Translation in the neoliberal era

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This chapter considers the impact of neoliberalism on translation as a profession, exacerbated by the global economic crisis of 2007/2008 and consequent policies of austerity adopted in many jurisdictions. Employment conditions for translators, as with the general trend, have moved towards a 'vendor model' of freelance and contingent work. For some translators this has given them more control over their working lives, whereas for others is has been disempowering as they struggle with speed and productivity demands, the unilateral imposition of technologies, and constant downward pressure on price. Translation technology has afforded the possibility of cutting costs by leveraging previous translations within editing environments and of training MT systems. However, for translators this technology has had a dual effect, with some tools foregrounding usability and others more focused on data gathering. The industry has taken an increasingly pragmatic view of product and process quality, prioritising shareholder returns rather than social quality for translators, as proposed by Abdallah, and long-term, sustainable thinking. This will probably need to change if it is to retain talent and to encourage new and potential entrants.

Introduction

In recent years we have seen an explosion of digital content. In 2007, humans had created capacity for 264 exabytes of data (Hilbert and López 2011). By 2018, we had capacity for 33,000 exabytes across multiple modes and media, with predictions for this to reach 175,000 by 2025 (Reinsel *et al.* 2018). Consequently, there is more material than ever before being translated by a growing number of human translators and by a growing number of machines. The outlook for both human and machine translation appears bright, and one might think that

In Bielsa, E. and Kapsaskis, D. (Eds.) 2020. The Routledge Handbook of Translation and Globalisation.

this situation would result in rising payment for translators. However, the political and economic climate has combined with application of technologies to inhibit price growth in the translation industry. These pressures are not applied equally, and some translators have found themselves to be more vulnerable to the vagaries of the translation marketplace.

In this chapter, I look first at the economic and political context in which neoliberal economic policies and globalization have served to depress prices in many markets, translation included. Machine translation (MT) and leveraging technologies were initially envisaged with lofty humanitarian and human-centred goals, although these appear to have changed a little over time as economic imperatives have encouraged pragmatism. I consider the profile of contemporary professional and paraprofessional translators, some of whom are thriving while carrying out the multiple roles expected in the current marketplace while others struggle to make a decent living.

In examining translation in the neoliberal era, I use the 3D quality model as proposed by Abdallah (2014), beginning with the growing complexity of the translation process and its inherent communication difficulties, considering the changing product quality expectations, and finally looking at social quality for translators.[1] The changes described in this chapter are part of a continuing trend within and beyond the translation industry. I suggest some possible disruptions to this trend in the final section of this chapter.

Economic context

In this section I will introduce the interconnected and influential concepts of neoliberalism and austerity. Konzelmann (2012: 2) defines economic austerity as a series of measures (usually tax increases and/or public expenditure reductions) with the aim of reducing a country's deficit, i.e. 'the difference between what the government spends and the revenues it earns'. Blyth (2012: 2) explains that this 'voluntary deflation' is intended to restore competitiveness but has

had substantial negative effects. Internationally, governments have imposed periods of austerity following war efforts, or as a control measure for overheating or underperforming economies. By the 1960s, many governments had begun to grow their public debts while increasing public spending and, in some cases, social welfare systems, and in 1971 the US dollar was decoupled from the gold standard, loosening the control that the USA and other governments had over their finances. In response, the application of austerity became ideological, and the US and Europe increased their focus on managing inflation, reducing government spending, and reducing taxes that might be perceived to deter trade. New economic liberalism, or neoliberalism, adopting austerity policies as part of minimization of state control, became conventional wisdom, crossing political party and institutional lines (McNamara 2009), encouraged by OECD reports and sometimes imposed via the International Monetary Fund (IMF; Broome & Seabrooke 2007: 9).

This policy redoubled in the 1980s under leaders such as Reagan and Thatcher in the USA and UK, leading to increased liberalization of trade and the requirement of flexibility in the labour markets. The shrinking role of the state in neoliberal economies has more recently led to a move towards 'greater personal responsibility for economic and financial well-being' (Neff 2012: 9) rather than a responsibility weighing on companies or the state. As barriers to trade have become fewer, international markets have grown - globalization - and we now have a situation whereby product creation is geographically displaced within a 'global value chain', with associated trends of 'intensification, speed-up, and standardisation of work' (Huws 2014: 116).

