictionary* D Salazar Lexicography 1 (1), 95-108	21	2014
Phraseology in specialized resources: An approach to complex nominals M Cabezas-García, P Faber Lexicography 5 (1), 55-83	19	2018
Assessing dictionary skills MC Campoy-Cubillo Lexicography 2 (1), 119-141	19	2015
An analysis of the smartphone dictionary app market C Winestock, Y Jeong Lexicography 1 (1), 109-119	17	2014
Improving the consistency of usage labelling in dictionaries with tei lex-0 A Salgado, R Costa, T Tasovac Lexicography 6 (2), 133-156	14	2019
Searching for extended units of meaning—and what to do when you find them M Rundell Lexicography 5 (1), 5-21	14	2018
A study of English majors in a Chinese university as dictionary users J Ding Lexicography 2 (1), 5-34	14	2015
Developing a dictionary culture through integrated dictionary pedagogy in the outer texts of South African school dictionaries: the case of Oxford Bilingual School Dictionary ... D Nkomo Lexicography 2 (1), 71-99	12	2015
A course in dictionary use for Korean EFL teachers S Bae Lexicography 2 (1), 45-69	12	2015
The impact of E-dictionary strategy training on EFL class T Koyama Lexicography 2 (1), 35-44	10	2015
Expanding the notion of addressing relations RH Gouws Lexicography 1 (2), 159-184	9	2014
Frame-based terminology applied to military science: transforming a glossary into a knowledge resource P Faber, P León-Araúz Lexicography 6 (2), 105-131	8	2019

Figure 10: Top 15 most cited articles from *Lexicography*[6]

http://lexikos.journals.ac.za; https://doi.org/10.5788/33-1-1803 (Article)

5. *Elexifinder*: A tool with the potential to browse all of the world's metalexicographic publications

The worldwide annual metalexicographic output includes much more than the published congress papers and journal articles mentioned in Sections 3 and 4, as the scientific output of our discipline is also found in several other journals, monographs and book series, edited collections, festschrifts, as well as manuals and handbooks — all of these with either a narrow focus on lexicography, or linguistics in general; written in English, as well as many other languages. How will future students of lexicography, dictionary makers and metalexicographers navigate this wealth of data? A good candidate is *Elexifinder*, a prototype discovery portal for lexicographic literature produced by the Elexis project,[7] designed and described by Kosem and Lindemann (2021). With currently just over 6,500 articles and books in the second iteration of *Elexifinder*, this is a good start.[8]

In order to illustrate what *Elexifinder* can currently do, let us return to (some of) the metalexicographic output of Sue Atkins. *Elexifinder* 2 contains metadata and pointers to 18 of the articles she (co-)wrote — clearly an incomplete set. By way of example, Figure 11 displays the co-authors for those 18 articles. Figure 12 shows the automatically generated 'tag cloud' from those 18 articles, where the most salient keywords are (correctly) 'frame' and 'FrameNet', 'transitive' and 'intransitive' uses of the 'verbs' 'cook' ('*cuire*' in 'French') and 'bake' (used in Atkins et al. 2003), the 'database' 'DANTE' (Atkins et al. 2010, Rundell and Atkins 2011) which was used for an 'Irish' 'bilingual' (Convery et al. 2010), 'lexicographic' 'training' and her colleague 'Kilgarriff'. This is clearly an impressive 'fit', all the more so that each of those tags are clickable, and leads to the relevant article abstracts and when in open access the full texts.

Figure 13 shows the concept graph for the same 18 articles, where concepts that frequently co-occur are connected, but this view is less impressive; for one would have expected to see the concept 'virtual dictionary' there (Atkins 1996). Searching for 'virtual dictionary' in the entire database, however, does reveal a number of relevant studies that have referred to the original concept by Sue Atkins, as seen in Figure 14, but surprisingly not to the initial publication itself (Atkins 1996), which is in the database.

