Elena CHIOCCHETTI
EURAC RESEARCH, Bolzano

Bridging the Knowledge Asymmetry between Experts and Laypeople. Translators as Bridge-Builders

Hermeneutics, Specialized Communication, and Translation

Miriam P. Leibbrand,
Tinka Reichmann,
Ursula Wienen
[eds.]

4/2024

Yearbook of Translational Hermeneutics
Jahrbuch für Übersetzungshermeneutik

Journal of the Research Center
Zeitschrift des Forschungszentrums

Hermeneutics and Creativity, University of Leipzig
Hermeneutik und Kreativität, Universität Leipzig

DOI: 10.52116/yth.vi1.88

Cite this article:
Chiocchetti, Elena (2024): „Bridging the Knowledge Asymmetry between Experts and Laypeople. Translators as Bridge-Builders". In: *Yearbook of Translational Hermeneutics* 4: *Hermeneutics, Specialized Communication, and Translation* (ed. by Miriam P. Leibbrand, Tinka Reichmann, Ursula Wienen), pp. 81–118.
DOI: <10.52116/yth.vi1.88>.

Yearbook of Translational Hermeneutics 4/2024
ISSN: 2748-8160 | DOI: 10.52116/yth.vi1.88

Bridging the Knowledge Asymmetry between Experts and Laypeople. Translators as Bridge-Builders

Elena CHIOCCHETTI
EURAC RESEARCH, Bolzano

Abstract: This paper deals with occupational health and safety, a domain where effective communication between experts and laypeople can contribute to saving lives. Expert-lay communication is hampered by the asymmetric distribution of knowledge between experts and laypeople. Usually, bridging this gap is a task for technical communicators. However, I argue that translators have the necessary professional competences and are often in a good position to support expert-lay communication. They can address all four dimensions identified by Schubert (2007): specialised content, linguistic expression, technical medium and working processes. The key competences are the translators' linguistic, translational and specialised knowledge. Translators are able to understand the source text and the experts' intentions on the one hand, and to anticipate the prior knowledge and expectations of the target audience on the other. This allows them to revise texts produced by experts and fine-tune them to the level of knowledge possessed by the intended audience, both interlingually and intralingually. In this way, the workflow to optimise (multilingual) expert-lay communication expands with respect to the workflow in ISO 17100 (2015). In the era of neural machine translation, knowing how to optimise expert-lay communication is an

inherently human skill and a potentially added-value service offered by translators.

Keywords: Expert-lay communication, Communication optimisation, Translator competences, Workflow.

1 Introduction

The most recent situation that reminded everyone of the importance of reliable, clear and targeted information from experts in a given domain was the COVID-19 pandemic.[1] This paper deals with another domain where effective communication and knowledge-sharing can contribute to saving lives: occupational health and safety (OHS). Information and training on the risks existing in different workplaces in connection with various types of working activities, on the safety measures to be implemented, on each person's rights and duties, etc. is usually delivered by OHS experts to laypeople. There is a knowledge gap between experts and their lay target groups that must be bridged to ensure safe and healthy workplaces for everyone. However, OHS experts often lack training in how to teach specialised content to laypeople. Technical communicators are the professional group usually entrusted with conveying specialist information to laypeople in an understandable and adequate way.

But what happens when technical communicators are not employed to optimise information documents and training material? And what if OHS communication takes place in a multilingual context where training and information must be

1 The present contribution is financed by the Autonomous Province of Bozen/Bolzano – South Tyrol within the project SSL-Laien "Optimising expert-lay communication. Case study: e-learning modules of the Autonomous Province of Bolzano – South Tyrol" awarded via the Programme Agreement for Eurac Research for the period 2022–2024.

provided in at least two languages? This is the situation in South Tyrol, Northern Italy, where technical communication services are generally reserved for other types of expert-lay communication such as technical documentation and user manuals. The official requirements of multilingual communication at the local level cause translators to often be the first language experts who see texts produced by specialists for lay-people. The aim of the present paper is therefore to discuss the potential role of translators in supporting expert-lay communication in a multilingual setting and to describe a workflow that aims at optimising communication in more than one language.

I argue that translators possess the necessary competences to support expert-lay communication due to their professional training and their knowledge in their fields of specialisation. The workflow intended to optimise multilingual expert-lay communication expands with respect to the workflow laid out in ISO 17100 (2015) on *Translation services – Requirements for translation services*. In addition, the support to communication in the contexts of an asymmetric distribution of knowledge can be an important added value offered by humans in an era where machine translation is playing an increasing market role and translators are looking to "expand from translation into a wider selection of multilingual communication services" (Korhonen 2021: 131). Sandrini (2017: 148–149) notes that translation currently tends to become part of a more ample set of services, with translation technologies and specialisation playing a paramount role. Pym/Torres-Simón (2021: 52) equally state that translators "are turning to high-stakes communication activities where their language skills take on new names and may be combined with neighboring skill sets". In this way, translation embraces an increasing number of tasks and may be joined to other activities. Skills that cannot be automated (yet) become more valuable. Translators become professionals

that support the entire communicative process starting, if necessary, from the source text. They are part of the collaborative chain and of the decision-making process rather than being at the end of it (cf. Jemielity/Katan 2021: 15).

Translators can act as bridge-builders between domain experts and laypeople when they take deliberate decisions during the revision or translation of a text in order to optimise the transfer and reception of specialised knowledge outside the realm of expert-to-expert communication. Their action is hermeneutic in that they apply their competences and (specialised) knowledge to the source text to interpret, on the one hand, the communicative intentions of the experts who produced the text and, on the other hand, the needs and prior knowledge of the laypeople who will receive the text (in another language) with the aim of drafting a message that may be understood despite the existing knowledge gap between sender and receiver. The result of this action should not only be effective but also efficient (Schubert 2024: 27; Roelcke 2007: 15) and is ultimately linked to the translator's understanding and deliberate decisions.

The following sections will give an overview of key theoretical concepts and frameworks (see Section 2) and the domain of OHS (see Section 3), with a particular focus on mandatory OHS information and training. Section 4 describes and discusses the workflow tested within a project devoted to optimising expert-lay communication that uses OHS e-learning modules as a case study. The last section (see Section 5) summarises key points.

2 Background

Expert-lay communication is characterised by the asymmetric distribution of knowledge between the two interacting sides of

specialised communication (cf. Engberg et al. 2018: XII; Schubert 2007: 215–216), that is, by a knowledge gap.[2] Experts possess a greater, more detailed and structured amount of specialised knowledge than laypeople. Communication takes place in a context where experts are called to present knowledge to a target audience with a limited specialised background in a way that is accessible to them and in situations that are different from those typical for expert-to-expert communication (cf. Engberg et al. 2018: XII). In the context of training, expert-lay communication aims not only at transferring knowledge but also at enabling laypeople to solve problems and to take informed decisions based on the newly acquired knowledge. It is communication aimed at influencing the behaviour of the audience (cf. Engberg 2017: 120–121). Experts have to select the information they consider relevant for this purpose. Knowing or being able to anticipate the degree of prior knowledge of the lay target audience—which may even need to be rectified—is a key factor. For successful expert-lay communication focused on the lay receiver, it is important that experts are able to adopt the laypeople's perspective and fine-tune the message accordingly. This means that the abstract, compact, encapsulated, contextualised and routinised knowledge of experts needs to be unpacked, made less abstract, more explicit and motivated (cf. Bromme/Jucks 2014: 239–241).

