USABILITY AS A FOCUS OF MULTIPROFESSIONAL COLLABORATION

A teaching case study on user-centered translation

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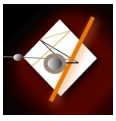
As professional communication needs are increasingly multilingual, the merging of translator and technical communicator roles has been predicted. However, it may be more advantageous for these two professional groups to increase cooperation. This means learning to identify and appreciate their distinct but mutually complementary core competencies. Since both professions share the ideology of being the user's advocate, usability is a common denominator that can function as a focal point of collaboration. While many translation theories focus on the reader and the target context, usability methods have not traditionally been a part of translator training. An innovation called User-Centered Translation (UCT), which is a model based on usability and user-centered design, is intended to help translators speak the same language as technical communicators, and it offers concrete usability tools which have been missing from translation theories. In this teaching case study, we discuss the teaching of four UCT methods: personas, the implied reader, heuristic evaluation, and usability testing. We describe our teaching experiences, analyze student feedback on all four, and report on the implementation of a student assignment on heuristics. This case study suggests ways in which UCT can form an important nexus of professional skills and multiprofessional collaboration.



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At contemporary workplaces, translators and technical communicators often work on the same projects, and they face similar types of challenges during the text production process. These challenges often entail so called end-of-the-line problems, referring to the fact that translators and technical communicators are brought into the product development cycle at a late stage, when most key decisions have already been made, and they therefore tend to remain at a distance from core discussions (Suojanen et al., 2015, p. 17–18). This problem was identified as early as 1989 by Patricia Sullivan, but it still seems to persist in both translation and technical communication. The two professions also share common competencies, such as the abilities to analyse source material and communicate with subject matter experts (Risku, 2004). Both professions aspire for high quality texts, and both translators and technical communicators feel that they are not always able to optimally cater for the end users' needs. As Minacori and Veisblat (2010) note, both in the US and in Europe there is "an unquestionable need for the two professions to work closely together" (p. 763).

As business communication needs are increasingly multilingual by nature, the merging of translator and technical communicator roles has been predicted (e.g., Gnecchi, Maylath, Mousten, Scarpa, and Vandepitte, 2011). Furthermore, some translation scholars have expressed the need to introduce new competencies, beyond those that traditional translation curricula have offered (Gouadec, 2007), and to encourage cross-training practices by including technical communication in translator training programs (Byrne, 2006). Likewise, recent surveys reported by Gnecchi et al. (2011, p. 178) suggest that professional/technical/scientific communication (PTSC) curricula contain translation and localization courses as well as writing courses that focus on plain language, usability, and structured writing. The results of their surveys also indicate that translation curricula should contain courses on managing translation/multilingual PTSC projects. We agree with Gnecchi et al.'s (2011, p. 179) notion that there is a need for further study

on the current trends and for forecasting future developments. We also think that, at this stage, it is necessary to try out different approaches in translator training.

In this paper, we report on a teaching case where course content familiar from technical communication has been targeted specifically at translation students. We are searching for ways for the two professions to enhance their cooperation and understanding of each other's expertise. Since both professions share the ideology of being the user's advocate, usability is a common denominator that can function as a focal point of collaboration. However, while technical communicators are traditionally trained to use different methods to enhance the usability of documentation, user-orientation is much more diffuse in translator training. While many translation theories (*skopos* theory in particular) also focus on the reader and the target context (Suojanen et al., 2015, p. 40–47), usability methods have not traditionally been a part of the translator's competence nor have they been included in translator training.

Since 2009, we have been involved in designing and conducting courses with a usability focus for translation students. Our pedagogical innovations are based on a novel, usability-based approach to translation called User-Centred Translation (UCT). Our aim has been to enhance students' professional skills and collaborative competencies for working in multiprofessional teams. These courses have taken a number of shapes and they have been—and are being—offered in several Finnish universities.

User-centred translation, which is the heart of our teaching case, is defined as follows: "In user-centered translation, information about users is gathered iteratively throughout the process and through different methods, and this information is used to create a usable translation" (Suojanen et al., 2015, p. 4). An iterative process means that users are analysed and usability is evaluated through recursive usability research methods, which can be used at different stages of the process as needed. At the beginning, a detailed specification is drafted together with the commissioner. The specification contains information concerning the expected usability targets of the translation (e.g., style, terminology, readability), intended target audience, and UCT methods to be used. The specification is important, because the finished translation will be evaluated against the

specification, not some ideal of a perfect match between the source text and the target text. To achieve a usable outcome, the specification needs to include information about the targeted readers and the desired functions of the translation.

