Identity and social roles of Esperanto -

Challenges posed by current crises,

and options through acute modernization

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UpdateIdentityESPenglish.docx / this is no exact, but rather my free translation, including translation of quotes / see my original German text: ModernisESPdeu.docx / short version “ĝisdatigu esperanton”, all uploaded 6/2024

As early as 1887, L. L. Zamenhof designed Esperanto in order to improve international understanding. With Homaranismo, he added a human rights supplement in 1900. Even in the League of Nations, shortly after the end of the First World War, Esperanto was able to achieve a certain societal significance. Thus Esperanto should also be a good tool in the current crises, most of all in the UN. Any help for CBMs (confidence-building measures) between nations, generally between "enemies", could be valuable.

Esperanto as a vision towards CBM

Nations are separated people. Their unification as UN celebrates the divisive aspect too much. Esperanto celebrates UP (United People). In this sense, it contributes to the UN, especially UNESCO.

The usual enjoyment of Esperanto as a kind of hobby culture is by no means wrong: people from different civilizations should come closer together through friendly coexistence in everyday life. The next step could then be to reconcile entire ethnic groups with each other on such a natural basis. One variant could be groups of Esperantists who are familiar with each other also through a special subject. It would make sense for them to be able to deal with the hardships of interest politics in a particularly fair and equitable way - even across borders. There are experiences and trials (historical example: technical standards) that are encouraging.

However, L. L. Zamenhof would probably be disappointed with us on "a visit in 2024" and emphasize that there are always options for a responsible role. What we can try:

Esperanto as a constructive worldview in the context of interdisciplinary actions

To achieve this, we need to integrate at least three subject areas:

1. What should remain: Esperanto with its unique selling points. It has prevailed against all other "planned languages". By including Homaranismo, it can act in a particularly fair and diplomatic way.
2. What expands options: dynamic modernization, be it technical, organizational, ethical or otherwise. It is already exemplary, while constantly in need of supplementation. New terms in Esperanto are required for all new devices, functions, systems, etc., in accordance with the basic linguistic rules. It is more difficult, but essential, to keep up to date with the latest software, weapons, environmental crises, etc. - at least where you want to have a political say. This is the only way to be constructively perceived and respected by society as a whole.

3. What needs to be done: overcoming crises and acute violence, be it technical, economic, emotional or otherwise. Esperanto per se can mediate neutrally across borders. How can that be? Similar structures allowed nuclear scientists from the Pugwash Group to prepare arms limitations for "politics". Similarly, Barenboim succeeded in harmoniously uniting musicians from areas of tension.

For the latter purpose Esperanto has always had and continues to have a wealth of experts in in certain areas. What is needed to overcome the crisis is a more committed initiative and more targeted integration of such specialized Esperantists:

- both internally with each other, interdisciplinary and cross-border

- as well as externally, by involving Esperantists in decision-making groups.

Esperanto as part of interdisciplinary commitments

As a planned language, Esperanto has goal-oriented behavior built in. With the inclusion of linguistics, the structure "as such" is scientifically crystal clear. For the latter, a number of Esperantists are members of the GIL, the "Society for Interlinguistics".

However, several disciplines are needed for interdisciplinary projects. Rarely does one expert master all the important specialist areas. One example: I had been professionally involved with crises and options since 1964. I had studied physics and political science specifically for this purpose. Any interdisciplinary work must always make thematic compromises - this is the only way to achieve a scientifically effective result. Accordingly, as a physicist, I had exact data in a project on war damage due to the destruction of buildings in Hiroshima - and this was directly relevant for factual cooperation with doctors, industrialists, economists (1964-174 in a team investigating potential damage along atomic warfare in Germany).

Conversely, as a halfway "learned Esperantist", I can be inspired by characteristics of language, but I will never become a linguist, so I can only incorporate its real science in the way that is common in projects across disciplines.

How can Esperanto be involved in interdisciplinary crisis management? The possibilities are endless. If I were to think now about an update on the role of Hiroshima in preventing nuclear war, I could try to contact Esperantists in the city and get information on everything from "momentary feeling" to politically targeted actions. Since I know "peace museums" in Japan[1] , we might have a special common ground.

One of the unique selling points of Esperanto should be that a group of Esperantists, forming a team across borders, such as in the Middle East, Ukrainians with Russians etc. might be especially free to discuss local problems with each other, including new solutions. But beware, not only since Hitler and Stalin have we known the risks involved. Criticism due to lack of commitment is therefore out of the question, when it comes to personal willingness to get involved and take risks.

In years before acute violence, intensive cross-border discussions can be valuable. At least within Esperanto contacts, these should be attempted in the best possible

[1] Kazuyo Yamane: Grassroots Museums for Peace in Japan - Unknown Efforts for Peace and Reconciliation. Verlag Dr. Müller, Saarbrücken, 2009, 341 pages. Yamane Kazuyo has included four Berlin peace museums in her book.

way - and also presented to the outside world. It would actually be immediately concerned with the core of our identity.

