Would It Be Possible to Optimise the Secondary ICT Term Creation in Latvian?

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Transcript of the discussion of «dependability» and «dependable»

Start of discussion (14:20)

Part I

Eduards Cauna: On our agenda today, the next terms for discussion are **«dependability»** and **«dependable»** [Picture 1].
Juris Borzovs will provide insight into why it is challenging to recreate these terms in Latvian and why we still need to find appropriate equivalents in Latvian.

Part II

Juris Borzovs: Historically, «reliability» was created as a concept long ago.
There were already discussions regarding offering a completely different word, with another root and term already in use, «drošums» (safety, security).
But Latvian «drošums» gravitate in its meaning very much towards either English «safety» or something related to «security», so it is not a good choice for «dependability» and «dependable».
If we check the meaning of the English «reliable», then we get «uzticams» (trustworthy) in Latvian. So, we must understand what this term means to us on the conceptual level in this field, namely, in the field of systems.
The answer is as follows: «It is the ability of a system to perform/implement defined functionality within a defined timeframe», and it is usually expressed as a percentage of the total time the system exists. It is a long-established method, and it is nothing new.
In its turn, «dependability» came relatively later from various sources, primarily standards; I don't even know all of them. There is even more confusion and chaos with «dependability» because, in some sources, it is interpreted as an utterly synonymous term with «reliability». But mostly, there are some other attributes.
I assume «dependability» might be more like a political term. It could be originating from different political documents. «Reliability», on the other hand, has been strictly a technical term from the very beginning.
Thus, the problem is very clear-cut: if we take a general language dictionary and check both of these terms, namely «dependability» and «reliability», then we find as a translation the same Latvian word «drošums»; it is unacceptable because it creates confusion in understanding and that is the problem.
Therefore, there should be a new term for «dependability» because it is a more recent term that appeared later. Something very similar, but not the same.
And there we have the linguistic problem: we haven't found the word for the Latvian equivalent of «dependability».

Part III

Pēteris Paikens: If a distinction is to be made between «dependability» and «reliability», where the former includes the latter as one of its aspects, then I would rather say that «dependability» as a broader term should be translated as «uzticamība» (reliability) and «reliability» as «noturība» (stability, resilience).
Juris Borzovs: First, «noturība» was something else, wasn't it? Thank you for the proposal, of course, but it wouldn't reflect the concept in this case.
Please remind me, what are the possible English translations of «noturība»?
Eduards Cauna: Latvian «noturība» in English can be translated as «persistence», «resilience»; «stability», and «immunity».
Juris Borzovs: «Uzticamība» has been an appropriate Latvian term for English «reliability» for several decades. Thus, it should not be changed, all the more so because it is a literal translation that entirely correctly reflects the English concept.
Eduards Cauna: Yes, because here it is the other way around as Pēteris writes: the «reliability» definitely is «uzticamība»; «uzticamība» appears in Latvian dictionaries in different types of collocations. And as for «dependability», the word «uzticamība» would reflect the part of the concept precisely, as it was already suggested.
But the current problem is that «uzticamība» works poorly in collocations we need to use; there is a dissonance. For example, with such terms as «paļāvīga sistēma», «paļāvīga datošana». Therefore, we must remember that using a possible term as collocation in a language system will be difficult. Let us look at English collocations, and we see that in most cases, it won't work with "uzticamība". [Picture 2]
Juris Borzovs: That is precisely the problem..
Eduards Cauna:.. ..that we cannot create a grammatical form with «uzticamība», as our colleague Agnese that we cannot create a grammatical form for using in collocations with «uzticamība», as our colleague Agnese points out.
Agnese Apse-Apsīte: Right! This is a linguistic difficulty, not a terminological one.
We all know that "dependable" means "something or somebody that can be relied on" and "dependability" means "a quality, namely - something that can be relied on".
Yes, in the previous discussions, the French «sûreté de fonctionnement» as a possible source of inspiration was mentioned, but it should rather be understood as "confidence that something will work.
Our real problem is that the Latvian word «paļauties» is inconvenient for word formation. Therefore, perhaps we shall focus on seeking seldom-used word formation methods in Latvian to help us form the term.
Jānis Cīrulis: I'll remind us of the idea that we've seen in some articles that «dependability» has a lot of meanings, not only one meaning, «uzticība» (trust). We can add then the prefix to the word, and we can have «vispāruzticama sistēma» and «vispāruzticamība».
Juris Borzovs: This method with adding prefixes might be a solution.
Jānis Cīrulis: And we have the adjective «dependable» bundled in the system of terms, too. We have to keep that in mind when creating a term.
Eduards Cauna: Agree, but the question is how «uzticams» differs from «vispāruzticama».
Eduards Cauna: [asks a question to ChatGPT]
«What is difference between «dependability» and «reliability», format as a table» [Picture 3]. Answer includes «reliability», it is also «security», «safety» and «maintainability».
Jānis Cīrulis: Then how can we include «pārliecinošs» (conclusive, sound) and «pārliecinātība» (assurance)? «Dependability» would then be «pārlieci-»? It won't work.