However, "experts are rarely trained in how to convey specialist information to lay[people]" (Askehave/Zethsen 2002: 28; cf. also Chatigny 2021: 8–9). They are not professional text-drafters either (cf. Heidrich 2016: 97; Schmitt 2016: 189). For these reasons, other professional groups—who can more easily put themselves in the position of laypeople and take the role of *Anwalt der Anwender* [advocate for the users] (cf.

2 *Wissensgefälle* in Schubert's (2007: 215 *et passim*) German terminology.

Schubert 2007: 74)—may be involved in expert-lay communication. In such cases, communication between experts and laypeople is mediated through a third person (cf. ibid.: 136; Schubert 2009: 123–124) who reveals the experts' complex professional knowledge to laypeople in order to promote knowledge transfer and informed decision-making (cf. Van Vaerenbergh 2010: 18). Technical communicators are the professional group usually entrusted with conveying specialist information to laypeople in an understandable and adequate way.

Formerly known as technical writers, technical communicators take care of technical communication, namely the "process of defining and creating information for use[3] to be delivered as information products for the safe, effective, and efficient use of a supported product throughout its life cycle" (ISO 24183:2024: Clause 3.1.1). They typically collect information in one or more languages to produce all kinds of texts on specialised topics, very often technical documentation aimed at a specific target group (cf. Göpferich 1998: 1; Schubert 2007: 71–73). Technical communicators know how to effectively employ textual and graphic elements to produce texts with a good overall format and structure that respond to specific information needs. They possess background knowledge in communication, linguistics, didactics, psychology, cognitive science, illustration, information mining and visualisation. At the same time, they are very familiar with the specific subject and relevant legislation (cf. Göpferich 1998: 4–5; Schubert 2007: 83–89). Detailed information on competencies and skills required for technical communication can be found in Tekom's Competence Framework for Technical Communication (cf. Tekom 2015a) which was further developed within the Academic Competence Framework for Technical Com-

3 Also termed "information for users" (ISO/IEC/IEEE 26515:2018).

munication (cf. Cleary et al. 2017: 9–11). Technical communicators should have or develop skills and competencies related, among other things, to communication, interculturality, terminology, information mining, project management, quality management, specialised knowledge, language skills and personal competencies. They need to know the culture-specific aspects of their target groups, handle different types of media, do terminology work, use language technologies, ensure the quality of their products, collect feedback, etc. (cf. ibid.; Tekom 2015b).

A comparison with competence frameworks related to translation (EMT 2022; Hurtado Albir 2017; ISO 17100:2015: Clause 3.1.3) reveals a notable amount of overlap. The profile descriptions and the activities of technical communicators and translators have long been noted to converge in several aspects (cf. Göpferich 1998: 5–6; Heidrich/Schubert 2019: 61; Risku 2016: 123–133). Both professions require similar competencies but their prototypical work situations and assignments are at the two ends of a continuum. Translators always work with a source text and at least two languages, while this is not normally the case for technical communicators. Technical communicators regularly mine for information and adapt contents to a specific target group (often laypeople), while this is generally not part of translation assignments (cf. Schubert 2007: 103). Both mediate between senders and receivers of a message, usually adopting the readers' perspective, but technical communicators generally play a more active role in structuring and editing content than translators do (cf. Risku 2016: 126). Such an active role is often not expected from translators (cf. ibid.: 133) and translators themselves do not consider it part of their job (cf. Schmitt 2016: 337). However, according to Rega (2004: 99), they should be allowed to make amendments—not only in the target text but also in the source text—in order to

better cater for the needs of the audience. In addition, translating evident mistakes and not correcting them—or at least pointing them out—in the source text would be detrimental to the perceived competence of the translator (cf. Schmitt 2016: 337–340). Heidrich (2016: 84–85) cites Byrne (2006) who states that translating also consists in adding, removing or changing information with a view to making communication in the target language efficient, deeming the specialised translator as an intercultural or cross-cultural technical communicator. Scarpa (2020: 239) also thinks that the translator should have the liberty of spelling out missing information and supplying target text readers with what they need to make sense of a text. It has been suggested, moreover, that the professional profiles of the translator and technical communicator may be close enough to be merged and that the two groups should in any case have a mutual interest in cooperating more strongly (cf. Cleary et al. 2017: 12; Schubert 2007: 12 for an overview). They can both be considered "text designers" (Holz-Mänttäri 1993: 306). Technical communication and specialised translation are thus strongly related activities. Both fall under the umbrella of specialised communication (cf. Heidrich/Schubert 2019: 57; Schubert 2007: 137), with specialised translation being considered an instance of interlingual technical communication (cf. Göpferich 1998: 3).

The European Master's in Translation (EMT) competence model is a leading reference standard for translator training throughout the European Union (EMT 2022: 2). It defines five main areas of competence for translators: language and culture, translation, technology, personal and interpersonal as well as service provision. The first area relates to using the appropriate language and identifying cultural elements and references in the written (or oral) source text. For example, translators should be able to recognise cultural aspects (including pre-

suppositions, allusions and stereotypes) and write in accordance with cultural conventions, genre conventions and rhetorical standards (EMT 2022: 6). The second area concerns the ability to transfer meaning and applies not only to interlingual but also to intralingual contexts. Being able to make strategic decisions such as choosing between a foreignising or domesticating approach are part of this core area of competence. The third area covers the use of software and tools for translation, project management, quality assurance and other activities. The fourth area includes generic soft skills, such as time and stress management, teamwork and lifelong learning. The last area centres on dealing with clients, budgets, ethical issues and networking.

In addition to overlaps at the higher level, some of the skills listed under the second area of competence in respect of translation evidently correspond to the typical skills required for technical communication as well: a) being able to summarise, rephrase, restructure and shorten a message and to adapt it to market needs; b) carrying out research to evaluate the relevance and reliability of information sources; c) knowing how to acquire thematic and domain-specific knowledge; d) being able to produce a "fit for purpose" translation; e) knowing how to translate for different kinds of target audiences and draft texts for specific purposes taking into account specific situations, recipients and constraints (EMT 2022: 8). All these skills have proven useful and relevant for the project on the optimisation of expert-lay communication within OHS described in Section 3. In many professional contexts and companies, however, the process of technical communication and translation tend to be separated from each other (Cleary et al. 2017: 13). Nonetheless, in multilingual contexts, translators are often the first readers of a text written by experts (Rega 2004: 99). They have an external and generally more objective, un-

biased view on the text. Seeing that they possess the necessary competencies to do so, they can take over the task of supporting and optimising expert-lay communication.

Optimising (specialised) communication is a "deliberate intervention with the aim of achieving some kind of improvement in the communicative act or in the means of communication"[4] (Schubert 2009: 109). When focused on text and text types, it is also called "text optimisation" (cf. Antos et al. 2011: 640) and can be considered an instance of "intralingual translation" (cf. Göpferich 2009: 41). All interventions are purposeful and intentional and they aim to overcome communication barriers (Schubert/Heidrich 2017: 115). According to Schubert (2007: 248), four relevant dimensions can be worked on in order to achieve optimisation: specialised content, linguistic expression, technical medium (i.e. file formats, the typographic appearance and structure of the text) and working processes (i.e. work organisation and cooperation around text production). For example, when optimisation aims at targeting a text to a specific audience, the dimension of content is addressed by selecting and structuring information, the dimension of linguistic expression by adjusting readability, the dimension of the technical medium by checking the functionality of an electronic text (cf. Schubert 2009: 131).