The challenge may seem tough - at least unusual. In 2024, at the "24-a Israela Kongreso de Esperanto, Jerusalemo", it was not at all possible to have Esperantists from areas of tension (such as from Israel, Gaza, Iran, Arab countries, USA, etc.) present at the same time and engage in a discussion. At least there was a diplomatic contribution from Germany[2] :

Ulrich Brandenburg: "Limoj de Konfliktpreventado"

Such impressions show the highly complex difficulties in dealing with the identity and social roles of Esperanto - even within Esperanto. Nevertheless, initiatives, even outwards, are feasible at any time. This requires integration into interdisciplinary projects. There, one has only one voice among others. At an Esperanto congress, whether in Cairo, Jerusalem or elsewhere, for example, Mohammedans and Jews, Cold Warriors and human rights activists, Esperantists and others, all can think constructively together. If not scientifically feasible, then may be in a mood somewhere between desperately realistic, and hopefully dreaming.

I am currently active in the "AK Friedenssicherung durch UN", a working group of the association HVN (Haus für die Vereinten Nationen in Berlin e.V.), which is engaged in a process of preparing a series of peace conferences in Berlin. From Esperanto I was able to include in particular humanity (homaranismo) in the context of a "world domestic policy" (Weltinnenpolitik), as designed by my former director[3]. I propose it shall be supplemented by sensitive human inwardness, thus exploring and introducing an "internal world domestic policy".

In this regard, I tried to contribute my writings on the "culture of remembrance": Which child in crisis areas may later become a terrorist, which one an esperantist? It is about power structures in transition, about violence that is constantly renewed and consolidated across generations, especially with regard to acute problems such as: The embittered future fighters are virtually "bred" by violence of aggressors (of course diametrically opposed to the intentions of the aggressors). The younger the people are, the deeper will be the effect". In Gaza, Hamas may, or may not be, destroyed. In any case, future violent fighters are being "bred", as children suffer amidst violence. Probably far more new fighters will later emerge, than there have ever been Hamas fighters until now.

The AK HVN included my recommendations on CBMs in particular - not least because such intentions are currently lacking among the opponents. This lack is diametrically opposed to the efforts of Esperanto. The way Esperantists deal with acute challenges can lead to new approaches → and also change Esperanto itself!

For this reason, the three central topics for an overdue "update" of Esperanto will be considered below in an overarching context:

1. Language, from linguistic characteristics to interdisciplinary usability; plus an excursus on the background to a wealth of communication forms and goals.
2. Modernization in the surrounding field; ongoing update on technology and organization.
3. Crisis management, with a hint of acute challenges,

[2] Esperanto-Ligo en Israelo: Eventoj Israela kongreso; https://esperanto.org.il/ik24.html
[3] Carl Friedrich von Weizsäcker: „Bedingungen des Friedens“(Conditions of Peace), Vandenhoeck & Ruprecht in Göttingen, (1964), 37 p.

Linguistic characteristics and potentials of Esperanto

Linguistically precise terms have proven their worth for constructed languages. In particular, planned languages such as Esperanto have been clearly defined and precisely labeled. From the user's point of view, they touch on interesting borderline cases and new options in terms of language typology. The language was developed by L. L. Zamenhof in a visionary way, directly because of crises, and systematically specified in a subtle way. Subsequently, the language was scientifically accompanied in a serious manner - usually along the lines of past developments. Thus it remained without robust dynamics for co-determination in acutely important, and future socio-political decisions.

Has the economic benefit so far been so small that it has been almost impossible to finance projects for the future and for use? After all, planned languages are suitable on a voluntary basis for factually limited, hobby-like commitments - be it technical, literary, political or otherwise. This should include a linguistically cultivated sensitivity, as is already clearly recognizable in commercial constructs of decision-capable logic with AI.

The GIL (Gesellschaft für Interlinguistik) has created a clear basis for technical specification using serious methods. This is not easy, because there is a wealth of intermediate levels between natural and "constructed languages" that are actually used. They can be typologically interesting not only for theoretical extensions, but generally for structural proximity to target-oriented applications, as was previously typical for planned languages.

Can interlinguistics itself contribute to the commemoration and resolution of acute crises through suitable planned languages? This was addressed in the GIL Yearbook 2023, as usual rather related to the past, with a pinch of "Hollywood Interlinguistics", according to Vera Barandovská-Frank[4]: Her title promises the future, but this was almost systematically excluded. Interdisciplinary considerations deal with "secondary disciplines" as if they were disruptive factors. Thus, interlinguistics remains coherently serious in itself, as a historically observing linguistics. It shows a broad spectrum of linguistic aspects and is broadly flexible in this respect:

> "Of course, there are many other ways of engaging in interlinguistics in relation to the "other aspects" of linguistic communication, where we could include a wide variety of ancillary disciplines such as pedagogy, didactics, sociology, psychology, computer science, and so on. All in all, we shouldn't worry too much about the future of interlinguistics - if necessary, we can always go back to planned languages."

That is correct: Seriously, it is about nuances of linguistics oriented towards the past of languages.

Sabine Fiedler also mentions[5] :

> "The fact that there are different definitions of interlinguistics is by no means new." (and she names several);

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[4] Vera Barandovská-Frank: Possible scenarios for the future of Interlinguistics. In: Yearbook of the Society for Interlinguistics 2023, Leipziger Universitätsverlag, pp. 9-26

[5] Sabine Fiedler: Interlinguistics for future? Some reflections on the goals and future of interlinguistics. In: Yearbook of the Society for Interlinguistics 2023, Leipziger Universitätsverlag, pp. 39-47, esp. pp. 40 to 42.

