



European Federation of National Institutions for Language

Tõnu Tender / Ludwig M. Eichinger (eds.)

Language and Economy

Language industries
in a Multilingual Europe

PRELIMINARY VERSION

Contributions to the EFNIL Conference 2019 in Tallinn

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Preface

This volume contains the talks given at the 17th annual Conference of EFNIL that took place in Tallinn/Estonia on 9th-11th October 2019. The conference was a cooperation between the Institute of the Estonian Language, the Estonian Language Council, the Ministry of Education and Research, the Tallinn City Government, the Mother Tongue Society and the European Commission Directorate General for Translation (DGT) and EFNIL.

In the contributions presented at the conference, the topic “language and economy” was accentuated in different ways.

In the first article in this volume, which is based on the key-note lecture at the conference, it is understood in terms of the economic weight of a language or of languages. In this paper, the question of the economic weight of languages is being discussed primarily on the basis of the importance of English worldwide.

Even if the considerations of the connection between economic benefit and language use shape the tenor of the first part of this book, they are correlated with reflections on an economical, i.e. efficient and appropriate, use of language and its correlation with economic factors. The papers in the first chapter of this book deal with the systematic integration of the economists’ view into the discourse on language(s) and the efficient use of the human capital “Language” in a modern European society as well as the practical consequences in the growing field of language industries.

This last aspect, language industries, addressed in the subtitle of the conference refers to the practical challenges of multilingual interaction and opens up quite a lot of specific queries. One of the most obvious consequences of managing multilingual structures is the necessity of professional translation and interpretation, which is dealt with in the second chapter of this book. The question of a solution to these issues – for instance in the institutions of the EU – undoubtedly has an economic side; such a solution offers economic opportunities and is the object of cost-benefit calculations.

The next part is about the benefits of knowing and using several languages in a multilingual setting (and the limitations of certain linguistic skills). Examples are given of whether and where several languages are used efficiently and with economic advantage.

An aspect that has become more and more visible in the last few years is dealt with in the papers on plain or easy language as another means of economical communication. The fact that misunderstandings are reduced by the use of easy language also produces economic benefits. The papers in this section show how questions of economics and democratic concepts of inclusion and diversity overlap.

The documentation of the topics of this conference ends with papers on the development of language technology and its use in multilingual settings. The contributions here show that digitization on the one hand makes the work of language documentation and cross-linguistic collaboration much more economical if not possible at all. On the other hand, the economic significance of developments of language technology, their economic usability, is quite obvious and is documented in this part of the publication.

The documentation of the annual conferences of EFNIL is at the same time a kind of yearbook for EFNIL. It is in this context that the newest results of EFNIL's most longstanding project, the European Language Monitor (ELM), are documented in this volume. In a parallel survey in the various European countries, data on language policy and language planning are collected and thus made comparable by this project. In this volume, the results of the fourth of the rounds of interviews conducted since 2004 are presented.

I thank Helen Heaney, Joachim Hohwieler, Tõnu Tender for their help with the production of this volume.

Ludwig M. Eichinger

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Opening

Johan Van Hoorde

Introduction

Dear Minister of Education and Research of the Republic of Estonia,
Dear Commissioner-designate of the European Commission,
Dear dignitaries and guests,
Dear EFNIL colleagues,
Ladies and gentlemen,

It is with great pleasure and some nervousness that I stand here before you to welcome you to this 17th conference organised by EFNIL, the European Federation of National Institutions for Language. EFNIL is the platform for collaboration and the exchange of ideas and practices concerning the official languages of the various countries in Europe, both EU and non-EU members.

As I said, it is with a sense of nervous tension and stress that I stand here as President of EFNIL for the very first time. I myself am surprised that I dared to follow in the footsteps of my distinguished predecessor Professor Gerhard Stickel, who had led EFNIL following its creation in 2003. We are glad to have Gerhard amongst us again in his new capacity as Honorary President, to which he was nominated last year. As non-native speakers of English – or perhaps I should say as native speakers of offshore English – we intend this title to mean *président honoraire*, *président d'honneur*, that is, as an honorific title signalling his great merits. Welcome, Gerhard, we are glad to have you with us.

Stress, yes, but positive feelings still prevail. It is a great pleasure and even a privilege to stand here and welcome the political dignitaries of our host country, Estonia, of the designated European Commission and a former member of the European Parliament. We are happy that this conference has piqued their interest. This interest is of great importance to us, since we have an ambition to put our expertise as language planners and experts to the service of our societies and more particularly to the service of the European project of collaboration and harmonious co-existence between the nations of this continent, in full respect of their diversity. This collaboration implies interaction between peoples and nations and such interaction cannot exist without language – or “without languages”, as I should say. It is from this language perspective that we look at Europe and try to identify ways to contribute to the overall goal. Therefore I thank our special political guests for their beautiful, encouraging words.

Thank you Ms Reps, Ms Simson and Mr Kelam for your nice, encouraging words, as representatives of the Estonian government, the new European Commission, and the European parliament, but also as important political actors belonging to Estonia and the Estonian language community. According to the Dutch Wikipedia pages, even with its relatively small language community of slightly over 1 million speakers, Estonian is one of the European languages which can be considered fully fledged i.e. a language that is used in all sectors and domains of human activity, e.g. in legislation and government, jurisdiction, education, literature, media, leisure and so on. Estonian is the state language of Estonia and since it became a member of the EU, it has also been a member of EFNIL. We are grateful to be here as guests in your country and happy to see that your language is lively and present and one of the official languages of the EU. As we know, none of this is self-evident, for reasons that are closely connected with the history of the 20th century.

Palju tänu, minister Reps, Euroopa volinik Simson ning Europarlamendi endine liige härra Kelam, kaunite ning sütitavate sõnade eest!

Hollandi-keelse vikipeedia järgi on eesti keel üks väiksema kõnelejaskonnaga täieõiguslikke keeli Euroopas, mida kasutatakse kõigis eluvaldkondades: õigustsüsteemis, halduses, hariduses, kirjanduses, meedias ja nii edasi. Eesti keel on Eesti riigikeel, Eesti ühinemisel Euroopa Liiduga ka liidu ametlik keel. Eesti on EFNIL-i liige.

Oleme tänulikud, et saame Eesti külalistena siin viibida. Näeme ja kuuleme rõõmuga, et teie keel on elujõuline ning kuulub ELi ametlike keelte hulka. Nagu me teame, pole see kõik nii enesest-mõistetav põhjustel, mis on tihedalt seotud lähiajalooga.

Ladies and gentlemen, please allow me to return to English.

I am also grateful that I can welcome you all to the beautiful town of Tallinn. The city centre as a whole is a UNESCO world cultural heritage site and rightly so. I hope that you will have the occasion to visit Tallinn and to fully admire its beauty. Passing the historic walls and walking through the streets in the very heart of Tallinn creates an awareness of the history of Europe and of how our present is linked with our past. Tallinn was one of the cities that were members of the Hanseatic League, an important commercial and defensive confederation of merchant guilds and market towns in north-western and central Europe. As such, the Hanse can be seen as an early example of economic co-operation on an international scale. It can be considered a predecessor of the European Union, especially in its economic and trading aspirations. Thus Tallinn is without doubt an ideal location for our conference about language and the economy.

The relationship between these two entities is not a simple one-to-one relationship, and certainly not of a mono-directional nature. We can distinguish various ways in which language and economy intertwine or influence one another.

First of all, language is itself a scarce and quantifiable resource, one that can be and is subject to cost-benefit considerations, that is, choices, processes and dynamics which can truly be considered as belonging to the realm of the economy. For this reason we can speak about the economy of languages and of language economics to refer to the scientific study of these processes. This is certainly an aspect that will be discussed in the course of this conference.

Language is also the base material of various groups of professionals and businesses making their money from language services. These groups include language teachers and trainers, copy-writers, correctors, editors, translators, interpreters and developers of specific language tools. These professions can truly be considered as belonging to an overall language sector, which should be considered an economic sector in its own right. In many countries, there is an increasing awareness of the economic value of this language sector or “industry”. In the Dutch language area, it was my own institution which published the first survey of the sector, which showed that language professionals are active in almost all sectors and branches of our economy. It would be a good idea if there were comparable surveys in other countries and language areas, in order to gain a better understanding of the sector on a European scale.

Another important aspect for this conference within the context of Europe is multilingualism, the acquisition and use of foreign language skills. Needless to say, Europe is a multilingual socio-cultural space and market. In order to be successful in this context, institutions and businesses need to address the language issue. This is part of what is called localisation. In order to conquer markets and to convince consumers, one literally has to speak the consumer’s language. From a socio-political point of view, the challenge is to find a good balance between the need for the mobility of persons and goods in a single European geopolitical and economic space and the need for social cohesion and the integrity of the languages, cultures and countries which constitute the linguistic and cultural patchwork called Europe.

The programme of this conference will allow us to discuss all these aspects and many more. There is also one horizontal aspect I want to mention explicitly, an aspect that permeates and conditions the themes of all the sessions. This aspect has to do with differences in power, opportunities and prestige. It is self-evident that the power and prestige of languages are closely connected with the economic – and, of course, also the political and, to a certain extent, the military – power of the language area and countries in question. That I am speaking English here in Tallinn to you as an audience with almost no native speakers provides good evidence for all of this. The social, political and economic conditions of countries and regions constitute socio-economic ecologies and these can be favourable or unfavourable to particular languages. The papers will cover a variety of these ecologies from north to south, east to west, with differences in size and different traditions. There’s also the overall European perspective represented by the lan-

guage services of the European Commission, for which the trade-off between the efficiency and cost-effectiveness of their services on the one hand and respect for the equal dignity and visibility of all of its official languages on the other constitutes a major challenge.

These are the issues which will be covered in this conference. Ladies and gentlemen, let me now finish this brief introductory sketch. I hope and trust that this conference will stimulate your own ways of thinking about language and its economic impact and that this will help you to be successful with your core business at home. If we succeed in this, EFNIL will have accomplished its mission.

Now it is time to start the real work and explore the depth and details of our conference topic. I am delighted to introduce Professor Florian Coulmas, who will link economic theory and the diffusion of languages. Professor Coulmas is considered one of the foremost authorities on the subject of language and economy, and is indeed one of the fathers of the discipline. The first edition of his book *Die Wirtschaft mit der Sprache* and its English version, *Language and economy*, date back to 1992. This book discusses the many ways in which language and economy interact and how linguistic conditions facilitate or obstruct the economic process. For this reason he is the ideal speaker to open our conference.

Key note speech

Florian Coulmas

Economic theory and the diffusion of languages¹

Abstract

Since Adam Smith, economists have taken an interest in various aspects of language. Reviewing some of the resulting models, this paper addresses the question as to whether economic theories can explain the diffusion of languages. To this end, it looks at various areas where, in the course of the past half century or so, language has become an object of economic interest, including, in particular, political economy, decolonisation and migration, development, globalisation and trade, commodification, human capital, and languages as means of exchange. In connection with the last point it discusses whether economic concepts such as ‘value’, ‘network effects’ and ‘externality’ can have more than a metaphorical meaning when applied to language.

1. Introduction

When, in the 1960s, Jacob Marschak published a paper on an optimal communication system entitled *The economics of language*, Adam Smith’s 1759 *Considerations concerning the first formation of languages* of two centuries earlier had been largely forgotten and Marschak felt obliged to apologise to his fellow economists who might be opposed to the “identification of economics with the search of optimality in fields extending beyond [...] the production and distribution of marketable goods” (Marschak 1965, 136). Clearly, languages were not then considered marketable goods, and applying the instruments of economics to language was worth an apology.

When I published my book *Language and economy* almost 30 years later, which was largely ignored by economists, I forgot to apologise. That was a mistake, especially vis-à-vis linguists, many of whom felt that I owed them an apology for reducing something as lofty as language to calculations of cost and benefit. Many linguists criticised the utilitarian view of language that they attributed to me, although studies on the economic utility of languages had already started a turnaround, most notably in Canada (Renouvin 1989). Slowly the idea that language utility hinges upon optimisation mechanisms that make languages work as they do gained acceptance among economists (e.g. Rubinstein 2000).

¹ Preliminary versions of this paper were presented at the conference “Language at Work”, Tarragona, 7 June 2018, Universitat Rovira i Virgili, Facultat de Gestió d’Empreses, and at the 17th Annual EFNIL Conference, “Language and Economy: Language Industries in a Multilingual Europe”, Tallin, 9-11 October 2019.

When Michele Gazzola, François Grin and Bengt-Arne Wickström published their *Bibliography of language economics* in 2015, it comprised some 46 pages with several hundred titles. The 2017 bibliography by Renata Coray and Alexandre Duchêne lists more than 600 titles on language and work alone. Obviously, something had changed. Language had become a legitimate object of economic research and linguists – hardly all of them, but some – had become aware that such research does not equate to a profanation of language. On the contrary, economic studies began to be undertaken with the express purpose of demonstrating the advantages of multilingualism, developing models of sustaining minority languages and examining possibilities of language commodification. The 2016 publication of Victor Ginsburgh and Shlomo Weber's *Handbook of economics and language* was another milestone. "Handbook" is rather a high-sounding title for this collection of articles, which is full of interesting contributions but cannot claim systematic coverage. However, the fact that a reputable publishing house has lent its name to such an endeavour is indicative of the fact that language and economy is no longer just a curious conjunction but a proper field of inquiry that can contribute to our understanding of the world.

The question I want to address in this paper is which, if any, economic model or theories can help to explain the distribution of languages in the world. In order to approach this question, in the remainder of this paper I will briefly review the principal areas in which economists have taken an interest in language, namely political economy, decolonisation and migration, development, globalisation and trade, commodification, human capital, public goods and means of exchange.

2 Political economy

In the 1960s, when Canada was threatened with being broken apart by the deepening rift between the Anglophone majority and the Francophone minority, serious study began of the economic aspects of this division. The wage gap between Anglophones and Francophones was examined (Christofides/Swidinsky 1998; Albouy 2008) and attempts began to be made to weigh the monetary cost of official bilingualism against the benefits of national unity (Pepin 1970; Desgagné/Vaillancourt 2016). One of the reasons why Canada played a pioneering role in paving the way for further studies on the economics of language was that in this country two highly developed and prestigious European languages were in competition. Indigenous languages in the colonies were not usually – from a European point of view – regarded as threats to the dominant status of the official colonial language. The inequality of languages was taken for granted. In Canada, however, the emerging imbalance between two European languages of seemingly equal rank was unexpected, prompting research into economic correlates of linguistic inequities.

3. Decolonisation

A related source of interest in language for economists was decolonisation. The languages of former colonial governments proved to be a lasting legacy, which gave rise to examining the advantages and disadvantages (benefits and costs) of employing various languages for various purposes. An indigenous language acquiring official status in a newly independent country was exceptional and even where it happened, as with Swahili in Tanzania and Kenya and Malay/Indonesian in Malaysia and Indonesia, the former colonial languages continued to play an important role. From a linguistic point of view, all languages are traditionally considered equally valuable realisations of the human capacity for language; however, from a sociological point of view, this tenet cannot be upheld. Rather, the evident disparities in the social valuation of languages is the very point of departure for the sociology of languages. One of its principal topics is language-based discrimination, which often correlates with economic inequality.

To date, the predominance of former colonial languages continues. Outside Europe, there are 64 countries where English enjoys official status, 35 where French is an, or the, official language, 22 Spanish-speaking countries and 9 Portuguese-speaking ones (Table 1).

Language	Number of countries where it has official status	Number of speakers (L1 + L2)
English	64	1.39 billion
French	35	229 million
Arabic	26	422 million
Spanish	22	661 million
Portuguese	9	229 million
German	6	129 million
Italian	4	87 million
Malay (incl. Indonesian)	4	281 million
Russian	4	267 million
Swahili	4	107 million
Chinese	3	1.15 billion
Hindi/Urdu	3	544 million

Table 1: The predominance of former colonial languages. Word Tips (<https://word.tips/100-most-spoken-languages/>), Nations Online (www.nationsonline.org/oneworld/most_spoken_%20languages.htm), various sources

While the worldwide preponderance of European languages is a direct consequence of European expansion, decolonisation also brought in its train increased demographic movements from South to North and with it the linguistic diversification of Western countries. This happened at a time when, as a consequence of the national revolutions that had changed the politics and society of nineteenth-century Europe, both economic activity and language had become firmly associated with the nation state. Since nationalism made itself felt in economics and in linguistics alike, it is not surprising that, a century later, when the prevalent economic order came under pressure from globalisation, the linguistic world order predicated on the privileged status of national languages also came under pressure, and the economics of multilingualism became topical (Grin 1997). The proponents of European colonialism and imperialism never anticipated the multilingualisation of the mother countries (metropolises) brought about by the flow back of migrants from the colonies to Europe.

4. Development

In conjunction with decolonisation, promoting capitalist economic organisation in what was termed the developing world became a major concern of Western governments, stimulating much research into how to achieve this, the political purpose being to prevent newly independent countries from drifting into the orbit of the communist bloc. Although it has been argued that “language is one of the most neglected areas in the development field” (Kaplan 2012), there are obvious and important connections between the linguistic and economic situations of developing countries. Education is one. By using a European language for education, law and government, they maintain connections with and facilitate access to more advanced countries, which is in some ways economically beneficial. At the same time, such a language policy helps entrench elites in power and raises the hurdle for the general population to acquire knowledge. Imparting general and higher education in multiple languages involves additional cost, is hard to implement and may work against fostering cohesion in a national population.

The tension that arises from these opposing positions poses a formidable problem for policy decision making, and the problem does not become easier as the repercussions of globalisation make themselves felt in the remotest places on earth. Can language choice be, and has it actually ever been, reduced to a public choice problem? Are there any examples where a public choice approach has been executed successfully?

The most convincing case I can think of is Singapore. Founding prime minister of Singapore, Lee Kuan Yew, who had been involved in education policy prior to independence, was keenly aware of the divisive potential of language. He once stated that “language has nothing to do with race [‘race’ being the term for what nowadays is commonly called ‘ethnicity’, FC]. You are not born with a language.

you learn it” (Lee 2009). Lee Kuan Yew encouraged the people of Singapore to embrace such a sober, decidedly non-nationalistic attitude to language, which, however, is an exception rather than the rule.

5. Globalisation and trade

The “unprecedented globality” (Beck 1997) that characterises our age has many faces, not all of which are relevant to the topic at hand. One that is relevant is that markets are increasingly less controlled nationally. Karl Polanyi proposed and developed the idea that economic activities are “embedded” in other social institutions. Since the 19th century, the principal structure into which markets are embedded has been the nation state. The forces that we now summarily refer to as globalisation have undermined this framework. As states become more reliant on international financial markets for raising capital, the embeddedness of markets in nation states is being turned on its head: states are gradually being embedded in global markets.

These developments are redefining the relationship between economy and politics. Global, regional and transnational structures and institutions are gaining importance at the expense of the nation state. Since the “national language”, however ill-defined, was a loadbearing pillar of the linguistic world order throughout the 19th and 20th centuries, these transformations could not but have consequences for language, too.

English as a second language, the principal language of the principal world power driving globalisation forward since the end of the Second World War, has shed off the garb of a national language in favour of that of a truly global language not restricted to diplomacy and scholarship. Many Brits still call English “our national language”, which is not surprising, but it has become more than that. It is both a result and an instrument of globalisation which, for the time being, has no competitor in this function. English also exemplifies two other tendencies concomitant to globalisation: destandardisation and “winner takes all”.

English is no longer the language of the English or of the Americans or of the Australians, etc. Many Englishes coexist, perhaps in a prestige hierarchy, but in such a way that whatever institutions Anglophone countries would employ to regulate its evolution have lost control to multinational companies, such as Google and Microsoft.

As an electoral system, the winner-takes-all principle is the opposite of proportional representation and, in economics, it means that only one competitor survives, taking one hundred per cent of the profit a new industry or market offers. Similarly, various measures in support of other languages notwithstanding, as the international lingua franca English has outclassed all competitors. Regional and international organisations such as the UN, EU and AU, among others, have several official languages but at their informal and, increasingly also at their

formal, meetings people end up speaking English – as do the participants of EFNIL Conferences.

Attentive researchers, such as Jacques Maurais and Michael A. Morris, saw it coming early. Most of the chapters of their 2001 book, *Géostratégies des langues* – English translation: “Languages in a Globalising World” – take issue with English because it is involved in most of the rearrangements taking place in the communication patterns of individuals, groups, nations and international institutions. In the same year, de Swaan (2001, 17) posited English as to be the sole “hypercentral language that holds the entire world language system together”. Others followed suit, for example, Blomaert (2010) and Smakman and Heinrich (2015), helping to establish the sociolinguistics of globalisation as a new research domain.

Among the various developments summarily referred to as globalisation, trade occupies a central position. The exchange of goods and services involves transaction costs comprised, among others, of transportation charges, legal fees, information costs (e.g. market research) and communication costs. Language barriers obviously contribute to the latter and have, therefore, been the subject of a number of studies, for example about the benefits of adopting a common corporate language (Marschan-Piekkari/Welch/Welch 1999; Piekkari 2006) and, conversely, about the economic advantages of bilingualism (Canadian Heritage 2016) and the value of language skills for business (Hogan-Brun 2017). Considering the market potential of multilingualism once again leads to the problem of the inequality of languages that has been framed variously as balancing the opposing requirements of efficiency and fairness (Berthoud/Grin/Lüdi 2013) or of national cohesiveness and the disenfranchisement of minor speech communities (Ginsburgh/Weber 2011).

One meta-study of language effects on trade based on an analysis of 81 academic articles on the subject concluded that, on average, a common (official or spoken) language increases trade flows by as much as 44% (Egger/Lassmann 2011). This is a figure well worth considering when choosing trading partners and when analysing trade flows.

Conflicts between efficiency and fairness are universal, although their relative prominence as a policy issue varies considerably across countries.

6. Commodification

Foreign language teaching and learning, once the prerogative of a small elite of intellectuals and, it should be added, merchants, has become a sizeable industry. In 1989, Bertrand Renouvin, though a staunch royalist well aware of what counts in the age of consumer capitalism, introduced a new topic in the debate about language celebrating the “utilité économique et commerciale de la langue française”. It was an attempt to present a ship previously known for its elegance

and glittering lights as a powerful tug boat. However, the newly styled vessel could not compete with the juggernaut which ploughed the seas reaching new destinations on all five continents. “English: A world commodity” announced the Economist Intelligence Unit (McCallen 1989) with rather more credibility than Renouvin’s report of the same year.

These two statements made it clear for everyone to see that in the age of neo-liberalism, languages have been added to the long list of commodities for which there is a market that offers commercial opportunities to various suppliers. Since the late 1980s, many studies have been undertaken about the supply and demand of goods and services sold in the language market; about the size of the market in terms of revenues, number of language workers employed and clients (Statista 2018); and marketing languages (ICEF 2015). Network effects (Coulmas 1991; De Swaan 2001) were recognised as determining the competitiveness of individual languages, the crucial variable being not L1 but L2 speakers.

A market for systematic foreign language teaching exists for a few select languages only. Even languages with tens or hundreds of millions of L1 speakers have no more than a negligible presence in the foreign language market as long as the size of that community’s economy – measured by GDP or GDP per capita – remains below a certain level. The questions as to what that level is and how it interacts with the size of the L1 speaker community remain unanswered to date. Foreign language education was, for a long time, and still is, in many parts of the world, limited to a handful of European languages.

McCallen (1989, 117) concludes the Economist Intelligence Unit report on English stating that

[t]he reality of the situation appears to be that English has become a commodity and one which has developed into a very large and frequently lucrative international market. The competition for the market is hotting up.

By that he meant that providers outside English L1 countries were pushing onto the market, importing as well as exporting English. He saw this as a threat to the UK and feared that “the removal of trade barriers within the EC in 1992 will [...] hasten this possibility” (McCallen 1989, 117).

Nowadays, no one doubts that in a utility ranking of the languages of the world, English comes out on top. However, the foreign language market has diversified and the commodification of language is no longer confined to a few European languages. What is true of markets in general also holds for the language market. Markets are dynamic structures whereby parties engage in exchange. As suppliers exit and enter the market with new products and services, it changes. The language market is no exception.

With due apologies for citing my own work, which I only do because I know of no other that makes the same point, let me refer to the linguistic situation of East Asia in the 1980s. A paper about “The Surge of Japanese” concludes that

[d]uring the past two decades the study of Japanese has been transformed from a somewhat exotic scholarly pursuit into the acquisition of a practical skill with economic utility. The importance of the study of the language as a means of practical rather than literary communication has become increasingly evident as Japan has emerged as an economic superpower. (Coulmas 1989, 129)

Ever since, the number of people outside Japan studying Japanese has continued to rise, especially in Asia. Research indicates that from 2009 to 2012, the number of Chinese students of Japanese alone rose by 26.5 percent, to a record 1.04 million (Japan Times 2013).

Compare this with a recent report about Chinese as a foreign language:

The study of Chinese as a foreign language has become one of the world's largest language learning markets in just 10 years of exponential growth. Kick-started in 2004 by the launch of the Confucius Institute programme, which aims to promote understanding of Chinese language and culture around the globe, the sector has seen rapid expansion both at home and abroad. (Heron 2016)

Comparing these two cases of Japanese and Chinese is doubly interesting. First, while the authors of the studies cited refrain from making claims about causality, the co-occurrence of Japan's economic rise first and then, a generation later, China's with the growing appreciation of Japanese and Chinese is hard to overlook. Economic power *is* a factor in promoting the use of a language, although other factors, such as, and specifically, cultural importance are often foregrounded by the "owners" of the language in question. However, it would be hard to argue that the historical importance of Japanese and Chinese culture has increased significantly in the course of the past three or four decades. Rather, the presence of both countries in global markets has brought the study of their languages out of the corner of arcane scholarship. Secondly, for a long time, the Chinese and Japanese writing systems were regarded as a serious impediment to modernisation and economic success, and as the principal reason why these languages had no place in the foreign language market.

For a market of goods and services to exist, there must be a demand for these goods and services, or so the naïve novice would think. Marketing, after all, is the art of creating a demand for your product. And rather than protesting against the neoliberal socioeconomic system that turns everything into a commodity, it is to marketing that language activists have turned as a strategy to sustain declining languages. For instance, promoting "the valorization of 'authentic' local francophone dialects" (Heller et al. 2016, 183) is part of a strategy for building a cultural economy in Acadia, Canada once again setting the pace.

Whether marketing minority languages/varieties/dialects as a tourist attraction will have the desired effect of sustaining them or will reinforce their image of backwardness and thus help to accelerate their demise remains to be seen (Moring

2014; Muth/Del Percio 2018). Such efforts will, if only marginally, raise awareness for the plight of minority languages but will not turn them into significant components of human capital.

7. Human capital

For certain occupations, language skills are required and in the labour market, language competence can be an asset that finds expression in wage differentials between language groups. These and other observations prompted conceptualising language skills as human capital (cf. Schroedler 2018 for an overview). Language has economic value but not all languages are equally valuable economically. Research has shown that it is beneficial for speakers of minority languages to learn and use the dominant language. For them, this has positive effects on their earnings and the “economic well-being is enhanced when members of a group communicate in the same language” (Grenier 2015).

In recognition of this fact, target countries of mass immigration tend to adopt policies that offer, reward or insist on the acquisition of the dominant language. Research findings to the effect that linguistic distance between immigrants’ languages and the target country’s dominant language has a negative effect on immigrants’ earnings lend further support to the implementation of such policies (Ispohrding/Otten 2011).

In the age of neoliberal consumer capitalism, the utility of languages finds expression in the market value of language skills. One way of measuring the value differences between languages is by looking at language competition in a market examining which language(s) people spend time and money acquiring (Wiese 2015). This may be the world market, where no investment offers a greater return than studying English as a foreign or second language, or it may be national or regional markets, where national, local, indigenous and migrant minority languages may form valuable components of human capital that have a positive effect on employment opportunities and earnings.

The economic value of languages differs greatly, which has to do with network effects, where a language is spoken and how wealthy and powerful its primary speech community is. As human capital, languages have value for the individual who has to make a living. What are the earning benefits associated with acquiring a second language? This is an empirical question to be investigated case by case.

At the same time, languages have non-pecuniary values associated with culture, tradition, ancestry and group membership, etc. This kind of symbolic value is hard to quantify but when it comes to decide on language policies, it has to be taken into account and weighed against the pecuniary market value of language skills.

8. Public good

One way of approaching the symbolic value of language is by conceptualising language as a public good, which nobody owns and which serves everyone in like manner. Language shares with other public goods, such as clean air and flood control systems, the elements of non-excludability and non-rivalry. Everyone can join and consumption – i.e. using it – does not diminish supply.

Because a common language is regarded as a public good, governments claim a mandate to provide public services in and for the dominant language, as in schools, educational publishing, language academies, etc. The cost incurred for these services is typically justified as benefitting the welfare of the nation. Providing services in other languages in addition to the national language increases fiscal costs. Whether government expenditures should be increased by providing services in minority languages is a question that must be answered on a case-by-case basis taking into account other policy goals, such as social harmony and overall satisfaction with life as well as externalities, such as civil unrest because of language discrimination that may threaten the national state.

A further complication comes into play when we open the horizon beyond the nation state. Globalisation has lent credence to the notion that there are public goods for all humanity, notably with regard to environmental issues and responsibility for the planet. Rightly or wrongly, linguistic diversity has been likened to biodiversity which, it is widely agreed, is worth protecting. On the basis of this analogy, linguistic diversity, too, is thought to have value and be worth protecting, although it has not been possible to assess this value in calculable terms.

On a global and on a national scale it is unrealistic to reduce the problem of sustaining languages as public goods to the calculation of financial costs and benefits. For languages are not only marketable commodities and elements of human capital, but many other things that make it difficult to look at them through the lens of marketisation only. In recent years, attempts have been made in other branches of economic theory to integrate immeasurable factors in model building.

In particular, “Identity Economics” as introduced by Akerlof and Kranton (2010) represents a step in this direction. Neoclassical economics assumes that rational actors are guided by the principle of efficiency understood as the optimal usage of the available resources in order to *maximise* individual utility. However, there is plenty of evidence that people often deviate in their behaviour from the path of efficiency optimisation as they follow traditional norms, act in accordance with what they consider proper, enact social roles and insist on other acquired preferences. Subsumed under the umbrella term ‘identity’ (Coulmas 2019), these tendencies interfere with efficiency and, hence, affect people’s economic lives.

If the imperative of efficiency were categorical we would all speak one language. Evidently this is not so, and identity economics goes some way to explaining why.

9. Means of exchange

I want to mention one more way of conceiving of language that could also be relevant to our understanding of the distribution of languages in the world: language as a means of exchange.

Under the auspices of Neoliberalism, everything that can be owned can be marketed. Even means of exchange, once thought only to facilitate exchange, have become commodities, money and, of late, crypto currencies. So why not the most fundamental means of exchange of all, language?! As we have seen above, languages have been commodified and their market value very much depends on their utility as a means of exchange.

English has often been compared to the US dollar, and for good reason. Our age is marked by the world language English as much as by the world currency USD. This is not a very original idea which I could lay claim to. In a 1967 article, economic historian Charles Kindleberger put it simply: “The dollar ‘talks,’ and English is the ‘coin’ of international communication” (Kindleberger 1967, 8).

The essay which I took this quote from is really about the author’s defence of the US dollar as an international currency, which met with considerable criticism as being nationalistic. Kindleberger rejected this censure, pointing out that “a common second language is efficient, rather than nationalist or imperialist” (ibid.). Pointing to the utility of the dollar, he argued, involved positive rather than normative economics. (For ‘positive’ read ‘positivistic’.)

This argument is reminiscent of the discussion about who benefits – and perhaps unfairly so – from English as the international language of science and business (e.g. Canagarajah 1999).

Clearly a believer in the free market, Kindleberger opined that the dominant position of the dollar at the centre of international monetary arrangements benefits all and, moreover, “is not the work of men but of circumstances” (ibid., 10). By analogy, and he makes the point explicitly, circumstances brought English to the top of the world language system, while all attempts at installing a deliberately created language in that position failed, Esperanto, for example.

But is this really so? Quasi-natural “circumstances”? This is much like Trickle Down Economics that says benefits for the wealthy (tax cuts) will trickle down to everyone else. If this is so at all, benefits for the wealthy have not reduced disparities between rich and poor. On the contrary, disparities between individuals, on the national level, and between advanced and developing countries, in the world system, have only increased (World Inequality Lab 2017).

Institutions such as the British Council and US Aid, not to mention the power to force English down dominated peoples’ throats in colonial times, played no role in the diffusion of this language? This would seem hard to defend. With Marx’s old adage we can say that “men *make their own history*, but they do not make it as they please”. Obviously, it wasn’t God Almighty or Nature that instated Eng-

lish in its present position at the apex of the international hierarchy of languages, and it may not remain there forever. Against the background of recent political developments – notably Brexit –the question has already been raised: “Have we reached peak English in the world?” (Ostler 2018).



Fig. 1: 新渡戸 稲造 Inazo Nitobe, 1862-1933, Undersecretary League of Nations 1920-1927 and leading Esperantist depicted on a Japanese 5000 Yen note

Kindleberger’s essay appeared during the final phase of the Bretton Woods fixed exchange rate system that culminated in the suspension of the convertibility of the dollar into gold. Yet, in the new floating system, the US dollar remained at the centre of the world currency system. He pointed out that rearrangements were necessary and that “it is important that rates of interest in the international capital market be determined internationally, on the basis of conditions in *Europe* and *Japan*, as well as in the *United States*” (Kindleberger 1967, 7, emphasis added). China wasn’t even mentioned in a footnote.

A mere half century later, in 2016, the Chinese Renminbi (yuan) became one of the world’s reserve currencies. The Special Drawing Rights (SDR) reserve basket of the International Monetary Fund is now composed of 41.73 percent for the U.S. dollar, 30.93 percent for the Euro, 10.92 percent for the Chinese yuan, 8.33 percent for the Japanese yen, and 8.09 percent for the Pound sterling, thus a bigger share for the Chinese currency than for Japanese yen and Pound sterling.

Marketwatch.com (18 Jan., 2018) of the Dow Jones Media Group asks: “Could China’s yuan replace the dollar as a reserve currency?” Just a decade ago, the very question would have made people laugh; nowadays the fact that it is being discussed in earnest is a cogent reminder of how transitory some of the things are that we take for granted.

“Could Chinese replace English as the language of international communication?” Many people will find this question equally laughable but is it beyond imagination? Supported by some economists, the man and woman in the (Western) street will justify their incredulity with efficiency arguments, pointing to the writing system: Chinese is so cumbersome. Nobody can learn it. Which, of course, is just

language ideology. In Japan, literacy rates have been on a par with Western countries for several generations and China has achieved comparable levels too. In connection with China's emergent superpower status, Lo Bianco (2007, 5) speaks of a "phenomenal expansion in the teaching and learning of Chinese".

In short, we are dealing with volatile systems. A half a century is not a long time but long enough to refrain from making predictions. What will be the Renminbi's role, what that of Chinese in 2070? We can contemplate these questions and try to develop models that include the relevant variables but no responsible scholar would make any predictions. There are just too many imponderables.

By way of concluding this section, let me draw your attention to one more factor that strikes me as particularly interesting, local means of exchange.

Language endangerment has been a topical subject of discussion and research for some time but national languages have, so far, not driven out local languages. Many minority languages, dialects and local varieties continue to be used on a local level. Likewise, national currencies have not, so far, driven out local currencies. Consider, just briefly, the numbers (Table 2). Like the languages of the world comprise more than the national languages officially recognised as such, the currencies of the world comprise more than those recognised as legal tender.

As is well-known, languages are difficult if not impossible to count. Counting currencies isn't much easier, although, partly at least, for different reasons.

Counting languages is an exercise in vagueness as they merge into each other and cannot be separated without a measure of arbitrariness. This is why nowadays linguists speak of "named languages". This doesn't solve the problem of counting, though, as the same idiom may be a language here and a dialect there, like Picard, which Belgium grants language status but France considers a dialect or patois.

The principal difficulty of counting local currencies is that there are many which nobody knows anything about. They are used locally only and, literally, nobody else's business. What is more, like shadow banks, they are unregulated financial intermediaries that facilitate the creation of credit and as such may straddle the boundary line between what is legal and what is illegal. An additional difficulty is that experts on the subject may not agree on their definitions of "local currency". Various terms are used, whereby it is not clear whether or not they are synonymous, such as, for instance, "off-the-book loan", "Bank Acceptance Note", "collective credit support", "scrip", "IOU (I owe you) note", among others.

Because of these and other imprecisions, we have to make do with estimates, both with regard to languages and currencies. It is incontrovertible that languages and currencies outnumber *officially recognised* languages and currencies by a large measure. How large? By a factor of 30, or so. Interestingly, and this is why it may be enlightening to investigate this parallel in greater depth, this is roughly the same order of magnitude. The rough-and-ready number of languages in the world currently cited is 7,000 while the largest estimate of alternative currencies in the world I found exceeds 6,000 (Sobiecki 2016).

Sovereign states recognised by the UN	197
Languages with official status	207
Currencies recognised as legal tender	180
Languages of the world	approx. 7000
Local/alternative currencies	approx. 6000

Table 2: Number of official languages and legal currencies compared with the number of languages and currencies

Different means of exchange coexist in a hierarchy, fulfilling different functions. Local languages and local currencies are characterised by a limited range, where the limits in terms of numbers of users is both fate and design. The main purpose is community protection, that is, to prevent the drying up of monetary and cultural capital. The advantage, imagined or real, is community integration, the drawback, insularity.

The challenge for scholarship is to find out how advantages and disadvantages can be balanced to achieve a beneficial division of labour between the various means of exchange that together constitute the system.

In financial economics, the “Theory of Optimum Currency Areas”, first developed in the 1960s (Mundell 1961), tries to determine the factors that, in combination, make for an optimum currency area. It argues, for example, that a country can join a currency union if the benefits for its economy of doing so outweigh the cost of forsaking an exchange rate mechanism as an instrument of adjustment. It predicts that in the absence of exchange rate adjustments in response to a crisis, adjustments in capital and labour must be possible in order to avert negative effects such as unemployment.

This theory last received considerable attention when the Euro was brought into existence in 1999. Immediately before that happened, economist Milton Friedman argued that

Europe exemplifies a situation unfavourable to a common currency. It is composed of separate nations, speaking different languages, with different customs, and having citizens feeling far greater loyalty and attachment to their own country than to a common market or to the idea of Europe. (Milton Friedman, *The Times*, 19 November 1997)

Rather than just considering efficiency, Friedman, a hard-core neoliberal economist, talks about nations, languages and customs. That’s interesting. If these “soft” criteria play a role in determining an optimum *currency* area, it is fair to assume that with regard to an optimum language area – if there is such a thing – utility, that is, communication efficiency is not the only aspect that needs to be

taken into consideration. If increasing efficacy is a driving force at all, it is modulated by other wants, for instance, distinction, tradition, solidarity, belonging, inertia and path dependence, as well as political, religious and cultural allegiances.

What is more, there is no clean slate. The equality of languages is an abstraction far removed from reality. Languages exist in a hierarchical order, which at any given point in time exercises an influence on how language arrangements are maintained and changed.

10. Concluding remarks

Let me return to my original question: “Which, if any, economic model or theories can help explain the distribution of languages in the world?”. We can split this up into two questions:

- Can the distribution of languages in the world be explained in terms of economic incentives, forces/exigencies?
- Is there an economic theory that explains the distribution of languages in the world?

The answer to the first question is “Yes” in the sense that economic forces have an influence on shaping the linguistic map of the world and that these forces and activities can be identified. However, the answer to the second question is “No”.

We have seen that the Theory of Political Economy looks at language in various fields and from various points of view: as a legacy of colonialism; as an asset for, or impediment to, economic development; as an influence on trade flows; as a commodity, human capital and as a public good. And finally, we have looked at language as a means of exchange that shares several properties with another important means of exchange, money.

The discussion has shown that, by themselves, these theories and factors can elucidate various economic aspects of language but none of them can comprehensively account for the distribution of languages in the world, and it is doubtful whether, taken together, they can provide such an explanation. Languages have utility, constitute a value, can be marketed as commodities, form a component of human capital and function as a means of exchange. These are not just economic metaphors but genuine economic properties of language. However, even in our age of efficiency maximisation and marketisation, countervailing ideological forces temper economic imperatives such as the principle of least effort, competitiveness and economies of scale.

As long as we do not have an economic theory that can exhaustively explain human history, we will not have a general integrated economic theory of the global distribution of languages because there are too many economic aspects of language, none of which seems to be subsidiary to efficiency optimisation.

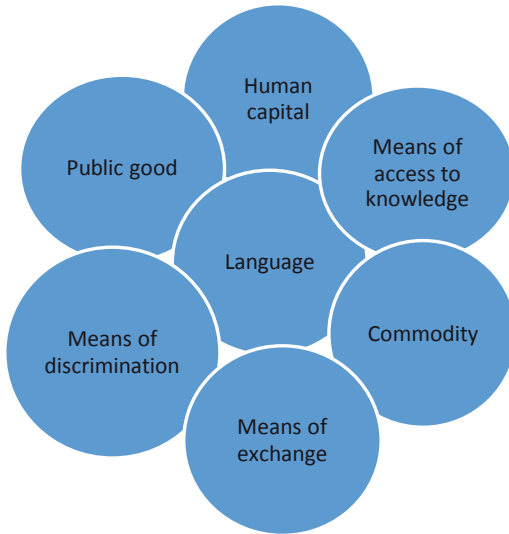


Fig. 2: Language can be analysed in terms of any of the six phenomena depicted above, which constitute interconnected parts of the economic system

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Language economy

Frieda Steurs

Language is business. The challenges of a single digital market in a multilingual society

Abstract

Our current society is strongly internationalized by modern means of transport, the globalization of markets and the use of digital tools. In such an internationally oriented society, it is clear that anybody who is more or less proficient in just one language, their own mother tongue, is excluded from a huge amount of information, from understanding other cultures and from a wider world view. “Die Grenzen meiner Sprache bedeuten die Grenze meiner Welt”,¹ we are told by Wittgenstein. In this lecture I will briefly discuss the added value of multilingualism, its economic factors in our modern globalized world and the business community’s attitude towards multilingualism. I will conclude with some figures regarding the language industry in the European Union that show that the market demands many motivated specialists in the field of applied linguistics. How do we make the language sector more attractive to young people?

1. Introduction

Until recently, language studies were mostly associated with the learning of a language or the study of its literature. At most universities, the philological approach to language would be highly traditional in character. In recent years, however, the emphasis has clearly shifted to communication in all its facets. The flourishing of courses that approach language from a more economic viewpoint also testifies to this. In this context, ‘economic viewpoint’ refers to the market, the national market in the first place but also, inextricably bound up with it, the European market and finally on other continents as well. Examples of these courses are studies in communication management, translation and interpreting, multilingual communication, translation technology and computational linguistics, etc.

Apart from that, there are quite a few social developments that are contributing to a new perspective on language:

- The fast evolution of science and technology, leading to the emergence of countless new concepts, represented by terms that each needs their counterparts in various languages.
- The influence and changes caused by rapid technological growth in all areas of our society, creating a need for faster and more reliable information.

¹ “The limits of my language mean the limits of my world”.

- International exchanges as well as political, economic and cultural cooperation, causing an enormous increase in multilingual contacts.
- The mass production of consumer goods, leading to an increasingly global economy, in which businesses need to take into account both the international rules of the game and local markets.

The new term *language industry* refers to these new developments and is a collective term for all kinds of language processes and services. *Industry* here refers to the hard figures: the cost price of language and the price of correct information.

In Flanders and the Netherlands, the Dutch Language Union has carried out research into the economic significance of language. Organizations such as De Taalsector (Flanders) and De Taalstudio (Netherlands) keep their fingers on the pulse of language and the economy.

2. What does the language industry encompass?

A study by the European Commission distinguished between the following broad categories: translation, interpreting, the localization of software and websites, audiovisual translation (subtitling and dubbing of visual materials) and language acquisition through e-learning. We can add to these the development of language technology and the supporting of multilingual conferences.

Technological and non-technological solutions focus on different aspects. On the one hand there are the non-technological solutions, such as translation, interpreting, editing, localization and language acquisition. On the other hand, there are the technological solutions, such as machine translation, computer-aided translation, video conferences with interpreters, multilingual search machines, data-mining (the analysis of large amounts of data) and multilingual terminology banks for specific businesses or disciplines, etc.