Working on the dimension of content requires other competencies than working on the dimension of language. Lutz (2015: 57–59) distinguishes between the surface level of linguistic complicatedness (*Kompliziertheit*) and the level of content-related complexity (*Komplexität*) even though they cannot be considered completely independent from each other. A simple task can be explained in convoluted and obscure lan-

4 Original English definition given by Schubert (2009: 109) in the abstract of his German paper.

guage thus making it difficult to understand. In this case, changing the linguistic surface will be a great step towards making it more understandable to laypeople. However, complex contents will remain complex even if expressed in plain language due to their intrinsic conceptual structure. Translators generally possess the language competences to work on the textual surface, for example by simplifying sentence structures, choosing simpler words, making terminology consistent and inserting subtitles to guide readers within a text. To be able to address content-related issues as well, translators need sound domain-related competences. By taking the role of the lay audience on the one hand (knowing their expectations and anticipating their prior knowledge) and understanding the experts on the other hand (identifying the intended purpose and message), they can determine how complexity may be reduced effectively for the intended targets, for example by eliminating, adding, making explicit or explaining information. It is a double interpretative effort of reconstructing what the expert(s) say(s) but also intended to say and what the lay audience is likely to know, need and expect. Knowledge asymmetries and potential communication problems can be identified based on cultural knowledge, specialised knowledge, domain experience, information mining and also intuition. When the translators' domain competences are not sufficient to work independently to reduce complexity, their interpersonal and service provision skills allow them to interact and cooperate with experts to achieve the intended optimisation goal (cf. Lutz 2015: 61).

There are several challenges to be considered when trying to optimise expert-lay communication. The adequateness of a text is not an intrinsic and objective aspect since it depends on external factors such as the communicative goal, the target audience, the context and communication medium. It can hardly

be quantified in numbers and ultimately results from the interplay of all four factors. Time, space, reader expectations and prior knowledge influence the possibilities of optimisation (cf. Antos et al. 2011: 641–642). Accurately identifying the target readership, in particular, is likely to lead to an effective result (cf. Lindström 2021: 3). Optimisation is a multi-dimensional problem-solving task that cannot be mastered by simply applying some mechanical rules (e.g. use simple words, write short sentences), as we have seen. It is a dynamic and recursive process of text production, restructuring and evaluation that depends on an enhanced awareness of all relevant external factors and the result should be assessed against them (cf. Antos et al. 2011: 647–648).

Göpferich (2009) proposes a framework for text evaluation that is applicable to the optimisation of expert-lay communication. The first factor to be considered is the communicative function of a text, and that is determined by its purpose (e.g. to convey basic OHS principles, share safety measures with the staff, etc.), the target group (e.g. laypeople) and the sender (e.g. a public institution or a private company). The optimised version of a text is intended to be better than the original with respect to fulfilling a specific communicative function. Within the framework, the guiding features for text production—and optimisation—are the mental convention model (e.g. expectations regarding the elements and structure of an e-learning module), the medium (e.g. multimedia online course), any applicable requirements (e.g. legal requirements) and, most importantly, the mental denotation model. The latter is "the mental picture or movie of the objects, processes, events, etc. which must appear before the mind's eye during text reception, if the text fulfils its communicative function" (Göpferich 2009: 36). A text can aim at conveying a simple or more complex picture according to the purpose of the entire

text or of a specific part (e.g. mention an example in passing, enable users to steer a machine safely). Finally, the framework includes six dimensions of comprehensibility: concision, correctness, motivation, structure, simplicity and perceptibility.

- Concision refers both to content and to language: the minimum of information that is absolutely necessary for the text to fulfil its function should be presented with the minimum number of elements (e.g. words, illustrations). Further details may be superfluous and increase the text reception effort.
- Correctness applies not only to content and language but also to the mental denotation model (e.g. correct assumptions about the prior knowledge of the target audience).
- Motivation relates to attracting and keeping the reader's attention (e.g. by giving real-life examples).
- Structure concerns how content is broken down into its constituents and the sequence in which they are presented, including their logical relation to each other.
- Simplicity refers only to the encoding of the text (e.g. adequate word choice and syntax).
- Perceptibility is based on layout and design characteristics, including nonverbal elements.

Sometimes two or more dimensions can be in contrast to each other. For example, inserting an example to enhance motivation makes the text longer, thus reducing concision. By considering which is more important with a view to reaching the intended communicative function, priority must be given to one of the conflicting dimensions.

3 Occupational health and safety

Occupational health and safety, also called "workplace safety" is a branch of medicine as well as a subdomain of (labour) law. It "deals with all aspects of health and safety in the workplace and has a strong focus on primary prevention of hazards" (WHO 2023). According to a joint statement by the International Labour Organization and the Word Health Organization, OHS aims to promote and maintain the highest degree of physical, mental and social well-being of workers in all occupations by preventing health damages caused by working conditions, by protecting workers from risks and by adapting the working environment to their physiological and psychological capabilities (cf. Alli [2]2008: 22).

Employers are responsible for OHS in that they must take all measures to protect their employees, including the provision of adequate information and training. At the same time, employees are made increasingly co-responsible for their own and their colleagues' health and safety (cf. Natullo 2015: 31–32). In 2020, the number of accidents in the European Union that resulted in at least four calendar days of absence from work amounted to 2.7 million. More than 3,300 were fatal accidents (cf. Eurostat 2022). Despite the decrease with respect to the previous year, the number of workplace accidents remains alarmingly high. OHS training plays a key role in disseminating a safety culture and in enabling employees to actively contribute to preventing possible issues (cf. Solombrino 2017: 71). This implies that the content of training must be clear, understandable, appropriate and tailored to specific risks, work environments and work activities.

OHS training is generally delivered by experts to laypeople, occasionally to semi-experts. For example, generic training on chemical risks and fire safety in a pharmaceutical company

will be delivered both to administrative staff, who might not have any prior knowledge in chemistry and fire management, and to chemists working in the laboratories, who might be already familiar with important notions. Successful OHS training must deal with the asymmetric distribution of specialised knowledge between those who deliver the training and those who receive it.

Basic OHS training is mandatory for workers with all types of contracts, including interns, and for vocational students. According to the specific role (e.g. managers), work activity (e.g. work at height, with machines etc.) and working environments (e.g. outdoor work, work in confined spaces) more specific training will be required as well. In addition, the increasing free movement of workers across countries requires OHS texts to be understood also by people who might not be fully proficient speakers of a given national language. Hence, a further challenge of OHS training concerns the potentially wide range of target users with diverse levels of education and language proficiency.

In the last decades, training has increasingly been delivered as distance learning and through e-learning modules. Asynchronous communication during e-learning calls for great attention to how information is presented, making sure that it is clear, understandable and complete, given that there are limited possibilities of immediately clarifying any questions by the learners (e.g. through a related blog or chat that might not be active 24/7) (cf. Kerres [5]2018: 133–134). OHS training via e-learning calls for particularly well-structured, explanatory and informative texts.

The present paper uses data produced in Italy, where legislation explicitly sets out some requirements for OHS training. Legislative Decree No. 81/2008 requires that employers provide "sufficient and adequate" information and training on

OHS (Art. 36-37). They must be easy to understand so that workers can readily acquire the relevant knowledge.[5] If content is aimed at migrant employees, it must be in a language that the foreign workforce understands (Art. 36, para 4). In officially multilingual areas, such as South Tyrol in Northern Italy, OHS training will have to be available (also) in the minority language to fully comply with the legal principles on linguistic adequacy.