> "In my opinion, languages created for artistic purposes do not belong to the core area of interlinguistics (or even the main subject of a new development phase of interlinguistics), since they differ from planned languages in the above-mentioned function."
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> "In my opinion, the Society for Interlinguistics is not significantly affected by the more recent developments", even though she explicitly states: "Interlinguistics is a field of knowledge that deals with the political, economic, linguistic and cultural aspects of international linguistic communication. Its particular research interest is the creation, function, structure and application of planned languages."

This suggests an exemplary commitment on the part of the GIL. But the GIL itself does not design such new planned languages, but observes how they gradually emerge, get further developed (possibly also with AI, due to crises, etc.) in order to then take an informed view of them. This is a serious approach in the context of linguistics. It is not a combination of first researching, then planning and finally designing, developing, testing etc. - but rather after accomplishment according detective work. There is no design, no involvement in an executive project by the GIL that would initiate and build pragmatic future design. But it would be conceivable, even desirable. It would go beyond scientific notes. However, my impression may be due to the fact that I interpret the term planned languages unusually broadly. Well, it may be that they are just now (or soon) being defined more broadly – as caused by facts. I think that AI alone can give rise to new planned languages, as well as completely new tasks and conditions for planned languages – including a wealth of future research tasks.

Detlev Blanke cited distinctions such as constructive and descriptive planned languages, general and special interlinguistics, pure and applied interlinguistics; he emphasizes orientation towards practice[6]:

> "I am aware that this comprehensive concept of interlinguistics is methodologically much more difficult to grasp than the restriction to planned language studies. Of course, no interlinguist is in a position to treat all aspects equally. If interlinguistics is to play a certain role in the scientific landscape, it must, in terms of scientific policy, meet the needs that arise in practice with its research."

When his book was published, neither new needs (crises, especially existential ones) nor modern options (AI) were as present as they are now. Linguistics itself is probably shaped and developed far more by external developments, than by internal scientific considerations. Artificial identity options, such as provided by smart phones with lightning-fast translations - also from and to Esperanto - come from outside. There are major changes regarding the goals, for which plans of planned languages are "actually" aligned.

I am concerned with an Esperanto which, although it does not want to develop a new planned language for the time being, is constantly longing for being more influential. It is at least a concern about the dynamics of its own socio-political role, which can directly incorporate emerging realities. It is about dealing with crises, modernization and ultimately making its own contribution to global awareness.

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[6] Detlev Blanke: Interlinguistische Beiträge - Zum Wesen und zur Funktion internationaler Plansprachen". Peter Lang: Europäischer Verlag der Wissenschaften, Frankfurt am Main (2006), p. 30.

Can something like this be planned at all, whether scientifically, socio-politically or otherwise? In the case of planned languages such as Esperanto, the following should at least apply: you have to be flexible for new tasks and applications of your own linguistics. What is relevant and how it can be implemented linguistically, depends on the environment, be it modern, crisis-ridden or otherwise acutely topical. Can, may and should one change one's own planned languages with due caution? Or is it about the type and tools used, or new extensions? In some cases, this can be considered in a more essayistic, quicker, more tangible and more flexible way, than in a strictly limited scientific way.

This article is therefore about fanning out possible options for new tasks of planning languages as broadly as possible, to imagine completely new options and perspectives - which can succeed and then later expand the scientific considerations in real terms. It is similar to industrial product enhancements - you have to have a solid knowledge of the technical, scientifically proven basics as a starting point - and expand as flexibly as possible with new designs based on new tasks.

At the beginning, it cannot yet be clear, to what extent new language constructs and/or expansions will be able to approximate foreseeable, dynamic forms of reality. Crisis-like modernization initially causes global uncertainty and stress. Many structurally new realities are becoming increasingly indescribable for natural languages.

With a broadly variable typology of "constructed languages", we can now attempt to constantly reopen the understanding and control of reality, to specify it pragmatically and to make it comprehensible for people. Modern software for planned languages is complex and requires pragmatic goals and specialists. The spectrum is broad, for example, it could be about a type of communication with which a robot, deep down on a seabed, searches for design options, be it for mineral resources, underwater buildings, weapons systems, etc., in the closest possible communication with the potential of its environment there.

If we limit ourselves to Esperanto as a planned language, it is conceivable that no social changes are desired at all. Of course, expectations and tasks can be formulated more comprehensively. Esperanto has also been gradually refined and confronted with new hopes.

Sabine Fiedler emphasizes how languages develop out of concerns, by and for people who develop themselves[7] :

> "Esperantology, as the science of researching the planned language Esperanto, is an important branch of interlinguistics. It is not limited to studies of linguistic structure, but also includes the development of the speaker community and its culture as an object of investigation."

This is fundamental for socially relevant dealings with Esperanto. For reactions to the ongoing expansion of challenges, however, it is as yet unusual! Although, in any case, transnational friendships between Esperantists can open up new options.

There is a wealth of options with Esperanto. For all languages, including planned languages, their users create their own concepts - and therefore word meanings. For physicists, "acceleration" has a mathematically precise meaning. For everyday language, the word evokes a vividly comprehensible idea. For the use of the term in the control of defensive missiles in military operations, commercially sophisticated

[7] Ibid. S. 41

and heavily financed computer languages are required. At the interface between computer scientists, soldiers and politicians, purely linguistic representations often seem too slow, cumbersome and downright unreal. It is about structure, i.e. linguistically about complex, and at the same time accelerated phenomena.