The language industry follows economic trends: we are living in a knowledge economy, which is closely connected to the concept of an ‘information society’. Knowledge, data and data processing are of increasing importance in business. The classic division of Western society into different eras of development is well-known: Europe was an agricultural society until the middle of the eighteenth century. Its growing wealth was linked to the agricultural products it produced and traded. After 1750, a totally new process emerged as a result of the industrial revolution. Especially England was at the forefront of this development. Small workshops grew into large factories, which together made up large-scale industry. Because of this growth, the price of products plummeted, making them available to increasing numbers of people. This evolution continued throughout the nineteenth century, first in Europe and later in the rest of the world. At the moment, that development is being brought to an even higher level. We are now seeing an economy in which knowledge as a production factor is increasingly important compared

to the three traditional production factors of labor, resources and capital. Our attention is shifting from diamonds and coal to brains and knowledge. The knowledge economy is spreading to all sectors and appealing to all possible parties.

Anybody who wants to find a job and survive in this knowledge economy must be able to understand complex processes and read fairly complicated instructions and texts.

3. A wealth of markets and economic activities. Applications in the linguistic field required!

In an interview with the highly experienced translation expert Abied Alsulaiman, he described how he ended up in the translation business after university. In the beginning he was sometimes asked to do a translation. After all, his language combination was quite rare: Dutch, Arabic and Hebrew. Soon he was given a lot of work for the court as a sworn translator and in 1993 he set up his own translation bureau. His work is a direct reflection of economic activity in a number of sectors in Belgium. To start with, there is the importance of Antwerp harbor. Apart from import and export, shipping itself involves a lot of translation work, for example the shipping documents. Ships bound for the Arab world must have all of the papers in Arabic as well. A second field is customs, again an aspect of international dealings.

The same goes for the food industry. All Belgian food products exported to the Arab world must have a detailed list of ingredients in Arabic, so translations were done for well-known chocolate brands such as Côte d'Or and Leonidas.

And what about the textile industry? Levi Strauss & Co. is an American clothing company mostly known as the producer of Levi's jeans. It has a branch in Belgium but its factories are in Sousse, in Tunisia. Everything related to work processes, contracts, etc. needs translating. Zara also produces in the Arab world and Marks & Spencer has a factory in Tangiers, in Morocco. So work galore for translators!

In the medical sector, Abied Alsulaiman was approached by Janssen Pharmaceutica in Beerse (Belgium), a prominent and innovative company that develops medicines. Apart from the information on package inserts, he also translated general health information into Arabic. Even didactic films about health needed subtitling in Arabic. Talk about a varied job!

Microsoft made a video on how to use Windows. This was provided with Arabic subtitles. And what about the building industry? Besix is Belgium's largest building company. Its activities include the construction of buildings, infrastructure, environmental projects and roads. In 2014, the company had a turnover of €2 billion and employed 18,000 people in 22 countries spread over 5 continents. Besix has built almost every building in Dubai. In order to become better-known in the Arab world and to penetrate its market, the company made a promotional film and had it subtitled in Arabic.

Language and economy: as soon as the economy in a certain sector improves, multilingual communication and the need for communication specialists automatically follow. But even when the economy is going through a crisis, it is necessary to make investments and to tap new markets. And especially then, good communication and multilingual communication are of vital importance.

4. Another growing industry: tourism. An important economic pillar for many countries

Strong tourist activity is good for the economy, there's no two ways about it. The revenue from tourism and business travel in Flanders is increasing every year, a development with a positive effect on the Flemish economy. In the Netherlands, the evolution of tourism is observed by Holland Marketing. On their website we can read: tourism is not just fun, it is also important for the Netherlands: in 2016, *€75.7 billion* were spent on tourism and recreation. Besides, the hospitality industry provides paid employment to around 590,000 people, or over 6 percent of the working population.

The importance of tourism is shown by the fact that the government uses a specific measuring instrument to monitor its development. A Tourism Satellite Account (TSA) is an internationally recognized instrument to record the economic influence of tourism. The tourist industry is not a well-defined or clearly perceptible economic sector but rather a diverse collection of (parts of) various business sectors. Two indicators reveal the economic importance of tourism: on the one hand the **gross value added of tourism industries**, i.e. the value added generated by tourism services used by both tourists and non-tourists; on the other hand the **direct gross value added of tourism**, i.e. the value added which is generated by tourism services and other business services used by tourists only.

In addition, the impact of international business (MICE: Meetings, Incentives, Conventions and Exhibitions) is also measured. In the Netherlands, over 2.3 million multi-day organized business trips are made, amounting to around 5.1 million nights spent in accommodation. The turnover of multi-day business meetings is estimated at around *€2.3 billion*. These business trips contribute substantially to employment in the Netherlands. At the same time, they have a considerable impact on language and communication processes. That is why more and more professional agencies are employed to organize international congresses. They are often called Convention & Visitors Bureaus and they can provide all the necessary information on a region and its locations, hotels and facilities. The language industry is also heavily involved in the organization of multilingual international congresses, as the European Commission points out. On the website of Holland Marketing we find a great deal of data and interesting information, but not a word

is said about the impact of language on all of these tourist and business activities. How to put a country on the tourist map? How many flyers, websites etc. need translating for target groups? How to draw foreign visitors to the Netherlands or Flanders? The answer to this question is as simple as it is obvious: by communicating in the target languages of the customers you are aiming at. Translating for the tourism industry is a specialism. It calls for a communication strategy as well as good copywriters and content writers, translators and marketers. What sort of texts are translated? Tourist brochures, flyers, websites, travel guides, mailings, newsletters, blogs and other documents in various language combinations.

5. The impact of multilingualism on European business

Internationalization, caused by modern transport, the globalization of markets and the use of digital aids such as the internet, is having a huge impact on society today. As a result, the number of migrants is growing. On the one hand, highly skilled workers are employed in the global economy, causing them to move to other countries. Young students are encouraged to add an international component to their studies by making use of scholarships. On the other hand, many employees with low-level education seek their fortunes in other countries, trying to find a better life by emigrating. In such an internationally oriented society, it is clear that anybody who is more or less proficient in just one language, their own mother tongue, is excluded from a huge amount of information, from understanding other cultures and from a wider world view.

In the following, I will analyze the additional value of multilingualism, challenges in dealing with multilingualism at school, and its effects on the economy. I will also discuss the business community's attitude towards multilingualism, rounding off my contribution with some figures regarding the language industry in the European Union (EU).

Digital society and the globalization of the economy have thoroughly changed European economic activities. Employers and employees are working with and in various languages. Multilingualism should no longer be regarded as a trump card or a bonus point; it is of vital importance for businesses. Digital communication dissolves not only national and regional barriers but also language barriers.

Business in Belgium, a small but labor-intensive and multilingual country in the heart of the EU, is part of a large European market with 27 countries and 24 official languages. Providing multilingual services is a strategic choice to do business on a pan-European level and to optimize competition between businesses.

A study by the Directorate-General for Translation of the EU presents some figures on multilingual business practices in the EU: in 2009, around a third of the 500 largest companies had their headquarters in Europe. Furthermore, around

20 million small and medium-sized companies in Europe represent around 99 percent of the European business sector.

Although the EU represents only 7 percent of the world population, trade with the rest of the world covers about 20 percent of all global imports and exports. With its Gross Domestic Product (GDP) of around US\$ 18.5 billion (2014), the EU economy is a world leader, followed by China, the USA and the other (non-EU) G20 countries

The EU economy is characterized by the increasing importance of its services sector (banking, tourism, transport, insurance, etc.), representing over 60 percent of the GDP. Industry and agriculture are still important sectors but their economic significance has fallen considerably.

The impact of multilingualism on business can hardly be underestimated. Indeed, it has been shown that companies with a lack of multilingual employees lose markets. In her book *Linguanomics* (2017), Gabrielle Hogan-Brunn describes this situation in clear terms: “One in four UK and one in six US businesses is losing out due to lack of language skills and cultural awareness in their workforce”.

6. The language industry. Economic value and growth forecast

Common Sense Advisory is a research firm that does yearly research into the market of the language industry. In their report of 2018 they describe the language services market as rapidly growing with a global turnover of US\$ 46.52 billion.

In their report they refer to the enormous impact of global digital transformation (GDX), its effects on the production of information and adaptation to other languages and local markets. How can a sector such as the language industry be so successful, even during a recession? Very simple. Multilingualism is necessary to let businesses grow and capture new markets. Even in times of financial crisis and economic decline, businesses invest in language and communication. The large translation companies (the so-called Language Service Providers or LSPs) are growing at 20 percent annually, some even at 30 percent.

7. Multilingualism in Europe. What are the strong and weak points?

In a European study of translation and multilingualism, an analysis is made of the strong and weak points of businesses in relation to international trade and multilingualism, as shown in the following table 1.

SWOT	Strong points	Weak points
Internal	<p>Many languages are used (European multilingual space).</p> <p>International policy: many businesses want to serve international markets (multilingual websites).</p> <p>Collaboration with employees who speak foreign languages. Preference is given to multilingual candidates in selection procedures (language tests, ...).</p> <p>Development and use of language technology software (for non-specialized translation, handled by the company itself).</p>	<p>Lack of linguistic knowledge in many countries.</p> <p>Communication problems with customers (different cultures, intercultural problems). For Europe specifically with Asian and Indian customers.</p> <p>Extra costs (translating and interpreting).</p>
External	<p>Opportunities</p> <p>Growth in digital and multilingual information.</p> <p>Increasing number of foreign customers.</p> <p>New educational initiatives.</p> <p>New opportunities (for specialized translation supported by computer-aided translation software and the language industry).</p>	<p>Threats</p> <p>Growing need of linguistic knowledge.</p> <p>Difficulties finding multilingual employees with the right profile.</p> <p>Growing number of employees with low-level education.</p> <p>Loss of markets.</p> <p>Loss of control over the management of multilingual information and diversity.</p>

Table 1: Analysis of the strong and weak points of businesses in relation to international trade and multilingualism

According to the same European report, companies are taking concrete measures to be able to respond better to the multilingualism of markets. These measures may involve the following steps:

- Companies recruit multilingual employees and offer language courses to advance multilingualism. They also encourage employees to work for the company abroad in order to be promoted thanks to international mobility.
- Companies can make a difference on local markets by recruiting locally and signing contracts with local partners.

- The internal communication of a company may improve by organizing multilingual company meetings in several so-called ‘corporate languages’.
- Companies set up an adjusted, multilingual documentation system and a multilingual terminology list in order to develop an internal company language. Digital communication should also be improved. A company’s intranet can be made multilingual; its customer website should be written in clear language *and*, of course, in the languages of its customers.

8. E-commerce. The emerging factor in the economy calls for multilingual websites

E-commerce is booming and online sales numbers are going up every year. The Belgians and Dutch mostly buy services on the internet, such as plane tickets, holidays, hotel bookings and insurance. But concerts are popular as well, as are shops like Bol.com and Zalando. Supermarkets like the Colruyt group and Albert Heijn also have successful web shops. This economic success is the result of good communication: the set-up of the websites and their ease of use but also their multilingualism! The Colruyt website opens with a bilingual screen: Dutch/French, typical of the Belgian market, of course, and users can go to their own language with one click. Everything is completely supported in both languages. Many e-shops give the option to select the language of your choice. At the very least, everything is translated into the languages of the countries where orders can be placed. A European study showed that nine out of ten consumers want to consult a website in their own language.

Dutch *Marktplaats.nl* and Belgian *tweedehands.be* are daughters of eBay, just like the French iBazar. In 2018, eBay had a revenue of US\$ 2.2 billion and it employs approximately 14,000 people globally. But what about the languages? People want to buy and sell in their own language. Linguistic dynamics are of vital importance and the company is not able to keep a check on everything since it does not sell its own goods. Its users are the buyers and sellers. This calls for strict organization behind the scenes in order to guarantee a proper display of the multilingual information. But the greatest challenge for eBay was to operate on the Russian market. How to translate your supply into Russian, knowing that the supply is changing constantly? That is not a job for humans; it can only be done by a smart translation machine. Language technology is of great importance here and leads to big profits. eBay made a one-time investment in technology that cost around US\$ 20 million and now makes an annual profit of between US\$ 50 and 100 million on the Russian market. Language and economics go hand in hand!

9. Models of internal and external communication in business

9.1 Internal communication

Companies often use a specific language strategy to streamline their internal communication. They usually choose one of the following models:

- **Learning languages:** companies can choose to use one or two official languages and make them obligatory. International companies usually opt for French and English (the OECD or NATO, for example).
- **Multilateral translation:** the radical alternative to learning languages is to translate each language used into all other languages used. The best known example of this is the language policy of the European Commission.
- **Translation of a central language into one or two other languages** that are also used within the company.

Complete multilateral translation is quite rare. Usually a combination of learning one or more languages and translation is the preferred solution.

9.2 External communication

Of course, external communication is a different matter altogether. A company that takes its customers and local markets seriously has no choice: all target languages must be taken into account to enable optimal customer acceptance. Companies are well aware of these challenges and obstacles and do everything they can to reach their customers in all languages and all parts of the world. Hanf and Muir (2010) outline the problems as follows: “La diversité linguistique [est] de nature à constituer un obstacle à la libre circulation des personnes, services et marchandises” [Linguistic diversity forms an obstacle to the freedom of movement of people, services and goods].

Multilingual information has another communication target: “For many cultures it is a point of *national and cultural pride* to have service literature translated; translated material is therefore recognized as an important marketing tool”, according to Kamprath and Adolphson, who carried out research into the internal and external communication of the American company Caterpillar. The main activity of Caterpillar Inc., often shortened to CAT, is the design and construction of heavy machinery for civil engineering and mining. An interesting detail is that in 1972, the company developed a special subset of language: *Caterpillar Fundamental English* (CFE). This language was a drastically simplified form of English. It was hoped that all technicians, also in other countries, would use this elementary English. *This was a clear ‘English Only’ language strategy.*

Caterpillar Fundamental English was more or less the same as BASIC English (Ch. K Ogden), the first attempt to present a controlled version of English.

BASIC stood for British, American, Scientific, International & Commercial. The language was limited to 850 words: 100 words denoting action, 600 words denoting things and 150 words denoting quality. Grammatical words are not taken into account.

However, this system was abandoned ten years later. Preference was given to a much richer language, *Caterpillar Technical English* (CTE), containing 70,000 words, but with a terminology that was mapped out clearly and unambiguously. This may seem a lot of words, but it was a deliberate selection from the more than one million terms and words used in communications at Caterpillar at the time.

Basic principles of CTE:

- One term relates to one concept, so one meaning per term
- Clear syntax

This made it possible to translate the source language, English, effortlessly into other target languages. *So the company changed from a monolingual to a multilingual strategy.* Indeed, multilingualism in external communications proved to be absolutely necessary, for technicians and customers alike. At the moment, Caterpillar has a complete website in six languages: English, Chinese, German, French, Spanish and Portuguese. Especially in the case of safety instructions, the use of the customers' own language is crucial. It significantly improves safety.

Unfortunately there are also many known examples of companies suffering losses because of a lack of multilingual and correct communication. The lack of documentation in the language of the users sometimes even leads to tragic errors. In the hospital of Épinal in France, 23 patients received the wrong radiation when they were treated for a tumor. Medical staff had misunderstood the English instructions and delivered too high a dose of radiation. Since insurance claims concerning the lack of correct information in a target language or a wrong translation into a target language are increasingly common, companies will have to pay more attention to the characteristics of each local market and to the multilingualism of their communications.

10. English only? My smartphone speaks Finnish. The secret of localization

However *globalized* the economy, markets are strategically won or lost by the flexibility with which companies adjust to their customers. This is called *localization*. *Glocalization* is the term that denotes both processes. *Globalization* as an economic strategy is partly pursued by the internationalization of products but it cannot do without a second pillar: *localization*, or adaptation to local markets. Localization means translating, intercultural communication and adapting to local situations. It concerns factual data that need changing, such as local currencies, monetary units, units of measurement, dates, safety instructions, etc. Let the following example serve as clarification:

What does the date *11/12/13* mean? The British will interpret this as *11 December 2013*, the Americans as *12 November 2013*, and the Japanese as *13 December 2011*. In this context, also compare the following time indications: *two o'clock in the afternoon* becomes *2 pm (UK)* and *14h (FR)*.

Even within one and the same language, certain adjustments are required, depending on the market. Manuals for the French market should contain different instructions from those in manuals for the Canadian, Swiss or Belgian markets, to give an example. We may conclude that localizing products for foreign markets involves two aspects: adjusting the product itself and adjusting its linguistic and intercultural components. Both are extremely important when convincing customers to buy a product.

This requires great skills from a localization team. Such a team is formed not only of translators and language specialists who know the local markets but also of intercultural communication specialists, local market experts, computer specialists and product developers, etc. Indeed, it has been shown that companies with a lack of multilingual employees lose markets and have more trouble standing up to the competition.

[Localisation is] the linguistic and cultural adaptation of digital content to the requirements and locale of a foreign market, and the provision of services and technologies for the management of multilingualism across the digital global information flow. (Schäler 2007, 157)

In order to represent this schematically, the three concepts can be presented connected to these processes in the following way (see table 2):

	Internationalization	Localization	Globalization
Definition	The process of making all materials functional in all languages with regard to their linguistic and cultural data, regardless of functionality	The adaptation of products, services and digital content to a cultural-linguistic market	The strategy to take a product or a service to the global market. This mostly concerns sales and marketing.
Team	Software developers, writers of digital content	Translators, proofreaders, software developers, project managers, testers, publishers	Marketing and sales departments
Stage	Development and creation of a digital project or service (this is the prerequisite for localization)	Translation and adaptation of text, user interface and cultural conventions	Launching of the product or the service which has been internationalized <i>and</i> localized

Table 2: Concepts connected to processes

10.1 What exactly does localization entail?

It is necessary to distinguish between two kinds of localization: the adaptation and translation of computer software on the one hand, and the adaptation and localization of products and their related information on the other.

10.1.1 Software localization

All software packages need adapting to a large number of local markets, and especially when developing new software products, terminology is very important as it is an integral part of the operational components of the software (i.e. the commands a user needs to operate the software). This means that effective and careful terminology management is a crucial factor in the development of new software. The translation of software, also called *software localization*, is the fastest growing market in the language industry. To understand how software is susceptible to markets and local languages, we first need to look at how language encroaches on software.

Software translation has three aspects. The first aspect concerns the *user interface*. When using a program, all kinds of terms and instructions appear on the screen. These can be in German, English, Chinese or any other language. The second aspect is the *help function*; all explanations of functions and solutions for potential problems must be clearly written in the language of the customer. Moreover, the help function must match seamlessly with the user interface regarding terms and codes. The third part that needs translating is the *documentation*. This can come in the form of a book or an online module. Again, all terminology should consistently refer to the software itself.

10.1.2 Adapting products and related information to local markets

One country, one language, one culture used to be a fairly common attitude among companies trying to launch a product on the market. This slogan is no longer used and many companies are pursuing a new one: *The world speaks one language – yours*. This means that each language has its rights and that the information is adapted to the language and culture of the individual customer.

Apart from that, it is obligatory to translate technical documentation into the customer's language. European resolution C411/1998 states that all technical documentation related to a product must be translated into the language or languages of the country where the product is to be sold. More importantly: a product is not complete until the full manual is available in the relevant language(s).

There are countless European legal initiatives to protect customers and to make sure the necessary information is made available in the right language. For example, we can read on the website of a supplier of heat pumps: "The following documents are delivered for the end user in Dutch: *planning and technical documentation, an installation manual, a user manual, and completion and reparation documentation*".

10.2 Profit estimates for localization projects

Investments in the localization of products or services are often seen, quite one-sidedly, as being very expensive but in all cases the *return on investment* should be calculated. Several parameters can be used to this end. On the one hand there are measuring instruments to evaluate the effectivity of production and workflow. On the other hand there are instruments to measure the total value of an investment for the whole company.

If the whole process of translating various texts for foreign markets is taken as an example, the following elements must be measured to gain insights into the efficiency of the translating process: the translation costs per word and per page, the costs of revision, the costs in case of delay (number of days of delay), the percentage of the text that can be reused (for example in a translation memory),

the costs per drawing or diagram, the costs of an internal employee compared to an external translation agency, etc.

To give an example: if a European company wants to launch one or several products on the Japanese market, its management will be interested in questions such as: what will the additional value be for us? What does it cost to localize our products for the Japanese market and what will the expected turnover be? It will be necessary to measure things such as: what will sales with a localized product yield compared to sales with a non-localized product? Will the shareholders approve of this? How much does localization cost and how much can the new market return?

10.3 Localization is an absolute necessity on the market

Taking local markets into account brings great benefits to industry, customers and governments. It is of great importance that we should also pay attention to the fact that the localization of information and products can save lives, especially when people do not have direct access to information in their own language. Furthermore, localization holds two important trump cards. The supplier or the company is far better equipped to launch the product on the market and will make a greater profit. The second advantage is that clients will buy a product much more readily if all related information (on a website, in a user manual, etc.) is available in their own language.

Website translations should not be servile and literal but should be made attractive by using especially adapted visual material. It is also important to realize that different markets may have different ways of dealing with certain products.

In today's rapidly evolving digital world, keyboards for computers, tablets, smartphones and all kinds of other devices form a special challenge when it comes to adaptation to local markets. Not only the alphabets and characters of various languages are an issue, there is also often a need for technical and software solutions. How else can it be possible to set up a Finnish or Arabic or Estonian keyboard on your smartphone? Have you ever wondered how it is possible that Microsoft Office is also available in Dutch? The same goes for Chinese customers, who can buy a version of Microsoft Office in their own language, not to mention the Arabic version, which is read from right to left.

In a growing international world, where more and more people are migrants and society is reaching an ever higher degree of diversity, it is very important that governments and companies also offer information in various languages, adapted to the various cultures of the country's residents.

How is this done in Scandinavian countries? Whether you are driving a Volvo, have an IKEA couch in your living room, listen to music on Spotify via a Bang & Olufsen stereo system or drink your milk or soft drink from a Tetra Pak carton, you are using a Scandinavian product. With a population of barely 26 million,

Scandinavia has the most top brands per capita in the world. The official languages in this region of the world are *Danish, Swedish, Finnish, Norwegian* (two versions: *Nynorsk* and *Bokmal*), *Icelandic, Faroese, Sami, Meänkieli* and *Greenlandic* and the minority languages *Yiddish* (in Sweden) and *German* (in Denmark); the Iranian language *Romani* is a minority language in Sweden, Norway and Finland. For this part of the world, language strategy is also important. With a quarter of its population made up of first or second generation migrants, Sweden has a clear language policy. Everyone who is not a native speaker of Swedish is entitled to an interpreter without having to pay for this service. This means there is a great need for good translators and language specialists who can cope with all of these language combinations, and Sweden's translation and interpreting industry is growing strongly. For economic reasons, all technical documents and information related to goods for the Scandinavian market are translated into the above-mentioned official languages. It is also a very expensive market: Swedish is among the most expensive target and source languages in the translation industry, ranking more or less equal to Japanese. All consumer products and apps are localized into at least five languages: Norwegian, Danish, Swedish, Finnish and Icelandic. Whoever thought that language and localization are not important, should think again.

10.4 Classic errors in the localization of texts, products and websites

The most frequently made errors in the localization of products and their related texts and websites are: *omitting to translate, careless and bad translations*, and finally *a lack of knowledge of and respect for the unique cultural characteristics of the new market*.

No translation: This often amounts to a company pursuing an *English-only policy*. Some companies make the cardinal error of believing they can enter a new, foreign market without translation. This used to happen very often but fortunately this is not so much the case anymore on the level of user goods. However, between businesses (*Business2Business*), English is often the only means of communication. Beauty products, on the other hand, are often promoted in French. Still, a proper description and a user manual in the language of the customer are indispensable.

People who like drinking tea may have heard of the delicious French brand *Le Palais des Thés*. They have excellent tea but the Parisian company only uses French and English and as a result loses out on substantial markets. In Flanders and the Netherlands they do not open any shops or selling points because they do not want to invest in the translation into Dutch. The Spanish market also stays closed to them for the same reason. It is quite an investment indeed but one that could yield a great profit. This way, markets are lost because of a lack of multilingualism.

The absence of a translation into the target language of the market may also have legal consequences. SC Johnson, an American company producing, among other things, insect repellents, was fined for exporting nine pesticides without having translated the instructions for use into the main languages of the market.

Wrong and careless translation: The advertising campaign of pen manufacturer Parker went wrong in Mexico because the English slogan ‘It won’t leak in your pocket and embarrass you’ was carelessly translated into Spanish. *Embarrass* was replaced by *embarazar*, so the new slogan for the Mexican market read: ‘It won’t leak in your pocket and make you pregnant’.

HSBC Bank experienced just how much a bad translation and poor adaptation to markets can cost. In several countries, the very popular campaign *Assume Nothing* ended up with the tagline *Do Nothing*. The result? The bank had to invest US\$ 10 million in a new campaign to repair the damage done to their image.

Lack of respect for cultural characteristics: How important it is for a company to take the needs of local markets into account is shown by the success of new telecommunication businesses that regard *transcreation* as their key activity. *Transcreation* is a relatively new concept used by marketing and advertising professionals. The term conveys the idea that adapting a message to another culture is a complex matter. It concerns language but, even more so, culture. The marketing of a product in a new market should be completely adapted to the local characteristics of that market in order for the product to call up the same emotions as in the original market. From the color choice of a campaign, to the name of a product, to the humor in a slogan: anything can be used to achieve this. In the market, this is also called *creative translating*, *cross-market copywriting*, *international copy adaptation*, etc. Ignoring the aspect of transcreation in the process of launching a new product can be quite embarrassing, as Puma, the German sports brand, learnt the hard way. In 2011, the United Arab Emirates celebrated its 40th National Day. In honor of the occasion, Puma released a special limited collection of sneakers in the colors of the Emirate flag. But the Arabs thought it a disgrace that this product was put on the market. For them, it showed a gross lack of respect to project the image of a flag onto a shoe because in their culture, a shoe is something dirty which touches the ground. Puma was forced to take the shoe off the market.

11. Conclusion

In conclusion, language diversity is increasingly important to businesses as the economic impact of language is huge. Complex processes of localization and transcreation are becoming increasingly necessary. Language is the ideal vehicle for economic expansion. The market needs new language jobs and profiles. Young people need to be able to discover these new challenges. This might be a task and a mission for the EFNIL.

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Ludwig M. Eichinger

Ökonomie der Mehrsprachigkeit

Abstract

Even though the use of several languages has become more common in modern societies, it is important to find a common language in order to communicate economically (by the way, also with regard to economic success). So, of course, it is an advantage and a basic request in our national societies to be able to communicate by means of the national language(s). But looking a bit closer at the communicative demands of today one sees that there is a growing need to react to internal variation, and that a modern linguistic identity not only covers that fact, but also the fact, that English – in different forms – is part of a linguistic spectrum fitting a modern European communicative life. In the last years a communicative pattern is developing within an elite group of young academically educated people that is based on the use of English only, more or less ignoring the connection to the national linguistic surroundings, somehow kind of an alternative monolingualism. But looking at the communicative needs in our complex societies losing the ability to cope with different linguistic options in different communicative situations and to integrate this possibility into your linguistic identity is a rather restricted option – also in economic terms. And this even holds not taking into account the linguistic effect of modern migration.

1. Ökonomie der Einsprachigkeit

Es ist zweifellos ökonomisch, eine gemeinsame Sprache zu haben. Eigentlich ist das fast zu wenig gesagt. Eine gemeinsame Sprache zu haben, ist eine notwendige Voraussetzung zur Bewältigung komplexerer Kommunikationssituationen. Die Ökonomie der Einsprachigkeit erscheint als so augenfällig und selbsterklärend, dass sie kaum der Rede wert erscheint – wenn alle Beteiligten an einer Interaktion dieselbe Sprache benutzen, sollte Alles glatt laufen, so ökonomisch wie möglich eben. Und auch wenn es, wovon noch die Rede sein wird, so einfach nicht ist, es erleichtert das kommunikative Leben, und damit das praktische Leben, wenn man eine gemeinsame Sprache hat. Eine Sprache gemeinsam zu haben mag das eine sein, eine gemeinsame Sprache zu finden ist etwas Anderes, mehr als das.

Hinter dieser scheinbaren Selbstverständlichkeit verbirgt sich eine Ambivalenz, die von hoher politischer und kultureller Bedeutung ist. Wenn man diese Ambivalenz im Rahmen der europäischen Sprachen und der europäischen Gesellschaften auflöst, gerät man in zwei recht unterschiedliche sprachliche Welten. Die eine ist die Welt der europäischen Nationalsprachen mit ihren politischen und kommunikativen Zusammenhängen und ihrer ideologischen Einbindung in die Strukturen des mehr und mehr republikanisch und bürgerlich geprägten Nationalstaats. Diese Organisationsform prägt Europa jedenfalls seit dem Beginn des zwan-

zigsten Jahrhunderts. Die nationale Sprache ist ein wesentliches Merkmal des Nationalstaats, sie hat sich zu einem funktional ausgebauten Mittel der Kommunikation in den verschiedenen medialen Formen, gesellschaftlichen Umständen, praktischen Bedingungen, Textformen – und wie immer man sonst die kommunikative Vielfalt in modernen Gesellschaften kategorisieren will – entwickelt (siehe z.B. Weinrich 1997 für die romanische Welt). Dieser funktionalen Anpassung, deren historische Bedingungen vielfältig beschrieben sind, entspricht, dass wir bei diesen nationalen Sprachen zwar von der Existenz oder jedenfalls der Entwicklung einer mehr oder minder rigid bestimmten Standardform ausgehen, dass aber auch die gerne als subsystemische Varietäten gekennzeichneten Formen unter diesem Konzept mitverstanden werden. Das Deutsche ist noch über lange Zeit hin im Gesprochenen durch eine deutliche regionale Differenzierung gekennzeichnet. Entsprechende Varietäten werden als Teil des Deutschen verstanden, wenn sie auch im Hinblick auf die Funktion von Einsprachigkeit nicht unkritisch zu sehen sind. Wenn man die Enden dieser regionalen Differenzierung betrachtet, ist die gegenseitige Verständlichkeit gefährdet. Das zeigt, dass solche Sprachformen zwar in einem sprachkulturellen Konzept der Nationalsprache enthalten, aber im Hinblick auf den Nutzen der einen gemeinsamen Sprache eher dysfunktional sind. Tatsächlich sind jene Verwendungsformen als definitiv zentraler anzusehen, die potentiell größere Distanzen auf den verschiedenen Ebenen der Kommunikation überbrücken. Von daher ist es nicht überraschend, dass übergreifende Sprachverwendungen, die sich im Wesentlichen am Rahmen der schriftsprachlichen Norm orientieren, an Bedeutung gewinnen. Die damit verbundene Öffnung in immer weitere Kontexte hinein, und der Einbezug immer weiterer Bevölkerungsschichten in die gesamtsprachliche Entwicklung, führt aber auch dazu, dass es um die Bewältigung von kommunikativen Herausforderungen geht, bei denen das traditionelle schriftsprachliche Inventar an seine Grenzen kommt, und so seine Ausweitung nicht sinnvoll erscheint. Dabei geht oft um Bereiche und sprachliche Praktiken, deren Traditionen des Sprechens sich außerhalb dieses schriftsprachlichen Kontextes entwickelt haben. Historisch mögen das zum Beispiel regional geprägte Varianten sein, aber neuerdings nicht zuletzt auch die englischsprachig geprägten Muster internationaler Kommunikation. Über diesen letzten Punkt wird später noch zu reden sein. So ist es ein Charakteristikum der Entwicklung zu einer Nationalsprache dieses europäischen Typs, dass scheinbar gegenläufige Entwicklungen gleichzeitig auftreten. Die Situation ist zugleich geprägt durch eine zunehmende Orientierung an der Standardform, ihr Ausstrahlen in gesprochene Kontexte oder zum Beispiel auch die Schriftlichkeit in neuen Medien. Dazu gehört auch die wenn man so will externe Stützung der Norm durch die Vermittlung der jeweiligen Sprache als Fremdsprache, was etwa die Normgeschichte der seit dem 19. Jahrhundert als traditionelle Schulfremdsprachen installierten Sprachen Deutsch, Englisch und Französisch betrifft. Auf der anderen Seite nimmt die Vielfalt der sprachlichen Erscheinungen in öffentlichen Kontexten zu, so dass sich ein

moderner Standard eher als eine Bandbreite möglicher Optionen darstellt und nicht als eine strikt fixierte Form. Das scheint genereller zu gelten, auch wenn es in den verschiedenen europäischen Nationalsprachen unterschiedliche Traditionen der Normierung und ihrer Strenge gibt. Am Institut für Deutsche Sprache wird in einem Projekt Korpusgrammatik die Bandbreite der in dieser Hinsicht akzeptablen Variation ausgelotet, Peter Auer (2018) hat auf der Mannheimer EFNIL-Tagung 2017 ein entsprechendes Konzept eines Neo-Standard entwickelt, von dem er auch zum Beispiel für das Italienische ausgeht. Auch hier gibt es externe Faktoren, man kann für praktisch alle anderen Sprachen als das Englische die starken Kontaktphänomene mit dieser Sprache als einen Faktor der mehr und mehr akzeptablen Variation einrechnen. Wenn man diese beiden Entwicklungen zusammennimmt, führen sie zu einer Verengung im Hinblick auf die traditionelle Variation, die nur möglich ist, indem sich gleichzeitig die Bandbreite nationalsprachlichen Interagierens im Hinblick auf die veränderten Ansprache öffentlicher Interaktion erhöht. So kann man schon innerhalb der Nationalsprache sehen, dass das Finden einer gemeinsamen Sprache des Aushaltens geordneter Variation und des Ausgleichs der Lebenswelten bedarf.

Eine funktionierende Interaktion ist aber immer mehr als das Zusammenpassen ihrer sprachlichen Bestandteile. Es ist das eine Interaktion geteilter Praktiken, sprachlichen gesehen, von Sprachspielen, die eine gewisse Verlässlichkeit garantieren oder zumindest versprechen. In der Komplexität moderner Gesellschaften treffen hier auch konkurrierende Regularitäten aufeinander (vgl. dazu auch Eichinger 2009, 69). Hier auf der Einsprachigkeit einer einheitlichen Norm zu bestehen, löst das Problem nicht. Man könnte daher geradezu sagen, die scheinbare Vereinheitlichung in einer – zumindest nicht allen Beteiligten gleich nahen – Sprachform, macht das Verstehen dessen, was eigentlich vorgeht, nicht leichter. Es scheint ökonomischer, die Optionen auch sprachlich zu öffnen.

2. Universalismus und Spezifik

2.1 Ökonomie des Sprachenkontakts

Wo es um politische oder ökonomische Dinge geht und um das Zusammentreffen mehrerer Sprachen, sind diese Verhältnisse zudem noch komplexer als etwa in alltäglicher Interaktion (auch wenn die die eigene Sprache überschreitet). Das ist die andere der Welten, von denen oben die Rede war. Hier sind die Folgen dessen schwerer abzustellen, dass uns die Traditionen des Interagierens in der eigenen sprachlichen Welt prägen, in der wir uns zu Hause fühlen. Oder, wie Charles Taylor (2016, 288) in seinem Buch über *The language animal* resümiert:

And once more we recognize that understanding the language, even of ordinary prose speech, involves seeing it in the context of meaningful enactment, and the whole range of symbolic forms.

So gelten auch in den einschlägigen Subsystemen des Politischen oder des Wirtschaftlichen im Prinzip unhinterfragte (“verlässliche”) Vorannahmen einer sprachspezifischen Prägung. Ganz augenfällig ist das zum Beispiel in Kontexten, in denen der jeweilige rechtliche Rahmen mit seinen unterschiedlichen Festlegungen eine Rolle spielt. Aber auch diesseits dieser relativ strikt regulierten Bereiche sind die Regularitäten, dessen, was explizit gemacht wird, oder was implizit bleiben kann oder muss, nicht überall die gleichen. Die gängigen Vorannahmen in den heutigen europäischen nationalen Sprachen dürften zwar in einer “nordwestlichen” Welt vermutlich weithin miteinander kompatibel und im Rahmen ihrer Variabilität ausgleichbar sein. Dazu braucht aber ein Bewusstsein für die von der jeweiligen Kultur und den Traditionen der Interaktion geprägten Differenz. Wie gesagt, ist insbesondere abzuschätzen, an welchen Stellen welche Grade an Impliztheit (in Annahme der Vertrautheit mit den Gewohnheiten und Riten bzw. deren Irrelevanz) oder eben an Expliztheit als angemessen angesehen werden, wenn man ernst genommen werden, als verlässlich gelten will (siehe Brandom 2001, 160ff.). Noch deutlicher wird das, wenn man diesen Raum des “Westens” überschreitet, und im globalen Kontext agiert. Hier geht es um die Frage strategischer Interaktion im deutlich fremderen anderssprachigen Raum bzw. des Agierens in der räumlich und kulturell im Prinzip nicht festgelegten *lingua franca*, de facto des internationalen Englisch. Die Lage zeigt auch hier die beiden auch in den bisherigen Konstellationen, der im beschriebenen Sinn “modernen” Einsprachigkeit, und der Interaktion in mehreren Sprachen, sichtbaren Tendenzen. Es gibt in zentralen Bereichen, etwa im Bereich wissenschaftlicher Publikationen, einen starken Trend hin zu einer Orientierung am angelsächsischen Standard, in der Sprache, aber auch in den Arten der argumentativen Gestaltung (der gesamten Praktik eben), auf der anderen Seite wird in weniger formellen Kontexten eine Angleichung des Englischen an die jeweiligen kulturellen Kontexte beobachtet, also ebenfalls eine Diversifikation, bei den der Rahmen möglicher Variation ausgelotet wird.

In beiden Fällen zeigt sich also eine Gleichzeitigkeit von prinzipiell gegenläufigen Entwicklungen, die beide modernen gesellschaftlichen Tendenzen entsprechen. Es gibt eine Vertrautheit mit großräumigerer Interaktion, und es gibt gleichzeitig eine Tendenz zur Brechung und Überschreitung traditioneller Üblichkeiten. In beiden Fällen erfordern diese Entwicklungen eine erhöhte Bereitschaft zur und Kenntnis der adäquaten Variation. So gesehen ist eine Ökonomie der Einsprachigkeit nur graduell von der einer Ökonomie der Mehrsprachigkeit unter Einbezug des universalen Englischen unterschieden. Das hat insbesondere damit zu tun, dass in den gesellschaftlich repräsentativen Milieus eine einschlägige Gebrauchsform des Englischen zum Standardinventar gehört, allerdings auf der Basis der Einbindung in das muttersprachliche Konzept.

2.2 Generalisierte Kontexte

Es spricht Einiges dafür, dass sich darüber hinaus auf der Basis der sprachlichen Globalisierung ein neuer gesellschaftlicher Standard entwickelt, der sich an der Lebenswelt der Akteure einer international agierenden urbanen akademisch gebildeten mobilen Schicht orientiert. Das wäre vielleicht eine dritte Welt. Diese Welt spricht primär Englisch, aber eben eigentlich nicht mehr als eine Erweiterung eines muttersprachlichen Spektrums. Vielmehr führt das zur Setzung eines sprachlichen Standards, der gegenüber den Bedingungen der Herkunftskulturen neutralisiert erscheint. Nun ist das sicherlich das Korrelat zur Dominanz entsprechender Praktiken im professionellen Handeln global agierender Milieus. Und ebenso klar ist, dass dieses kommunikative Heraustreten aus dem gerade skizzierten Spektrum von muttersprachlicher Öffnung und Einbezug funktionaler Varianten eines internationalen Englisch zunächst wenig Raum zur sozialen Imagebildung bietet. Dazu muss man die Zugehörigkeiten umkehren: zentrales Element der Selbstdefinition ist die regionale Entbindung. Wie sieht die Gruppe dieser gesellschaftlichen Akteure aus? Es geht um eine im gesellschaftlichen Diskurs mächtige Gruppe von Menschen, die in der heutigen soziologischen Diskussion gelegentlich als *Anywheres* bezeichnet werden. Sie sind nicht nur viel in einer prinzipiell nicht mehr begrenzten Welt unterwegs, sie leben auch in einer entsprechend universalistisch geprägten Welt der Interaktion. Wenn die Praktiken, in denen man agiert, und die Bedingungen, unter denen man agiert, scheinbar keine Differenz erkennen lassen, die auf lokale Einbindung hinweisen, ist der Raum, der für die Selbstdefinition relevant ist, unbegrenzt, wie es scheint. Dass einen der Alltag an den Orten dieser Welt aus dieser Sphäre reißt, spielt auf dieser Ebene anscheinend keine Rolle. In den 1990er Jahren, als aufgrund der politischen Veränderungen, die vorgegangen waren, die Welt zumindest für bestimmte Milieus als grenzenlos erschien, wurden diese Verhältnisse als das Neben- und Gegeneinander von Globalisierung und Lokalisierung behandelt. Schon damals wurde festgestellt, dass auch die Sprache zum Inventar dieser Teilung gehört. Auf einer bestimmten Ebene der Allgemeinheit politischer und wirtschaftlicher Interaktion entspricht anderen symbolischen Merkmalen, wie der Gleichförmigkeit der Hotels und Meetings (siehe Bauman 1997, 320) eine der spezifische kulturellen Traditionen entbundene Interaktion. Allerdings hat sich zwischenzeitlich herausgestellt, dass die Annahme solcher voneinander getrennter sprachlicher Welten die Eigenschaften von Sprache und von den Traditionen des Sprechens zu unterschätzen, und, entgegen den verschiedenen Funktionen von Sprache, die Darstellungsfunktion – und ein alltägliches kommunikatives Minimum – zu verabsolutieren. Diese funktionale Reduktionsform ist nicht das, was eine Sprache wirklich kann und können sollte. Wobei unstrittig ist, dass es wichtige Bereiche gibt, für die entsprechende Restriktionen angemessen und zielführend sind:

Specialized pared-down languages, stripped of human meaning, may be ideal for certain important purposes, but these austere modes cannot provide the model for human speech in general. (Taylor 2016, 288)

Der Philosoph Charles Taylor, in der 1990er-Diskussion zwischen den Universalisten und den Kommunitaristen eher den letzteren zuzuordnen, betont allerdings, dass in der Welt einer solchen Kommunikation die *konstitutive* Kraft der Sprache zugunsten der *designativen* Kraft vernachlässigt würde, damit auch ihre generelle kulturelle Einbindung, die zu einem vernünftigen Verständnis eines “guten Lebens” dazugehöre (vgl. Taylor 1995 passim; vgl. Eichinger 1997). So gilt denn auch für viele Menschen, die solcherart in einer mobilen modernen Welt leben, was die Soziologen dazu feststellen:

Die in Europa vorherrschende Bindung an das lokale Umfeld wird so in Einklang gebracht mit einem nach Flexibilität und Mobilität verlangenden Wirtschaftssystem. Der “mobile Immobile” ist zwar beruflich häufig unterwegs, jedoch weiterhin stark an den einmal gewählten Lebensmittelpunkt gebunden. (Ruppenthal/Lück 2009, 3)

2.3 Ein ideales Profil: Divers und international offen

Neuerdings finden solche Überlegungen wieder einen Platz, in jener Diskussion, in der vom Gegenpol jener *Anywheres* als den sogenannten *Somewheres* oft in recht vergröberter und zumindest sehr konservativer Form die Rede ist (siehe Goodhart 2017). Die Diskussion über diese Binarität in den letzten Jahren hat aber den Blick dafür geöffnet, dass es bei dem, was da benannt werden soll, eigentlich nicht so sehr um Benennungen von distinkten sozialen Gruppen geht, sondern um Aspekte des Lebens in der Moderne, und um Auseinandersetzungen um die Deutungshoheit in unseren Gesellschaften, in unserem Fall den Gesellschaften der deutschsprachigen Staaten.

