

Zonal Constructed Language and Education Support of e-Democracy – The Interslavic Experience

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Abstract. This article brings the idea of improving the quality of information systems to support democracy and public administration in Slavic countries between Western Europe and Russia through the use of a zonal constructed language that can successfully replace English and improve the overall quality of ICT used for e-Democracy assignments. The connection with education, from which everything begins, is also emphasised. This article describes the results of public research in the form of surveys and the first practical experiences of the authors. The idea of improving computer translations between national languages is also mentioned. It is assumed that language, education and e-democracy create a developing triad. Finally, this article describes the future development of this idea.

Keywords: e-Democracy education · Zonal constructed language · Language of human-computer interaction · Receptive multilingualism · Computer-based translation · International knowledge transfer · Slavic countries

1 Introduction

E-democracy is a political dialogue in which citizens, and communities in general, engage in the political process using computer-based technology. It refers to the practical use of information systems to support democratic processes, and encompasses activities that increase citizen involvement, such as virtual town meetings, open meetings, cyber campaigns, feedback polls, public surveys and community forums such as e-voting, etc. In general, it is all about supporting communication and participation of people in various political, cultural and spiritual activities in the modern world, as defined in the higher levels of the Maslow's hierarchy of human needs (Maslow 1943).

Information systems, like every system, consist of components and the links between them. These components are not only computer software and hardware, but also people who determine the quality of the outcome.

To communicate within Europe, people learn English. Yet, a lot of people still do not speak English sufficiently well. An alternative for using English might be *receptive multilingualism*. Speakers of two different, but related languages both speak their own language and are still able to understand each other to a certain extent. Receptive multilingualism is possible when languages are mutually intelligible. The Scandinavian languages, for instance, have a high degree of mutual intelligibility, and receptive multilingualism is widely used in Scandinavia. The advantages of this communication are that the speakers only need to focus on understanding the other language and that they can express themselves in their native language.

Effective multilingual behaviour to support civic participation in e-democracy requires proper education. After all, language is the basic tool for education, but without education it can hardly be promoted, applied and developed. The same goes for e-democracy, which requires both younger and older generations to be educated into citizens who consciously use ICT for development policies.

In this article, we will attempt to demonstrate the interdependence between zonal constructed languages like Interslavic, e-democracy and education in the light of the views and experiences of authors from different countries and scientific institutions.

2 Motivation

The *Report on e-democracy by the European Parliament from 16 February 2017* (Report 2017) emphasises the need for simplification of institutional language and procedures and for the organisation of multimedia content that explains the keys to the main decision-making processes, in order to promote understanding and participation. Also, it notes that in order to ensure equal accessibility of e-democracy tools for all citizens, high-quality multilingual translation is important when information is to be disseminated and read by all citizens. In other words, comprehensibility of the used language is essential for working e-democracy, and obviously, not all citizens can be expected to master professional legal English.

Similarly, the *OECD report of 2003 on e-Democracy* (OECD 2003) speaks about the need for using ICT to increase citizens' participation by means of a comprehensible language, not by promoting English as the only language of ICT. Likewise, the conclusions of the *International e-Democracy Conference in Athens* (Katsikas and Sideridis 2015) confirm that the interest in the use of ICT in public life (and, vice versa, technophobia against ICT), including social networks and community life, is directly dependent on the use of a language that the domestic population can understand.

Next, there is enormous pressure on the standardisation of legislation, implementing regulations and technical standards in the world, most of all within the EU. Without this standardisation, the idea of e-democracy is impossible. However, small nations are unable to translate everything in time and thus end up maintaining the status quo in their small, little known national languages. The consequence is that democracy is

jeopardised through the loss of participation in public life and an overall loss of contact with the modern world, which to ordinary people merely means a different world dominated by English and computers.

For all the reasons stated above it is clear that the use of a comprehensible language to the public is a crucial factor in the success of all e-democracy processes and technologies. The role of education cannot be underestimated here, because the state of education - its purposes, its contents, its level, its methods and means, the competences of teachers - is tantamount to both the willingness of people to learn the language in question, the level of their language skills and the political maturity needed for the application of modern information technology for development. In other words, e-democracy requires a solid motivational and linguistic base, both of which are determined by language and education.