To improve people's participation in decision-making, you need options that have been prepared in a targeted manner. Where these need to be communicated quickly and clearly, language often needs to be supplemented. With increasing complexity, the output of constructed languages includes descriptive, above all visual media techniques that "address" people in an appropriate form. Such attention to typology can be helpful, even expedient, for presenters and users of any language.

This article aims to provide a clear indication of the options available,

- whose practical significance and use is obvious
- and whose aspects and typologies can be guessed at and felt linguistically - sometimes for a long time, sometimes rather limited.

Planned languages initially comprise "almost natural", seductively obvious extensions of natural languages, for example for new types of use or for attempts at targeted narrowing, through to types simplified for special purposes. Where such communicative attempts were made by humans and sometimes even animals in the jungle, they were initially able to prove themselves in special areas, such as new crafts, and thus finally become new natural languages in their own right.

For example, we can hardly even guess to what extent a beaver "specifically plans" for its burrow, for example in a new environment. This ranges on a logarithmic time scale from model software for evolutionary, possibly playfully "planned" and testable genetic designs, to currently measurable neuronal brain waves that can be assigned to simultaneous work on the burrow.

In the modern world, there are phenomena with complex dynamics of their own, some of which are moving away from natural forms of life and some of which are moving closer to them. They are accompanied by languages of all kinds. There are phenomena that focus on a specially narrowed area. A suitably planned linguistic narrowing could fit in particularly well.

We like to try out similar things in a playful way when dealing with animals. Living creatures have developed highly differentiated languages and forms of communication for their interaction with their environment. This often includes a simultaneous, real transformation of their own environment. In humans, changes are accelerated at an almost uncanny rate. This can be productive and of high quality. Acutely, it causes an "overflowing" abundance along poorly controlled crises and struggles. Much of the language used in election campaigns, for example, proves to be indescribable for voters and candidates, as typologically strikingly vague.

Conceptual, structural and, moreover, comprehensible extensions are becoming increasingly complex linguistically. In order to illustrate the immediate challenges facing usable languages, the following section outlines very different new forms in very different language-typical border areas.

Digression on the breadth of world views

Living beings orient themselves pragmatically and culturally with their own "world views". The communicative diversity is enormous. Some things arise spontaneously from challenges. Others were "already genetically planned". The breadth of reality, the flexible border areas between natural and planned, can only be grasped in an interdisciplinary way and suggest an essayistic, fanning out illustration. Esperanto is just one of many broadly communicative approaches. The breadth of the phenomena will be illustrated by examples.

Example: Appealing tone sequences

The planned language Solresol combines sound syllables to form words, such as "do" and "re" to form doredo (for time). A representation of the pitches by musical instruments or singing makes it an international and at the same time neutral planned language. For this idiosyncratic type, an immediate or contemplative musical use was obvious and was attempted, but eventually it proved to be too cumbersome.

Otherwise, musical notes, as an elegant kind of "extended language", open up precisely structured performances for complex musical instruments. A choir can be adjusted and harmonized to accompany it. "Talking about it" would not be enough. A song such as "It Ain't Necessarily So" from Gershwin's Porgy and Bess can be transferred in a way that is typical of the sound. Even in another culture, for example in Bavarian: "Des muaß net amoi a so sei!", or: "wer sogt denn, dos das a so waar?". The stage has to fit. In an "inherently" natural translation, more than linguistic typological elements must be taken into account.

The degree courses at the “Institut für Musikinformatik und Musikwissenschaft (IMWI)” in Berlin have been deepening the "harmony" of music, computers and people since 2005. "Creative programming" opens up new ways of communicating music with new software developments. New technical terms for recognized phenomena, such as a sound image for overtones - with associated mathematically clear relationships between frequencies - have long been created at the interface to humans. Digitized frequency generation opens up speech and sound precision. The voice image of a deceased person can provide professionally generated fake news by virtual animation of their former body.

Example: How gorillas swear and birds chirp

Sign language is one of the natural languages of primates. Gorillas were also able to adopt it from humans and create new combinations of terms. For humans, this has resulted in a new, playfully understandable, almost "self-unplanned” way of planned language. For gorillas, it can become an extension of their natural sign language; examples of concept formation:

Bottle + match => lighter

Barking + sky + dog => helicopter

Similarly, many birds like to adopt rhythms and melodies from humans and add them to their own "songs". These are not always typical languages. I remember a bird that could imitate the sound of a circular saw deceptively well.

Examples: Fetishists

There are areas of global and interpersonal communication that are easy to understand. This was made possible by the fact that the interested parties planned and designed their very own new living environments with dedication, including linguistically. The result can have restrictions and focuses, similar to planned languages. It can also simply incorporate special terms along with the way of speaking, into natural languages. This can include carefully planned language types that are perceived by users as beneficial, sometimes even thematically liberating. For "normal" people, these can appear unnaturally restricted, as if they were artificially planned in order to obscure and exclude other people. Examples of fetishists[8]:

> "Writing and speaking have a ritual status in the world of F. Think of the→ slave letters of masochists, the erotic correspondence of the→ correspondence circles, the obsessive, compulsive diary keeping of many fetishists, the→ erotographomania,→ coprography and→ pornography.

