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magazine for international information management

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July 2017

Going beyond traditional roles

How technical communicators can step up to add value to their companies

Neural machine translation offers significant advances with remaining challenges

Is neural MT as promising as they say?

Cleaning up and harmonizing your translation memory

How to reduce costs and improve translation quality

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tcworld

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From the editor

When the global engineering company Siemens was looking to market a new children's hearing aid, it didn't check in with its in-house marketing team to get the job done. Instead, it embarked on a strategic partnership with Disney – one that would see Siemens hearing aids displayed and discussed in children's books published in nine languages. The campaign was hugely successful, and soon audiologists reported choosing the Siemens hearing device over others because of the program.
The story highlights a profound transformation that has been shaping and reshaping the workplace over the past years: The move away from traditional job roles and employment towards strategic partnerships with and work assignments to the most suitable talents – whoever and wherever they may be.

In their book *Lead the Work: Navigating a World Beyond Employment,* John Boudreau, Ravin Jesuthasan and David Creelman describe the change of mindset that will determine the success of an organization in the future. It requires HR leaders to focus less on employees and job descriptions, but rather think about the work that needs to be done, break it down and disperse it to both internal and external talent. In order to tap into a worldwide talent pool, the authors predict that successful companies will increasingly move towards independent contractors and away from permanent, full-time employees.
What do these changes mean for professionals in information development? They imply that in the future more work might be assigned to us based on our unique skills and experiences, rather than our job title and length of employment. And that's a good thing, as I'm sure many technical communicators would agree. Because – as you will read in this magazine's focus theme – many professional TCs are already going well beyond their traditional job roles, using their strong communication skills and deep insight into the company's products and services to help reach corporate objectives.
We hope that our authors' experiences can inspire you to actively put your talents where they are needed. That way, when change becomes inevitable, you will already be ahead of it.

Corinna Melville

technical communication
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Going beyond traditional roles

With their superb communication skills and strong insight into customer demands, professional tcs can take their expertise well beyond documentation development. Teach communication skills to your colleagues or even become an advocate for better customer experiences.

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Neural machine translation offers significant advances with remaining challenges

Neural machine translation is the latest, much-praised hype in machine translation technologies. But is it really as auspicious as they say?

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Cleaning up and harmonizing your translation memory

Are your translation memories up to date and reflecting the latest corporate terminology? If not, you might be jeopardizing quality and increasing costs.

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TWB AND THE ROSETTA FOUNDATION MERGE

Translators without Borders (TWB) and The Rosetta Foundation (TRF) have announced their merger, bringing together two major non-profit organizations focused on better access to information in languages people understand. With this merger, the organizations will increase efficiencies and ensure that both entities continue to offer high-quality language services to the aid community and the affected populations they serve.

https://translatorswithoutborders.org

SDL ETS NOW INCLUDES NEURAL MT

SDL has announced that its Neural Machine Translation (NMT) technology is now part of SDL Enterprise Translation Server 7.4 (SDL ETS), a secure machine translation (MT) platform for regulated industries. SDL ETS is designed for companies facing tight regulations, and offers total control of MT-related data. Data never leaves the corporate network, and only individuals with the right access rights can access content.

www.sdl.com

UNICODE VERSION 10.0

The Unicode Consortium has announced version 10.0 of the Unicode Standard. The new scripts and characters in Version 10.0 add support for lesser-used languages. Version 10.0 adds 8,518 characters for a total of 136,690 characters, four new scripts as well as 56 new emoji characters.

www.unicode.org

PLUNET USER CONFERENCE

On June 1-2, 2017, the first international Plunet user conference, the "Plunet Summit", took place in Berlin. Over two days, 150 customers, technology partners and Plunet experts shared their experiences and working methods, with a focus on Plunet and successful translation management.

www.plunet.com

Report identifies vendors that can help keep pace with digital innovation

According to research firm Gartner, CIOs and IT leaders should partner with digital disruptors that can help them maintain a pace of innovation that is at once high and sustainable. Gartner, Inc.'s 2017 Cool Vendors research examines 330 disruptive vendors that are helping companies to solve long-established problems and stay ahead of the competition in a rapidly changing world. Many of these providers are exploiting digitization, blockchain, Artificial Intelligence, conversational user experience and the Internet of Things (IoT) to build the next generation of innovation and offer unprecedented opportunities to exploit new business models.

Gartner's definition of a "cool vendor" is a small company offering a technology or service that is:

- Innovative – enables users to do things they couldn't do before.
- Impactful – has or will have a business impact, not just technology for its own sake.
- Intriguing – has caught Gartner's interest during the past six months.

"Gartner's 2017 Cool Vendors reflect the need to stand out from the crowd, the ability to keep pace in fast-changing digital scenarios and the aptitude to solve problems that have persisted over many years," said Daryl Plummer, vice president at Gartner. "Being a cool vendor in 2017 is all about both standing out and fitting in. In many cases, the cool vendors that stand out do so because they offer a major disruptive capability or opportunity."

Mainstream adoption of new digital technology options is reshaping expectations for what is normal. Most companies recognize that many categories of capabilities need to be reviewed to understand where the best new technologies will be applied.

"While many cool vendors have yet to grow to high visibility, they benefit from being able to act quickly without the burden of existing products and services built in pre-digital models. CIOs interested in catching up or keeping up with these digital disruptions should be viewing these cool vendors as opportunities to partner with those who are on the edge of new thinking," Mr. Plummer said.

Since Gartner first introduced the Cool Vendors report in 2004, more than 2,900 cool vendors have been profiled. A few have gone on to become IT megavendors in their own right, while others have been acquired by megavendors and other industry stalwarts; however, some have simply disappeared from the radar. While the 2017 collection of cool vendors is not exhaustive, Gartner analysts have selected some companies based on their sense of how impactful they are today and can be in the near future. The full report is available for registered users at

www.gartner.com

Image: © yarruta/123rf.com

tekom launches blog on intelligent information

The new tekom blog, which is available at www.intelligent-information.blog, highlights the changes that have shaped the technical communication industry over the past few years. Topics range from developing content that is designed for automation and reuse to strategic considerations for managing content as a business asset. All blog articles, infographics and videos are written and developed by a handpicked pool of authors with a thorough background in information development. Content is available in both English and German.

With the new blog, tekom aims to strengthen its network of technical communicators and enhance the industry's visibility and respectability. Its main purposes are

- To cover all aspects of information and knowledge management
- Inform about industry trends
- Shed light on the different types of data and give suggestions for their organization and management
- Provide information about Artificial Intelligence (AI) and the systems that are already using AI
- Report on theoretical and practical aspects of system architecture, design tools and techniques for intelligent information

As a link between technology and human thinking, intelligent information is ideally suited to support corporate objectives. This information can be provided in a personalized and dynamic manner: available to the right person at the right time and in the right format.

www.intelligent-information.blog

Image: The homepage of the new tekom blog on intelligent information.