While all of the previous wizardry of *Elexifinder* could still be achieved by mostly automated ways, Figure 15 illustrates the result of the painstaking effort undertaken by David Lindemann to assign categories and subcategories to each and every publication in the database.[9] Here, 5.84% of the articles by Sue Atkins (covered in the database) deal with 'dictionary use', 3.55% with the subcategory 'user profile', and finally 2.03% of all terms assigned to articles by Sue Atkins deal with the sub-sub-category 'native speaker'. Needless to say, all these labels and pie sections are again clickable. As an illustration, clicking on the 'native speaker' slice in Figure 15 reveals what is displayed in Figure 16. Therefore, despite the fact that metalexicographers will have to master more

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material than ever in future, tools such as *Elexifinder* will indeed help them to find and discover earlier research in a user-friendly way.

Figure 11: List of authors for articles (co-)written by Sue Atkins in *Elexifinder 2*

Figure 12: Tag cloud of top keywords extracted from articles by Sue Atkins in *Elexifinder* 2

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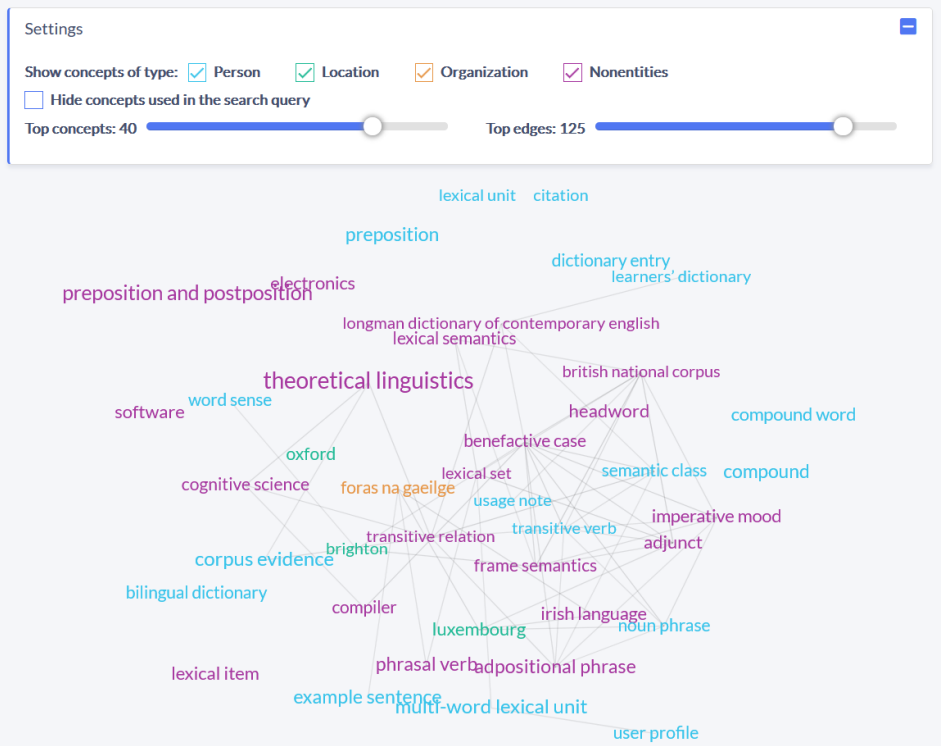


Figure 13: Concept graph extracted from articles by Sue Atkins in *Elexifinder* 2

