Focus

Agile, augmented and adaptive

The future of translation work

"Today, companies have to radically revolutionize themselves every few years just to stay relevant. That's because technology and the Internet have transformed the business landscape forever. The fast-paced digital age has accelerated the need for companies to become agile." — Nolan Bushnell

Spence Green

Spence Green is the CEO at Lilt, a Palo Alto-based startup that builds intelligent software to automate translation for businesses. He received a PhD in computer science from Stanford University in 2014 under the direction of Chris Manning and Jeff Heer.

Is the translation industry ready for the future? We work in an exciting field filled with challenges that many want to solve. These challenges go beyond ourselves as business owners, project managers or translators. Rather, they pose a larger question of how we can make information more accessible to all humans, everywhere.

Without a doubt, the solution lies in making translation faster and more affordable. A recent wave of neural machine translation systems claim to rival the quality of human translation which is making this solution look more and more attainable. Machines are cheap and fast while humans are comparatively slow and expensive. However, most companies are unable or unwilling to adapt their translation workflow to incorporate this new technology.

In order to look at the future of the translation industry, we should start by looking at its past. A few technologies have proven fundamental to advancements in the industry, as was the case in 1979 when a translator, Peter Arthern, proposed translation memory (TM). He recognized a high degree of repetition in European Commission texts and realized that efficiency could be improved by storing produced texts into a system memory. As we all know, this high-precision system is now widely used in the industry.

However, Arthern admitted a weakness in his proposal: the TM could not produce output for unseen segments. So, in came machine translation (MT) to translate these new segments and further improve efficiency. Still years later, many companies are struggling to integrate MT into their current translation workflow, or wondering if they even need it all when they have a perfectly good workflow that uses TM.

The main challenge is that MT is often thought of as synonymous with post-editing, a rote process where a translator simply cleans up MT output. Translators may despise post-editing and consequently MT itself. Without adapting their workflow, companies are not taking advantage of the best features of this technology: its ability to learn and adapt. Interactive and adaptive MT goes beyond post-editing to assist and adapt to the translator, in real time. This technology, with the right workflow, holds the promise of being the next fundamental shift in the industry.

The agile translation workflow

The typical workflow of an enterprise or translation agency is a waterfall workflow. This is a sequential process and once a step has been completed, workers cannot go back to a previous step without scratching the whole project and starting from the beginning. There's no room for change or error, so the result is a workflow that never learns from its translators and never improves in quality.

The agile methodology is most well-known in software development teams as a way to manage projects and tasks. However, many industries from manufacturing to marketing to design also use this process. As a work methodology that is characterized by its ability to adapt to changes, the translation industry would also greatly benefit from this workflow. Replacing a fragmented, waterfall-style workflow in which teams are working unconnected will create less confusion, chaos and unnecessary project delays.

In an agile workflow, there's no manual transfer of files; ideally content is passed through an application programming interface. The system (note: the system, just one) is a centralized MT system, computer assisted translation tool, translation management system and a project management tool. In an interactive and adaptive MT tool, translators get MT suggestions and as soon as they create translations, that feedback goes into the TM to be used in new translations and to update the MT system. The TM is also centralized, so translators working on the same project are benefitting in real-time from colleagues' feedback. Collaboration also happens through the tool. The finished project is then transferred back to the company through the application programming interface.

This feedback loop, which is constantly learning and improving itself, results in higher quality human translation and MT. This helps businesses serve more customers, reduce cost and shorten time-to-market.

The future of translation

Companies using the agile workflow are finding themselves face-to-face with the future of translation: the augmented translator. This is a hybrid human/machine translation approach that is expanding business possibilities and creating unprecedented levels of productivity.

One place where this works well is with support content, where translating a large database of content can be prioritized between high-value and low-value content. Zendesk is one such company that employs the hybrid approach, using software to augment human translators for high-value content, while also using software to generate pure MT output — which improves over time since it's been trained by the human translators — for lower-value content.

The future of work is bright for the augmented translator. Translators who use the feedback loop produce higher quality translations. This isn't just good news for the translators, but also for the companies that employ them. It's a win-win situation for all. [M]