Worldwide wearables market to nearly double by 2021


Image: © leolintang/istockphoto.com

As the wearables market transforms, total shipment volumes are expected to maintain their forward momentum. According to data from the International Data Corporation (IDC) Worldwide Quarterly Wearable Device Tracker, vendors will ship a total of 125.5 million wearable devices this year, marking a 20.4 percent increase from units shipped in 2016. From there, the wearables market will nearly double before reaching a total of 240.1 million units shipped in 2021.

"The wearables market is entering a new phase," points out Ramon T. Llamas, research manager for IDC's Wearables team. "Since the market's inception, it's been a matter of getting product out there to generate awareness and interest. Now it's about getting the experience right – from the way the hardware looks and feels to how software collects, analyzes, and presents insightful data. What this means for users is that in the years ahead, they will be treated to second- and third-generation devices that will make the today's devices seem quaint. Expect digital assistants, cellular connectivity, and connections to larger systems, both at home and at work. At the same time, expect to see a proliferation in the diversity of devices brought to market, and a decline in prices that will make these more affordable to a larger crowd."

"It's not just the end users who will benefit from these advanced devices," said Jitesh Ubrani senior research analyst for IDC Mobile Device Trackers. "Opportunities also exist for developers and channel partners to provide the apps, services, and distribution that will support the growing abundance of wearables."

Among the top products of wearables are watches, wrist bands, earwear and clothing.

www.idc.com

tcunplugged

Fluff – the eternal challenge

Text by Leah Guren

Image: © Albert Ziganshin:123rf.com.jpg

In technical communication, short and simple is always better. There is a wealth of data confirming the value of clear, direct writing. The famous Jakob Nielsen study from Sun Microsystems showed the advantage of cutting text; after he removed 40 percent of the original text on the website's knowledge base, Nielsen discovered that users thought that the new version had *more* information.

What exactly is "fluff"?

When editors talk about *fluff,* they are referring to writing problems that are not actual mistakes in syntax or grammar. Rather, these are the bad habits that cause our writing to be bloated and hard to understand. There are two major problems with fluff:

- For users, fluff makes the content harder to read and understand. It makes it harder to find and identify information. It increases the risk of user error.
- For companies, fluff increases localization costs (a direct expense) and increases customer support costs (an indirect expense).

The many faces of fluff

There are many types of fluff:

- Formal and complex vocabulary: Long, complex words make a text harder to understand. Why write "proficiencies" when you can write "skills"? Solution: pick the simplest words.
- Long, passive voice sentences: Passive voice makes it harder to decode who is responsible for an action. Sentences over 12 words long slow down reading and make it harder to remember content. Solution: rewrite in active voice and shorten sentences.
- Extra words: Empty phrases such as "owing to the fact that" instead of "because" add words without adding value. Solution: purge empty phrases.
- Vague writing: Using ambiguous modifiers means that different people may interpret the same content in different ways. For example, what does it mean if you write "the installation is very quick"? Solution: if you cannot quantify something, remove the modifier.
- Hidden strong verbs: Writing is always shorter and livelier when the strong verb is pulled forward. For example, why write "the meeting came to an end at 15:00" when you can write "the meeting ended at 15:00"? Solution: search for strong verbs hiding in the sentence and use them instead of "to be" verbs.
- Unnecessary detail: Sometimes the problem is the content itself. You don't need to tell the user technical facts that don't relate to the current workflow. Also, you don't always need to show multiple methods for an action. Solution: always focus on what the user needs at that moment.
- Unnecessary repetition: Poorly structured content leads to a lot of repetition, which means extra words on the page or screen. Solution: look for repeated text in tables that could appear just once in a heading, or online content that can be a single topic referenced by many topics.

Why does it happen?

If we know fluff is so bad, why do we still write this way? The root of the problem is in the way most Western countries teach writing and composition:

- Students are told that passive voice is more proper or businesslike. As a result, many adults have been conditioned to think that active voice and simple words don't sound right.
- Students are given minimum length requirements for essays, rather than maximum lengths. As a result, students get used to adding fluff to make their essays longer.
- At university, students write to impress their professors, not to express ideas clearly. Further, most universities still follow the outdated IMRAD structure (Introduction, Methods, Results, and Discussion) for scientific research papers. This structure is now considered ineffective for the needs of modern researchers.
- It is hard to be creative and terse at the same time.

Tips for managers

Trying to train your team? You may have to help them break many years of bad habits. Some of them may resent the edits; they may actually be proud of their flowery writing style and big vocabulary. After all, dozens of teachers have praised them over the years for doing exactly what you are now criticizing!

To break these habits, you must first educate your team about usability. They need to understand that the writing is for the user, not for the author. Here are a few tips:

- Don't criticize how they learned previously. Many people have fond memories of favorite teachers. They may resist change if they feel that you are criticizing their beloved teachers.
- Remind them that different types of writing have different purposes, and therefore different rules.
- Put more emphasis on audience analysis and needs analysis rather than writing. This helps writers to focus on user needs.
- Get your writers to write quickly and naturally with no regard for fluff. Teach them to let the draft sit before going back and editing it aggressively. It is far easier to edit out fluff than to write fluff-free.
- Use games and fun challenges to get writers to cut words and reduce fluff. By making it fun, you can reinforce the learning objective. The repeated practice can help change years of bad writing habits.

Fighting fluff is a lifetime commitment!

Over time, fluff starts creeping back into our content. Just as our weight slowly increases when we don't pay attention to our diet, our writing slowly starts to get fat! Put your writing on a diet once a year to keep it trim and useful.

ABOUT THE AUTHOR

Leah Guren
is the owner/operator of Cow TC. She has been active in the field of technical communication since 1980 as a writer, manager, Help author, and usability consultant. She now devotes her time to consulting and teaching courses and seminars in technical communication, primarily in Israel and Europe.

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Going beyond traditional roles

Image: © Cecilie_Arcurs/istockphoto.com

More than tech writing: How technical communicators can add value to their companies

The skill sets and experience of technical communicators are valuable assets for global organizations. International tech company ARM has found a way to leverage these skills that goes far beyond the job description.

Text by Roy Hu

In many organizations, technical communication still lacks respect and visibility from colleagues and management. Often, technical writers are required to demonstrate the value they add. In addition to authoring documentation, technical communicators have several opportunities to leverage their strengths and expertise to contribute in multifold ways to their organizations, thereby enhancing their profiles. This article explores possible unconventional ways for technical communicators to add value that are based on my own experience as a senior information developer for the global high-tech developer ARM in China.

Me and/or my colleagues have used our expertise as technical communicators to get involved in developing and delivering

- Customized writing courses
- Communication guidebooks
- Customer documentation feedback reports
- English communication programs for non-native speakers
- Customer support

By contributing more than what is defined in your job role, you not only display strong commitment to your organization, you also get a better chance for career advancement.

Customized writing courses

As technical communicators, we are valued as language experts. But of course we are not the only ones communicating across various barriers. Many of my colleagues in China need to communicate in English with coworkers from other parts of the world. Thus, there is a significant need to enable more effective communication by improving their English writing skills. The concept of a customized writing program was intended to address this requirement.

Before we started this program, some engineers in the company expressed the need to improve their English writing skills. ARM had previously offered technical writing courses, but this did not fully meet the needs of my Chinese colleagues.