Example: C_lang

Linguistic simplifications are obvious, even if only for playful relief in the midst of the usual stress. In science fiction, there are examples of playful alienation of a natural language into a kind of very simple planned language, which can require patience to learn at the beginning. Such languages are practically useless, but aesthetically popular as a group feature. One example is c_lang, in the c-base, an UFO that crashed in Berlin. As a member of the association, I co-developed and used c-lang as a written language there in the 1990s. It is characterized by the pronounced use of the letter "c". The rules are a bit cumbersome. I'll describe them with a few examples: the grammatic works cäuflich (can be bought); the clein_creibung (use of small letters) as a cöstlichceit (deli-cacy). I am the c_eitmaschinennavigator (Time Machine Navigator) of the c-base. In the Almanac of 1999 there are first contents, there I have described the ITNA matter[9] . In the vicinity of matter as we know it, an upward force acts on ITNA. It can thus be combined with common matter to form weightless UFOs. These may look massive, like the c-base, and yet such UFOs float up and away with micro-propulsion and minimal energy.

Options for a pragmatic world view

Basically, anyone can get involved anywhere, either professionally or simply spontaneously, and take Esperanto with them; a number of world citizens' movements are a simple example of this[10] . The spectrum ranges from sober realists (who often appear disillusioned and helpless) to nervous conspiracy groups (who sense something to be planned).

A single natural word like "value-led" alone can reorient entire natural languages, in that entire real worlds should strictly re-plan themselves and perhaps succeed in doing so[11] . In his book, Precht comes close to Homaranism with "universalistic humanism". This is far from being a new planning language (rather only a new word,

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[8] Ernest Bornemann: "Lexikon der Liebe - Materialien zur Sexualwissenschaft", Volume F-L, Ullstein Verlag Frankfurt/Berlin, (1978), p. 391

[9] Itna: almanac of the c-base 1999, edition 2005, p. 62

[10] https://de.wikipedia.org/wiki/Weltb%C3%BCrgerbewegung

[11] Richard Precht: "Das Jahrhundert der Toleranz- ein Plädoyer für eine wertegeleitete Außenpolitik", Goldmann (2024)

new concept). But the planning use of AI alone can be so value-led and at the same time focused on systemic thinking that planning languages for implementation can emerge.

One form could be "political instructions for use ", possibly even including legally disguised implementation proposals. It may be that not much is being invested in this direction for the time being, but such programming can be expected quickly for fake news - and then easily re-modeled for planned languages.

The relationship to English is important for one's own identity. English as a world language is virtually "alive" and flexible. It is constantly expanding, changing and "arbitrarily" changing in many details, be it due to region, art, media, fashion, commerce or overly transparent interest politics. Things could be different as soon as for instance the USA loses its broad dominance, and after then global protests demand a more neutral language.

We can currently assume and/or expect a wealth of social changes that will alter planned languages - including the associated interlinguistics. How quickly and broadly planned linguists (such as Esperantists) themselves, as pioneers, take up and/or develop structural extensions for their own language, can only be decided internally.

A prime example of constructed languages are texts consisting of elementary simple statement terms that enable highly complex designs. A typical example are forms of computer software. People encounter results in language forms such as this book title[12] :

> "Conception, prototypical implementation and evaluation of a usability checklist for web-based smartphone applications in the context of SAP Fiori".

Typologically, the focus is on the usability and user experience of an application, regardless of whether it is a mobile device or a computer. To make this possible for developers of mobile SAP Fiori applications, it is crucial to identify the criteria.

This is how people have extended their communication typologically and constructively. Developers of mobile SAP Fiori applications need clear criteria. At the human interface, user experience testing plays a major linguistic role. New languages are being developed for the purpose of increasingly complex controls. This inevitably increases both: controllability and disruptibility - especially at the human interface.

In terms of language typology, programming is more advanced than simply "adapting". It requires us to constantly reconstruct our own language structures. This happens in the context of qualitatively growing challenges from the environment. A simple example: every programmer of complex software knows those times when he would like to delete the old program and "rewrite the whole program from scratch" - possibly with a newer software and development structure. There must be tests along designing and programming, as:

> Language, discussion→ gives hints→ possibly with a flood of warning signals→ but possibly without control through linguistically clear recommendations→ Such output can be confusing or even dangerous for people, even as input for other systems.

Instructions for use and operating manuals have long been clear and static. Technical terms in natural languages were often sufficient. However, in the case of

[12] GRIN Verlag, 2020, https://www.grin.com/document/1031520 ; Author: "Anonymous"

complex control systems and automatisms, such as in the case of severe reactor accidents, controllers were surprised by a flood of warning signals. There was a failure to plan meaningful reactions clearly and purposefully in advance and to communicate them clearly. In the meantime, many unexpected planning languages are in use, which are invisible to almost everyone in their details, but provide targeted recommendations at the interfaces.

For such new planned languages to be constructed, social communication alone, including political responsibility, is a linguistic challenge. Poor quality planned languages can be dangerous.

For modern people on their smartphones, linguistic language structures partly not easy to handle, and constantly being "updated", are offered - or forced upon them. They are gradually perceived as better and easier, sometimes more laborious to use. Some of them are different from everything that was used before (in the form of "natural language", for example).

Esperanto can now be experienced as a "relatively natural" language, for example in comparison to "official", an all-too-planned "planned language" :[13]

> "Notice on the finalization of provisional cost sharing"; there is also a "Fög" for the "TeKaBeGe", supplementary support and care for the Ta-ges-be-treuungs-kosten-beteiligungs-gesetz (participating in caring and cost sharing for social purposes – in German a monstrosity of combined abbreviations and words).