Etwas weiter führen in dieser Diskussion die derzeit viel diskutierten Erklärungsmodelle, die der Soziologe Andreas Reckwitz vorgelegt hat. Er spricht in seiner Arbeit zur “Kultur der Singularitäten” von der Entwicklung eines “Kulturkapitalismus”, dessen Gewinner und Prätendenten eine akademisch gebildete neue (“junge”) Mittelschicht ist. Sie nutzt als Kapital, sich ein in diesem Kontext gefordertes modernes, positiv bewertetes möglichst individuelles “singuläres” Profil zu geben. Zum wirtschaftlichen Erfolg gehört und tritt als Bedingung, dass es sich um eine universitär gebildete jüngere Gruppe mit einem weit differenzierten kulturellen Fundus handelt (vgl. Reckwitz 2018, 278ff.). Nach einschlägigen statistischen Angaben (in eurobarometer 2012; vgl. Eichinger 2014 [2015], 57) handelt es sich dabei um ein knappes Drittel der Bevölkerung, und es ist sicher kein Zufall, dass es – nach Auskunft der verfügbaren Daten zur Sprachenbeherrschung in der EU – ebenfalls etwa ein entsprechender Anteil der Befragten ist, die das

sprachliche Ziel der Beherrschung der Muttersprache und zweier weiterer Sprachen erreichen, auch sie sind dominant jung, universitär gebildet und international unterwegs.

2.4 Der nationale und nachbarschaftliche Alltag

Wenn man bedenkt, dass mindestens ebenfalls ein Drittel der EU-Bürger nach dieser Statistik keine funktionalen Fremdsprachenkenntnisse hat (ohne den Sonderfall der weithin monolingualen Sprecher des Englischen), ist zweierlei offenkundig. Zum einen, dass zur Signatur dieser Gewinner der Globalisierung (und Digitalisierung) Variabilität und funktionale Variation auch im Sprachgebrauch gehören. Zum anderen, dass die nationalsprachlichen Strukturen von großen Mehrheiten gestützt sind, was Folgen für ihre Geltung nicht nur im entsprechenden staatlichen Rahmen, sondern auch auf einer breiten Ebene der Anforderungen im gesellschaftlichen Raum hat. Nicht nur tragen somit auch die Profile der *Anywheres* eine Herkunftsmarke in der Ausformung ihres singulären Profils, vielmehr zeigt auch die reine Größenordnung der Gruppen – das restliche Drittel gilt als *“In between”*, dass die nationalsprachliche Organisation eine bemerkenswerte Aufgabe hat, und dass auch die internationalistischen Eliten diese Subsysteme der modernen Gesellschaft verstehen sollten und auch in ihnen leben.

Es ist zweifellos eine kritische Frage im jetzigen Hauptstrom gesellschaftlicher Entwicklung, wie die Ansprüche an allgemeine Zugänglichkeit in der einzelsprachlichen Gesellschaft mit den Ansprüchen an Individualisierung und Globalisierung verbunden werden können (siehe dazu Reckwitz 2018, 433ff.). Was die sprachliche Seite angeht, so ist offenkundig, dass beim derzeitigen Zustand der europäischen Sprachenwelt ohne die volkssprachliche Ebene eine allgemeine Verbindlichkeit und Bindung nicht erreicht werden kann. Zu recht ist in letzter Zeit verschiedentlich, in besonders überzeugender Weise von Brigitte Jostes (2009), darauf hingewiesen worden, dass auch die Vervollkommnung in der eigenen Kommunikationswelt mit ihren zunehmend differenzierten Erwartungen, also das, was man heutzutage Einsprachigkeit nennen würde, in diesem Kontext eine Art von Anpassung an die moderne Öffentlichkeit darstellt, eine Einsprachigkeit, die durch die Nutzung der *lingua franca* Englisch systematisch ergänzt wird. Und diese in unseren Gesellschaften offenbar weit verbreitete Praxis ist natürlich nicht das, was man eigentlich Mehrsprachigkeit nennen möchte (siehe Jostes 2009, 199).

2.5 Areale und Schichten der Interaktion

Was wir bis hierher dargelegt haben, ist ein Plädoyer für Diversität auf der Basis der nationalsprachlichen Strukturen, die den Alltag und das Bewusstsein eines Großteils der Sprecher prägen, – Diversität und Variation in der Bandbreite, die den

Normen eines standardsprachlichen Gebrauchs entspricht. Dass dazu mehr und mehr auch eine gewisse Fähigkeit zur globalen Anbindung gehört, ist offenkundig, auf der anderen Seite ist ebenso offenkundig, dass die hochgradig globalisierten international agierenden Eliten aus praktischen wie demokratietheoretischen Gründen eine erhöhte Verantwortung für die Anbindung der nationalsprachlichen Herkunftswelt haben. Was es nicht ist, ist ein Plädoyer gegen die globalen Ausgleichsbedürfnisse. Und was es daher auch nicht ist, ist das Plädoyer für eine Einsprachigkeit im Englischen. Natürlich brauchen die internationalen Transaktionen über die großen Sprachareale wie den “Nordwesten”, Asien, den arabischen Raum hinweg das Schmiermittel des auf diese Bedürfnisse zugeschnittenen internationalen Englisch, das innerhalb solcher Räume diese Rolle in unterschiedlichem Ausmaße spielt (siehe Eichinger 2014 [2015], 59-60). Die variable Nutzung solcher in der heutigen Welt weit verbreiteten Optionen ist sicher eine sprachlich ökonomische Vorgehensweise und dient dem Vorankommen in der ökonomischen Welt eines internationalen Wirtschafts- und Wissenschaftsbetriebs. Auch die Digitalisierung mit ihrer zeitgleichen Kommunikation verlangt nach solch einem Werkzeug, das die weltweit standardisierten Mittel elektronischer Kommunikation unterstützt.

3. Kippunkte des Ökonomischen

Bei allen Vorzügen, die ein einsprachiges Interagieren über die sprachräumlichen Agglomerationen hinweg auch hat: es ist nicht für alle Fälle die auch ökonomisch günstigste und ökonomischste Lösung.

An diesem Punkt der Diskussion erzähle ich gerne jene Geschichte eines Vortrags, den ich vor etwa zehn Jahren an der deutschen Botschaft in Tokio gehalten habe. Ich sollte über tausend Gründe sprechen, Deutsch zu lernen. Auf drei bin ich jedenfalls gekommen, was aber jetzt nicht so wichtig ist. Am Ende dieses Vortrags kam ein älterer, sehr höflicher japanischer Herr auch mich zu, um mir zu sagen, er wisse ganz genau, warum er Deutsche gelernt habe. Er arbeite beim japanischen Patentamt, und er wolle immer sofort und genau wissen, was sich diese schwäbischen Tüftler wieder ausgedacht hätten.

Die “schwäbischen Tüftler” stehen für jene einfallsreichen Ingenieure, die gerade so viele mittelständische Firmen Deutschlands zu “*hidden champions*” auf dem Weltmarkt gemacht haben. Und was die Sprache angeht: sicher können die meisten, und auf jeden Fall die jüngeren von ihnen in unterschiedlichem Ausmaß in jenem oben angesprochenen internationalen Englisch agieren, wenn es das braucht. Aber dennoch sind sie auch fachlich im Deutschen zu Hause. Und die Wahrheit, die daraus folgt, hat zwei Seiten. In der Muttersprache sind die entsprechenden komplexen Sachverhalte von den Akteuren am präzisesten zu formulieren. Und so kann man denn in der Sprache des Anderen auch mehr von ihm erfahren, als das im internationalen Englisch der Fall wäre.

Das japanische Beispiel ist mehr als eine beliebige Anekdote. Die Bedeutung einer solchen Art von interessegeleiteter Kommunikation als ökonomisches Muster erklärt einen größeren Teil des Gewinns an Lernern des Deutschen als Fremdsprache, der in den letzten Jahren zu beobachten ist.

Zum einen bilden sich über die Welt hin regionale Zentren, neben dem europäischen zumindest ein asiatisches, in denen ein eigenes Sprachregime herrscht. Mit dieser Entwicklung verlieren die traditionellen europäischen Sprachen an ihrer traditionellen Verbreitung, etwa als Schulfremdsprachen an Geltung. Zum anderen gibt es aber eine neue interessegeleitete Querschichtung zwischen den Mitgliedern solcher Zentren. So steht auch für das Deutsche den Verlusten auf der traditionellen Seite ein Gewinn auf der Ebene von gegenseitigen Kontakten, die aus akuten – v.a. wirtschaftlichen – Interessen erwachsen (vgl. Auswärtiges Amt 2015). (Eichinger 2017, 49)

Zudem kommt man andererseits mit der Interaktion im internationalen Englisch im nationalen “muttersprachlichen” Raum an die Stelle, wo der Gebrauch dieser Sprachform wenig natürlich wirkt, bzw. wo denn auch die prinzipielle Vermittelbarkeit in die allgemeine Gesellschaft hinein leidet. Beide Dinge zeigt ein Zitat aus der entsprechenden Praxis im medizinischen Kontext an der Universität:

Dienstag früh treffe ich mich mit der Verhaltensgruppe. Außer dem argentinischen postdoc sind es alles deutsche DoktorandInnen und Studentinnen. Wir sprechen BSE [basic spoken english, L.E.], natürlich. Am Nachmittag ist die Vorlesung für Masterstudenten und anschließend Seminar. Die Vorlesung ist auf BSE, auch der Seminarvortrag und die Diskussion, was diesmal etwas weniger angenehm ist, weil diesmal kein ausländischer Student dabei ist. [...] Donnerstagvormittag ist Anfänger Vorlesung. Diese ist auf Deutsch. (Menzel 2011, 128)

Dennoch, sicher gibt es auch im deutschen Kontext gute Gründe, im globalen Kontext global auf Englisch zu agieren. Und schon der europäische Raum gehört zum globalen Kontext des Deutschen. Dass es andererseits in beiden Fällen einer solcherart im Raum des Deutschen stattfindenden Interaktion vernünftiger sein kann, in der Sprache des einen oder anderen Partners oder im plurilingualen Dialog zu interagieren, ist unbenommen, allerdings mahnen die Daten zur Fremdsprachenbeherrschung zu etwas Skepsis, was die realen Möglichkeiten dazu angeht – zumindest wenn die besprochenen Verhältnisse etwas komplexer werden.

Erkennbar gibt es einen großen Bereich der praktischen Interaktion innerhalb des Sprachgebiets auch außerhalb eines informellen Alltags, der vernünftigerweise in der jeweiligen Nationalsprache oder auch in den Nationalsprachen erledigt wird (vgl. etwa Eichinger 2014 [2015], 57-58). Das ganze staatliche System in seiner allgemeinen Verstehbarkeit, seinen rechtlichen Grundlagen und seinen Verfahren lebt von der Tradition der Kommunikation, die Einführung in die kulturelle Praxis und ihre Hintergründe im Bildungswesen, das öffentliche Mitsprechenkönnen sind in einer zahlenmäßig großen Sprache mit einer langen schriftkulturellen Tradition, von einer generellen kulturellen Prägung getragen (siehe Eichinger 2009,

98-100; 2010, 28-30). Das Alles schlägt sich dann auch im sprachlichen Selbstverständnis nieder, das eingebunden ist in die Traditionen des Sprechens in der eigenen Kultur:

Die Sprache ist nicht nur der wichtigste Träger subjektiver Erinnerungen, sie ist auch ein kollektives Gedächtnis, ein historisches Archiv menschlicher Erfahrungen und Weltaneignungen. (Assmann 2007, 61)

Und manches davon ist auch international am besten verständlich, wenn es sprachlich direkt zugänglich ist. Das ist zum Beispiel ganz deutlich der Fall, wenn in vielen Weltgegenden das deutsche Rechtssystem als Vorbild genommen wird – eigentlich ist es nicht ohne die dazu seit dem 18. Jahrhundert entwickelten Sprache zu haben (siehe exemplarisch Hattenhauer 1987).

Und tatsächlich ist es dann ja auch so, dass das Deutsche in der Veränderung der sprachlichen Welt aufgrund seines relativen Orts als europäische Sprache einen in gewisser Weise plausiblen Platz besetzt. Wenn das Deutsche auch gemeinsam mit dem Englischen und Französischen zu den “Sprachlichen Globalisierungsgewinnern” (Osterhammel 2009, 1109) der nationalstaatlichen Festigung gehört, bleiben die Unterschiede zu diesen auch durch ihre koloniale Vernetzung bzw. im Fall des Englischen seine Verbreitung in den aufstrebenden USA gekennzeichneten Sprachen erkennbar. Im Vergleich zum Englischen gilt das auch schon im Bereich der Wissenschaftssprachen, eigentlich einer der Domänen des Deutschen, vor allem im Bereich der Naturwissenschaft und der Technik (siehe Osterhammel 2009, 1111). So erscheint das Deutsche schon damals sehr viel stärker auf Europa fokussierte Sprache (siehe Eichinger 2017, 78). Und wenn man die heutige Verbreitung und Geltung des Deutschen in der Welt ansieht, wird das auch ganz klar, ebenso wie der relative Erfolg des Deutschen als Fremdsprache:

Von den sogenannten europäischen Sprachen haben Englisch (375 Mio.), Spanisch (330 Mio.), Russisch (165 Mio.) und Portugiesisch (165 Mio.) mehr muttersprachliche Sprecher als das Deutsche (105 Mio.), das aber nach diesem Maß immerhin in etwa auf dem zehnten Platz liegt, [...]. In anderer Hinsicht ähnelt das Deutsche dem Englischen (1:4), dem Spanischen (1:1,27) – und dem in dieser Hinsicht auffälligen Französischen (1:4,7), nämlich in einer relativ hohen Differenz zwischen Muttersprachlern und Sprechern insgesamt, [...].¹ Und während beim Englischen, Spanischen und Portugiesischen um oder über 90% der Sprecher nicht in Europa beheimatet sind, beim Französischen ungefähr die Hälfte und bei Russisch immerhin noch ein schwaches Drittel, sind es beim Deutschen 4%. (Eichinger 2015 [2016], 13)

Dieser Erfolg hat unter anderem damit zu tun, dass das Deutsche eine der großen und nach wie vor meist gelernten Schulfremdsprachen darstellt, wenn auch zum Teil mit veränderter regionaler Verteilung und Intention des Lernens. Man sieht,

¹ Alle genannten Zahlen nach <http://de.statista.com/statistik/daten/studie/150407/umfrage/die-zehn-meistgesprochenen-sprachen-weltweit/> (letztmals abgerufen 17.01.2015).

dass das eine Reihe in verschiedener Weise als “international” verstehbare Sprachen – unter anderem – heraushebt, neben dem Deutschen etwa die oben genannten Sprachen Französisch, Spanisch, aber auch z.B. Russisch (vgl. Ammon 2017, 51).

Zu den bereits angesprochenen Punkten, der vor allem wirtschaftlichen Vernetzung, spezifischer fachlicher Interaktion und kultureller Interessen tritt neuerdings verstärkt der Sprachkontakt durch Migration, “bei der die deutsche Sprache der Schlüssel zur Integration ist und eine zusätzliche Aufmerksamkeit erhält” (Der Tagesspiegel 19.08.2019). Dabei ist in letzter Zeit mit der Migration tatsächlich etwas dazugekommen bzw. deutlicher geworden, nämlich das Aufkommen einer neuen Mehrsprachigkeit – vor allem in größeren Städten. Das sprachliche Bild ist dadurch recht vielfältig geworden, allerdings wissen wir nicht genug über die realen Verhältnisse. Neuere Erhebungen zeigen allerdings, dass die sprachliche Vielfalt groß, der statistische Anteil aber eher gering ist. Nach den Zahlen des Statistischen Bundesamtes für 2018, wird in nicht ganz 10% der Haushalte etwas Anderes als Deutsch als Haushaltssprache gesprochen, allerdings sind das viele, nämlich auf jeden Fall etwa zwanzig verschiedene Sprachen (unter denen Russisch, Türkisch und Polnisch etwa ein Drittel ausmachen) (siehe Abb. 1).

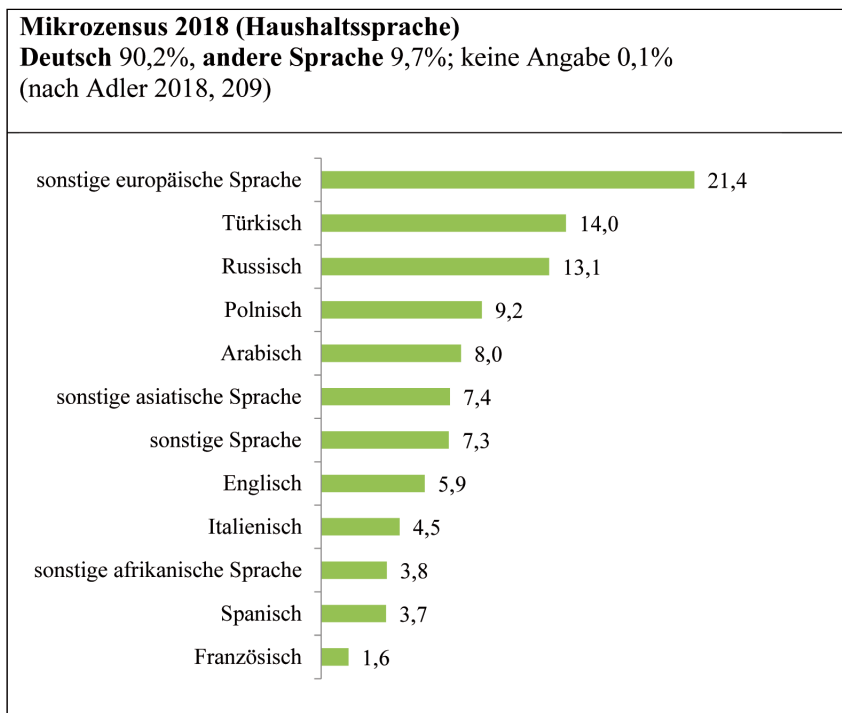


Abb. 1: Bundesrepublik Deutschland: Andere Haushaltssprachen als Deutsch

Man hat zu Recht angemerkt, dass die etwas unglücklichen Summierungen von Fällen "sonstiger Sprachen" eigentlich nicht genau erkennen lassen, wie die Verhältnisse eigentlich sind. Ein auf jeden Fall differenzierteres Bild ergibt sich, wenn eine solche vorgängige Summierung vermieden wird, wie bei der folgenden Untersuchung anhand der SOEP-Befragung. In der Größenordnung sind die Ergebnisse ähnlich, die ermittelte höhere Prozentzahl hat sicher damit zu tun, dass die Frage nach der Haushaltssprache nur eine Antwort einer Person zuließ, während die Frage nach der Muttersprache in dieser Hinsicht weniger restriktiv ist, auch wenn er hinsichtlich des Gebrauchsaspekts vager ist. Manches weitere Auffällige hat vermutlich auch mit dieser Differenz zu tun, so zum Beispiel der hohe Unterschied im Anteil des Arabischen (siehe Abb. 2).

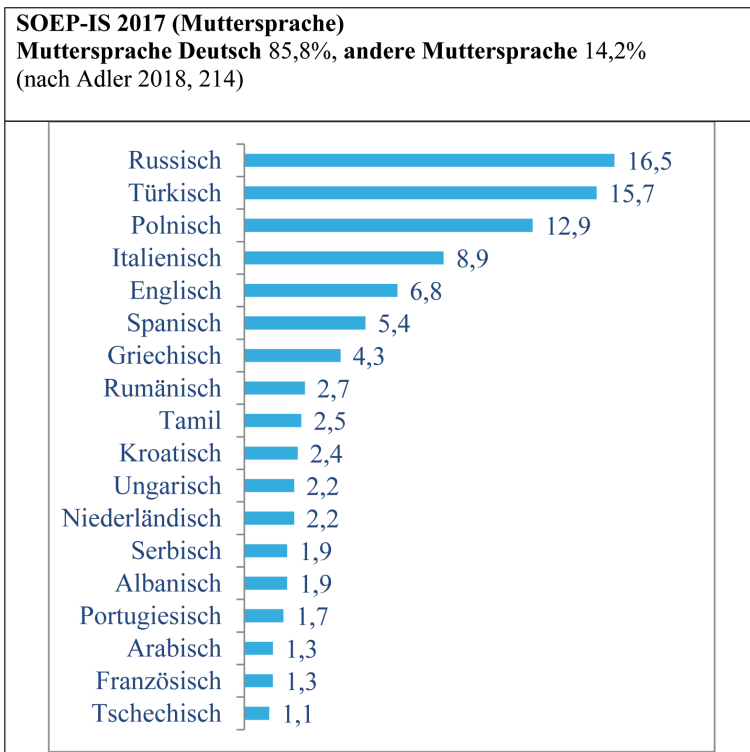


Abb. 2: Bundesrepublik Deutschland: Andere Muttersprachen als Deutsch

Was immer man aus diesem Bild sonst herauslesen kann, es gibt – unangesehen des Erhalts dieser Sprachen in ihrem Lebensumfeld und ihrer Vertretung im öffentlichen Leben – auf dieser Basis keine andere ökonomische Möglichkeit zu gesellschaftlicher Interaktion zu finden als über die deutsche Sprache, auch wenn die

aktuelle Interaktion oft sehr divers sein kann (vgl. etwa Stevenson 2011, 25-26). Die Größe der Sprachgruppen spielt dann natürlich insofern eine Rolle, als sie damit korreliert, wie weit auf dieser Basis eine subsidiäre sprachliche Ebene entstehen kann. Man sieht, dass das bei den "Aussiedlersprachen" und den großen Sprachen der Arbeitsmigration der Fall ist, während das in den anderen Fällen eher auf regionale Schwerpunkte konzentriert oder sonst punktuell auftritt.

In diesen Kontext würde auch die Diskussion gehören, wie man die Entstehung solcher Erweiterungen des sprachlichen Spektrums, in das angedeutete Profil des zweiten Typs einbetten könnte, also jener auf der nationalsprachlichen Variationsbreite basierten Option, die schon seit einiger Zeit durch die Öffnung auf ein internationales Englisch hin gekennzeichnet ist. Auch wenn die Verhältnisse insofern anders sind, als es sich hierbei um eine klassische Schulfremdsprache handelt, stellt sich dann doch die Frage, inwieweit eine zumindest rezeptive Öffnung in die neue Mehrsprachigkeit hinein eine Rolle spielt (etwa auch zu Ausgleichsphänomenen hin wie dem sogenannten Kiezdeutsch; vgl. dazu die Diskussion in Auer 2013 und Wiese 2013), auch wenn sie vermutlich die standardnahe Variation (bisher) nur am Rande betreffen. Diese Frage ist insofern von gesellschaftlicher Bedeutung, als insbesondere in klassischerweise durch Migration geprägten Städten und Communities sprachliche Variantenbündelungen festgestellt werden, die als *Superdiversity* beschrieben werden (Vertovec 2007). Auch hier scheinen sich spezifische Profile ergeben, bei der im deutschen Sprachraum die Nationalsprache in Form ihrer Gebrauchs-Standards eine zentrale Umschaltstelle darstellt, die ja beim Englischen mit der Funktion einer internationalen Sprache zusammenfällt, die auch schon muttersprachlich an verschiedene andere Sprachkulturen andockt. Für das Deutsche könnte man möglicherweise diskutieren, wie sich das in der deutschsprachigen Schweiz ausnimmt, wo der deutsche Standard eine schwankende Bewertung erhält, zum Teil eben als eine Fremdsprache.

In anderer Hinsicht kann man diese Fragestellung erweitern insgesamt im Hinblick auf die Beziehung zwischen den nationalsprachlichen Diskursen in Europa hin zu einem kommunikativen mehrsprachigen Geflecht, auf das ja unter anderem die Sprachenpolitik (Muttersprache + 2) der EU zielt. Wie man sieht, scheint das einstweilen ein Projekt junger Eliten zu sein, aber immerhin insoweit eine andere Option als die intendierte neutrale Einsprachigkeit der Anywheres (vgl. Dabrowska-Burckhardt 2017, 85-86).

4. Was ist nun ökonomisch?

Wie man schon vermuten konnte, verlangen komplexe Verhältnisse nach Lösungen, bei denen die Komplexität der Lösungen der Herausforderungen angemessen ist. Nach der Entwicklung der letzten Jahrzehnte mit der digitalen Revolution, bei der sich die Verhältnisse von Raum und Zeit in der Interaktion grundlegend geändert haben, ergeben sich Schichtungen in der Interaktion, bei denen es jeweils

etwas Anderes heißt, was ökonomisch, und vielleicht auch, was einfach ist. Die Ebene der wohlgeordneten Nationalsprachlichkeit, wie sie für den EU-Raum charakteristisch ist und wofür in meinem Fall das Deutsche steht, spielt dabei eine mehrfache Rolle. Es wäre jedenfalls auf absehbare Zeit recht unökonomisch, die ganzen systembezogenen Bereiche und die öffentlich zugängliche Kommunikation anders als in der nationalen Standardsprachform zu organisieren. Das ist denn auch die Basis dafür, dass neu hinzukommende Mehrsprachigkeit auf dieser Ebene kommunikativ aufgefangen werden muss – auch das ist jedenfalls in Anbetracht der Größenrelationen am ökonomischsten. Auf der anderen Seite ist es zweifellos ökonomisch, bei der Unabsehbarkeit der einzelnen sprachlichen Anforderungen eine internationale Sprachform zur Verfügung zu haben, die diesen Bedingungen Rechnung trägt. Dass solche übergreifende Mittel der Kommunikation gewisse Restriktionen haben, ist erwartbar, und mag sich im Verlauf der Zeit auch ändern. Dass das im konkreten Fall eine Form des Englischen ist, und so die Verwendung als *lingua franca* und als “natürliche Kultursprache” schwankt, führt zu kommunikativen Schiefen. Interessant für eine Sprache wie das Deutsche ist offenkundig der Zwischenraum der im internationalen Kontext relativ viel “freiwillig” gelernten Sprache, als Mittel einer interessengeleiteten transnationalen weltweiten Vernetzung – einer spezifischen Art, ökonomisch zu kommunizieren. Da das vom Deutschen aus auch für andere Sprachen gilt, ergibt sich so ein Rhizom, ein fein verflochtenes Netzwerk spezifischer Internationalität.

Wie die soziologischen Analysen zur bundesdeutschen Gesellschaft zeigen, ist es ein Merkmal der Profilbildung der meinungsführenden neuen Mittelschichten, auf dieser Basis eine international geöffnete persönliche Signatur zu entwickeln, ein Variationsmuster, in dem aber bei aller Internationalisierung und eigener Wahl auf die eigene Nationalsprache bezogen ist, die eben dennoch mehr eine *default-option* des Alltags als eine soziale Zuschreibung bedeutet.

Man kann in Anbetracht der Entwicklungen, die insgesamt eine höhere Variabilität begünstigen, überlegen, wie es da nun mit dem anderen, dem wirtschaftlichen Begriff der Ökonomie steht. Hier kann man festhalten, dass es sicher auch in der neuentstandenen modernen Welt einen Bedarf an Kommunikation unterschiedlicher Reichweite und auf unterschiedlichen Bezugsebenen gibt, etwa in der europäischen Nachbarschaft, aber eben auch auf einer fachlichen bzw. professionellen Ebene, bei der die muttersprachliche Fassung oder Interaktion die präziseste Informationsquelle darstellt. Das sagt natürlich nichts gegen den ökonomischen Einsatz der internationalen Sprache Englisch oder auch anderer denkbarer vermittelnder Sprachformen (vgl. Eichinger 2014 [2015], 61-65). Dass aber auch diese Interaktionen bei den meisten Beteiligten auf der Basis einer persönlichen Einbettung in einen anderen Sprachraum, also in unserem Fall dem des Deutschen, geschieht, spricht dafür, diesen Tatbestand auch in der räumlich entbundenen globalen Kommunikation im Auge zu behalten.

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Marco Civico/François Grin

Language economics: Overview, applications and recent methodological developments

Abstract (Italian)

L'espressione "economia della lingua" ("language economics" in inglese) compare per la prima volta nel 1965 in un articolo di Jakob Marschak, in cui l'autore discute la natura economica dell'ottimizzazione della lingua e i vari processi che la caratterizzano. In breve, Marschak sostiene che il funzionamento delle lingue sia frutto della continua ricerca di un compromesso tra "chiarezza" e "brevità" del messaggio. In altre parole, le lingue (o, più precisamente, il modo in cui esse funzionano) sono il risultato di un problema di ottimizzazione in cui il parlante cerca di massimizzare la quantità di informazioni che può trasmettere, e di contenere allo stesso tempo lo sforzo. Per capire perché tale problema può essere considerato "economico" è necessario andare oltre la comune ma parziale idea che l'economia si interessi esclusivamente al denaro e ai mercati. L'economia è un ambito disciplinare molto ampio e si occupa principalmente, come scienza sociale, del comportamento delle unità decisionali quando devono allocare risorse scarse (tra cui il denaro, ma anche il tempo o vari beni simbolici) aventi usi alternativi. Alla luce di ciò, risulta evidente come l'espressione orale o scritta, un problema che implica l'impiego di tempo e di facoltà cognitive, possa essere trattata da un punto di vista squisitamente economico.

Fin dagli anni '60, la ricerca nel campo dell'economia della lingua ha esteso costantemente il suo campo di applicazione. I ricercatori hanno iniziato a studiare la relazione tra lingua ed economia da prospettive più varie. Gli argomenti di interesse per gli studiosi di economia linguistica includono, tra gli altri:

- 1) l'impatto delle competenze linguistiche individuali (intese sia come attributo etnico che come forma di capitale umano) sulla remunerazione;
- 2) le cause e le conseguenze delle dinamiche linguistiche (come l'evoluzione della lingua, il declino e la tutela delle lingue, ecc.);
- 3) le strategie di assunzione del personale secondo le esigenze linguistiche delle imprese e delle istituzioni pubbliche.

I risultati degli studi di economia linguistica sono spesso utilizzati per orientare le decisioni in materia di politica linguistica, poiché aiutano a spiegare i processi alla base di tali fenomeni. La ricerca in economia linguistica si è spesso appoggiata alle metodologie convenzionali della ricerca economica, quali lo sviluppo di modelli matematici e il ricorso a test statistici, con tutte le ipotesi e semplificazioni che ne conseguono. Tuttavia, recenti lavori di ricerca nel campo delle politiche linguistiche trattano la complessità delle questioni linguistiche da un punto di vista alternativo. Partendo dall'osservazione che tali questioni coinvolgono numerosi agenti e variabili, e che i nessi causali tra queste variabili sono spesso non-lineari, un numero crescente di ricercatori passa da approcci puramente analitici (ovvero

matematici), che spesso cercano di trovare una cosiddetta “soluzione in forma chiusa” a un problema, ad approcci basati sul calcolo, che ricorrono ad algoritmi e simulazioni.

In questo capitolo introduciamo brevemente il campo dell’economia linguistica, discutiamo alcune delle sfide attuali e presentiamo alcuni recenti sviluppi metodologici.

1. Introduction

Language is an outstanding manifestation of human cognition and it is key to human existence in many different ways. One of the key functions served by language is communication. An organized system of sounds and symbols whose interpretation is shared by a community represents a very efficient way to convey a message. This is especially true when the message to be conveyed is elaborate and rich in information, as such messages can hardly rely on non-verbal forms of communication. However, this is only one use of language. Language pervades countless aspects of human existence. A language provides a way to structure one’s thinking, so much so that some have argued that different languages can shape thoughts in different ways. One’s language can be associated with one’s cultural background and, therefore, can signal that one belongs to a specific social group or sub-group. Languages can be seen as a form of human capital, that is, professional skills that can have an impact on one’s job opportunities and remuneration. Against this backdrop it is easy to see how language-related matters can attract the interest of economists, as well as social scientists in general. Besides, not only can (and should) these matters be studied from several disciplinary perspectives but they also call for genuinely interdisciplinary research efforts able to address their complexity at one and the same time.

This chapter should be seen as a very succinct introduction to language economics, the branch of economics that studies the many interactions between languages and economics. The rest of this chapter is organized as follows. Firstly, we present the economic paradigm with a view to justifying the economic treatment of language-related matters. Then, we discuss the specific field of language economics and how it relates to language policy, referring to some previous studies. Finally, we discuss some recent methodological developments in language economics research stemming from the acknowledgment of the complex nature of language-related issues.

2. What is economics and how does it relate to language?

Far from being concerned exclusively with money and markets, economics is a very broad social science. It is chiefly concerned with studying the behaviour and decision-making processes of humans when they have to allocate scarce resources (including money but also time or various symbolic assets) that have alternative uses. Therefore, virtually any aspect of human behaviour can be studied from an

economic perspective. Applying an economic approach implies revisiting various facets of human behaviour in a social and political context, and analysing it through the lens of the economic paradigm – that is, the judicious use of scarce material and symbolic resources. This often translates into the application of mathematical and statistical modelling to these matters. Backhouse and Medema (2009) provide an in-depth review of the various definitions of economics that were brought forward between the 19th and 20th centuries. They suggest that the definition proposed by Robbins is perhaps the currently most accepted definition of the discipline:

Economics is the science which studies human behavior as a relationship between ends and scarce means which have alternative uses.” (Robbins 1935, 15)

Robbins elaborates further on the interests of an economist by adding that:

[e]conomics is entirely neutral between ends; [...] in so far as any end is dependent on scarce means, it is germane to the preoccupations of the economist. Economics is not concerned with ends as such. (ibid., 24)

It is easy to see why economics is not just interested in matters such as the production and consumption of goods and services, traditionally at the core of the discipline, but in all the dynamics that imply divesting oneself of scarce resources to reach an end. Therefore, economists investigate the optimal allocation of the limited resources available to humans throughout their existence. Every time individuals are faced with a choice that implies a trade-off between two or more options (such as spending money to buy clothes or food, or spending time reading a book or going to the cinema), the economic paradigm can be applied to investigate how they reach their optimal allocation. Becker (1974) goes so far as to say that economic theory may even provide a unified framework for all behaviour involving scarce resources. Therefore, numerous applications of economic theory have appeared over time, such as the economics of religion, identity economics, cultural economics and, of course, language economics. Applications of non-mainstream branches of economics include, for example:

- 1) investigating different wealth redistribution mechanisms in countries with similar economic characteristics as a function of different social identities (Shayo 2009);
- 2) studying how different psychological frameworks across nations influence investors' behaviour (Taillard 2017) and how cultural differences affects inter-country investments (Xu et al. 2009);
- 3) explaining how different religious beliefs affects individual microeconomic behaviour (Stark/Finke 2000);
- 4) an analytical (mathematical) discussion of the choices underlying marital patterns (Becker 1974).

Concerning the specific relation between economics and languages, we can identify three different types of connections (Grin 2003). Firstly, we observe a connection going from traditional economic variables, such as prices and trade flows, to linguistic variables. An example of such relations could be the influence of patterns of international trade on the space devoted to various languages in the school curriculum. Secondly, we observe a reciprocal connection between linguistic and economic variables, asking, for example, how individuals' language skills may affect their job opportunities and remuneration. Finally, we can observe a third type of connection, somewhat less direct than the other two but no less important. When discussing the processes affecting language matters, we may consider the role of variables that are not traditionally considered "economic". However, a policy maker faced with the decision of implementing a policy with instruments that are not particularly "economic" will still need to go through some form of cost-benefit analysis (or a variant thereof), and therefore reason economically. This third type of connection, then, proceeds from the economic treatment of the relation between non-traditional economic variables and linguistic variables.

In the rest of this chapter we will explore the field in greater detail. We will also discuss some examples of relations between economics and language issues.

3. Language economics and language policy

Many of the non-mainstream (or heterodox) applications of economics are often located on the fringes of the discipline with an important degree of overlap with other sciences. In the case of language economics, the centre of gravity of this discipline most likely spreads over numerous disciplines, i.e. economics, policy analysis, the sociology of language, sociolinguistics and the education sciences (Grin 2003). The expression "language economics" was first used by Jakob Marschak in 1965 to refer to some characteristics of language and communication that he had observed. He argued that languages worked as a continuous optimization process whereby speakers try to find an optimal trade-off (hence the reference to the economic paradigm) between maximizing the information content and precision of a message and minimizing effort. It is clear to see that these two objectives are somewhat hard to reconcile. On the one hand, greater precision is reached by increasing the number of words in a sentence. At the same time, this works against the objective of keeping effort to a minimum. Therefore, Marschak goes on to argue that certain traits of languages have more chances of surviving in the long term because they represent a solution to such a trade-off, while others tend to disappear over time.

Ever since its first use, the expression "language economics" went on to describe different types of applications that were developed over the second half of the 20th century. In particular, the field of language economics moved away

from strictly linguistic matters, like the one discussed by Marschak, and started focusing more on the role of languages in society. Three main waves of research efforts have characterized the economics of language:

- 1) during the 1960s, researchers in this domain used language as an ethnic attribute (i.e. as an indicator of belonging to a certain ethnic group) and focussed on the identification of factors that determine differences in labour income;
- 2) during the 1970s, possibly under the influence of the theory of human capital put forward by Becker (1964), languages came to be seen as a form of human capital, and research efforts focussed on the econometric estimation of the return (that is, profitability) on language skills;
- 3) finally, from the 1980s onwards, these two views on language were combined in what we could consider today's paradigm of language economics, which treats languages simultaneously as an ethnic attribute and as a form of human capital.

From this short discussion, it should be clear that language economics, despite being only a branch in a much wider discipline, is a substantial field in itself, and one that it has proved challenging to define concisely for a long time. Grin (2003) proposes the following definition:

The economics of language refers to the paradigm of mainstream theoretical economics and uses the concepts and tools of economics in the study of relationships featuring linguistic variables. It focuses principally, but not exclusively, on those relationships in which economic variables also play a part. (ibid., 16)

One of the reasons why it can be useful to study language matters from an economic perspective, alongside others, is that such an approach, thanks to its modelling-driven insistence on internal consistency, can make valuable contributions to the political debate in the formulation of language policies, particularly when the variables involved can be expressed in quantitative terms.

In the following sections we will discuss a few examples of applications of economic analysis to language issues with a view to clarifying the way economic thinking can be applied to language-related matters and the links between language economics and language policy.

4. Language skills and wages

As mentioned in the previous section, language skills can be treated as a form of human capital, that is, a form of knowledge that can be employed to perform labour and, consequently, generate economic value. The study of the relationship between human capital and economic value is at the core of a branch of economics called "education economics". Like any other form of human capital, language

skills tend to be rewarded proportionally to the additional economic value that they produce. Therefore, a worker with an additional skill will generally be paid more than another worker without that skill, everything else being equal – as long as that skill does contribute to the creation of value. The acquisition of skills will, more often than not, provide a certain return over time. Obviously, though, it also entails cost. This cost consists not only of the actual cost of acquiring a certain skill (for example, buying books, paying tuition fees, etc.), but also of the opportunity cost of the time spent learning instead of working and the related forgone salary. Figure 1 (Grin 2002) shows two very simple education scenarios, long (A) and short (B). It displays the education-related earnings and costs of two individuals throughout their lives. On the x-axis there is time in years and on the y-axis there are earnings (positive semi-axis) and costs (negative semi-axis) for both individuals. Neither A nor B bears a cost between the age of 0 and 7. Between the age of 7 and 15, assumed to be the years of compulsory schooling, both individuals bear a cost that consists mostly in the opportunity cost (usually approximated by forgone salaries),¹ in that it is fair to assume that education is provided free of charge by the government. After the age of 15, the two patterns diverge. Individual A goes on studying (that is, acquiring further knowledge) until the age of 25, which implies costs such as tuition fees, in addition to the usual opportunity cost of forgone salaries. At the age of 25, individual A starts working with an entry salary that is in line with her level of knowledge and increases as she acquires experience until she retires at the age of 65.² Conversely, individual B starts working at the age of 15 with an entry salary commensurate with her level of knowledge (which is obviously lower than the knowledge of individual A at the age of 25). Areas FE (forgone earnings) and SE (schooling expenditure) represent the total cost incurred by individual A as a consequence of her choice to go on studying. Area GH (gains resulting from higher education) represents the additional earnings acquired by A for the same reason. Intuitively, pursuing higher education proves to be a profitable strategy if $GH > FE + SE$, that is, if higher earnings more than compensate for additional expenditures and forgone earnings. For a more accurate evaluation, one should also account for the fact that these costs and earnings accrue over time and not at once. Indeed, one could, for example, invest money in profitable opportunities other than education and enjoy the returns in future periods. The same applies to forgone salaries. Therefore, one should look at the *net present value* of the investment in education (but the corresponding technical procedure will not be presented here).

¹ In real life, these costs are virtually non-existent in that most countries provide free education and do not, in principle, allow children below a certain age to work.

² The slight concavity of the curve captures the fact that skills tend to become obsolete over time.

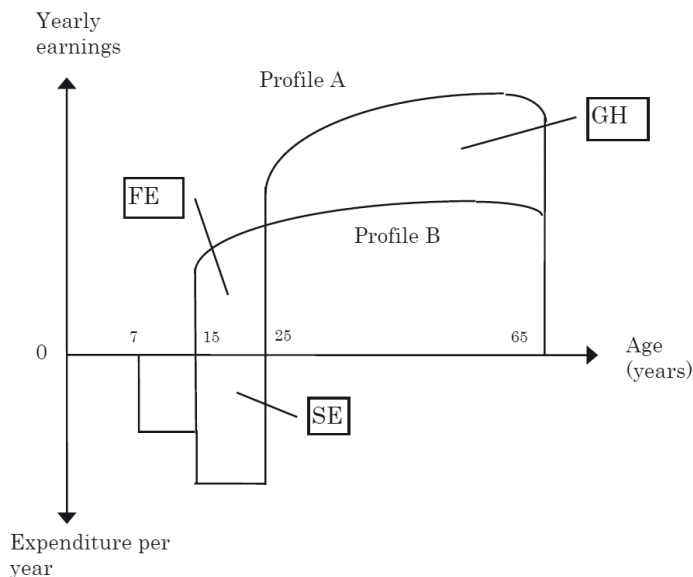


Fig. 1: Long (A) vs. short (B) education scenarios

This discussion considers education in general, but it is possible reapply it to specific skills, such as language skills. Learning a language requires time and money. Therefore, it implies an opportunity cost (time spent learning instead of working or performing leisure activities that accrue non-monetary benefits to an individual) and other expenses (such as language books and classes) that will be compensated for by employers who value language skills. If this additional return more than compensates for the investment in time and money, learning a language can be considered a profitable choice.

Grin (1999) studied the return on various levels of proficiency in High (Standard) German and Swiss German in French-speaking and Italian-speaking Switzerland. Figure 2 reports the return on language skills for men in the two regions. We immediately notice that learning High German always pays off, with greater returns associated with higher proficiency. This is true in both regions. Note that this analysis controls for education and work experience. As an example, let us consider the case of two men living in French-speaking Switzerland, having comparable levels of education and work experience. Let us further assume that one has very good skills in High German while the other does not have any knowledge of it. This analysis suggests that, on average, the former will earn 23.17% more than the latter. The same discussion applies to Swiss German, although the returns seem to be more modest; besides, some of the results for Swiss German are not statistically significant (striped bars in Fig. 2).

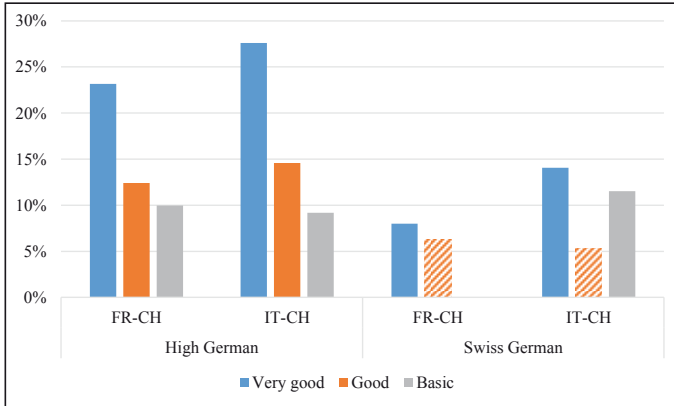


Fig. 2: Returns on speaking High German and Swiss German in French-speaking and Italian-speaking Switzerland (control variables: education, experience and experience squared)

The discussion on language skills and wages focused on the case of individuals. However, it can be extended to society as a whole by taking into consideration aggregate costs and earnings. Such an extension is crucial when, for example, policy makers need to consider whether language education should be provided by the government or not. In short, if the (present) cost borne by society to provide language education results in (future) higher productivity and, therefore, in greater economic activity, implementing a policy that introduces, for example, compulsory language courses in school curricula would prove to be a profitable choice.

