Cloud marketplaces: Procurement of translators in the age of social media

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ABSTRACT

Two decades ago translation buyers relied mostly on professional translators working for language service providers (LSPs). Cloud-based machine translation (MT) and the social web now give them two additional options, *raw* MT and crowdsourcing. This article reports on the emerging modality of *paid crowdsourcing*, as conducted since 2008 by companies such as SpeakLike, Gengo, One Hour Translation, tolingo and subsequent entrants into what we term here as *cloud marketplaces*. Paid crowdsourcing represents an entirely new way of managing translation, and translation buyers seem to be increasingly turning to cloud marketplaces to find it. Thus far, however, this trend has been ignored by both academy and industry observers.

Our initial premise was that cloud marketplaces would fill the gap between *raw* MT and unpaid crowdsourcing on the one end, and conventional LSP practices on the other. It was expected that, compared with LSPs, cloud vendors would offer faster, less expensive services offset by lower quality. It was also expected that they would offer translators lower rates and poorer working conditions. However, a close reading of the published service offerings indicates that the demarcation lines between cloud marketplaces and conventional LSPs are not as clear cut as first thought.

KEYWORDS

Translation crowdsourcing; paid crowdsourcing; cloud marketplaces; cloud vendor; professional translation; language service providers.

Assembling a paid *crowd in the cloud* is an entirely new way of doing businesses. It emerged around 2008, pioneered by Gengo, One Hour Translations, SpeakLike and tolingo[1], and fuelled by the sheer reach of cloud computing itself. Its surge was made possible by two other events that took place in 2008: on the one hand, Facebook succeeding with crowdsourcing the translation of its user interface (Smith 2008) and, on the other, Google shelving its mooted Translation Center whose goal was, precisely, to connect everyone who needed translation with everyone who could provide it (Google Blogoscoped 2008; Ruscoe 2009).

Accordingly, this article explores the paid crowdsourcing trend in order to place it in context and gauge what its width and depth might be. It describes the underpinning technologies and estimates what sway it might have over the translation industry at large. In particular, it examines translators' working conditions and pay rates as advertised in the official websites of these new players.

1. Translating in the age of social media

Fifteen years ago, translation buyers – corporations, institutions and individuals - had a somewhat restricted choice. For small jobs, they would search the yellow pages or perhaps the World Wide Web to find a suitable translator or agency; bigger projects (in multiple languages say) called for a language service provider (LSP), as these specialised entities were already known. In the LSP environment, translations would typically be performed by vetted, self-employed professional translators working with some kind of computer-assisted translation (CAT) tool (Samuelsson-Brown 2004).

For the technology and demands of the time, this system worked well enough, but it relied on a relatively limited number of trained professional translators. Understandably, work overflows or bottlenecks would occur, and some tempting means existed for solving them. Machine translation (MT) was already advancing, though not ready yet to be used *raw* and only in very few cases were translators required to post-edit its output. A more realistic proposition and one highly resented by professional translators was to deputise non-professional bilinguals, especially those with topic knowledge who could be trusted to perform adequately. Essentially, and in greatly simplified terms, that is how the translation industry operated in the late 20th and early 21st centuries.

We now have a situation where web communication is as likely to be two-way peer-to-peer as one-way business-to-customer. Coexisting with the traditional publisher-centric web, we have now social media: social networking and social curation sites, blogs and micro blogs, sound and video repositories, wikis and forums. Users are inputting information less by keyboard and more by voice and touch. Content accessed on screen is as likely to be audiovisual (photos, music, movies) as textual. For individuals, publishing requires no programming knowledge and is (almost) free. Corporations have noticed that no one seems to read manuals or Help files. If help is needed, it comes via a search engine which is just as likely to land the user in an informal peer-to-peer support group as the official site of the institution (Solis 2012).

Nowadays too, what were once resorts against shortfalls of professional translation are emerging as valid options in their own right: *raw* MT, by far the cheapest and fastest; and crowdsourcing among bilinguals, conveniently situated between MT and expert human output in terms of speed and cost.

Cloud computing has made MT universally available, with two major players, Google Translate and Microsoft Bing Translator, handling most MT-related traffic. With peer-to-peer content being ephemeral almost by definition, raw (i.e. real-time) MT can be a reasonable solution. Facebook, for example, allows for profiles to be set so that messages are automatically translated

into the reader's browser-configured language. With certain language pairs, raw MT is often used for knowledge-base articles too. Corporations systematically seek usability feedback, with analysis showing that user satisfaction with translated knowledge articles does not vary much between original, human, and machine versions (a practice already reported by Dillinger and Gerber in 2009).