South Tyrol is an officially multilingual province in Italy where almost 70% of the local population are German native speakers[6] (ASTAT 2021: 15). The national Legislative Decree No. 81/2008 was translated into German on a private initiative (Comitato Paritetico Edile 2011) since the legal obligation to publish legal texts (also) in the minority language German does not apply to state regulations but only to provincial regulations. In 2013, OHS experts in the South Tyrolean public administration started producing e-learning modules that cover all the training topics prescribed for various types of work situations and risk levels (e.g. basic training, emergency management, use of personal protective equipment, working with display screen equipment, working in confined spaces, etc.). Following a first feedback on a short extract from a module that had some shortcomings, the Institute for Applied Linguistics at Eurac Research[7] was entrusted with revising the language, terminology and legal content and with translating the texts into Italian

5 Original wording of the first provision of Art. 36, para 4 in Italian: "Il contenuto dell'informazione deve essere facilmente comprensibile per i lavoratori e deve consentire loro di acquisire le relative conoscenze."

6 Over 25% are Italian speakers and the remaining percentage are speakers of Ladin, an autochthonous language belonging to the Rhaeto-Romance family. The paper will be focused on German and Italian and not deal further with Ladin.

7 See <https://www.eurac.edu/linguistics> (20.12.2024)

or German respectively[8]. 31 e-learning modules have been made available in both languages via the provincial e-learning platform Copernicus (<https://e-learn.provinz.bz.it/>) to all employees of the local public administration and vocational students in South Tyrol. Local private companies may also request the modules free of charge and upload them to their e-learning platforms. This first project mainly focused on linguistic and terminological revision, as the reference persons for the project within the provincial administration assumed that their OHS experts would need help with language, style and terminological consistency. It also aimed at producing good quality translations of the texts authored either in German or in Italian, according to the native language of each expert.

However, work on the project suggested that several issues that were likely to hamper the effective use of the e-learning modules for training were not linked to merely linguistic aspects such as grammar, sentence structure or terminological consistency. In the translators' view, aspects related to information structure, depth and sequence seemed to play an important role in a context where domain experts were not specifically trained to convey information to laypeople by bridging existing knowledge asymmetries with their target audience. For this reason, the current SSL-Laien project "Optimizing expert-lay communication. Case study: e-learning modules of the Autonomous Province of Bolzano – South Tyrol"[9] aims at studying the potential role of translators not only as a

8 Project SSL "Translation and terminology work in the domain of occupational health and safety", co-financed by the Autonomous Province of Bolzano through a bilateral agreement signed with Eurac Research in October 2013 (see <https://www.eurac.edu/en/institutes-centers/institute-for-applied-linguistics/projects/ssl>, 20.12.2024).

9 See <https://www.eurac.edu/en/institutes-centers/institute-for-applied-linguistics/projects/ssl-laien> (20.12.2024).

support to multilingual communication but also as bridge builders between the experts who draft the e-learning modules and the laypeople targeted by the training. The considerations within the present paper are based on exploratory work within this small project co-financed by the Autonomous Province of Bolzano for the period 2022–2024.

4 Workflow

During the SSL-Laien project mentioned in Section 3, a workflow integrating source text optimisation and thus expanding the workflow described in ISO 17100 (2015) on *Translation services: Requirements for translation services* was tested. The standard distinguishes between pre-production, production and post-production phases but does not explicitly include workflow steps aimed at optimising the source text. The workflow tested for the project includes an additional workflow step before the translation production phase. The following paragraphs describe the workflow according to the ISO standard relating it to the specific project and provide details on the step that was added.

4.1 Pre-production

In ISO 17100 (2015), pre-production includes six steps: general aspects, enquiry and feasibility, quotation, Client-TSP agreement, handling of project-related client information and project preparation.

1. General aspects: Translation service providers (TSPs) must have processes in place for handling and analysing enquiries, determining project feasibility, preparing quotations, entering into agreements with clients. In our case, we were translating within a research project, not a commercial project,

and not as commercial service providers. General aspects such as general conditions, staff availability and project feasibility needed to be analysed nonetheless.

2. Enquiry and feasibility: TSPs identify the client's specifications for the services and assess their capability to meet them with their human, technical and technological resources. In our project, the aim was not only translating a text but also optimising the source and target texts. The need to support expert-lay communication had already been voiced by the provincial administration that financed the research project. The specifications were discussed with the responsible office, the provincial Office for Personnel Development (*Amt für Personalentwicklung / Ufficio Sviluppo personale)*. We knew from the previous workflow step that we had both the necessary technological resources (CAT and other tools) and human resources (trained translators with background knowledge in OHS, a legal expert for review) in-house at Eurac Research.

3. Quote provision: TSPs deliver a quote to the client indicating the main details of the project and the price. In our case, the general aim, details, timeline and financial aspects had been laid out within the research project proposal.

4. Client-TSP agreement: The agreement is finalised and confirmed in writing. It includes or references the commercial terms and the project specifications. In our case, this information was contained in the research project proposal. Possible deviations (e.g. concerning deadlines) are regulated by the rules governing research projects financed by the local administration.

5. Handling of project-related client information: In this phase, TSPs obtain any additional information from the client, clarify difficulties in the source language content, discuss project specifications etc. Information and instructions are then passed on to all relevant parties. Information security and con-

fidentiality must always be ensured. In our project, aspects related to correct data management and information security are regulated by the rules for research projects financed by the province. Project specifications were defined with the provincial office responsible for OHS training well in advance.

6. Project preparation: This phase includes administrative activities and technical aspects, such as assigning a name and/or number and the necessary human resources to the project. Linguistic specifications are also included. In our project, linguistic specifications concerned, for example, the need to adhere to the provincial guidelines for gender-sensitive writing and to the South Tyrolean German OHS terminology. The latter differs from the terminology used in other German-speaking countries because the domain is regulated at the national level.

During the project, we experienced that the provincial administration had to disrespect the initial intention to provide only texts in German to be translated into Italian. The first module was mostly produced by one of their experts in German, while the introduction to the module was handed in later by another expert but in Italian. This caused some minor delays and inconveniences as we had to wait to see the entire text and then decide whether to start two separate optimisation subprojects or produce a rough translation of the Italian introduction to obtain a full German text to work on.

An important aspect to guide the optimisation of expert-lay communication within the project was the level of education and prior OHS knowledge of the target audience. The modules are mainly aimed at staff within the South Tyrolean provincial administration. The first module we worked on concerned the OHS rules during "smart working" (i.e. flexible remote work according to Italian legislation). All staff taking the module must have passed at least the basic training module

that explains key OHS concepts and the staff's rights and duties. About 40% of provincial staff have a higher education degree and about 54% have a high school degree (De Camillis 2021: 203). The e-learning modules on OHS are also used during the last years of vocational high school, when the students have not yet obtained their diplomas. Finally, the e-learning modules can be used for free by the local private companies where education levels can be quite diverse. The final instruction for translation was to target the e-learning modules to an average audience with a high school degree (i.e. a relatively high degree of education) and with a generic but not detailed knowledge of OHS. As suggested by Lutz (2020: 151), we defined our target audience and their prior knowledge well before starting the optimisation process following the definition of and working on the four dimensions mentioned in Section 2.