5. Language skills and hiring strategies

In the previous section, we discussed how the offer of employees' language skills is usually rewarded by a higher salary. In this section, we switch the focus to the demand side of this relation, that is, the interest in language skills displayed by employers. Grin et al. (2010) studied the case of foreign language requirements and use across the three language regions of Switzerland. In particular, the study focused on the systematic under-requirement of foreign language skills (in a language other than the one of the employees' region of residence). Indeed, the authors found that there was a systematic mismatch between the frequency with which language skills were explicitly requested of employees when they were hired and the frequency with which these employees ended up using these skills in their jobs. These figures are reported in Table 1. Even if we look exclusively at the sign of these differences, we immediately notice that there seems to be a constant underestimation of the actual need for foreign language skills. Indeed, these data suggest that employees end up using foreign language skills even

though such skills were not requested when they were hired. The authors provide two interpretations for this phenomenon. On the one hand, this mismatch could be due to the fact that employers are simply short-sighted, that is, they are not aware of the actual need for foreign language skills. On the other hand, it might be the case that employers take skills in a given foreign language for granted. This interpretation is supported by another pattern displayed by the data. The under-requirement of Italian in German- and French-speaking Switzerland is lower than the other values. At the same time, the under-requirement of German and French in Italian-speaking Switzerland is higher. This seems to suggest that skills in German and French are taken for granted, possibly as a consequence of the dominant position of these two languages in Switzerland. Conversely, Italian is more frequently requested when needed. This might be due to the fact that employers do not generally take it for granted that employees are able to speak Italian, which is a minority language.³

Language region	Language			
	<i>German</i>	<i>French</i>	<i>Italian</i>	<i>English</i>
<i>German-speaking</i>	–	18.2	14.7	17.6
<i>French-speaking</i>	14.9	–	10.9	12.3
<i>Italian-speaking</i>	28.2	36.3	–	13.3

Table 1: Difference between actual use and requested skills (%) (Grin et al. 2010, 126)

How does this relate to language policy? The discussion above probably relates better to a private language policy put in place by businesses (as opposed to public language policy implemented by public institutions). Paired with further analysis of the precise reasons behind the systematic under-requirement of foreign language skills and a detailed identification of the units and divisions that experience more pressuring needs, the findings by Grin et al. (2010) justify the implementation of language audits to assess precisely the linguistic profile of the business with a view to adopting enhanced management practices. On a higher level, one could also think of the long-term implications for the government. Indeed, a thorough assessment of the needs for foreign language skills in the private sector can certainly help education departments develop better school curricula in terms of consistency between the competences obtained through formal schooling and the ones actually needed in the job market.

³ For an in-depth discussion on the role of Italian in Switzerland, see Civico (2018).

6. Complexity and languages

The above considerations illustrate the well-known fact that language-related issues are virtually never *just* about languages. They can (and should) be studied from several disciplinary perspectives. However, while many disciplines have approached, at various moments, the study of language matters, most research work has been confined to the boundaries of one discipline at a time. In the past few years, more and more scholars have concluded that language matters have so many non-trivial causes and consequences that only a genuinely interdisciplinary approach can address them effectively. This philosophy is echoed in recent research on multilingualism in Europe, in which the perspectives of more than ten disciplines are combined (Grin et al. 2018). In other words, an increasing number of scholars have acknowledged the intrinsic *complexity* of language matters.⁴ Indeed, language matters happen within systems that display a high level of complexity. An in-depth description of complexity and complex systems is well beyond the scope of this chapter.⁵ Without burdening this discussion with technical details, suffice it to say that complex systems display a number of recurring traits, including: a large number of heterogeneous, interacting components, a marked non-proportionality between causes and effects (the so-called “butterfly effect”), a general difficulty to make sense of the situation, and a lack of central control replaced by a mechanism of self-regulation. Besides, complex phenomena often develop on various scales. For example, the dynamics observed at a macro level might be rooted in agents’ micro-level behaviour, or the other way around. The fact that the macro system displays properties that result exclusively from the interaction between micro agents but that do not belong to any of them is often referred to as “emergence”.

Keeping the above considerations in mind, it should be evident that language-related phenomena are no exception. Let us consider the case of a large multinational company. Corporations whose activities stretch over several countries often have multilingual personnel. In many cases this represents a hindrance to smooth communication. At the micro level, employees will often agree to communicate in a shared language, regardless of other considerations, such as the language of the place where their subsidiary is located. At the macro level, multinational companies often face a trade-off between prioritizing the use of a single language and continuously adapting to the local context. On the one hand, unrestricted multilingualism might lead to severe inefficiencies, although it would more easily accommodate individual employees’ preferences. On the other hand, a one-language policy, though potentially boosting cross-border collaboration, can come

⁴ See, for example, Beckner et al. (2009) for an in-depth discussion of the complexity of language matters.

⁵ Interested readers can refer to Mitchell (2009).

at a very high price, such as eclipsing talented workers who are not proficient in the common language selected. Eventually, it can even generate misunderstandings, quite ironically. Therefore, it is easy to see that this language issue unfolds at different levels. Micro-linguistic behaviours and needs can differ significantly from macro-level ones.⁶

7. Agent-based modelling as a tool to study complexity

The study of complexity and complex systems is known as “complexity theory”, a research paradigm that starts from the assumption that many natural and social phenomena are intrinsically complex and that traditional approaches based on reductionism and simplification are unable to explain them satisfactorily. Over time, complexity theory scholars have developed a number of methodologies that should better capture such complexity and, consequently, have greater explanatory power. In the case of complexity economics (the application of the ideas and methods of complexity science to economic matters), an increasing number of researchers have transitioned from purely analytical (that is, mathematical) approaches (which often attempt to find a so-called “closed-form solution” to a problem), to computation-based approaches, which rely on algorithms and simulations. One of these methodologies is *agent-based modelling*, a computational modelling method that simulates interactions among micro-level agents with a view to reproducing (and, therefore, explaining) observed macro-level dynamics.

Agent-based models (ABMs) usually reproduce an environment which includes the agents involved with a phenomenon under study. These agents are then provided with behavioural and learning rules. Once the model is launched, agents interact based on the rules with which they were provided. The modeller observes “from the outside” and keeps track of what happens with the community of agents at a higher level. In general, if the agents were provided with actually observed micro-level properties and their interaction accurately reproduces the higher-level dynamics actually observed (that is, if the model is validated), a sensitivity analysis can be performed to study how changes at the micro-level translate into macro-level effects. It should be noted that ABMs can result from a genuinely interdisciplinary approach in that they can be informed by knowledge drawn from many disciplines. In the next section we will present an example of an application that draws on both economics and sociolinguistics.

⁶ For more on the complexity of communication in multilingual corporations, see Civico (2019a).

8. An application of agent-based modelling to language matters

Civico (2019b) developed an application of complexity theory to a traditional language issue, i.e. language contact, defined as “the use of more than one language in the same place at the same time” (Thomason 2001). In particular, the study focuses on the case of those communities where two groups co-exist and two languages, a majority and a minority one, are spoken. One group is monolingual in the majority language and the other is bilingual in the majority and the minority language. As a real-world example of such a configuration, the author proposed the case of Romansh in Switzerland, a minority language spoken by roughly 0.5% of the population and whose native speakers are more often than not perfectly bilingual in German or Italian. This analysis argues that the declining trend experienced by minority languages can be traced back to a number of individual variables that affect the behaviour of micro-level agents, i.e. minority language speakers. The variables considered are (i) the tendency of individuals from the minority group to pair up with individuals from the majority group; (ii) the tendency of minority language speakers to address people directly in the minority language or not; (iii) the presence of education programmes in the minority language; and (iv) the number of minority language students who are involved in such programmes.

To address this question, an ABM was developed to replicate interactions between agents in the community. In essence, the model works as follows:

- the environment is a multilingual community in which two languages are spoken, majority language A and minority language B;
- every individual is fluent in the majority language;
- some individuals are also able to speak the minority language with varying degrees of fluency;
- speakers of the minority language can either be willing to *reveal* their linguistic background or to *hide* it;
- the minority language is *passed on to the offspring* only if both parents are minority language speakers;
- if the proportion of minority language speakers falls under a certain threshold, policies to provide *education in the minority language* might be implemented;
- when the simulation is launched, agents converse with one another, choosing to use either the minority language or the majority one. The consequence of such a choice is that *fluency in the minority language increases or decreases* as a function of the number of times agents end up using the minority or the majority language, respectively. When their fluency in the minority language reaches zero, the speaker is considered to have assimilated into the majority group.

In order to provide the agents with behavioural rules (justifying why some speakers prefer to address people in the minority language while others do not), traditional economic modelling can be combined with qualitative findings from the sociolinguistic literature. This analysis is a necessary step to argue that the attitude towards the minority language is largely a cultural matter and highly dependent on the social perception of the minority group. Therefore, this parameter can vary significantly across different communities.

The results of the long-term impact of the four variables mentioned above on the demographics of the minority language group lead to the following conclusions:

- 1) Exogamous pairing (that is, the frequency with which members of the minority form a family with a non-minority individual) seems to be the strongest predictor of the long-term decline of the minority language group. This is backed up by much sociolinguistic literature. Indeed, it was observed that the more an allophone community is integrated with the majority group, the quicker their language tends to disappear.
- 2) Decline can be slowed down by education policies but not stopped or reverted. This has also been observed in many contexts, such as the case of Irish and English in Ireland.
- 3) Any policy in support of minority languages is useless if not supported by the right attitude, confirming a result from early models on language dynamics and language shift (Grin 1992).

In the main, these ABM results dovetail with findings from earlier theoretical or empirical research. However, it should also be borne in mind that one of the most important functions of ABMs is testing and exploration. Often, modellers are interested in studying the behaviour of a system under different circumstances. This is crucial when the magnitude of the impact of a certain variable should be estimated. However, it is not always possible to collect sufficiently varied data and over a long period of time. This might be due, amongst other things, to ethical reasons or simply to the fact that the data do not exist. Computer-based simulations provide a natural solution to this problem. Therefore, the more an ABM resembles reality in its assumptions and its results, the more reliable its projections are. This makes it possible for policy makers to explore various scenarios and gauge the impact of policies without actually implementing them. For example, various institutions, such as the Swiss Confederation and the European Union, have an active interest in supporting linguistic diversity. Having even a vague idea of long-term trends of linguistic diversity and of the impact of potential policy measures can prove very useful.

9. Conclusions

Apart from the type of results that the models presented in this chapter can deliver, the most important conclusion is that the integration of different disciplinary perspectives is crucial for the study of languages and language-related issues. Language issues are never only *language* issues. Their causes and consequences are often found in many seemingly unrelated domains of society. Therefore, it is crucial to study language-related issues from various disciplinary perspectives with a view to spelling out all the variables and causal links involved. Only by acknowledging this fact will it be possible to develop effective language policy measures. Economics certainly represents an important ally in the study of language matters; indeed, recent methodological developments open up new ways in which economics can contribute to language policy formulation. However, economic modelling (whether computational or analytical) needs to be integrated with qualitative findings from other disciplines, otherwise it risks being nothing more than an elegant intellectual exercise of limited utility. At the same time, traditional language disciplines, such as sociolinguistics, can certainly benefit from the methodological rigour of economics and the flexibility of computational modelling, lest many of their findings be dismissed as mere anecdotes.

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Language industry and the EU

Rudy Tirry

European Language Industry Survey

Abstract

Met de jaarlijkse bevraging van de Europese (ver)taalsector peilen de internationale vakverenigingen uit de sector, gesteund door het Directoraat-Generaal Vertaling van de Europese Commissie en het EMT universiteitsnetwerk, naar de verwachtingen en bekommernissen van al diegenen die in deze sector actief zijn.

Daarmee vormt dit onderzoek een aanvulling op het werk van internationale marktonderzoekers en nationale verenigingen die via specifieke enquêtes de zakelijke en operationele realiteit van de sector in kaart brengen.

Elk jaar behandelt de bevraging nieuwe thema's die actueel zijn voor deze snel evoluerende sector maar de kern van het onderzoek is sinds 2013 ongewijzigd gebleven zodat nu ook lange-termijntrends zichtbaar worden.

1. Objective

In 2013, the European Union of Associations of Translation Companies (EUATC) initiated the European Language Industry Survey to fill a gap that existing private surveys and public statistics had left open.

The established surveys, such as those run by the specialized market research companies CSA and Nimdzi, or by national or international associations such as Tekom and the American LCI, were typically designed to obtain business and operational data that describe the current state of affairs in the industry, or they provided a benchmark against which individual companies could compare their own operations and performance.

What seemed to be missing was the expectations and concerns of those who are active in the language sector, critical elements that professional associations and policy makers need to take into account in order to prepare for the future.

These expectations and concerns are at the heart of the European Language Industry Survey. Are those involved optimistic about their future in the industry? Do they have expansion plans? What are their main challenges? What is the impact of new technologies on their activities? Can they find the right resources?

2. Scope

Today the annual European Language Industry Survey is supported by other international associations that are active in the European language industry (Elia,

FIT, GALA) as well as by the European Commission's Directorate-General Translation (DGT) and the European Master's in Translation (EMT) university network.

As other organizations joined the original EUATC effort, the response rate increased dramatically, and so did the scope of the survey topics that needed to be addressed to meet the requirements of each organization. Rapid technological developments in the language industry added new topics as well.

Today's survey, therefore, covers a wide variety of topics, from macro-economic business expectations to detailed operational practices. Care has been taken to keep the survey completely anonymous. The items mainly ask for data ranges rather than absolute data, since the latter are often not readily available to respondents.

The results are analysed according to various components that make up the respondent profile, such as gender, number of years in the industry, respondent type and size segment (for companies).



Fig. 1: Variation between different respondent types (in this case regarding the percentage of direct customers)

This approach has revealed interesting variations between different respondent types such as translation companies and individual translators.

3. Consistency

To provide reliable trends over a longer period of time (despite the need for constant topic diversification), each edition of the survey contains an identical set of questions about market and business evolution, as well as several identical open questions about trend expectations.

These questions cover topics such as general market activity, competition, pricing and staffing as well as requirements in terms of certification or the GDPR (General Data Protection Regulation), a more recent addition to the list.

By comparing real data from the previous year with expectations for the current year, the survey is able to identify how companies and professionals adapt their business behaviour to earlier evolutions.

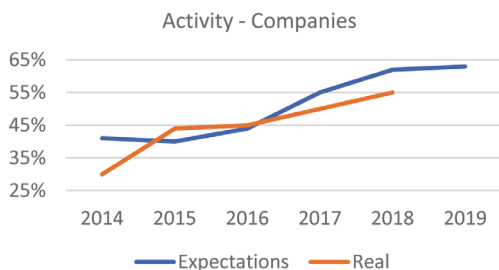


Fig. 2: Trend analysis of real and expected market activity

	# Companies	Invest	Disinvest	Certify	Sentiment	2015	2016	2017	2018	2019
Austria	10	14	1	0	13	😊	😊	😞	😊	😊
Belgium	14	9	1	1	8	😞	😊	😊	😊	😊
Croatia	14	15	0	9	15				😊	😊
Czech Republic	5	6	0	0	6					😊
Estonia	5	4	0	0	4	😊	😊			😊
Finland	14	11	3	1	8					😊
France	15	12	4	4	8	😊	😊	😊	😊	😊
Germany	18	18	2	10	16	😊	😊	😊	😊	😊
Greece	5	6	0	2	6					😊
Hungary	8	10	3	2	7					😊
Italy	17	15	2	3	13	😊	😞	😊	😊	😊
Lithuania	7	7	2	2	5					😊
Netherlands	12	18	1	8	17	😊	😊	😊	😊	😊
Poland	15	12	0	6	12				😊	😊
Portugal	11	13	0	7	13	😊	😊	😊	😊	😊
Romania	7	3	0	1	3				😊	😊
Russia	6	6	0	2	6					😊
Slovenia	9	13	0	7	13			😊	😊	😊
Spain	25	16	2	10	14	😊	😊	😊	😊	😊
United Kingdom	20	26	4	9	22	😊	😊	😊	😊	😊
	11,7	1	4	10,7		😊	😊	😊	😊	😊

Table 1: Investment/disinvestment mood indicator

Possibly the most striking illustration of the need for this consistent approach is the mood indicator. This indicator analyses reported investment and disinvestment intentions to derive the mood of the market in individual European countries.

This question was added to the 2015 edition of the survey and has remained unchanged until today, which ensures an uninterrupted data set over a 5-year period. The results from the investment/disinvestment question can be cross-checked with the answers to other market evolution questions to increase or question the reliability of the conclusions.

Based on the responses to the other questions, this is most likely linked to the expected continued growth of the market (see Table 1).

Data such as these are inherently subjective in nature and need to be handled with care. For this reason, the mood indicator only considers markets for which the number of responses is considered sufficiently representative.

In Figure 3, only countries with a sentiment ratio (sentiment value divided by number of respondents) higher than 1 appear as green. As of edition 2020 of the survey, this threshold will be set at 0.5.

4. Open questions

The European Language Industry Survey deliberately uses a number of open questions. Although such questions are particularly difficult to analyse and interpret, they invite respondents to give their candid opinion regarding trends and challenges, conveying how strongly they feel about them.

The open questions also reveal information that the authors of the survey could have overlooked, such as new language tools introduced to the market, which can be integrated in later editions of the survey.

5. Topic diversification

Diversification is dealt with by gradually adapting existing questions, by removing, adding or modifying answer options, or by removing existing questions that no longer provided new insights and adding new questions to cover new aspects of existing topics or to address entirely new topics.

The 2019 edition of the survey covered new items such as the relationship between freelance translators and translation companies and modified the already existing questions about challenges relating to machine translation usage, copyright practices and skill gaps identified by recruiters and universities.

6. 2020 and beyond

The 2020 edition of the survey breaks with the tradition of having all respondents replying to all questions.

Several participating associations had expressed the wish to cover a number of topics in more detail that are specifically targeted at their own segment, such as the freelance community. This is not possible in a monolithic approach since it would make the survey too long for all respondents. It was therefore decided to dedicate specific sections of the survey to particular respondent types.

Thus, the 2020 survey logic leads each respondent through a subset of questions. Some are identical or similar for all respondent types to allow for comparison between segments, but many are completely different and only relevant for a particular segment. This will allow the participating associations to obtain detailed information to define more targeted actions for their specific segments. This new approach will be evaluated and refined in future editions.

7. Caveat

The exact size of the European language industry is uncertain and the number of active players and their type makes it even more so. It is therefore difficult to ascertain how reliable the results are from a given number of respondents.

This is particularly true for the questions that relate to opinions and expectations, which are at the core of this survey. The answers to a particular question cannot be analysed in isolation, therefore, but have to be compared and cross-referenced with other questions relating to the same topic or trend.

Despite this element of subjectivity, which any user of the survey report has to be aware of, the survey is widely recognized as a good instrument to take the pulse of the European language industry and a useful tool to define or adjust policy measures and operational practices.

Inkaliisa Vihonen-Peuranen

The Language Industry Platform LIND and national market surveys – why data matters

Abstract (Finnish)

Kieliteollisuus ja sen osa-alueet kääntämisestä ja tulkkauksesta aina kielikonsultointiin ovat olleet Euroopan komission kääntämisen pääosaston (DGT – Directorate-General for Translation) kiinnostuksen kohteena jo yli vuosikymmenen, aina vuonna 2009 julkaistusta tutkimuksesta kieliteollisuuden koosta Euroopassa. Monikielinen Eurooppa on synnyttänyt palveluita, jotka mahdollistavat viestien välittämisen vastaanottajan omalla äidinkielellä. Tämä on niin yhteiskunnan kuin liiketoiminnan kannalta välttämätöntä ja järkevää.

Kieliteollisuutta on kuitenkin varsin vaikeaa määritellä, monet sen toiminnoista ovat näkymättömissä eri prosesseiden syövereissä, joskus jopa täysin irrallisena niistä. Kielten elinvoimaisuuden ja dynamiikan kannalta on kuitenkin olennaista tuoda esiin näiden palveluiden laajuus ja merkitys nykypäivän Euroopalle. Euroopan Unionin (EU) tasolla onkin luotu erinäisiä hankkeita, joiden tarkoituksena on luoda näkyvyyttä erilaisille palveluille, joita kieliteollisuus tuottaa.

Olenainen osa näkyvyyttä on kieliteollisuuden esiintyminen virallisissa tilastoissa. DGT on tehnyt yhteistyötä alan asiantuntijoiden kanssa eritelläkseen luokkia, joihin kielipalvelut kuuluvat muun muassa Euroopan laajuisissa EU:n tilastotoimisto Eurostatin tilastoissa. Työ on hidasta, muutoksien nopeutta mitataan vuosissa tai joissain tapauksissa vuosikymmenissä. Toisaalta politiikan tai rakenteellisella tasolla tehdyt muutokset ovat pitkällä aikavälillä niitä tehokkaimpia näkyvyyden tuojia. Tätä pitkän aikavälin työtä tukemaan on järjestetty useita Euroopan laajuisia ja kansallisia kyselyitä, jotka puhuvat omaa kieltään monimuotoisesta mutta toisaalta pirstaloituneesta alasta. Tarvitaankin kaikkien alan toimijoiden yhteistyötä kokoomaan yhteen tärkeän, mutta hajanaisen kielisektorin tieto ja osaaminen. Vain yhdessä ja kaikkien osa-alojen yhteistyöllä saavutetaan näkyviä ja kestäviä tuloksia.

1. Some milestones in the quest for visibility

The language industry and its various sub-sectors have been a topic of interest and research at DGT – Directorate-General for Translation – since 2009, when the first mapping exercise, *The study on the size of the language industry*, was published. With its preliminary estimates and definition of sub-sectors, it marked a first step in the quest of for visibility and recognition of a rapidly developing industry. As well as presenting the situation back in 2009, it gave estimates of how the industry would develop in the future.

During a time when there were far fewer multilingual global services like streaming services on multilingual platforms, the estimated value of the language industry was roughly €8.6 billion. It was also expected that the size of the industry would double in the following eight years and be around €16.8 billion in 2015.

Today, a good decade later, the figures seem quite realistic even though there is still no exact figure on the value of the European language industry in total. However, moderate estimates vary between €15-20 billion. Companies involved in the language industry also report on growth and optimism about language market developments. In a word, the volume of multilingual services has increased, much for the benefit of citizens of multilingual Europe.



Fig. 1: Study on *The size of the language industry in the EU* published in 2009

2. What is the language industry composed of?

One of the other, more lasting results of the study was the classification of the language industry into 8 sub-sectors as follows:

- Translation,
- Interpretation,
- Software localisation and website globalisation,
- Language technology tools development,
- Language teaching,

- Subtitling and dubbing,
- Organisation of international conferences,
- Consultancy in linguistic issues.

Again, the idea was to demonstrate that there are many versatile services enabling multilingual content creation for citizens and businesses besides translation and interpretation, the most well-known and visible sub-sectors of all.

Today, the situation of the industry seems even more versatile; with the involvement of *Artificial Intelligence* (AI) and *big data*, many new services have emerged, creating more products to cater for linguistic needs. Examples of such new services are *audio description*, *text-to-speech services* and *transcreation*.

3. Statistics and more statistics

From the start, it was clear that some structural measures were needed to enhance the visibility of the language sector. From an outside perspective, it is hard to recognise something that is not visible and not easily quantifiable.

In Europe, we are in a lucky situation where we do get free and comprehensive data on, for example, European business sectors. However, the language industry, for historical reasons, has not been represented separately but together with other sectors, such as secretarial services. Therefore, it has been hard to demonstrate the size and development of the sector.

To this end, DGT has worked closely with the Statistical Office of the European Union *Eurostat*. During the last review of the business activity classification NACE (Statistical Classification of Economic Activities in the European Community) that ended in 2008, the sub-sectors of translation and interpretation were already separated from secretarial services, yielding data that is much more usable and reliable. In the latest review launched in the summer of 2019, we proposed to separate the categories of translation and interpretation, currently intertwined, as they usually represent different professions and skillsets. In addition, separate categories were proposed for activities in machine translation and speech recognition.

As another follow-up to the initial study, DGT established the *Commission Expert Group and Platform for the Language Industry, LIND*. In this context, DGT has worked together with LIND experts, all recognised experts of the language profession, to enhance existing and future tools to map industry sectors, for example, in ESCO (European Skills, Competences, Qualifications and Occupations), which currently covers European job titles in 24 languages. There the ‘new’ language industry occupations include *lawyer linguist*, *localiser* and *language engineer*. These new occupations also link in to the EU-wide *Eures* database, where job seekers can find work across Europe. Hopefully, this will also increase the visibility and demonstrate the potential that the language industry has to offer to them.

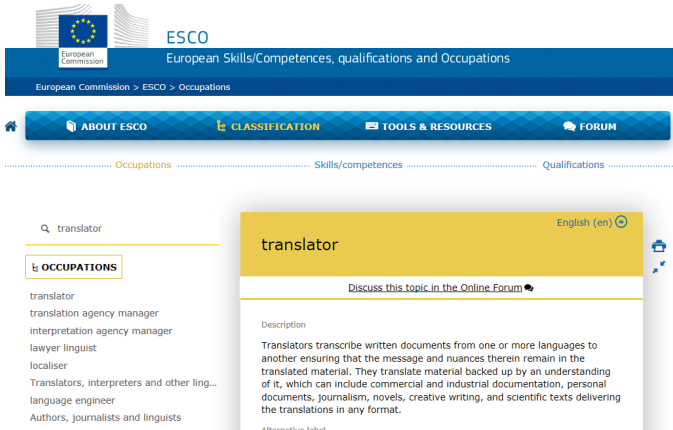


Fig. 2: Overview of language professionals in the ESCO classification

Besides these activities to enhance data acquisition relating to the industry which DGT is itself an essential part of, we have cooperated in the voluntary collection of data to track and identify industry trends, which will help us to monitor and develop our future activities. These initiatives include the *European Language Industry Survey* and various national surveys carried out in EU member states using the European survey as a model.

4. What next?

Now, ten years later, it has become clear that the positive image the pioneering study painted of the language industry back in 2009 was quite realistic or even slightly cautious, as the industry has continued to grow due to several, sometimes converging, factors such as globalisation, new market regulations and diversifying customer needs.

Nevertheless, it is still a relatively small and fragmented sector due to the innate nature of languages. On a positive note, the diversity of the language industry makes it also dynamic and innovative. In the age of automation, it is highly unlikely that this diversity and complexity can be mastered by automated tools any time soon.

The fragmentation of the language industry also calls for close cooperation between small sub-sectors and professions across languages and professional borders. Through cooperation we can make our case for language services being at the heart of the European project. It is only by joining forces as well as sharing the knowledge and expertise that we all represent that we will gain visible and sustainable results for the language industry as a whole.

Merit-Ene Ilja

Quo vadis, institutional translation?

This paper¹ deals with institutional translation in the context of the translation services of EU institutions and focuses on related challenges drawing on the example of the Directorate-General for Translation of the European Commission (DGT). The focus lies on the main factors and drivers influencing the organisation and provision of translation services by the DGT. The following are some of the questions that are being addressed while transforming the translation delivery model on its path to shaping the future of translation in the DGT:

- How does the general drive for more efficiency in the public sector and more specifically in EU institutions affect the provisions of translation services?
- How is the DGT benefiting from technological progress to become an agile data-driven translation service?
- How is technology transforming the translation operation as well as the roles and functions in the translation process and in the overall content delivery pipeline?
- What new skills do translators and translation support staff need in a technology-enhanced working environment?

An ever-important factor driving change in the translation world is the constant search for efficiency in order to deliver translations and other linguistic services faster and cheaper. European Union institutions and their translation services are likewise intent on using resources effectively and efficiently to provide better regulation and better services for EU citizens. The DGT is resorting to a flexible mix of resources combining in-house translation, outsourcing and technology as the basis for a modern, agile translation service in the digital age.

Today, the main driver for and enabler of transformation in translation services and the profession as a whole is clearly technological progress. In recent decades, rapid advances in language and translation technologies have left a heavy mark on the way technical/legal translation is organised in both the private and public sectors. Technologies have not only enabled efficiencies in translation delivery but have also enhanced linguistic quality. Over twenty years ago translators started working with translation memories in the CAT environment which allowed an efficient and consistent translation of repetitive source text. Today many translation services rely on machine translation as an additional tool for smarter delivery. Over time, technology has revolutionised the translation process and environment

¹ Summary of the presentation at the EFNIL Conference in Tallinn, 9-11 October 2019

beyond recognition. In particular, the combination of the human element with translation memories, statistical and now neural machine-translation output, integrated terminological databases and many other support tools has undoubtedly led to better quality and higher productivity.

In line with the Commission President's objective of a fully digitalised Commission, the DGT has been at the forefront of digital transformation in the translation profession, introducing and developing eTranslation, its machine translation system, sponsored by the Connecting Europe Facility. As one of the Commission's state-of-the-art machine learning applications, eTranslation is based on human translation produced by the DGT's in-house staff and external language service providers. Together with the language services of other EU institutions, the DGT has built up unparalleled language resources in the form of translation memories amounting to 1.2 billion segments stored in the Euramis database as well terminological data in the terminology database IATE (about 7.8 million terms). In addition to some 2 million pages translated each year by its expert in-house staff and external service providers, the DGT processes over 41 million pages via eTranslation, which is available to all EU institutions, universities offering a European Master's in Translation (EMT) and EU national administrations, as well as more recently to Small and Medium-Sized Enterprises (SMEs). The DGT is continuously investing in technology in its integrated translation environment and in the underlying multilingual data assets such as translation memories and terminological data.

The main challenge for the DGT now is to marry its wealth of human intelligence, which remains essential for the DGT's mission of translating for the Commission in the quality required, with the new neural machine translation technology. In other words, the DGT combines human and machine capabilities to provide quality translations more efficiently.

The ongoing technology-driven change in the translation profession has made it important to accompany and support the DGT's staff with systematic upskilling and training. In parallel, this change has brought about a redefinition of the tasks and functions essential in a modern translation pipeline, highlighting the importance of multitasking, computational linguistics related tasks and data curation. In this context, the DGT continues to build advanced digital skills and to equip its staff with state-of-the-art tools to ensure accuracy, consistency and efficiency in their work. The DGT is developing a data management strategy to curate linguistic data for re-use in machine translation and other translation technology tools. The DGT will move towards a collaborative translation environment from 2020 onwards which opens an opportunity to further review working arrangements and simplify processes as much as possible. At the same time, the DGT is also aiming at more streamlined and automated translation management workflows.

Over the years the DGT has forged close cooperations with the language industry (Language Industry Expert Group) and promoted the translation profes-

sion via a wide range of initiatives such as the EMT network, Translating Europe fora and workshops, European Day of Languages workshops, the Juvenes Translatores translation competition for schools and the Visiting Translator Scheme. The DGT has also contributed to the creation of the EMT Translator competence profile.

To sum up, the DGT's strategy for the next five years will focus on continuing to support the Commission's work at speed in 24 languages. To this end, the DGT will invest heavily in language technology and in the skills of its staff, using a flexible mix of in-house staff, freelance translation and language technology resources. In its role as a world reference for translation, the DGT will also continue to promote multilingualism and support the development of the translation profession through its outreach work.

Alexandra Panagakou

Outline of a new skill profile for interpreters as language professionals in the EU

Dear Mr President of EFNIL, Mr Van Hoorde,
Dear members of EFNIL,
Dear Mr Tender of the Estonian Language Institute,
Ladies and gentlemen,

I would like to start off by thanking you personally and on behalf of my Director General, Ms Florika Fink Hooijer, for inviting DG Interpretation, DG SCIC, to address this conference. SCIC participates regularly in your conferences. I am particularly happy to be here to give a presentation on the topic of Languages and Economy but even more importantly I look forward to listening to you and taking part in the discussions because I think that these exchanges are very useful. I have the honour to be accompanied by my colleague, Ms Merje Laht, the Head of the Estonian unit in DG SCIC and we are at your disposal for any questions in the discussions and at other opportunities during the conference.

Before I begin, I would like to underline that, rather than being a finished, definitive position, my presentation on new skills for interpreters at European Union Institutions is practically work in progress. It is, therefore, my personal opinion and does not represent the official position of DG SCIC. Secondly, I would like you to understand the perspective from which I am talking. I am not going to do a presentation as an academic or a researcher. I will rather explain my view as a manager of interpreters, a recruiter of interpreters, an employer of interpreters. To narrow down this perspective even more, please note that I will concentrate on new skills for **conference interpreters** in the multilingual environment in the EU and Europe although I will touch upon other interpretation settings, such as public service and legal interpreting.

I consider that the question of the evolution of the skills of language professionals is an important element in the discussion of the relationship between languages and economy. Interpreters' skills are very important for DG SCIC because – like our sister DG, DG Translation, whose representatives you heard before – our *raison d'être* is excellence in the service we provide. The EU is unique among international organisations (think about the UN, NATO, IMF etc) in recruiting language professionals for all EU languages as all 24 official languages of EU Member States are also official languages of the EU.¹ We are

¹ Art. 22 of the Charter of the Fundamental Rights of the EU, Articles 20 and 24 of the Treaty on the Functioning of the EU, Council Regulation 1/1958.

accountable to European taxpayers, who actually fund us, to provide excellent interpretation services for the European Commission. It is DG SCIC's interpreters who work at all the meetings the Commission runs as the executive body of the EU (in order, for instance, to agree on how to implement EU legislation or to check whether European funds were well used). DG SCIC's interpreters also interpret at the meetings of the Council of Ministers (one of the two legislators in the EU) and so contribute to the creation of EU laws which apply to our daily lives as EU citizens, but also at the meetings of the European Council (when you see the leaders and Heads of State meeting in Brussels, a historic meeting is actually taking place next week as you know) it's my colleagues, DG SCIC's interpreters, who provide the interpretation. In fact, Merje will be in the booth there next week.

Secondly, I consider that the discussion about new skills is necessary because the interpreters' working environment, the meetings where we work, are changing. Mr Kelam has just described a meeting where 40 speeches were given in different languages in the space of two hours! This is a new way of taking the floor and speaking at a meeting or a conference. As meetings change, our customers' expectations of what interpreters should do are also changing. As I said, we are committed to excellence. So, we have the obligation to provide excellence in the challenging new professional environment as well.

Referring to new skills as a concept does not mean that what we have traditionally used as the basis of our recruitment process is not necessary any more. Far from it. Interpreters always need to be able to interpret the message, the meaning, the ideas of the speaker from a number of languages (in a system with 24 official languages) into what we call, technically, their active language, which is usually their mother tongue. For instance, when I worked as an interpreter full time I worked from seven languages into Greek. Interpreters need to analyse the message fast, find ways to synthesise, anticipate, adapt to the register, have excellent communication skills and finally transmit what the speaker wants to say. They need to know their languages at a very high level and – crucially – to understand the culture in which they operate but also the culture in which their clients function. It is a kind of multiple localisation, as they operate in more than one cultural environment, each with its own rules and systems, and they need to move smoothly from one to the other and facilitate communication and understanding.

As employers, we select and recruit on the basis of this skill set. We developed it organically over the years but we have managed to stabilise and standardise it. This is why interpretation skills can be taught and improved – not only with experience but also through teaching. We also have advanced systems of life-long learning – necessary in a system of 24 official languages – so that our interpreters can extend their language combinations.

However, what we discover is that already within this important skill set, there are gaps between what the economy – employers and clients – expect and what

young language graduates/professionals supply, such as gaps in their knowledge of passive languages at the required level, in their use of the active language and in general culture. I consider that it is in our common interest to understand why these gaps exist and what can be done so that young language professionals are closer to the level demanded by the economy. Possible paths to explore include methods to strengthen the correct use of the mother tongue, enhancing the study of foreign languages to deepen knowledge by integrating cultural elements and, possibly, some specialised study in the foreign language, such as in economics, law, or administrative procedures etc. Our young recruits should have a good understanding of how language is used at various registers. In other words, we have to ensure that when training for the profession they are aware of and are ready to deal with the communicative power of language.

Going a step further, I would like to address how the new skill set, which is outlined on the horizon, is generated by changes in the working environment. We are all, interpreters included, moving into a globalised world where – at least as far as international conferences are concerned – there is a trend for English to dominate as a *lingua franca*. The issue will not disappear after Brexit as English will remain an official EU language. This does not make interpretation superfluous, quite the opposite. For various reasons, both practical and more theoretical in nature, such as the need for excellent communication but also accessibility for all citizens regardless of their linguistic skills in foreign languages, transparency and – finally and importantly in the political context, democratic legitimacy – interpretation is necessary. But the economy asks for what I call “polyvalent interpreters”. This is a general term – and a loan from French – to mean interpreters who can interpret equally well into a second active language, into their “retour” language, as we say in the professional jargon. To paraphrase Umberto Eco, if translation is the language of Europe, then the European language of interpretation is the “retour”. Depending on the market where an interpreter operates, this “retour” language should be one of the so-called widely spoken languages, such as English, French, German or Spanish. But it can be – and should be – the language of the country when an interpreter works locally. This is an important – I would even say indispensable – requirement for interpretation in other settings, apart from conferences. In Public Service Interpreting, at the courts for legal interpreting and in health care, interpreters usually provide bidirectional interpreting between languages A and B. These are forms of interpreting which are becoming increasingly professionalised and where training at universities which train interpreters is starting to boom. The way in which these language professionals study their two languages before they become interpreters and bring them to the required level is, in my opinion, an important area of research.

Still, in the area of conference interpreting, we would also need more interpreters with a good second active language. This is a kind of revolution in the EU Institutions which have operated on the basis of working into the mother tongue.

But market needs have changed. So, here again at the time of professional training, the study of the best “passive” language should be different, deeper and enhanced, so as to allow the interpreter to be able to use it actively. Undoubtedly, this requires a lot of work and experience as well as linguistic and cultural immersion.

To move to the outer circle of the new skill set, I would extend the polyvalence of conference interpreters to other non-linguistic skills. It is clear that interpreters need to be able to work with technology. Ever since the first simultaneous interpretation equipment was installed, interpretation has been dependent on the technology used. However, now, interpreters need to adapt to technological change in real time as it is now disrupting traditional delivery models of conference interpreting in many different ways (e.g. speech recognition, distance interpreting). Language professionals have to be ready to deal with this disruption. They need to use technology as an ally to improve their skills and concentrate on providing the added value in communication and real understanding expected from the interpreter.

Moreover, interpreters need to be trained in and develop what is often characterised as soft skills: flexibility, customer-orientation, teamwork. In addition (and in particular for freelance interpreters), entrepreneurial skills (branding, marketing, accounting) are required and absolutely necessary. These skills have usually been left to be acquired through professional experience. Interpreters and their recruiters (at least at the institutional level) have focused on the linguistic and interpreting skills. I think that this should change and professional training should provide at least the basics in these other skills.

Naturally, the EU Institutions should do their own homework and adapt their selection of interpreters to the new skills they need. We are not there yet. This work is a common endeavour (of professionals, trainers and employers) to ensure the future of the profession by considering the needs of the economy. Languages are a vital component of our social and economic life and language professionals should be enabled to offer excellent professional services to our citizens.

Multilingualism: Foreign language skills and education

Adam Pawłowski

Does multilingualism pay off? Reflections on the economics of language

Abstract

Multilingualism is generally treated as a catalyst for the careers of individuals and as an asset for entire societies competing on an economic level. It may be a marker of social prestige and a requirement for a good job. It is also believed to open the eyes of citizens to diversity and to promote tolerance. But is such an image not a simplification? Most of the multilingual and multicultural societies around the world are not as affluent as the inhabitants of Luxembourg or Switzerland. It is also true that multilingual Yugoslavia or Rwanda suffered greatly from their multiculturalism. The largest economy in the world (USA) is practically monolingual while the second largest is linguistically very diverse (China). The languages spoken in metropolises in post-colonial countries are sometimes an asset and a valued skill (English in India) but also undesirable political baggage (Russian in the Baltic States). Actually, multilingualism is a complex phenomenon that can involve different types and levels of competence (e.g. understanding, speaking, writing, communicating) as well as languages that differ in their economic and cultural power.

The first part of the article defines the basic concepts of the analysis (language, multilingualism, information economics). It then formulates the two research hypotheses to be tested, together with a description of the data sources. The first hypothesis concerns the relation between multilingualism (linguistic diversity) and well-being while the second refers to the relation between the level of English spoken in a society and its prosperity. Greenberg's Language Diversity Index and the number of official languages in a country were used as a measure of linguistic diversity and the GDP per capita value as a measure of prosperity. The analysis showed that, on a global scale, there is no correlation between social multilingualism and the welfare of a country while the correlation between the level of English and the GDP per capita value is positive and significant.

1. Introduction

One of the undisputed and widespread "truths" in all developed countries in the world is the conviction that knowledge of foreign languages is a valuable asset, beneficial for professional and private use and, what is even more important, profitable. In principle, everyone can easily point out examples of people whose careers have allegedly been boosted by their knowledge of foreign languages and who, we believe, have improved their professional status and standard of living thanks to their linguistic expertise. The majority of Europeans also share the opinion that knowledge of many languages contributes to the alleviation of inter-

national conflicts and that the elementary communication barrier, i.e. not being able to speak other languages, generates a sense of alienation and hostility, even leading to war. They are supported by various experts who uncritically praise multilingualism.¹

However, with an insightful, rather than selective, observation of the world, the above theses are difficult to justify. There are many successful monolingual professionals, and in countries such as the USA, Australia, China and Japan, even hundreds of millions. They only speak their own language (or possibly a regional dialect as well), and yet they fulfil themselves at work, earning a good wage, and if they want to, they travel abroad and explore the world. The example of multilingual Yugoslavia, on the other hand, shows that command of the languages of other nations or a shared state language in a federation of regions does not help to maintain peace. It was similar in the USSR, where the multilingualism of the population in the various republics did not increase general prosperity. One common language in a multinational state can even be considered a barrier to development because it often bears a colonial heel and is an obstacle to a full national identity. Poles and Hungarians, on the other hand, although they do not understand each other's languages at all, have been allies for hundreds of years: apart from minor episodes, they have not waged war and have shown solidarity in difficult moments of history.²

This work is a modest contribution to the discussion of multilingualism in an economic-political and, to a lesser extent, cultural context. However, modesty does not relate to a weakness in the methodological apparatus used, a limitation of data resources or the scope of potential inferences. Rather, it is about the desire to avoid a discussion with the powerful mainstream of didactics, culture and academia, which has been promoting language learning for decades, if not centuries. There are several reasons for this, from trivial ones, i.e. the limitation in length of a standard article, to the fact that the literature on this issue numbers hundreds of texts, as in addition to strictly academic work, published in many languages of the world, there is a vast amount of official (administrative, governmental) documentation related to language policy, the multilingual European Union being particularly productive in this respect. The fundamental issue is, however, that myths are difficult to

¹ www.weforum.org/agenda/2018/02/speaking-more-languages-boost-economic-growth/, <https://theconversation.com/why-multilingualism-is-good-for-economic-growth-71851>, www.caslt.org/files/learn-languages/pch-bilingualism-lit-review-final-en.pdf.

² In 1920, for example, Hungarian supplies of weapons and ammunition helped the Polish army to stop near Warsaw and reject to the east the Bolsheviks heading for Berlin and Paris. Deliveries from the west and by sea were then blocked because German and French workers went on strike. They believed in the sense of a global communist revolution in which "bourgeois" Poland, which was defended against the Bolshevik invasion by all strata of society (including the working class), was not only a military obstacle but also an argument undermining the Marxist vision of the world.

dispute because they have a specific immune system that guarantees resistance to rational argument (and the unconditionally beneficial influence of multilingualism on humans is a myth).

At the beginning I explain the terms used, such as language, multilingualism (including linguodiversity) and economic prosperity. Next, I put forward a series of hypotheses concerning the economic potential of multilingualism, indicating those which are verifiable in practice and those which are only theoretically verifiable. One such hypothesis is then verified using statistical data from various international institutions. The work ends with conclusions that challenge the myth of multilingualism, which allegedly has an unquestionable and unambiguously positive impact on social reality.