On any objective assessment, MT provides mass web users with remarkable results. At a single click, Google's *Translate this page* instantly localises any web page into any of the available languages, keeping layout and links intact. The computer-generated translation may be far from perfect, but in the bulk of cases is preferable to none at all. Microsoft Translator also has a *Translate this page* facility, plus a Translator Widget – a mini application that webmasters paste into their site so readers can have it machine translated into their configured language. Site owners can even invite their bilingual friends (or professional translators) to correct errors, with owners having the final say on whether the editing suggested overrides previous translations.

The modern emphasis is on widespread amateur and peer involvement. Capable bilinguals can use the freely available Google Translator Toolkit to post-edit MT in a systematic way, with extra assistance from translation memories (including Google's global one) and glossaries. This Toolkit, launched in 2009 once the mentioned Translation Centre was halted, is a web-based CAT tool, the first one aimed at the educated bilingual rather than at the professional translator (Garcia and Stevenson 2009). It doesn't have the bells and whistles of other CAT tools but it is useful enough to translate personal AdWords or subtitle a YouTube upload. Ten years ago, website or video localisation involved expensive and cumbersome processes requiring specific engineering and translation skills accessible only to few. Today a rough MT rendering is provided for free and, when MT is not good enough, there may well be a crowdsourced alternative at a modest budget.

Crowdsourcing involves taking tasks traditionally performed by employees or contractors, chunking them into small, manageable components and distributing them through an open call to a community (Howe 2006). For translation, the sentence is that small, manageable chunk. In fact, professional translators already work at the sentence level while using CAT tools.

To sum up, at the turn of this century the translation industry had one default way of dealing with translation: paying professional translators. Now there are three distinctly identifiable ways: machine translation, translation crowdsourcing, and paid professional translation. However, the boundaries between these three modes and their market segments are not rigid or absolute. If raw MT is not good enough, it can be fixed (i.e. post-edited) by professionals or, indeed, by the *crowd*. On the other hand, crowdsourced need not mean *unpaid*.

Specifically, this article is concerned with the procurement of professional translators to work in paid crowdsourced projects. Thus, it will ignore the equally important issue of post-edited machine translation (or PEMT, to use the recently coined acronym). Certainly, PEMT is likely to affect the quality of translation and the working conditions of professional translators on a similarly massive scale. However, even a brief excursion into evaluating generic and customised MT engines, then correlating the results with post-editing times and post-editor remuneration, is complex enough to deserve separate attention. Therefore, the following sections will concentrate on translation crowdsourcing of the unpaid and, in greater detail, paid varieties.

2. Potential and limitations of (unpaid) crowdsourcing

An examination of translation crowdsourcing properly begins with its first (and thus far most notable) implementation, namely the Facebook project in 2008. The standard localisation handbook would have suggested collecting the entire site's language strings and sending them to an LSP for translation. Instead, Facebook created a platform that presented its content to bilingual members for them to translate, edit, and vote on the results. In a stroke of shrewd and lateral thinking, the Facebook localisation team realised that the best candidates for handling the plethora of micro-translations would not be outsiders such as professional translators. Rather, it would be their own user community: engaged bilinguals with an intimate knowledge of the Facebook milieu, web-smart, collaborative and peer oriented. No screening was conducted and no payment offered. Users did it because they loved Facebook and loved seeing the interface they had helped to create in their own language. It was finished in record time, and quality was by definition acceptable, because it had been negotiated by users themselves. The project's success would surely have made it a best-in-class case study for Howe's classic *Crowdsourcing* (2008), if only it had happened before the book went to press.

Twitter, Adobe, Microsoft and other corporations were soon keen to test whether the same strategy would suit them. After all, they too had bilingual pools of users, employees, even clients, to tap into. But beyond the commercial sphere, there were others with truly massive communities and collaborative goodwill to call upon.

Significant impetus for the crowdsourcing ethos has come from the non-profit sector. Charitable and non-government organisations (NGOs) commonly have a global reach, and the technology could clearly help them marshal their own, potentially much more numerous, bilingual collaborators (Jimenez-Crespo 2013: 194). However, unlike enterprises, most charities or NGOs willing to assay crowdsourced translation would lack the necessary funds to create the platforms – unless that expertise could be sourced alternatively as well.