Rubin and Chisnell (2008) offer the following definition for usability, which is the core concept behind the UCT model: "when a product or service is truly usable, the user can do what he or she wants to do the way he or she expects to be able to do it, without hindrance, hesitation, or questions" (p. 4). During the translation process itself, a variety of usability methods can be used. In our publications, we have, so far, discussed the following usability methods:

- mental models (persona, intratextual reader positions, including the implied reader, and audience design)
- heuristic evaluation
- empirical usability methods (including usability testing)
- reception research (Suojanen et al., 2015, p. 3–6).

In this teaching case study, we will report on our experiences in teaching user-centred translation, with particular emphasis on discussing how it can enhance translation students' professional skills and competencies for multiprofessional collaboration. The need for collaboration obviously extends beyond the neighbouring profession of technical communication, but in this article we focus on the two professions. We suggest that a user-centred approach to translation can foster a shared framework of understanding that facilitates cooperation between translators and technical communicators.

Data

We have taught user-centred translation in specialized UCT courses, and individual methods included in the UCT model have also been introduced into regular translation courses. From our experiences, we have selected the following methods to be discussed in this teaching case study: the persona and the implied

reader as examples of mental models, heuristic evaluation, and usability testing. We will share our teaching experiences from various courses that have taken place between 2009 and 2015. In addition, we will use recent student feedback (n = 18) obtained on a course entitled User-Centered Translation held at the University of Tampere in the spring of 2015, and student assignments (n = 38) from various course contexts during the academic year 2014–2015.[1]

In the student feedback, we asked students to comment on each of the UCT methods introduced in the course. The feedback has been used in the sections of this article concerning personas, the implied reader, and usability testing. The discussion on heuristics, in turn, reports on an analysis of the student assignments in which the students performed a heuristic evaluation of a translated text and then reflected and gave feedback on this experience. The latter data set originates from different course contexts taught by ourselves, by other teachers, and in different universities.

Usability Methods in Translator Training

For each of the methods presented below, we will first briefly describe the method, then explain how the method has been and can be taught, and share both our main observations as well as the students' views. Finally, we will discuss the benefits and potential risks of each in reference to developing skills for multiprofessional communication.

Persona

Defining the target audience is one of the crucial points of a translation process. One of the methods with which translators can pinpoint their reader(s) is the use of a persona. Personas are fictive archetypes of users: a persona has a name, background, and personality. A persona can be invented, but more often it is

[1] In accordance with national ethical requirements, written informed consent has been obtained from all students whose assignments and feedback are used in this teaching case, and the students' anonymity is protected.

based on empirical information on real users. Sometimes it is necessary to create several personas to meet the demands of varied target audiences (Suojanen et al., 2015, p. 70).[2]

When using personas in a classroom context, we usually divide students into small groups and present them with a translation scenario or ask them to create one themselves. We then ask them to design a persona for the future reader of the translation. Finally, students are asked to consider what translation strategies would suit this particular persona best. The group writes down features and draws a picture of their persona on a flip chart and presents the persona to the whole group. We find that most often the personas are realistic and life-like, and only rarely do the students create an unimaginable persona, which would not be useful in the actual translation work.

Students have been able to grasp the idea of personas quite easily, and their general feedback on the use of personas has been predominantly positive. Of the 18 course feedback responses, only three expressed exclusively negative attitudes, while seven made a positive evaluation and five found both positive and negative aspects in the use of personas. One did not comment on them at all, and two described personas in a neutral fashion. Those students whose evaluations were positive found personas fun and handy, light and agile, easy to learn, and meaningful. For example, one student stated that "the persona helps me understand in a somehow more concrete way what the target audience of the translation will be."[3] Another commented that a persona is "a fun way of clarifying the target audience, does not feel as heavy and laborious as many analysis models." The persona concretizes the target audience and helps to find translation solutions. Many students found that the persona is particularly suitable for long projects, for repeated translations of the same genre, when translating texts for the same client, and in teams as a good kick-off for a project.