It is also worth asking: What simple extensions to planned languages would be practical anyway? You can take the liberty of greater flexibility. Rich planned languages have unique features, both linguistic and practical. These were anticipated, tested and formulated at an early stage. Further testing is possible on an ongoing basis, directly from the perspective and constraints of current global, modern and crisis-related requirements. As before, largely limited on a voluntary basis, such modernization can only be expected in the short term in narrow areas. But improved use can urge investments.

Therefore now only cautious hints: New language formations that can radiate beyond planned languages into the linguistic environment would be practical. An example: The 19th century (i.e. "nineteenth") lasts from 1800 to 1899, so it is difficult for any child to learn at first. Instead of 19-th would be

> "18th century"

plausible. In this way, more consideration could be given to children. Such a small update may take a long time, perhaps a hundred years, to become globally accepted in the natural mother tongues. It would be a tangible step forward because it would be useful for reducing the current information overload. Practical too: I have included mathematical characters in my personal shorthand, as is sometimes the case with programming.

Other names that have simply become fashionable and are more random and hasty than well-considered and meaningful also cause a lot of trouble. Hardly anyone can name and distinguish between the arbitrarily defined geological eras. This applies to terms such as Precambrian, Ordovician, Devonian, Triassic, Jurassic, Cretaceous, etc. On the other hand, terms such as Stone Age, Bronze Age and Iron Age at least provide some clues.

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[13] Sabine Rennefanz: "Does anyone here speak officialese? The incomprehensible language of the authorities is incapacitating"; in Tagesspiegel 18. 05. 2024, Wochenende, p.9.

Another alternative could be purely formal, about 10^x (= "ten to the power of x") years ago, e.g. in Esperanto: (= "antaŭ dek al la potenco de x") jaroj), i.e. ten, one hundred etc. years ago. years ago. You can speak it or simply perceive it.

Acute modernization changes structures of and roles for Esperanto

It may be that digitalization alone is already causing unplanned (!) surprises and new reflections similar to those indicated in the digression. The structures and roles of languages are changing. What kind of - cautious and effective - update of language forms and plans is really needed now? For Esperanto, perhaps as fundamentally as for other planned languages.

It is always necessary to incorporate completely new realities. For me as a programmer, this was already the case in 1964-1974 with the typical planning languages (Fortran, Algol) of software, which were already in the structural approach . In terms of language typology, it is a matter of disrupted planning, because it is not sufficiently protected in advance during programming. The recipient of such information may have little chance of intervening[14] :

> "Due to the rapid pace of development, the path to adaptive malware no longer seems far away. This would mean that malware would be able to adapt to new security measures independently in the future. Malware could then hide even better from antivirus programs, for example. This could encourage new and larger botnets."

As a qualitatively new phenomenon, current digitalization goes beyond the linguistic experience with previously familiar software. This can change experiences with previous planning languages, possibly soon suggesting new types of planning languages via AI, right through to automated, flexible new creations aimed at multiple goals. In purely linguistic terms, such a development can hardly be guessed at, much less sensed. Without interdisciplinary science, progress is hardly possible. Inevitably, one must and can deal with speculative risks. This is normal, especially at the beginning of any new design. In the beginning, essayistic design ideas can be helpful, on the way towards a scientific foundation and security.

Not exactly essayistic, but similarly daring, the unimagined is constantly being created. With "large language models" (LLM)[15] from AI, for example, what could previously only be guessed at is being sensed. By structuring and developing qualitatively new planned languages that remain typologically open or hidden as a language, AI creates new experiences. Human tasks in the area of creating, revising, transforming and analyzing content can be accelerated or even completely automated. AI can uncover contradictions in new software, be it in terms of its logic, contradictions in the underlying laws or risks due to linguistic ambiguities that can confuse users. Such risks need to be managed technically and socio-politically, especially in the case of planned languages that are automatically geared towards new applications.

There is widespread discussion about AI and how soon everyone will be able to speak to everyone else globally in their own language via cell phone translation - and this will feel completely natural, although secretly via the detour of a language that

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[14] Carsten Meywirth: "On the trail of cybercrime - artificial intelligence and cautious optimism. In: Behörden Spiegel / Innere Sicherheit, March 2024, page 37

[15] https://www.bitkom.org/Bitkom/Publikationen/Grosse-Sprachmodelle-Ein-Ueberblick

has already been tried and tested for translations. Similarly targeted changes are also typically made for other purposes[16] .

ChatGPT can also "make an effort" with AI. A request was made to "them" and the result was directly relevant, (even for such a special aspect as DaF/DaZ (German as a foreign language / German as a second language, both in elementary school), namely[17] :

> Challenge: "Write me a scientific commentary on the use of artificial intelligence in education."
>
> Answer (extract): "Teaching and learning processes can be improved and personalized through the use of AI technologies. For example, AI systems can automatically recognize learning progress and generate individual learning paths for students. However, there are also concerns regarding the use of AI in education. A key question is the extent to which the technology takes away teachers' authority to decide on the design of lessons and the assessment of pupils' learning progress."

The spy in the cell phone"[18] creates an almost casual recording of each (!) person's individual activities. It happens with difficult-to-understand variants of spying, despite input that is certainly narrowed in terms of language typology. It leads to a deliberately narrowed output. Typically, a grammar that is limited to what is essential for specific use can be appropriate. The person himself does not have to input via planned language and he hardly notices the output as a form of typical planned language simplification. They do not or hardly notice how they are secretly controlled in the process.