Enter the free and open-source software (FOSS) movement, which had both the know-how and the experience: after all, its bilingual members have been performing unpaid translation of their own material since the early 1980s. Before the tags were even coined, the FOSS fraternity had been doing what is often now referred to as collaborative (Beninatto and DePalma 2008), open (Beaven et al. 2013), community (O'Hagan 2011), volunteer (Olohan 2014), social (Sanchez-Cartagena and Perez-Ortiz 2010) or, indeed, crowdsourced (Ray and Kelly 2011) translation. Well before Facebook's leap of faith, the FOSS crowd was already combining cloud and wiki technologies, and establishing sites to test the potential within a research environment (Desilets et al. 2006). Two journals, *Linguistica Antverpiensia* (O'Hagan 2011) and *The Translator* (Susam-Sarajeva and Luis Perez Gonzalez 2012) have recently devoted special issues to this broad phenomenon.

The stage had been set for emerging technologies keen to provide commercial and community organisations with custom platforms to access their crowds. New CAT and management tools arose to assist with translation crowdsourcing. Lingotek, the first web-based CAT suite, would move to allow crowd involvement, even implementing a voting system for projects. Several other web-only CAT tools arrived on Lingotek's heels; of these, Crowdin aimed specifically at the crowdsourcing market.

Translation management tools (LTC Worx, project-open, XTRF etc.) had been quick to go web-based, but nonetheless remained fixed on the conventional translation-editing-proofreading (TEP) models involving a *waterfall* style of project management. What crowdsourcing required instead was an *agile* management approach, with a pipeline system so that clients big or small could supply their crowds with the continuous stream of dynamic content packets (micro-translations) being created by the fast-moving social web.

Specific tools have also appeared to facilitate the reverse process, enabling *crowds* to translate, on their own initiative, commercial and community content that they consider desirable. Transifex is one example of a well-developed translation management and CAT tool suited to this environment. Technically simple platforms such as Cucumis allowed individuals to translate each other's work on a points system - digital bartering. For subtitling, so relevant in this increasingly audio-visual web, the extremely cumbersome processes of the 1990s became fully streamlined through freely available offerings such as Amara, dotSub and Viki. Such tools have even fostered spontaneous communities capable of undertaking unsolicited crowd-translation projects without the permission – or even against the will – of the publishers (O'Hagan 2009).

A continuous localisation cycle is now possible with technology developed recently by companies such as Easyling, MotionPoint, PhraseApp and SYSTRANLinks. It exploits powerful application programming interfaces (APIs) to automatically detect fresh client requests and flag them for

translation. These are new and highly effective ways of localising the web, obviating the need to extract source files and reinsert the target, while protecting the layout. The approach is analogous to using Google Translate for machine-translating websites as described above – no expensive localisation tools required.

Applications have become a major industry, and this new type of translation management software is aimed squarely at web publishers and software developers seeking to get their apps translated through either community or commercial channels. It also assists LSPs to manage their own crowdsourcing projects or other commercial work. The software is even accessible to individual publishers (i.e. bloggers) or translators interested in the multilingual web/app market, with the norm being monthly subscriptions which can start at around nine dollars per month (e.g. PhraseApp).

The excitement around unpaid crowdsourcing was not shared by all. Swarms of unpaid translators made some people nervous: chiefly, professional translators, but also the LSPs that were geared up to use them. However, it was soon realised that the aftermath of the free crowdsourcing wave would not be as dramatic as expected. It would suit only "certain specific purposes and in very narrowly defined contexts" (Kelly et al. 2011: 92). Unsurprisingly, unpaid collaborators would invariably go for the visual, exciting things and skip uninteresting content – and not only in commercial projects, but also in highly altruistic ones. Thus, even with translations for NGOs, it was not uncommon for community impetus to stall at about 70 or 80 per cent of completion (Roland 2014: 21). Yet, the technology was efficient and people had shown their willingness to at least start work for free.

If getting unremunerated projects across the finish line was the single obvious problem, then paid crowdsourcing was the common-sense answer – with a bonus. Once payment is involved, crowdsourcing (and the effective management tools created for the purpose) could be applied to a much wider range of areas of content. Including all the boring bits.

3. Cloud marketplaces: enabling paid crowdsourcing

The term marketplace has already been used within the translation industry for web-based platforms that put translators directly into contact with clients. The best known examples are Proz, which self-reports over 600,000 members on its website, and Translators Café, self-reporting just under 200,000.