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[2] For an example of personas, see Suojanen et al., 2015, p. 8–10.

[3] All translations of the direct quotations from student feedback are by the authors.

Those students whose feedback was negative found the persona to be artificial, too limiting, and stereotypical. One student commented: "I am bothered by the thought that I am limiting my writing by choosing a stereotype for whom I am writing my text." One student mentioned that the persona is suitable only when the target audience is already somewhat limited. In addition, a translator might make an error of judgement and generalize too much; what happens if the persona fails? Another student mentioned that the persona needs to be complemented with something else so that it is not just the translator's impression. This comment indicates a potentially common misperception that needs to be clarified in teaching: in the classroom the persona may often be a figment of imagination, but in real life the persona should always be confirmed with data about real readers.

The persona seems to be an intuitive method and easy to adopt: we have discovered that once introduced to the idea, students transfer the use of personas to other courses, too. The feedback also supports this, as several students reported that they would make use of personas in the future. Personas thus appear to be a good point of contact between technical communicators and translators, as technical communicators are already accustomed to using personas regularly in their work. Personas can also be created in multiprofessional dialogue, to boost team spirit, and both professional groups can use the same personas in their work, thus adding consistency in text production. In addition, the creation of personas may help highlight the need to have new personas for new target languages, and new kinds of texts to meet their needs. Technical communicators may also have access to user data that translators can benefit from in creating their personas.

Implied reader

Another method for determining the target audience is the implied reader, which refers to reader positions built into texts. In other words, implied readers are assumed readers to whom writers target their texts (Suojanen et al., 2015, p. 63). Implied readers can be discovered by analyzing a number of features in the text, such as the ways the reader is being addressed, or presuppositions which reveal

some of the reader's personal characteristics and the expected level of the reader's previous knowledge. As an example, let us take a look at the following short extract of a blog text: "Have you put on weight during the Christmas holidays? I have!" (Wallström, 2005). In this case, the implied reader comes from a background where Christmas is celebrated, is affluent enough to have overindulged over the holidays, has issues with self-image, and is potentially more likely to be female than male. In addition, the writer has created a sense of familiarity and lack of distance by referring to supposedly shared experiences and attitudes.

In the classroom context, students are asked to find a source text and its translation, and analyze the reader positions that the texts contain. The students should examine what kind of an implied reader the characteristics of the texts suggest and whether the source text and the translation exhibit differences in terms of their implied readers, and why that may be so. Alternatively, students can be asked to select either a translation or a source text and analyze its implied reader(s).

As with the persona, students' attitudes toward the use of the implied reader have been very positive. In the course feedback, thirteen students expressed exclusively positive attitudes, while two stated both positive and negative views, and three described the method in a neutral fashion. None of the students expressed only negative comments about the implied reader. The students described the method as fun to use and interesting, and they found it useful. One student reflected on the surprises that the analysis might produce: "It is both fun and confusing to construct an implied reader, because one can find peculiar readers within texts. The implied reader is an efficient aid in recognizing the writer's attitudes, style, typical expressions and ways of handling topics." The implied reader was considered particularly useful in cases where the specification does not provide much background about the target audience and when the readers in the source and target texts are assumed to be similar.

Many students felt that they intuitively already think about the reader, but the implied reader exercise made them more aware of how the reader is reflected in texts. Furthermore, they felt that it acts as a useful reminder of the potential

difference between the reader for whom they think they are translating and the person for whom they actually end up translating. In addition to identifying the writer's attitudes, style and typical expressions, the implied reader was also seen to be a suitable tool for examining and evaluating one's own attitudes and tendencies. While many students reported plans of using the method in the future, many also said that they would not use it systematically but that they might turn to it in situations where the target audience is especially vague.

While personas can be considered a method more familiar to technical communicators but easily communicated to translators as well, the implied reader may be more democratic in terms of previous exposure: both translation studies and technical communication literature have employed concepts such as the implied reader in discussions concerning intratextual reader positions (Suojanen et al., 2015, p. 66–68). This method also holds great potential for enhanced cultural usability, as discussed by Suojanen, Koskinen and Tuominen (2015, p. 19–25). For example, in multilingual projects, translators to all target languages can be asked to analyze the source material produced by technical communicators. This analysis of the source text's implied reader can reveal different interpretations of assumed previous knowledge, expected attitudes and lifestyles, and projected societal hierarchy levels, to name just a few interesting potential results. This kind of detailed feedback would allow a mutual learning opportunity for technical communicators and translators attuned to different cultural contexts.