Following the economic crisis of 2007/2008, several countries required financial assistance from the IMF, who required 'fiscal consolidation plans', restricting spending relative to GDP and encouraging easing of employment protection rules (Teague 2016), aside from the exceptional case of Iceland, where a more consultative approach was taken (Wade and

Sigurgeirsdottir 2012). This encouraged a growth in non-standard rather than permanent employment. Non-standard or contingent work has been growing worldwide for many years, with numbers more than doubling in the USA between 1969 and 1993, and reaching 40.4% in 2010 (Cummings and Kreiss 2008). Broughton *et al.* (2016) estimate the rate of standard employment in the EU to be at roughly 59% and dropping, with 7.6% of EU workers at risk if wages are further driven down by outsourcing. Rubery (2013) has highlighted how women tend to suffer disproportionately in times of austerity, and there are disparities of gender within the numbers reported here, as women are more likely to work on a part-time or freelance basis across the EU (Broughton *et al.* 2016), with large gender differences noticeable in countries such as Switzerland, where 59% of women work part-time, as compared to 18% of men (Federal Statistical Office 2019). 26.4% of EU workers (including over 70% of Greek workers) work on an involuntary part-time basis as they are unable to find full-time employment, with a tendency for these workers to be female (Chiripanhura and Zhang 2019).

These statistics are relevant to the translation industry, where estimates of the number of professional translators begin at 330,000 worldwide, of whom 70% are women (Pym *et al.* 2012). Roughly 75% of translators are thought to work on a freelance basis, a far greater proportion than among employees generally (Pym *et al.* 2012; Moorkens 2017). It can be difficult to estimate the number of professional translators accurately, as many freelance workers (and teleworkers) work in isolation, without membership of professional organizations.[2] Many translators work on a part-time basis, some as part of the gig economy, and the occupational boundaries are ill-defined. To be a professional translator, one does not require any particular formal training or accreditation (Katan 2011).

Translator numbers have grown during a time when there has been a trend towards freelance and contingent work. The neoliberal era has enabled globalization, and the increased speed and prevalence of international communication has led to an increased demand for

translated material in recent years. The number of translators and interpreters in the USA, for example, grew from 15,190 in 2000 to 53,150 in 2017 (Bureau of Labor Statistics 2018) and continues to expand. Similarly, the size of the language service industry as reported by CSA Research (DePalma *et al.* 2018) continues to grow year on year. Translation companies have become reliant on scaling to meet demand by outsourcing to freelance translators, with pricing for external clients based on this 'vendor model' of employment without the extraneous costs incurred by direct employees. This model of employment has not tended to empower translators.

Harvey (2006: 154) wrote about a wave of financialization post-1980, 'marked by its speculative and predatory style'. This too has had an effect on translation, as the largest translation companies are publicly-traded, and thus subject to the vagaries of the financial markets (justification for unilateral translator rate cuts such as that imposed by Lionbridge in 2010; Bavington 2010). The number of mergers and acquisitions in the translation industry has increased, with at least 48 transactions in 2018 (Slator 2019). Kronenberg (2018) has compiled a timeline of acquisitions by the company RWS since 2014, noting the increases in profits while tightly limiting rates and payment terms to freelance translators that fits with Brennan's (2009) summary of a 'regime of privatisation' involved in 'lowering the price of adversarial intellectual work.' Rushkoff (2016: 17) notes that large companies tend to prioritize short-term returns to shareholders by lowering costs, 'no matter what it means for top-line growth or long-term profitability', the speed and scale of this process exacerbated by digital processes. While technology is an enabler of global communication, requiring more translation, it also means that production networks can be globally dispersed, with many large language service providers spreading their offices across time zones. The technological context for translation in the age of austerity is discussed in the following section.

Technological context

From the outset, the development of MT had lofty rather than pragmatic goals. Weaver's 1947 letter to Wiener, cyberneticist and enthusiast of interdisciplinary research, stressed the necessity of MT 'for the constructive and peaceful future of the planet' (Weaver 1947: 1). Inherent in translation automation, however, was a threat to human translators. By 1951 Bar-Hillel concluded ('for the time being') that fully automatic high-quality MT was not feasible, and rather that a 'mixed MT' 'in which a human brain intervenes' before and/or after the MT process would be necessary for optimal accuracy (Weaver 1947: 230). The spectre of automation was also raised in the Automatic Language Processing Advisory Committee (ALPAC) report of 1966: 'Someday, perhaps, the machines will make it, but I as a translator do not yet believe that I must throw my monkey wrench into the machinery in order to prevent my technological unemployment' (ibid.: 28).