Translators first saw them as an interesting way to raise their online profile and access new clients, but initial enthusiasm gave way to mixed feelings. Although such sites notionally bypass traditional agency mediation, they are in fact used by agencies and outsourcers too. The money ultimately comes

from paying clients, so attracting them is paramount. Most implement a buyer-friendly system whereby translation buyers advertise their projects and collect private or *blind* bids from interested translators. All else being equal, the lowest bid price will normally *win*, exerting a clear downwards pressure on remuneration. Pricing aside, there is a significant community or collegiate aspect to these translator marketplaces, which boast terminology forums, client rating/reputation boards, chat facilities, training opportunities, and conference announcements.

A new type of translation marketplaces appeared around 2008, this one unabashedly aimed at serving not translators, but clients. The most innovative combine implementation of a sophisticated platform (similar say to Easyling or PhraseApp described above) with management of the broadest possible pool of *paid* translators. Removing the vagaries of volunteerism gives scope for a growable, scalable offering to exploit an ever expanding client base. This is achieved not with an instantaneous industrialised process like raw machine translation, but with a service provided by humans.

Table 1 alphabetically lists the cloud marketplaces surveyed for this article. There may be others the author is now aware of, and new ones are likely to appear. Initiatives which may involve translation but not paid translation or not as its main focus (Duolingo's focus is in language learning; Flitto aims at the teenage market as providers of translation and users of other services) have not been included. The boundaries between those included and the technology vendors mentioned in the previous section are, however not always clear cut. Smartling, for example, could fit equally well in both categories. It has earned its listing because it offers a Translator Signup page, and the promise to match translator profiles and background with client requirements; it does not, however, advertise prices per word. The table gives price figures in US dollars, unless indicated otherwise. Premium categories based on urgency, translator expertise, and quality assurance vary between companies and are reflected in both client and translator rates. Our data covers only two: base (lowest) and premium (highest). The 'Funding received' information is taken from CrunchBase, a well-known database of companies and start-ups, and presented as a useful rating indicator given that site traffic or annual balances are not easily available. Assessments on mere appearance (imposing website and presence) require caution. Similarly, the Translator network size should give some idea of relative importance, but the self-reported numbers can vary wildly even within the same website.

The respective information, including direct citations, has been taken from cloud marketplace websites and is current at time of writing (January 2014)[2]. As with any cloud presence, the content on these pages will undergo continuous change. Since 2010, when our observations first began, some have rebranded. For example, myGengo is now Gengo, and prices have shifted: Gengo's client base price was 0.04 US dollars per word, and now

0.05. Smartling tagline has evolved from a mission statement ("a provider of real-time, crowdsourced translations for Internet based businesses" – Smartling 2010) to something more compact ("the cloud-based enterprise translation software company" – Smartling 2013). Interestingly, the selling point appears to have lost its human dimension: no longer the crowd, but the cloud. Out of the eleven marketplaces surveyed, only four now offer to manage unpaid crowds (Get Localization, OneSky, Smartling and SpeakLike). The profit seems to be in competing with conventional translation agencies on price. Things are particularly fluid at time of writing: Gengo intends to use the PhraseApp platform (PhraseApp 2013), and TextMaster will partner with Transifex (Transifex 2013).

	Price per word paid to translator (base)	Price per word charged to client (base)	Price per word charged to client (premium)	Founded	Head-quarters	Funding received	Trans-lator network size
Gengo	0.03	0.05	0.17	2008	Tokyo	$18.8M	9000
Get Localization		0.08€	0.12€	2009	Helsinki		
One Hour Translations	0.05	0.079	0.30*	2008	New York	$10M	15000
OneSky		0.10	0.13		Hong Kong		000s
Qordoba				2012	Dubai	$1.5M	5000
Motaword				2013	New York		5600
Smartling				2009	New York	$38.1M	
SpeakLike		0.06	0.08	2007	New York		000s
Tethras		0.12	0.30*	2010	Dublin		1300
TextMaster	0.01	0.03	0.06	2011	Brussels	$2M	8000
Tolingo		£0.09	£0.112	2008	Hamburg	$600k	6000
Transfluent				2011	Helsinki	$1.29M	50 000

*includes reviewer.

Table 1. Cloud marketplaces (current at January 2014)

There are necessary caveats on this data. We have relied on web-published information that may change at any time and without notice. Moreover, much is marketing material whose primary role is to present businesses in the best possible light. Limitations aside, the information gathered at least gives some basis for analysis, to be found in the final section.

Notionally, crowdsourcing represents a third way of handling web-based translation, filling the gap between MT and conventional LSP services. As a first assumption, paid crowdsourcing might occupy the space between the free crowdsourcers and the LSPs. The paid modality would likely outperform its unpaid cousin, offering higher speed (no faltering before the finish line) and quality (no shirking the difficult bits). Conventional LSPs on the other hand would offer higher quality and more guarantees of completion than either crowd option, but on a significantly longer deadline.