4.2 Production

According to ISO 17100 (2015), the production phase is subdivided into three steps: general aspects, translation service project management and translation process. Within our project, we added the workflow step 'optimisation.' During this step, we produced the source text for the following translation process. The new text takes into account all the requirements concerning the optimisation of expert-lay communication based on the level of education and prior specialised knowledge of the target group. It respects the guidelines for gender-sensitive writing, uses local terminology and implements any other specific requirements.

1. General aspects: TSPs ensure compliance with the client-TSP agreement from the moment of confirmation to the end of the project. This was not different for our project. For example, when a deadline had to be postponed due to a

staff member handing in their notice, the issue was discussed with the provincial administration and a new deadline was set.

2. Translation service project management: Each translation project is coordinated by a project manager. In our case, the manager of the research project also took over the role of translation project manager, being an experienced translator in the domain of OHS and researcher in Translation Studies and Terminology. They dealt with the last among the four dimensions for optimisation mentioned by Schubert (2007), namely working processes. This dimension concerns the organisation of work, such as clarifying open questions with the authors of the original. It includes passing on the optimised text (see Point 3 below) for translation and the translated text to the reviser and then to the reviewer. It also relates to organising cooperation around text production, for example by making sure that content-related feedback from the reviewer is integrated not only in the target text but also in the source text.

3. Optimisation process: The optimisation process focuses on the original text written by experts and aims at producing a (new) source text for translation that is adapted to the needs, expectations and prior knowledge of the intended target audience. In this phase, the translator works within one language, the original language of the text, basically taking over the role of a technical communicator. Gouadec (2007: 120) coined the term "translator-cum-technical writer" for translators who use their writing skills to produce texts in their native language and are "well aware of the catastrophic effect of poor writing on product documentation and on foreign language versions of the latter". The dimensions of linguistic expression, specialised content and technical medium are addressed with the aim of producing a new source language text that (better) respects Göpferich's principles of concision, correctness, motivation, structure, simplicity and perceptibility.

Concerning the dimension of linguistic expression, in our project the original text written by experts was checked against typos and grammar mistakes to ensure that Göpferich's principle of (linguistic) correctness applied. Word choice, stylistic and terminological consistency as well as sentence structure were further aspects considered. The module we were dealing with was written by at least two different experts in different registers and styles. This was not a surprise, mixed authorship being frequent in some types of specialised texts (cf. Baumann 2020: 683), in particular in texts produced by the public administration. The optimisation process aimed at achieving a uniform style targeted at readers with a high school degree. OHS experts in Italy tend to copy or mimic the language used in the main national legal text, Legislative Decree No. 81/2008. The decree contains long and complex sentences, many nominalisations, specialised terms and words that are not part of the basic vocabulary (cf. De Mauro 2016 for Italian). Unnecessary wordiness (e.g. using *al fine di* in Italian instead of *per* meaning "in order to" or "to"), that disrespects the principle of concision, may also depend on formulations copied from legal texts (e.g. *realizzare economie di gestione,* "achieving savings in management", basically means *risparmiare denaro,* namely "saving money"). Readers with a medium-high degree of education should assuredly be able to understand longer and more complex sentences. However, very long and convoluted sentences slow down any reader and demand a higher cognitive effort than would be necessary. This goes against the principle of simplicity. Sentence structure was therefore changed aiming at more parataxis and at limiting the number of subordinate clauses in a sentence. The number of nominalisations was reduced. Some passive sentences were transformed into active sentences (see Chiocchetti 2024 for a detailed overview over work on an Italian text). All these changes had been discussed before with the

responsible persons within the local administration in general terms. A change discussed at a later moment was the idea of addressing readers directly (e.g. using the polite form of address *Sie* in German) in order to better conform to text type conventions. The idea had the double advantage of helping to keep the readers' attention alive (in relation to the principle of motivation) and of avoiding many instances of agentives. The original texts by the experts were written in the third person singular and used the generic masculine for terms related to persons, roles and functions. However, the project specifications required the final text to be gender-inclusive while avoiding any strategies that are not (yet) officially accepted (e.g. the suffix -ə in Italian and the asterisk in German). This called for the use of gender-neutral terms and reformulations or, whenever this was not possible, the use of both the male and female forms. Reducing the number of passages where such changes were necessary by reducing the number of agentives in the text turned out to be a sensible strategy.

In relation to terminology, Italian-speaking experts in particular tend to use synonyms because many have been taught at school that variation stands for a good writing style. However, while experts know that *infortunio mancato*, *mancato infortunio*, *quasi infortunio* and the English loanword "near miss" always refer to the same concept, this might not be immediately evident to laypeople. Optimisation aimed to ensure terminological consistency throughout the text. Terms indicating key concepts that could be considered difficult for the target audience were explained, generally in running text, rarely in brackets. Other terminology that was not necessary to achieve the aim of the e-learning module (e.g. mentioned in passing as an example) was eliminated or simplified, for example, by using a more common or more generic term (e.g. *sindacati* rather than *parti sindacali* for "Trade unions") or, in German, a word with

Germanic rather than Latin elements. Uncommon acronyms and initialisms were replaced by their full form. However, if they were used very frequently in OHS (e.g. the Italian initialism *DPI* for *dispositivo di protezione individuale*, i.e. "personal protective equipment"), they were accompanied by their full form when first mentioned but then used in the text. This should help the target audience become familiar with very frequent acronyms that are used more often than their full forms.

Some tools can be employed to guide linguistic optimisation. Spelling and grammar checkers help spot slips of the pen. Readability formulas and readability calculators point out sentences that may be particularly difficult for the envisaged target group. For Italian, the GULPEASE readability index (Lucisano/Piemontese 1988) uses word length (in letters) and sentence length to determine whether a text or sentence can be considered adequate (i.e. readable) for a target readership with an elementary, medium or high level of education. For German, several indices have been developed. To name just one, the index adapted to German by Amstad (1978) considers average sentence length in words and the average number of syllables per word. Both indices give a result between 0 and 100. The higher the number, the more readable the text. Readability formulas have been criticised because they focus on the surface and cannot be used objectively to measure whether any type of text is really difficult to understand (Göpferich 2009: 32; Lutz 2015: 71). For example, if one replaces an obscure acronym with its full form, the sentence becomes longer and obtains a lower readability score. However, it is quite intuitive that the resulting longer sentence could de facto be more transparent than the shorter one. Another tool for text analysis is Profiling-UD (Brunato et al. 2020). This tool for linguistic annotation and profiling captures a wide number of linguistic phenomena including superficial, morphosyntactic and syntac-

tic properties of the text. It can provide a measure of sentence and word length, lexical diversity and density, average clause length and the distribution of subordinate and main clauses, to name just a few. Unlike the readability indices, Profiling-UD has the advantage of being language-independent but requires more in-depth linguistic knowledge, for example when deciding which measures should be calculated.

As for work on the dimension of content, it is possible for texts written by experts to be defective and contain mistakes that should be spotted and amended during text optimisation (cf. Heidrich 2016: 97; Scarpa 2020: 160–161; Schmitt 2016: 334). To do this, translators need sound specialised competences. They must understand the contents expounded by the experts as well as the contents that are implied and, if necessary, make changes aimed at optimising the presentation of contents to a lay target audience. In this way, they act as a mediating instance between the experts' and the laypersons' mental denotation model. Translators must determine which information is essential and which is not because it might overwhelm or confuse laypeople (the principle of concision is thus applied to content). For example, explaining to a lay audience that the traditional labour model is Taylor-Fordist (*il modello tradizionale del lavoro taylor-fordista*) leaves them with more questions than useful information. *Fordista* alone may even recall Henry Ford for some readers, but Frederick Taylor and Taylorism are generally less known to the Italian general audience than Henry Ford and the Ford motor company. The two terms put together in a compound adjective are likely to be meaningless for laypeople. In such cases, the translator can assess whether the piece of information is really important to understand the general message. If the detail is of limited help and interest to a lay readership, eliminating it from the text will do the target audience a service.

