## RISK-ASSESSMENT FOR STYLISTIC PROBLEMS IN WRITING AND TRANSLATING TECHNICAL TEXTS

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### Abstract

In adjusting the terminology and methodology of risk-assessment to linguistic studies, we propose the identification of the hazards implied by the excessive usage of technical jargon, before we take a decision on how and to whom it may cause harm. Jargon represents the technical or secret vocabulary used by specialists belonging to a particular field of activity (science, art, literature, technology, etc.) and it may have an unintelligible character for non-specialists. Our choice of instruction manuals for household or electronic devices as potential hazards to users is motivated by personal observations on the faulty style of Romanian versions of instructions originally written in English. Bringing them up not only to technical, but also to stylistic standards, which implies a clear, concise and accessible style, would result in their fulfilling their practical purpose more effectively.

The next step in our research involves evaluating specific risks and proposing some precaution measures. Technical specialists consider that coping with formality scales in technical writing represents a very challenging experience. Based on style manuals and specialist-oriented guidelines for good technical writing, we intend to assess the risks of adopting either an ultraformal and very stiff style or idiomatic and informal forms of expression, deemed as being unprofessional.

**Key words:** risk-assessment, technical writing, jargon, technical translation, instruction manuals

### 1.Introduction

The conceptual framework of our paper is built on risk-related concepts. In addition to its focal point, "risk", understood as "a probability or threat of damage, injury, liability, loss, or any other negative occurrence that is caused by external or internal vulnerabilities <sup>17</sup>, our research gives prominence to "hazard", generally defined as anything that may cause harm.

The transdisciplinary character of these related terms is proven by their capacity to widely circulate fom one domain to another with little or no adaptation. Thus, the term "risk-assessment" equally belongs to business speak and technical jargon, being defined as a five-stage process (illustrated in Figure 1) along which we perform the "identification, evaluation, and estimation of the levels of risks involved in a situation, their comparison against standards and the determination of an acceptable level of risk." <sup>18</sup>



Figure 1. Steps involved in risk-assessment

In order to complete this process of evaluation in our field of investigation, it is not enough to identify and analyse hazards. An indispensable step is represented by proposing and taking "risk mitigation measures, which are "specific measures taken by an organization to minimize or eliminate unacceptable risks associated with its operations. They are directed towards reducing the severity of risk consequences, the probability of the risk materializing and the exposure to the risk." <sup>19</sup>

In our attempt at transferring these concepts to the field of language studies, we intend to perform risk-assessment for technical writing and

<sup>&</sup>lt;sup>17</sup> www.businessdictionary.com/definition/risk.html.

<sup>&</sup>lt;sup>18</sup>http://www.businessdictionary.com/definition/risk-assessment.html#ixzz33Z[4H7f0.

<sup>&</sup>lt;sup>19</sup> http://www.investorwords.com/19332/risk\_mitigation.html#ixzz33adLNqGE.

technical translation, with a view to making recommendations on improving the quality and style of the texts produced as a result of the two processes.

### 2.Risk-assessment in technical writing

As a preliminary stage, we need to grasp the complexity of technical communication, given that it includes any form of communication "about technical or specialized topics, such as computer applications, medical procedures, or environmental regulations, by using technology, such as web pages, help files, or social media sites and through instructions about how to do something." The difficulties in evaluating the types of potential hazards related to these forms of communication mainly arise from the fact that the message consisting of technical documents is not produced only by technical writers, but also by anyone who works in a professional setting. The best known forms consist of:

- Instructions and procedures, which are "documents that help either developers or end users operate or configure a device or program." <sup>21</sup> The best known types of instructional documents comprise user manuals and troubleshooting guides.
- Specifications, under the form of "design outlines that describe the structure, parts, packaging, and delivery of an object or process in enough detail that another party can reconstruct it."<sup>22</sup>
- Descriptions, shorter explanations of procedures and processes that help readers understand how something works.<sup>23</sup>
- Technical reports providing readers with "information, instructions, and analysis on tasks, such as the findings into air pollution produced by a company in an evaluation report."<sup>24</sup>

Technical writing covers many writing styles depending on the information provided and its audience. Effective technical stylists are recommended to respect some key governing conventions. Writing style

<sup>21</sup> Tebeaux, Elizabeth and Dragga, Sam. *The Essentials of Technical Communication*. Oxford University Press, 2010, p. 226.

http://www.stc.org/about-stc/the-profession-all-about-technical-communication/defining-tc.