Heuristic Evaluation

In addition to mental models such as persona and implied reader, translators can make use of another agile method, namely heuristic evaluation, to evaluate the usability of their texts. Heuristics are usability guidelines or principles, basic rules of thumb, and the evaluation is performed by experts—not the end users. Heuristics are being used in iterative product development: the product is evaluated repeatedly, problems are fixed and the following evaluation rounds are used to make sure that the problems no longer exist (Kuutti, 2003, p. 47–49).

Numerous checklists for heuristic evaluation have been created within usability engineering. The most commonly used heuristic checklist was originally drawn up by Jakob Nielsen and Rolf Molich (1990): the list contains commonly known principles of user-centered design (see Korvenranta, 2005, p. 113; Kuutti, 2003, p. 47–49). However, the lists are not transferrable as such from one product to the next. Instead, it is more useful to design a new list for specific products (Korvenranta, 2005, p. 122–123).

Drawing on selected earlier checklists, we have created a specific set of usability heuristics for translators (Suojanen et al., 2015, p. 90), which are presented in Table 1 on page 157.

As Table 1 shows, heuristics are used to evaluate the match between the translation and the specification, users, real world, and genre as well as the match between source and target texts. In addition, evaluation is targeted at consistency, legibility and readability, satisfaction, and error prevention.

Our data for heuristics includes student assignments (n = 38) from three different courses: two English–Finnish translation courses, a course on translation studies methodology, and a course on user-centered translation. Students were asked to familiarize themselves with the UCT heuristics, use them to analyze a translation, report on their main findings and reflect on their use of the heuristics.[4]

The feedback on heuristics was remarkably similar in all the student groups. The students' views on the assignment were quite ambivalent. Many expressed positive views and found the assignment fun, refreshing, and different from their usual assignments. Ten respondents found the heuristics easy to use. On the other hand, 15 respondents thought that the use of heuristics was difficult and challenging. The heuristics were also described as time-consuming, and some heuristics were criticized as overlapping with each other or difficult to understand. Although the heuristics seemed like a useful tool, many students were wary of whether the translator will actually have time to implement such a method in a

[4] This data has been discussed in more detail in Suojanen and Tuominen (accepted).

Table 1

Usability Heuristics for User-Centred Translation

1. Match between translation and specification	Why is the translation needed and does it fulfil the requirements defined in the specification?
2. Match between translation and users	Who are the users of the translation and how do their characteristics affect translation solutions? Are there possibilities for supporting different kinds of users? Do the textual choices reflect the information needs of the users?
3. Match between translation and real world	Is the translation aligned with its cultural context? Is cultural adaptation required?
4. Match between translation and genre	Does the translation match the conventions of the genre in question? Are the visual, auditory and other multimodal elements appropriate for the new context?
5. Consistency	Is the translation consistent in terms of style, terminology, phraseology and register?
6. Legibility and readability	Do the visual elements of the translation correspond to the reader's physiological capabilities and relevant cultural guidelines? Is the user guided through the translation by using appropriate signposting for the genre in question? Are the user's efforts of interpretation sufficiently minimized?
7. Cognitive load and efficiency	Is the translation well-crafted enough to be easy to memorize and learnable, that is, clear and comprehensible? Do the users need guidance for using the translation and if so, in which format?
8. Satisfaction	Does the translation produce a pleasurable and/or rewarding user experience?
9. Match between source and target texts	Has all relevant source material been translated? Is there unwanted linguistic or structural interference?
10. Error prevention	Have potential risks of misunderstanding been minimized?

translation project. Still, most of the students reported plans to use the heuristics in the future as part of their studies and when moving on to working life. They thought the heuristics helped them produce a translation with better consistency and overall quality (see also Suojanen & Tuominen, accepted).