Here is how we created and delivered customized writing courses step by step:

1. Investigate writing needs

To get started, we hosted meetings and exchanged emails to learn in what kind of writing scenarios our colleagues need English, what challenges they face when writing, what they expect from our training, and what specific areas they need help with. We also asked them to send us some writing samples so that we could identify common problems in their writing.

2. Define the scope of training courses

After thorough investigation, we found that most of our colleagues' written communication belonged to the following three categories:

- Emails
- Slides
- Technical documents

3. Develop customized writing course modules

After we had a good understanding of people's needs, we began extensive research in relevant areas and developed corresponding writing course modules. Based on common problems identified in the writing samples, we offered writing tips providing helpful dos and don'ts. We also included games and exercises to make the training more interactive. One training module lasted 1.5 hours; three training modules formed a one-day writing course.

To further tailor our content to our audience, we also customized our material according to their age and position. For a relatively young audience, our slides revealed a lively style; for a more senior audience, we added more advanced content to the training materials and adopted a rigorous style.

4. Present the course

Here are some tips for presenting courses:

- Use as many examples and stories as possible. Too much talk about writing theories and guidelines will make your audience lose interest quickly. During our sessions, we shared many examples and challenges from our own writing experience.
- Deliver the training from the audience's perspective. For example, we used stories or examples that were relevant to the course participants' work scenario.
- Find a good speaker for the course. All knowledge and stories should be narrated by the speaker. This requires the speaker to have strong public speaking skills.

5. Collect course feedback and compile a training report

We continuously improved and optimized course materials and the way we delivered sessions based on feedback. It is impossible to use a standard set of training modules to meet all the requirements of an audience. The customization process never ends because different audiences have different needs. We do not want to offer apples when our audience expects oranges.

Up to today, we have delivered eight training sessions in Taipei, Hsinchu, Seoul, and Shanghai, and received great feedback. These training modules have been shared internally with technical communicators in the UK, India, and the USA so that our colleagues abroad could reuse and customize them according to the specific needs of their local audiences. In this way, technical communicators helped many colleagues improve their English and communication skills, and expanded the influence of the technical communications team.

In other regions, our technical communicators have conducted training courses on different topics such as "How to write a good technical specification" and "How to write a good conference abstract". Our team in China is planning to customize these training modules and deliver similar sessions in China. There is a strong demand for such training courses: What we as technical communicators need to do is pay close attention to all the writing scenarios of our colleagues and identify where we can help them.

Communication guidebooks

As ARM's business in the Asia-Pacific (APAC) region keeps growing, our company is confronted with the challenge of making cross-regional communication more effective. As technical communicators, we asked ourselves this question: How can we leverage our strength to help our company address this challenge? As a result, we proposed the production of communication handbooks to enable more effective communication with the APAC region.

We took the following steps to create and deliver these handbooks:

1. Investigate communication challenges

We collaborated with managers across the organization to get their support, asking them to nominate interviewees who have extensive communication with colleagues from overseas. Thus, we managed to interview around 20 people, asking them two questions:

- What pain points do you have when you communicate with colleagues from other sites?
- What can people from other sites do to improve communication effectiveness?

Gathering feedback wasn't all that simple. Sometimes, we needed to go into specific details and discuss particular scenarios to uncover the real issue.

2. Summarize the main problems and corresponding solutions

After careful investigation and research, we categorized the challenges and provided tips in the form of handbooks. We found that sometimes cultural factors resulted in communication barriers.

As a result, we created handbooks of no more than 50 pages that included effective communication tips, appealing graphics, and helpful examples.

We got very positive feedback about these handbooks. For example, one director commented: "Amazing work! The content is relevant, comprehensive, and professionally put together. And with regard to the *Handbook for Communicating with Greater China,* I think the material applies not just for internal communication but also communication with customers."

3. Collect feedback and continuously improve communication guides

Our communication handbooks were well-received. The following handbooks have been released:

- *Handbook for Communicating with People from Greater China*
- *Handbook for Communicating with Japan*

- *Teleconference Guide* (intended to help non-native English speakers by providing many teleconference tips and commonly used English sample sentences).
- *Email phrase book* (designed to help non-native English speakers by providing plenty of phrases for common business scenarios including seeking help, politely declining meeting requests, and disagreeing in a non-offensive manner).

Customer documentation feedback reports

As a global company, it is important to collect documentation feedback and information requirements from Chinese customers. As a local technical communicator, I worked with application engineers to collect customer feedback, and then created a detailed documentation feedback report to be shared internally at ARM. This feedback report was used not only by technical communicators to improve documentation, but also by engineering and marketing teams to improve their deliverables. Some feedback in the reports required cross-team collaboration.

We collected information regarding how customers use our documents. For example:

- Do they print our documents for reading?
- Do they use mobile phones or tablets to read documentation?
- Do they have Internet access when using documentation?
- Do they require translation?

The answers to these questions directly impact our content strategy. We need to use their responses to deliver timely, high-quality target information.

Here are some tips for customer interviews:

- Send a list of your questions to your customers before your visit so that your customers have time to collect feedback from team members.
- Get to know the subject you are going to talk about. If possible, have application engineers (AE) and field application engineers (FAE) accompany you when visiting customers. This has proven to be very helpful during my visits, because the engineers could directly help clarify technical issues.
- Get permission from customers to record the conversation. If you do not record the interview, chances are that you will lose a lot of valuable information. You cannot focus on the conversation when you are too busy taking notes.
- Send the documentation feedback report to colleagues who also joined the interview to ensure its accuracy.

Direct customer feedback is rare for technical communicators, but very valuable. In addition, we also interviewed the following people to get documentation feedback:

- Customer-facing colleagues, such as sales, FAEs, AEs, or marketing staff
- New hires who have previous experience using our products and documentation
- Internal documentation users such as software engineers

English communication programs for non-native speakers

As English is the official language at ARM, there is a huge demand by Chinese colleagues for improving their spoken English. We regularly hosted English-speaking sessions and invited colleagues to debate interesting, hot topics. During these sessions, attendees were requested to speak English only. We invited colleagues from the UK to remotely join our discussion through video conference. When possible, we also invited colleagues who were on business trips to Shanghai to participate in our program. To help more people improve their spoken English, we received support from colleagues in the UK and the USA, and implemented the English Buddy program. We promoted this program internationally and received a number of volunteers who had given us information about their hobbies. Based on shared interests and hobbies, we then matched these volunteers with their Chinese colleagues who had expressed the wish to improve their English. We put the partners in touch and they proceeded with regular conversations. The format and frequency of their exchanges were completely up to them.

Through these programs, technical communicators have helped colleagues in China improve their spoken English significantly. These services are flexible and save the cost of hiring external English trainers, thus adding value to the company.

Customer support

Technical communicators with a strong technical background are great candidates for getting involved in customer support. One of our technical communicators approached application engineers and expressed a strong interest in getting involved with customer support. His involvement enabled him to answer the following questions:

- What information do customers need to use a specific product?
- What is the application scenario of this product?
- Who are the primary users of this product?
- What information do customers need and how can we deliver this information effectively to them?

The answers to these questions allowed us to improve documentation quality by providing more accurate information to meet customers' needs.