At the moment, this statement is as true as it is false - it has not yet been systematically tested. From a socio-political point of view, it should be worth noting that planned languages should be defined and designed in a more flexible and, above all, typologically more structural way than has been the case to date. The obvious thing to do could be to specifically examine clearly definable intermediate stages in comparison to constructed languages.

Obfuscated planned language can be deliberately unpleasant. For example, the natural request: "Money or life" has long since been sensibly replaced (in the sense of a product provider) by something like: "Click here to BUY - or you're dead to us!". This is common practice, because it would be far too time-consuming, i.e. expensive, for the provider to have to explain things to customers in order to get their money.

Moral warnings in natural language are linguistically heartfelt, but often seem politically helpless. War crimes are committed by "cold warriors" who have been shaped by language and also by the pre-programmed, deliberately learned cold logic of fighting machines. The military strategist Boulding emphasizes[19] :

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[16] Christian Stöcker: "Die Große Beschleunigung : Klimawandel, Digitalisierung, Wirtschaftswachstum - wie wir uns in einer sich exponentiell verändernden Welt behaupten können", Pantheon, Munich (2022)

[17] Christina Maria Ersch: "Kommentar zur aktuellen Diskussion über den Einfluss von textbasierten KI-Systemen auf den Bildungsbereich - Oder "Die Digitalisierung wird nie wieder so langsam sein wie jetzt"; in: Henriette Reiche (ed.): Virtuelle und Hybride Fremdsprachenlehre. Frank & Timme, publishing house for academic literature, Berlin, (2023), pp. 171-172

[18] Oliver Voß and Katharina Schneider: "Der Spion im Handy - Werden wir für Werbung abgehört?"; Tagesspiegel 22. 3. 2024, p. 10

[19] Kenneth E. Boulding: "National Defense Through Stable Peace"; International Institute for Applied Systems Analysis (IIASA)/Laxenburg/Austria, (1983), p. 19

> "The use of weapons is almost entirely learned behavior. ... Pushing a button and burning children alive is not the ethic of Achilles and Hector."

Dealing with cyber attacks is similarly unfamiliar at first. Attack and defense have long been considered in the area of secret languages. This generally applies to technically and diplomatically complex planned languages. As with other planned languages, there are insiders and outsiders. The "descriptive" is frightening, the indescribable is scary.

Attention is obvious, because the financial sums involved are high[20] :

> "The number of cyber attacks in Germany is steadily increasing. In its 2022 annual report, the Federal Office for Information Security (BSI) rates the threat level in cyberspace as "higher than ever". ...
>
> "According to estimates by the digital association Bitkom, such attacks cause massive financial damage in Germany, totaling well over 200 billion euros per year. While companies have long been the main focus of cyber attacks, local authorities are now increasingly becoming the target of attackers. ... We need to overcome the traditional silo mentality - especially in the area of protection against cyber attacks - and come up with a joint approach to solutions.

Meanwhile, linguistics, as usual, continues to proceed from its precise, proven and still solid definitions of its basic terms. It is expedient to retain these clear and proven terms, even though they were almost principally developed from a consideration of the past. For users, modern linguistic structures must be designed in an increasingly linguistically broader and at the same time more targeted way - above all faster! Compared to future users, future programmers may perceive this more quickly from their high level of familiarity with their work as quasi "structurally natural", also perceived as phonetically natural with a well-flowing planned language.

Crisis management

The innovations mentioned alone can still appear to be an imposition at present. Applying them to threatening crises will be even more difficult. Nevertheless, it is indispensable for Esperantists.

Esperanto is quite present, as it has been for a long time and continues to be for consultation at UNESCO, see my brief summary from a recent report[21] :

> "At the 42nd session of the General Conference of UNESCO on November 11, 2023, Esperanto (at UNESCO since 1954) was included, in particular in the leadership of the Committee on the Languages of the Nations at the UN. The "Internacia Ligo de Esperantistaj Instruistoj" (ILEI) has also been involved since 1977. One topic is climate change. The article by representative Jiacomo ends with: Peza laborplano atendas nin, sed ni esperu belaijn resultojn."

Yes, there is a lot of work to be done there and "beautiful results" are to be hoped for. Part of the work is to assert ourselves alongside all the other languages and, above

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[20] Alexander Handschuh / German Association of Towns and Municipalities: Breaking down rigid structures and working together. In: Public IT-Security Report: Cyber defense and cyber defense: a nationwide effort. Behörden-Spiegel Group, 2023, Pro-Press Verlagsgesellschaft Bonn/Berlin.
[21] Francois Lo Jacomo: UEA kaj ILEI partoprenis la ĜENERALAN Konferencon de Unesko. In: UEA: Esperanto marto 2024, pp. 51-52

all, to introduce the unique features of Esperanto in terms of content. The prerequisite for this is to be conspicuous in terms of content, i.e. to be as modern as it is crisis-conscious.

As far as the linguistic capabilities of AI are only hinted at, for example, and cannot be tested enough, "ethically cautious" testing for crisis management is speculative – but thereby far less dangerous than any suppression of – or even flatly ignoring – the topic. Similarly, the foreseeable introduction of KE (artificial emotion) will make the options more complex. That will further increase both controllability and disruptibility (liability to disturb, irritate, confuse systemic functions), especially in crises and/or when violence is imminent. All of this should, especially in the beginning, also be captured, and shaped linguistically.