Translation was far from the only industry where the threat of automation was felt. Strom (1975) was one of several authors in the 1960s and 70s who suggested that, in the light of jobs being replaced (contemporarily) by automation at the rate of 40,000 per week, that it was time for workers to labour for fewer hours and to prepare themselves for a leisure-focussed society. This has not transpired, although we have seen a gradual reduction in average working hours (Lee McCann and Messenger 2007). More recently, Frey and Osborne estimated that 47% of total US employment was at risk of being replaced due to automation, with computerization due to 'substitute for low-skill and low-wage jobs in the near future' (2013: 42). With this in mind, the situation for translators looks comparatively positive. The demand for human translation is still increasing (Bureau of Labor Statistics 2018), despite predictions of automation of the translator's role (Katan 2016) and widespread automation anxiety among translators (Vieira 2018).

MT was still rarely used in production when, in 1980, Kay suggested the development of a Translator's Amanuensis, a tool with source and target windows presented in the user interface, which would suggest 'statistically significant words and phrases' that had appeared in previous stored translations (Kay 1980: 16). Kay stressed that his tool would always be 'under the tight control of a human translator' and was intended to 'help increase his productivity and not to supplant him' (1980: 18). Kay intended his Amanuensis to free the translator from work that was 'mechanical and routine' in order to make the work 'more rewarding, more exciting, more human' (1980: 1).

Although tools capable of multilingual word processing appeared earlier, the first tools to feature translation memories (TM) were released in the early 1990s. Early adopters of these tools had the opportunity to increase productivity once past the initial learning curve, but as TM tools came to be more widely used, the power shifted to (especially larger) clients as discounts based on fuzzy matches began to be applied by translation buyers with 'very little grounds for negotiation' (García 2006: 102). Specialized translators who had invested in TM tools expecting to gain a competitive advantage found instead that expected throughput had increased as word rates had decreased. For directly employed translators such as those at the European Commission Directorate General for Translation, expectations for productivity tended to rise (Strandvik 2019). As Lafargue observed in 1883, as technology enables 'an ever-increasing rapidity and exactness', the worker, 'instead of prolonging his former rest times, redoubles his ardour, as if he wished to rival the machine' (Lafargue 2011: 20).

The widespread use of TM tools has allowed translation buyers to build up a repository of human translations. When these were first shared by translators on an ad-hoc basis, there was industry concern (Topping 2000), but it is now commonplace for translators to work on a large networked TM, with translators benefiting from the prior work of others just as future translators will benefit from their work (Gough 2011). This tacit agreement to share TM data

led to a precedent whereby TMs are returned to the translation buyer, even though the ownership of copyright for a translation is complex and less clear-cut. Although the original author (or their assigned copyright owner) also owns a translation of their work according to the Berne Convention (1886), there should also be rights accrued for the translator when work is creative or original. The original author may not use a translation as the basis for a further translation without permission or royalty payment (Cabanellas 2015), and creators of a database (such as a TM) may have rights depending on the jurisdiction and their efforts in creating and maintaining that database (Troussel and Debussche 2014). The most popular MT paradigms since the 1990s have been data-driven, relying on human translation for training and testing. The aligned source and target segments held in a TM file are ideal raw materials for MT training, and are commonly put to this secondary use, without the consent of or compensation to the human translator.

This is in keeping with trends in digitally-mediated work beyond translation and a 'sharing economy that is more extractive than it is circulatory' (Rushkoff 2016: 218). The metaphor of data as oil suggests that data is naturally-occurring and therefore free to use rather than the product of valuable human effort. Zoboff (2019: 105) writes of extractive companies 'simultaneously ignoring, evading, contesting, reshaping, or otherwise vanquishing laws' that threaten their access to data. This data dispossession is increasingly problematic as machine learning techniques are applied to huge data sets in order to extract patterns without explicit operator instruction. Translation data sets, once extracted, are valued highly (Diño 2018), yet curiously at a granular scale they are often expected as a cost-free bonus for a translation job.