Summary

The team of dedicated technical communicators at ARM is continuously striving to add value to the company. We constantly ask ourselves: How can we enhance the influence of the technical communication team? How can we add value to the company? How can we earn respect and good will from other teams? Our answer is that we must go beyond our traditional roles and be more than just technical communicators.

We can learn the pain points of other teams and use our expertise to solve their issues or contribute to the company by helping achieve its strategic goals. In this way, we believe you will find a way to add value to your own career, your team, and your organization.

ABOUT THE AUTHOR

Roy Hu holds a bachelor's degree in computer science and technology, and a master's degree in English-language literature. He has been a technical communicator for eight years. He currently serves as senior information developer for TechComms APAC at ARM.

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Beyond words: The reinvention of technical documentation

Structured technical content has enormous potential. Following best practices in creating technical information will ultimately lead to greater customer satisfaction.

Text by Maxwell Hoffmann

The customer experience... more than marketing

Companies now aspire to a holistic strategy to engage with customers and provide them with a relevant, consistent, high-quality experience. Your brand is defined by the sum of every experience your customer has with you at every touchpoint – from a print advertisement to a website, from an in-store purchase to online help, from marketing content to user documentation... online or offline... mobile or PC... pre-sale or post-sale. Each and every experience is crucial.

Quality automation

Automation of basic quality checks during the creation process will dramatically improve your content. Ideally, content is checked while it is being created to prevent inconsistency. The best way to do this is to use a centralized content repository integrated with quality checking software that shows the content authors where they have deviated from corporate standards, right within their editing tools.

Streamlined review

A review process that is integrated with content creation ensures true collaboration. Companies can achieve this vision by moving away from externalized reviews (such as printed markup or PDF comments). You can lose even the best productivity gains in your content creation process if the review process entails manual collation and changes to content. When creation and review processes use the same tools, you can centralize feedback from multiple contributors, eliminate duplicate comments and create immediate and direct interaction between reviewers and writers.

Empower your subject matter experts across your organization to share their expertise in an easy, streamlined, process-oriented way. Your customers will benefit from the best information your organization has to offer, resulting in customer satisfaction and, in turn, brand loyalty.

This article provides abbreviated content from a recent eBook of the same name published by SDL. You may download the entire eBook at www.sdl.com/download/product-development-eb-beyond-words/115878

Rich media

Integrate rich media into your technical content to increase the value and usability for your users. Publish it through channels that allow you to control your brand, and tailor the content for different audiences.

Rich media doesn't stand alone. Its true value lies in how it is integrated and contextualized: where, when and how customers view and use it. Direct feedback, commentary, dynamic information overlays, hyperlinks, subtitles and interactivity all add richness.

Everything in context

By dynamically targeting multimedia to specific customers, companies can create contextualized engagement with greater relevance. You can present videos for different customers on the same page based on your knowledge of those customers, such as the products they have purchased and the type of information they have previously searched for and viewed.

In addition, rich media is globally accessible across channels in multiple languages. By automatically using translated audio tracks or subtitles based on your customers' geographic location, you give them direct access to information in their language of choice. You even have the option to use completely different media from region to region, tailored to specific audiences in a specific location.

Leveraging structure

Once technical documentation is structured, companies can leverage the resulting metadata to provide a deeper integration between media and existing publications. By combining existing images with DITA content, you can take advantage of content semantics to transform these images into rich media. Content creators can have total flexibility in updating specific videos within a specific publication without editing the publication itself.

Intelligent rich data

Creating and delivering great content requires you to understand what your customers need. You can gain this insight by gathering rich data about the content you publish and how it's used.

Technical communication is no exception to this trend; however, traditional publishing formats may make data gathering difficult. Fortunately, dynamic delivery and component-based authoring remedy this problem. Modularized publishing of stand-alone topics within a dynamic delivery tool lets you track many new data points.

Mobile ubiquity

Content delivery strategies need to support an ever-increasing number of mobile devices with unique screen sizes, operating systems and functional capabilities. Current solutions often use Responsive Design as an initial approach, which does not address device-specific needs or deliver an optimal mobile experience. You should seriously consider Adaptive Design which involves a server-side component. Table 1 contrasts benefits of the two approaches.

Responsive Design	Adaptive Design
One codebase (CSS)	Server-side software combined with CSS
Only works for newer mobile device	Works for all mobile devices
Ignores mobile context	Can leverage unique device capabilities (GPS)
Loads entire web page	Loads only the content useful for the device
Only one page template	Uses device-specific templates for a better experience

Table 1: Responsive vs. adaptive design

Mobile delivery

To effectively address the challenges of mobile delivery, you need to rethink the customer experience. How do your customers consume content when they use a mobile device?

On mobile devices, people often use search to locate content as opposed to referencing an index or table of contents. In addition, mobile delivery offers a great platform for rich media such as videos, animated images and audio, while maintaining access to corresponding text.

Mobile support

You can directly integrate customer support options, as many customers look for additional levels of support when searching technical documentation from a mobile device. For example, one-click support ticket creation, with pre-filled form fields based on the current help topic, makes it much easier for the customer to contact you.

In other words, don't just deliver the same content and format to all devices. Be strategic in how to make your content mobile-ready, mobile-friendly, and mobile-interactive, while considering your audience and their need for specific information.

Be global

Thanks to the worldwide use of the internet, all online businesses are global, whether they want to be or not; your content must be available to your customers in all relevant languages.

In the past, many companies would triage content for geographic regions into distinct tiers based on their value to customers and the company. This can lead to both inconsistent content and poor quality, resulting in missed opportunities to provide customers with what they need.

Localization strategy

Often the existing processes, resources and tools were too expensive to justify and led some companies to not translate all of their content. Fortunately, the advent of statistical machine translation and automated translation systems, coupled with reusable content, has gone a long way to solving this challenge.

While content reuse lowers translation costs, it must be managed to ensure translators can consider the context of the content. Today, publication analytics greatly improves this process.

Beyond translation

Translation is just one part of being global. Different regions prefer some channels to others. By focusing on content delivery across all channels, you ensure all customers get content in the format they want or need. Translation solutions are at the heart of it, but globalizing content is not just about language. Take the time to tailor your content to cultural nuances, and the devices used in different regions of the world.

Content discovery

You can create great content, but if your customers can't find it, the value is lost. For most companies, all content is online, so all content creators – not just web and marketing teams – need to be concerned with search engine optimization (SEO).

Many technical content creation teams are not familiar with SEO best practices, since traditionally, it has not been part of technical documentation. Fortunately, structured content already improves search results by providing search engines with greater context through semantic elements. Further improving the search results, structured content's use of descriptive tags that describe the content also informs the search engine about your content's purpose. This metadata dramatically improves SEO over PDF and even HTML. This

drives the best content to the top of customer search results and makes it easier to find.

Faceted search

Content owners must also enable content discovery beyond basic search results. Faceted navigation categorizes content across publications and deliverables. This lets your customers discover related content outside of the publication they are viewing. For example, a customer searches a user guide for new feature information. In addition to search results within the user guide, the customer may also see results from other publications, multimedia and other types of content about the new feature.