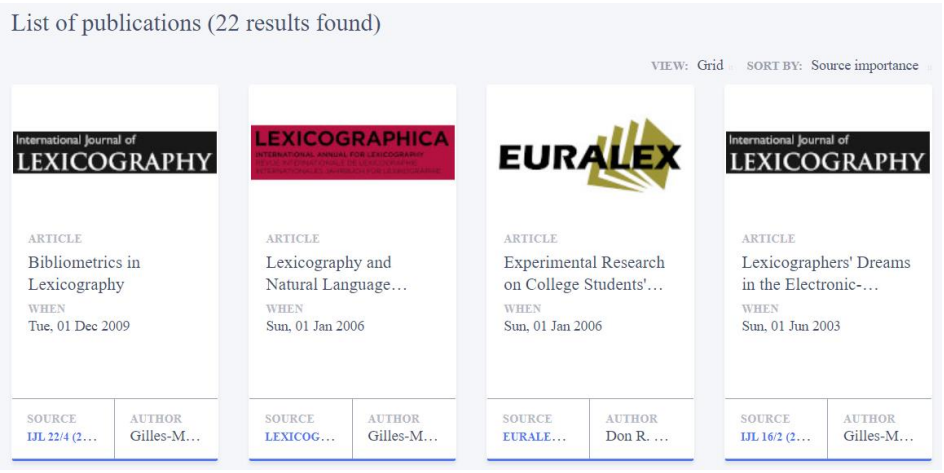
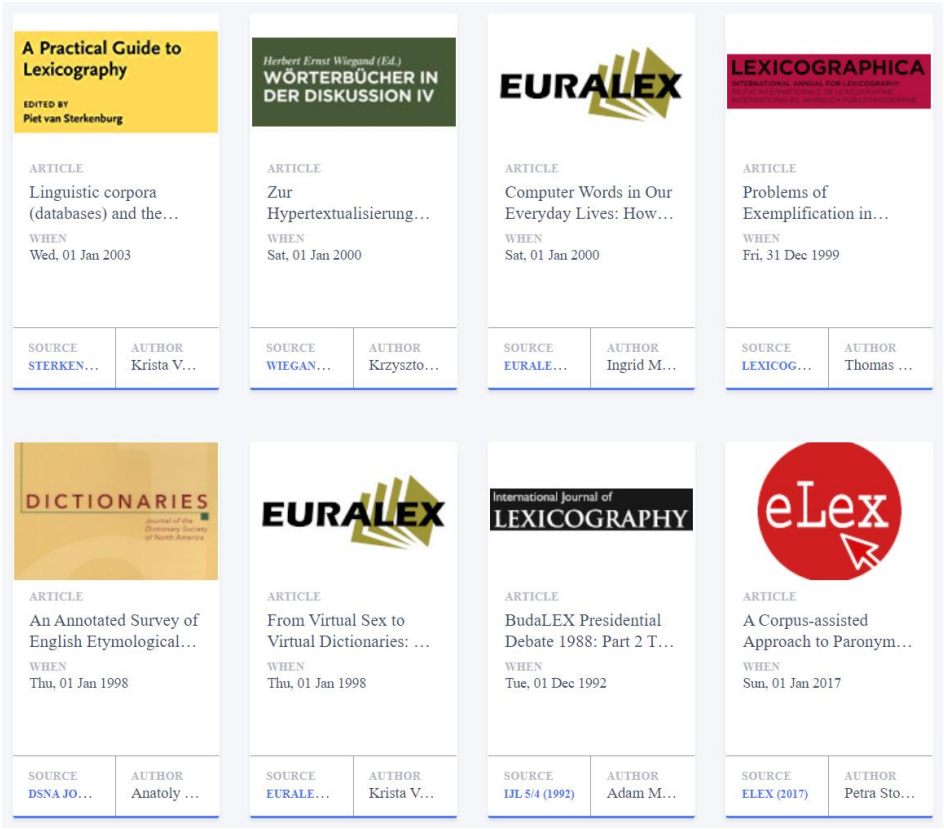


Figure 14 *[first row]*: List of publications with the concept 'virtual dictionary' in *Elexifinder* 2

http://lexikos.journals.ac.za; https://doi.org/10.5788/33-1-1803 (Article)



[truncated]

Figure 14 *[continued]*: List of publications with the concept 'virtual dictionary' in *Elexifinder* 2

http://lexikos.journals.ac.za; https://doi.org/10.5788/33-1-1803 (Article)