How and in what order information is presented is also important (and this relates to the principle of structure). So are the links and connections between concepts and different parts of the text that might need to be made explicit for a lay readership. To help laypeople understand a text and the relations between important concepts, it is possible to insert subtitles to better structure the text and tables or workflows to visualise relations between contents. The asymmetric distribution of knowledge between experts and laypeople and the different mental denotation models require that information be added, deleted, changed, restructured, reduced or expanded to bridge the gap. For example, experts tend to imply meanings and relations between concepts or parts of the text that may not be visible on the linguistic surface. Experts recognise specialised terms as such, know their specialised meaning and activate a series of relations between concepts (Baumann 2020: 686). Quite differently, the prior domain knowledge possessed by the target audience might be patchy, even incorrect, and the relations between concepts might not be known. A mediating instance must therefore create a bridge between the two mental denotation models. For example, the difference between the concepts of "hazard" and "risk" and their relation to each other are perfectly clear to OHS experts (and to translators with domain competence in OHS). Experts know that "hazard" designates a potential source of harm or adverse health effect (e.g. the blade of a machine or a wet area on the floor) and is related to the concept of "risk", namely the likelihood that somebody may be harmed or suffer adverse health effects if exposed to a hazard (e.g. being cut while using the machine or slipping on the wet floor). "Risk", in turn is connected to "personal protective equipment" used to "minimise risk" and to those who are responsible for providing the equipment (the "employers") as well as to those responsible for wearing it (the "employees").

Experts know that hazards exist independently of human beings, while the human factor is a central aspect in the concept of risk. Unlike experts, laypeople often consider "risk" and "hazard" synonyms that can be used interchangeably in many contexts. Generally, they do not immediately and instinctively recall all the related concepts. The translator optimising the original text written by experts must evaluate which information and relations between concepts need, for example, to be made explicit, added or explained in detail for the lay readership.

After optimisation at intralingual level, the new text was checked and approved by the responsible provincial offices. To foster good relations with the original authors, the main changes in their original text were tracked and explained in comments. In this way, the original authors could understand the reasons for changes and, if necessary, reject some, which happened especially when they thought that the exact wording of the law was particularly important. The experts we worked with were glad about the help at the language level and also approved almost all other changes in the text. In addition, this step gave them an insight into all the reasonings related to the optimisation process. At this point, the new, optimised and approved text became the source text for translation.

4. Translation process: ISO 17100 (2015) further subdivides the translation process into translation, checking, revision, review, proofreading and final verification and release. Translation takes place in accordance with the purpose of the translation project, including the linguistic conventions of the target language and relevant project specifications at the level of semantic accuracy, terminology, style, syntax, formatting etc. The translator performs a check, an overall self-revision of the target content for possible issues of any type, including mistakes at the level of language and content, omissions etc. The

text is then passed on to a reviser who compares the target language content with the source language content. The reviser, a professional translator with experience in the field under consideration, performs a bilingual examination and should not be the person who translated the text. After revision, the revised text is given to a reviewer, who should be a field specialist who reads only the target language content. This monolingual editing aims at ensuring that the target text is suitable for the agreed purpose but it is an optional step in the ISO 17100 (2015) workflow. Another optional step is proofreading that aims at making any necessary further corrections to the target language text. During the last step of final verification and release, compliance with project specifications is verified before delivery.

In our project, all these steps were implemented, including the optional ones. The source text for translation was not an original text produced by experts but an optimised version produced by a translator working intralingually. Many doubts about the original language text had already been solved with the help of the responsible office of the provincial administration (the "client"). For this reason, the translation proceeded more quickly and smoothly than expected. This confirms that text production and translation are closely related and influence each other, especially within multilingual organisations (cf. De Camillis 2021: 302). An optimised source text is likely to be easier and quicker to translate. Working on the original texts helps increase their translatability, thus saving time and money during translation.

In our project, optimisation was taken over by an experienced translator with a degree in translation who is a native speaker of the source language. The optimised text was sent to the original authors for their approval. The translation was taken over by a junior translator with a degree in translation

who is a native speaker of the target language and who also checked their own first translation draft. Revision was performed by the first experienced translator while the target text was reviewed by a legal expert with competences in OHS. Interestingly, in the ISO 17100 (2015) standard, all these activities seem to be laid out in a linear workflow. However, we experienced that during the process, further aspects related to unclear contents and formulations were detected. This caused us to go back and implement a small number of further changes on the source text, sometimes after having clarified minor content issues with available experts. The following phases, especially review, helped identify additional aspects of the text that could be optimised. Certain workflow steps therefore triggered partial workflow loops as parts of the text were checked, revised and reviewed more than once.

4.3 Post-production

ISO 17100 (2015) subdivides post-production into two steps: feedback and closing administration.

1. Feedback: This step concerns the ability to handle positive and negative client feedback, assess their satisfaction and implement any corrective actions. If corrections to the text are needed, the translation must be redelivered. So far, the feedback on the optimised source and target texts was positive, both from the office responsible for OHS training in the provincial administration and from staff at the provincial Office for Language Issues who appreciated the gender-sensitive rewriting. However, a clear limitation of our work is that we have not yet performed any tests with the end users of the e-learning modules to obtain reliable information on how they receive the optimised texts and on whether they understand

the contents and are able to act according to the rules laid out in the OHS modules.

2. Closing administration: Finished projects must be archived while respecting all legal and contractual obligations concerning data protection and management. Translation memories must be maintained and consolidated. We do not know whether the next modules will be delivered in German as planned, in Italian or partly in either language. It depends on the availability of OHS experts for upcoming topics. For this reason, we export the translation segments for each text from the translation memory, reverse them and import them into the reverse-direction translation memory. Any translation data and metadata are stored and regularly maintained.

At the end of this workflow, the optimised source and target texts were uploaded by the provincial office responsible for OHS training onto the e-learning platform and made available to their target audience.

5 Conclusions

The present paper is based on a case study in a field where effective expert-lay communication is particularly relevant insofar as the objective is to spread the culture of safety and ensure healthy and safe workplaces for everyone. Our case study were e-learning texts written by OHS experts for a multilingual lay audience. We tested the role of translators as technical communicators and optimisers of specialised communication. We showed that translators have the necessary competences to support expert-lay communication, based on their linguistic, translational and specialised competences. They can work not only in the target language but also in the source language by adapting texts written by experts to their intended readership.

The language competences of translators allow them to address the dimension of linguistic expression by enhancing the readability of a text, its sentence length and structures, its lexical choices and terminological consistency. In addition, their translational and specialised competences enable them to also act as a bridge between domain experts and their lay audience at the level of content. On the one hand, translators understand texts written by experts, their intentions and objectives, even in case of information that is not explicit, not well explained or maybe incorrect. Their knowledge basis allows them to interpret both what is conveyed through the text but also what is implied or intended. The message can therefore be unpacked and made clearer or more explicit, if necessary. On the other hand, translators can anticipate the expectations, culture and prior knowledge of the target audience and adapt a text to their level of education and knowledge. Translators are trained in taking the perspectives of their target audience into account and producing texts that meet their needs. In this way, they mediate between the two sides of expert-lay communication and the two mental denotation models that represent quite asymmetric levels of knowledge.