3 The Linguistic Landscape in Central and Eastern Europe

A particular opportunity for improving e-democracy by means of receptive multilingualism can be found in the Slavic zone between Western Europe and Russia. This region is largely covered by small countries with populations between 2 and 10 million inhabitants. None of these nations has any colonial past, and their impact in the bigger European picture is minor. Yet, it should not be forgotten that the Slavic nations together represent 1/3 of the total population of geographic Europe.

The Slavs have much more in common than linguistic kinship, ancient history and folklore. Less than thirty years ago, they all lived in closed, largely passive societies ruled by communist regimes, a few years later they all found themselves in a post-communist vacuum, each of them struggling to find its own place in a rapidly changing world. In today's global village, national borders are losing their importance and isolation is no longer an option. To face the challenges of modern times, partnership within the same geopolitical realm is inevitable, especially since the emergence of a mental gap between life and culture of the own nation, and the "western" outer world is very dangerous and can easily be abused politically.

Most Slavic languages are official in one small or middle-sized country only. In other countries, active knowledge of these languages is highly uncommon and remains mostly the domain of mixed families and language professionals. The only exceptions here are populations that for a longer period of time have been exposed to some dominant language: Czech in Czechoslovakia, Serbo-Croatian in Yugoslavia and Russian in the Soviet Union. This lack of linguistic cohesion puts these nations under considerable pressure in the modern globalised world, and significantly complicates the processes of e-democracy and advancing European integration.

3.1 The Role of English

Due to its status as a global lingua franca, English is a common tool for the exchange of knowledge between these nations, even though the United Kingdom is currently separating itself from Europe. However, a vast majority of people are excluded from

this process. Most Slavic speakers are either monolingual, or their knowledge of foreign languages is extremely limited. In Poland, the Czech Republic, Slovakia and Bulgaria knowledge of English is restricted to 20–30% of the population (Euro-barometer 2006). In addition, the level of this knowledge is often low, insufficient for even the most basic communication. In Poland, for example, only 12.7% of the individuals who know a foreign language are actually proficient in it (Eurostat 2015). The general tendency is that the further East one travels, the harder it becomes to have a conversation in any other language than the local one. In the Russian Federation, English is spoken by less than 5.5% of the population (All-Russian Census 2010).

In addition, English is a very specific language, with its own culture, semantics, syntax, etc. This is why, for example, computer translations via Google Translate between Czech and Polish or Croatian are totally unusable, often even absurd and ridiculous. English is simply not suitable as a pivot language between Slavic (and not only Slavic) languages.

3.2 Russian as a Lingua Franca

It has been argued that Russian could reclaim its role as a lingua franca for Central and Eastern Europe. Russia, after all, is by far the largest Slavic nation, accounting for roughly half of all Slavic mother tongue speakers, and spoken fluently by a vast majority in Ukraine, Belarus and the Baltic states. It is the only Slavic country with a long and unbroken tradition of statehood, and has always played a key role as a regional super-power. Besides, isn't Russian the language of many brilliant minds, with an incredibly rich literature and broad usage in science?

The truth is, however, that Russian has irreversibly failed to ever become a Slavic lingua franca. For a long time, it has been overused as a tool for political domination, and people in other countries still tend to perceive it as the language of the oppressor. A genuine lingua franca cannot be imposed with brutal force, but must be chosen freely (Donskis 2014).

Another problem is the Russian language itself. Had it been sufficiently simple and understandable to other Slavs, resistance against it could probably be overcome with time. But Russian has specific phonetics, a very complicated grammar, a particular Cyrillic alphabet and a lot of vocabulary that lacks universal Slavic qualities—all things that place it far from the imaginary linguistic centre of Slavic.

3.3 Receptive Multilingualism

A lingua franca is not the only possible means of communication between people who do not speak each other's language, and this brings us to the issue of receptive, or passive, multilingualism. In short, this means that each side speaks their own language, while trying to actively understand the language of the other side.