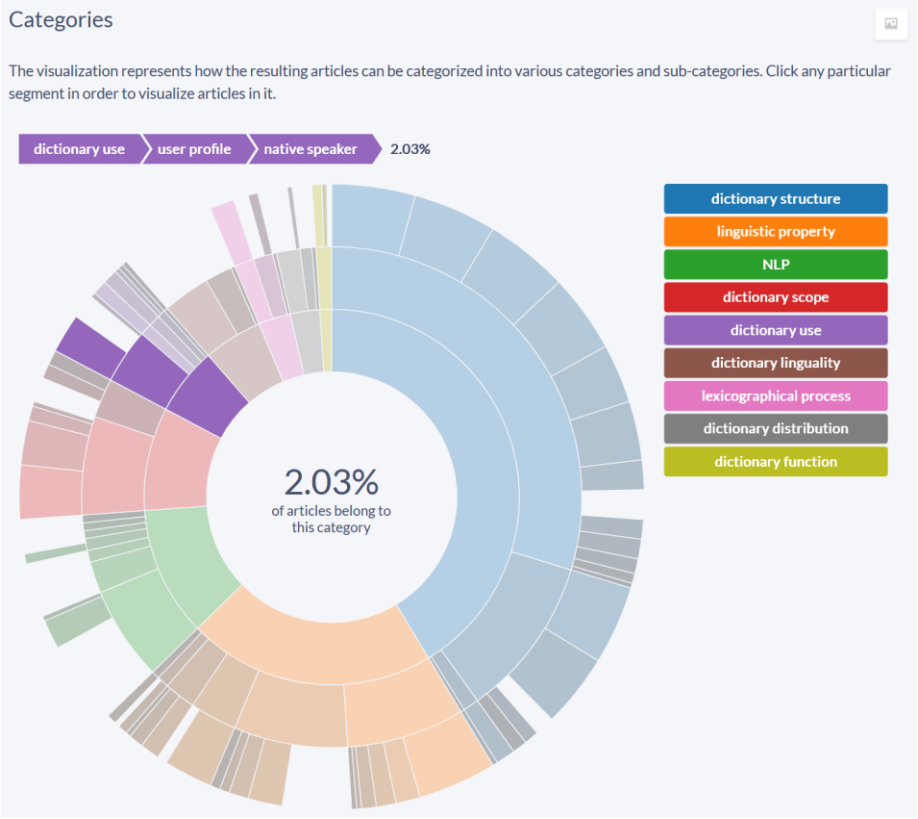


Figure 15: Categorization for articles by Sue Atkins (zooming in on user profiling for native speakers during dictionary use) in *Elexifinder* 2

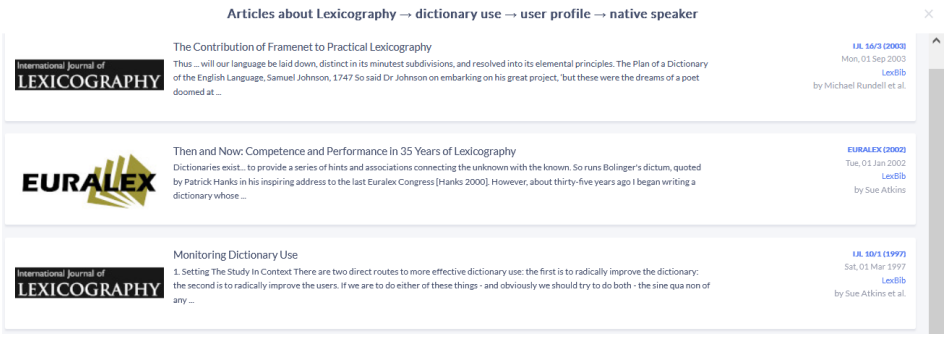


Figure 16: Articles by Sue Atkins on 'Lexicography > dictionary use > user profile > native speaker' in *Elexifinder* 2 [truncated here]