A handful of research papers were published on the application of machine learning to translation using neural networks in 2014 (Bahdanau, Cho and Bengio 2014 contains a short review), but by 2016 it had become clear that neural MT (NMT) was the new state of the art in MT (Castilho *et al.* 2017). In common with other applications of machine learning, there are

regular media stories about impending technological unemployment and leaps in quality, and while these are often overblown, the improvement in MT quality for general domain texts in language pairs for which there are large data sets available has been impressive. Evaluations have found increased fluency and lower numbers of errors, although these have not been associated with significant increases in productivity when NMT is used in the production of publishable texts (Castilho *et al.* 2019). The increase in output quality and the media attention on NMT means that more translation agencies are offering products using NMT in response to client demand, and a wider variety of use cases are being found for raw and post-edited MT (Way 2018). Aside from gist translation, raw NMT is being used for low-risk, perishable content such as online reviews and auctions, access to information from foreign-language academic articles, for e-discovery to identify which legal documents are worth having humans translate, and for some localization work. Post-editing, although not popular with many translators, is the fastest growing sector of the translation market, and is used in cases where employers want to cut costs and raw MT would be considered too risky (Lommel and DePalma 2016).

Automation is being applied to translation in other ways, such as in lights-out project management systems that can automate workflow steps, assigning jobs to translators based on cost and reputation scores without human input (Sakamoto 2018). Modern translation editing tools and proprietary translation portals in which translators interact with TM, MT, and terminology suggestions in the production of a translated text can also save details of user interaction in the form of telemetry or logs of user activity data for potential reuse and surveillance. This data could be used to identify the user based on typing patterns and, if combined with data from other sources, could be used to make inferences or predictions about the user that may be useful to the receiver in negotiations or may affect business decisions (Wachter and Mittelstadt 2019), particularly if associated with translation quality evaluation.

The European Union are at the forefront of legal efforts to protect personal data, and the General Data Protection Regulation offers safeguards to such data, but inferred data may not be covered by such regulations and the law will inevitably be a step or two behind technology. This is the dynamic technological environment in which translators will need to successfully negotiate varied expectations in order to thrive. The profile and requirements of a translator in this context will be discussed in the following section.

Translators' profile

According to Pym *et al.* (2012), most professional translators are female and work on a freelance basis. In Moorkens and O'Brien's (2017) survey of over 400 translators, most respondents aged 20-30 work directly for a company and the majority over 30, with the share growing progressively, work on a freelance basis. 31% said that they work with a single agency, putting them at risk if there is a change in that agency. Some translators prefer freelance work, as they gain autonomy that they may not otherwise enjoy when working for a Language Service Provider, where career progression is likely to entail a move away from translation into administration or management. As most translation is outsourced, many translators have little choice but to work on a freelance basis (Moorkens 2017). While there may be short-term gains for the worker for avoiding tax or to earn a higher basic wage, the employer manages to save on many obligations including continued employment, evading regulations for minimum rates of pay, annual leave, sick leave, pension contributions, aside from the cost of light, heat, hardware, software, desks, seating, and office space (Campbell *et al.* 2004). This situation is exacerbated when translators are employed via a crowdsourcing platform. The low-trust nature of crowdwork means that workers and employers rely on reputational systems on the crowdsourcing platforms, with high-reputation workers flooded with work, which they may subcontract within the crowd, and low-reputation workers subject to sudden deactivation

(Prassl 2018). Crowdworkers spend a lot of unpaid time searching for jobs and, like freelancers, do not receive benefits of direct employment. In addition, their low rates of pay often inhibit access to healthcare (Wood *et al.* 2019).

The expectations of translators in the neoliberal era are varied. Where early discussions on translator competence considered concepts such as self-awareness and self-confidence (Kussmaul 1995), a growing list of sub-competences have been suggested by various authors and groups (EMT Network 2009; Göpferich 2009; PACTE 2017) that incorporate strategic and instrumental competence to do with language, text, terminology, subject matter expertise and others. The most recent European Master's in Translation network competences (EMT Network 2017), recommended and required for accredited translation Master's programmes, incorporates categories of competence such as 'Language and Culture', 'Translation', and technical competences such as knowledge of MT paradigms, their training and pre- or post-processing. Moving beyond the textual and technical, the 'Personal and Interpersonal' category incorporates planning, social media, communication, and reflective practice. The 'Service Provision' category includes sub-competences involving project management, negotiation, marketing, and strategizing.