<sup>&</sup>lt;sup>22</sup> Perelman, Lesile C.; Barrett, Edward; Paradis James, "Specifications", in *The Mayfield Handbook of Technical & Scientific Writing*. Retrieved May 4, 2014.

<sup>&</sup>lt;sup>23</sup> Markel, Mike, *Technical Communication*, 10th edition, Bedford/St. Martins, 2012, p. 564.

<sup>&</sup>lt;sup>24</sup> Tebeaux, Elizabeth and Dragga, Sam. *The Essentials...op. cit.*, pp.171.

guides recommend that we consider some "suggestions and cautionary hints", in order to respect the standards of a satisfactory style.

Feature	Feature-underlying elements	
plainness	using figures of speech sparingly and avoiding overwriting as rich, ornate	
	prose, which is deemed as "unwholesome" and even "nauseating"	
simplicity	avoiding fancy words and too elaborate constructions	
orderliness	using canonical syntactic patterns and respecting word order	
clarity	obtained in avoiding elliptical "shortcuts", abbreviations and using	
	"orthodox" spelling	
modesty	avoiding adopting a "breezy style" which is the work of a person who	
	imagines that knows it all and everything that comes to mind is of general	
	interest	

Figure 2. Standards of satisfactory style<sup>25</sup>

Therefore, irrespective of the language in which a scientific or technical text is written, it is expected to display technical accuracy, objectiveness, clarity, precision, exactness, organisation (sentences broken into shorter sections), conciseness and logical coherence as well as consistency. In narrowing reference to technical style, we collected a set of stylistic features<sup>26</sup> that are relevant to texts belonging to this domain.

- a. conventionality of expression (definite compositional patterns, usage of conventional formulae, dependence of all statements on the main part of the utterance). The most noticeable feature of grammar is the set compositional pattern given by stereotyped forms.
- b. a higher degree of abstractization ensured by a considerable number of abstract nouns denoting concepts, largely derived from Latin and Greek:
- c. a higher degree of specialization of terms. Some jargon terms may be borrowed from ordinary language, but are given a new meaning.
- d. absence of any emotiveness (the words are used with their dictionary meaning and with no emotive meaning). The impersonal and objective character is revealed in the frequent use of passive constructions and impersonal sentences.

<sup>&</sup>lt;sup>25</sup> Strunk, W. and White, E.B., *The Elements of Style*, MacMillan Publishing Co., 1959, p. 72.

<sup>&</sup>lt;sup>26</sup> Morărașu, Nadia Nicoleta, *The Stylistic Identity of English Literary Texts*, Ed. Alma Mater, 2014.

- e. the encoded character of abbreviations, acronym, conventional symbols and contractions;
- f. variety of syntactic arrangement (depending on substyle). The parallel arrangement of sentences contributes to emphasizing certain points in the utterance.

It follows that style and its degree of formality and professionalism can be determined by the writer's choices, which are, in turn, influenced by specific constraints. Ignoring such constraints implies assuming risks on the part of the writer.

Risks assumed by writers	Impact/consequence
Purpose-related risks	determine the major rhetorical mode of a given piece of writing
Audience-related risks  expressing personal feelings and personification	raise complaints about not adjusting to the level of specialization of the targeted audience the appearance of uncertainty, especially when applied to quantities or conclusions
Linguistic risks	
using contractions	is deemed as sloppy and unprofessional
using dangling modifiers	when modifiers dangle at the beginning of a sentence, the result is an obtuse, unclear and inelegant sentence
splitting infinitives	is perceived as indicating unacceptable or sloppy style
ending sentences with prepositions	leaves the reader with the feeling that the sentence has ended weakly
gender-neutral language	the text becomes hard to read and inefficient
jargon usage	enhances the distorted perception on jargon being - unclear, unintelligible or meaningless talk or writing; - a kind of speech abounding in uncommon or unfamiliar words; - language vague in meaning and long high-sounding words; - pretentious or unnecessarily obscure terminology.
Risks related to legality or discretion	breach of contract, defamation
Risks related to logical coherence	the texts risk becoming incomprehensible

