

Institution: University of Portsmouth		
Unit of Assessment: UoA 27: English Language and Literature		
Title of case study: Empowering translation workers in an increasingly automated language service industry		
Period when the underpinning research was undertaken: September 2015 - present		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Dr Akiko Sakamoto (PI)	Senior Lecturer	01/09/2013 - date
Dr Begoña Rodríguez de Céspedes (Co-I)	Senior Lecturer	07/09/1998 - date
Period when the claimed impact occurred: 2016 to 2020		
Is this case study continued from a case study submitted in 2014? N		
1. Summary of the impact <p>Translation is a vital facilitating component of the globalised economy, and a multi-billion USD industry in itself. The position of the human translation workforce is threatened by the (often hasty) adoption of AI-led machine translation (MT) by Language Service Providers (LSPs). By investigating the overlooked human aspects in MT-incorporated workflows, Dr. Akiko Sakamoto and Dr. Begoña Rodríguez de Céspedes' work mapped a route to cement human skills into the translation process, and maintain a sustainable professional workforce for the future industry. Their recommendations were adopted by educational and professional organisations in the EU, UK and Japan, which continue to shape best practice around technology adoption for their members and commercial subscribers.</p>		
2. Underpinning research <p>Sakamoto and Rodríguez de Céspedes' research has investigated the often-neglected human factors in the adoption of technology, particularly MT, in the translation production system. Using mixed-methods forms of inquiry, their research examined the causes of the disruption brought to the conventional production system, and sought effective remedies for safeguarding the most important human workers, i.e., translators, from hasty adoptions of technology, which is often led by an unsustainable urge to obtain high quality outputs, rapidly, at a low price.</p> <p>Based on a detailed analysis of Europe-wide documentation of professional translator training, Rodríguez de Céspedes' initial work in this area (R1) argued that there was a lack of development of sustainable employability skills. Subsequent focus-group research (R2) demonstrated that the industry's overemphasis on translators' peripheral technological competences risked hampering the nurturing of core skills, which could provoke a 'drain' of the high-quality workforce from the translation industry. As a countermeasure, she advocated the teaching of a more focused professional skill set at university MA courses.</p> <p>Expanding the remit of enquiry beyond translator training, and responding to demands from the translation industry to address workplace practice, Sakamoto and Rodríguez de Céspedes' further research examined the views and experience of human actors about recent adoptions of technologies in the UK (R2, R3) and Japan (R5), the latter in collaboration with Prof Masaru Yamada at Kansai University, with external funding (G1, G2). This work identified a series of key problems, masked behind the conflicting interests of different stakeholders. Both studies were conducted collaboratively with the countries' national professional associations: the ITI (Institute of Translation and Interpreting) in the UK and the JTF (Japan Translation Federation) in Japan.</p> <p>This research deepened the focus on the growing but contentious production practice of machine translation post-editing (MTPE). In MTPE, workers edit automated MT outputs instead of translating texts from scratch. LSPs, facing high demand for rapid translation services, have been eager to commission MTPE in place of end-to-end human translation. Acknowledging the potential value of technological innovation, the research highlighted that, in practice, the current process of MTPE adoption by LSPs was creating three dimensions of potential harm to the industry:</p> <p>1. Unrealistic pricing models: (R4, R5) discovered that the current MTPE pricing models are based on the LSPs' poor understanding about the cognitive process of post-editing work and the real social values of translators' skill sets. The findings produced recommendations that MTPE pricing</p>		

should reflect the value of translators' skill sets more accurately so that it does not hamper their career motivations.

2. Skills gaps in post-editing: (R2, R5) argued that LSPs are underestimating the real skills requirements for post-editing work, jeopardizing the quality of final translation products. This is causing harm to recruitment practices in two ways: on the one hand by harming the appeal of the work to skilled translators; on the other hand by exposing aspiring and early-career translators to the risk of exploitation. The research findings demonstrated how LSPs can hire translators in a way which respects their skill sets, and how translators of different skill sets at different career stages can more effectively make informed decisions about the work they take on.

3. Lack of clear guidelines for translators' private MT use: (R6) discovered that obscurity on the question of how to use MT effectively and legitimately in their work is confusing many translators, sometimes leading them to misuse it unwittingly. Uploading materials to a "free" service such as Google Translate may be a violation of their contractual terms for non-disclosure, and providing free intellectual property to a third party. The research recommended the establishment of clearer guidelines about this practice between LSPs and their translators.

3. References to the research

(R1) **Rodríguez de Céspedes, B.** (2017). Addressing employability and enterprise responsibilities in the translation curriculum. *The Interpreter and Translator Trainer*. 11(2-3), 107-122. <https://doi.org/10.1080/1750399X.2017.1344816>

(R2) **Rodríguez de Céspedes, B.** (2018). Mind the gap: Language Service Providers' views on the technological training of professional translators. In E. P. Pinazo (ed.) *Optimización de las Competencias del Traductor e Intérprete* (pp 143-162). Frank and Timme, Berlin.