We will now test these suppositions against the available information gleaned from the websites. The first heading below compares the ways in which cloud marketplaces and conventional LSPs portray themselves to clients. The second examines how they each go about assembling, assessing and remunerating their translator pools or panels.

4. What do cloud marketplaces offer clients?

As expected, the pitch to clients is a faster, less expensive option than conventional LSPs, in a streamlined environment that minimises administrative overlays by using automated file handling and bypassing tendering processes. PhraseApp says its administrative savings may amount to 80 per cent of standard costs. "[W]hen compared to professional translators" costs, Gengo is said to procure savings of up to 70 per cent (Toto 2010). While translation costs through conventional LSPs average between 0.20 and 0.30 US dollars per word, paid crowdsourcing occupies a consistently lower bracket: as little as 0.05, and always under 0.20, according to figures from the SpeakLike site. By default, clients are assigned the *fastest* translator (the first to pick up their job), but can also pick their own *preferred* translators (ones they have used previously) on the understanding that delivery times may require negotiation.

Services are promoted as time and cost efficient, but do they acknowledge targeting a lower quality segment? Quality does merit a mention, often in proxy terms of translator screening. Get Localization confidently states that "all [our] translators are fully trained and screened professionals;" One Hour Translation affirms "we only work with certified translators who have established themselves as modern professionals in the field." In some cases, however, the copy signals the weakness of these claims in subtle ways. TextMaster offers a "community of 'professionals' [sic] who have each gone through a quality vetting process and are paid per word." It adds: "we can therefore guarantee you a very high standard."

SpeakLike candidly admits that "some are experienced professional translators; some are new to this work," but reassures that "all are fluent in each language they translate into or from, and all are capable of translating any text." As others do, SpeakLike distinguishes between newbies and the experienced professional translators who will "join

specialized enterprise groups." Not all accept belonging to a less costly or lower quality market segment. "[Y]ou can expect to pay about the same as you would with other translation services", says Transfluent, which does not publish its prices.

Advertised work domains betray a catch-all approach, with no job too small, too big, or too specialised. However, some emphasise expertise in particular fields (i.e. Tethras on apps, Transfluent on social media). Websites, mobile apps, documentation, e-commerce, customer service and social media are most frequently mentioned, but with some digging one can also find certified and sworn translation. One Hour Translation offers the widest range of specialisations: "Automotive/Aerospace, Business/Finance, IT, Legal, Marketing/Consumer, Media/Entertainment, Medical, Patents, Scientific and Technical/Engineering," charged at the expert rate of 0.09 US dollars instead of the 0.79 base rate.

Translator allocation and recruiting differs between conventional LSPs and cloud marketplaces: the former normally claim exclusively professional teams, while the latter invites semi-professionals too. LSPs target specialised areas, prefer or require conventional CAT tools, and follow standard TEP waterfall management. Cloud marketplaces focus on agile management with no tendering required; workflows appear structured more toward delivery times than quality, specialisation or, in the odd case of Transfluent, even price.

There are commonalities also. Some cloud marketplaces visibly borrow from typical LSPs practices, such as Smartling and Tethras that eschew cost-oriented marketing and do not publish prices. Similarly, some LSPs are including paid crowdsourcing among their offerings, most notably Elanex (through ExpressIT), Straker, and Translated.net. Recent initiatives by multilingual vendors Lionbridge (On-demand) and SDL (Language Cloud) indicate a degree of positioning in the new space shaped by the cloud marketplaces.

Thus, well-differentiated extremes aside, an identifiable middle ground seems to place cloud marketplaces and conventional LSPs on a continuum rather than either side of a sharply delineated boundary.

5. What do cloud marketplaces offer translators?

A decade ago, working as a translator involved advertising, direct marketing, peer networking, running a website, listing oneself with translation agencies, and completing sophisticated online profiles in Proz or similar translation portals. Apart from the core language transfer skills, plus technical and organisational proficiency, professional translators had to woo clients as well. The job description had acquired a significant entrepreneurial dimension.

Cloud marketplaces acknowledge and embrace those who simply find translating fun or convenient. Several sites already boast apparent multitudes on their books (Transfluent claims 50,000) but they all keep recruiting. Applicants supply their credentials and, once accepted, jobs matching their profile will be pushed their way. You do as much or as little as you want, when you want. No need for bidding: simply pick whichever job you are interested in, and it will be immediately locked out of reach of the other translators in the pool. Being paid to translate has never looked easier.