Compared to other languages families, the Slavic languages have a relatively high degree of mutual intelligibility. More than anything else, this is due to the fact that their common ancestor Proto-Slavic started developing into separate branches and individual languages at a relatively late point in history. In the 10th century there still was a

reasonable degree of linguistic unity with no more than some dialectical differentiation. Even in the 19th century Pan-Slavists voiced the opinion that all Slavic languages were dialects of a single Slavic language, an assumption they based on the example of other languages with highly divergent dialects, such as Greek, Arabic, English and German. If all dialects of these languages could be united under a single language, they argued, why couldn't the same thing be achieved for Slavs? (Majar 1865).

During the last two decades, research has been conducted on Slavic intercomprehension. Pioneer in the field is the Slavist Lew Zybatow, who initiated and led the project EuroComSlav, aimed at enhancing intercomprehension by showing the learner how much he already knows without actually knowing that he knows. This is achieved by means of "seven sieves", the most important of which are: international vocabulary, common inherited vocabulary, and recognising correspondences between languages in sound, spelling and pronunciation (Zybatow 2002).

Another recent project exploring receptive multilingualism among Slavs is the Mutual intelligibility of closely related languages (MICReLa) project of the University of Groningen. One of the outcomes of this research is that receptive multilingualism functions among Czechs and Slovaks in much the same way as among Scandinavians, and although the same cannot be said about combinations like Slovak/Croatian, Slovak/Polish or Croatian/Slovene, receptive multilingualism is possible here as well, albeit with some practice. Other combinations, however, tend to be more problematic, especially when Bulgarian is involved (Golubovic and Gooskens 2015).

Although MICReLa focuses on the six Slavic languages spoken in the European Union, we may assume that the same conclusions can be applied to the remaining Slavic languages as well. Thus, a Pole will understand Ukrainian or Belarussian reasonably well if it is spoken slowly and clearly. As soon as languages are more remote, however, communication is not so simple anymore. In contacts between, for example, a Russian and a Slovene, or a Czech and a Bulgarian, it is unlikely that resorting to gestures or some other intermediary language can be avoided. As Heinz (2009) demonstrates, Slavic intercomprehension is especially problematic when it comes to auditive transfer, because prosody and the absence of orthographical differences are minor advantages compared to problems of a phonological nature, such as incorrect identification of phonemes and word boundaries, as well as misinterpretations on a morphological and lexical level, caused by deceptive cognates and wrong associations.

Another issue is the difference in scripts. The border between the Latin and Cyrillic alphabets runs right through the middle of Slavic territory, coinciding more or less with the border between Roman Catholicism and Orthodoxy. At the left side of this border (especially in Poland, the Czech Republic and Slovakia), knowledge of the Cyrillic alphabet is rather uncommon. One might expect that most people who speak a language that uses a non-Latin alphabet must have enough knowledge of the Latin alphabet, but a recent study reveals that a lot of young people in the former Soviet Union have serious problems understanding Slavic texts written in a Latin alphabet.

In other words, receptive multilingualism is possible, but only on a limited scale. The direct consequence of this fact, in combination with widespread monolingualism and the lack of a widely known and accepted lingua franca, is that many Slavic people are practically cut off from the world outside their own country, which forces them into

isolation and makes active participation virtually impossible. This is especially dangerous in countries where pluralism leaves much to be desired, and access to neutral, reliable information is scarce.

4 The Interslavic Experiment

What significantly stands in the way of mutual intelligibility is the fact that every Slavic language has idiosyncrasies (specific phonological alterations, changes in grammar, shifts in the meanings of words, borrowings from neighbouring, non-Slavic languages, etc.) that make it harder to understand for speakers of other languages. However, these hindrances can be overcome. One peculiarity of the Slavic languages is that the sound changes that distinguish the modern languages from their common ancestor Proto-Slavic are highly predictable. Other connecting elements are the presence of large amounts of international vocabulary in all Slavic languages, a similar grammatical structure, and a considerable number of common inherited words Zybatow (2002) provides a list of 1500 words labelled as Pan-Slavic).

The seven sieves of the EuroComSlav project are aimed at *recognising* elements in other Slavic languages. However, the same principles can also be taken one step further, namely by applying them *actively*. This can be achieved by consciously avoiding the aforementioned idiosyncrasies, using words and grammatical elements that are broadly understandable in the Slavic world, and presenting them in a spoken and/or written form that makes them easily recognisable. This idea has culminated in the creation of an Interslavic language, the main premise of which is that it should be understandable to all Slavs, no matter which nation they belong to.