(R3) **Sakamoto, A.** (2018). Unintended consequences of translation technologies: From project managers' perspectives. *Perspectives*, 27(1), 58–73. <https://doi.org/10.1080/0907676X.2018.1473452>

(R4) **Sakamoto, A.** (2019). Why do many translators resist post-editing? A sociological analysis using Bourdieu's concepts. *Journal of Specialised Translation*, 31, 201–216. https://www.jostrans.org/issue31/art_sakamoto.php

(R5) **Sakamoto, A.**, and Yamada, M., (2020). Social Groups in Machine Translation Post-Editing: a SCOT analysis. *Translation Spaces* 9 (1), 78-97. <https://doi.org/10.1075/ts.00022.sak>

(R6) **Sakamoto, A.** (2020). The value of translation in the era of automation: an examination of threats. In R. Desjardins, C.Larsonneur, and P. Lacour (eds.) *When Translation Goes Digital* (pp.231-255). Palgrave. https://doi.org/10.1007/978-3-030-51761-8_10

Statement in support of underpinning research quality

All items are peer-reviewed journal articles or book chapters. According to the CiteScore ranking, (R3) and (R5) ranked 23rd and 9th respectively out of 823 journals in the Language and Linguistics category and (R1) and (R4) ranked 105th and 94th respectively out of 830 journals in the Literature and Literary Theory category. (R2) and (R6) were published from leading language studies publishers in Europe.

Research grant funding

(G1) **Sakamoto, A., Rodríguez de Céspedes, B., & Evans, J.** *17th Portsmouth Translational Conference- when translation meets technology*. Funded by the Japan Society for the Promotion of Science). November 2017, (GBP8,800).

(G2) **Sakamoto, A.** *The interaction between human agency and technology: a case study of the translation industry in Japan*. Funded by The Great Britain Sasakawa Foundation, June-July 2018, (GBP1,422).

(G3) **Sakamoto, A.** *Translation and Technology: towards sustainable and ethical adaptation of technologies, public engagement event*. Funded by The Great Britain Sasakawa Foundation, October 2019, (GBP1,000).

4. Details of the impact

From its outset, this research was integrated into networks of translator training and professional representation, and has had a wide-ranging influence on policy makers, corporations and translators in the UK, Europe and Japan.

Transforming professional-education policy and practice across the EU

Since 2006, formal EU-wide policy on translator education has been centrally defined by the **European Master's in Translation (EMT)**, an educational division of the European Commission's Directorate General for Translation. EMT accredits masters' level translation programmes, against a 35-point Translation Competence Framework.

When this framework was reviewed in 2017, Rodríguez de Céspedes was invited onto the Expert Group for this process. Based on her recommendations, three new competence items were adopted, addressing the importance of acquiring modern translation technology skills (Point 15), monitoring on-going industry requirements (Point 27) and continuous professional development (Point 26) (S1).

The new competence framework (S2) is now mandatory for all 80 leading translation MA courses in the EMT network. It has particularly influenced the educational provisions of new member programmes accredited in 2019, prompting them to start new professionally-oriented modules. For example, Jagiellonian University recognised Rodríguez de Céspedes' *"great value to research on the use of technology tools in translator education"* and *"great contribution to the development of the framework"*, as they revised their programmes in consequence (S3). As a result of this research, there has thus been a significant material change in translator-education policy, extending its reach across the entire EU and beyond.

Transforming professional policy in the UK

The Institute of Translation and Interpreting (ITI) is the largest language industry association in the UK, with 90 corporate members (LSPs) and 3010 individual professional members (translators). Through its stringent member accreditation system, the ITI serves the GBP1.35 billion UK language market (the second largest in the world) as well as the international market, as a major source of highly-skilled translators.

From 2016, the ITI executive's new Chair, Ms Sarah Bawa-Mason, (familiar with this research through employment at University of Portsmouth as a part-time translation lecturer), began to work actively to protect its members' human agency and professional values from the perceived threat of automation. The ITI became a national collaborator from the initial stages of the UK-based research, and commissioned an industry report from the team in 2017, exploring industry stakeholders' thoughts and attitudes about technological developments in the UK translation industry (S4). By August 2020, this report had been accessed online over 3500 times, indicating very significant penetration into the professional audience.

ITI used Sakamoto and Rodríguez de Céspedes' research findings to launch a new public relations strategy, more widely disseminating the translators' voice within the technology-driven LSP business landscape. Ms Bawa-Mason discussed the research at key venues for debate over technology in translation, appearing at ten international conferences in the UK, USA, Europe and Australia in 2018 and 2019. Ms Bawa-Mason noted that it was *"Thanks to the work of Drs Sakamoto and Rodríguez de Céspedes"* that she was able to make *"strong arguments for the human's position in the translation process alongside the technologies"* (S5).