In practice, translator practices, skills, motivations, and abilities are massively varied (Gouadec 2007) and some commentators have criticized long lists of competences (Pym 2003), but the EMT Network, particularly with their interpersonal and service provision categories, attempt to address what Jemielity (2018: 535) calls 'ideological and behavioural "disconnects" between translator-culture and businessperson-culture' that might lead translators to undersell themselves and their unique skill-sets. While Jemielity and others (such as Durban 2004; Drugan 2013) make the case for the highly-specialized, business-savvy translator as an exemplar of financial and professional success, there are many variants of translators who make a comfortable living and choose work that they enjoy, for direct clients and agencies with whom

they have a mutually respectful working relationship. Some high-profile translators have been proactive in encouraging translators to specialize and market themselves to maximize their value (Durban 2011; McKay 2011). Not all translators have the ability, language pair, area of speciality, opportunity, or skill-set required to follow these examples, or indeed, many may not wish to aim for high-end markets (those who Jemielity (2018: 535) considers 'economically unambitious'). There may be reasons beyond ambition for translators to report disempowerment (Abdallah 2012), low professional visibility (Dam and Zethsen 2011), and low degrees of influence, although despite relatively meagre average rates of pay translators appear overall to be quite satisfied with their job (Dam and Zethsen 2016; Ruokinen and Mäkisalo 2018).

The requirement for freelance translators to spend time on the elements of their role identified in the interpersonal and service provision competence categories indicates that the amount of time actually translating must be lessened, which may be off-putting for those with little interest in activities beyond translation. Those paid at word rates are often not directly paid for related work such as on terminology or in solving formatting problems. The average word rate in many regions has not risen in line with inflation, meaning that many translators may be earning less per word in real terms in 2018 than they were at the close of the previous millennium (Dunne 2012). Surveys such as Moorkens (2020a) have reported on translators who are carving out a successful career, maintaining skills and morale, and fine-tuning their abilities, and others for whom the various requirements of the contemporary translator are a grind, such as the person who responded that they have been 'actively moving out of the career for some time now. Isolation of self-employed working from home [was] literally killing me, as was RSI (repetitive strain injury) and stress related to tight deadlines and the cut throat market' (64). Hendzel (2014) considers that the conditions, pay rates, and marketability of translators are massively varied across a 'quality continuum', with the majority of translators

catering to the lower end of the market (lower in terms of price, risk, and quality), and the high end, in which translators are highly-paid for specialized work, ignored in most reports and analysis. Abdallah (2014) believes that the product, process, and social quality of translation cannot be considered in isolation, and that each is likely to differ based on the economic value associated with a translation and the risk of failure.

Translation quality

Translation quality is increasingly considered based on fitness for purpose. The ASTM International (formerly the American Society for Testing and Materials) definition of translation quality states that 'A quality translation demonstrates required accuracy and fluency for the audience and purpose and complies with all other specifications negotiated between the requester and provider, taking into account end-user needs' (Koby *et al.* 2014: 416). If the value of the product or the risk of translation error is high, then the quality will need to be carefully calibrated. Quality control in the Directorate-General for Translation in the European Commission, for example, is particularly involved, as texts in each language may be considered legally binding and thus require high-quality translation (Drugan, Strandvik, and Vuorinen. 2018). Canfora and Ottmann (2018) identify several types of risks in the case of mistranslation, such as risk of injury or death, legal or reputational risk, risk of impaired communication, financial risk, and risk to property. Exposure to such risk is affected by circulation, number of language pairs, and technology employed (including MT).