Although the students were able to see the particular benefits of heuristics as a user-oriented approach, they had difficulty in taking into account the overall context of use, which is, after all, a paramount consideration in usability. Rather, they tended to concentrate on the textual level. This difficulty of paying attention to the users' context could be seen in the assignments: although users and readers were explicitly discussed in 19, that is, half of the assignments, showing that students were able to see the potential for user-centeredness in heuristics, many of the students also recognized the difficulty of positioning themselves in the user's shoes. The same difficulty is, of course, inherent in the nature of heuristic expert evaluation.

Heuristic evaluation was less universally acceptable to students than the two previous methods. Some criticized individual heuristics as being difficult to understand, but the general concept of heuristic evaluation was not considered difficult to grasp. Indeed, its principles appear very similar to various other style sheets and checklists already in use in different parts of the translation industry. However, it seems evident that this apparent familiarity prevented the students from appreciating the more novel *usability* elements involved. In their reports, the students listed items such as legibility, readability, and user satisfaction as difficult and potentially overlapping, but these are precisely the elements that need to be assessed if one wants specifically to improve usability. In terms of multiprofessional cooperation, this method may thus present some misunderstandings, and even worse, these may well lurk under the surface, if translators recognize the use of heuristics but conflate it with other kinds of checklists with which they are more familiar. The two professions may thus end up using the same term *heuristics*, even though the underlying concept is actually different. This suggests that some training and practice evaluations are needed to make the most of this tool.

Usability Testing

Mental models and heuristic evaluation have the drawback that they do not include the actual user, which the students also noted in their assignments and feedback. Because of this drawback, Nielsen (1993, p. 165), for example, advocates for the empirical method of usability testing. Rubin and Chisnell (2008) define usability testing as follows: "a process that employs people as testing participants who are representative of the target audience to evaluate the degree to which a product meets specific usability criteria" (p. 21). As Joni Koskinen explains, in practice the test participants are asked to perform different kinds of tasks, which should correspond to real use situations. The collected data can include notes, video recordings, screen recordings or log data including the user's think-aloud protocol. After the test, the user's subjective impressions can be collected with a questionnaire or interview. Usually one participant tests a product while 1–3 persons act as observers, who might not always be visible to the user. One of the observers acts as moderator, managing and monitoring the test situation (Koskinen, 2005, p. 188, 196-197).

We experimented with usability tests in the classroom setting on two occasions. In a group project, advanced translation students from the University of Eastern Finland applied usability testing in an authentic project assignment in which an online course on translation technology was translated into English. The students designed and ran two sessions, in the first of which they gathered the users' comments on the material, finding usability issues on a textual level. The participants went through the text, wrote down their comments, and then the group discussed them. Among other things, the project team found that sentence structures and formulations needed to be simplified. The second usability test was task-based—following translated instructions to create a new project by using translation memory software. Moderators observed the participants' task performance, which was followed by a group discussion. No major usability issues arose, which was seen as a positive result (Suokas et al., submitted).

The second teaching example is a fictive usability testing scenario executed as part of a UCT course. Students were divided into small groups and were asked

to test an infotainment game which is available in multiple languages online. Some of the students in the group were playing the game and thinking aloud, while others were observing and taking notes. The participants were asked to consider the usability of the game: whether it was easy to start and play the game, whether the rules were helpful, whether they would have needed more instruction, and how the overall playing experience was. These themes were then discussed together with the whole group. This teaching scenario does not include many of the important elements of a typical usability test plan (see Rubin & Chisnell, 2008), but the exercise still managed to give translation students a feel for some of the characteristics of a test situation. It should be noted, however, that in this second case, half of the students practiced being test participants, and only the other half trained observation, and the focus was only tangentially related to translation.

Our student feedback comes from the second example, and the feedback is rather ambivalent: while seven students expressed positive views and only two expressed negative views, six made both positive and negative comments and three did not evaluate the method at all. Many of the positive comments emphasized the concrete, real-life information that can be gained through usability testing, as in the following comment: "What is attractive about usability testing is its concreteness: it helps us gain genuine, experience-based responses to guide our work, instead of just operating based on our own evaluations/guesses." In the ambivalent comments, usability testing was often seen as interesting and potentially useful, but the students suspected that realistically it could not be employed in real-life situations very often. Some were also doubtful about the cost-effectiveness of the method. One good example of such views is the following comment: "It is doubtful that translators themselves could arrange usability tests for their own texts, but the method itself seemed useful to me."