Figure 3. Risks related to writers' choices

Given the varied nature of the risks taken by writers, specialists recommend the following mitigations:

a. Using modified formal style, which is less stiff than formal style and flows more easily, especially in speech, due to a greater number of plain English words; the use of phrasal as well as single verbs; a

preference for the active voice – for people doing things rather than for action expressed by abstract nouns; the frequent omission of *that* at the head of dependent clauses.

- b. Considering audience and context to decide on how much jargon is appropriate. The result of using scientific jargon only when this is the standard would be that receivers accept that jargon represents "the technical terminology of specialists in a particular activity or area of knowledge". It is indispensable for effective technical communication as long as every trade, profession, or group that deals with information must use appropriate, informative words.
- c. Designing scientific popularization materials which target a larger audience/the large mass of end-users. A perfect example of this kind *is presented by the For Dummies* series, recommended as "a personal or professional friend who's not only informative and reliable, but also downright fun". Originally providing an alternative to dull and incomprehensible computer manuals, it has become very popular due to their being insightful and educational and making difficult material interesting, entertaining and easy.

#### 3. Risk-assessment for technical translation

The second part of our paper focuses on evaluating the hazards of technical translation, seen as both a communication process (in which failure may intervene in communication between professional and translator, or even misinterpretation) and a professional service (provided by a translator who should comply with some international standards regarded as a framework for effective management by the manufacturer in what concerns the risks associated with the use of technical devices).

Technical translations are often contracted by manufacturers and distributors who want to be covered for liability and claims for compensation. The translator must "provide the translation in accordance with the skills, practices and customs appropriate to the profession generally and appropriate to the ordinary skills and capacity normally possessed by a practitioner."

<sup>&</sup>lt;sup>27</sup> Morăraşu, Nadia Nicoleta, *Registers and Styles of English Language*, Ed. Alma Mater, 2014.

<sup>&</sup>lt;sup>28</sup> Mowat, Mary, *Legal Liability for Information* Provision, ASLIB, London, 1998, p. 27.

When considering the risks met by translators (especially freelance translators), we may identify:

Types of risks	Characteristics and examples	Risk-mitigation measures
Traps in translation contracts	unfair contracts for translators/interpreters	considering the terms of the contract carefully, so as to avoid influencing the quality of the work performed and the degree of potential liability for the professional who does the translation.
Financial risks	non-payment on the part of the end client	asking, if possible, for payment in advance or penalties if payment is not made in due time after the translation is delivered
Legal risks	the translator may be asked to carry one's own professional liability or errors and omissions insurance, in case one of the clients is sued because of an error in the translation	signing a non-disclosure agreement

Figure 4. Risks related to translators

Besides these risks faced by translators themselves, the translated versions also risk faulty or inappropriate technical product documentation: "...operating instructions for technical consumer goods are frequently perceived as inadequate both because they are unclear and because they present language difficulties as a result of faulty translations" (Council of the European Union 1998:1). As mitigation for such situations, European legislation specifies that a technical product is only complete when accompanied by an operating manual. More specifically, according to the provisions of EU Resolution C411, technical product documentation must be translated into the language of the country in which it is to be sold; it should also be clear, accurate, easily comprehensible and tailored to the specific needs of the intended audience in order to use the product correctly and safely.

National contract laws also require manufacturers to provide translations of instructions. Thus, Romanian law, in Art. 20 (5) of O.G. no. 21/1992 concerning consumer protection, stipulates that all information and instructions addressed to consumers on the territory of our country should be written in Romanian, irrespective of their country of origin: "Toate informațiile privitoare la produsele și serviciile oferite consumatorilor, documentele însoțitoare, inclusiv cele referitoare la informațiile privind securitatea produsului și instrucțiunile de utilizare, precum și contractele, inclusiv cele preformulate, trebuie să fie scrise în limba română, indiferent

de țara de origine a acestora, fără a exclude prezentarea acestora și în alte limbi."