Some sites openly seek semi-professionals. For SpeakLike, "[t]ranslation experience is preferred but not essential. If you can translate quickly and accurately (like an interpreter), have strong typing skills, and already spend a lot of time on the Internet, SpeakLike is for you." Gengo distinguishes between ordinary translators ("talented bilinguals") and its senior ranks of "freelance professional translators who take on Gengo duties in addition to their regular work." One Hour Translation is more stringent: "Translators with relevant academic history and work experience are welcome to join the OHT platform. Merely being a native speaker is not enough to qualify as a translator." All want applicants to work into their native language only, and to pass some sort of test. A few – Get Localization, Gengo – also offer some sort of training.

Little weight seems given to the characteristic technical skills of professional freelance translators in the LSP system. Some provide a CAT environment, either proprietary or third party, and exploit memory, glossary and quality assurance features, but the emphasis appears to be on performing a single Human Intelligence Task (translating segments on screen) as *humanly* as possible.

Some will facilitate PEMT if the client requested it: Get Localization, SpeakLike, tolingo. One Hour Translation, however, refuses even to consider it and expressly forbids translators to post-edit.

Technical issues aside, the overriding imperative is that any translator who accepts a job must complete it with the allotted time. As One Hour Translation clearly explains:

> Once a translator starts working on the translation, a countdown timer shows when the translation is going to be ready [. . .]. If you fail to submit the translation within this time frame, the project may be re-opened for other translators, and you will neither be able to choose the same project again nor receive payment for that project. One Hour Translation allocates approx. 1 hour of translation time for every 200 words in the document and up to 8-10 hours per working day [. . .] Our system, in particular, is designed to reward translators for completing translation projects and receiving good feedback from customers by granting them higher priority on new projects that come available.

Loyalty is another valued attribute besides timeliness. Thus, One Hour Translation offers an "affiliate program:" if translators place the *affiliate* link in their email signature, Facebook page, blog or website, they will be given some preferred status for job allocation.

The very features that make cloud marketplaces client-friendly create more demanding conditions for workers. Unlike the LSP system, payment is not just linked to a *per word* basis but also to a *per minute* one. Exactly what constitutes a digital sweatshop is moot, but *Mechanical Turk translation* (in reference to the online marketplace for work created by Amazon in 2005) has been used to describe Gengo by Toto (2010), and even by TextMaster to describe itself. Value judgments aside, all the others fit fundamentally the same mould.

Translator remuneration (below expressed in US dollars unless otherwise stated) is tight, and there is little room for negotiation. The base per-word price advertised to clients runs from 0.12 (Tethras) to 0.03 (TextMaster). Only a few advertise the rates offered to translators: One Hour Translation charges clients at a base level of 0.079 per word, and pays its translators at 0.05; Gengo reports 0.05 and 0.03 respectively; TextMaster, 0.03 and 0.01. For the rest, their translator rates will presumably follow those advertised to clients by a similar margin. The TextMaster website offers an intriguing reason for having a fixed scale: "to guarantee stable pay for the [translators] and to avoid competition for the lowest offer." TextMaster even advertises "highest earnings in the market" starting at 0.01 per word and payment "when your account contains an amount higher or equal to $70." This equates to a volume of 7000 words, which placed in perspective would take a professional translator three full days at the industry standard output of 2,500 words daily.

Placing this in context is problematic because overall data on translator rates is rather limited. Cloud marketplaces are reasonably transparent (Smartling and Tethras again being the exceptions) but there are no reliable figures on what LSPs charge clients or pay translators. The only available information is provided by translators themselves via surveys: for example, the average minimums reported by Proz members working between English and major languages are never below 0.07. In the case of Spanish - English, we find a 0.08 minimum and a 0.11 standard as reported by 12,343 ProZ respondents[3]. A survey of 1,750 translators by the Institute of Languages and the Chartered Institute of Linguists in the United Kingdom in 2011 made similar findings for the same pair (£0.65 for agency clients, and between £0.75 and £0.79 for direct clients – Gardam et al. 2012).

The same cloud technology that enables paid crowdsourcing also fosters *global* outsourcing, pitting translators in developed nations against peers in countries with much lower costs of living. A 2012 Common Sense Advisory survey of 3,700 providers in 114 countries found "translation prices have tumbled" in the previous two years. "[A]lthough demand for translation

services is up and on the rise, the average price has been falling, over 30% since 2010 and over 40% since 2008," writes Muzii (2013: 7).