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6. Discussion and conclusion

Colleagues have thought about, and then spoken and written about, the future of the dictionary and/or the future of (meta)lexicography before, but in very uneven ways. This may be illustrated with a search in our database of lexicographic publications.[10] A representative sample of what was found, organised into six categories (I to VI), is listed on pages 158-159. The list contains 34 contributions, and to assign each to one of the six categories, they were first judged on whether their predictions about the future were on the whole either practice-inspired, theory-oriented or data-driven, and second whether they were mostly about lexicography or metalexicography. Each contribution was thus assigned to just one of the cells of the three-by-two matrix shown in the centre of Table 8, even though some could arguably have been put in several cells. The raw counts are also expressed as percentages.

Table 8: Distribution of articles and talks on the future of our discipline

	Practice-inspired	Theory-oriented	Data-driven	
Lexicography	**Ia.** (specific) 11 (32%) **Ib.** (general) 9 (26%)	**III.** 3 (9%)	**V.** 3 (9%)	*76%*
Metalexicography	**II.** 3 (9%)	**IV.** 4 (12%)	**VI.** 1 (3%)	*24%*
	68%	*21%*	*12%*	

As one may deduce from the data, when lexicographers talk about the future of our discipline they mostly do so based on their own experience in practical lexicography, and their suggestions concern new types of dictionaries or dictionary features, either focused on certain languages and regions, or limited to certain fields and topics (cat. Ia: 11 contributions, 32%). The next category is when they use their own experience to make more general claims, supposedly valid for all dictionaries (cat. Ib: 9 contributions, 26%). A small number of colleagues also departs from their own practice to make wider, metalexicographic claims (cat. II: 3 contributions, 9%). In all, two-thirds (68%) of all work on the future is thus rooted in the lexicographic practice.

The next group, good for two-fifths of the total (21%), is when colleagues depart from theoretical concepts to make predictions about the future. These concern dictionaries proper (cat. III: 3 contributions, 9%), or they concern meta-levels such as the interaction between language policy and dictionary-making (cat. IV: 4 contributions, 12%).

The last group is the smallest, with just a tenth (12%) of the contributions, and concerns those studies where large quantities of data are processed, with which various trend lines are drawn, and from which extrapolations are made to predict the future. These extrapolations either concern lexicography proper (cat. V: 3 contributions, 9%) or metalexicography (cat. VI: 1 contribution, 3%).

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I. Practice-inspired predictions about the future of lexicography

Ia. Specific (language or region; field or topic)

Language or region

- Gove (1972) English Dictionaries of the Future
- Schäfer (1984) The History of Ideas and Cross-referencing in the Future *Early Modern English Dictionary*
- Hoftijzer (1995) The Present and Future of the Dictionary of the Northwest-Semitic Epigraphy
- McSparran (2002) The Middle English Compendium: Past, Present, Future
- Nkomo and Wababa (2013) IsiXhosa Lexicography: Past, Present and Future
- Prinsloo (2019) A Perspective on the Past, Present and Future of Lexicography with Specific Reference to Africa

Field or topic

- Sobkowiak (1994) Beyond the Year 2000: Phonetic-access Dictionaries
- Nesi (1996) Review Article: For Future Reference? Current English Learners' Dictionaries in Electronic Form
- Leech and Nesi (1999) Moving Towards Perfection: The Learners' (Electronic) Dictionary of the Future
- Kwary (2010) Access Routes of Internet Finance Dictionaries: Present Solutions and Future Opportunities
- Liberman (2015) The Future of Etymological Dictionaries