The idea of such a language is far from new. In the 16th century the Croatian priest Šime Budinić published his translations of works by Peter Canisius into a complex literary language he called “Slovignsky”, in which he mixed Serbo-Croatian, Church Slavonic, Czech and Polish, using both Latin and Cyrillic. In the years 1659–1666 another Croatian priest, Juraj Križanić, was the first to actually describe the language itself, which he also used for his magnum opus *Politika*. At the height of Pan-Slavism in the 19th century several language projects were published in the process of creating a literary standard for South Slavic, all of them essentially modernisations of the Old Church Slavonic language, and during the 20th century various authors have attempted to create a simplified “Slavic Esperanto” (Meyer 2014, p. 158).

The Interslavic Project was initiated in 2006 under the name *Slovianski*. Initially, different possible language forms were being experimented with, all based on the modern Slavic languages. In 2009 it was decided that only the most naturalistic version, initiated and developed by Jan van Steenbergen, would be continued. In 2011 a close collaboration was started with another project, *Neoslavonic* by Vojtěch Merunka, which had been published one year earlier. Unlike *Slovianski*, *Neoslavonic* was geared towards modernising and simplifying Old Church Slavonic, although surprisingly both approaches gave almost identical results. During subsequent years, differences between both “dialects” have gradually vanished, allowing them to evolve into a single language called *Interslavic* instead (van Steenbergen 2016).

Interslavic is a so-called *zonal constructed language*, a language created to facilitate communication between speakers of a group of closely related languages. Languages of this type are fundamentally different from languages intended for global communication, such as Esperanto. The latter are typically characterised by simplicity and regularity, whereas in zonal languages the main focus lies on familiarity and immediate passive understanding. That does not mean that a zonal language cannot be simple, only that the type and level of simplicity are always conditioned by the speakers of the particular language family it serves. From that point of view, the process of creating Interslavic bears similarities to the codification of languages like Rumantsch Grischun, Bahasa Indonesia or Modern Hebrew.

Orthography, grammar, syntax and vocabulary of Interslavic are determined by two major design criteria. The first is that all six major sub-branches of Slavic (Russian, Ukrainian/Belarussian, Polish, Czech/Slovak, Serbo-Croatian/Slovene and Bulgarian/Macedonian) are weighed equally in establishing the largest common denominator. The second is that Interslavic never borrows directly from any Slavic language, but applies a consistent system of regular derivation from reconstructed proto-forms instead. This is necessary to ensure etymological coherence and to prevent the language from becoming a hodgepodge of elements from different languages.

A typical feature of Interslavic is that its components can easily be applied to any of the ethnic Slavic languages, which has the advantage that every element one learns can be put to use immediately. As a result, the learning process differs significantly from the way other languages are learned: it is a matter of gradually learning how to transform one's own native language into Interslavic. The more one learns, the closer one comes to the core of Interslavic: the scientific extrapolation of the language at the very centre of the Slavic languages.

It is important to note that Interslavic does not only allow a writer or speaker to make himself understandable to speakers of any Slavic language. Thanks to the seven sieves, it will also help him in getting a better passive understanding of other Slavic languages. And although Interslavic is primarily intended to be used by Slavs in contacts with other Slavs, the same educational value can work equally well for non-Slavs, as it will allow them to get a basic understanding of all Slavic languages at once, and also considerably facilitate their access to the Slavic-speaking world.

4.1 CISLa 2017

Since its inception, Interslavic has been much discussed in the press and on the Internet, both within its circle of currently ca. 2,000 users and interested bystanders and elsewhere. Extensive use in various contexts and feedback from all Slavic countries have made it clear that the primary purpose of Interslavic, to be understood by Slavs of any nationality without prior study, has been achieved. Until recently, however, this could be said only about written Interslavic, as experiences with spoken Interslavic were scarce and mostly limited to individual contacts.

On 1–2 June 2017 the first Conference on the Interslavic language (CISLa [2017](#)) took place in the Czech town of Staré Město near Uherské Hradiště. There were 64 active participants from 12 different countries, including representatives of several

organisations and institutions and experts in the fields of interlinguistics, Slavistics, pedagogy and history. Among the items discussed were: language problems in civil participation, e-democracy, knowledge transfer, and the potential role of zonal constructed languages in education, tourism, digital economy and the development of civil societies in a globalised world.