The paper describes a workflow based on ISO 17100 (2015) that contains an additional step devoted to source text optimisation before translation. Working on the original text makes sure that all potential communication issues between experts and lay readers are addressed so that the source text used for translation is already optimised. In this way, the translation process becomes smoother and quicker. As has already been noted by other scholars, in the era of machine translation, translation is becoming just one part of a more complex series of added-value services that cannot be fully automated yet.

Our case study is clearly limited in scope and lacks the necessary final step, namely a test with the lay end-users of the

e-learning modules. This should be considered in future projects. A further critical aspect is that of optimising expert-lay communication by inserting a mediating instance between the two sides of communication. Experts surely need to be trained in how to convey specialised content to a lay audience. But until this is effectively implemented, expert-lay communication can profit from the support of monolingual and multilingual professional communicators.

6 References

ALLI, Benjamin O. (²2008): *Fundamental Principles of Occupational Health and Safety*. Geneva: International Labour Office.

AMSTADT, Toni (1978): *Wie verständlich sind unsere Zeitungen?* Zürich: Universität Zürich.

ANTOS, Gerd / HASLER, Ursula / PERRIN, Daniel (2011): "Textoptimierung." In: HABSCHEID, Stephan [ed.]: *Textsorten, Handlungsmuster, Oberflächen. Linguistische Typologien der Kommunikation*. Berlin: De Gruyter, pp. 638–658.

ASKEHAVE, Inger / ZETHSEN, Karen Korning (2002): "Translating for Laymen." In: *Perspectives* 10/1, pp. 15–29.

ASTAT – PROVINCIAL STATISTICS INSTITUTE (2021): *South Tyrol in Figures*. Bolzano/Bozen: Provincial Statistics Institute.

BAUMANN, Antje (2020): "Rechtstexte als Barrieren – Einige Merkmale der Textsorte ‚Gesetz' und die Verständlichkeit." In: MAASS, Christiane / RINK, Isabel [eds.]: *Handbuch Barrierefreie Kommunikation*. Berlin: Frank & Timme, pp. 679–702.

BROMME, Rainer / JUCKS, Regina (2014): "Fragen Sie Ihren Arzt oder Apotheker: Die Psychologie der Experten-Laien-Kommunikation." In: BLANZ, Mathias / FLORACK, Arndt / PIONTKOWSKI, Ursula [eds.]: *Kommunikation. Eine interdisziplinäre Einführung*. Stuttgart: Kohlhammer, pp. 237–246.

BRUNATO, Dominique / CIMINO, Andrea / DELL'ORLETTA, Felice / VENTURI, Giulia / MONTEMAGNI, Simonetta (2020): "Profiling-UD: A Tool for Linguistic Profiling of Texts." In: CALZOLARI, Nicoletta / BÉCHET, Frédéric / BLACHE, Philippe / CHOUKRI, Khalid / CIERI,

Christopher / DECLERCK, Thierry / GOGGI, Sara / ISAHARA, Hitoshi / MAEGAARD, Bente / MARIANI, Joseph / MAZO, Hélène / MORENO, Asuncion / ODIJK, Jan / PIPERIDIS, Stelios [eds.]: *Proceedings of the Twelfth Language Resources and Evaluation Conference*. Marseille: European Language Resources Association, pp. 7145–7151.

BYRNE, Jody (2006): *Technical Translation. Usability Strategies for Translating Technical Documentation*. Dordrecht: Springer.

CHATIGNY, Céline (2021): "Occupational Health and Safety in Initial Vocational Training: Reflection on the Issues of Prescription and Integration in Teaching and Learning Activities." In: *Safety Science* 147, pp. 1–12.

CHIOCCHETTI, Elena (2024): "Traduttrici a supporto della comunicazione asimmetrica. Esperienze del progetto SSL-Laien." In: REGATTIN, Fabio / GEROLIMICH, Sonia / JAMMERNEGG, Iris / SAIDERO, Deborah / VECCHIATO, Sara [eds.] *SIMPLE – Translating, Simplifying. Traduire, simplifier. Tradurre, semplificare. Übersetzen, vereinfachen.* Città di Castello: Emil, pp. 117–133.

CLEARY, Yvonne / ENGBERG, Jan / KARREMAN, Joyce / MEEX, Birgitta / CLOSS, Sissi / DRAZEK, Zygmunt / GHENGHEA, Voichita / MINACORI, Patricia / MÜLLER, Julia / STRAUB, Daniela (2017): "TecCOM Frame: Building Bridges between Technical Communication and Translation Studies through a Prototype Specialisation Curriculum." In: *Lebende Sprachen* 62/2, pp. 1–20.

COMITATO PARITETICO EDILE PER LA PROVINCIA DI BOLZANO (2011): *La Tua Sicurezza: TESTO UNICO / Deine Sicherheit: EINHEITSTEXT. Bolzano: Comitato Paritetico Edile per la Provincia Autonoma di Bolzano*. URL: <https://www.provinz.bz.it/verwaltung/personal/downloads/Testounico_ehtxt_de_it_neu.pdf> (20.12.2024).

DE CAMILLIS, Flavia (2021): *La traduzione non professionale nelle istituzioni pubbliche dei territori di lingua minoritaria: il caso di studio dell'amministrazione della Provincia autonoma di Bolzano*. Università di Bologna.

DE MAURO, Tullio (2016): "Il Nuovo vocabolario di base della lingua italiana." URL: <https://www.dropbox.com/s/mkcyo53m15ktbnp/nuovovocabolariodibase.pdf?dl=0> (20.12.2024).

EMT – EUROPEAN MASTER'S IN TRANSLATION NETWORK (2022): "European Master's in Translation. Competence Framework 2022." Brussels: European Commission. URL: <https://commission.europa.eu/

system/files/2022-11/emt_competence_fwk_2022_en.pdf> (20.12.2024).

ENGBERG, Jan (2017): "Fachkommunikation und fachexterne Kommunikation." In: FELDER, Ekkehard / VOGEL, Friedemann [eds.]: *Handbuch Sprache im Recht*. Berlin/Boston: De Gruyter, pp. 118–137.

ENGBERG, Jan / LUTTERMANN, Karin / CACCHIANI, Silvia / PREITE, Chiara (2018): "Studying Popularization in Legal Communication: Introduction and Overview." In: ENGBERG, Jan / LUTTERMANN, Karin / CACCHIANI, Silvia / PREITE, Chiara [eds.]: *Popularization and Knowledge Mediation in the Law / Popularisierung und Wissensvermittlung im Recht*. Zürich: LIT, pp. IX–XXV.

EUROSTAT – EUROPEAN STATISTICAL OFFICE (2022): "Accidents at Work Statistics." URL: <https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Accidents_at_work_statistics> (20.12.2024).

GÖPFERICH, Susanne (1998): *Interkulturelles* Technical Writing. *Fachliches adressatengerecht vermitteln*. Tübingen: Narr.

GÖPFERICH, Susanne (2009): "Comprehensibility Assessment Using the Karlsruhe Comprehensibility Concept." In: *JoSTrans* 11, pp. 31–51.

GOUADEC, Daniel (2007): *Translation as a Profession*. Amsterdam / Philadelphia: John Benjamins.

HEIDRICH, Franziska (2016): *Kommunikationsoptimierung im Fachübersetzungsprozess*. Berlin: Frank & Timme.