Structured content makes managing these categories possible through subject scheme support, which automatically adds new content to existing category frameworks.

Recommending content

Recommendation engines were originally developed for e-commerce to provide recommendations to customers about related items for purchase or to show similar items that other customers have purchased. By automating suggestions based on customer behavior, the best and most useful content automatically rises to the top of all search results. Similarly, for technical documentation, integrated content analytics can inform content creators about what content is most popular. This allows content creators to give these topics the most attention.

With the combination of powerful search engines, improved SEO through structured content, faceted navigation and possibly even an integrated recommendation engine, customers should always find the content they are searching for, and more importantly, useful content they didn't even know existed.

Conclusion

It's safe to say that we all strive for the same thing: delivering great content to our customers. But there's more to it than creating it and publishing it.

The first step is embracing technical content as a critical touchpoint in your customer's journey and therefore must be incorporated into your organization's overall customer experience strategy.

The second step is creating an internal and external infrastructure that supports an integrated content approach. The bottom line is that you must meet your customers' needs for accurate, valuable information, exactly when they are looking for it, suited to the device they are using, appropriate for their language and culture, and in an interactive manner that allows feedback and sharing.

If done right, this strategy leads to satisfied customers who are willing to advocate for your brand around the world.

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A shortcut to global customer experience management

So we've all heard how important it is to change our business thinking and put ourselves into our customer's shoes. But how realistic is it to change the mindset of an entire global organization? Impossible, you say? Here is a quick-win approach that might get the process kick-started.

Text by Axel Poestges

"Customer experience" has been a much-debated buzzword over the past few years. Indeed, no manufacturer, supplier, or service provider will seriously doubt the impact happy customers have on their company's long-term success and market position. Globalization has added a new challenge to keeping customers happy, as we can no longer simply ask them directly how they feel about our products or services. But substantially nothing has really changed in our strategic endeavor to make customers happy.

Making your GCEM part of your business model

Any Global Customer Experience Management (GCEM) should be part of your company's business model in the management system section. This will greatly enhance the status and value of your customer experience efforts.

Business models help companies to transfer strategic goals into operational guidelines. A typical business model has several building blocks and two central base plates. Each of these elements has various connectors to most of the other building blocks within the model. As you can see

Image: © Sergey Nivens/123rf.com

in Figure 1, one of these fundaments deals with business ethics and social responsibility, while the other contains all the management systems the enterprise deploys. The customer experience management system is a very strategic one and must be connected to all the other building blocks. Processes, go-to market channels, target group definition and customer relationship management, to name just a few, must all be connected to your individual GCEM. In fact, there are even interdependencies between the different management systems. Quality management, for example, is a management system that influences most other management systems. The intensity and nature of these interconnections differ greatly from industry to industry. But the bottom line remains: A customer experience management system reaches deeply into every aspect of your organization and offers great business leverage.

The complexity of customer experience

The better you can plan and control a management system, the easier and more effortless it is to implement. Just take a look at quality or environment management systems. Both reveal strong leverage effects when connected with different system elements and process phases.
But with customer experience management systems, things are not as easy. This is mainly due to the fact that customer experiences will happen during any part of the customer journey. From a potential customer finding the relevant information available in his own language through to effective post-sales customer support, there are nearly endless touchpoints between your company and clients. Each phase of the customer journey as outlined in Figure 2 offers multiple opportunities to engage with customers.
Different behavior patterns that vary greatly from customer to customer add to the complexity. Predicting a potential customer's activity is particularly tricky in the investigation and predecision phase. Some people only shop from the comfort of their own home on their mobile devices; others prefer to make their purchases in physical stores, while others respond strongly to print advertisements. For the different touchpoints, these characters have completely different interaction profiles and require different targeting.
To enable reproducible positive customer experiences, you have to know exactly what your targeted client is going to do next. This determining factor is the core issue for any customer experience management system and the reason why implementation often fails. It is a marketer's dilemma: We cannot predict our customer's actions during the most crucial phases of the customer journey, at the very moment when this knowledge is needed the most. After a client has made his buying decision and purchased the product or service, it is much easier to interact with the customer and learn more about his expectations and needs. This is why most successful GCEM business cases relate to a phase in the customer journey when clients have already made their decision.

The focal point strategy – focusing on what we can capture and where

For this reason, many companies focus their GCEM projects on the post-purchase phase of the customer journey. This so-called focal point strategy is typical for projects in service, support, and quality assurance. Such projects have a higher success rate, which is due to the fact that service and support offer predictable customer reactions with short and clearly defined communication channels. They offer a wide range of possibilities for learning more about customers and for gearing interactions, tools, methods, approaches, and processes towards your customers' expectations. Unfortunately, this close connection to clients does not allow a reliable conclusion about their behavior before their buying decision.

The catalyst strategy – leveraging what we know

Trying to influence your client's pre-sales interactions is usually a matter of trial and error. Feedback from a defined touchpoint such as the support hotline is much more meaningful compared to anonymous touchpoints such as web-page visits, expectations marketing efforts, or discussions with a sales representative. The so-called catalyst strategy of customer experience management uses existing experiences and knowledge of customer interactions to set up virtual touchpoints in those customer journey segments that take place before the buying decision is made.
This "learning link" between the engagement phase and the pre-sales decision phase leverages the intelligence we have collected post-sales to enhance the customer experience pre-sales. No matter what products or services your company offers, you can only positively influence the decision-making of a future customer when you know his specific buyer type and his interaction profile in depth. The easiest way to get the necessary information is to use the post-buying decision phase, in which you can get as close to your client as you like. In this phase, you have the option of learning nearly everything

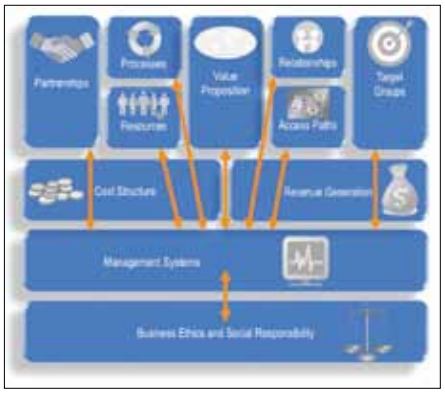

Figure 1: A standard business model

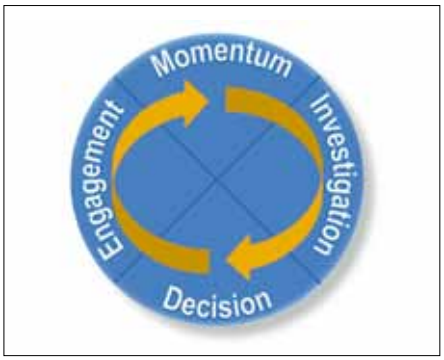

Figure 2: The customer journey

Figure 3: How to get relevant information out of touchpoints

about his expectations, the technology he uses, or the communication channels he prefers.
Why not start with a "field book" of interaction profiles of your existing customers? This is the easiest way to enable touchpoint design for your typical customers. As interaction profiling is a learning approach, the information retrieved will also address new target groups with new or modified value propositions.
Practice has shown that, even if you start out with only one or two interaction profiles of typical customers, this effort in the pre-buying decision phase is far more focused, demands less effort and will maximize the leverage effects. The "learning link" does not solve the problem of making customer experience management effective enterprise-wide – but it certainly helps.
Unfortunately, there are very few companies that have linked their knowledge of post-sales customer interactions to pre-sales interaction profiling. This is probably one of the reasons why you read very little about successfully implemented enterprise-wide GCEM. What you will find are either reports on customer-oriented service touchpoints or successful touchpoint optimization through improved design of digital presences. Even the use of direct feedback in the pre-buying decision phase does not offer the expected information value because there is usually no direct connection between the information retrieved and the interaction profile designed.