The conference was a milestone, because for the first time in history Interslavic was used during an official, public event. Most presentations and discussions were either held in Interslavic or translated consecutively into Interslavic, which turned out to be sufficient for all Slavic participants – including Poles and Bulgarians – to understand almost everything. A remarkable and rather unexpected side effect was also that a few participants who had never learned Interslavic, suddenly started speaking it during the conference. This shows how easily passive multilingualism, with the right tools, can be transformed into active multilingualism. The success of the conference also demonstrates clearly that the Interslavic language makes it possible to organise Slavic multinational activities, such as scientific conferences, cultural happenings, sports events and even beauty pageants with the help of a single interpreter.

5 The Issue of Computer Translation

The Slavic languages are so-called fusional (or inflecting) languages, which means that most information about the grammatical category of a word and its role in the sentence is contained in endings (declension and conjugation). Other examples of fusional languages are Indo-European languages like Sanskrit, Greek (both classical and modern), Latin, Lithuanian, Latvian and Albanian, Semitic languages like Hebrew, Arabic and Aramaic, and many other languages throughout the world. Because of these endings, the Slavic languages do not depend on the position of words for expressing grammatical categories, e.g. word order is rather flexible.

English is completely different in this respect. Whether a word is a noun, adjective, verb, subject, object or something else is determined entirely by its position within the sentence. Because English has very few declension and conjugation suffixes, a fixed word is needed to recognise grammatical categories.

This relative simplicity of English is the basis of the *Google Translate algorithm*, which is based on simple search and replacement of the longest sequences of words (Google 2016; Sutskever 2014). The Google database has a very huge number of parallel texts, many of which originating from institutions of European Union:

- (a) If we want to translate something from one language to another, the algorithm searches if the whole sentence has already been translated, and
- (b) if not, it searches for the longest fragments and then glues them together.
- (c) Finally, even if it does not find any fragment, it is looking for a transitive path and mostly finds the translation way through English.

It is obvious that this algorithm gives the worst results in translating the fusional languages of Central and Eastern Europe, because these languages have free word order and in addition, there are not enough parallel texts in the Google database. This is the

cause of unusable, bizarre and ridiculous translations that have been made through English. The solution to this problem lies in the following:

- (a) A different translation algorithm that takes into account free word order and does not interpret a sentence as a linear sequence of words, but as a multi-dimensional structure of words. This algorithm, with the Interslavic zonal constructed language as the pivot language, was described at the Conference on Advanced Information Systems Engineering (CAiSE) last year in Ljubljana (Molhanec et al. 2016).
- (b) Using a constructed zonal language that is much closer to the languages of a given area than English. A properly chosen zonal language is understandable even without the need for any learning, and due to its proximity to national languages, computer translations would be of much better quality.

6 International Survey on the Internet

Our international survey on the passive intelligibility of Interslavic has been conducted in all Slavic countries from November 2015 to January 2016. This survey is still available at the website of the Slavic Union (www.slovane.org). The results were taken in RSForms! for Joomla and processed in Matlab R2015b for MacOS.

The survey consisted of 5 pages and took a few minutes to respond. Information about the survey was spread through advertising on the social networks Facebook and VKontakte. The target group was formed by the entire Slavic population in the age between 16 and 80 years, who identified themselves as having knowledge of any natural Slavic language.

Our statistical hypothesis was whether the Slavic population would passively understand the language at a level corresponding to that of a slightly advanced speaker. Concretely this means the ability to understand written text and to recognise at least 5 of 7 missing words in the cloze test. The cloze test is a task where a certain number of words (in this case 7 words) are omitted from a professional text and replaced by a gap. This gap is normally a horizontal line with the average length of all deleted words in the written version of the test, or a beep of uniform length in the spoken version. The participants' task was fill in the 'gaps' with the right words. The cloze test was inspired by the MICReLa research group, based at the University of Groningen, University of Erlangen, Syddansk University in Odense, University of Copenhagen, University of Ljubljana, and Constantine the Philosopher University in Nitra, who developed a similar online language game to investigate passive intelligibility of professional texts in various national languages of the Europe, compared to the desirability of English (MICReLa 2016).