Our initial premise was that cloud marketplaces would take an intermediate position between unpaid crowdsourcing and LSPs. Translator pay rates and conditions would presumably occupy the same middle ground. Certainly, cloud work is performed under significant strictures and centralised control, but there have long been similar server-based LSP systems. Furthermore, the premium pricing to clients hints that some underlying translator rates may be competitive with at least the industry *minimum* of 0.07. So again, we seem to find more of a continuum or overlap than a clear boundary.

6. From fuzzy matches to fuzzy profession

The translation industry of the 1990s catered for one category of translator: professional. With the rise of paid crowdsourcing, cloud marketplaces, and PEMT (which falls outside the present scope) we find new roles and compromises for both writing and revising translations. Prestige LSPs and direct clients still seem to value high-status professionals, who also fit the profile for premium cloud marketplace services; the utility translation sector, as exemplified by generic cloud marketplaces and some downwardly mobile LSPs, has a voracious appetite for whoever can do an acceptable job on time.

Democratisation of the technology has been crucial. A decade ago, possession and mastery of complex localisation tools (Catalyst, Passolo) conferred advantage and prestige. Such specialisation has become virtually irrelevant. Specific tools developed by the likes of Easyling and PhraseApp have powered cloud marketplaces and helped usher the crowd into nearly all corners of the industry. Sites such as Easyling allow translators to download the source and work offline on conventional CAT tools (a very pro-style practice). However, we may shortly expect new platforms on which memory and glossary information is conveyed unobtrusively to the user interface, making on-prem CAT obsolete as well. Mastery of CAT tools does not offer professional translators now the advantage and prestige it did a decade ago.

Another concern involves perceptions of language and their impact on translation management. There is a fundamental yet seldom-discussed contrast between words and meaning and, consequently, between novice and expert translators. If a source text says literally what it means, then a word-for-word rendering can afford reasonable confidence, especially where the risk attaching to a substandard copy is low. One might term such literal texts *Gricean* after the eponymous cooperative principles of truthfulness, brevity, relevance, and clarity (Grice 1975). Transparent and explicit content that adheres to these ideals seems the logical candidate for untrained volunteers and nowadays light edited or even raw MT. Transfer the words, and the meaning goes along for the ride.

Playing by Gricean rules is clearly rather pedestrian: one enriching aspect of languages is how they permit one or more of the cooperative principles to be flouted in different ways that competent speakers can grasp and enjoy. This invokes what we might call a *non-Gricean* category, which accommodates natural language, humour, cultural norms, specialised domains such as law, indeed anything which has more than mere face value. Any text whose interpretation presupposes a degree of non-literal or privileged understanding is, to a greater or lesser extent, being *uncooperative*. This is what expert translators recognise and develop strategies for, and what others cannot be consistently relied upon to handle (Garcia and Stevenson 2011).

The translation industry has both room and need for a spectrum spanning professionals, semi-professionals, casual aficionados and even untrained volunteers. Quality is not always critical, and there is nothing inherently wrong with enterprises, institutions and NGOs dipping into the appropriate "cognitive surplus" (Shirky 2010). Translation is essentially a manifestation of bilingual literacy, and just as no one needs to be a professional writer to write, no one needs to be a professional translator to translate.

The reverse corollary that doing paid work makes one professional is faulty, but might partly explain an evolving lowest common denominator attitude to translator remuneration. We have no reliable data to gauge the corresponding impact, but price figures alone are illustrative. For any self-employed professional, the cost of maintaining standards (knowledge and equipment) constitutes a vital fee component, and an additional burden beyond providing for illness, holidays, retirement and dependents. Accordingly, and modern technological aids for increased output (CAT, voice recognition) notwithstanding, rates below 0.05 per word must be considered marginal at best – even for those living in (or relocating to) low-income countries. Moreover, the cash flow from freelancing is famously unpredictable.

The extreme emphasis on curving rates is reportedly driving the experts out (Sulzberger 2012), which is natural enough if the same effort and self-discipline will be better rewarded in other pursuits. The resulting industry brain drain will be difficult to assess or redress: it takes years to become a proficient translator, and if there is a fast track then it involves good mentoring, not good machines. Machines are talent-agnostic.

Of course, this is not just happening to translators. One of the noted hallmarks of the information revolution is its effect on knowledge workers, who are experiencing a similar upheaval to what artisans underwent in the industrial revolution. Copy writers, those responsible for much of the source translators work on, are now coming under exactly the same pressures, with new companies such as TextBroker, Scripted and Greatcontent offering paid crowdsourced copywriting. In diversifying spirit, cloud translation

merchants TextMaster and Qordoba offer copywriting services too.