The variables of time, cost, and quality are often invoked in discussions of translation project management and workflow decisions. In some quarters, there is a tendency to place a short-term focus on cost, 'contracting the work to the lowest bidder ignoring quality and downplaying the consequent costs that poor quality may entail' (Sosoni and Rogers 2014: 8). For translators who have established an area of specialization working with direct clients, they

may be able to effectively demonstrate their value and expertise. An intermediary may be less successful in communicating the risks to translation buyers or in helping them to differentiate high from low quality. Dunne (2012: 154) suggests that when 'clients cannot distinguish between quality, and thus value, price becomes the primary differentiating feature.' If a text is considered to be low-risk or of low value, the process is likely to change accordingly, with fewer resources put into creating a quality source text, increased attempts to maximize leverage or to introduce MT, and fewer review and quality assurance steps after translation. As the product is less likely to be considered unique, each step (or person) in the process is considered replaceable (Dunne 2012) or the tasks split into microtasks to be carried out anonymously via a crowdsourcing platform (Jiménez-Crespo 2018). This has the effect of increasing the number of nodes in the production network, without encouraging communication between them. There may be no opportunity for the crowdworker or the freelance translator outsourced automatically in a lights-out project management scenario to reach a point of contact at all.

For texts considered to be perishable or low-risk, the level of automation is likely to increase (Way 2018), as noted in Section 3. Translation buyers assume that use of MT will generate large cost savings, but that may not be the case, depending on the required translation quality and the quality of the MT output. In addition, there may be pushback from translators, who tend not to enjoy the task of post-editing MT output (Moorkens and O'Brien 2017; Kazlauskas 2018). Post-editing is latterly becoming more common in audiovisual translation, an area of translation for which translation memory was not considered useful (Pidchamook 2018). The increased quality expectations of NMT do not necessarily equate to improved post-editing productivity, as fluency has been found to make errors difficult to spot (Castilho *et al.* 2017). Use of interactive and adaptive NMT rather than post-editing appears to improve the usability of MT-assisted translation, without a statistically significant increase in throughput when compared with using statistical MT (Daems and Macken 2019). Moorkens and O'Brien

(2017) found that translators were generally dissatisfied with the usability of their translation editing environments, despite many years of development, so improved usability is welcome as a way of improving social quality of the translation process.

Abdallah (2014) believes that considerations of translation quality must include social quality in addition to product and process quality. Similarly, Risku (2013) proposes investigation of the effects of the social and spatial characteristics of translators' working environments. Pressure on cost and stress caused by short deadlines impact negatively on social quality, but there are many other factors beyond time, cost, and product quality. It is very common for translators to work in isolation, even those within companies (Jemielity 2018). This has implications for their agency, perceived respect within an organization, and for organizational identification (Bartel *et al.* 2012). Freelance translators often have no access to the production network beyond a single point of contact, who may leave or change roles, or who may not be supportive in the first place. Freelance respondents in Moorkens (2020a) reported a weak sense of purpose in work, a strong factor in job dissatisfaction (see also Krifa 2016), along with negative perceptions of fairness in work. Their responses to questions relating to payment, colleagues, and job security compared poorly to their securely-employed public service colleagues. Freelance translators tend to focus less on ergonomic well-being using laptop computers at desks and in seats that are not built for long-term use (Ehrensberger-Dow *et al.* 2014), whereas company employees may have ergonomic assessments in the workplace and more appropriate workstations. These factors of social quality, Abdallah (2014) argues, affect process quality, which in turn affects product quality, and as such should be a strong consideration in a translation production network, particularly in light of the increasing popularity of highly collaborative and platform-mediated work that requires near-live turnaround times (Moorkens 2020b).

Conclusion: a summary and potential disruption

The translation industry has grown massively in the neoliberal era, in which the trend has been towards freelance or contingent work that is 'flexible, scalable, or cost-effective enough to respond to market demands' (Kelly, DePalma and Hegde, 2012: 2). At the highest level, Language Service Providers are shareholder owned and subject to acquisition by larger conglomerates, in whose shareholders' interest, short term economic decisions are commonplace. Technology affords the possibility to cut costs using troves of previous translations for leverage or for training of MT systems, although the cost reduction when incorporating MT into translation workflows is rarely as significant as anticipated (Kazlauskas 2018). Artificial intelligence may be used in other ways in translation workflows, such as for lights-out project management, where employment decisions are left to an algorithm. This ideally means that decisions are based on aggregated data rather than subjective human judgement (Bodie *et al.* 2016).