Ib. General

- Kay (1983) The Dictionary of the Future and the Future of the Dictionary
- Abate (1985) Dictionaries Past & Future: Issues and Prospects
- Bailey (1986) Dictionaries of the Next Century
- Crystal (1986) The Ideal Dictionary, Lexicographer and User
- Dodd (1989) Lexicomputing and the Dictionary of the Future
- Zaenen (2002) Musings about the Impossible Electronic Dictionary
- Rundell (2007) The Dictionary of the Future
- De Schryver et al. (2019a) An Overview of Digital Lexicography and Directions for Its Future
- Ogilvie (2021) The Future of Dictionaries and Lexicography

II. Practice-inspired predictions about the future of metalexicography

- Atkins (1996) Bilingual Dictionaries: Past, Present and Future
- De Schryver (2003) Lexicographers' Dreams in the Electronic-Dictionary Age
- Hanks (2018) Phraseology, Meaning, and the Future of Lexicography

III. Theory-oriented predictions about the future of lexicography

- Zgusta (1991) Probable Future Developments in Lexicography
- Steurs et al. (2020) The Future of Academic Lexicography
- Gouws and Prinsloo (2021) Lexicographic Data Boxes, Part 3: Aspects of Data Boxes in Bilingual Dictionaries and a Perspective on Current and Future Data Boxes

http://lexikos.journals.ac.za; https://doi.org/10.5788/33-1-1803 (Article)

IV. Theory-oriented predictions about the future of metalexicography

- Tarp and Gouws (2008) A Lexicographic Approach to Language Policy and Recommendations for Future Dictionaries
- Alberts (2011) National Lexicography Units: Past, Present, Future
- Tarp (2012) Online Dictionaries: Today and Tomorrow
- Nielsen (2013) The Future of Dictionaries, Dictionaries of the Future

V. Data-driven predictions about the future of lexicography

- Grefenstette (1998) The Future of Linguistics and Lexicographers
- Lew and De Schryver (2014) Dictionary Users in the Digital Revolution
- De Schryver (2023) The Future of the Dictionary

VI. Data-driven predictions about the future of metalexicography

- De Schryver (2019b) Past, Present and Future in Asian Lexicography

Viewed in another direction, three-quarters (76%) of all contributions on the future concern lexicography, while just one-quarter (24%) concern metalexicography. Within the latter group, the data-driven approach is not only the smallest (with a single contribution),[11] but also the newest, as it was introduced at ASIALEX 2019, where making 'data-driven predictions about the future of metalexicography' was termed 'meta-metalexicography':

> In meta-metalexicography (i) a bird's eye view is taken of (ii) the scientific research devoted to (iii) the compilation of dictionaries. Level (iii) is known as lexicography, levels (ii-iii) as metalexicography, and levels (i-ii-iii) is therefore 'meta-metalexicography' (De Schryver 2019a).

One may thus conclude that all colleagues, when making predictions about the future of our field, somehow base their claims on facts, mainly observed and internalised (practice), or derive them during thought experiments (theory). The base for the resulting claims is not always made explicit, however. When the predictions are data-driven, that base is the starting point, so a given. This, then, also differentiates the present contribution from all but one of the earlier studies, as all provided predictions about the future of metalexicography are based on *extrapolations* of quantifiable data (see Tables 2 through 8, and Figures 2 through 16). Making predictions based on assumed continuations of trends seen in the material of the past half century has the advantage that one is able to say *why* (as *how*) the predictions were made. It has, admittedly, the disadvantage of being 'less sexy' as one is not freewheeling, thinking out of the box, dreaming so to say, as was done in a number of earlier studies on the future of lexicography (Atkins 1996, Zaenen 2002, De Schryver et al. 2019a).