Until May 2017, we received 1,700 valid responses in total. Female respondents were outnumbered by male respondents in the ratio of about 5:1, but gender differences were minimal and far below the value of statistical error. Our respondents from different Slavic nations answered with different willingness and frequency—for example, there were more respondents from a small country like Slovenia than from Russia. For that reason, we recalculated (using weighted averages) our results according to the size of the real population in particular Slavic countries, in order to get a statistically correct

representation of the whole Slavic population. We also obtained 51 responses from people whose native language is not Slavic, but who understand some Slavic language because of their surroundings (school, friends ...).

Our hypothesis was confirmed with a sufficient degree of probability, namely 0.816. We used the test “guess missing words in a professional text”. The mean values of all respondents are in the interval between 79% and 93%. (These results are in rescaled values, where 100% equals 7 correct words from 7 missing words in total, 86% equals 6 correct words from 7 words in total, 71% equals 5 correct words from 7 words in total, 57% equals 4 correct words from 7 words in total, and so on.) Only 18% of the respondents (315 out of 1,700) answered below the expected 5 correct words from a total of 7 unknown words. Our hypothesis turned out valid for respondents with a non-Slavic mother tongue, who learned a Slavic language later, too. The total mean value was 84%, i.e. nearly 6 correct words from 7 unknown words in total. Some of the partial results of this survey are also very interesting:

- (1) There is no dependence on age and gender. Differences in results are below the statistical error, which is about 2%.
- (2) Among Slavic nations, the best results were achieved by Ruthenians, Czechs, Slovaks, Poles and Belarusians (between 87% and 93%). The lowest results were achieved by all South-Slavic nations (between 79% and 81%).
- (3) In contrast to the previous result, the group of South Slavic nations gave Interslavic a higher aesthetic evaluation (value around 60%) than the other Slavic nations (value around 55%).
- (4) All Slavic nations expressed slightly worse values in their self-assessment than their actual intelligibility results (for example, the total mean value of real intelligibility is 84%, but the total mean value of self-assessment is only 70% in comparable rescaled values).
- (5) There is a clear dependence on education. Slavic people who completed higher education have 88% of mean intelligibility, Slavic people without any university experience have only mean 73% of the average (secondary education only) and 72% of the average (primary education only).
- (6) Self-assessment showed that members of smaller nations understand the similar languages of their neighbours better than members of the bigger nations. The biggest asymmetry was between Belarusians, Ukrainians, and Russians. Ukrainians understand Russian at the level of 80% and Belarusians understand Russian at the level of 71%, but Russians understand Ukrainian at a level of only 46% and Belarusian at a level of 39%. A similar difference is also visible between the smaller Slovenian nation and the bigger Croatian nation.
- (7) People were surprised how much information they were able to understand. Yet, especially younger people still preferred English, even though their English skills were very poor and they would understand much more using Interslavic.

In conclusion, we can say that passive understanding of Interslavic without any prior learning meets the conditions that roughly match the local language-skill requirements for immigrants to obtain citizenship in most European countries. Also, we dare say that Interslavic inscriptions on products, in public transport and in offices (e.g., town halls,

local government bodies, bus and railway stations, airports ...) would be better for many people than the current inscriptions in English.

7 Survey in Bulgaria

In the first half of 2017, it was conducted to find out how well Bulgarians are able to understand the Interslavic zonal constructed language written in Latin alphabet, without any previous training. Of course, texts written in Cyrillic are considered to be much more understandable, as Cyrillic is the alphabet used in Bulgaria.

The hypothesis subject to proof was the following: the Interslavic language can be used by Bulgarians to support international communication and knowledge transfer with only little effort.

The survey was set up as a software application in Google forms, and contained 20 professional questions of different types, separated into two main groups. The first group of questions were linguistic questions with answers based on experience, intelligence and logic of the respondents. The second group of questions aimed to reveal people's language culture and their personal opinion about the Interslavic language. The motto of the survey, "This is a language of Slavophiles", was very welcomed.

The survey was filled out by students and colleagues of Trakia University, as well as several friends and relatives not working in our university or the educational sphere. The number of the respondents was up to 70. Nevertheless, the data were processed further in-depth, and the results presented here are very positive and promising.