2. Concepts

The basic concept, which is extremely important for further deliberations, is language. One can, of course, wonder why it is necessary to define something that has been defined by researchers and laymen for centuries and about which almost everything has been said. However, the problem is that linguistic or sociolinguistic definitions are not appropriate in this case while there is no satisfactory definition of language considered from an economic perspective. Taking the experience of Europe and other developed countries into account, the following formula can be proposed: “Language is one of the information subsystems, which constitute a system of state administration and management. It enables interpersonal and social communication in the fields of administration, economy and culture; it also builds a community of users, its prestige and economic potential” (cf. Pawłowski 2019). Using this definition, one can identify profitable, economically stable and deficient languages. Profit-making languages give their users an advantage over their environment which can be felt in the form of access to better paid work and faster career advancement. Economically stable languages guarantee a return on investment in education because they ensure cohesion and administrative efficiency (one example of such investments is teaching the “national language” at school that apparently everyone speaks as well as maintaining the “national philology” at an academic level). Finally, deficient languages are only sustained by external funding; without it, they would fall into a state of vegetation and gradually decline.

The nature of this definition and the adopted research method limit our area of interest to the official state languages of individual countries. One might expect that data on this subject is easy to obtain and will not raise doubts like, for example, the status of dialects or various mixed codes. This is not the case, however, because individual countries have their own traditions of language policy and have different approaches to this issue. A language may have an official status, for example, on the whole or only a part of a country’s territory or it may not have an official status and yet remain in common use (this is especially true of post or neo-colonial

countries). Finally, it can happen that the official status of the language is mainly symbolic (the example of Irish in Ireland). For the purposes of this work, the category of “principal languages”, found in the Ethnologue database, was used in disputed cases.

The definition of multilingualism is much more complex. Seemingly obvious (every language user thinks they understand it), this term actually refers to a whole complex of phenomena and needs to be explained, especially since it occurs in both academic and popular discourse. Multilingualism is defined as “the ability of an individual or of a group to communicate in at least two languages”. Multilingualism can therefore have an individual or societal character. In both cases it can be voluntary, imposed or inherited; besides there are different mixed forms. It can also include a different number of languages (not necessarily two), their status does not have to be equal in legal or practical terms (diglossia, bilingualism). Furthermore, there are different levels and types of competence (understanding, speaking, writing, active and passive knowledge) as well as social aspects (differentiation of language knowledge by social background, occupation, status, gender, etc.). In the case of societal multilingualism, one can also mention its structure. There are two possibilities here, namely the melting pot model and the mosaic model (also called the salad model). The first one assumes a deep mix of communities and a common knowledge of two (or more) languages while the second one occurs in highly atomised societies, where within a single political nation there are separate groups with a strong cultural or religious identity which use their own languages. On a nationwide (e.g. federal) level, these groups are expected to communicate using some kind of community code.

Even a cursory arrangement of this very complex global situation is virtually impossible. Therefore, as already mentioned, I propose using three measures as a numerical approximation of multilingualism, allowing us to analyse the correlation of this parameter with economic indicators. The first is the Greenberg Language Diversity Index (LDI), the second is the number of official languages or “principal languages” (according to the Ethnologue website) and the third is the percentage of the population that speaks English (as their L1 or L2, irrespective of the level). Greenberg’s index of diversity is the probability that two people selected from the population at random will speak different mother tongues. Its values range from 0 to 1: 0 means that all citizens speak the same tongue and 1 means that every citizen speaks a different tongue.³ A higher LDI value, therefore, means a higher level of linguistic diversity. It is worth mentioning that LDI is constructed according to the same principle as other measures of population or set diversity, amongst which the most popular are the so-called Good’s measures.

³ LDI values can be found on the website <http://chartsbin.com/view/7j7> (cf. Harmon/Loh 2010). In addition, there are many graphics in public resources that illustrate linguodiversity around the globe.

The second group of terms used here refers to economics. The domain linking linguistics with economics is language economics (Gassola et al. 2015). Closely related to language policy, it concerns a wide range of economic aspects of information and language communication management in a country. It differs from language policy, however, because it should be devoid of any reference to ideology. Its specific areas of interest include the financial implications of maintaining and managing an official language or minority languages. In addition it deals with the profit and loss account in the context of developing internal multilingualism and external language promotion.⁴

The basic economic concept used as an independent variable in the research presented below and against which various measures of linguodiversity will be correlated is economic prosperity. Prosperity (welfare, well-being) is a complex phenomenon involving many factors (cf. Grin/Arcand 2013). However, it can be approached using some quantitative measures, such as:

- Gross Domestic Product (GDP, when necessary adjusted for population size),
- GDP per capita,
- Purchasing Parity Power (PPP),
- salary (average and/or median).

Sometimes complementary measures of prosperity are applied which indirectly reveal what is commonly referred to as quality of life, including:

- life expectancy,
- infant mortality,
- level of literacy,
- substitute measures (clean air, 1m² of an apartment, or even a Big Mac).

Here a strictly economic perspective will be applied, which means that only basic economic parameters, namely GDP per capita and not complementary indicators will be used as a measure of prosperity.

3. Data

As mentioned earlier, calculating the above parameters for all states and dependent territories in the world would exceed the framework of this publication. However, there are specialised international institutions which publish their statistics in open resources. The available sources have different profiles, which are generally derived from the type of institution that manages the database concerned. Exploration of information space allowed me to distinguish four types of resources here:

⁴ ‘Language economics’ and ‘language economy’ (or the ‘economy of language’) are quite different issues. The former relates to the economic aspects of language management while the latter belongs to cognitive science and is related to the internal organisation of the language system based on the principle of the least effort.

economic, linguistic, general and based on social networking. The most complex group of sources is, of course, the one described as ‘general’. Without going into details (generally available on the database websites), only the sources used at the different stages of the study are listed, namely the World Bank (economic), the Organisation for Economic Co-operation and Development (OECD, economic), the Central Intelligence Agency (general), the NationMaster database (economic), the Eurobarometer and Eurostat (general), Ethnologue (linguistic), the Summer Institute of Linguistics (linguistic), Quora (question-and-answer website, general) and Wikipedia (general). In addition, various social media and selected national statistical institutions were consulted.

The research covered all countries of the world and dependent territories insofar as data were available. In addition, analyses were carried out for subgroups, such as OECD countries or Europe. For the “principal language” vs GDP per capita correlation studies, 185 countries and territories were analysed; for the English vs GDP per capita correlation, 109 countries and territories were analysed; for the LDI vs GDP per capita correlation studies, 177 countries and territories were included. The correlations for the OECD, Europe and EU countries included 36, 35 and 28 countries respectively.

4. Hypotheses

The potential research hypotheses can be divided into those that relate to the situation of individuals and those that relate to entire societies. In the first group, the most convincing investigation would be a correlation test between foreign language skills and salary levels or positions in the hierarchy to indicate whether 1) the career paths of multilingual people are more attractive than those of monolingual people; 2) multilingual people in similar positions, with similar seniority and age, actually have different incomes. This would confirm or refute the hypothesis that knowledge of foreign languages is a career catalyst.

In the second group, the hypothesis of a correlation between societies’ multilingualism and their level of prosperity (H2) can be proposed as the most important. The third hypothesis (H3) concerns an indirect measure of multilingualism: a correlation between the level of English in a society (as the L1 or L2) and welfare is explored.

The first hypothesis (H1) sounds very attractive but its verification is impossible. No company or institution would make earnings data available, and even if it did, a comparison with historical data would be necessary, additionally taking some foreign language standards into account. There is also the issue of the cultural environment (an external factor) and corporate governance of the company (an internal factor). It is thus probable that the same absolute numbers would mean something different in different contexts. However, it is possible to test the

second (H2) and third (H3) hypotheses based on the previously presented aggregate data for countries of the world. The indicator of multilingualism may be LDI (assuming that it was calculated using the same method for all countries of the world) and/or the number of official languages (except for minority languages). The commonly accepted measure of prosperity is GBP per capita.

5. Results

The analysis of the statistical correlation between the level of prosperity and the number of “principal languages” in a country, carried out on a global scale, yields a result which allows us to reject the H2 hypothesis (the allegedly beneficial impact of social multilingualism on the economy). The study conducted on data from 185 countries revealed that the Pearson correlation coefficient of both variables is close to zero: 0.061 (the average number of “principal languages” per country was 1.611).

The same hypothesis (H2) was subjected to another test: instead of the number of “principal languages”, Greenberg’s language diversity index (LDI) was used. The result obtained from a sample of 177 countries, with an average LDI level of 0.452 per country, resulted in a negative Pearson correlation coefficient of -0.174. Not only does this not confirm the hypothesis of the beneficial impact of multilingualism on welfare, it even suggests that excessive linguistic diversity is a characteristic of less prosperous countries; it might be therefore a constraint on their economic development.

The third test (H3) referred to the possible correlation between the level of prosperity and the percentage of people who speak English in society. English as an L1 and an L2 was treated in the same way so for some countries the ratio was 1 (100%). The analysis carried out on a set of 109 countries (no more data were available in information resources) gave a positive and significant value: 0.601. This result indicates that there is a positive correlation between knowledge of English in a society and its level of prosperity. However, it should be borne in mind that multilingualism is not the only factor considered here as countries such as the USA, Australia, New Zealand or the United Kingdom are monolingual in the light of the adopted criteria.

The data on the correlation between the two variables made it possible to calculate the percentage of GDP per capita (independent variable) that is theoretically explained by knowledge of English in the society (dependent variable). This interesting coefficient, usually marked as R^2 , is defined on the basis and model of linear regression. In simple terms, it can be said that R^2 is the percentage of information contained in the data that is explained by the model. Here the value of R^2 is 0.36, which, with a purely technical interpretation, might indicate that command of English contributes to the creation of as much as 36% of GDP per capita (on

average). However, a more reasonable interpretation must consider the fact that GDP is actually affected by a myriad of various factors and only taking most of them into account as variables could show the real impact of language on the welfare of the country.

An interesting result was obtained by carrying out these tests on smaller sets of countries, namely in Europe, among OECD countries and in the European Union. Everywhere, knowledge of English correlated significantly with a high GDP per capita while LDI and the number of “principal languages” did not show such correlations (Table 1).

	Greenberg’s LDI vs GDP per capita	Number of languages vs GDP per capita	English vs GDP per capita
World	-0.174	0.061	0.601
Europe	0.232	0.0	0.682
OECD	0.312	0.214	0.655
European Union	0.243	0.089	0.603

Tab. 1: Multilingualism and English correlated with GDP per capita

6. Conclusions

As already mentioned in the introduction, multilingualism is a complex and difficult category to define. Nevertheless, there is a widespread belief in most societies that knowledge of foreign languages is beneficial from a professional and financial point of view. However, an empirical study of the correlation between multilingualism and the level of state prosperity (welfare) does not confirm this view. Multilingualism as measured by the number of official languages does not correlate at all with the level of prosperity as measured by GDP per capita. Moreover, the correlation of linguistic diversity, as measured by Greenberg’s LDI index, with GDP per capita, even indicates a weak negative value. This would imply that an overabundance of languages reduces the average level of prosperity in a country and its chances for dynamic development. Interestingly enough, this state of affairs seems to have been persistent so far, as similar conclusions were drawn by a study conducted almost 30 years ago by Florian Coulmans (1992). In contrast, positive and significant correlations were found when comparing GDP per capita and the level of English. This suggests that the key to economic success is not multilingualism but English (or, implicitly, any global lingua franca).

Does this mean that studying foreign languages is not worthwhile? Of course not, because the world average does not adequately describe the situation in various regions. In particular, the issue of post-colonial countries is important here, where

there is pressure to emigrate economically to the former states of the metropolitan area, combined with imports of capital and innovation. This means that in Central and Eastern Europe, for example, German and, to a lesser extent, Russian would be sought after in the labour market (economic emigration to Germany, Austria and Switzerland, working in satellite branches of companies from these countries, working in the largest urban centres in Russia). In North Africa, in turn, French remains a useful language for professional purposes, despite decades of Arabisation policy. The average result does not explain the situation of countries with a small population either, whose languages are not used internationally (numerous European countries, Scandinavia, for example). There, the requirement for multilingualism is obviously also extremely important.

However, on a global scale, it seems that societal multilingualism reduces the chances of development because it is very costly and undermines the cohesion of the country. It is not surprising that only rich countries allow themselves the luxury of maintaining it (and some of them even benefit from it, witness Switzerland, Malta, Luxembourg, Singapore and, until recently, Hong Kong). In these countries, various cultures, religions and languages have not divided and blown up the states from within, and their authorities have so far succeeded in constructing a political rather than an ethnic nation. However, these successes have been bought at great expense and effort on an educational and administrative level. Therefore they do not counterbalance the success of large monolingual countries (toute proportion gardée USA, China, Japan, Australia, some countries in South America, Germany or France). Even in rich, democratic and highly developed Canada, the French of Quebec is not considered to be an absolutely positive factor as it might cause the whole country to disintegrate.⁵ Multilingualism, as perceived by Europeans, therefore appears to be a specific and unique feature of their continent which has been shaped by centuries-old, often small nation states committed to their tradition and identity that have always resisted colonisation pressure from their bigger neighbours.

So if we are talking about the beneficial effects of multilingualism, they should be sought using the criterion of the profession. Virtually everyone who decides to work in multinational companies, to emigrate, to work as a journalist, politician or scientist has to comply with this requirement. And that is not a problem because these professions attract people who value intellectual challenges, are open-minded and interested in diversity. However, for hundreds of millions of employees doing their work on a permanent basis, especially in large and populous countries, maintaining multilingualism is only an expensive hatchback.

⁵ There is a wealth of political and linguistic literature on this subject. But for the author of this text, there is one entirely subjective argument for maintaining the bilingualism of Canada at any price: the perfect French and English versions of Celine Dion's songs.

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Guy Berg

Multilinguisme et économie ouverte – Le microcosme mondialisé du Luxembourg

Abstract (French)

Malgré sa taille réduite, le Grand-Duché du Luxembourg présente une économie largement ouverte sur le monde. Cette ouverture économique va de pair avec une ouverture linguistique séculaire qui fait en sorte que le pays s'est doté de trois langues dites officielles et favorise l'emploi concurrentiel d'autres langues supplémentaires.

Il est intéressant à cet égard de porter le regard sur les antécédents qui sont à la base de ce comportement linguistique, qui est le résultat tant de nombreux développements historiques et géographiques que de certains choix politiques et de société.

Toujours est-il que ce cas de figure échappe aux typologies et modèles courants développés pour décrire les mécanismes qui régissent la réalité linguistique de sociétés plurilingues. Certaines considérations sociolinguistiques devraient permettre de mieux cerner le caractère exceptionnel de la situation luxembourgeoise.

Abstract: Méisproochegkeet an enger oppener Economie – De globaliséierte Mikrokosmos Lëtzebuerg

Mat senger iwwerschaubarer Gréisst ass de Groussherzogtum Lëtzebuerg dach eng Economie, déi wäit op ass vis-à-vis vun der ganzer Welt. Dës ekonomesch Oppenheet geet zesumme mat enger Joerhonnerten aler Oppenheet wat d'Sproochen ugeet. Dat huet dozou gefouert datt d'Land sech net manner wéi dräi sougenannten offiziell Sprooche ginn huet an de gläichzäitege Gebrauch vu weidere Sproochen ënnerstëtzt.

Heibäi ass et vun Interessi de Bléck op dat ze riichten wat d'Ursaache si vun dëser sproochlecher Praxis. Dës Gewunnechte sinn d'Resultat net nëmme vun e sëllegen historreschen a geographeschen Entwécklungen, mee och vu ganz bestëmmte politeschen a soziale Choixën.

Wéi och ëmmer een dës Situatioun zu Lëtzebuerg kuckt, si entzitt sech deene Modeller an Typologien, déi normalerweis déi Mechanisme beschreiwen, mat deenen déi sproochlech Realitéiten a méisproochege Gesellschaften erkläert ginn. E puer soziolinguisteschen Iwwerleunge sollen hëllefën, déi aussergewéinlech Situatioun vu Lëtzebuerg besser ze verstoen.

Monsieur le Président,
Chers collègues,
Chers amis,
Mesdames, Messieurs,

J'aimerais partager avec vous quelques réflexions sur la complexité de la réalité linguistique au niveau de la société du Grand-Duché de Luxembourg et de son économie.

1. Généralités

Malgré sa taille réduite, le Grand-Duché de Luxembourg présente une économie largement ouverte sur le monde. Cette ouverture économique va de pair avec une ouverture linguistique séculaire qui fait en sorte que le pays s'est doté de trois langues dites officielles et favorise l'emploi concurrentiel d'autres langues supplémentaires. Ces trois langues sont le luxembourgeois, le français et l'allemand, les langues additionnelles les plus usuelles étant l'anglais et le portugais.

Répartie sur un territoire de quelque 2.500 km², la population résidente, qui est de plus de 600.000 habitants, regroupe plus de 170 nationalités et un nombre similaire de langues différentes. A cette population résidente s'ajoutent, les jours de la semaine, quelque 200.000 frontaliers venant des pays limitrophes que sont la France, la Belgique et l'Allemagne.

L'économie luxembourgeoise fait figure de pôle d'attraction majeur qui attire de la main-d'œuvre dans un rayon qui dépasse les 100 km et donc nécessairement les frontières nationales.

La population a connu une forte progression ces dernières années, à raison de 33% entre 2005 et 2018, due en majeure partie à une immigration prononcée. Cette progression est également l'écho de la performance économique du pays, de la croissance soutenue du marché de travail et du niveau élevé de la qualité de vie. Elle est synonyme aussi de la mondialisation continue du pays.

Cette évolution démographique a lieu en présence d'un régime linguistique qui connaît l'emploi simultané des trois langues luxembourgeoise, française et allemande sur l'ensemble du territoire national.

2. Les langues au service de l'économie

Or, quelle est la réalité linguistique au niveau de l'économie luxembourgeoise?

Est-ce qu'un régime linguistique institutionnalisé peut influencer l'emploi des langues au niveau d'une économie qui, à défaut d'un marché national de taille, se doit d'être largement ouverte sur les marchés internationaux?

Est-ce que la présence simultanée de plusieurs langues n'est pas considérée comme une surcharge parfaitement superflue dans un environnement orienté surtout vers l'efficacité économique, le rendement et le profit?

Ou encore, est-ce que la mondialisation n'implique pas la prédominance du seul anglais en tant que *lingua franca* des échanges internationaux?

Soucieux de trouver une réponse à ces questions, je me suis penché sur un élément de l'économie nationale qui concerne de très près l'emploi des langues, à savoir le marché du travail. C'est le marché du travail en effet qui reflète le mieux les exigences linguistiques réelles du monde économique. Souvent, ces exigences font partie intégrante des profils professionnels recherchés dans les offres d'emploi.

J'ai analysé pour cela, entre avril et septembre de l'année, plusieurs centaines d'offres d'emploi telles qu'elles figurent dans les annonces du premier quotidien du pays, le *Luxemburger Wort/La voix du Luxembourg*.¹

Les résultats de cette analyse sont assez étonnants et méritent d'être commentés. Ainsi, la connaissance de la langue anglaise n'est demandée que dans 20,8% des offres d'embauche, alors que le français est demandé dans 70,8% des cas, suivi par le luxembourgeois avec 63,6% et l'allemand avec 63,3%.

Ces chiffres permettent de formuler le constat suivant: la connaissance concomitante des trois langues usuelles du pays est requise dans deux tiers des cas. Concernant le niveau d'éducation, 3% seulement de ces profils concernent des emplois qui requièrent une qualification de niveau inférieur, contre plus de 60% qui exigent une formation moyenne ou supérieure.

Souvent, ces offres sont assorties d'indications assez précises concernant le profil linguistique recherché. En voici quelques exemples:

- Maîtriser les trois langues administratives du pays;
- Maîtriser la langue luxembourgeoise ainsi que les autres langues administratives du pays (français, allemand);
- Langues: Luxembourgeois (niveau B1), Français, Allemand;
- Quadrilingue;
- Les candidats doivent faire preuve d'une parfaite maîtrise des langues luxembourgeoise, française et allemande;
- La connaissance des trois langues officielles (luxembourgeoise, française et allemande) est présumée.

L'anglais n'est requis que pour un cinquième des offres analysées, alors que le français, le luxembourgeois et l'allemand sont demandés dans deux tiers des cas. Ceci est d'autant plus étonnant que les acteurs économiques ne sont soumis à aucune législation qui leur imposerait l'emploi de telle ou telle langue. Chaque patron et chaque entreprise est parfaitement libre de définir ses besoins linguistiques. J'en conclus que les profils demandés sont dictés par les lois du marché et correspondent à une vraie nécessité de communication orale et écrite.

¹ Ont été analysés pour les besoins de la présente étude les rubriques 'jobfinder.lu' parues dans le quotidien luxembourgeois *Luxemburger Wort*, éditions du 6 avril, 13 juillet et 21 septembre 2019.

A noter également que la plupart des offres d'emploi sont rédigées en français (74,8%), et que la deuxième langue de rédaction des offres est le luxembourgeois avec 16,6%. L'allemand occupe la troisième place avec 7,2%, suivi de l'anglais avec 1,4%.

3. Des origines du régime linguistique luxembourgeois

Ici la question se pose si le multilinguisme luxembourgeois a été mis en place de façon purement pragmatique pour satisfaire aux besoins de l'économie nationale?

Ou bien est-ce qu'il a été inventé pour faciliter l'immigration et accommoder les étrangers qui s'installent dans le pays?

Bien sûr que non!

La présence de plusieurs langues au sein de cette société en principe monolingue doit son origine aux vicissitudes des temps passés. Le multilinguisme luxembourgeois est le résultat de certains développements historiques et géographiques particuliers ainsi que de choix politiques et sociétaux.

La proximité entre le luxembourgeois et l'allemand fait que la présence de l'allemand au Luxembourg paraît évidente. En effet, le luxembourgeois est issu du paysage des dialectes germaniques et fut longtemps qualifié de dialecte allemand. Aujourd'hui encore, les deux langues sont complémentaires.

Le français, langue romane, quant à lui, est génétiquement bien loin de ce couple germanique.

Comment alors expliquer la présence de la langue française dans la société luxembourgeoise au même titre que le luxembourgeois et l'allemand et en complément de ceux-ci?

Les origines du français au Luxembourg remontent aux temps reculés du moyen-âge. Le comté, puis duché de Luxembourg, bien que faisant partie intégrante du Saint Empire germanique, avait manifesté très tôt une prédilection pour le monde roman, pour des raisons de volonté ou nécessité politique, mais aussi pour des raisons d'affinité culturelle et dynastique.

Ainsi, au XIII^e siècle, à une époque où les grandes chancelleries de l'Europe basculaient peu à peu du latin vers la langue vulgaire locale pour la rédaction de leurs chartes, contrats, lettres de franchise et autres documents officiels, les comtes de Luxembourg préférèrent le français pour la rédaction de leurs textes administratifs au détriment de l'allemand.

Dans cette même logique, les comtes de Luxembourg faisaient élever leurs princes à la cour royale de France à Paris. Les liens de famille entre les deux cours étaient étroits et d'une importance politique majeure. Jean I^{er} de Luxembourg, roi de Bohême, donna en mariage sa fille, Bonne de Luxembourg, à Jean II le Bon, roi de France issu de la maison capétienne des Valois.

Tout au long du moyen-âge, les comtes, puis ducs de Luxembourg cherchaient à élargir leurs possessions et gagner en importance politique. Ils réussirent à

réaliser leurs objectifs soit par une politique de domination par la force, soit par une politique de mariage. Ces deux vecteurs n'étaient viables qu'en direction de l'occident, et donc vers l'ouest, étant donné que les territoires à l'est du comté étaient soumis à l'autorité du tout-puissant archevêque de Trèves, prince électeur du Saint Empire.

Face à cette puissance politique à la frontière est de leurs territoires, les princes luxembourgeois étaient forcés de s'orienter vers l'ouest, et donc vers le monde romanophone, pour réaliser leurs objectifs de croissance territoriale. Le résultat de cette politique expansionniste fut que le duché de Luxembourg, à la fin du moyen-âge, était composé de deux parties, appelées quartiers, distincts de par leur culture et leur langue, à savoir le quartier allemand germanophone à l'est, et le quartier wallon francophone à l'ouest. Le duché de l'époque englobait donc deux populations de langue différente.

Telle fut la situation au XV^e siècle quand Philippe le Bon, duc de Bourgogne, réussit à incorporer le duché de Luxembourg dans ses terres bourguignonnes, et le pays finit par intégrer les Pays-Bas espagnols et autrichiens régis depuis Bruxelles et Malines.

Le régime politique tenait bien compte de cette réalité linguistique, de sorte que tous les actes officiels étaient rédigés dans les deux langues française et allemande. Cet état des choses, une fois établi, restait de mise pendant tout l'Ancien Régime.

Annexé par la France pendant la Révolution française et renommé Département des Forêts, le duché, à la fin de l'ère napoléonienne, fut réinventé au Congrès de Vienne sous le nom de Grand-Duché de Luxembourg. Le régime linguistique séculaire était maintenu puisqu'il fallait toujours tenir compte des deux populations de langue différente.

Trilinguisme et Triglossie au Luxembourg

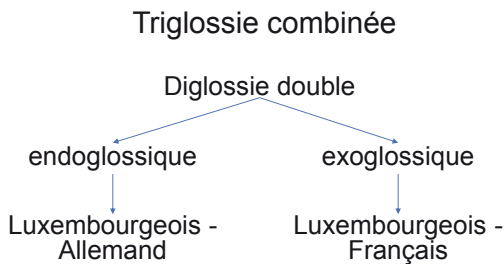


Fig. 1: Complexité de la situation linguistique au Luxembourg

4. Du multilinguisme volontariste

La situation changea radicalement quelques années plus tard dans le courant de la Révolution belge. Les traités négociés pour mettre fin à la violence et à l'insurrection stipulaient que la partie francophone du territoire luxembourgeois, le Quartier wallon, intégrera l'Etat nouvellement créé sous le nom de Royaume de Belgique.

Le résultat de ces tractations fut que, à la fin de la Révolution belge en 1839, le territoire du Grand-Duché de Luxembourg fut réduit à ses dimensions actuelles et, du point de vue linguistique et de sa population, au territoire qui correspondait plus ou moins au Quartier allemand de l'Ancien Régime.

Cette mutilation territoriale se serait prêtée à merveille pour mettre fin à un régime séculier qui imposait la pratique de deux langues à la fois. Le pays aurait pu se contenter de l'allemand comme seule et unique langue officielle pour répondre à tous les besoins de communication écrite.

Les choix finalement opérés ne suivaient pas cette logique. Bien au contraire: les dirigeants choisirent de maintenir le bilinguisme institutionnalisé français-allemand, et cela même en l'absence d'une population francophone. Les raisons qui auront guidé ce choix volontariste sont multiples et complexes et ne peuvent être que soupçonnées. J'imagine, entre autres, les raisons suivantes:

- la tradition: l'héritage linguistique, le bilinguisme, était cher aux décideurs politiques de l'époque;
- le maintien de l'équilibre linguistique et culturel: la pratique des deux langues permettait l'accès égal aux deux cultures germanique et romane et, par exemple, aux universités françaises et allemandes, du moins pour les couches aisées de la population;
- le souci de garder un élément distinctif par rapport à l'Empire allemand: garder le français comme langue administrative du pays, et comme seule langue de la législation, était synonyme de démarcation culturelle et linguistique vis-à-vis du monde germanique;
- l'opportunisme politique: s'attacher au français en tant que langue administrative et de la législation signifiait défendre la prédominance de la bourgeoisie, qui se distinguait par son éducation généralement supérieure, et assurer sa supériorité politique grâce à la langue.

Le luxembourgeois, quant à lui, commence lentement à trouver sa place dans ce concert plurilingue, et le tout premier livre rédigé dans cette langue paraît en 1829. Considéré encore au XIXe siècle comme simple dialecte allemand, il conquiert de plus en plus de domaines d'utilisation et sait s'établir comme la vraie langue nationale, à la différence du français et de l'allemand qui seront toujours considérées comme des langues étrangères.

Aujourd'hui – et nous l'avons vu dans le contexte de l'emploi des langues dans l'économie – le multilinguisme traditionnel du pays se définit par les trois langues luxembourgeoise, française et allemande, et est renforcé par d'autres langues telles que l'anglais et le portugais.

Trilinguisme et Triglossie au Luxembourg Caractéristiques

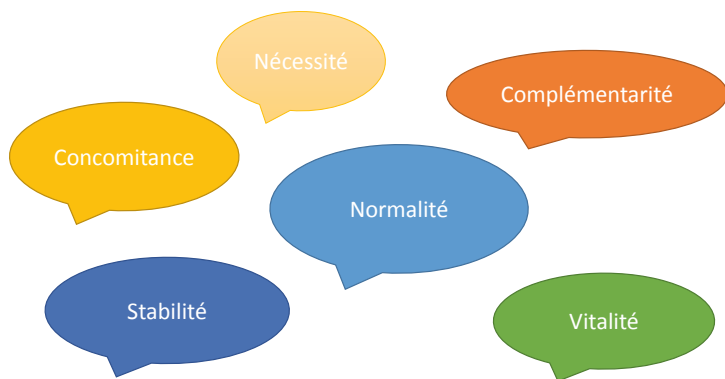


Fig. 2: Les principales caractéristiques du multilinguisme luxembourgeois

5. Considérations sociolinguistiques

Ces réflexions me mènent à une ultime considération, d'ordre sociolinguistique, que j'aimerais évoquer en guise de conclusion.

Le multilinguisme institutionnalisé luxembourgeois peut être caractérisé comme une rare combinaison entre trilinguisme et triglossie: trilinguisme dans la mesure où les trois langues usuelles du pays sont employées à un pied d'égalité et de façon non différenciée par une fraction importante de la population résidente, et triglossie dans la mesure où une différenciation linguistique peut s'imposer en fonction du domaine d'utilisation respectif.

Cette triglossie luxembourgeoise se caractérise ensuite par une double diglossie: une diglossie endoglossique pour le couple luxembourgeois – allemand, et une diglossie exoglossique pour le couple luxembourgeois – français.

Les études menées dans ce domaine de la sociolinguistique montrent que les régimes linguistiques du type diglossie ou triglossie sont généralement peu stables dans le temps et ont tendance à s'effacer au profit d'un régime bilingue, voire monolingue.

Or, les chiffres concernant l'emploi des langues dans le monde du travail et de l'économie au Luxembourg témoignent d'une réalité bien différente. Je les considère comme un indicateur majeur tant de la stabilité que de la vitalité du régime linguistique en vigueur. L'emploi des langues dans l'économie n'est qu'une illustration de leur emploi au niveau de la société dans son ensemble.

6. Conclusion

Visiblement, les trois langues usuelles du Luxembourg se portent bien, leur caractère institutionnalisé n'est pas remis en question, leur emploi concomitant s'inscrit dans la durée, rien n'indique qu'elles auraient tendance à vouloir s'effacer mutuellement, et rien ne laisse supposer que ce ménage plurilingue serait voué à disparition.

Identifier les mécanismes qui sont à la base de ce petit monde plurilingue particulier et de sa tenacité constitue un *desideratum* majeur de la recherche sociolinguistique.

Je vous remercie de votre attention!

Ilse van der Horst/Karlijn Waterman

Dutch is everywhere: Field study on the use and benefits of Dutch language skills in Italy and Poland

Abstract

Speaking multiple languages is a valuable skill in a multilingual world. The value of Dutch programmes abroad and the necessity to support them were long considered self-evident in the Netherlands and Flanders. In recent years, however, there has been a more critical attitude towards financial support for these programmes. This development has inspired the Union for the Dutch Language to carry out studies on the status and value of Dutch programmes in Italy and Poland and to compare its support to that of Germany, Poland, Portugal, Hungary, Sweden and Russia for international education in their national languages. The research shows that Dutch programmes in Italy and Poland contribute both to the national economy and to the Dutch and Flemish economy. Besides that, the programmes have a positive effect on the academic, cultural and literary sector in the Netherlands and Flanders as well as in the countries under investigation. The comparative analysis of policy demonstrates that countries use a diverse set of instruments to support international education in their languages. Behind these differing policies are various motivations and intentions. In addition, there are large differences in the budgets that countries spend on support of international education in their languages. It must be concluded that the Netherlands and Flanders invest far less in foreign education in their languages than other countries and as a consequence miss out on the potential positive economic, academic and cultural effects of Dutch studies abroad.

1. Introduction

All over the world, students are learning languages. The value of their knowledge is substantial in a multilingual world: speaking several languages is essential for understanding other countries, communities and individuals. Many countries acknowledge the value of language skills and (financially) support foreign language programmes at home as well as education in their official language(s) at home and abroad. The Netherlands and Flanders also invest in Dutch language programmes abroad via the Taalunie (Union for the Dutch Language).¹

Although the value of international Dutch language programmes and support for such programmes were long considered to be self-evident, recent years have shown a generally more critical attitude towards financial support for the international study of Dutch. One explanation for this shift is growing support for the

¹ The Union for the Dutch Language also supports primary and secondary education in Dutch in Germany, France and Wallonia.

idea that knowledge of basic English is enough when wanting to communicate with people from other countries.

The developments mentioned above inspired the Union for the Dutch Language to carry out three studies: two studies on the international position and value of Dutch and its study programmes in Italy and Poland² and a comparative analysis of the support that the Netherlands/Flanders, Germany, Poland, Portugal, Hungary, Sweden and Russia offer to language programmes for their official languages abroad.³

2. Theoretical framework

Several studies have been carried out on the (economic) value of foreign language skills, revealing a positive correlation between the foreign language skills of employees and the profits of their employers.⁴ Stephen Hagen argues that insufficient foreign language skills and employees' poor intercultural competence negatively influence relations with business partners and can consequently prevent deals from being made.⁵ Moreover, a deficit in foreign language skills impedes companies from discovering profitable business opportunities in other countries.⁶ CILT and InterAct International support Hagen's claim. Their research demonstrates that 11% of exporting companies in the EU have lost exporting contracts due to insufficient language skills.⁷ Moreover 18% of exporting companies struggle with cultural differences between their company and their trading partners.⁸ CILT and InterAct International have calculated that insufficient foreign language skills in exporting companies cost the European economy €100 billion every year.⁹ Hagen adds that personnel actively using their foreign language competences for the benefit of the company increases profits.¹⁰

In the tourism sector, companies are aware of the importance of foreign language skills, studies show.¹¹ Ars, Visser and Vermeulen argue that tourists' appreciation of a country is, to a large extent, determined by friendly treatment and accessible information.¹² Employees who speak the mother tongue of tourists

² Van der Horst (2019a, b)

³ De Jonghe (2019).

⁴ Hagen (2010, 24).

⁵ Hagen (2010, 24).

⁶ Hagen (2010, 24).

⁷ CILT/InterAct International (2006, 17).

⁸ CILT/InterAct International (2006, 22).

⁹ CILT/InterAct International (2006, 17).

¹⁰ Hagen (2010, 24); CILT/InterAct International (2006, 26).

¹¹ Ars/Visser/Vermeulen (2010, 26); Vanneste/Huyghe/Vandensavel/Vanginderachter (2009, 31-32); Leslie/Russell (2006, 1399).

¹² Ars/Visser/Vermeulen (2010, 26); Leslie/Russell (2006, 1399).

can communicate better with them and can build good relationships more easily.¹³ Tourists who are happy with their holiday destination spread a positive image about the destination among their friends and are more likely to return.¹⁴ Thus, tourists who are assisted in their native language are more likely to be satisfied, which generates more money. According to Vanneste et al. (2009, 33), foreign language knowledge is therefore vital if a country wants to welcome tourists from all countries and mother tongues. Leslie and Russell add that tourism organisations need to comply with tourists' needs for native language assistance.¹⁵ If they cannot do so, this negatively impacts their capacity to compete with other tourism organisations.¹⁶ For all these reasons, tourism organisations prefer employees who speak several foreign languages.¹⁷

3. Methodology

A mixed method approach was implemented to gather data for the field research. Quantitative data about the trade, tourism and cultural contacts between the Netherlands, Flanders and Italy and Poland were collected through desk research and with the help of organisations that work in the field. The following organisations contributed data: Internationale Vereniging voor de Neerlandistiek (International Association for Dutch studies), a professor in Dutch studies, Certificaat Nederlands als Vreemde Taal (Certificate in Dutch as a foreign language), Expertise-centrum Literair Vertalen (Centre of Expertise on Literary Translations), Stichting Nederlands Onderwijs in het Buitenland (Foundation for Dutch education worldwide), Nederlands Letterenfonds (Dutch fund for Literature), Kunstenpunt (Arts centre), Flanders Literature and Dutch Culture.

The qualitative data were collected through questionnaires sent out to university students, alumni, professors and companies. The La Sapienza University in Rome and the Adam Mickiewicz University in Poznań had the role of coordinator in their countries. These universities played an active role in collecting and processing the quantitative and qualitative data. The Union for the Dutch Language used their work as a foundation for further analysis of the data.

In the case of Italy, the questionnaires were filled in by 7 companies, 78 students, 43 alumni and 8 professors in Dutch departments at the universities of Bologna, Milan, Naples, Padua, Rome and Trieste. This adds up to 23% of the students (78 out of 335 in 2018) and 47% of the professors (8 out of 17 in 2018).¹⁸

¹³ Leslie/Russell (2006, 1399).

¹⁴ Leslie/Russell (2006, 1399).

¹⁵ Leslie/Russell (2006, 1402).

¹⁶ Leslie/Russell (2006, 1404).

¹⁷ Leslie/Russell (2006, 1401).

¹⁸ Nederlandse Taalunie (2018).

In Poland, 8 companies, 1 language school, 132 students, 24 professors and 24 alumni responded to the questionnaire. They came from the Dutch programmes at Poznań, Wrocław, Lublin, Opole, Warsaw (two), Łódź and Krakow. In all, 21% of the students filled in the questionnaire (132 out of 626 in 2018) and so did 41% of the professors (24 out of 58 in 2018).¹⁹

It turned out to be difficult to find companies and alumni who were willing to fill in the questionnaires. Many companies were too busy and alumni were difficult to trace because in many cases universities had lost contact with them. This is the reason why the response rates in both groups are low. As a consequence, the data about companies and language schools are not presented as being representative. Nonetheless the data about alumni can indicate certain trends which are relevant for this research. In addition to that, some university departments delivered more respondents than others, which influences the results. On the other hand, certain departments are much bigger than others.

4. Comparative analysis

For the comparative analysis, questionnaires were sent to organisations that support education in the official languages of Germany, Poland, Portugal, Hungary, Sweden (Swedish only) and Russia. The following organisations provided information for this research: Deutscher Akademischer Austauschdienst (Germany), Goethe-Institut (Germany), Universiteit Károli Gáspár Református Egyetem (Hungary), Department for Hungarian Education of Hungarian as a Second Language and Hungarian Studies (Hungary), Ministry of Science and Higher Education and the Department of International Cooperation (Poland), Camões, Instituto da Cooperação e da Língua (Portugal), Russotrudnichestvo (Russia), the Swedish Institute (Sweden), the Ministry of Education, Culture and Science (the Netherlands), Nuffic (the Netherlands), the Department of Educational Development (Flanders). These organisations gave insight into their countries' national language policy and their instruments for supporting education in their official languages. In addition, the researcher, Annelies de Jonghe, carried out interviews with some representatives of the organisations and policy bodies.

5. Discussion of the results

The collected quantitative data stress the importance of the economic and cultural relations of the Netherlands and Flanders with Italy and Poland. In 2017 the Netherlands exported goods worth €19 billion to Italy, which makes Italy the sixth most important export market.²⁰ Flanders exported €15.5 billion to Italy in

¹⁹ Nederlandse Taalunie (2018).

²⁰ Rijksdienst voor Ondernemend Nederland (2018).

2017, which makes Italy the fifth most important export market.²¹ In 2017, the Netherlands exported goods worth € 11.9 billion to Poland²² while in the same year Flanders exported €6.5 billion to Poland.²³ The trade between the Netherlands, Flanders and Italy and Poland contributes positively to the economies of all countries. In all 73% of the Polish alumni and 44% of the Italian alumni work in the commercial sector with 96% of the Polish alumni and 40% of the Italian alumni using their knowledge of Dutch in their work. Alumni use their knowledge of the Dutch language and culture to establish good relationships with clients, business partners and colleagues. Research shows that language plays an important role when wanting to develop good relations with business partners.²⁴ Moreover studies show that there is a positive correlation between the use of foreign languages by a company and its profits.²⁵ Therefore, it is possible to assume that by actively using their Dutch language skills and intercultural competence in their work, alumni contribute to higher economic gains in the commercial sector. In this way, Dutch language programmes in Italy and Poland contribute to the national economies of Italy, Poland, Flanders and the Netherlands.

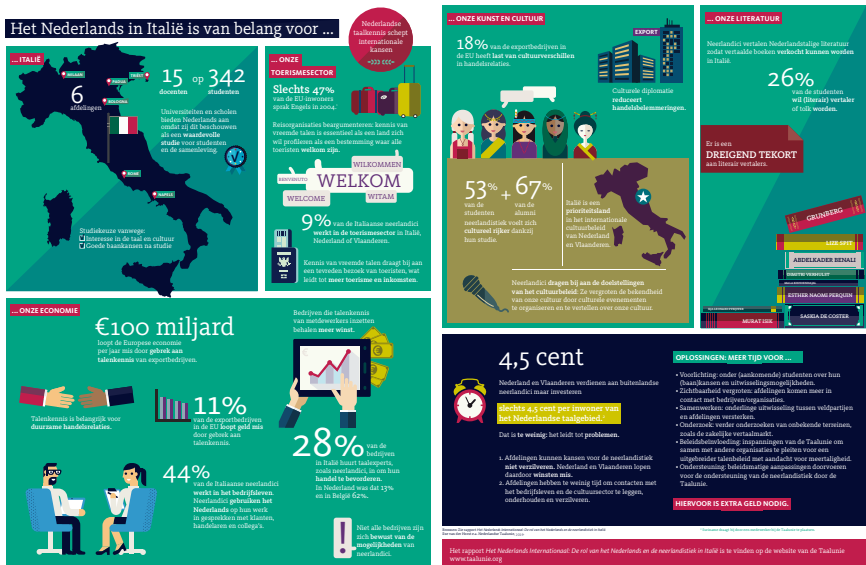


Fig. 1: Factsheet Dutch in Italy (<https://taalunie.org/feeds/download/factsheet-italie-lr-def-5ddec.pdf/factsheet-italie-lr-def-5ddec/original>)

²¹ Flanders Investment & Trade (2018, 9).

²² Centraal Bureau voor de Statistiek (2018).

²³ Flanders Investment & Trade (2019).

²⁴ Hagen (2010, 24).

²⁵ Hagen (2010, 24).

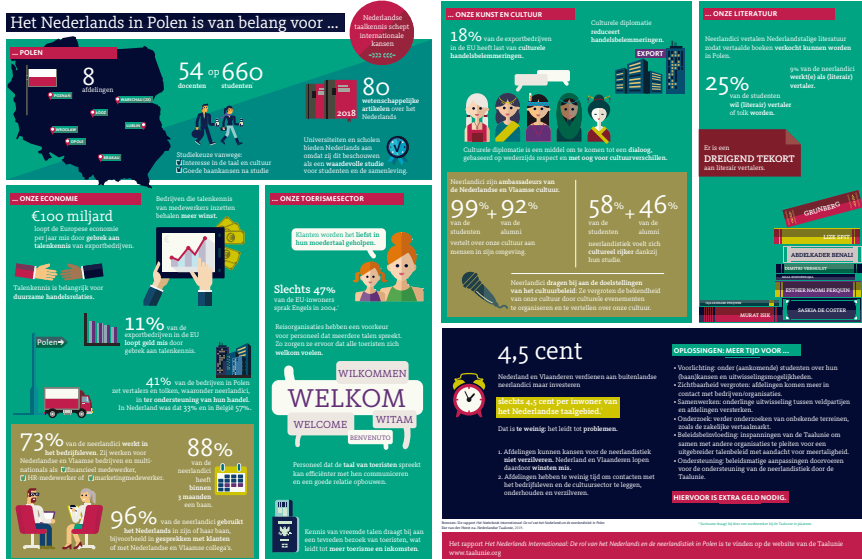


Fig. 2: Factsheet Dutch in Poland (<https://taalunie.org/feeds/download/factsheet-polen-lr-def-5dccc.pdf/factsheet-polen-lr-def-5dccc/original>)

Not only trade but also tourism benefits from the existence of Dutch programmes abroad. In 2017 the sixth largest group of tourists in the Netherlands came from Italy.²⁶ Every year Italian tourism adds around €230 billion to the Dutch economy.²⁷ Italy is the eighth most common country of origin of tourists in Flanders.²⁸ Many Polish tourists also like to visit the Netherlands and Flanders. In 2016 Polish tourists spent €637 billion in the Netherlands, which was the fourth highest amount by tourists in the Netherlands.²⁹ Polish visitors were the thirteenth largest group visiting Flanders in 2017,³⁰ including both tourist and business trips. Thus, the Netherlands and Flanders earn a lot of money from Italian and Polish tourism. A small portion of alumni with a degree in Dutch work in the tourism sector. Their knowledge of Dutch, Italian and Polish is valuable because they can communicate better with tourists and locals from the Netherlands, Flanders, Italy and Poland. Due to their better understanding of the Dutch and Italian/Polish language and culture, alumni can establish good relations with tourists more easily. Good treat-

²⁶ NBTC Holland Marketing (2018, 6).