There are some intriguing questions. In a crowd environment, should experts take on the ordinary jobs? Can they charge more? If not, can they still be held to their own standards? For new recruits, does the pay differential encourage a leap from ordinary to prestige status? And if professionals are quitting and quality is only relative, is there an overall dilution of proficiency?

What was once unimaginable is now commonplace. Anyone can set up a blog or web site, *and* have it translated, in minutes. Transfluent will even human-translate and publish your *tweet* to potentially millions of Chinese readers in Weibo for less than a dollar and in less than 15 minutes – all without a single keystroke once the system has been set. Translation has become a crowded and booming services industry, and it will be interesting to observe what it does – if anything – to retain and reward professional translators. At present, their outline seems to be blurring against the host of new entrants into a curiously *fuzzy* profession.

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Biography

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Appendix 1. List of websites consulted (in alphabetical order)

CrunchBase	http://www.crunchbase.com/
Cucumis	http://www.cucumis.org/
dotsub	http://dotsub.com/
Duolingo	https://www.duolingo.com/
Easyling	http://www.easyling.com/
expressIT (Elanex)	http://www.expressitnow.com/
flitto	https://www.flitto.com/
Gengo	http://gengo.com/
Get Localization	http://www.getlocalization.com/
greatcontent	http://www.greatcontent.co.uk/
Lingotek	http://www.lingotek.com/
Lionbridge onDemand	https://ondemand.lionbridge.com/
Motaword	https://www.motaword.com/
MotionPoint	http://www.motionpoint.com/
One Hour Translation	http://www.onehourtranslation.com/
OneSky	http://www.oneskyapp.com/
Passolo	http://www.passolo.com/
PhraseApp	https://PhraseApp.com/
project-open	http://www.project-open.com/
Proz	http://www.proz.com/
Qordoba	http://qordoba.com/
Scripted	https://scripted.com/
SDL Customer Experience Cloud	http://www.sdl.com/cxc

Appendix 2. Links to direct quotations

Page	Quote	Link
8	"a provider of real-time, crowdsourced translations for Internet based businesses"	http://www.smartling.com/press/smartling-secures-first-funding
8	"the cloud-based enterprise translation software company"	http://www.smartling.com/press
9	"All [our] translators are fully trained and screened professionals"	https://www.getlocalization.com/
9	"[w]e only work with certified translators who have established themselves as a modern professionals in the field"	http://www.onehourtranslation.com/translation/translation-quality
9	"community of 'professionals' who have each gone through a quality vetting process and are paid per word"	http://www.crowdsourcing.org/navigate-search?q=TextMaster
10	"Some are experienced professional translators; some are new to this work,"	http://www.speaklike.com/translators/
10	can expect to pay about the same as you would with other translation services"	https://www.transfluent.com/es-es/pricing/
10	"Automotive/Aerospace, Business /Finance, IT, Legal, Marketing/ Consumer, Media/Entertainment, Medical, Patents, Scientific and Technical/Engineering"	http://www.onehourtranslation.com/translation/support/translators/how-much-can-i-earn
11	"[t]ranslation experience is preferred but not essential. If you can translate quickly and accurately (like an interpreter), have strong typing skills, and already spend a lot of time on the Internet, SpeakLike is for you."	http://www.speaklike.com/translators/become-a-speaklike-translator/
11	"freelance professional translators who take on Gengo duties in addition to their regular work"	https://support.gengo.com/entries/23705917-What-is-a-Senior-Translator-and-how-do-I-apply-
11	"Translators with relevant academic history and work experience are welcome to join the OHT platform. Merely being a native speaker is not enough to qualify as a translator."	http://www.onehourtranslation.com/translation/support/translators/who-can-join-translator
11	Once a translator starts working on the translation, a countdown timer shows when the translation is going to be ready	http://www.onehourtranslation.com/translation/support/service-quality-speed/what-translation-countdown-timer
12	"to guarantee stable pay for the [translators] and to avoid competition for the lowest offer"	http://us.textmaster.com/frequently-asked-questions
12	"highest earnings in the market"	http://eu.textmaster.com/authors/earnings

Endnotes

[1] For an alphabetical list of all companies named and websites consulted, see Appendix 1.

[2] For source links to direct citations, see Appendix 2.

[3] http://search.proz.com/employers/rates (consulted 30.10.2014).