The answers to the first group of questions revealed that about 85–93% of the respondents had successfully translated the words and short paragraphs. 94% correctly recognised forms of the verbs "to have" and "to be" in various persons and tenses; 81% correctly found other verbs. 69% knew that if we change word order in a sentence, there is no loss of meaning. Only 50.8% recognised that there are noun cases in this language and guessed the right case endings, but 85% of the respondents learned them quickly.

The number of incorrect answers ranged from 7% (older students and colleagues) to 50% of mainly young people (first-grade students).

The following conclusions can be drawn after analysis of the survey results:

- (1) The Slavic Latin script is definitely a big difficulty for the young Bulgarians. They made mistakes and returned unexpected, funny answers.
- (2) Another problem was with Bulgarian Cyrillic, which has a character for semivowel **Ѣ**, while other Slavic languages using this semivowel do not have such character in their Latin alphabets.
- (3) Unlike other Slavic languages, Interslavic included, the Bulgarian language does not have noun cases. This was confusing to some respondents.
- (4) The Interslavic language is understandable for Bulgarians even when written in the Latin alphabet. Cyrillic, however, would give a much more favourable result.
- (5) 67% of the respondents want to study this language in the future.

The authors of the survey believe that the results prove the hypothesis about the Interslavic language being sufficiently understandable without any prior training, notwithstanding its grammar based on cases and its Latin orthography.

8 Polish Initiatives and Experiences

Cooperation between institutions of higher education in Poland, the Czech Republic, Slovakia and other Slavic countries has been the source of numerous good experiences, casting a very positive light on the phenomenon of receptive multilingualism among Slavs. Many Polish scholars have used Polish or Interslavic in their communication with their contacts abroad, without any trouble in their mutual understanding. This cooperation has borne fruit in the form of Poles participating in numerous Czech and Slovak conferences and classes within the framework of the Erasmus programme. During these occasions, everyone spoke his own language. This worked better than English, which not everybody could speak fluently. Other positive experiences include a field trip by a guest from Ostrava, editorial cooperation and co-authorship of many scientific works with scholars from Banská Bystrica, Nitra, etc. These contacts are continuously being maintained and developed via the Internet.

During the first half of 2017, a poll has been conducted among 250 pedagogy students of the University of Rzeszów regarding their knowledge about the Interslavic language and the necessity of teaching it. A question about the need for implementing Interslavic was answered positively by most respondents, however, what they lacked was broader knowledge about it. The students were also asked about their contacts with other Slavic countries, and although the opinions were divided here, those who had had more frequent contacts expressed themselves very positively about their scientific, cultural, touristic and other experiences. The respondents recognise the need for promoting and learning Interslavic, which in itself is an excellent argument for further, broader research to confirm these conclusions.

These linguistically and educationally constructive experiences have been a major reason for participating in the CISLa 2017 conference and the Days of Polish and Croatian culture in June 2017, and strengthen us in our belief that the Interslavic language deserves to be promoted, taught and used.

Without intense contacts and a continuous exchange of experiences between the countries involved in promotional activities, however, there is no way of convincing people of the advantages of the Interslavic language. These positive experiences may not always be directly related to e-democracy, but they seem to be an important link that connects language, education and e-democracy.

9 Suggestions for Further Research

All these considerations and experiences should be a stimulus for broader research on the willingness of citizens in different Slavic countries to use the Interslavic language, as well as its potential role in the rise of cyberdemocracy. Of particular importance is also more research on the possibilities of implementing Interslavic in education.

In the search for reciprocal connections between language, education and e-democracy, the theoretical model at Fig. 1 can be proposed. This proposed model can serve as the basis for empirical research in the various countries where the project is initiated. It requires further argumentation and detail, as it displays the mutual relationship between three complex processes that simultaneously constitute the basic values of the information society. What can e-democracy do for e-democracy, what can language do for language, and what can education do for education, if these three elements do not work together, supporting each other and encouraging each other's constant improvement and development? This thought deserves discussion on a global level, because it might reveal an authentic need of the homo interneticus (Walat 2016), who is still insufficiently adapted to the conditions imposed on him by media and politics.