A professional update of linguistics, like similar updates in related scientific fields, will be one of the interdisciplinary foundations for digital sovereignty and state resilience.

Of course there are role models. The science of terms and their designations in the field of specialist languages has developed over the centuries, sometimes chaotically, with avoidable disputes. Through decades of intensive terminology work, Esperantists such as Wera Blanke were able to contribute to the practicable organization of a specialist field[22] . Esperanto is now recognized as effective in this field. In many other specialist areas, including the phenomenon of Esperanto itsself, there is still a need for clarification. Louis von Wunsch-Rolshoven[23] (Press and Public Relations, at the DEB) contributes to this time and again, for example:

> "There are about a dozen and a half false rumors circulating about Esperanto, and the basic rule is that if someone says something negative about Esperanto, it's usually based on misinformation."

An Example: When dealing with critical infrastructures (new: KRITIS), which have been part of my professional life since 1964, I had to cope with increasingly complex problems. That required more than just new technical terms. Rather structural understanding was necessary, as also basic for plan-language system[24].

While currently such options are undergoing major change in complex subject areas, they will in most cases only be addressed on an interdisciplinary basis. So far that is rather uncommon in both Esperanto and linguistics. It is so unfamiliar, that in this article I only want to hint at the wealth of options, that can be taken up in principle. Homaranismo might render cooperation at beginning more difficult, but finally basic and workable solutions shall be improved. Esperantists must cooperate all along diplomatically. A strictly puritanical behavior will not lead to humanity.

Most Esperantists are involved in task groups, where they may apply own experiences – perhaps in the beginning without revealing the origin. An example: I may try to involve Esperanto for individual topics, with which I am particularly familiar, such as KRITIS. Especially in the case of disasters, it is difficult to balance the interests of those at risk, although a reflex of spontaneous willingness to help is quite common. Esperanto may try to take up, even trigger such willingness.

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[22] Wera Blanke: "Esperanto - Terminology and terminology work". Mondial, New York (2008), in particular the chapter "On the contribution of interlinguists to the organization of international terminology work", pp. 62-83

[23] Louis von Wunsch-Rolshoven: "EU-Zukunftskonferenz und Esperanto", in: Esperanto aktuell 3/2022 No. 273, p. 16. For a commentary on the conference, see: https://futureu.europa/pages/reporting

[24] Dr. Eva K. Platzer: "Why we need to talk about KRITIS in a more differentiated way - The governance differences in physical and information technology protection.". In: "Resilienz", 1/2024 Civil Protection (BBK: Federal Office of Civil Protection and Disaster Assistance), p. 28-30

When Esperantists form or join a basic team of experts, in order to cope with modern and/or tough challenges, their proximity to "value-led" solutions may at begin cause difficulties. It may disturb, cause confusion. But many people, even experts start rather confused anyway. It requires a conscious, concentrated intention and effort. It shall avoid common, often irrelevant "solutions" in common task groups and politics. It is intended to help, as good as Esperanto might achieve.

In this way, Esperanto's identity can be revived in the spirit of L. L. Zamenhof and strive to play an interesting role in modern crisis management.

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I wrote this essay in 2024 as a writer of the future. Born in Halle/Saale in 1938, I was familiar with violence and crises from the very beginning. I studied physics and political science in Munich from 1958 to 1964. Professionally, I investigated - also linguistically - escalations to crises and wars, as well as the culture of remembrance of those affected by damage. On the board of "Netzwerk Zukunft"[25] (network future), I deal with risks and options for shaping the future in an interdisciplinary way. As a futurologist, I have to start from scientific facts. When considering the - often bitter - effects on people, I have always found it helpful to include emotions – as a writer. I was looking for combinations, that are

- based on facts, on sober realities, on science

- but also mentally and pragmatically incorporate innovative experiences.

Literary portrayals can be appropriate to the concerns of "modern" people. For the breadth of my mostly interdisciplinary topics, see https://www.philipp-sonntag.de/bibliografie.html

Ph. Sonntag presents his ideas on planned languages at Esperanto 2024. Photo: Fritz Wollenberg

My professional career has been characterized by research focused at violence and crises. In 2008, I became interested in Esperanto - where people have been trying to build some hope since 1887. As a writer on the future, I don't have to answer how utopian that is.

Now, in 2024, I am re-inventing myself as an update of myself, for an update of Esperanto that is difficult to imagine. Because the extent to which Esperanto can achieve effective socio-political roles in the future - as was attempted over a hundred years ago - is more utopian, than right away plannable.

As a futurologist in the”future network”, I have long been part of the established tradition of interdisciplinary approaches. In this role, it is as unnecessary as it is impossible to be an expert in all disciplines. It was therefore only natural that Robert Jungk, the co-founder of Netzwerk Zukunft, should take a strongly essayistic approach. He interviewed specialists who had to work with radioactivity (for example in the construction of nuclear weapons). He treated the according facts with care, such as their working methods and the damage they suffered to their health. This was socio-politically, and therefore inevitably sociologically, relevant. But the content of such warnings was largely unknown - until his successful involvement as a whistleblower had been respected as essential.

[25] http://www.netzwerk-zukunft.de