Changing corporate thinking – step by step

Switching a whole company from thinking in dimensions of revenues, products and processes to "walking in the customer's shoes" is a huge challenge. It may succeed in departments with close connections to the market (i.e. sales, marketing, pre-sales support etc.), but a company-wide rethinking including departments such as accounting or human resource management borders on the impossible. Literature does not offer many GCEM success stories with an enterprise-wide approach.
Enterprise-wide change management is an extremely ambitious undertaking. It will take some time before you will be able to present the first real success. Getting all relevant stakeholders on board and having them spread the new approach is not easy. Anyone who read *The Apple Experience* will agree that an Apple-like customer experience infrastructure takes top-down internalizing and a willingness to permanently think in customers' dimensions. If you lack this "customer experience DNA," the amount of effort, time and money spent will be even greater.
Changing the mindset of a multinational company to allow customer orientation requires a disproportional effort. This is why a localized and focused "quick-win approach" is much welcome and can deliver presentable results in a short amount of time.
To be able to deploy the "learning link" between pre- and post-purchase decision phase activities, you must figure out where to get the most valuable information. Usually customer contacts in service, support, maintenance etc. offer enough contact opportunities to extract relevant information. Feedback from direct customer interactions allows great insight, but a pre-structured questionnaire might be easier to evaluate. A sufficient number of responses will allow you to identify relevant customer types, which in turn provides an indication of prospective buyer types. Making use of the relevant channels and touchpoints will enable you to build some meaningful interaction profiles.
Choose touchpoints with a defined feedback option like sales interactions or direct marketing activities. This will enable you to apply the customer profiles to pre-buying decision phases. Once you start designing touchpoints according to your interaction profiles, make sure to do so in an agile implementation process environment. This allows you to countersteer and progressively align the activities. A necessary prerequisite is the closed-loop feedback from customers interacting with these touchpoints.
This approach should quickly reveal some success and perhaps even get stakeholders enthusiastic about customer experience management. The interaction profile "blueprint" allows you to kick-start your GCEM with an initial rollout phase that involves touchpoints in the pre-purchase decision phase that are crucial to business and have disproportionately high leverage effects.

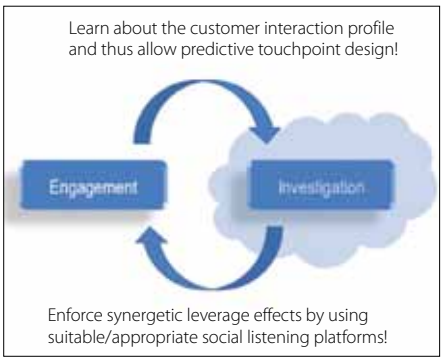

Figure 4: Learning link between the different phases of a customer journey

Conclusion

Customer interaction profiling based on information from existing customer touchpoints is a very pragmatic and easy-to-handle approach. Moreover, you do not have to employ a consultant, as this approach can be dealt with from within. The interaction profile blueprint allows you to design the most important touchpoints – those that attract prospective buyers and will ensure positive customer experiences. The blue-print can easily be adapted to other touchpoints and even be launched in other global markets. Global customer experience management needs to be part of your business model. The learning link will not automatically generate happy customers, but it is one step on the way to turning prospective buyers into long-term customers.

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Axel Poestges spent several years working as a global business consultant and account manager for SDL. Today he works as a freelance consultant and associate lecturer at Pforzheim University in Germany. He has strong expertise in global information management and customer experience management.

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How social media can be part of your set of tc skills

As social media continues to strongly influence consumer behavior, companies are looking to engage with influencers to help promote their brands through their populated networks. With their strong communication skills, professional tech writers might be well-suited to fill this role.

Text by Rahul Prabhakar

Image: hocus-focus/istockphoto.com

The emergence of social media in the last decade has brought with it a paradigm shift in consumer behavior. Consumers no longer rely on conventional advertisement before making a purchase, but rather turn to their trusted sources within online or social communities. These communities greatly influence their purchasing decision by giving consumers an honest and holistic view of the product or its features.

Brands are beginning to realize the extent of reach and engagement social media influencers have and thus want to work with them in order to champion content on their offerings, drive engagement around their brand, and push traffic to their websites or landing pages.

Technical communicators all over the world are known to have a range of skills or abilities that make them successful in the workplace. Being the best communicators within the organization, they can leverage third-party social media tools like blogs, Facebook, Instagram, Twitter, etc. to create communication channels with customers, thus potentially influencing their purchasing decision.

In this article I will focus on how social media can be part of your set of technical communication skills.

The impact of social media

According to a case study by the digital marketing agency ODM Group, 74 percent of consumers are more likely to buy a product when referred from a blog or social media site.

A survey from Influence Central states that as many as 86 percent of female shoppers refer to social media before buying something, and are more likely to try a new brand when they have interacted with that brand on social media.

Social media in today's context is

- all about real-time connectedness, collaboration, and mobility
- larger conversations within the community
- free of cost; you only pay the service provider for using the Internet on your devices
- global and ubiquitous in nature

The impact of social media on businesses today is unprecedented, and with influencers coming into the picture, marketers are constantly buzzing with talk about ways to engage them, mostly with the intention of driving value for brands.

Influencer marketing

Influencer marketing is a type of marketing that focuses on using key leaders to drive a brand's message to the larger market. Rather than marketing directly to consumers, you instead inspire, hire or pay influencers to get the word out for your brand.

An influencer is a person who is

- well-connected,
- regarded as influential and in-the-know, and
- looked to for advice, direction, knowledge, and opinions.

Typical examples of influencers are people like CEOs, CMOs, PR professionals, creative people, bloggers, journalists and other experts.

Nielsen Catalina Solutions, in partnership with TapInfluence and WhiteWave Foods, released a case study last year revealing that Influencer Marketing delivers eleven times more ROI over all other forms of digital marketing.

According to a Tomoson study, marketers rate influencer outreach as the fastest-growing online customer acquisition channel, ahead of organic search, paid search, and email marketing.

Social media influencers are usually professionals who live and breathe social media through their over-populated accounts while focusing on very specific niches. They can coin terms, spread news like fire and influence people's opinions.

From a brand's perspective, there are three main reasons for working with social media influencers:

- Brand exposure
- Direct sales
- Future collaborations

While brand influencers may or may not get paid, they show their love for the brand voluntarily. Whether an influencer's audience is small or large, an influencer can reach consumers via their blogs and social networks in a way that a brand may not be able to.