Part IV

Agnese Apse-Apsīte: «Pārliecinošums» (Persuasiveness).
Jānis Cīrulis: «Sistēma ir pārliecinoša» (The system is persuasive) and «pārliecinoša datošana» (persuasive computing)? Really?
Eduards Cauna: «Pārliecinošs» (persuasive)? If we use it for «dependable system» in Latvian «pārliecinoša sistēma» (persuasive), it could work.
But to use «highly dependable» as «ļoti pārliecinoša» (very persuasive)? No way.
Agnese Apse-Apsīte: «Paļauties vērts» and «paļāvībvērts» (trustworthy)?
Jānis Cīrulis: And what about «dependability»?
Eduards Cauna: Then it will be «paļautiesvērtums» (trustworthiness), «-tums» (-ness), «paļāvībvērtums» (worth depending on).
Jānis Cīrulis: «Vērtums» in the ICT field is «the informative part of a transmitted message, which does not include the opening paragraph or anything else» [Picture 5]. We have already determined the meaning of the word «vērtums».
Eduards Cauna: In everyday use «vērtums» means «vērtība» (value).

Part V

Iveta Keiša: If we continue to use «paļaujamība» for «dependability» [Picture 6], the problem is that «dependability» is not countable.
Agnese Apse-Apsīte: «Paļaujamība» means «*somebody* who relies on something». It does not mean «*something* that will be relied on».
Iveta Keiša: In those compound words, we need an adjective, not a noun.
Eduards Cauna: OK, the meaning of «dependable hardware» will be..?
Iveta Keiša: ..a software that can be relied on. Sill, «paļāvībvērts» sounds strange.
Jānis Cīrulis: Well, in adjective form, it sounds good and looks good. Now, we need to clarify what «vērtums» (value) means in our language, Latvian.
Eduards Cauna: The Thesaurus monolingual dictionary gives vague examples in this case. Still, our general understanding of the Latvian language lets us realise that it is "something valuable"; it is a quality. So, «quality»..
Jānis Cīrulis: .. «property», «quantity», «value»..
Eduards Cauna: How valuable is a person to the company? What is their «vērtums» (value)?
Jānis Cīrulis: Aren't these contradictory concepts: «quantity», «value», «size»? Because «value» is used somewhere. «Something» is «valuable».
Eduards Cauna: Colleagues, how it sounds - «paļāvībvērtums», «paļautiesvērts»?
Agnese Apse-Apsīte: The main thing is that we already have the word «paļāvība» and its derivatives in Latvian, and we use them successfully. It's just very inconvenient to use «paļāvība» in terms. Therefore, I would like to keep this «paļaušanos» or «paļāvība» as a base for term formation because it reflects the concept of «dependable» and «dependability» perfectly.
As the solution to our problems with forming a usable compound term in Latvian, I propose adding the ending, enabling us to use it more easily.
Eduards Cauna: When we look at the entry at AkadTerm, it is evident that the definition corresponds to the explanation provided by Chat GPT, including those other aspects of «maintainability» and «reliability».
We see [Picture 1] that the term has two definitions: one is more focused on the «qualitative» aspect, and the other on the «quantitative» aspect.
When we asked Chat GPT to clarify it, it was evident that the quantity can have both aspects: measurable and nonmeasurable. All these aspects and combinations can be expressed in numbers and can be measured in numbers.
I am sure «paļāvībvērts» could express both a characteristic feature and a mathematically measurable quantity.
Jānis Cīrulis: That's what we're wondering about at the moment. But it is underlined that there is nothing quantitative. Well, some have, some don't have.
See, there is also the explanation that this measures «trustworthiness».
Eduards Cauna: I already asked this question to the ChatGPT and the answer is: ..depending on the context! [Picture 4]
Juris Borzovs: That is right.
Eduards Cauna: This is the conclusion about using the term «dependability» in different contexts. Well, it is evident that the Latvian term «paļāvībvērts» has more and more pros, not cons.
It is consistent with the detailed explanation of the concept.
Jānis Cīrulis: Yes, because it's «vērts paļauties» (worth reliaing on), that's the right word. [Picture 5]
Eduards Cauna: Colleagues, any comments?
Iveta Keiša: I'm not sure that's how the compound will be constructed. If we backtranslate «paļaujamība» to English, what do we find in AkadTerm? What have we decided a long time ago? [Picture 6]
Juris Borzovs: Yes, you are right; still, it is seldom used.
Iveta Keiša: I would like to see it but with the verb expressed in the infinitive.
Juris Borzovs: Excellent. With this word, we can create a new grammatical form.
Iveta Keiša: Yes, we should. I am sure this will be a grammatically correct compound term in Latvian.
Juris Borzovs: The compound term is the perfect fit. It matches the concept exactly.
Eduards Cauna: «Paļautiesvērtums». Why not? It can even be measured.
Well, congratulations, it sounds like we have a solution.
Dace Šostaka:

Part VI

Then we have decided:
«dependable» - will be ***«paļautiesvērts»***,
«dependability» will be ***«paļautiesvērtums»***. [Picter 7]

End of discussion (14:52)