The metalexicographic output has indeed been impressive: from a handful of conferences before 1971 (most noteworthy the *Indiana University Conference on Lexicography* in 1960) to well over a hundred continental ones during the past

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half century; from conference proceedings in the single digits (the proceedings of the 1960 conference first appeared as Householder and Saporta (1962)) to over 3,000 published conference papers since then (De Schryver 2019b); and from a few dozen (meta)lexicographic articles to over 10,000 today. Starting in 2011, eLex conferences began to be streamed online and the presentations stored in the cloud, a practice now copied (initially out of pandemic-necessity in 2021) by all other continental associations a decade later. All this material is generating ever more citations (so one has to conclude that it *is* also consulted, and not (all) written in vain). Overall, the papers published in the ASIALEX proceedings, for instance, generated about 1,000 citations so far,[12] while the four main lexicographic journals aggregated well over 36,500 citations to date (see Table 6).

Metalexicography is therefore not really going through an existential crisis, as provocatively opined by De Schryver (2022), although the slow pace of some publication channels as well as the realisation that a considerable amount of what we write does not even attract a single citation is certainly food for thought. Lastly, GLOBALEX should take up an even bigger role than is currently the case, in order to achieve a better mix of novel ideas and a healthy exchange of the practices used on other continents, for languages other than Indo-European ones. A current English bias is undeniable, and to the speakers and lexicographers working on this language, it would be advisable to read up on the challenges and solutions devised elsewhere, say in North America (e.g., Spence 2021), in South America (e.g., Dietrich 2014), in Africa (e.g., De Schryver 2010), in Europe and North Asia for its endangered languages (e.g., Salminen 2022), in Central Asia (e.g., Hill and Garrett 2017), in Southeast Asia (e.g., Bradley 2015), further east in Asia (e.g., Tono 2022), or finally in Australia and the Pacific (e.g., Thieberger 2015). At that point, and with all this cross-fertilisation — which is bound to result in more original dictionaries, smarter conference papers and journal articles, and even better data for metalexicographic studies — there is a good chance that we will be able to reach the next level: the metalexicographic mesosphere.

Endnotes

1. Available at https://www.youtube.com/watch?v=dZck6jUP-Hw.
2. There was actually just one person to do so, the author of the present contribution.
3. The recordings were initially only available to the EURALEX 2020>2021 congress participants at https://portalapp.artion.eventsair.com/VirtualAttendeePortal/euralex-2021/onair/, but EURALEX board members Iztok Kosem and G.-M. de Schryver took charge, and transferred the data to the more permanent VideoLectures.net.
4. These Google Scholar profiles are available at the following locations:
   - *Dictionaries*: https://scholar.google.com/citations?user=8sqTJ6gAAAAJ
   - IJL: https://scholar.google.com/citations?user=fXZcyNQAAAAJ
   - *Lexikos*: https://scholar.google.com/citations?user=G14hyzcAAAAJ
   - *Lexicography*: https://scholar.google.com/citations?user=cLVrkSEAAAAJ

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5. See De Schryver (2022: 198, note 3) for a wider perspective on this issue.
6. Recall that Google Scholar over-counts the top article published in the journal *Lexicography*, as it fails to differentiate between Kilgarriff et al. (2014), which it should include, and Kilgarriff et al. (2004), which it should not include here. The true count here should be about 1,600.
7. Available at https://finder.elex.is/intelligence.
8. For comparison, the present author's private electronic corpus of lexicographic publications contains about 10,000 articles and books. An earlier version was used and described in Lew and De Schryver (2014).
9. For more on the *Elexifinder* categories, see https://lexbib.elex.is/wiki/LexVoc.
10. See Endnote 8.
11. It is tempting to add other metalexicographical data-driven studies here, but on closer inspection they stopped short of also predicting the future. These include the comparative analyses of the journals IJL, *Dictionaries* and *Lexikos* in De Schryver (2009a), the dedicated studies of two of these journals: *Lexikos* in De Schryver (2009b) and IJL in De Schryver (2012b), as well as an analysis of the first thirty years of EURALEX congress proceedings in De Schryver (2012a).
12. See the Google Scholar profile for the ASIALEX conference proceedings (part of the supporting data of De Schryver (2019b)): https://scholar.google.com/citations?user=tJy_3GQAAAAJ.

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