Using social media influencers in your marketing is the practice of building relationships with the people who can build relationships for you.

So what does an influencer mean for a brand? Typically, from a marketer's perspective, it is crucial to know how many influencers are talking about your brand. Each and every day, marketers should measure all influential posts that mention their brand.

To understand who qualifies as an influencer, you need to first learn the core concepts that will help you develop an influencer campaign with real results.

Defining influence

In order to define influence, think of what aspects give an individual the power to influence others within their social sphere. The potential to influence can be related to three attributes that are important for marketers to think about: relevance, reach, and resonance.

- **Relevance:** Creating content that is relevant to your brand, or relevant to a topic that is important to your brand
- **Reach:** The ability to reach a targeted audience that is valuable to your brand
- **Resonance:** The proliferation of or engagement with relevant content by an audience that is valuable to your brand

Your brand's potential influencer should be able to meet all three criteria in order to be considered.

To become an influencer, an individual doesn't necessarily need to reach a large audience; sometimes reaching a small but niche audience can be just as valuable. Another thing to keep in mind is that just because someone is influential on one topic doesn't mean they can be considered influential on another. For example, if someone is an influencer on all things technology, it doesn't mean that his or her posts about automobiles will carry the same weight. Just like within our own personal networks, we need to identify individuals who are experts on the given topic.

How to identify influencers

Before you start proactively engaging with influencers, it is necessary to identify the right ones first. It can get tricky to expand the list of influencers beyond a group who are already talking about your brand.

The "right" social media influencer must:

- Be an expert in a specific niche
- Be able to produce a variety of content, such as text, videos, photos, infographics, slideshares, rich media
- Be able to communicate long-term in their chosen niche
- Be honest, even when the brand tries to dictate terms
- Have a good reach or engagement
- Learn when to back out if creative freedom is not given
- Share what they love
- Always add value for readers
- Not consider popularity at the cost of credibility

- Always be one step ahead in terms of knowing what the next big social media platform or product is going to be
- Consider the transformed media landscape to produce content that is global and ubiquitous in nature
- Be aware that readers can now talk back using social media and are no longer disconnected from each other
- Make the best use of social media; the content should be original, not duplicated, and be created to convene, not control

A good starting point to identify influencers is by diving into the data you have access to. For instance, start with Twitter - the primary channel for syndicating content from a wide variety of sources, especially blogs that contain in-depth thought leadership or original long-winded content.

By querying a keyword or a collection of keywords, you will find influencers relevant to a given topic. You will also see how often individual posts are pulled into that topic to determine the degree of relevance for the topic you're interested in.

With relevance established, you can determine how frequently those on-topic posts are engaged with to establish resonance. You can check whether or not this content actually gets shared.

By shortlisting potential influencers, you can also analyze the quality of their follower network to make sure they are a valuable audience for your brand. This plays into reach. If your topic is niche, you might be fine with accepting influencers who have a smaller number of followers. But if you're looking to drive brand awareness, you should be selective and only accept influencers with very large follower audiences.

If the devil is in the details and the details are in the data, that's where informed marketers should be.

How to engage influencers

Most marketers believe that they're already engaging with social media influencers, and would probably seek to grow this engagement.

Typically, brands have a process in place to respond to influencers who mention them. There are many ways to engage influencers, such as:

- Encourage influencers to create original and valuable content for the brand
- Familiarize influencers on advances the brand is making in the market vis-à-vis the competition
- Entice influencers to follow social media accounts of the brand and regularly champion brand content

The degree to which an influencer is likely to advocate a brand can be determined by their social behavior (for example, what they post and how they interact with the brand).

The best and safest way to engage new influencers is by starting small: make them aware of product announcements and check their response before calling on them to support the brand content and campaigns.

Can technical communicators become influencers?

With improvements in hardware, the cost of creating content has come down drastically. Amateur content creators are ruling the roost in social media.

Here's what you can do as a technical communicator:

- Find, follow and study social media influencers in your chosen niche/domain
- Start power networking through
  - events, meetings or conferences
  - WhatsApp and Facebook groups
  - agencies (both digital and traditional PR)
- Register with influencer marketing companies for paid campaigns
- Learn and master relevant social media platforms, marketing strategies and content creation
- Build a loyal group of followers through writing, editing and sharing content
- Intentionally design and plan out content ahead of time
- Stage the product in correct light, appropriate backdrop, and carefully designed flat lay
- Take multiple photos to get the right one (or pay to hire a photographer to take them). Edit and crop said photos
- Craft the perfect caption and hashtags to maximize engagement
- Post at the perfect time to optimize reach, influence and interaction
- Follow up with readers and respond to their comments and questions

Summary

User-generated content is growing more and more influential. If you're thinking of becoming an influencer, stay exclusive, original, and honest. Create a message that people actually want to hear and share. Whether it's in the form of research, infographics, surveys or fun facts, you need to make sure your message is unique and interesting.

Further reading

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Neural machine translation offers significant advances with remaining challenges

No shift in machine translation technology has progressed quite as rapidly as the latest hype: neural machine translation. But is it really as promising as the reports make out?

Text by Arle Lommel

The standard joke about machine translation is that perfect MT is just five years away, and has been for fifty years. Just how true that statement is has become apparent in the last year as claims about MT progress have undergone one of their periodic bouts of hyper-optimism. In this case, the cause is neural machine translation (NMT), a technique that uses computer neural networks – an artificial intelligence approach that is designed to mimic the function of neurons in brains – to translate text from one language to another.

An examination of the technology by Common Sense Advisory (CSA Research) shows that it does represent a significant improvement over the previous state-of-the-art phrase-based statistical machine translation (PbSMT) systems that continue to dominate the industry, but