HEIDRICH, Franziska / SCHUBERT, Klaus (2019): "Writing Research and Specialized Communication Studies." In *HERMES* 59/1, pp. 53–70.

HOLZ-MÄNTTÄRI, Justa (1993): "Textdesign – verantwortlich und gehirngerecht." In: HOLZ-MÄNTTÄRI, Justa / NORD, Christiane [eds.]: *Traducere navem*. Festschrift für Katharina Reiß zum 70. Geburtstag. Tampere: Tampereen Yliopisto, pp. 301–320.

HURTADO ALBIR, Amparo [ed.] (2017): *Researching Translation Competence by PACTE Group*. Amsterdam / Philadelphia: John Benjamins.

ISO 17100 (2015): *Translation Services – Requirements for Translation Services*. Geneva: International Organization for Standardization.

ISO 24183 (2024) *Technical Communication — Vocabulary*. Geneva: International Organization for Standardization.

ISO/IEC/IEEE 26515 (2018): *Systems and Software Engineering — Developing Information for Users in an Agile Environment*. Geneva: International Organization for Standardization.

JEMIELITY, David / KATAN, David (2021): "Translation Plus and the Added Value of the Translator: An Interview." In: *CULTUS* 14, pp. 15–31.

KERRES, Michael ([5]2018): *Mediendidaktik. Konzeption und Entwicklung digitaler Lernangebote*. Berlin: De Gruyter Oldenbourg.

KORHONEN, Annamari (2021): "From Language Check to Creative Editing. Exploring Variation in the Revision Stage of the LSP Workflow." In: KOPONEN, Maarit / MOSSOP, Brian / ROBERT, Isabelle S. / SCOCCHERA, Giovanna [eds.]: *Translation Revision and Post-Editing. Industry Practices and Cognitive Processes*. Abingdon: Routledge, pp. 131–147.

LINDSTRÖM, Hedvig (2021): "Encouraging Subjectivity in the Implementation of Organisational Plain Language." In: *Academia Letters* 2800, pp. 1–6.

LUCISANO, Pietro / PIEMONTESE, Maria Emanuela (1988): "GULPEASE: una formula per la predizione della difficoltà dei testi in lingua italiana." In: *Scuola e città* 3/31, pp. 57–78.

LUTZ, Benedikt (2015): *Verständlichkeitsforschung transdisziplinär*. Vienna: Vienna University Press.

LUTZ, Benedikt (2020): "Verständlichkeit aus fachkommunikativer Sicht." In: MAASS, Christiane / RINK, Isabel [eds.]: *Handbuch Barrierefreie Kommunikation*. Berlin: Frank & Timme, pp. 147–162.

NATULLO, Gaetano (2015): *Salute e sicurezza sul lavoro*. Torino: UTET.

PYM, Anthony / TORRES-SIMÓN, Ester (2021): "Is Automation Changing the Translation Profession?" In: *International Journal of the Sociology of Language* 270, pp. 39–57.

REGA, Lorenza (2004): "La figura del traduttore e il problema del miglioramento del testo." In: REGA, Lorenza / MAGRIS, Marella [eds.]: *Übersetzen in der Fachkommunikation – Comunicazione specialistica e traduzione*. Tübingen: Narr, pp. 87–101.

RISKU, Hanna (2016): *Translationsmanagement. Interkulturelle Fachkommunikation im Informationszeitalter*. Tübingen: Narr.

ROELCKE, Thorsten (2007): "Effizienz sprachlicher Kommunikation." In: BÄR, Jochen A. / ROELCKE, Thorsten / STEINHAUER, Anja [eds.]: *Sprachliche Kürze. Konzeptuelle, strukturelle und pragmatische Aspekte*. Berlin: de Gruyter, pp 7–26.

SANDRINI, Peter (2017): "Translation 4.0 – Eine Perspektivenverschiebung." In: ZYBATOW, Lew / PETROVA, Alena / STAUDER, Andy / USTASZEWSKI, Michael [eds.]: *Übersetzen und Dolmetschen: Berufsbilder,*

Arbeitsfelder, Ausbildung. Ein- und Ausblicke in ein sich wandelndes Berufsfeld der Zukunft. Frankfurt a. M.: Peter Lang, pp. 139–152.

SCARPA, Federica (2020): *Research and Professional Practice in Specialised Translation*. London: Palgrave Macmillan.

SCHMITT, Peter A. (2016): *Handbuch technisches Übersetzen*. Berlin: BDÜ.

SCHUBERT, Klaus (2007): *Wissen, Sprache, Medium, Arbeit. Ein integratives Modell der ein- und mehrsprachigen Fachkommunikation*. Tübingen: Narr.

SCHUBERT, Klaus (2009): "Kommunikationsoptimierung. Vorüberlegungen zu einem fachkommunikativen Forschungsfeld." In: *trans-kom* 2/1, pp. 109–150.

SCHUBERT, Klaus (2024): "Zur wissenschaftlichen Erfassung der Fachkommunikation." In: BUSCH, Albert /LUTTERMANN, Karin [eds.]: *Professionskommunikation*. Hildesheim: Universitätsverlag, pp. 15–38.

SCHUBERT, Klaus / HEIDRICH, Franziska (2017): "Technical Communication and Accessibility." In: CRABBE, Stephen [ed.]: *Current Practices and Trends in Technical Communication*. Croydon: The Institute of Scientific and Technical Communicators, pp. 115–127.

SOLOMBRINO, Maria Rosaria (2017): *Compendio di sicurezza sul lavoro*. Napoli: Simone.

TEKOM EUROPE e.V. – European Association for Technical Communication (2015a): "About the Competence Framework." URL: <http://competencies.technical-communication.org/overview/about-the-competence-framework.html> (20.12.2024).

TEKOM EUROPE e. V. – European Association for Technical Communication (2015b): "Profiling Tool." URL: <http://competencies.technical-communication.org/profiling-tool.html> (20.12.2024).

VAN VAERENBERGH, Leona (2010): "Writing and Translation in Expert – Non-Expert Communication. Methods, Guidelines and Quality Assessment." In: *Synaps* 24, pp. 13–24.

WHO – WORLD HEALTH ORGANIZATION (2023): "Occupational Health." URL: <https://www.who.int/westernpacific/health-topics/occupational-health> (20.12.2024).

About the author: Elena Chiocchetti is a senior researcher at the Institute for Applied Linguistics, Eurac Research in Bolzano, Italy. She holds a degree in English and German Translation Studies from the University of Trieste and a PhD in Translation, Interpreting and Intercultural Studies from the University of Bologna. Her research interests and publications at the national and international levels include topics like specialised translation, comparative legal terminology and multilingual communication. She currently manages two projects aimed at optimising multilingual expert-lay communication in the domain of occupational health and safety (SSL-Laien and SSL-Eurac). Most recently, she has shared her research related to the potential role of translators in contexts of asymmetric communication at the LSP 2022 conference in Lisbon, Portugal and the T&R7 SIMPLE conference in Udine, Italy. A related article has been published in an open access volume: (2024): "La traduzione a supporto della comunicazione asimmetrica tra persone esperte e non esperte nell'ambito della salute e sicurezza sul lavoro." In: Agnetta, Marco / Dalkeranidou, Sofia [eds.]: *Übersetzung für/von Laien. Perspektiven auf Laientranslation und Laientranslatologie in der Romania*. Hildesheim: OLMS / Universitätsverlag Hildesheim, pp. 133–147.

Contact: elena.chiocchetti@eurac.edu