ITI also launched the ITI Research Network, a new member education division, with Rodríguez de Céspedes as one of the founding members and advisors. This has channeled research-based information from the academic community to its policy-making board as well as its individual members through their CPD programmes (see further below). This has engaged the ITI membership with wider perspectives on their industry and professional status, working to dispel some of the anxieties and misperceptions identified through the earlier research. The Research Network published two e-books of academic and professional contributions on their members' Knowledge Hub, addressing *The Human and the Machine* and *Ethics and Machines in an Era of*

New Technologies. The first of these has been accessed over 500 times. The Network's reach has been cemented by further academic/industry crossovers, such as its 2020 'Faraday' event. Here, 14 high-profile Translation Studies academics from 11 UK and European universities attended and showcased their cutting-edge research, confirming ITI's newly-forged link with the high-quality research community (S5).

Transforming UK practitioners' understandings

The research team's most recent recommendations were shared by Sakamoto with ITI members initially through a small CPD workshop in January 2020, with an audience of 50, and then through two articles in the ITI's bi-monthly member magazine in March and July 2020. A subsequent ITI member webinar in November 2020 directly engaged 219 translators, and the recording was watched by a further 93 viewers by the end of the year, being the third most popular event of the year on the ITI's busy webinar programme (S5). The workshop was also in demand in Europe: University of Ghent, Belgium, one of Europe's leading translation education institutions, hosted Sakamoto's webinar for its translation students in October 2020.

The workshops boosted the translators' confidence in their decision-making about whether to take up post-editing work, and if so, how. Immediate feedback showed that half of the attendees confirmed their existing plan of not taking up post-editing work (*"I think the webinar confirmed that PE is not something for me."* *"I was thinking about it as I have recently been offered it but now I don't want to do it"*), the other half were willing to take it up but with a stronger understanding of the issues (*"I changed my mind that I won't turn down flat MTPE assignments as long as I can agree on the pricing through a proper negotiation process as I learnt in the workshop"*, *"I would probably raise my rates for MTPE"*). It also influenced the Ghent translation students' career aspirations by prompting them to think of good professional practices (*"I will be more careful using free online translation tools"*) and to strengthen their human translation skills (*"I think I am going to try to use less MT when I do translations."*) (S6).

Transforming business practice in Japan

Transformation of translators' practices requires corresponding efforts on the side of LSPs, their work commissioners. The research was extended to Japan, where an impact on LSPs was achieved by collaboration with the Japan Translation Federation (JTF), with support from external funding (G3). JTF is Japan's only translation industry association, with 250 corporate and 300 individual members. The research assisted the JTF in fulfilling one of their missions, to provide reliable information to industry stakeholders, and, as its journal editor observed, it "has raised the Federation's credibility as an information provider to its members and other industry stakeholders" (S7). Sakamoto co-authored an industry report on the JTF's website (S8), as well as a feature article for the JTF's bi-monthly industry magazine *JTF journal* (800 hard copies and 3,500 downloads) (S7). The *Interpreting and Translation Journal* (circulation 20,000), the only commercial translation-career magazine in Japan, also reported the findings (S9).

As a result, the research and its recommendations have begun to influence the way Japanese LSPs design their MTPE operations. One such LSP noted how the research brought them to recognise *"the importance of open communication and clear agreement about new MT production procedures with clients"*, and therefore to introduce a new pre-project client negotiation procedure in 2019. This enabled the clients *"to achieve the expected quality and to get understanding about the rationale behind the pricing"* and *"has resulted in extremely positive feedback from them"* (S10). These kinds of changes in LSPs' operations are important for ensuring sustainable working conditions for individual translators and post-editors.

These impacts have led to an ongoing collaboration not only with ITI and JTF, but now also with UK's LSP association (Association of Translation Companies) and the USA's translator association (American Translator Association) to undertake a new research project about translators' well-being and the future of their work (S5). This should have a continuing impact on the international cross-industry efforts to maintain a sustainable global workforce in the face of automation.

5. Sources to corroborate the impact

(S1) Letter from [text removed for publication] - to testify Rodriguez's contribution to the framework 26/09/2019.

(S2) EMT Framework Publication - outlining translator competences profile of the European Master's in Translation December 2017. https://ec.europa.eu/info/resources-partners/european-masters-translation-emt/european-masters-translation-emt-explained_en

(S3) Jagiellonian University - letter about their curriculum change following the new EMT framework 28/11/2020.

(S4) Commissioned report for the ITI about technology use in the UK translation industry 2017.

(S5) Letter from former and current ITI Chair to testify the project's contribution to the ITI and UK translators 03/02/2021.

(S6) Webinar workshop feedback (ITI January and November 2020 workshops and Ghent University October 2020 workshop).

(S7) Letter from Japan Translation Federation (JTF) chief editor Mr Kawano - to testify the research's contribution to the JTF 10/11/2020.

(S8) Industry report hosted on the JTF website 2020.

(S9) Featured article in a commercial translation magazine, Ikaros Publishing, Japan 2020.

(S10) Letter from Japanese LSP Ms Shibata, Senior Translation Project Manager at Chizai Corporation in Tokyo, Japan - to testify the influence of the research to their business operations June 2020.