The selected sources consulted for «dependability» and «dependable»

Picture 1

1. **dependability**
3.1109
dependability
1. trustworthiness of a computer system such that reliance can be justifiably placed on the service it delivers [IEEE 982.1-2005 IEEE Standard Dictionary of Measures of the Software Aspects of Dependability, 2.2]
2. availability performance and its influencing factors: reliability performance, maintainability performance and maintenance support performance [ISO/IEC 15026-1:2013 Systems and software engineering — Systems and software assurance — Part 1: Concepts and vocabulary, 3.1.4]

Picture 2

1	Dependable system	1	System dependability
2	Dependable computing	2	Software dependability
3	Highly dependable	3	Hardware dependability
4	Dependable software	4	Network dependability
5	Dependable power supply	5	Automotive dependability
6	Dependable performance	6	Engineering dependability
7	Dependable strength	7	Service dependability
8	Dependable technology	8	Product dependability
9	Dependable transportation	9	Reliability and dependability
10	Dependable workforce	10	Operational dependability
11	Dependable hardware	11	Infrastructure dependability
12	Dependable resources	12	Environmental dependability
13	Dependable security	13	Mechanical dependability
14	Dependable revenue stream	14	Economic dependability
15	Dependable communication	15	Financial dependability

Picture 3

Certainly! Below is a table that contrasts "dependability" and "reliability":

Aspect	Dependability	Reliability
Definition	A broad term referring to the ability of a system to operate without failure over a specific period of time and in specific environments, and encompasses several attributes including reliability, availability, safety, and security.	More specific, referring to the probability that a system will perform its intended function without failure over a specific period of time under stated conditions.
Scope	Comprehensive, encompassing various attributes related to the trustworthy operation of a system (such as reliability, availability, security, and safety).	Narrower, primarily focused on consistent performance and the prevention of failure.
Components	Includes reliability as one of its components but also considers other aspects like	Is itself a componer dependability and c

Regenerate

Picture 4

Is dependability a quantitative, measurable?

Dependability can be both qualitative and quantitative, depending on the context in which it's analyzed. In various domains, especially in engineering and computing, dependability is often measured quantitatively using various metrics and models. In other contexts, like assessing an individual's dependability in a social or workplace setting, it might be evaluated more qualitatively.

Translate into: Latvian

Uzticamība var būt gan kvalitatīva, gan kvantitatīva atkarībā no konteksta, kurā tā tiek analizēta. Dažādās jomās, īpaši inženierzinātnēs un skaitļošanas tehnikā, uzticamību bieži mēra kvantitatīvi, izmantojot dažādas metrikas un modeļus. Citos kontekstos, piemēram, novērtējot indivīda uzticamību sociālajā vai darba vidē, to var vērtēt vairāk kvalitatīvā.

Regenerate

Picture 5

vērtums
vērtums

1. jomā informātika Pārraidīto ziņojumu informatīvā daļa, kurā nav ietverta ne ziņojuma sākuma daļa — vadības informācija, piemēram, ziņas par datus pārraidošo un uzņemošo stacija. Ziņojumu tipu un tā prioritātes līmeni, ne arī ziņojuma nosūtīšanu ar identifikācijas vai vadības informāciju, kas atrodas datnes vai ziņojuma beigās.
2. ierunvalodā Nozīmība nozīme Vērtība

Avots: Tēzs, DIA

Korpusa piemēri

Picture 6

Akadēmiskā terminu datubāze *AkadTerm*

Meklēt Palīdzība

Pēc meklēt: **paļaujamība**

Atrasts a termins

- **paļaujamība**

dependability
paļaujamība

Definīcija: Īpašību kopums, ko izmanto, lai aprakstītu izmantotājamību un to ietekmējošos faktorus: uzticamību, uzturamību un uzturētspēju.; Piezīme. termins 'paļaujamība' tiek izmantots tikai vispārīgos aprakstos, nelietojot kvantitatīvu terminu.

LZA TK ITTEA termiņu datubāze

Picture 7

1.	**dependability** 3.1.109 dependability **1.** trustworthiness of a computer system such that reliance can be justifiably placed on the service it delivers [IEEE 982.1-2005 IEEE Standard Dictionary of Measures of the Software Aspects of Dependability, 2.2] **2.** availability performance and its influencing factors: reliability performance, maintainability performance and maintenance support performance [ISO/IEC 15026-1:2013 Systems and software assurance — Part 1: Concepts and vocabulary, 3.1.4]	paļautiesvērtums
2.	**dependable**	paļautiesvērts

Automating the process…

..IS it possible?

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..WHICH parts?

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..HOW?

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..any ideas? You are welcome to write them **here. (↑)**

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Part I
Term in English: «dependability» «dependable»

→

PART II
Term in English: providing the context

→

PART III
Understanding the concept of the term: in English and Latvian

→

PART IV
The concept is defined: selecting the Latvian words reflecting it

→

PART V
Selected Latvian words: specifying the meaning and choosing a word as a term; and/or creating a new word

→

PART VI
Term in Latvian: «paļautiesvērtums» «paļautiesvērts»