Many user guides for electronic consumer goods that we have checked are defective in one way or another. In many cases, their translations are the inaccurate result of machine translation tools or are simply the sloppy work of person who is neither a professional in the field nor a technical translator.

The incorrect usage of Romanian language causes meaning distortion, another serious issue when instructions are provided for highly sensitive users such as infants, disabled or sick persons. For example, the translation of an infant dummy thermometer indicates: "fine fi într-o soluție de alcool într-o secundă pentru sterilizare". In this context, the replacement of the prepositions pentru or timp de with intr-o denaturates the meaning. An even more widespread phenomenon is the excessive usage of anglicisms, even when there is an indigenous term currently used. The two images below belong to a stem harvesting kit where the text is translated into Romanian, apart from made in (instead of "fabricat în") and barcode (cod de bare).





Figure 5 Figure 6

To the purpose of proving the impact of such faulty translations even more clearly, we conducted a case study on a user guide translated into Romanian. Among the style-related problems that we have identified in analyzing a user manual of an MP5 player, we could list at the lexical level:

- Inconsistent naming of the product make (MP5 or MP4?), which raises questions on the expertise of the author/s of this informative material.
- Usage of anglicisms, sometimes in spite of the existence of Romanian equivalents in currrent use.

E.g. Când downloadati ....salvati fisierele...

**Download-ul si upload-ul** se pot traduce ca fiind operatiunile de copiere si plasare a documentelor pe modulul de memorie"

### un back up de sigurantă

At the grammatical level, there are several inconsistencies, starting with the inaccurate usage of tense and voice as in Sa intelegeti cum se operează acest player or Nu opera aparatul pana ce nu a fost citit cardul and Aparatul nu a fost operat timp de 3 minute, bacteria este uzata in orice stadiu. The verb "a opera" [operate] is used incorrectly in the active, reflexive and passive voice, which leads to a change in meaning. Moreover, the inconsistent usage of alternating persons in verb forms (second person singular and plural of the imperative verbs in the same sentence) can lead to faulty style and contravenes the conventions of scientific style. E.g. Poti utiliza aceasta functie in orice meniu si in orice mod. Pentru a debloca tastatura, readuceti butonul HOLD in starea initiala.

Typographic errors can also impede on users' understanding the text.

Alte discutii pe tema aceasta nu vor mai fi detaiate aici.

Acest aparat are un ecarn LCD.

We can also notice the faulty preposition usage and confusion between *datorită* (due to) and *din cauza* (because of), the first used to refer to a positive situation, the latter to an infelicitous one.

...pentru a evita distrugerea cardului datorita curentului electric care circula prin el In cazul in care sistemul prezinta situatii neobisnuite datorita manevrarii gresite sau a altor situatii...

Apart from incorrect language use, a text with defective prepositions lacks conciseness and becomes more difficult to understand: e.g. *Oprirea este precedata logo-ului de oprire*. The semi-adverb *și* is excessively used in situations in which its presence is superfluous: e.g. *Alegi cardul de memorie ca si mediu de stocare*. Split structures lead to prolix expression as in *Poti face sute de fotografii digitale, daca capacitatea memoriei este corespunzatoare, care vor fi salvate pe mediul de stocare*.

At graphic and graphological levels, we could notice missing punctuation marks (e.g. *In general liniile galbene sunt pentru video iar cele rosii sunt pentru audio.*) and the absence of Romanian diacritics, which leads to serious errors and failure to understand the text or hilarious interpretations (e.g. *Interfata meniului principal*. *In urmatoarele imagini sunt prezentate tipuri de interfete* ale meniului principal).

Under such circumstances, the problem that we face is to discriminate between accurate and faulty translations. Specialists in translation studies proposed different methods for determining what makes an adequate or appropriate translation. We prefer to assess the risks related to translation quality, that is, not meeting the standards and goals proposed and their consequences.