²⁷ NBTC Holland Marketing (2018, 10).

²⁸ Toerisme Vlaanderen (2018, 11).

²⁹ NRIT Media/Centraal Bureau voor de Statistiek/NBTC Holland Marketing & Centre of Expertise Leisure, Tourism & Hospitality 2017, 329).

³⁰ Toerisme Vlaanderen (2017, 2).

ment and accessible information have a positive impact on tourists' appreciation of a destination.³¹ Moreover, satisfied tourists spread a positive image of a country and are more likely to return, which generates more income.³² Therefore organisations in the tourism sector highly value employees who speak several foreign languages, such as alumni with a degree in Dutch.³³ Alumni make a relevant economic contribution to the tourism industry in Italy, Poland, the Netherlands and Flanders. Therefore Dutch programmes are of economic value to the tourism industry in the countries involved.

The field research also supported the claim that Dutch language programmes have a cultural value. Many Dutch and Flemish performers, musicians, writers, filmmakers and artists promote, perform and sell their creative products in Italy and Poland. Italy was the seventh largest importer of Dutch art and culture in 2017.³⁴ In that year Dutch artists performed 103 plays in Italy and gave 130 concerts.³⁵ On top of that 75 Dutch movies were shown and 286 other Dutch art and cultural activities took place.³⁶ Flemish artists gave 41 performances in Italy in 2017.³⁷ Next to that Belgian artists gave 104 concerts.³⁸ In Poland, Dutch artists performed 27 plays and gave 131 concerts in 2017.³⁹ Besides that Dutch movies were shown 129 times and 67 other Dutch art activities were held.⁴⁰ Flemish artists performed 9 plays and collaborated with several Polish cultural organisations.⁴¹ Belgian musicians gave 51 concerts in Poland in 2017.⁴² Students, professors and alumni regularly visit Dutch/Flemish cultural events and often organise events on Dutch and Flemish culture themselves. Due to their study of Dutch and Flemish culture and their active participation in cultural events, 67% of the Italian alumni and 53% of the Italian students feel culturally and personally enriched while 46% of the Polish alumni and 58% of the Polish students attach cultural and personal value to their studies. Students and alumni often tell their surroundings about Dutch and Flemish culture. Moreover some of them translate Dutch/Flemish books to make them accessible for Italian or Polish readers. In these ways, students, alumni and professors are ambassadors of Dutch and Flemish culture. This form

³¹ Ars/Visser/Vermeulen, (2010, 26); Leslie/Russell (2006, 1399).

³² Leslie/Russell (2006, 1399).

³³ Leslie/Russell (2006, 1401).

³⁴ Dutch Culture (<https://dutchculture.nl/nl/events/events-worldwide>, last access 23-07-2018).

³⁵ Dutch Culture.

³⁶ Dutch Culture.

³⁷ Data from Kunstenpunt; Leenknecht/de Brandt/Ruette (2017).

³⁸ Data from Kunstenpunt; Leenknecht/de Brandt/Ruette (2017).

³⁹ Dutch Culture.

⁴⁰ Dutch Culture.

⁴¹ Leenknecht/de Brandt/Ruette (2017).

⁴² Data from Kunstenpunt.

of cultural diplomacy is valuable as it creates more familiarity with and understanding for Dutch/Flemish people among the Italian and Polish population. The cultural value of Dutch programmes is important in itself. Besides that, the spread of Dutch/Flemish culture in Italy and Poland opens up these markets for Dutch and Flemish artists, who can sell their work there and profit from exporting their work.



Fig. 3: Budget per country (de Jonghe 2019)

Last but not least, Dutch programmes abroad play a relevant academic role. Similar to other language studies, Dutch studies have an intrinsic value: they enrich students on a personal and cultural level. They teach students academic skills which they can use in their jobs. University programmes ensure the continuity of the academic study of the Dutch language and culture and which enlarges the body of literature on the Dutch language and culture.

The comparative analysis of international language policies shows that most countries support the study of their official languages in other countries as part of their foreign affairs policy. This is not the case in the Netherlands and Flanders. Although the countries have a diversified set of support instruments for foreign education in the Dutch language and culture, most other countries have higher ambitions with respect to education in their language and culture abroad. They use language and culture education to strengthen political, economic, diplomatic and cultural contacts on an international level.

As a consequence those countries invest far more per capita than the Netherlands or Flanders. The investments of the other countries are on the rise but still stand in stark contrast to those of countries outside Europe, such as China and India. The trend in the Netherlands and Flanders is the opposite. The budget for Dutch language and culture education abroad has actually decreased in recent years. Whereas other countries carry out a proactive policy, the policy for the Dutch language abroad tends to be 'passive' (no active promotion) and lacking in ambition. This is a missed opportunity considering the fact that international education in native languages can boost the impact of countries' policies in other international areas.

6. Conclusion

To conclude, the field analyses in Italy and Poland show that Dutch studies abroad are of economic, cultural and academic importance for the Netherlands and Flanders as well as Italy and Poland. Alumni with a degree in Dutch appear to have more opportunities than what was considered before. Besides the more straightforward jobs, students may also occupy positions in the commercial and tourism sectors. Alumni, professors and employers are often not aware of all of these possibilities; therefore they should be informed about these opportunities.

It must be concluded that the Netherlands and Flanders invest far less in foreign education in their language than other countries and as a consequence miss out on the potential positive economic, academic and cultural effects of Dutch studies abroad.

The Union for the Dutch Language will use the research to create awareness of the importance of Dutch studies abroad and to address the need for a better policy on the matter. The Union for the Dutch Language is of the opinion that it is useful to carry out similar studies on the (economic) value of foreign language skills and national language policies. More research would strengthen the case for foreign language skills. A strong case for foreign language skills is necessary if organisations want to advocate for the importance of studying foreign languages in their country or with European organisations. The Union for the Dutch Language therefore asks other EFNIL members for help in gathering similar data and would like to set up a working group to exchange data and insights.

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Christian Haraldsen

Plain language in Norwegian Finance?

Abstract: Klarspråk i norsk finansnæring

Gjensidige er det største forsikringsselskapet i Norge, med virksomhet også i Danmark, Sverige og de baltiske land. Innlegget redegjør for hvordan Gjensidige forenklet innhold og språk i sine forsikringskontrakter, for å gjøre dem lettere å forstå for kundene. Prosjektet strakk seg over flere år, og involverte en rekke ansatte fra ulike avdelinger i selskapet. Et særlig viktig hensyn var å unngå at enklere språk medførte tap av informasjon for kundene eller økt risiko for selskapet.

Videre beskrev innlegget hvordan den norske finansnæringen, gjennom bransjeorganisasjonen Finans Norge, samarbeidet om å lage en ordliste for pensjonssektoren. Pensjon er et komplekst tema og pensjonsordninger blir ofte omtalt i et språk preget av tekniske begreper som er vanskelig tilgjengelig for folk flest. Prosjektet resulterte i en ordliste med over 200 oppslagsord.

1. Contracts that are easier to understand

1.1 The company

“Gjensidige” is the number one insurance company in Norway, with offices in Denmark, Sweden, and the three Baltic states as well. Gjensidige literally means Mutual. The company was demutualised and listed on the Oslo Stock Exchange in 2010, but a customer-governed Foundation is still a major shareholder.

Gjensidige has almost 1 million customers in Norway alone. All in all, they communicate extensively with us, through various channels, when buying insurance, amending insurance policies, making claims, complaining and even thanking us. But most customers have very infrequent contact with us, and that poses a challenge, as they are not familiar with how we work.

1.2 The project

More than 10 years ago, the chief executive officer decided that Gjensidige should make insurance easy to understand for most people. That was an ambitious goal based on the realization that insurance contracts were too complicated. A primary concern was to find the right balance between simplicity and precision. In other words, simplification of language should not result in a loss of information for the customer, or an increase in the company’s liabilities.

To that end, a project group was assembled consisting of experts on products, claims handling, marketing, sales, web portals, legal affairs, and IT. External consultants were hired to, among other things, map the customers' needs, through focus groups and interviews.

The project took several years and resulted in a complete overhaul of the contracts. The language was simplified in the choice of words, syntax, and layout. A lot of irrelevant information was removed. In some instances, as many as five pages from the old contracts could be merged into one page in the new contracts.

The project was regarded a great success. Surveys confirmed that the customers found the new contracts easier to understand, and customer satisfaction increased. Further, the project helped establish plain language as a quality that should always be pursued in Gjensidige.

There is still room for improvements, but the way we communicate with our customers is much better today than 10 years ago, and the same is probably true for most other insurance companies in Norway.

2. Help in communicating the pension system

A few years ago, the financial industry in Norway decided to make a joint effort to make pensions easier to understand. The project was led by Finance Norway, which is the trade organization for most banks, insurers and other financial companies in Norway.

The need arose because the pensions system in Norway has changed immensely over the last 15 years, and public awareness has changed fundamentally as well. The system is more flexible than before and is designed to encourage people to remain in the workforce longer than they used to. Unfortunately, the system is not well understood by most people, both because the system is rather new and complex, with a mix of old and new pension plans, and because there are many technical terms that most people find hard to understand.

Finance Norway decided to produce a dictionary that could help member companies communicate consistently with their customers. Six companies were represented in a working party, as well as the trade organization, the language council of Norway and The Consumer Authority.

The dictionary now consists of some 200 words and has been published on Finance Norway's web portal, where it can be accessed by the public. The dictionary is used by the member companies when drawing up marketing materials and customer letters and when training employees.

Katrin Hallik

Creating a clear language strategy in Estonia

With a population of only 1.4 million, Estonia has progressed quickly in the field of IT over the last two decades. We are eager to use IT solutions that create a good basis for innovative and user-friendly public services. Developments in both e-governance and general welfare have brought about a natural need for improved social services, including the development of clear language. We might say that clear language starts to develop in a new society once its basic needs have been met.

Probably it is also inevitable that administrative and legal writing is still decades behind user-based efficient information design. This is why the goal behind promoting clear language in Estonia is mainly to foster the development of clear language traditions in legal and administrative documents.

The Estonian model of creating a clear language strategy can be described as work on two levels: the horizontal level, which involves drawing up a concept of clear language, fostering awareness across all strata of society and creating a clear language community; and the vertical level, which includes constant lobbying among lawyers, finding support among politicians and civil servants, reaching out to legislators and strategy builders, all with the aim of introducing the concept of clear language in strategic documents.

So far the initiative has been taken by the Institute of the Estonian Language, although in the last ten years several government departments have launched their own clear language projects and are creating their own strategies in cooperation with the Institute of the Estonian Language.

Our model of clear language is composed of the following steps, expressed by the acronym CLEAR:

- Community building,
- Lobbying,
- Endorsement,
- Awareness building,
- Realisation.

1. Community building

In order to create a community, it is necessary to look for people with a similar mindset. For this purpose, we have organised regular seminars and conferences, created a website and set up a Facebook community. For six years we have run a Clear Communication Award Contest. We invite both public and private com-

panies as well as private individuals to submit good examples of clear public communication; as a result we have gathered a valuable collection of clear language practices. The award has grown in popularity: in six years we have had 484 entries for the award, with public administrations submitting several projects every year. The award has become a quality mark that organisations add to their documents and websites.

In 2019 we ran the first Estonian Gobbledygook Campaign, asking people to send us examples of bureaucratic jargon. The campaign was welcomed and we received many wonderful examples of gobbledygook together with clear language versions.

2. Lobbying

Lobbying among lawyers and civil servants has been an essential tool for promoting clear language. For three years we have been organising Think Tanks, creating cooperation networks and promoting individual projects. The cooperation network includes the Tax and Customs Board, Rescue Board, Emergency Response Centre, National Audit Office, Ministry of Economic Affairs and Communications, Ministry of Justice, Ministry of Education and Research, Estonian Cooperation Assembly and others.

In November 2019 we held a special Think Tank called the “Clear and User-Centred State” where representatives of public administrations participated in a five-hour brainstorming session on the strategy of clear language. Among the speakers were the Estonian Chancellor of Justice, Ülle Madise, the National Digital Advisor, Marten Kaevats, Media and Communication Expert Lee Maripuu, Brand and Design Strategist Tajo Oja and Information Designer Janno Siimar. Valuable ideas of how to make things happen were shared and transferred to the daily practices of public administrations.

3. Endorsement

Endorsement at a high level has facilitated the development of clear language in Estonia in many ways. The main endorsers so far have been two Speakers of the Estonian Parliament and also the current Chancellor of Justice, Ülle Madise.

The President of Estonia, Kersti Kaljulaid, sent an audio greeting to our “Clear and User-Centred State” Think Tank, stressing the practical and simple benefits of clear language.

4. Awareness building

The first ten years of clear language development in Estonia have mainly been dedicated to awareness building, preparing the ground for concrete steps to be

taken. The concept of clear language as we know it today did not exist in Estonia ten years ago. Now, support for clear language has been officially established in the Estonian Language Development Plan 2018–2027. Clear language has been stated as one of the main requirements in the Guidelines for Legislative Policy until 2030. We are still a few steps away from creating an official strategy plan for Estonia.

Awareness building has meant a lot of training for organisations, both public and private.

Awareness building also means lending credibility to clear language: in 2019 we carried out the first Estonian clear language survey involving the following administrations: the Emergency Response Centre, Health Insurance Fund, Rescue Board, Chancellor of Justice, Social Insurance Board, Ministry of Social Affairs, Ministry of Finance and the Unemployment Insurance Fund.

The survey revealed the main obstacles to clear language usage in public administration:

Organisational level:

- a management style of using legalese,
- an organisational culture that sustains hierarchy and strict standards for documents.

Attitudes and skills level:

- a lack of skill and information about clear language,
- a fear of making mistakes and taking personal responsibility,
- a belief that officialise provides protection in court,
- a general lack of user-centred design.

Language level:

- legalese spreading from official documents into all forms of communication with citizens.

Solutions given by the officials in the survey included the following:

Organisational level:

- feedback systems that facilitate follow-up on the personal progress of officials,
- random monitoring of response emails, thus helping to maintain quality,
- a rotation of officials to promote the sharing of ideas and experience.

Attitudes and skills level:

- training programmes that facilitate change on different levels of the organisation and help sustain progress,
- institutionalised change: best practices that become the general policy of the organisation concerned,
- online sample forms that can be used in order to create clear documents.

Language level:

- change in the linguistic attitudes of experts,
- clear language consultants in public administration who assist in creating a new culture of communication,
- efficient teams of linguists, designers and marketing specialists.

The participants stressed that it all starts at management level: it is vital to have the top level interested in sustaining progress in the use of clear language.

5. Realisation

Clarity comes from caring, as the clear language advocates say.

Once a society has managed to take care of the basic needs of people, it can start paying more attention to humanistic values like user-friendliness, equality and caring for others. Estonia has a good potential for IT networks, language planning and high-quality design that could foster rapid success in clear language.

Language technology

Jelena Kallas/Margit Langemets/Tõnu Tender

Opening up Estonian dictionaries to European communities and language technology

Abstract

This paper describes recent developments at the Institute of the Estonian Language concerning e-lexicography in order to open up lexical resources created by the Institute to European communities and language technology.

We describe the main public dictionary services created by the Institute. Within the framework of the new dictionary writing system Ekilex, the Institute is moving away from presenting separate interfaces for different dictionaries towards a unified data model in order to provide data in an aggregated form via the language portal Sõnaveeb. For industrial partners, data can be accessed via Ekilex API. We also give a short overview of the Ekilex data model and methodology applied to the unification of dictionaries. Finally, we describe the accessibility policy and availability of language resources created by the Institute and propose development perspectives.

1. Public dictionary services offered by the Institute

The Institute of the Estonian Language¹ (henceforth the Institute) is a national research and development institution funded by the Ministry of Education and Science. It performs a number of public functions: (a) compiling and upgrading dictionaries and databases essential to the country and national culture, including Estonian dialects and Finno-Ugric languages, (b) language care and language planning, (c) coordinating nationwide terminological work, (d) providing services for language learners and people with special needs and (e) developing speech synthesis for Estonian. Its long-term operation as an independent institution has brought the Institute a nationwide reputation as the centre of Estonian studies (see the Corporate Image Survey by TNS Emor 2015). The name of the Institute of the Estonian Language on title pages and on the web has become a symbol of quality.

Practical language usage in Estonia is regulated by the Law on Language and legislation based on that. According to a government regulation in 2006, the literary norm should be based on the most recent Dictionary of Standard Estonian issued by the Institute of the Estonian Language. The new edition of the dictionary thus became the “updated” official norm of the standard language (Langemets 2013).

¹ <https://eki.ee/> (last accessed April 4, 2020).

Since the autumn of 2015, the Institute of the Estonian Language has been the only compiler of major academic dictionaries in Estonia. The Institute owns and hosts more than 100 dictionaries and terminological databases, which altogether contain about 1.5 million words or terms. Users make about 7.8 million queries per year on the Institute's website. The language hotline "e-keelenõu"² receives about 100,000 queries per month.

Out of the numerous public functions performed by the Institute, we will next focus on lexicographic tools and services in progress:

- building the new Dictionary Writing System Ekilex³ (since 2017),
- providing content for users via the new language portal Sõnaveeb⁴ [Wordweb] (since 2019),
- opening up terminological databases (since 2020),
- accessibility policy.

2. Building the new Dictionary Writing System Ekilex

The last decade has been a transitional period in Estonia, when dictionaries were published on paper as well as electronically. So far the majority of online versions have been almost exact copies of paper dictionaries. Within the framework of the new dictionary writing system Ekilex (Tavast et al. 2018), we are moving on from presenting separate interfaces for different dictionaries to unified data in order to provide lexical data in an aggregated form for the user via the new language portal Sõnaveeb. Ekilex is maintained and developed by the Institute in collaboration with the software company TripleDev.

The conceptual design of a comprehensive lexical resource must be based on a theoretical understanding of the organisation of linguistic knowledge. While the traditional formats of language description are mostly based on a modular view of language, recent decades have seen the rapid theoretical development of a non-modular, usage-based conception of language.

The data model of Ekilex and fundamental issues connected with the creation of the unified database were described in Tavast et al. (2018) and Koppel et al. (2019). Here we outline the most important aspects.

The data model has many-to-many relations between words and meanings and is suitable for both word-based and concept-based representations of data. When importing new data from different datasets, we try to keep words and meanings as dataset-agnostic units, allowing a gradual transition from the initial condition of several independent datasets to the end goal of a single Ekilex resource containing all lexical information known about Estonian. We only import pieces of information

² <http://keeleabi.eki.ee/> (last accessed April 4, 2020).

³ <https://ekilex.eki.ee/> (last accessed April 4, 2020).

⁴ <https://sonaveeb.ee/> (last accessed April 4, 2020).

that clearly add value and do not duplicate the data already presented in the database. This means that when moving towards a single database, added datasets are turned into information layers and applied to the central “backbone” of headwords already present in the database, removing the need to specify variations of the same information again in separate dictionaries.

The initial import of separate lexical datasets resulted in a massive duplication of both words and meanings, and it is taking a great effort to harmonise the data by 1) unifying homonyms (the work is partly done automatically) and 2) unifying meanings (the work is mostly done manually). The migration of data from separate datasets to a single resource has also eliminated the need to harmonise the presentation of the same pieces of information (e.g. domain and register labelling) in the database.

The current descriptions of Estonian items in Ekilex include sense definitions, semantic types, word classes, inflectional forms, collocations, government patterns, semantic relations, related words, etymology and usage examples, including automatically retrieved corpus examples, pronunciations of basic word forms and usage examples, and corpus frequency.

In the near future, we foresee extending the scope of Ekilex to representing prescriptive data, grammar description (as schematic constructions), bilingual data (as there are more bilingual databases available at the Institute, e.g. Latvian, Finnish and Chinese) and information on language proficiency levels corresponding to the Common European Framework of Reference for Language (CEFR 2001) and its companion volume with new descriptors (CEFR/CV 2018). Prescriptive data will constitute a major change in the present Dictionary of Standard Estonian ÕS 2018.⁵

3. The new language portal Sõnaveeb [WordWeb]

Sõnaveeb [WordWeb] is the Institute’s language portal containing linguistic information from a growing number of dictionaries and databases (Koppel et al. 2019). The portal was released in February 2019. The information displayed in Sõnaveeb comes from Ekilex. As of February 2020, Ekilex contains about 70 lexical databases, with both general and specialised dictionaries. Databases are constantly updated and edited, including changes that are made upon receiving feedback from users. As of February 2020, the portal contained about 170,000 words and phrases in Estonian, about 70,000 words and phrases in Russian and 40,000 words and phrases in English. The versions of Sõnaveeb are updated and archived once a year.

Beginning in 2020 all information from separate databases will be displayed in a unified mode as a single source called EKI ühendõnastik [EKI Combined Dictionary]. The combined dictionary for Estonian displays information from

⁵ <http://www.eki.ee/dict/qs/> (last accessed April 4, 2020).

different lexical databases: *The Dictionary of Estonian* (2019), the *Estonian Collocations Dictionary* (2019), the *Basic Estonian Dictionary* (2014) and *The Estonian Morphological Database of the Institute of the Estonian Language* (2019). It also displays information from bilingual lexical databases: the *Estonian-Russian Orthographic Dictionary for Students* (2018; 1st edition 2011) and the *Estonian-Russian Dictionary* (2018; 1st edition 1997-2009).

In addition to carefully selected usage examples in the EKI Combined Dictionary, we display web examples from *The Corpus of Web Examples for Estonian* (2020) via the corpus query system KORP API.

The versions of the Sõnaveeb portal and the EKI Combined Dictionary are updated every month and archived once a year.

All lexicographic work on contemporary Estonian is based on corpus analysis and we provide the links to corpora when presenting dictionary content via the Institute's new language portal Sõnaveeb. The biggest corpus of Estonian at the moment is the (2019) Estonian National Corpus (1.8 billion tokens). It is available through the Sketch Engine⁶ interface (Kilgarriff et al. 2004).

4. Opening up terminological databases

Since March 2020, Sõnaveeb displays information from over 60 terminological databases. The user searching for a term is provided with data on both general language and specialised language. The presentation mode for terminological data will be tuned to enable both a word-based view (as in Sõnaveeb) and a concept-based view (in the near future). There are still many other (smaller) termbases that will be added to Ekilex in the future.

The biggest termbase in Ekilex is the multilingual termbase Esterm containing over 50,000 concepts and 150,000 terms in five languages. The second biggest database is the defence and military database Militerm, containing approx. 4,000 concepts.

The Ministry of Education and Science launched the national programme for developing terminological work in 2008. One of its aims was to build a unified system for providing terminological knowledge to the public. This has taken a good deal of time. Finally we have succeeded in opening up terminological resources to the public.

5. Accessibility policy and availability of language resources for Estonian

All electronic resources and applications developed by the Institute are available to the public for free.

⁶ www.sketchengine.eu/ (last accessed April 4, 2020).

On the Institute's website, online dictionaries and databases can be found, as well as corpora, language and speech technology applications, termbases, etc. Some data from the dictionaries are freely available for download, mostly under the terms and conditions of the Creative Commons BY 4.0 licence.

The Exilex data can be used by external (industrial) partners via API. As mentioned before, in the Ekilex data model, words (i.e. headwords) and meanings (i.e. definitions and domain indicators) are dataset-agnostic. After having processed, systematised, unified, supplemented, edited, etc. the information across datasets, the Ekilex resource has attained the status of a single database called the EKI Combined Dictionary, licensed under the Creative Commons BY 4.0 International license. Data containing personal data and third-party data with reusability restrictions are licensed under CLARIN Academic EULA v1.0, including appropriate additional terms (identification, access, general use and distribution conditions). The metadata on created resources are findable in the META-SHARE repository.⁷ Where applicable, the Institute follows the recommendation on legal and intellectual property rights issues for lexicography (Boelhouwer et al. 2020) outlined in the Horizon 2020 project European Lexicographic Infrastructure.

6. Conclusion

The future work of the Institute is strongly connected with the Institute's new Dictionary Writing System Ekilex (Tavast et al. 2018) and the Ekilex-based language portal Sõnaveeb. The long-term vision is to have a single data source (Ekilex) that provides (also via the API) consistent and comprehensive information about Estonian words, combining the research done in all departments and working groups of the Institute.

Undoubtedly, there will be more exciting challenges in the near future as we continue shifting from compiling stand-alone dictionaries with incompatible data structures to integrating lexicographic data into a unified and standardised database, and making the data findable, accessible, interoperable and reusable. These issues are very much in line with the objectives and outcomes of the Horizon 2020 project European Lexicographic Infrastructure (ELEXIS),⁸ developing strategies for structuring and linking lexicographic resources. The Institute will follow standards developed within the ELEXIS project in order to keep Estonian dictionaries open to European communities and language technology fields, such as Natural Language Processing, Linked Open Data and the Semantic Web.

⁷ <https://metashare.ut.ee/> (last accessed April 4, 2020).

⁸ <https://elex.is/> (last accessed April 4, 2020).

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Innovations and challenges in the digital transformation of the Lithuanian language industry

Abstract (Lithuanian)

Pastaraisiais metais žinių visuomenė pereina į kokybiškai naują etapą, išsiskiriantį sparčia inovatyvių informacinių technologijų plėtra. Kalbos technologijos – tai tik viena, tačiau itin svarbi informacinių technologijų dalis siekiant užtikrinti visavertį lietuvių kalbos vartojimą skaitmeninėje terpėje, įtvirtinti ir palaikyti lietuvių kalbos statusą informacinėje visuomenėje, sudaryti galimybes kitakalbiams integruotis į Lietuvos visuomenę ir pan.

Lietuvių kalbos institutas, atsižvelgdamas į informacinės visuomenės lūkesčius ir poreikius, prie informacinių technologijų plėtros prisideda gausindamas skaitmeninius lietuvių kalbos išteklius, kurdamas inovatyvius internetinius mokymosi įrankius ir pažangias viešąsias elektronines paslaugas, plėtodamas internetinę lietuvių kalbos išteklių infrastruktūrą (<http://lki.lt/skaitmeniniai-lietuviu-kalbos-istekliai/>).

Dabartinę Lietuvių kalbos išteklių informacinę sistemą (<http://lkiis.lki.lt/>) sukūrė ir 2015 m. visuomenei pristatė Lietuvių kalbos institutas kartu su Lietuvių literatūros ir tautosakos institutu, Vilniaus universitetu ir tuomečiu Lietuvos edukologijos universitetu pagal programos *Lietuvių kalba informacinėje visuomenėje* projektą. Lietuvių kalbos išteklių informacinės sistemos svetainėje šiuo metu galima naudotis suskaitmenintais 16 vienakalbių ir dvikalbių žodynų, suskaitmenintomis 6 *Lietuvių kalbos žodyno* ir tautosakos paveldo kartotekomis, 4 elektroninėmis lietuvių kalbos išteklių duomenų bazėmis. Šioje sistemoje vartotojas ras ir lietuvišką šriftą *Palemonas*, ir kelias lietuvių kalbai mokyti skirtas priemones (pvz., mokomuosius kalbos žaidimus, skatinančius mokyti savarankiškai, įtvirtinti lietuvių kalbos rašybos, kirčiavimo įgūdžius, gausinti raiškos priemonių atsargas).

Atsižvelgdami į pasaulinę praktiką ir didėjančią naujų pažangių elektroninių paslaugų poreikį bei siekdami, kad lietuvių kalba visavertiškai gyvuotų elektroninėje erdvėje, Lietuvių kalbos instituto mokslininkai kartu su pažangiųjų informacinių technologijų kūrėjais pagal naują projektą, finansuojamą iš Europos Sąjungos struktūrinių fondų, nuo 2018 m. pradėjo Lietuvių kalbos išteklių informacinės sistemos plėtros darbus. Šiuo metu į modernizuojamąją Lietuvių kalbos išteklių informacinę sistemą, kuri vadinasi “E. kalba” (<http://lkiis.lki.lt/> → <https://ekalba.lt/public#/home/main>), integruojami dar 3 reprezentatyvūs vienakalbiai lietuvių kalbos ištekliai, kurie iki šiol buvo prieinami tik atskirose interneto svetainėse: suskaitmenintas didysis 20 tomų *Lietuvių kalbos žodynas*, internetinis *Bendrinės lietuvių kalbos žodynas* su antraštynu ir internetinis *Lietuvių kalbos naujažodžių duomenynas*. 2020 m. kuriamas lietuvių kalbos žodžių prasmų tinklas ir naujos elektroninės paslaugos.

Lietuvių kalbos ištekliai internete ir kuriamos naujos galimybės itin aktualios, parankios ir pravarčios visiems lietuvių kalbą vartojantiems ar norintiems jos išmolti žmonėms, taip pat valstybės institucijoms, mokslo ir švietimo sistemai bei verslui.

Be to, Lietuvių kalbos instituto mokslininkai aktyviai dalyvauja įvairiuose nacionaliniuose ir tarptautiniuose projektuose. Vienas iš tokių projektų – *eTranslation TermBank* (finansuojama Europos Sąjungos). Pagrindinis šio projekto tikslas yra pagerinti automatinio vertimo kokybę Europos Komisijoje.

Šiame straipsnyje trumpai aprašoma ir *Lietuvos Respublikos terminų banko* plėtra (šio banko informacinės sistemos duomenų administratorius ir tvarkytojas yra Valstybinė lietuvių kalbos komisija, žr. <http://terminai.vlkk.lt/>) bei kiti inovatyvūs skaitmeniniai sprendiniai Lietuvoje, išvardijami pagrindiniai iššūkiai, su kuriais Lietuvoje susiduriama kuriant kalbos technologijas, internetinius įrankius ir viešąsias elektronines paslaugas.

Abstract (English)

In recent years, the knowledge society has entered a qualitatively new stage, distinguished by the rapid development of innovative information technologies. The digital transformation of the Lithuanian language industry is just one of the extremely important roles of information technologies to help ensure proper use of Lithuanian in the digital environment, to establish and maintain the status of Lithuanian in the information society and to create opportunities for non-native speakers to integrate into Lithuanian society, etc.

Considering the expectations and needs of the information society, the Institute of the Lithuanian Language contributes to this successful digital transformation and manages the development of online infrastructure (<http://lki.lt/skaitmeniniai-lietuviu-kalbos-istekliai/>).

The current information system (online infrastructure) of resources for Lithuanian (<http://lkiis.lki.lt/>) was developed and launched in 2015 by the Institute of the Lithuanian Language in association with the Institute of Lithuanian Literature and Folklore, Vilnius University and the University of Educational Science of Lithuania as part of a project in the programme called “The Lithuanian Language in an Information Society”. Their website currently offers the following resources: 16 digitalized monolingual and bilingual dictionaries, six digitalized catalogues of the great *Dictionary of the Lithuanian Language* and folklore heritage, four electronic databases of Lithuanian language resources. The website also provides the Lithuanian font *Palemonas* and several tools for learning Lithuanian (for example, educational language games to encourage independent learning, to promote Lithuanian spelling and stress patterns and to enrich the stock of means of expression).

In view of global practice, the increasing demand for new state-of-the-art electronic services and the endeavour for Lithuanian to have a full life in electronic space, researchers at the Institute of the Lithuanian Language joined forces with developers of advanced information technology and in 2018 began working to develop the information system of resources for Lithuanian within the framework of a new project funded by European Union structural funds. By the end of 2020, the project is expected to achieve the following goals: the integration of another three representative monolingual Lithuanian language resources that are currently only available on separate websites into the information system of resources for Lithuanian, which is undergoing an overhaul (<http://lkiis.lki.lt/> → <https://ekalba.lt/public#/home/main>), namely digitizing the great *Dictionary of the Lithuanian Language* (20 volumes) as well as adding the digital *Dictionary of the Standard Lithuanian Language* with a list of titles and the digital *Database of Lithuanian Neologisms*; designing a semantic WordNet of Lithuanian and adding some more new e-services for users.

The Lithuanian language resources available online and the new possibilities that are currently under development are highly relevant, handy and useful to everyone who uses or wants to learn Lithuanian as well as governmental bodies, the education system and business.

In addition, the researchers at the Institute of the Lithuanian Language are involved in various national and international projects, one of them being the *eTranslation TermBank* project (funded by the European Union). The aim of the project is to improve the quality and scope of machine translations for the European Commission.

Finally, we present the latest developments on the *TermBank of the Republic of Lithuania* (the data administrator and manager of the information system of the *Lithuanian TermBank* is the State Commission of the Lithuanian Language, see <http://terminai.vlkk.lt/> as well as information about some other innovative digital resources, public services and language tools in the Lithuanian language industry, including various challenges.

1. Introduction

Due to the small number of speakers, the Lithuanian government and other state institutions support several programmes to promote a range of linguistic research and dissemination. The following documents and programmes on language technology (LT) policies in Lithuania are still valid or in the process of being updated.¹ The “Guidelines for Lithuanian LT Development 2014-2020”, issued by the State Commission of the Lithuanian Language, are currently being updated (to appear in 2020 on www.vlkk.lt/). Its main priorities are research and development for language technologies, machine translation, speech analysis, dialogue systems, automatic summarization, semantic technologies, advanced text analysis, a compilation of language resources, etc. ‘The Lithuanian Information Society Development Programme 2014-2020’ approved by the Government of Lithuania is promoting the Lithuanian culture and language through ICT by creating digital content based on Lithuanian written and spoken language interfaces and by developing digital products and services. Accordingly, a national programme “The Lithuanian Language for Information Society (2014-2020)” was approved to ensure funding

¹ The development of Lithuanian language resources and technologies can be divided into three stages: from 2004 to 2012, from 2012 to 2015 and from 2016 to 2020. The period between 2012 and 2015 was labelled as the breakthrough (Utka et al. 2016; Utka/Dadurkevičius/Schnur 2019; cf. also Vaišnienė/Zabarskaitė 2012; Guidelines for Lithuanian LT development 2014, forthcoming). The breakthrough was achieved thanks to three major actions: the implementation of the national programme “The Lithuanian Language for Information Society”, the preparation of political guidelines for the further development of language technologies for Lithuanian 2016 to 2020 and international collaboration between LT communities and infrastructures. However, since there is only a small market for language technologies in Lithuania, the private sector does not show much interest when it comes to developing LT (Utka/Dadurkevičius/Schnur 2019). During the period of just four years (from 2012 to 2015) quite a few important language resources and tools for Lithuanian were developed that significantly narrowed the gap between Lithuanian and well-resourced European languages (Utka et al. 2016; cf. also Kasparaitis/Skersys 2017; <https://semantika.lt/> etc.).

from European Structural funds and the State. The following five projects using EU Structural Funds in Lithuania are worth mentioning: 1) “Services Controlled by the Lithuanian Speech” (LIEPA-2) (2017-2020). 2) “The Development of the Public Electronic Services of the Lithuanian Language Syntactic and Semantic Analysis Information System” (SEMANTICS 2) (2017-2020). 3) “Development of Information System of Integrated Lithuanian Language and Writing Resources” (RAŠTIJA 2)² (2018-2020). 4) “Improvement and Development of Machine Translation Systems and Localization Services” (2018-2021). 5) “Development of the Information System of Resources of the Lithuanian Language (E-language)” (E-LANGUAGE) (2018-2020). In addition, in 2015, the “Lithuanian Roadmap for Research Infrastructures” was updated with more than 20 initiatives of national significance. More than €17 million have been allocated for five language technology projects. These projects focus on developing various crucial LT services or resources including automatic speech transcription, digital public language services, machine translation and localization (for more information see Utkā et al. 2016; Utkā/Dadurkevičius/Schnur 2019; EC Digital Government Factsheet Lithuania 2019; ELRC Workshop Report for Lithuania 2019; AI 2019; Guidelines for Lithuanian LT development 2014; forthcoming, Rehm et al. 2020; etc.). For example, one of those projects focuses on the modernization of previously developed machine translation systems and is developing a machine translation system for Lithuanian, English, French and Russian to be used nationwide.³ This project is being implemented by Vilnius University. Indeed, Lithuanian universities have long been a great source of research as well as tech talents and experts. The Institute of the Lithuanian Language is also playing a key role being one of the most important centres for research and dissemination of the Lithuanian language.

This contribution describes some significant innovations and challenges in the digital transformation of the Lithuanian language industry.

2. Information system of Lithuanian language resources and e-services

Considering the expectations and needs of the information society, the Institute of the Lithuanian Language contributes to successful digital transformation and manages the development of online infrastructure (see <http://lki.lt/skaitmeniniai-lietuviu-kalbos-istekliai/>⁴). Most of the various resources are available on the

² See www.raštija.lt/, which includes information about previous and current (ongoing) projects.

³ In Lithuania, there is still no centralized translation service in public administrations. Consequently, translation practices vary from institution to institution, ranging from decentralized outsourcing to in-house translation (Utkā/Dadurkevičius/Schnur 2019; cf. also Tilde Translator 2017-2019).

⁴ A number of different databases, corpora, dictionaries and other online resources are available there.

current information system of resources for Lithuanian on <http://lkiis.lki.lt/>. This platform was developed and launched in 2015 by the Institute of the Lithuanian Language in association with the Institute of Lithuanian Literature and Folklore, Vilnius University and the University of Educational Science of Lithuania as part of “Developing ICT Solutions and Content to Help Preserve the Lithuanian Language in the Public Space and Enabling the Use Thereof”, a project in the programme called “The Lithuanian Language in Information Society”. The website currently offers the following

- six digitized monolingual dictionaries: *The Dictionary of the Modern Lithuanian Language, The Dictionary of Synonyms, The Dictionary of Antonyms, The Dictionary of Phraseology, The Dictionary of Comparisons, The Systemic Dictionary of the Lithuanian Language*;
- ten digitized bilingual dictionaries: *The Lithuanian–Latvian Dictionary, The Latvian–Lithuanian Dictionary, The Lithuanian–German Dictionary, The German–Lithuanian Dictionary, The Lithuanian–Polish Dictionary, The Polish–Lithuanian Dictionary, The Lithuanian–English Dictionary, The English–Lithuanian Dictionary, The Latin–Lithuanian Dictionary, The Ancient Greek–Lithuanian Dictionary*;
- three digitized catalogues of *The Dictionary of the Lithuanian Language: the Main Catalogue, the Catalogue of New Additions, the Catalogue of Dialects*;
- three digitalized catalogues of folklore heritage: *the Catalogue of Riddles, the Catalogue of Post-war Guerrilla Songs, the Catalogue of Folk Beliefs*;
- four electronic databases of Lithuanian language resources: *The Database of Historic Toponyms, The Database of Surnames, The Geoinformation Database of Lithuanian Toponyms*,⁵ *The Dialects Archive*;

⁵ The online geoinformation database of Lithuanian place names is geared primarily towards scientific research and application purposes. It is the first such database in Lithuania to present information about linguistic units – place names – and geographical units – geographical objects. Every linguistic/geographical unit has its coordinates mapped and is accompanied by attributes pertaining to the place name and the geographical object that it denotes, namely variations of the place name in the living language, its stressed main form, accentuation paradigm and other cases stressed, a scientific explanation of its origins and formation, the time it was recorded in the living language, the time it was first mentioned in historical sources, its pronunciation in all cases, the population of towns and villages, parameters and pictures of geographical objects, their administrative affiliation, etc. On top of that, it is the first database of Lithuanian place names to cover both the existing names of towns, rivers and lakes and the extinct proper names of these features as well as land names that were recorded from the local populace in the interwar (1935-1940) and post-war periods. The development of this database makes all the data contained in it (the authentic place name forms, accentuation, clarifications of formation and origin, object descriptions etc.) easily accessible to Baltic linguists and geographers in Lithuania and elsewhere, allowing them to carry out deeper and more expansive research.

- this system also provides the Lithuanian font *Palemonas* and several tools for learning Lithuanian. For example, educational language games to encourage independent learning, to promote Lithuanian spelling and stress patterns and to enrich the stock of means of expression. Besides, it is an excellent way for parents and children to spend time together, broadening their horizons of cultural history and language, because this educational material is presented in the form of engaging stories. The games may also help the Lithuanian diaspora to remember Lithuanian and what it sounds like.

In view of global practice, the increasing demand for new state-of-the-art electronic services and the endeavour for Lithuanian to have a full life in electronic space, researchers at the Institute of the Lithuanian Language joined forces with developers of advanced information technology and in 2018 began working to develop the information system of resources for Lithuanian within the framework of the “Development of the Information System of Resources of the Lithuanian Language (E-language)”, a project funded by European Union structural funds. The new online system (infrastructure) will be called E. KALBA (*E-language*). By the end of 2020, the online infrastructure *E-language* (<http://lkiis.lki.lt/> → <https://ekalba.lt/public#/home/main>) will integrate another three representative monolingual Lithuanian language resources that are currently only available on separate websites into the information system of resources for Lithuanian, which is undergoing an overhaul: the digital *Dictionary of the Standard Lithuanian Language* with a list of titles, the digital *Database of Lithuanian Neologisms* and a digitalized version of the great *Dictionary of the Lithuanian Language* (20 volumes).

The *Dictionary of the Standard Lithuanian Language* is an electronic resource (also available on <http://bkz.lki.lt/>) for the general public. It is a normative dictionary that reflects the real-life vocabulary of the language and the correct use of common words. Optional variants are also provided. The resource is constantly updated (for more information, see Liutkevičienė 2015, 2016).

The *Database of Lithuanian Neologisms* (also available on <http://naujazodziai.lki.lt>) started to be developed in 2011 as part of the META-NORD project funded by the European Commission and is constantly updated (for more information see Miliūnaitė 2018). The goal is to have a database for storing new lexical items in Lithuanian, eventually revealing a systemic image of this lexis as well as presenting users of the language with hands-on information that is not otherwise available in other lexicographic sources. The new lexis – new coinages or neologisms – makes its way into the language through borrowings (translation) from other languages, creating new words based on the language’s own formational principles or by giving new meanings to existing words. The database is expected to give a picture of the extent of new coinages in Lithuanian over the past few decades; once more data are available, it should eventually capture the dynamics

of new words including when, and in what sources, new words appeared, how much they spread in usage, and in what way, and the new models of word formation that become evident. At present the database contains around 5,500 new words from different domains of modern Lithuanian, primarily printed and web media, administrative language and fiction. The database gives the definition of a coinage, indicates the area where it is used, shows its semantic and formational ties with other new words in the database, illustrates its usage with examples, and provides normative comments for language users if necessary.

Just like many other digital products that exist on the internet and reflect modern processes, the new coinages database is available to users as a non-finite, ever evolving and expanding compilation of data that can be improved by anyone willing to send their feedback and suggestions.

Digitizing the great *Dictionary of the Lithuanian Language* (20 volumes, also available on www.lkz.lt) is considered to be the most significant work of 20th century Lithuanian lexicography and Lithuanian philology in general. This dictionary describes the long process of compiling this enormous undertaking and lists the fieldworkers, compilers and editors, etc. who contributed to the lexicographical recording of half a million Lithuanian words. The *Dictionary of the Lithuanian Language* (in 20 volumes) and its digitized version, the accumulation of a digitized database of the Lithuanian lexicon, is very important not only for academics but also for the general public.

The online infrastructure *E-language* will provide a semantic WordNet of Lithuanian and some more new e-services for users. The Lithuanian WordNet and the following e-services are still in production:

- *Search across the semantic net* – to retrieve information on the lexis in the Lithuanian WordNet,
- *E-terms* – to obtain all of the information about a particular medical, financial or IT term available in the resources,
- *E-marketing* (consisting of the following e-services: *E-name*, *Analysis of user queries*, *Sentiment analysis*) – to use Lithuanian language resources for marketing purposes,
- *E-tips* (consisting of the following e-services: *Word formation guide*, *Language tips*) – to boost the productivity of the use of the possibilities that Lithuanian has to offer, create new words, obtain detailed information about the norms of the standard language and their variations and changes.