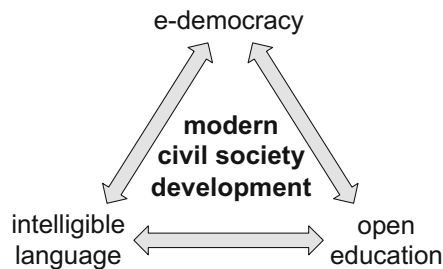


Fig. 1. Modern civil society development triad [authors].

At the CISLa 2017 conference in Staré Město, M. Kocór voiced the idea of a common research project, which, based on the new arguments and considerations mentioned in this article, could be expanded with the relation between the Inter-slavic language, e-democracy and participation at various levels of education in the Slavic countries. Especially in those Slavic countries where knowledge of English is low, research on the openness of citizens towards a more comprehensible Slavic language (see V. Merunka's research) in the context of improving e-democracy and the need for corresponding education is warranted. In this context, it is crucial to investigate what the needs and experiences of citizens are when it comes to using and comprehending the Inter-slavic language, and what they expect from education in terms of language, media and informatics.

The expected outcome of this outlined project is that at different school levels educational models will be proposed and introduced, both directed at a common language for the Slavic countries and the e-democratic development of their citizens. Subsequently, these models will require evaluation, and proposals can be made for improvement. After all, e-democracy should not merely concentrate on motivating people and forming an understandable language, but also on a critical, creative and responsive attitude from those engaged in the process.

10 Conclusion

Although the Slavic countries of Central and Eastern Europe constitute roughly one third of the entire continent, their populations are under heavy pressure in a world in which borders gradually lose their meaning and traditional values need re-evaluation. Democracy and civil societies are still a relatively young phenomenon in the region, with political instability constantly lurking behind the corner. Under such conditions, building, developing and protecting e-democracy is paramount in helping these societies reach socio-political maturity and preventing them from missing the boat.

A major factor that stands in the way of full participation is language. Knowledge of English and other foreign languages is at a persistently low level in the region, which effectively cuts off many people from the world outside their own countries. Research demonstrates that a passive understanding of other Slavic languages can play a positive role, but on a rather limited scale. We have substantiated reasons to believe that the Interslavic constructed language can be the solution to this problem.

Our experience is that speakers of Slavic languages tend to perceive Interslavic either as an ancient or remote dialect of their own native language, or as an unidentified neighbouring language closely related to their own. Even those who are sceptical about constructed languages do not recognise it as such, and people are often surprised how much they can understand of it without knowing what language it is.

The Interslavic language is the result of a collaboration of people involved in the improvement of information systems for civilians who are not necessarily ICT experts with good knowledge of English. The people-friendly Interslavic language can help us to overcome the technophobia that complicates the deployment of e-democracy applications in practice, while simultaneously saving costs, because instead of creating 15 different Slavic language versions, we need only one version.

Our research performed under the populations of various countries on their ability to comprehend Interslavic, allows us to draw far-reaching conclusions regarding its usefulness and the possibility for people to use it easily and effectively without much preparation. Therefore, its practical implementation on a broader scale in economy, trade, tourism and culture, but also in e-democracy and at various levels of education deserves our urgent support. And meanwhile, the interdependence between language, education and e-democracy also merits further discussion and research.

Beside e-democracy applications, other possibilities for its use are in business, international transport (information texts and labels in trains, buses, planes), marketing (product manuals and descriptions), tourism (info leaflets, news) and social events. For example, Interslavic could serve as a practical auxiliary language for multinational Slavic groups in touristic destinations, historical and cultural places and exhibitions, companies and religious communities. It can also play a positive role in science, research and education. Based on our experiences described above, excellent results can be achieved through scientific and didactical travels, common projects, grants, exchange of students and scholars, and other forms of cooperation.

Acknowledgement. The authors would like to express the support of the Czech research grant project SGS17/197/OHK4/3T/14 of the Czech Technical University in Prague and the Bulgarian research grant project 1/2017 of the Trakia University in Stara Zagora.

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E-Democracy – Privacy-Preserving, Secure, Intelligent
E-Government Services
7th International Conference, E-Democracy 2017,
Athens, Greece, December 14-15, 2017, Proceedings
Katsikas, S.K.; Zorkadis, V. (Eds.)
2017, XII, 273 p. 58 illus., Softcover
ISBN: 978-3-319-71116-4