Risks related to translation quality	Consequences
substandard translations poor translations	questioning the professionalism and trust-worthiness of a translator breaching of duty of care to the client
inaccurate or incomplete translations	potentially embarrassing for clients prejudice to reputation
translation errors	financially costly or even dangerous
apparent inconsistency of meaning factual inaccuracies in the text	grounds for complaints, litigation which can result in significant costs to a company
challenges with regard to selecting appropriate terms when translating texts	
stylistic infelicities	
misinterpretations	

Figure 7. Risks related to translation quality

To the purpose of overcoming such risks, Cismas (2010) proposed a very comprehensive set of measures for risk mitigation in scientific translations. We have further systematised them in Figure 8 and adapted them to technical translations.

Types of risks	Characteristics and examples	Risk-mitigation measures
Project management risks	are directly related to the professional resource, the translator who provides the specified service. The main hazard in resource risk management is the ability and reliability of the translators providing the services.	<ul> <li>completing the final linguistic inspection followed by a prior to delivery, so as to ensure that the deliverable product conforms to all project and process requirements.</li> <li>performing a last spot check for critical areas and special risk items, such as non-compliance with client/project instructions and high-risk linguistic and formatting elements.</li> </ul>
Administrative hazards	impact on translation quality leading to translation errors (errors such as file mix-ups; insufficient/incorrect project specification; communications errors)	<ul> <li>reviewing full source text in projects with relatively-high risk content and/or involving translation of a single source text into multiple target texts;</li> <li>reviewing risk management files confirming that all pre-conceived project risks have been effectively addressed and mitigated</li> </ul>

Formatting hazards	inconsistencies from the document resulting in truncated or missing text segments, untranslated parts, missing or inconsistent characters, alignment, indenting, incorrect numerals or units, misspelled words, wrong or misplaced graphics, incorrect/inconsistent capitalization, incorrect or inconsistent cross-referencing (table of contents, index); inconsistent spacing and/or punctuation.	<ul> <li>minimizing risky manual text manipulation (copy/paste, typing, heavy reformatting)</li> <li>using dedicated checks and customized proofreading process/checklists for high-risk items</li> <li>ensuring proper text segmentation through optimized document structure and text formatting process steps</li> <li>standardizing for identical treatment of text elements (numbers, units, conversions, proper names), in translation into different target languages.</li> <li>compiling a list of errors and inconsistencies from the document</li> <li>checking file formats to detect lack of adequate spell-check and hyphenation or special character support.</li> </ul>
Linguistic hazards	include those items in a source document that, if mistranslated, pose a safety risk to consumers	- identifying high-risk information and linguistic hazards; - managing cross-language hazards; - paraphrasing, referencing, or providing additional explanations; - focusing on effective rendering of coined terms and jargon of the English source; - back-editing/proofreading performed by a linguist whose native language is the original source language
Translation hazards	are potentially embarrassing for the client; the translations represent the company and any flaws, mistakes or imperfections reflect badly upon the company	- providing guidelines for mitigation of such hazards prior to the formal translation - preventing serious translation errors with disastrous and potentially fatal consequences identifying and resolving textual ambiguities and lack of clarity in the source document prior to translation - ensuring semantic accuracy and completeness of translated content

Figure 8. Risk mitigation measures for technical translations

#### 4.Conclusions

Understanding the language usage implications as well as the challenges and risks of a technical text is a demanding and refined task. To produce a technical text or a translated version of it as true as possible to the original version, all the relevant resources need to be used for this activity: relevant literature/studies, previous versions or patterns for related documents, samples of adequate style, the latest updated print dictionaries, computer-based dictionaries and internet sources.

The process of risk-assessment of stylistic problems in technical writing and translation, in our case, may be considered incomplete, as long as our findings may lead to recommendations and not necessarily to their implementation. This is the reason why, in a follow-up to this study, we intend to review our assessment and make amendments to it, depending on

the changes in the writing styles of engineering students who are taking courses in technical English.

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