Thus the information system of digital linguistic resources (<http://lkiis.lki.lt/> → <https://ekalba.lt/public#/home/main>) is undergoing further developments to embrace more levels of language; the system will also integrate more resources to supplement the set of data from each level. Any user (from an academic to a member of the general public) will be able to retrieve linguistic information and

its contextual data of their choice. The development of the Lithuanian WordNet⁶ will be based on internationally recognized models and practices of WordNet data (such as the Princeton WordNet data model), and the original version of the WordNet will include the set of common base concepts as recommended by the Global WordNet Association, which was defined in the EuroWordNet and BalkaNet projects. Furthermore, the original version of the WordNet will be developed by integrating available lexicographical resources (the *Dictionary of the Modern Lithuanian Language*, the *Dictionary of Synonyms*, the *Dictionary of Antonyms*, etc.).

The Lithuanian language resources available online⁷ and the new possibilities that are currently under development are highly relevant, handy and useful to everyone who uses or wants to learn Lithuanian, as well as governmental bodies, the education system and business.

3. Terminological resources in Lithuania

The development of several terminological sources in Lithuania is presented below. First of all, the *TermBank of the Republic of Lithuania* is described, since this is the most reliable and universal source of Lithuanian terminology available on the internet (<http://terminai.vlkk.lt/>).

In 2003 the Language Commission, together with the Office of the Parliament of the Republic of Lithuania, initiated the creation of a national term bank. At the end of the same year, parliament passed the *Law of the Term Bank of the Republic of Lithuania* (2003). It regulates the creation, management, use and financing of the term bank as well as the duties, rights and responsibilities of individuals and institutions providing, managing and using data in this term bank. The structure, information units, rules of creation, ordering and usage, technical data, requirements and functions of the information system in the term bank are defined in the *Methodology of the Term Bank of the Republic of Lithuania*, stating as follows:

The purpose of the Term Bank is to ensure consistent usage of the approved terms of the Lithuanian language, particularly those used in legal acts of the Republic of Lithuania, to create a common information system for various public authorities, which could be accessed by and receive data from other individuals and organizations and which could be used freely by specialists in different fields not only in Lithuania, but also in other countries. (see LTBM)

⁶ There is also another Lithuanian WordNet but it differs in the number and variety of linguistic resources (Vitkutė-Adžgauskienė/Dainauskas et al. 2016; Vitkutė-Adžgauskienė/Utka et al. 2016, etc.).

⁷ For more detailed information, see the external links in the references at the end of this article.

The owner and manager of the Term Bank is the State Commission of the Lithuanian Language (data administrator and manager). The Chancellery of the Parliament of the Republic of Lithuania was responsible for information system administration until the end of 2018 and at the beginning of 2019 the State Commission took over this duty.

Ministries and their subordinate departments and services, government authorities, the Parliament of the Republic of Lithuania and other state institutions are authorized to store and manage terms in their fields in the Term Bank. Terminology Commissions have been established in different state institutions, initially responsible for making an inventory of terms of legislation in force, editing term entries and presenting them to the Term Bank; subsequently, the focus has moved to the coordination of draft legislative terms with the Language Commission and entering them in the Term Bank. The terms deliberated by the Terminology Sub-Commission and approved by the Language Commission are added to the Bank with the indication that they have been *approved*. The Law on the Term Bank of the Republic of Lithuania has increased the management and dissemination of the terms of laws and other legal acts (for more, see Umbrasas 2013).

In addition to legislative terms, dictionaries that receive a positive assessment from the Language Commission are entered in the Term Bank. Data from 46 terminological dictionaries are now available in the Term Bank. There are over 245,700 term entries in the bank, with around 20,000 entries added each year, 4-5% of them from legal acts. Currently, the Information System of the Term Bank is being updated, not only the window and interfaces visible to the user but also the internal Term Bank information system.

The Term Bank of the Republic of Lithuania is not the only terminological resource containing Lithuanian terms. Another four resources should also be mentioned:

- *The Term Base of the Lithuanian Standards Board* – since 2000, the Lithuanian Standards Board has maintained a database of standardized terms. Currently, it contains around 70,000 term entries from standards. This database is freely available for users on the website of the Lithuanian Standards Board (www.lsd.lt/index.php?-452282422).
- *Raštija.lt* – an integrated information system for Lithuanian language and writing resources with data from 20 terminological dictionaries (informatics, computing, medicine, chemistry, physics, etc., www.raštija.lt).
- *EuroTermBank* – 15 resources with Lithuanian terminology are available from the free centralized online terminology database *EuroTermBank* (www.eurotermbank.com).
- *IATE (Inter-Active Terminology for Europe)* – an inter-institutional European Union term database containing over 57,000 Lithuanian terms (<http://iate.europa.eu/>). (For more information, see Auksoriūtė 2016).

4. Challenges vs opportunities for successful digital transformation in the Lithuanian language industry

In Europe, the main challenges for the exploitation of language data for the purpose of developing language technology applications and creating platforms (infrastructures) are mainly related to the amount of language data needed, language data protection, copyright, the costs of preparation and annotation, privacy, anonymization, the interoperability of data infrastructures, metrics of quality and workflows, etc. Any solution determines the quality of the transformation of the language industry; higher quality data and good solutions always yield better results. Some main challenges (and needs) that have been met in recent years in the Lithuanian language industry are listed below: there is only a small market for language technologies in Lithuania;

- a cloud problem still exists in Lithuania to store resources safely (the authorities are still working on this);
- limited open data accessibility and use, and a lack of language resources;
- a lack of skilled programmers, a lack of dedicated BA, MA and PhD programmes for language technologies;
- rapidly aging technologies;
- the cost of data preparation;
- a lack of efficient centralized e-services, fragmentation;
- and others. (For more challenges and needs as well as opportunities, see ELRC White Paper 2019; Telksnys 2017; Guidelines for Lithuanian LT development 2014; 2020; AI 2019; DEP LT Report 2020; Lietuva 2030; etc.).

To ensure the sustainable development of AI and to enable Lithuania to be competitive in the global market, a preliminary *Lithuanian Artificial Intelligence Strategy: A Vision of the Future* (AI 2019) was published in 2019. The strategy provides recommendations, with the goal described as being “To modernize and expand the current AI ecosystem in Lithuania and ensure that the nation is ready for a future with AI”. The strategy includes the following sections: ethical and legal core principles for the development and use of AI, a breakdown of Lithuania’s position in the AI ecosystem, the integration of artificial intelligence systems across all economic sectors, the national development of skills and competencies needed for a future with artificial intelligence, the growth of artificial intelligence research and development and a responsible and efficient approach to data.

5. Conclusion

As already mentioned above, the Lithuanian language resources available on the internet and the new opportunities that are currently being developed are highly relevant, handy and useful for everyone who uses or wants to learn Lithuanian, as

well as governmental institutions, the education system and business. Since the digital economy is vital for innovation, growth, studies, jobs and competitiveness, it is important to support national language research institutions and universities that are playing a key role in developing language technologies, such as online infrastructures (platforms) for digital and digitized linguistic resources, learning and training tools, innovative digital services (including a centralized translation service), semantic WordNets, various databases and applications, because it is not an easy task to create, combine, prepare and develop various kind of linguistic data, resources and research in combination with semantic WordNets, terminology and speech databases, etc. In the near future, access to all kinds of linguistic information would be extremely useful for an artificial intelligence program. In Lithuania, properly designed and developed language resources and linguistic data in line with international standards will bridge the gap between currently separate but related disciplines (Guidelines for Lithuanian LT development 2020). Considering all the challenges and needs described in the previous sections of this paper, it is vital to facilitate joint efforts on language resources and data creation, further developing online infrastructures (platforms), innovative e-services and applications. The magnitude of the digital skills challenge requires a long-term strategy and new partnerships between national, regional and international as well as private and public players, also including society, or the general public, as a whole.

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EFNIL project report

Sabine Kirchmeier

European Language Monitor No. 4 (2019)

Abstract (English)

This article gives an overview of European language legislation and language planning strategies and practices based on the latest collection of data for ELM 4 (European Language Monitor 2019) provided by EFNIL (The European Federation of National Institutions for Language). The status of languages in Europe is illustrated in nine different sets of questions and answers. All details are available via a web interface on <http://efnil.org/projects/elm>.

Abstract (Danish)

Denne artikel giver et overblik over sproglovgivningen i Europa og over strategier og praksisser for sprogplanlægning baseret på den seneste dataindsamling for ELM 4 (European Language Monitor 2019) foretaget af EFNIL (Den europæiske sammenslutning af nationale sproginstitutioner). Sprogens status i Europa illustreres i 9 sæt af spørgsmål og svar. Alle detaljer er tilgængelige via et webinterface på <http://efnil.org/projects/elm>.

1. Introduction to ELM 4

ELM is a project run by EFNIL, the European Federation of National Institutions for Language, which collects and publishes data on language legislation and language planning in Europe. ELM provides answers to questions like:

How many countries have a language law? What languages are used as the language of instruction in higher education? What languages are used on company websites and which countries have specific programmes to support language technology for their languages?

The user can browse and compare language provisions, find information about the status of minority languages as well as the use of languages in educational systems and the media and inform themselves about the use of language technology in many European countries.

The data in ELM are collected by the national institutions for language that are members of EFNIL. The main focus is on official regulations and how they are implemented. We have taken great care to provide comments, quotes, links and translations wherever possible. The data for ELM have been collected every four years since 2009. The current version, ELM 4, is based on data collected in 2017-2018.

1.1 What is a language monitor?

In some countries, reports on the status of their language(s) are presented to policy makers on an annual basis; in others, language status reports are created ad hoc, depending on the political situation. Very few surveys monitor European language regimes on a regular basis allowing the comparison of language data across countries and over time.

In our view, such a language monitor has to comply with the following criteria:

- It is a scientific review of the language situation in one or more countries repeated at certain intervals.
- The information is comparable over time.
- The information is comparable across countries.

None of the three criteria is clear cut and easy to apply. It is not at all obvious what kind of data reflect the actual language situation of a country and what factors influence change in that situation. Neither is it clear whether the data collected for one country are at all comparable to similar data from another, as political and social conditions vary from country to country.

An important part of the data collection process is to provide an exact reference to the current legislation in each country. The statistical overview and maps are tools for further exploration and understanding of the different language regimes, including their differences and similarities. We hope that this enables researchers and other interested parties to review the sources of data, investigate the details and draw their own conclusions.

The development of a language monitor is thus a continuous bootstrapping process where questions are tested and the answers are evaluated, after which the questions are adjusted accordingly. Therefore, there may be small differences in the way questions are phrased from one monitor to the next. In some cases, even, new questions are added. Thus, in ELM 4, a suite of questions on language technology has been added in cooperation with the META-NET project (Rehm/Uszkoreit 2012).

1.2 Previous versions of ELM

In 2004, EFNIL conducted a one-year feasibility study, ELM 1, to explore the possibility of language monitoring on a European scale. The countries covered by that limited study were France, Germany, Italy, the Netherlands and Sweden.

In 2009, EFNIL launched ELM 2 using a simple text-based questionnaire which was filled in by 23 European countries. Data analysis was started in 2010 and was presented in two articles (Kirchmeier-Andersen et al. 2012; Kokoroskos 2012).

ELM version	ELM 1 (2004)	ELM 2 (2012)	ELM 3 (2014)	ELM 4 (2019)
Collection period	2003-2004	2008-2009	2012-2013	2017-2018
Availability of results	Not available	Articles	Online	Online + articles
Participating countries		Austria	Austria	Austria
		Belgium (FL/FR)	Belgium (FL/FR)	Belgium (FL)
			Bulgaria	Bulgaria
		Cyprus	Cyprus	
		Czech Republic	Czech Republic	Czech Republic
		Denmark	Denmark	Denmark
		Estonia	Estonia	Estonia
		Finland	Finland	Finland
	France		France	
	Germany	Germany	Germany	Germany
		Greece	Greece	Greece
		Hungary	Hungary	Hungary
		Iceland	Iceland	Iceland
		Ireland	Ireland	
	Italy	Italy	Italy	
		Latvia	Latvia	Latvia
		Lithuania	Lithuania	Lithuania
		Luxembourg		Luxembourg
			Malta	
		Norway	Norway	Norway
		Poland	Poland	
			Portugal	Portugal
			Romania	Romania
		Slovak Republic	Slovak Republic	Slovak Republic
		Slovenia	Slovenia	Slovenia
	Sweden	Sweden	Sweden	Sweden
The Netherlands	The Netherlands	The Netherlands	The Netherlands	
	United Kingdom	United Kingdom	United Kingdom	
Total	5	23	27	21

Table 1: Overview of ELM 1 to ELM 4

In 2012, the ELM project group started the collection of data for ELM 3, this time using an electronic survey system (SurveyExact) and in September 2014, the first on-line version of ELM covering 27 countries was launched on efnil.org/projects/ELM.

The data for ELM 4 was collected in 2017 and 2018 and made available online in autumn 2019. It comprises answers from 22 countries.

An overview of the release of the four versions of ELM, the collection period for the data and the participating countries can be seen in Table 1. The overview shows that ELM data are collected every four years but not all release years follow this rhythm. ELM 2 was collected in 2008 and 2009 but due to the time-consuming task of analysing the questionnaire files, the data could not be published until 2012. After introducing an online survey system, the time from the collection of data to publication on the web could be shortened considerably.

Cyprus, France, Ireland, Italy, Malta and Poland are not represented in ELM 4 while Luxembourg was not represented in ELM 3 and Bulgaria, France, Malta, Portugal and Romania did not participate in ELM 2. Spain, unfortunately, is not represented in any of the surveys. These differences must, of course, be taken into consideration when comparing the data in the surveys. Furthermore, only the Flemish-speaking community of Belgium is represented in ELM 4 whereas both the Flemish and the French communities are represented in ELM 2.

It is still possible to compare the results from ELM 2 to ELM 4, thus covering the changes that have taken place over the last ten years. ELM 2 results are described in Kokoroskos (2012) and can be compared to the online results of ELM 3 and ELM 4.

For some of the questions asked in ELM it has not been possible to find answers in all of the participating countries for various reasons. This should be taken into consideration in the evaluation of the results.

1.3 Methodology

ELM 4 contains nine suites of questions of different kinds. Some questions elicit lists of languages (What are the official languages in your country?). Some are simple yes/no questions (Is there a language law in your country?). Others offer multiple choices. As many questions as possible have been designed to elicit quantifiable answers in order to give an overview. However, the most interesting and detailed information is in the comment fields, where nuances and modifications come across. Therefore, care should be taken when looking at the results and the comments should always be consulted before drawing conclusions.

The question suites cover the following topics:

- 1) National situation. Official, regional, indigenous, immigrant languages spoken within and outside the country, legal status, compliance with conventions.

- 2) Legal situation. Language law, constitutional status, other regulations, language requirements for citizenship.
- 3) Primary and secondary education. Languages of instruction, languages offered.
- 4) Tertiary education. Languages of instruction, languages used in publications and dissertations.
- 5) Media. Papers, TV, film, music. Languages used and translations provided.
- 6) Business. Regulations. Company languages, annual reports, websites.
- 7) Dissemination of languages. Official languages taught abroad.
- 8) Language organisations. Official, non-governmental but publicly funded, private.
- 9) Language technology.

The questionnaire for ELM 4 was designed by EFNIL's ELM project group: Sabine Kirchmeier (Danish Language Council), Cecilia Robustelli (Academia della Crusca), Jennie Spetz (Swedish Language Council), Nina Teigland (Norwegian Language Council), Karlijn Waterman (Nederlandse Taalunie) and presented and discussed with EFNIL's members. EFNIL representatives in all countries were asked to fill in the survey in 2017.

In order to achieve the most coherent interpretation of the questions, definitions of the terms used in the survey were provided, such as

- National language(s): *official language(s) of a nation state.*
- Official language: *a language that is given a special legal status within a particular state.*
- Regional or minority languages: *languages that are traditionally used within a given territory of a state by nationals of that state who form a group numerically smaller than the rest of the state's population.*

The complete questionnaire and the definitions can be found on <http://efnil.org/projects/elm>.

1.4 Visualisation

ELM 3 and 4 were both set up as transparent, interactive web-based systems. This means that all questions and answers for all countries can be selected and displayed in a flexible manner. On the ELM website (www.efnil.org/projects/elm/data-query) it is possible to view the answers to all questions for a specific country, to compare the answers to a given question across countries and to combine questions and comments in order to obtain a more detailed picture.

A direct comparison between the results of ELM 3 and ELM 4 is not possible in the same system since they were created using different web technologies, and some of the questions are structured in a slightly different way. However, the two monitors can be explored in two different browser windows and data can then be compared.

Comments are given in English. Quotes are given in the original language and in English translation. Active links to current legislation etc. are provided in most cases as shown in Figure 1. Translations of the original quotes may be authorised or provided by the respondent. This is indicated accordingly.

Country / Question	2.1. Does the Constitution of your country state what the official/national/main languages are?	2.1.2. Comments
Bulgaria	Yes	Член от Конституцията на Република България: чл. 3. (http://www.parliament.bg/bg/const) Чл. 3. Официалният език в републиката е българският. Constitutional article: Articles 3. (https://www.parliament.bg/en/const) (authorised) Art. 3. Bulgarian shall be the official language of the Republic.
Iceland	No	Stjórnarskrá lýðveldisins Íslands https://www.althingi.is/lagas/muna/1944033.html "The Icelandic Constitution" (not authorised)

Fig. 1: Screen view of ELM 4 query results

For yes/no questions and questions containing quantities, ELM 3 and ELM 4 offer map views, which give a good overview of the results for all participating countries.

The website and the search functions were designed by Ivan Mittelholz and Ferenczi Zsanett, Research Institute for Linguistics, Hungarian Academy of Sciences.

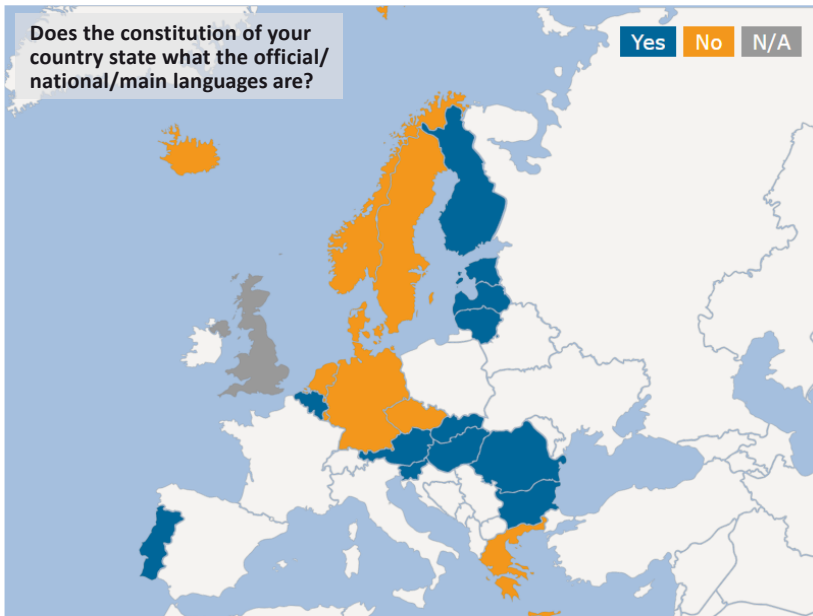


Fig. 2: Does the constitution of your country state what the official/national/main languages are?

1.5 Relations to other EU surveys

To our knowledge there are no surveys that cover the linguistic situation in Europe in as much detail as ELM. The UNESCO Survey of World Languages, which was launched in 2018, mainly focusses on the status and use of languages, especially endangered languages, but it does not provide detailed information and links to actual legislation, which is necessary if a more detailed view of the language policies in each country is required. Some of the EU Eurobarometers do contain questions about languages and linguistic practices but they are based on public opinion data, not on legal facts. Other surveys, for instance *The European Survey on Language Competences* commissioned by CRELL (Araújo/Costa 2013), focus on specific aspects and effects of language teaching and the role of external factors.

2. Results

The following chapters present ELM 4 topic by topic and summarise the results.

2.1 Country situation

The first section gives an overview of the languages used in the participating countries and of their status within and outside the country.

The questions were the following:

- 1.1 What are the official languages of your country?
- 1.2 What are the non-official languages in your country?
- 1.3 What are the main languages (in terms of number of users) spoken by first- and second-generation immigrants in your country?
- 1.4 In what language(s) are the Constitution and laws in your country written?
- 1.5 Except for your own country, in which other countries of the European Union is/are your official language(s) also regarded as an official language?
- 1.6 In which countries outside the European Union is/are your official language(s) also regarded as an official language?
- 1.7 Has your country ratified the European Charter for Regional or Minority Languages?
- 1.8 Has your country signed the Framework Convention for the Protection of National Minorities?

Some of the information asked, such as the official language in each country, may be found in other sources, but they are rarely brought together to draw a more complete picture. The purpose of these questions is to show how languages are distributed across countries as well as how and to what effect they are officially recognised and legally protected.

2.1.1 Official languages

The respondents were asked to group the languages in 3 subgroups according to their status:

- Official – used nationally.
- Official – used regionally.
- Officially recognised autochthonous or indigenous languages (not immigrant languages).

Furthermore, they were asked to estimate the percentage of the population that uses the language.

In total, 45 languages were mentioned in those three categories. Table 2 provides an overview of the languages with official status sorted by frequency. At the top we find German, which is an official language in five countries. In four of them (Germany, Austria, Belgium and Luxembourg), it is officially used nationally and in one country (Denmark) it is used regionally. Romani is reported to be an officially recognised autochthonous language in five countries and a special variant, Scandoromani, is officially recognised in Norway while Hungarian is represented in four countries in all three categories.

Languages	Official – used nationally	Official – used regionally	Officially recognised autochthonous	Total
German	4	1		5
Romani			5	5
Hungarian	1	1	2	4
Czech	1		2	3
Sami		2	1	3
Dutch	2			2
French	2			2
Swedish	2			2
English	1	1		2
Bulgarian	1		1	2
Finnish	1		1	2
Slovak	1		1	2
Slovene	1		1	2
Serbian			2	2
Danish	1			1
Estonian	1			1
Greek	1			1
Icelandic	1			1
Latvian	1			1
Lithuanian	1			1
Luxembourgish	1			1
Norwegian Bokmål	1			1

Languages	Official – used nationally	Official – used regionally	Officially recognised autochthonous	Total
Norwegian Nynorsk	1			1
Romanian	1			1
Sign language (Austrian)	1			1
Sign language (Norwegian)	1			1
Frisian		1		1
Italian		1		1
Kven		1		1
Mirandese		1		1
Papiaments		1		1
Portuguese		1		1
Russian		1		1
Sign language (Swedish)		1		1
Welsh		1		1
Burgenlandkroatisch			1	1
Croatian			1	1
Faroese			1	1
Greenlandic			1	1
Meänkieli			1	1
Polish			1	1
Romani (Norwegian) (Scandoromani)			1	1
Sign language (Icelandic)			1	1
Ukrainian			1	1
Yiddish			1	1
Total	29	14	26	69

Table 2: Overview of languages with official status

In some cases, we find quite exotic official languages such as Papiaments. This is because the overseas islands which are part of the (Kingdom of the) Netherlands are included in this survey.

2.1.2 Not officially recognised languages

There are several not officially recognised languages. However, some of them have a different kind of status, since they may be used in courts. These are Boyash, Bulgarian, Croatian, Danish, Gaelic, German, Greek, Low German, Lower Sorbian, Manx, North Frisian, Polish, Romani, Romanian, Russian-Lipovans, Saterland Frisian, Serbian, Slovak, Slovene, Tartar and Upper Sorbian. In most countries, these languages are used by less than 5% of the population. Only Russian in Bulgaria is said to be spoken by 11-25% of the population, and Turkish in Bulgaria and Russian in Lithuania are reported to be spoken by 5-10% of the population. A more detailed overview can be seen in the online version of ELM.

2.1.3 Immigrant languages

As in ELM 3, a large number of immigrant languages are reported in ELM 4. In most countries, they are spoken by less than 5% of the population. However, some countries, such as the UK, Finland and Sweden, report on at least ten different immigrant languages while Austria reports on nine.

Only Russian in Latvia is spoken by 25-50% of the population while Russian in Estonia, and Portuguese and English in Luxembourg are spoken by 11-25% of the population. Italian is spoken by between 5 and 10% in Luxembourg.

2.2 Legal situation

This section of ELM 4 contains information about the legal provisions and regulations that are made regarding the use of languages in the participating countries. Language rulings can be applied at various levels. We think of these levels as a hierarchy reflecting the scope of the legal acts:

Level 1: Provisions about language in the constitution

Level 2: Laws specifically addressing language regulations

Level 3: Provisions about language in other legal acts

Level 4: Local regulations at institutional level.

It is tempting to make inferences about the prominence that is given to language issues based on which legal level they appear at. However, there may be quite a number of reasons behind the current legislation in each country, for instance historical reasons: older mainly monolingual nations tend not to include language issues at a constitutional level because the constitution was written a long time ago and changes to constitutions are usually not easily made. Younger nations and nations with a plurilingual situation more often tend to include language regulations in the constitution. The absence of provisions about language in the constitution is not necessarily an indication for a less protective language regime.

2.2.1 Languages in the constitution

More than half (55%) of the participating countries state that there are provisions covering the official languages of the country in the constitution (Fig. 3). Austria, Belgium, Bulgaria, Estonia, Finland, Hungary, Latvia, Lithuania, Portugal, Romania, the Slovak Republic and Slovenia report that the official languages are stated in the constitution. The other countries do not have provisions of this kind. For the United Kingdom, the question is not applicable since there is no formal constitution, but English is still the *de facto* official language of the UK. However, there are language regulations in legal acts for Wales, Scotland and Northern Ireland.

Official languages stated in the constitution

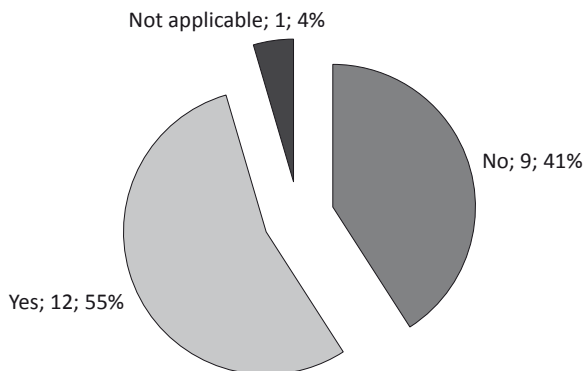


Fig. 3: Languages in the constitution

In some countries, such as Norway, there are provisions for languages, specifically protection of the Sami languages, but no mention of official languages.

2.3 Language laws

Another way of securing a special status for the official languages of a country is a general legal act specifying the languages used in various contexts. Fourteen countries have language laws and six do not.

The UK is a special case as there are special language provisions for Scotland and Wales. Romania did not answer the question directly but stated that there are special provisions regarding the translation/adaptation into Romanian of any text of public interest expressed in a foreign language.

Language law regulating language use in official matters

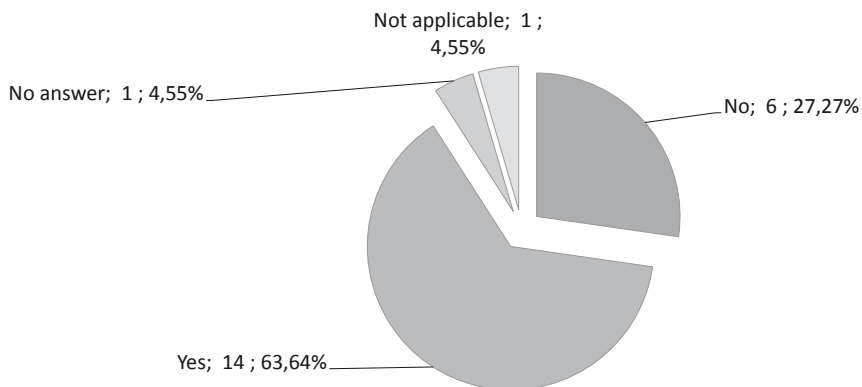


Fig. 4: Language laws

The countries that clearly stated that they do not have language laws are Bulgaria, Denmark, Germany, Hungary, the Netherlands and Portugal. In Bulgaria, Hungary and Portugal the status of official languages is stated at level 1, i.e. in the constitution. In Denmark, Germany and the Netherlands, language use is regulated only at level 3, other legal acts.

2.3.1 Other legal acts that define the use of language(s) in government, public administration or judiciary institutions

Clearly, the more we move down the legal hierarchy to other legal acts, the greater the number of countries which report having regulations on the use of official languages.

Only Belgium, Greece, Luxembourg and Portugal do not report on other legal acts regulating the use of official languages. However, all four stated that they have specific language laws (level 2); for Belgium, Greece and Portugal, the use of official languages is also stated in the constitution (level 1).

Use of languages defined in other legislation



Fig. 5: Language legislation

In Table 3, the countries have been ranked according to the level of regulation they provide for their language(s). The least regulated countries, e.g. those with regulations at the lowest level of legislation, are at the top of the table while those with the highest level of regulation appear at the bottom.

It appears that Denmark, Germany and the Netherlands only have regulations at the lowest level while eight countries have regulations at all levels.

Unfortunately, only 22 countries participated in ELM 4. However, six of the missing countries participated in ELM 3 and/or ELM 2 (Cyprus, France, Ireland, Italy, Malta and Poland). If these are added, we get a more complete picture. Note

that the data for ELM 2 were collected in 2008-2009 and for ELM 3 from 2012-2013. This is indicated by the ELM number in the leftmost column of Table 3.

ELM 4		Ruling for official languages in:		
ELM No.	Country	2.1 Constitution	2.2 Language law	2.3 Other legislation
ELM 4	Denmark	No	No	Yes
ELM 4	Germany	No	No	Yes
ELM 3	Italy	No	No	Yes
ELM 4	The Netherlands	No	No	Yes
ELM 4	Luxembourg	No	Yes	No
ELM 4	Greece	No	Yes	No
ELM 4	Czech Republic	No	Yes	Yes
ELM 4	Iceland	No	Yes	Yes
ELM 4	Norway	No	Yes	Yes
ELM 4	Sweden	No	Yes	Yes
ELM 4	UK	Not appl.	Not appl.	Yes
ELM 2	Cyprus	Yes	No	No
ELM 4	Portugal	Yes	No	No
ELM 4	Bulgaria	Yes	No	Yes
ELM 4	Hungary	Yes	No	Yes
ELM 4	Romania	Yes	No answer	Yes
ELM 4	Belgium	Yes	Yes	No
ELM 4	Austria	Yes	Yes	Yes
ELM 4	Estonia	Yes	Yes	Yes
ELM 4	Finland	Yes	Yes	Yes
ELM 3	France	Yes	Yes	Yes
ELM 3	Ireland	Yes	Yes	Yes
ELM 4	Latvia	Yes	Yes	Yes
ELM 4	Lithuania	Yes	Yes	Yes
ELM 3	Malta	Yes	Yes	Yes
ELM 3	Poland	Yes	Yes	Yes
ELM 4	Slovak Republic	Yes	Yes	Yes
ELM 4	Slovenia	Yes	Yes	Yes

Table 3: Overview of language regulations

It appears that the tendency towards regulations on official languages in the constitution or by means of a language act is rather strong in all participating countries, when all rounds of ELM are taken into consideration. Only four countries

(Denmark, Germany, Italy and the Netherlands) have no regulations at the two highest levels while 24 other countries (83%) have regulations either in the constitution or by means of a language act or both.

2.4 Language and citizenship

Since 2015, the flow of immigrants into European countries has increased considerably. A good way to integrate quickly into a new society is by learning the local language. In a number of countries, mastering the official language is a prerequisite for obtaining permanent residence or citizenship. Often language tests are combined with questions about society, politics, history and culture. In some countries, immigrants are offered language courses; in other countries immigrants must manage on their own. Table 4 shows the distribution across the following four questions:

- 2.4. Does your country have a compulsory test or examination that includes a language test in (one of) the national/official language(s) which must be passed in order to obtain citizenship?
- 2.5. Does your country offer instruction regarding which national/official language(s) have to be mastered in order to obtain citizenship?
- 2.6. Does your country have a compulsory examination or test regarding which (one of the) national language(s) has to be mastered in order to obtain permanent residence (i.e. without becoming a citizen of your country)?
- 2.7. Does the government of your country provide instruction with regard to which (one of the) national/official language(s) has to be mastered in order to obtain permanent residency?

	2.4 Language test for citizenship?	2.5 Instruction for citizenship?	2.6 Language test for permanent residency?	2.7 Instructions test for permanent residency?
AT	Yes	Yes	Yes	Yes
BE	No	No	No	No
BG	Yes	No	No	No
CZ	Yes	Yes	Yes	Yes
DE	Yes	Yes	Yes	Yes
DK	Yes	Yes	Yes	Yes
EE	Yes	Yes	Yes	Yes
EL	Yes	No	Yes	No
FI	Yes	Yes	No	No
HU	Yes	Yes	No	No

	2.4 Language test for citizenship?	2.5 Instruction for citizenship?	2.6 Language test for permanent residency?	2.7 Instructions test for permanent residency?
ICE	Yes	No answer	No	No answer
LT	Yes	Yes	Yes	Yes
LU	Yes	Yes	No	No
LV	Yes	Yes	Yes	Yes
NL	Yes	Yes	Yes	Yes
NO	Yes	Yes	Yes	Yes
PT	No	Yes	No	No
RO	Yes	Yes	Yes	Yes
SE	No	No	No	No
SK	No answer	No	No	No
SL	Yes	Yes	No	No
UK	Yes	Yes	Yes	Yes

Table 4: Overview of requirements for citizenship and permanent residence

Only in three countries (Belgium, Portugal and Sweden) is it not obligatory for immigrants to pass a language test in order to obtain citizenship. For instance, in Belgium, citizenship can be obtained if other criteria, such as marriage to a Belgian citizen, are fulfilled. Out of the 17 countries that demand a language test, only two (Bulgaria and Greece) do not offer instruction in the national language(s) for immigrants. Portugal offers instruction although language tests are not obligatory.

To obtaining permanent residence, the demands for a language test are slightly less frequent. Twelve out of 22 countries have obligatory language tests and, except for Greece, they all offer instruction.

2.5 Primary and secondary education

One of the central elements of language planning is language acquisition. It covers both the languages used as medium of instruction and the languages taught as the mother tongue or as a foreign language. Most countries (82%) have regulations that give the official language(s) a declared status as the medium of instruction in primary schools. The exceptions are Germany, Portugal, Sweden and the UK. The German comments indicate that the main language of instruction is German but that in foreign language teaching, the medium of instruction may also be the foreign language.

Only half of the countries report that there are other local or regional regulations about the language of instruction at primary schools.

A similar situation holds for secondary schools. Several countries have regulations at national level and about half of the countries also have regulations at regional or local level.

A complete picture is given in Table 5. It seems that Germany, Sweden and Portugal have the fewest regulations regarding the language of instruction while Greece, Norway, the Netherlands, Denmark and Hungary have regulations at all levels.

	3.1 Regulations that give the official language(s) a declared status as a medium of instruction in primary schools	3.2 Other (regional or local) regulations concerning the use of the official or other languages as mediums of instruction in primary schools	3.3 Regulations that give the official language(s) a declared status as a mediums of instruction in secondary schools	2.7 Other (regional or local) legislations concerning the use of the official or other languages as mediums of instruction in secondary schools
AT	Yes	Yes	Yes	No
BE	Yes	No	Yes	Yes
BG	Yes	No	Yes	No
CZ	Yes	No	Yes	No
DE	No	No	No	No
DK	Yes	Yes	Yes	Yes
EE	Yes	No	Yes	No
EL	Yes	Yes	Yes	Yes
FI	Yes	No	Yes	No
HU	Yes	Yes	Yes	Yes
ICE	Yes	Yes	Yes	No
LT	Yes	No	Yes	No
LU	Yes	No	Yes	No
LV	Yes	Yes	Yes	No
NL	Yes	Yes	Yes	Yes
NO	Yes	Yes	Yes	Yes
PT	No	No	No	No
RO	Yes	No answer	Yes	No answer
SE	No	No	No	No
SK	Yes	No	Yes	Yes
SL	Yes	No	Yes	No
UK	No	Yes	Yes	Yes

Table 5: Language regulation in primary and secondary schools

It appears from the comments and links to current legislation that in most countries national languages are codified as the language of instruction but that exceptions can be made for minority languages and, in some cases, also for other languages, for instance in international schools or private schools.

2.6 Tertiary education

The questions in this section are about

- Legal regulations that give the official language(s) a declared status as the medium of instruction at university level.
- The use of English as the medium of instruction at BA, MA and PhD level in different subject areas.
- The use of English in academic publications.
- Demands for language skills for foreign students.

2.6.1 Legal regulations on the language of instruction at universities

More than half of the respondents reported that there are regulations that give the official language(s) a declared status as the medium of instruction at university level.

Regulations that give the official language(s) a declared status as medium of instruction at university level

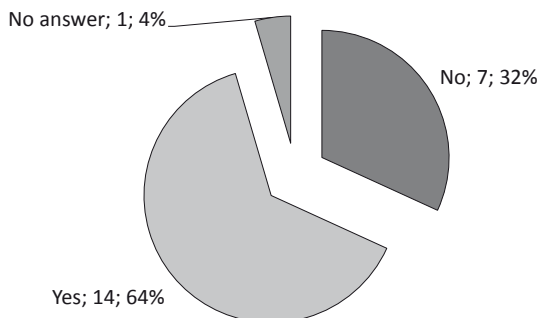


Fig. 6: Language regulation at universities

The countries that reported having regulations are Belgium, Estonia, Finland, Greece, Hungary, Iceland, Latvia, Lithuania, Luxembourg, the Netherlands, Romania, the Slovak Republic, Slovenia and the UK.

The countries that do not have regulations are Bulgaria, the Czech Republic, Denmark, Germany, Norway, Portugal and Sweden. Norway reported having regional or local regulations. Austria did not provide information on this question.

A few changes over time can be observed across the different rounds of ELM in the answers to this question. From ELM 2 to ELM 3 there were practically no changes. From ELM 3 to ELM 4, however, we can note changes for some countries. One country, Portugal, seems to have changed from having regulations to having no regulations. Five countries, Hungary, Iceland, Romania, the Slovak Republic and the UK changed from No to Yes.

The comments by the countries changing from No to Yes are different in nature. In the UK the regulations mentioned are related to the protection of minority languages such as Welsh and Gaelic. It is emphasised that the use of these languages should also be supported at universities. In the other countries, legislation has been passed to strengthen the official language(s) as language(s) of instruction at university level.

2.6.2 English as a medium of instruction at the BA level

All countries except the Slovak Republic report that English is used as a medium of instruction at BA level (Fig. 7).

English used as a Medium of Instruction in Bachelor's Courses at European Universities

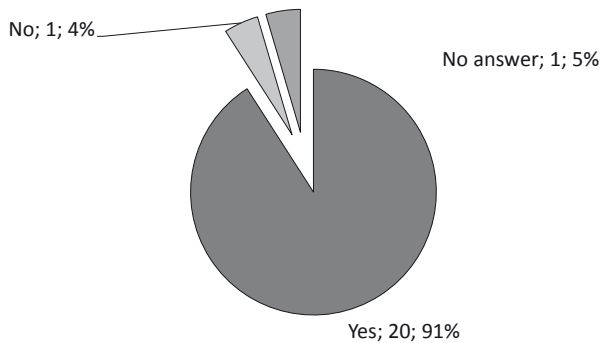


Fig. 7: English in BA courses at European universities

Differences occur, however, if we look at the academic areas where English is used. The respondents were asked to estimate the percentage of courses that are taught in English in the humanities, social sciences and natural sciences (Table 6).

Country	Total percentage	Humanities	Social Science	Natural science
Austria	No answer	No answer	No answer	No answer
Belgium	No answer	No answer	No answer	No answer
Bulgaria	Between 0% and 25%	Between 0% and 25%	Between 0% and 25%	Between 0% and 25%
Czech Republic	Between 0% and 25%	Between 0% and 25%	Between 0% and 25%	Between 0% and 25%
Denmark	Between 0% and 25%	Between 0% and 25%	Between 0% and 25%	Between 0% and 25%
Estonia	Between 0% and 25%	Between 0% and 25%	Between 0% and 25%	Between 0% and 25%
Finland	Between 0% and 25%	Between 0% and 25%	Between 0% and 25%	Between 26% and 50%
Germany	Between 0% and 25%	Between 0% and 25%	Between 0% and 25%	Between 26% and 50%
Greece	Between 0% and 25%	Between 0% and 25%	Between 0% and 25%	Between 0% and 25%
Hungary	Between 0% and 25%	Between 0% and 25%	Between 0% and 25%	Between 26% and 50%
Iceland	Between 0% and 25%	Between 0% and 25%	Between 0% and 25%	Between 0% and 25%
Latvia	Between 0% and 25%	Between 0% and 25%	Between 0% and 25%	Between 26% and 50%
Lithuania	Between 0% and 25%	Between 0% and 25%	Between 0% and 25%	Between 0% and 25%
Luxembourg	No answer	Between 26% and 50%	More than 75%	More than 75%
Norway	No answer	No answer	No answer	No answer
Portugal	Between 0% and 25%	Between 0% and 25%	Between 0% and 25%	Between 0% and 25%
Romania	No answer	No answer	No answer	No answer
Slovak Republic	No answer	No answer	No answer	No answer
Slovenia	Between 26% and 50%	Between 0% and 25%	Between 0% and 25%	Between 26% and 50%
Sweden	Between 26% and 50%	Between 26% and 50%	Between 26% and 50%	Between 26% and 50%
The Netherlands	Between 0% and 25%	Between 0% and 25%	Between 0% and 25%	Between 0% and 25%
UK	More than 75%	More than 75%	More than 75%	More than 75%

Table 6: English as a medium of instruction at BA level

It seems that the use of English as a medium of instruction at BA level in the humanities and social sciences is rather low in most countries, except for Luxembourg and Sweden, while there is a small increase in natural sciences in countries such as Finland, Germany, Hungary, Latvia, Portugal and Slovenia.

Data for the use of English at BA level were not collected in ELM 2 and ELM 3; thus no comparisons can be made.

2.6.3 English as a medium of instruction at MA level

All countries report that English is used as a medium of instruction at MA level, except for Austria, which did not answer the questions in this section.

If we look at the percentages reported for the three areas, it is clear that the percentage of courses taught in English at MA level is considerably higher than at BA level.

Like at BA level, the percentage of courses taught in English is clearly highest in the natural sciences while there is less English in the humanities and social sciences. But in some countries these tendencies are even stronger at MA level. The Netherlands and Sweden stand out with percentages between 51% and 75% in all areas while Denmark and Luxembourg report more than 75% in the natural sciences.