Students found usability testing to be a useful tool, suited especially for evaluating games, webpages, user instructions, and cooking recipes. They were fascinated by the concreteness of testing and the way in which it can reveal problems that some of the other methods cannot. A few students mentioned that they would love to be test participants themselves. Students also identified

potential problems, for example that using thinking-aloud might not always be the best method to be included in usability testing and that test participants do not represent all of the users.

Among the methods we have described in the UCT model, usability testing presents the biggest challenges to traditional thinking on translation quality assessment. First, it is not entirely clear yet how the tests can be designed to target translation issues. Second, translator training does not equip students with skills for interaction with end users, nor with observation skills. Third, we cannot be certain that once we involve actual users, their views will be aligned with those of the translators, and translators may well need to learn to let go of their own quality criteria.

Thus far, we have only begun to test usability testing, either in practice or in the classroom, and it is slightly premature to pass any judgement on its usefulness in the multiprofessional workplace. Our usability testing experiments have shown that the method can be motivating and stimulating for translators to use, even if it can be challenging to adopt it into the translator's toolkit. But perhaps that is what would make usability testing a promising area for multiprofessional collaboration: aspects related to translation could become one element of regularly performed usability testing, and if translators were familiar with the concept and had access to the testing situation, they could overcome the traditional end-of-the-line problems and contribute their expertise to the overall product development. These problems of access are not unique to translators as technical communicators often struggle with the same difficulty. Together they can make a stronger case for early inclusion of both the users and the communication experts in the project cycle.

Conclusions

In this article, we looked at a number of usability methods that we have used in translator training. The question we set out to answer was whether and how these methods can enhance future translators' skills and abilities to operate in multiprofessional teams as experts of translation and intercultural communication.

More specifically, we looked at the interface between translators and technical communicators.

From a teacher's viewpoint, using the methods of persona, implied reader, heuristic evaluation, and usability testing has been a concrete and hands-on experience, stimulating in-depth discussions with students on translators' competencies, abilities, limitations, and boundaries. The students' overall response to the methods has been highly positive: the assignments were found to be interesting and different—fun even—and the majority felt that they would be useful when examining the target audience of a translation and in producing an appropriate translation for that audience.

However, the students tended to focus on the usability of these methods from the perspective of the translator only, rather than envision a collaborative context in which they would be working side by side with other professionals such as technical communicators. They also expressed some skepticism about the usefulness of the methods, and with regard to heuristic evaluation, the heuristics had some usability problems. Above all, the skepticism addressed the opportunities for translators to actually take advantage of these methods in the hectic translation industry. It may well be the case that the students' vision of their future role as subcontractors in the translation industry prevented them from seeing potential collaborative work contexts, where usability is not an add-on but rather an integral part of the set-up. But students may also already have accepted the end-of-the-line problem as the unquestioned status quo.

One reason for these problems might be that the perspective of multiprofessional collaboration and true team membership has remained too implicit in the teaching sessions. Although the improvement of translators' professional collaboration skills has been one driving force behind the development of the UCT model, the need to focus on the practical application of these new methods has led to a lack of transparency of its more meta-level objectives. In the future, we need to be more explicit in communicating and discussing the aims of the UCT model with regard to its interfaces to other professions.

So far, the UCT model and some of the methods have been tested primarily in academic settings, although some industry cases exist (see Otava, 2013), and we have also received some industry feedback. The next step is to scrutinize the model and its methods in real-life scenarios, to develop them iteratively to fit different types of industry situations, and to bring that knowledge back into the classroom. Primary industry concerns include the costs and benefits of introducing UCT into a business environment. This worry is also echoed by students. However, at least in user-interface design, usability methods have been shown to give positive returns on investment (Marcus, 2004). We expect similar results when usability methods are applied in translation.

From the viewpoint of international professional communication, UCT and its methods help translators speak the same language as technical communicators, developers, and engineers, and it offers concrete tools that have been missing from translation theories. We believe that once translators adopt these tools, they will be better prepared to network, take their expert position alongside other professions in international communication contexts, and provide a valuable contribution. ■

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