Know what to expect

Machine Translation Trends in 2017

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MT is changing - are you ready?

The year 2017 will see what we would like to call the emergence of Machine Translation 2.0. Machine Translation (MT) is for the second time, since its inception, undergoing a sea-change in the way it is being developed, deployed and consumed.

The highlight of MT in 2017 will consolidate the marriage of traditional MT with other technologies – resulting in hybrid, semi-hybrid and intelligent offspring – including, but not limited to, Neural Machine Translation (Neural MT), Adaptive Machine Translation (Adaptive MT) and Interactive Machine Translation. We shall also witness the continued demise of Rule-Based MT – it served the industry well, but has no future in our trends for 2017.

More importantly, due to the reduced costs of deploying MT, we will see more adoptions and implementations across different industry sectors during 2017.

MT 2.0 will change not only the way automated translation services are provided, but also how language service providers and localization experts interact with the new, improved and intelligent technology, offering truly multilingual experiences to their clients and services.
As powerful as the human brain?
With developments in technology, automated language translation will see significant improvements in quality and productivity.

Trend 1: Cerebral MT will enjoy more facetime in the industry

The latter half of 2016 saw numerous theoretical discussions covering small-scale applications of Neural MT (NMT). However, real-life business applications of NMT have been limited, mainly owing to two factors – computing time and cost. In addition, NMT requires a very different approach compared to Statistical Machine Translation (SMT), and is still under intense research in academia and industry. A consensus approach to NMT has proven elusive, but this is to be expected since NMT is a relatively new application of neural methods for the purposes of automated translation.

We believe that in 2017, NMT research will go further not only in improving NMT approach and techniques, but also in creating new methods to automatically score translation quality, which will develop and improve upon existing methods such as BLEU.

One of the biggest challenges towards commercial exploitation of NMT is the cost involved in running the powerful GPU (Graphics Processing Unit) machines. Companies that can tackle this economic challenge will thrive. To address this challenge we expect to see innovative hybrid solutions, where the MT systems will combine the best of SMT and Neural Network technology.
Adapting the quality measurement matrix to the new hybrid systems will be crucial to future MT success.
Trend 2: Adaptive MT will make translation better

Adaptive MT will continue to gain momentum in 2017, after its initial entry into the market in 2016. Adaptive MT, as the name suggests, adapts or conforms to the translators’ feedback. The translator’s submission of edited parallel sentences can rapidly improve the MT engine in real time.

Interactive MT has also shown promise as a post-editing tool, and we believe the potential for both Adaptive and Interactive MT in 2017 is big, as long as a functional and working quality measurement matrix can be adapted for these kinds of MT systems.

Trend 3: There will be new ways to measure translation quality

The industry has gravitated towards the use of BLEU as a useful measurement of translation quality. While BLEU has many detractors, it has broadly been adopted as a quality measurement standard. The emergence of NMT will make BLEU in its current form redundant. The industry will be forced to find a replacement.

We envisage that A/B Testing will be embraced by the industry to determine quality improvements between NMT and SMT/RBMT systems, but this is only a stopgap solution. The future lies with a fully automated way of measuring NMT quality.
MT for instant web publishing is right around the corner this year.
One of the greatest errors organisations make is not translating all the content that they need in order to work effectively across international boundaries and markets.

Translation Memories (TMs) are databases that store sentences and paragraphs that have previously been translated, to aid human translators. For decades, TMs have been a very useful tool for accelerating translation projects and reducing costs. During 2016, the use of TM and MT (in a fully integrated workflow) was the exception!

We believe that in 2017 this will become the norm.

We will see projects where complete texts are translated with Machine Translation, and the training data is then used to also build and update high-speed TMs. By combining the power of MT systems with the functionality and accuracy of TMs, we will see higher quality translations.

Trend 4: Convergence of TM and MT systems will lead to fully integrated workflows

Trend 5: The Adoption of MT for instant web publishing

User Generated Content (UGC), such as web forums, blogs, community content, customer review or Wiki pages, are powerful tools for enhancing multilingual customer experience. Yet, historically, these have been difficult to translate due to the dynamic nature of the content.
We see a broader adoption of MT for the purposes of improving user experience and developing truly multilingual engagement across these content types. This will be helped by the fact that real time customised MT will become more affordable and therefore lower the barrier to adoption.

Trend 6: MT business model with continue to morph

2017 will see a major change in terms of research and innovation. As MT enters its new phase of development, the industry will fund more academic research to crack the economics of providing MT services more efficiently and at an affordable cost.

This means, academia will play a bigger part in developing and shaping the MT industry, and more MT providers will attempt to fund their own in-house research bodies or collaborate with research institutions that focus on Machine Translation and NLP.
MT will see a higher uptake in the Asian territories.
Trend 7: Newer markets will emerge and demand for MT will rise

If the past year is anything to go by, we believe that one of the most monumental trends of 2017 will be the surge in demand for translated content, not only from growing economic nations like China and India, but also from developing economic nations such as the Philippines, Indonesia and Bangladesh.

China and India are the first and second most populous nations of the world, and arguably, the growth in wealth and spending power of these nations make them very attractive destinations for business. The linguistically diverse culture of these Asian countries will see a bigger demand for translated content, and it will become imperative for MT providers to cater to this demand. Parallel language resources will be scarce. So NMT and Adaptive MT will be important for overcoming the Asian barrier.

For more tips and information; or a personalised demo of our MT system, mail us at: demo@kantanmt.com.
About KantanMT

KantanMT is a leading provider of Custom Machine Translation (CMT) solutions. Available as SaaS or on-premise solution, KantanMT ensures clients have complete control over their translation and localization efforts. KantanMT.com helps reduce translation costs with efficient workflows and protects multilingual client data by ensuring that it is kept secure and confidential.

KantanMT clients leverage automated translation technology to produce and manage large volumes of multilingual content, quickly. The highly scalable, flexible and intuitive CMT engines can be integrated into Translation Management workflows and web applications via the KantanAPI. Sophisticated language quality review and MT engine customisation produces high-quality translations.

KantanMT is a trading name of Xcelerator Machine Translations Ltd. For more information, please visit www.kantanmt.com or send an email to info@kantanmt.com.