Country	Total percentage	Humanities	Social Science	Natural science
Austria	No answer	No answer	No answer	No answer
Belgium	No answer	No answer	No answer	No answer
Bulgaria	Between 0-25%	Between 0-25%	Between 0-25%	Between 0-25%
Czech Republic	Between 0-25%	Between 0-25%	Between 0-25%	Between 0-25%
Denmark	Between 26-50%	Between 0-25%	Between 26-50%	More than 75%
Estonia	Between 26-50%	Between 26-50%	Between 26-50%	Between 26-50%
Finland	Between 26-50%	Between 0-25%	Between 0-25%	Between 51-75%
Germany	Between 0-25%	Between 0-25%	Between 0-25%	Between 26-50%
Greece	Between 0-25%	Between 0-25%	Between 0-25%	Between 0-25%
Hungary	Between 0-25%	Between 0-25%	Between 0-25%	Between 26-50%
Iceland	Between 0-25%	Between 0-25%	Between 0-25%	Between 0-25%
Latvia	Between 26-50%	Between 0-25%	Between 0-25%	Between 26-50%
Lithuania	Between 0-25%	Between 0-25%	Between 0-25%	Between 0-25%
Luxembourg	No answer	Between 26-50%	More than 75%	More than 75%
Netherlands	Between 51-75%	Between 51-75%	Between 51-75%	Between 51-75%
Norway	No answer	No answer	No answer	No answer
Portugal	Between 0-25%	Between 0-25%	Between 0-25%	Between 0-25%
Romania	No answer	No answer	No answer	No answer
Slovak Republic	No answer	No answer	No answer	No answer
Slovenia	Between 26-50%	Between 26-50%	Between 0-25%	Between 26-50%
Sweden	Between 51-75%	Between 0-25%	Between 26-50%	Between 0-25%
UK	More than 75%	More than 75%	More than 75%	More than 75%

Table 7: English as a medium of instruction at MA level

	Total		Natural science	
Country	ELM 4	ELM 2	ELM 4	ELM 2
Austria	No answer	No answer	No answer	No answer
Belgium	No answer	No answer	No answer	No answer
Bulgaria	Between 0-25%	No answer	Between 0-25%	No answer
Czech Rep	Between 0-25%	No answer	Between 0-25%	No answer
Denmark	Between 26-50%	Between 26-50%	More than 75%	Between 51-75%
Estonia	Between 26-50%	Between 0-25%	Between 26-50%	Between 0-25%
Finland	Between 26-50%	Between 0-25%	Between 51-75%	Between 26-50%
Germany	Between 0-25%	Between 0-25%	Between 26-50%	Between 0-25%
Greece	Between 0-25%	No answer	Between 0-25%	No answer
Hungary	Between 0-25%	No answer	Between 26-50%	No answer
Iceland	Between 0-25%	Between 0-25%	Between 0-25%	Between 0-25%
Latvia	Between 26-50%	Between 0-25%	Between 26-50%	Between 0-25%
Lithuania	Between 0-25%	Between 0-25%	Between 0-25%	
Luxembourg	No answer	Between 26-50%	More than 75%	Between 0-25%
Netherlan	Between 51-75%	Between 51-75%	Between 51-75%	More than 75%
Norway	No answer	No answer	No answer	No answer
Portugal	Between 0-25%	No answer	Between 0-25%	No answer
Romania	No answer	No answer	No answer	No answer
Slovak Rep	No answer	Between 0-25%	No answer	Between 0-25%
Slovenia	Between 26-50%	Between 0-25%	Between 26-50%	Between 0-25%
Sweden	Between 51-75%	No answer	Between 0-25%	No answer
UK	More than 75%	More than 75%	More than 75%	More than 75%

Table 8: Comparison between ELM 2 and ELM 4

If we compare the total figures for MA level with the figures reported in ELM 2 (Table 8), we can see that the total percentage of the use of English as a medium of instruction at MA level has increased from 0-25% to 26-50% in Denmark, Estonia, Finland, Latvia and Slovenia while the percentages in the other countries have remained the same, whether high or low to start with.

It is also obvious that the greatest increase in the use of English as a medium of instruction has occurred in the natural sciences. Only Iceland and Slovenia do not report an increase. One interesting exception is the Netherlands, where the use of English in the natural sciences seems to have decreased.

In many countries, the figures on the actual use of English at tertiary level are not easily available because the use of language of instruction is not registered systematically. Some of the figures, therefore, are estimates.

2.6.4 English as the language of PhD dissertations

Going one step further up the academic career ladder, the use of English becomes even more widespread.

Seven countries apart from the UK report that more than 75% of the total number of theses are written in English. Once again, the tendency is strongest in the natural sciences.

Country	Total percentage	Humanities	Social Science	Natural science
Austria	No answer	No answer	No answer	No answer
Belgium	More than 75%	No answer	No answer	No answer
Bulgaria	No answer	No answer	No answer	No answer
Czech Republic	Between 0-25%	Between 0-25%	Between 0-25%	Between 0-25%
Denmark	Between 51-75%	Between 51-75%	More than 75%	More than 75%
Estonia	More than 75%	More than 75%	More than 75%	More than 75%
Finland	Between 51-75%	Between 26-50%	Between 26-50%	More than 75%
Germany	Between 26-50%	Between 0-25%	Between 0-25%	Between 51-75%
Greece	Between 0-25%	Between 0-25%	Between 0-25%	Between 0-25%
Hungary	Between 26-50%	Between 0-25%	Between 0-25%	Between 26-50%
Iceland	More than 75%	Between 0-25%	Between 51-75%	More than 75%
Latvia	Between 0-25%	Between 0-25%	Between 0-25%	Between 0-25%
Lithuania	Between 0-25%	Between 0-25%	Between 0-25%	Between 26-50%
Luxembourg	More than 75%	No answer	No answer	No answer
Netherlands	More than 75%	More than 75%	More than 75%	More than 75%
Norway	More than 75%	No answer	No answer	No answer
Portugal	Between 0-25%	Between 0-25%	Between 0-25%	Between 0-25%
Romania	No answer	No answer	No answer	No answer
Slovak Republic	No answer	No answer	No answer	No answer
Slovenia	Between 26-50%	Between 26-50%	Between 0-25%	Between 26-50%
Sweden	More than 75%	Between 26-50%	Between 51-75%	More than 75%
UK	More than 75%	More than 75%	More than 75%	More than 75%

Table 9: English used as the language of PhD dissertations

One way of strengthening the status of a language is to insist that the language is used in all areas of society. In research and education, there is a strong tendency towards global cooperation, which causes a strong preference for using English.

Some countries try to counter this tendency by demanding a summary of the dissertation to be written in the official language(s). In this way, they hope that scientific terms and expressions are still being coined in the official language(s), which also facilitates the communication of scientific results to a broader part of the national community. Half of the countries make use of such provisions.

2.6.5 The language of academic publications

All countries report that the official languages are used as the language of academic publications, except for Austria, which did not answer the question. In most countries journals in the official languages cover all academic areas. In Lithuania, however, journals in the official language, Lithuanian, only exist in the humanities and the social sciences. Similarly, Sweden reports that only journals in the humanities are published in Swedish.

2.6.6 Language demands for foreign students

Slightly more than half of the countries (55%) ask for a proficiency test before admitting students into their study programmes. These countries are Belgium, the Czech Republic, Denmark, Finland, Germany, Greece, Latvia, Lithuania, the Netherlands, Romania and Sweden.

Foreign students have to pass a language proficiency test in the official language

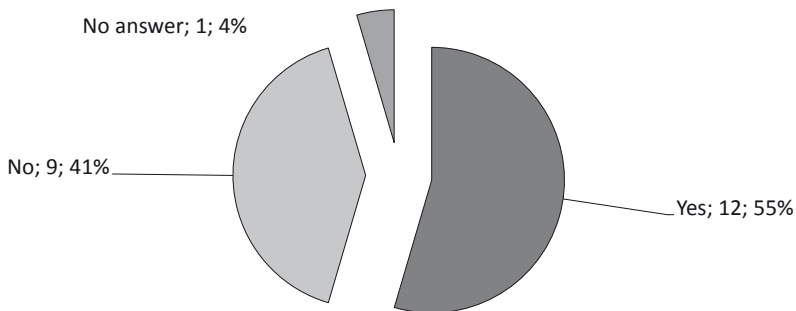


Fig. 8: Demands for language proficiency tests

2.7 Media

The questions on the status of official languages in the media cover languages used in daily papers and periodicals, the status of official languages as the medium of communication on the radio and TV, and regulations regarding the broadcast-

ing of music in official languages. The questions also include practices of using official languages in broadcasts that were originally made in other languages, namely are they dubbed or subtitled?

2.7.1 Newspapers and periodicals produced in languages other than the official one(s)

Practice is quite varied across Europe with regard to newspapers and periodicals in languages other than the official one(s). Sixteen countries (73%) report that newspapers and periodicals are being produced and published in other languages on a regular basis. The number of papers is quite large for some countries, such as Greece, where more than 16 titles are listed, and Slovakia, which lists at least 11 titles, some of them bilingual (Fig. 9).

Note that the question in Figure 9 does not include papers published in other countries. Although the Czech Republic, Finland, Germany, the Netherlands and Norway report that there are no papers produced and published in other languages, papers in other languages produced in other countries are available.

Details of the titles and languages of the papers can be found on the ELM 4 website.

Daily papers or periodicals written in a language other than your country's official language(s) that are produced in your country and distributed nationwide or in a substantial part of the nation

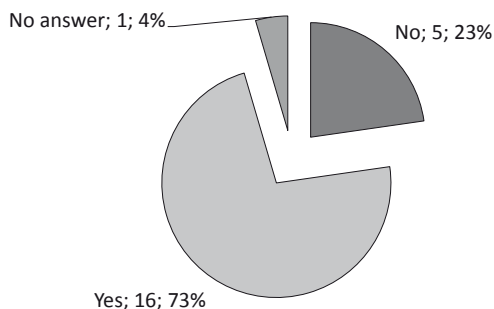


Fig. 9: Newspapers in languages other than the official one(s)

2.7.2 The status of official languages on the radio and TV

A large majority of countries (81%) have regulations on the use of official languages on the radio and TV. The countries that do not regulate this are the Czech Republic, Germany and Luxembourg. Austria did not answer the question.

The official language(s) of your country have a declared status as a medium of communication in the public service contracts with radio and/or TV broadcasters in your country

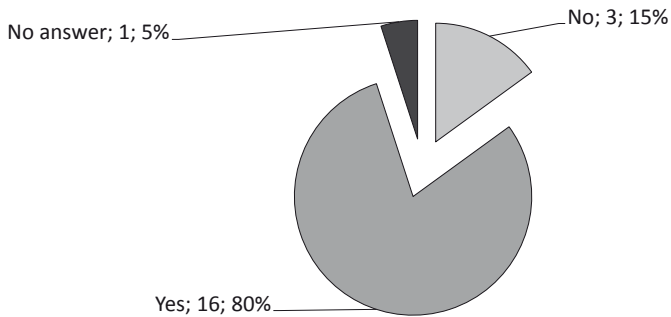


Fig. 10: Status of languages on the radio and TV

The types of regulations are quite varied and have a different focus in individual countries.

- In Estonia, it is required that all foreign content on TV and the radio is translated except for content aimed at language teaching etc. and that untranslated content may not exceed 10%.
- In Finland, public service broadcasting companies are required to treat Finnish-speaking and Swedish-speaking citizens on equal grounds and to produce services in the Sami, Romani and sign languages as well as, where applicable, in the languages of other language groups in the country. Furthermore, it is stressed that public service stations support tolerance and multiculturalism and provide programmes for minority and special groups.
- Greece has a strong focus on the quality of the language used by journalists and in subtitles and requires at least 25% of the output on private stations to be in Greek.
- In Iceland, media that distribute sound and text are required to have a language policy, and the state broadcasting services are required to support the Icelandic language, culture, history and cultural heritage. It is nevertheless allowed to operate media in Iceland in languages other than Icelandic.
- In Romania, it is compulsory for public TV and radio stations to promote the values of Romanian, the country's national and universal heritage, and the national minorities.

2.7.3 Regulations on broadcasting of popular music

In 38% of the countries, special attention is paid to the languages used in broadcasts of popular music. These countries are Denmark, Hungary, the Netherlands, Norway, Portugal, the Slovak Republic, Slovenia and the UK.

Legal/official regulation in your country concerning the amount of radio broadcasting of popular and folk vocal music in the official language(s)?

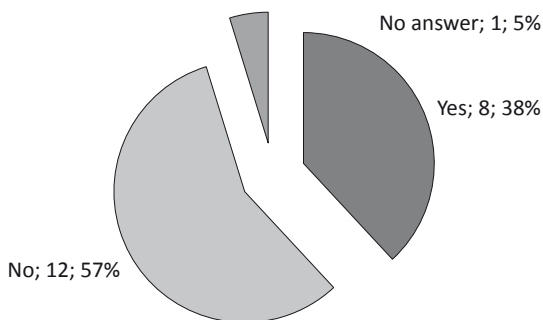


Fig. 11: Regulations for the languages used in broadcasts of music

In these countries, the regulations typically contain requirements to play a specific percentage of popular music in the official languages.

- For the UK, there is no regulation for English, but for Welsh broadcasting stations there is a requirement to broadcast at least 20% in Welsh.
- In Norway, the requirement on public service stations is that at least 35% of the popular music played is in Norwegian.
- In Denmark, the percentage is 39%.
- In the Dutch-speaking part of Belgium, it is 15%.
- In Hungary, there is a demand that 50% of the broadcast material is of Hungarian origin and that 35% of the music transmitted must be Hungarian. Hungarian, in this case, covers both the Hungarian language and the languages of the recognised minorities. It is explicitly stated that the percentage covers the hours and minutes of the Hungarian works played.
- In Portugal, the percentage is 25-40%.

It is not clear in all cases how the percentages are calculated.

2.7.4 Practices for dubbing and subtitling

The questionnaire contained two questions on practices for dubbing and subtitling. One focused on adults and the other on children. Basically, there are 5 different practices:

- 1) Broadcast in the original language
- 2) Broadcast in the original language with a voiceover
- 3) Broadcast with dubbing
- 4) Broadcast with subtitles
- 5) Dual-channel sound (broadcast in two languages)

The tables show that the use of subtitles in films and TV programmes for adults is prevalent in most of the participating countries. Only 6 countries (Austria, Bulgaria, the Czech Republic, Germany, Hungary and the Slovak Republic) report that they mostly/always use dubbing while 14 countries mainly use subtitles. However, it must be noted that some of the countries that did not answer the ELM 4 questionnaire, such as France, Italy and Spain, also use dubbing while Poland uses both.

Country	Orig.Lang	Voice over	Dubbing	Subtitles	Dual
Austria			Mostly/always	Rarely/never	Sometimes
Belgium	Rarely/never	Rarely/never	Rarely/never	Mostly/always	Rarely/never
Bulgaria		Sometimes	Mostly/always	Mostly/always	
Czech Republic	Sometimes	Rarely/never	Mostly/always	Sometimes	
Denmark	Rarely/never	Rarely/never	Rarely/never	Mostly/always	Rarely/never
Estonia	Sometimes	Sometimes	Rarely/never	Mostly/always	Rarely/never
Finland	Mostly/always	Rarely/never	Rarely/never	Mostly/always	Rarely/never
Germany	Rarely/never	Rarely/never	Mostly/always	Sometimes	Sometimes
Grand Duchy of Luxembourg					
Greece	Rarely/never	Rarely/never	Sometimes	Mostly/always	Rarely/never
Hungary	Rarely/never	Rarely/never	Mostly/always	Sometimes	Rarely/never
Iceland	Rarely/never	Rarely/never	Rarely/never	Mostly/always	Rarely/never
Latvia	Mostly/always	Sometimes	Sometimes	Sometimes	Rarely/never
Lithuania	Rarely/never	Sometimes	Sometimes	Sometimes	Rarely/never
Norway	Mostly/always	Rarely/never	Rarely/never	Mostly/always	Rarely/never
Portugal	Sometimes	Rarely/never	Rarely/never	Mostly/always	Rarely/never
Romania		Sometimes		Mostly/always	
Slovak Republic	Rarely/never	Rarely/never	Mostly/always	Sometimes	Rarely/never
Slovenija / Slovenia	Rarely/never	Sometimes	Rarely/never	Mostly/always	Rarely/never
Sweden	Sometimes	Rarely/never	Rarely/never	Mostly/always	Rarely/never
The Netherlands	Mostly/always	Rarely/never	Rarely/never	Mostly/always	Rarely/never
UK	Rarely/never	Rarely/never	Rarely/never	Mostly/always	Rarely/never

Table 10: Practices for films and TV for adults

The situation is a bit different when we look at broadcasts for children. Here, with the exception of Denmark, Iceland and Romania, dubbing is the most common solution (see Table 11).

Some of the countries, such as Greece and Iceland, reported that dubbing takes place for very young children until the age of 6, and subtitling is used for teenagers. In the Slovak Republic, dubbing takes place because all films for children under 12 must be broadcast in Slovak according to the Act on State Language.

Country	Orig.Lang	Voice over	Dubbing	Subtitles	Dual
Austria	Rarely/never		Mostly/always	Rarely/never	Sometimes
Belgium	Rarely/never	Rarely/never	Mostly/always	Sometimes	Rarely/never
Bulgaria	Rarely/never	Sometimes	Mostly/always	Rarely/never	Rarely/never
Czech Republic	Sometimes	Rarely/never	Mostly/always	Sometimes	Rarely/never
Denmark	Rarely/never	Sometimes	Sometimes	Sometimes	Rarely/never
Estonia	Sometimes	Mostly/always	Mostly/always	Sometimes	Rarely/never
Finland	Rarely/never	Sometimes	Mostly/always	Rarely/never	Rarely/never
Germany	Sometimes	Rarely/never	Mostly/always	Rarely/never	Rarely/never
Grand Duchy of Luxembourg					
Greece	Rarely/never	Rarely/never	Mostly/always	Sometimes	Rarely/never
Hungary	Rarely/never	Rarely/never	Mostly/always	Rarely/never	Rarely/never
Iceland	Rarely/never	Rarely/never	Sometimes	Sometimes	Rarely/never
Latvia	Rarely/never	Sometimes	Mostly/always	Sometimes	Rarely/never
Lithuania	Rarely/never	Sometimes	Mostly/always	Sometimes	Rarely/never
Norway	Sometimes	Sometimes	Mostly/always	Rarely/never	Rarely/never
Portugal	Rarely/never	Rarely/never	Mostly/always	Sometimes	Rarely/never
Romania		Rarely/never	Sometimes	Sometimes	
Slovak Republic	Rarely/never	Rarely/never	Mostly/always	Rarely/never	Rarely/never
Slovenija / Slovenia	Rarely/never	Rarely/never	Mostly/always	Sometimes	Rarely/never
Sweden	Rarely/never	Rarely/never	Mostly/always	Rarely/never	Rarely/never
The Netherlands	Rarely/never	Rarely/never	Mostly/always	Sometimes	Rarely/never
UK	Rarely/never	Rarely/never	Mostly/always	Rarely/never	Rarely/never

Table 11: Practices for films and TV for children

2.8 Language use in business

Apart from questions on the status of official languages in the business sphere, the questionnaire contained questions about the language(s) used in the 10 largest companies (in terms of the number of employees) in two areas: the annual report and the company's web site. This is probably the most time-consuming part of the data collection for the respondents.

2.8.1 Legal regulations on the use of languages in business

Just under half (45%) of the countries reported on legal regulations concerning languages. These are Belgium, Finland, Hungary, Iceland, Latvia, Lithuania, Portugal, Romania, the Slovak Republic and Slovenia.

Legal regulations concerning the use of languages in industry, commerce, business, or other working environments

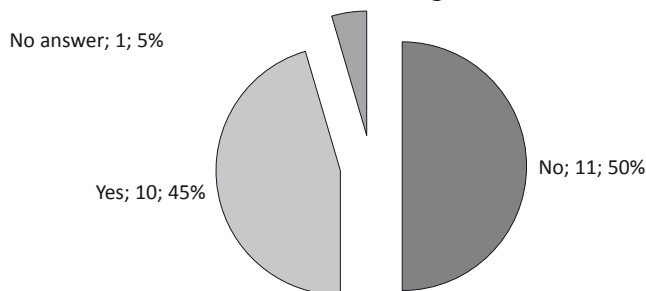


Fig. 12: Legal regulations for language use in business

Once again, there are many different reasons for making provisions:

- In Finland, the provisions ensure that private companies which offer services on behalf of state institutions comply with the regulations that apply to state institutions with regard to language use.
- In Iceland, the regulations concern advertisements and services to citizens. They must be provided in Icelandic.
- In Lithuania, all services provided to citizens by public or private companies must be in the state language, including accounts, archives and technical documentation in these companies.
- Hungary also demands that advertisements and information in shop windows must be in Hungarian.
- In Romania, the ruling states that any text written or spoken in a foreign language, regardless of its size, being of public interest, must be accompanied by a translation or adaptation into Romanian.
- In the UK, although there is no law addressing the issue specifically, there is a note on the position of the Equality & Human Rights Commission: “In the UK the common language of business should be English (English or Welsh in Wales). However, as long as all the requirements of the job are being met, workers should be able to speak their own language within reason” (CWU – The Communications Union 2013).

2.8.2 The language of annual reports

For this section, the respondents were asked to identify the ten largest companies (in terms of the number of employees) in each country and to investigate the languages in which their annual reports were written. For each company, maximally 3 languages could be reported. Unfortunately, the data set is not complete. Austria and the Slovak Republic did not answer the question, Iceland did not report on companies 7 and 8, the Czech Republic did not report on companies 9 and 10, and there was a general input error for five companies in Estonia. Despite these flaws, the data still show clear tendencies about the corporate languages used in the European countries which participated in ELM 4.

Figure 13 shows the languages reported as the first language of the annual reports of the ten largest companies in the participating countries when all taken together. Every time a language is mentioned, it receives a point. If a country reports that the ten largest companies all have the same language as their first language of their annual reports, this results in 10 points. If other countries report on the use of the same language as the first language, the language will receive additional points.

First language of annual reports

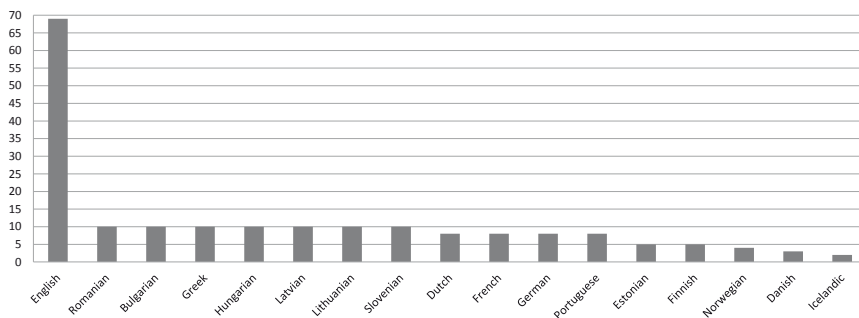


Fig. 13: The first language of annual reports

English clearly dominates as the first language of annual reports with 65 points. This is partly because the Czech Republic and Sweden mention English as the first language for all ten companies, and consequently Czech and Swedish do not appear among the languages mentioned. A score of 10 points means that all ten companies in a country have this language as the first language of the annual reports. This is the case for Bulgarian, Greek, Hungarian, Latvian, Lithuanian, Romanian and Slovenian.

Although France did not participate in the survey, French is mentioned 8 times as the first language of annual reports in Luxembourg. Danish and Icelandic are at the bottom with 3 and 2 points, respectively.

A similar pattern occurs when looking at the languages mentioned as the second language of annual reports (cf. Fig. 14). Here, we see different languages such as Chinese and Russian as well as Czech and Swedish.

Second language of annual reports

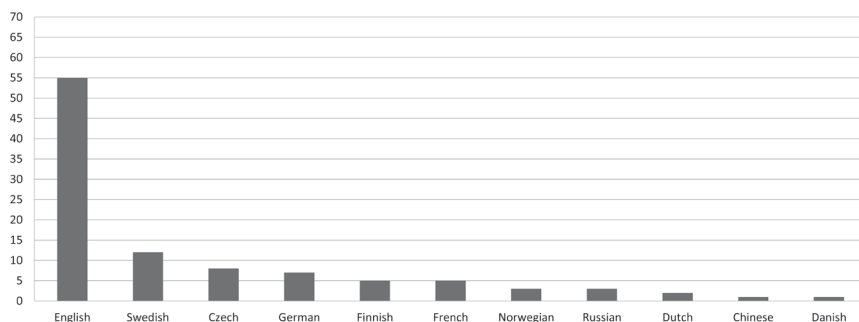


Fig. 14 Second language of annual reports

Once again, English is the most frequent language mentioned. The sum of second languages mentioned is less than for first languages. This is because in some countries annual reports are published in only one language.

Similarly, even fewer third languages are mentioned. English and German are mentioned 7 times, Russian 3 times, and Dutch, French, Italian, Spanish and Swedish are mentioned just once.

2.8.3 The language of company websites

The languages used on the websites of the ten biggest companies were recorded in the same way as the languages of the annual reports. Compared to the annual reports, the languages on company websites show some similarities but also some interesting differences.

Not surprisingly, English also dominates the first languages on the websites of the ten biggest companies (Fig. 15) but it seems that its dominance is slightly less than in the annual reports. However, Figure 16, showing the distribution of second languages, shows that English is even more dominant here than in the annual reports.

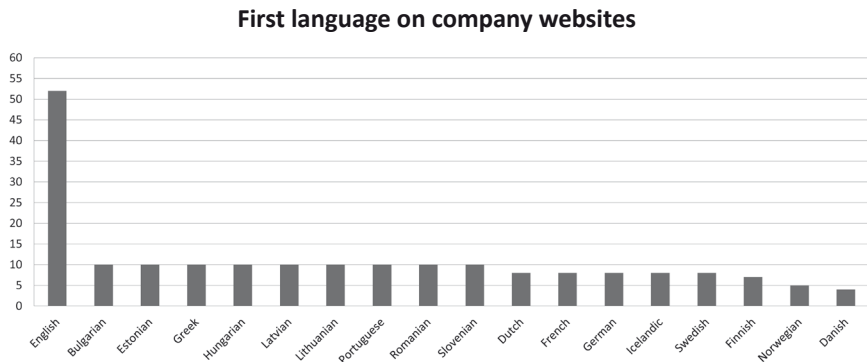


Fig. 15: First language on company websites

A number of countries reported that there are many more languages on company websites than just 3. Finland mentions up to 24 different languages on the websites of several companies.

Second language on company websites

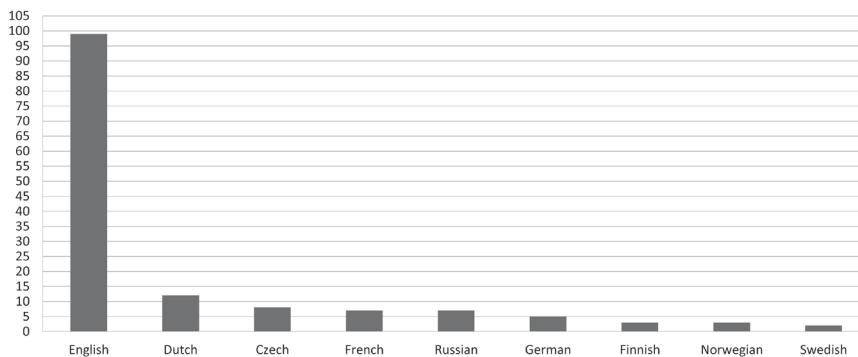


Fig. 16: Second language of company websites

2.9 Dissemination of languages abroad

In order to measure the dissemination of official languages abroad, we asked the respondents to indicate the possibility of obtaining an MA in the official language(s) of their country in another country. Furthermore, we asked which languages are taught at various educational levels in the country.

2.9.1 Teaching of official languages in other countries

The respondents were asked to indicate in how many foreign countries around the world (where the language in question is not an official language) there is an opportunity to obtain an MA in the official language as a field of study.

In Table 12, the countries are ordered according to how many other countries offer an MA in their official languages. Germany and the UK reported that it is possible to study German and English, respectively, up to MA level in more than 100 countries while the Czech Republic and Sweden indicated that Czech and Swedish, respectively, can be studied in 26-50 countries.

Country	MA studies in
Bulgaria	0-10 countries
Estonia	0-10 countries
Iceland	0-10 countries
Latvia	0-10 countries
Grand Duchy of Luxembourg	0-10 countries
Denmark	0-10 countries
Finland	11-25 countries
Greece	11-25 countries
Slovak Republic	11-25 countries
Slovenia	11-25 countries
Norway	11-25 countries
The Netherlands	11-25 countries
Belgium	11-25 countries
Portugal	11-25 countries
Hungary	11-25 countries
Czech Republic	26-50 countries
Sweden	26-50 countries
Germany	more than 100 countries
UK	more than 100 countries
Austria	No answer
Romania	No answer
Lithuania	No Answer

Table 12: Countries with official languages taught abroad

2.9.2 Teaching foreign languages

Another view on the status of languages in each country is the question as to which languages are officially taught in the educational system. The respondents were asked which languages are taught at the different educational levels: primary schools (up to the age of 10), secondary schools (aged 10-18), BA and MA level. It turns out that 50 different languages were mentioned at the different levels.

	Total per country	Primary	Secondary	Bachelor	Master
CZ	3	3	1	3	2
LU	3	0	3	0	0
LV	4	1	3	1	1
LT	7	1	3	7	4
PT	7	1	4	7	7
DE	8	2	8	0	0

	Total per country	Primary	Secondary	Bachelor	Master
ICE	12	0	12	11	5
AT	13	3	4	13	12
DK	13	1	6	13	12
NL	14	4	6	13	10
SE	14	3	3	14	13
SK	18	1	5	18	0
NO	19	1	5	19	9
SL	19	6	7	19	18
UK	20	8	1	20	16
BE	21	2	5	21	17
RO	21	3	7	20	9
EL	22	3	4	22	0
EE	23	6	11	19	19
FI	23	13	5	21	17
HU	28	6	4	25	28
BG	30	12	7	30	29

Table 13: Number of languages taught per country

In Table 13, the countries are ranked according to the number of languages that are taught in total. The figures below the total show how many languages are taught up to the different levels.

Hungary and Bulgaria are the countries that reported to be teaching the most languages in total, namely 28 and 30 different languages, respectively. In Hungary six different languages are taught at primary level while 12 languages are taught at primary level in Bulgaria and 30 different languages are taught at BA level.

In Table 14, the different levels are encoded in different colours. The darkest colours indicate the highest level of education and the letters indicate the number of levels where the language is taught:

P / S / UB / UM	Primary, Secondary, Bachelor, Master	All levels
UM	Master	Secondary to Master
UB / UM	Bachelor, Master	
S / UB / UM	Secondary, Bachelor, Master	
UB	Bachelor	Primary to Bachelor
S / UB	Secondary, Bachelor	
P / S / UB	Primary, Secondary, Bachelor	
S	Secondary	Primary to Secondary
P / S	Primary Secondary	
P	Primary	Primary only

Table 14: Languages taught at different levels

Language	Countries	Primary	Secondary	Bachelor	Master
Czech	10	0	1	9	6
Norwegian	10	0	4	7	6
Greek	12	0	4	12	10
Swedish	12	2	5	11	9
Turkish	12	2	3	10	6
Portugese	13	0	3	13	9
Polish	14	0	2	13	6
Chinese	17	3	13	16	10
Italian	18	4	14	16	12
Japanese	18	2	7	18	11
Russian	19	4	13	18	14
German	20	11	20	19	15
Spanish	20	4	18	18	14
French	21	12	21	19	17
English	22	18	21	20	18

Table 15: Languages taught the most

Lang.	AT	BE	BG	CZ	DE	DK	EE	EL	FI	HU	ICE	LT	LU	LV	NL	NO	PT	RO	SE	SK	SL	UK	
Albanian:																							
Ancient Greek:																							
Arabic:																							
Armenian:																							
Belarusian:																							
Bosnian:																							
Bulgarian:																							
Chinese:																							
Croatian:																							
Czech:																							
Danish:																							
Dutch:																							
English:																							
Estonian:																							
Finland-Swedish Sign Lang																							
Finland Sign Language:																							
Finnish:																							
French:																							
German:																							
Greek:																							
Hebrew:																							
Hindi:																							
Hungarian:																							
Icelandic:																							
Irish:																							
Italian:																							
Japanese:																							
Korean:																							
Latin:																							
Latvian:																							
Lithuanian:																							
Malayalam:																							
Maltese:																							
Mongolian:																							
Moroccan:																							
Norwegian:																							
Paripamento on (Bonatre):																							
Persian:																							
Polish:																							
Portuguese:																							
Romanian:																							
Russian:																							
Sami:																							
Serbian:																							
Slovak:																							
Slovene:																							
Spanish:																							
Swedish:																							
Swedish Sign Language:																							
Tibetan:																							
Turkish:																							
Ukrainian:																							
Urdu:																							
Yiddish:																							

Table 16

Table 15 shows the 15 languages that are reported to be taught in most countries as well as the levels at which they are taught. Greek is taught in 12 countries. In 3 countries at the secondary level, in 11 countries at the bachelor level and in 10 countries at the master's level.

2.10 Language organisations

This part of the questionnaire simply lists the language organisations that can be found in each country, both state and private institutions, and their contact details for further reference.

2.11 Language technology

Language technology is one of the factors mentioned by David Crystal (Crystal 2000), amongst others, that can prevent language death. For a number of small language communities, being able to use their language on the internet and in technological applications has become vital; the development of communication technology and artificial intelligence has increased the focus on language technology. The European Commission has a clear focus on overcoming language barriers in the digital single market, for instance with ELRC (European Language Resource Coordination) and other projects, and sees it as a very important task to make sure that all languages can be used in automatic translation and other LT applications.

For the first time, ELM 4 included questions on language technology. The questions were formulated in cooperation with Georg Rehm, DFKI (MetaNet and European Language Grid).

- In your country is there an official language plan/strategy published by your country's government or some organisation close to the government?
- In your country is there a dedicated funding programme for language technology research, development and/or innovation projects?
- Are language technologies (for example, machine translation) used to provide language-transparent access to information provided by the government or by public organisations or institutions in your country (for example, automatic translation of online content)?

2.11.1 Official language plan or strategy

More than half of the countries (55%) have an official strategy for the development of their language(s). They may be protective strategies for minority languages, rules for the support of languages in different situations, for instance as the language of instruction at universities, the choice of the language of instruction at schools or rules for how languages can be supported technologically.

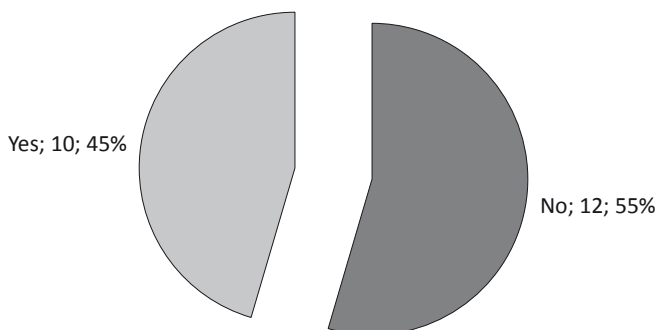
Official language plan or strategy?

Fig. 17: Language plans/strategies

2.11.2 Funding programmes for language technology

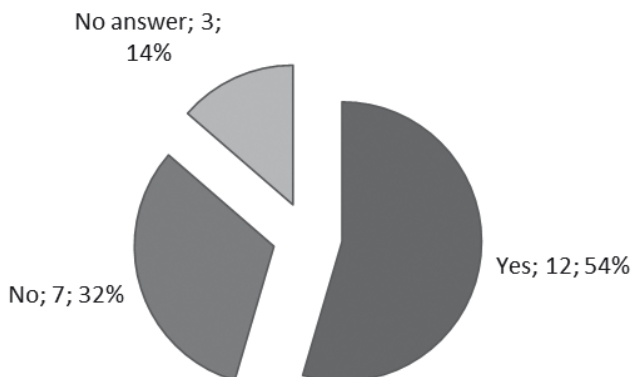
Funding programme for LT?

Fig. 18: Funding programmes for language technology

The existence of targeted funding programmes indicates the awareness in a country about the importance of language technology. More than half of the countries (54%) have funding programmes for LT. These are mainly the Nordic and Eastern European countries as well as Luxembourg and the UK but also Greece and Germany.

2.11.3 Language technology provided by public institutions

Half of the respondents indicated that language technology is used by public institutions to provide access to information for the country's citizens. This is done in many ways.

Some countries mention Google Translate and other systems that have been developed by private vendors; others refer to systems that have been developed with support from or in cooperation with the government. Thus, for instance, Bulgaria, Estonia and Latvia use the MT system and other tools developed by the Latvian company Tilde. Quite a number of countries referred to speech synthesis systems for the visually impaired and others with reading problems.

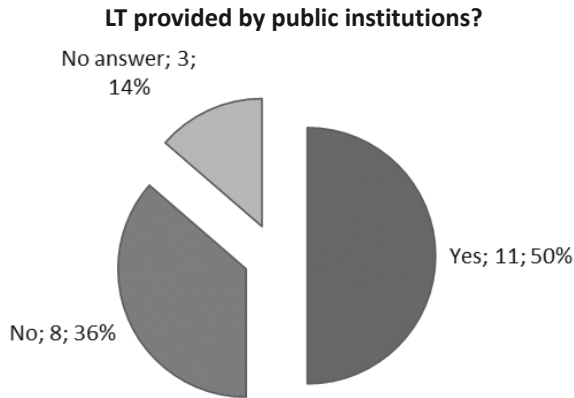


Fig. 19: Language technology provided by public institutions

3. Conclusions

A lot of work has been put into ELM over the past 10 years, both by EFNIL members and by the ELM project group. After this fourth data collection round, it is possible to see some tendencies in European Language policies. Firstly, the trend to regulate language issues is more prominent in countries that have recently been established or re-established than in countries that have existed continuously for centuries. Secondly, the use of English at European universities has clearly increased. Thirdly, probably in the light of this development, there is a tendency for provisions to be introduced to protect national languages also in countries that had not previously taken measures in this direction.

Many other interesting questions may have risen from this article, for instance, developments in the legal situation for minority languages or developments with regard to demands for language tests for immigrants. To find the answers, the reader is encouraged to further explore the different versions of ELM.

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Appendix

European Federation of National Institutions for Language (EFNIL): Members and associate member institutions

For detailed information on EFNIL and its members see www.efnil.org

Member institutions grouped by country

Austria	<i>Österreichisches Sprachen-Kompetenz-Zentrum</i> , Graz Austrian Centre for Language Competence <i>Austrian Centre for Digital Humanities, Österreichische Akademie der Wissenschaften</i> , Wien Austrian Academy of Sciences
Belgium	<i>Fédération Wallonie-Bruxelles</i> , Bruxelles Wallonia Brussels Federation <i>Nederlandse Taalunie</i> , Den Haag Union for the Dutch Language <i>Instituut voor de Nederlandse Taal</i> , Leiden Dutch Language Institute
Bulgaria	<i>Българска академия на науките, Институт за български език</i> , Sofia Bulgarian Academy of Sciences, Institute for the Bulgarian Language
Croatia:	<i>Institut za hrvatski jezik i jezikoslovlje</i> , Zagreb Institute of Croatian Language and Linguistics
Denmark	<i>Dansk Sprognævn</i> , København Danish Language Council
Estonia	<i>Eesti Keelenõukogu</i> , Tallin Estonian Language Council <i>Eesti Keele Instituut</i> , Tallin Institute of the Estonian Language
Finland	<i>Kotimaisten kielten keskus / Institutet för de inhemska språken</i> , Helsinki/Helsingfors Institute for the Languages of Finland

214	<i>EFNIL Members and associate member institutions</i>
France	<i>Délégation Générale à la langue française et aux langues de France</i> , Paris General Delegation for the French Language and the Languages of France
Germany	<i>Leibniz-Institut für Deutsche Sprache</i> , Mannheim Leibniz-Institute for the German Language <i>Deutsche Akademie für Sprache und Dichtung</i> , Darmstadt German Academy for Language and Literature
Greece	<i>Κέντρο Ελληνικής Γλώσσας</i> , Thessaloniki Centre for the Greek Language
Hungary	<i>Magyar Tudományos Akadémia, Nyelvtudományi Intézet</i> , Budapest Hungarian Academy of Sciences, Research Institute for Linguistics
Ireland	<i>Foras na Gaeilge</i> , Dublin (the all-island body for the Irish language)
Italy	<i>Accademia della Crusca</i> , Firenze (the central academy for the Italian language) <i>CNR – Opera del Vocabolario Italiano</i> , Firenze The Italian Dictionary
Latvia	<i>Latviešu valodas institūts</i> , Riga Latvian Language Institute <i>Valsts valodas aģentūra</i> , Riga State Language Agency
Lithuania	<i>Lietuvių Kalbos Institutas</i> , Vilnius Institute of the Lithuanian Language <i>Valstybinė Lietuvių Kalbos Komisija</i> , Vilnius State Commission for the Lithuanian Language
Luxembourg	<i>Institut Grand-Ducal, Section de linguistique</i> , Luxembourg Grand Ducal Institute, Linguistic Section
Malta	<i>Il-Kunsill Nazzjonali tal-Ilsien Malti</i> , Floriana National Council of the Maltese Language
Netherlands/ Belgium	<i>Nederlandse Taalunie</i> , Den Haag Union for the Dutch Language

Poland	Rada Języka Polskiego , Warszawa Council for the Polish Language
Portugal	Instituto Camões , Lisbõa (The institution for the promotion of Portuguese language and culture)
Slovakia	Jazykovedný ústav Ľudovíta Štúra Slovenskej akadémie vied , Bratislava Slovak Academy of Sciences, Ludovit Stúr Institute of Linguistics
Slovenia	Ministrstvo za kulturo – Sektor za slovenski jezik , Ljubljana Ministry of Culture, Section for the Slovenian Language Inštitut za slovenski jezik Frana Ramovša , Ljubljana Fran Ramovš Institute of the Slovenian Language
Sweden	Språkrådet , Stockholm The Swedish Language Council Svenska Akademien , Stockholm Swedish Academy
United Kingdom	The British Council , London

Associate member institutions

Iceland	Íslensk málnefnd , Reykjavik Icelandic Language Council
Norway	Språkrådet , Oslo Norwegian Language Council
Serbia	Институт за српски језик Српске академије наука и уметности , Beograd Institute for Serbian Language of the Serbian Academy of Sciences and Arts
Switzerland	Institute of Multilingualism , Fribourg

Authors

Albina Auksoriūtė

Institute of the Lithuanian Language

Guy Berg

Official of the European Commission in Luxembourg; Member of the Institut Grand-Ducal Luxembourg

Marco Civico

Observatoire “Économie-Langues-Formation”, Faculté de Traduction et d’Interprétation, Université de Genève

Florian Coulmas

Senior Professor for Japanese Society and Sociolinguistics, University of Duisburg-Essen

Ludwig M. Eichinger

Member of the EFNIL Executive Committee

François Grin

Observatoire “Économie-Langues-Formation”, Faculté de Traduction et d’Interprétation, Université de Genève

Katrin Hallik

Senior Language Planner, The Institute of the Estonian Language

Christian Haraldsen

Communications Manager, Norwegian insurance company Gjensidige Forsikring

Merit-Ene Ilja

Director, Directorate-General for Translation (DGT), European Commission

Jurgita Jaroslaviėnė

Institute of the Lithuanian Language

Jelena Kallas

Institute of the Estonian Language

Sabine Kirchmeier

Vice President of EFNIL

Margit Langemets

Institute of the Estonian Language

Alexandra Panagakou

*Director A – Interpreters, Directorate-General for Interpretation (DG SCIC),
European Commission*

Adam Pawłowski

University of Wrocław

Frieda Steurs

Instituut voor de Nederlandse Taal (INT), Leiden; Katholieke Universiteit Leuven (KU)

Tõnu Tender

Institute of the Estonian Language

Rudy Tirry

European Union of Associations of Translation Companies (EUATC)

Ilse van der Horst

Nederlandse Taalunie

Johan Van Hoorde

President of EFNIL; Nederlandse Taalunie

Inkaliisa Vihonen-Peuranen

European Commission, Directorate-General for Translation (DGT)

Karlijn Waterman

Nederlandse Taalunie

EFNIL, the European Federation of National Institutions for Language, promotes the standard languages and the linguistic diversity of the European countries as an essential characteristic of their cultural diversity and wealth.

The 17th annual conference of EFNIL in Tallinn dealt with the relation between language and economy.

- Language politics often have economic intentions, the language use of the individual is embedded in economic conditions, languages seem to differ in their economic value. In recent years, economists and sociolinguists have developed models of describing these interdependencies.
- The interaction in multilingual settings needs professional handling. There are traditional instances such as language teaching or translation and new professional fields of the digital age such as multilingual databases. Lots of economic needs and opportunities appear in this field.
- Digitization and societal diversity are two elements leading to more successful interaction, assisted by the use of automatic everyday translation, the development of plain language etc.

This volume presents an extensive overview of the interplay of language and economy.

***Tõnu Tender** was director of the Institute of the Estonian Language (until August 2020).*

***Ludwig M. Eichinger** is a member of the executive committee of EFNIL and representative of the Leibniz Institute for the German Language (IDS) with EFNIL.*

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