The way that this affects the translator's profile and translation quality depends very much on the type of employer and their trust relationship with the translator, the economic value of the text, the risk of mistranslation, and the extent to which the value and risk is understood by the translation buyer. At the higher end of the translation marketplace, translators' pay and conditions reflect their unique and specialized skills which are difficult for the buyer, whether direct clients or agencies, to replace. At the other end, each part of the production network, whether human or machine, may be considered replaceable by another for reasons of cost, time, or quality, and the quality target may be lower to reflect the value, risk, or perishability of the content to be translated. These translators are more likely to work with MT, whether post-editing or otherwise post-processing, and the lack of payment for annual leave, sick leave, pension contributions, plus office, hardware, and software costs are more pressing due to constant pressure on cost and stress due to tight deadlines.

The poor social quality of translation at the lower end of the market, despite the fact that translation needs are growing and more human translators are required, represents a potential disruption to the industry. If the occupation of translator is not appealing, fewer students will study translation and workers will leave the industry. There are sporadic reports of translators exiting in studies such as Abdallah (2014) and Moorkens (2020a), and Moorkens (2020b) proposes foregrounding sustainability within translation work systems. A further threat of disruption is in translation copyright. At present, translations and translation memories are usually given to translation buyers, but Troussel and Debussche (2014), Cabanellas (2015), and others believe that translators may have some claim to copyright. Due to their creative contributions, they can assert translation copyright so that retranslations of their work will require permission and possible royalties, and they may claim copyright over the translation memory database, depending on the efforts to create and maintain it. If the copyrights of the original author, employer, and translator were asserted, this could create an anticommons, whereby the competing claims render the data unusable for leverage and for MT training (Moorkens and Lewis 2019). Finally, there could be further moves towards collective action on the part of freelance and even crowdworkers. The most likely avenue for this appears to be national and international translator organizations. An example of this is collective bargaining agreements in place for Medicaid translators and interpreters in Washington State, U.S.A. (Moorkens 2017), or in the standard terms and conditions of the Netherlands Association of Interpreters and Translators for translation work, which states that unless it is 'expressly stated otherwise in writing, the translator reserves the copyright on translations and other texts produced by the translator' (NGTV 2017). These types of collective action are considered vital by De Stefano (2019), and are part of an active discussion within the EU, where the Committee of Ministers of the Council of Europe recommended a lifting of restrictions on collective bargaining for the self-employed (European Trade Union Confederation 2018).

Further reading

Abdallah, K. (2010) 'Translators' Agency in Production Networks', in Kinnunen, T. and Koskinen, K. (eds.) *Translators' Agency*. Tampere: Tampere University Press, pp. 11–46.

This book chapter analyses agency as perceived by translators in a production network, and looks at their coping strategies when cooperation and trust breaks down.

Dunne, K. (2012) 'The Industrialization of Translation: Causes, Consequences and Challenges', *Translation Spaces*, 1, pp. 143-168.

This article considers the causes, consequences and challenges of the industrialization of translation, suggesting some reasons for commodification and related topics for research.

Jemielity, D. (2018) 'Translation in Intercultural Business and Economic Environments', in Harding, S. and Carbondell Cortés, O. (eds.) *The Routledge Handbook of Translation and Culture*. London: Routledge, pp. 533-557.

This chapter offers an alternative viewpoint of the industry from the perspective of specialist translators who have internalized the business ethos, demonstrating that some sectors of the freelance workforce are operating successfully.

Moorkens, J. (2017) 'Under Pressure: Translation in Times of Austerity', *Perspectives*, 25(3), pp. 464-477.

This article presents an overview of freelance work in the lower-end translation market, placing translation work in the context of other forms of cultural and knowledge work that are similarly subject to commodification.

Ruokonen, M. (2013) 'Studying Translator Status: Three Points of View', Eronen, M. and Rodi-Risberg, M. (eds.) 2013. Haasteena näkökulma: Point of View as Challenge. VAKKI Publications 2. Vaasa: University of Vaasa, pp. 327–338.

A comprehensive review of works relating to the professionalization of translation and of the perceptions of prestige associated with the role, reviewing work on the topic by Dam and Zethsen, Katan, Koskinen, and many others.

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[1] Abdallah (2014: 13) uses the term social quality to describe translators' "relations to the rest of society and their relations and interaction pertaining to the work that is collectively produced". She considers that aspects of social quality, such as agency, payment terms, working conditions, and ethical treatment, are inextricably linked to the more common considerations of process and product quality.

[2] There were 603,700 professional profiles in the LinkedIn category of Translation and Localization as of May 2018 (Faes 2018).