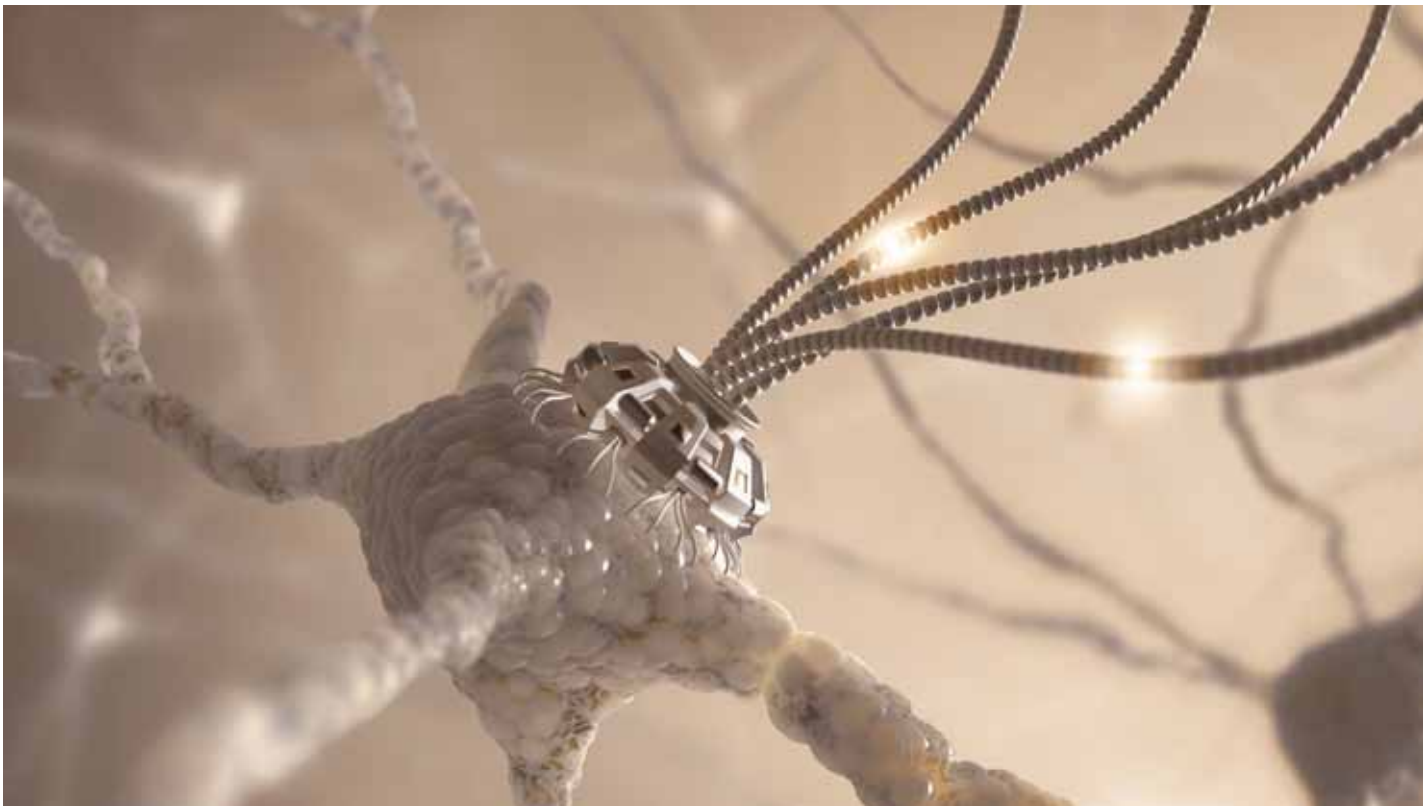

Image: © ktsdesign/123rf.com

some developers and tech reporters oversell the technology. To understand why NTM is important – and what it can and cannot do – consider the following four points.

1. NMT does not learn languages in the same way humans do, even though some breathless reporting has made this claim. Instead, it relies on statistical correlations, much like PbSMT does. The difference is that NMT can make much more complicated inferences from that data and is very good at determining correlations of correlations. Where a PbSMT system might observe that English ***frog*** tends to translate into German as ***Frosch***, a neural system could note that if the text mentions words to do with railways, ***Herzstück*** is a much more likely translation, even if this translation occurs only a few times in a training corpus.
2. Older systems look at n-grams, strings of a certain number of words. For example, if a system works with 6-grams, it considers chunks of up to six words. This approach works fine for linguistic structures that are compact, but has trouble with "long-distance dependencies," such as German verb phrases, which may contain entire clauses in between parts of a verb phrase. By contrast, NMT systems look at whole sentences in their entirety, and researchers are now pushing them to work on entire paragraphs or even longer chunks of text. This shift allows them to be more sensitive to context and handle complex grammatical structures more effectively.
3. NMT looks at individual characters, while phrase-based approaches look at words. This difference makes neural systems particularly good at working with morphologically rich languages, such as German or Hungarian. For example, a PbSMT system would not – without additional language technology – recognize that both ***speichern*** and ***gespeichert*** are forms of the same verb. By contrast, NMT can work with patterns of characters to predict word forms it may not have previously seen.
4. Neural systems can extrapolate across multiple languages to fill in gaps in training data. This capability called "zero-shot translation" allows NMT engines to translate language pairs for which they have no data or to fill in gaps in training data from other language pairs. For example, if a NMT engine has English<>Greek and English<>Finnish training data, but no Greek<>Finnish, it can use the information from its existing language pairs to translate that pair. Although the results will not be as good as for pairs where it has data, this can make the difference between having some translation and no translation at all.

These points all make NMT a powerful tool, but its abilities come at a cost. Neural networks require significantly more computational capacity than older statistical technologies do. They work most efficiently on graphical processing units (GPUs), the same chips used to generate on-screen images. Although an engine can run on a desktop processor, it will run many times faster on GPUs, but even so, large-scale deployments typically require more dedicated hardware than a PbSMT system would.

CSA Research finds that NMT is much more fluent than older systems – that is, its output sounds more natural than typical "machine translationese." As a result, readers find it easier to understand and interact with, but increased fluency can be a problem if it obscures problems with translation accuracy. Very often, when PbSMT engines produced incorrect results, it was obvious because they were simply unreadable. But such problems may not be obvious with NMT, and readers may not know when they have read an incorrect translation.

CSA Research also notes that typical "quality measures" like BLEU tend to perform poorly for NMT compared to statistical systems. A marked and obvious increase in perceived quality from a neural engine may not correlate to an improvement in BLEU scores. The industry has yet to develop relevant quality metrics for these systems, although research from the German Research Center for Artificial Intelligence (DFKI) into the specific types of errors seen by different MT engines is suggesting new approaches that may work better for these systems.

To date, NMT has seen a rapid uptake by machine translation developers. Google, Microsoft, and Facebook have all deployed the technology for at least some portion of their translation needs. Systran and SDL have both released NTM services aimed at the needs of enterprises and language service providers, and many smaller MT-centric companies have deployed it. At the same time, the processing requirements for these systems are decreasing as developers optimize code and find more efficient approaches. The result is that the shift to neural technology is proceeding much more rapidly than previous shifts in machine translation technology, and it is already a mainstream solution.

Because it only appeared on the scene fairly recently, companies looking at shifting to NMT can face significant difficulties in finding experts who know how to build and train these systems. Open-source versions of key software lower this burden, but training is a far more sensitive issue for neural engines, and mistakes may require a complete retraining of the engine from scratch rather than removing bad training data.

Observe or adopt?

Overall, CSA Research finds that NMT is a major advance in the state of the art and that it will rapidly displace PbSMT systems in many scenarios. Development and performance are progressing quickly, even if tech reporters consistently oversell its potential and misunderstand the fundamental technology. Enterprises should not rush to junk functioning Moses-based systems, but they should keep an eye on developments in this area and prepare to adopt it when price and performance calculations show that it will deliver an advantage. It will not replace human translators anytime soon – if anything, it will assist them as part of augmented translation workflows – but it will open up new areas for translation where today's only alternative is no translation. As such, it should be a welcome addition for governments, support departments, and enterprises concerned about their ability to interact with citizens and customers across language barriers.

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Arle Lommel is a senior analyst with independent market research firm Common Sense Advisory (CSA Research). He is a recognized expert in quality processes and interoperability standards. Arle's research focuses on technology, quality assessment, and interoperability.

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Natural language processing: Understanding human meaning

In only a few years, embeddings have changed the world of natural language processing. How far have we come in teaching an artificial brain to understand natural language?

Text by Roland Meertens

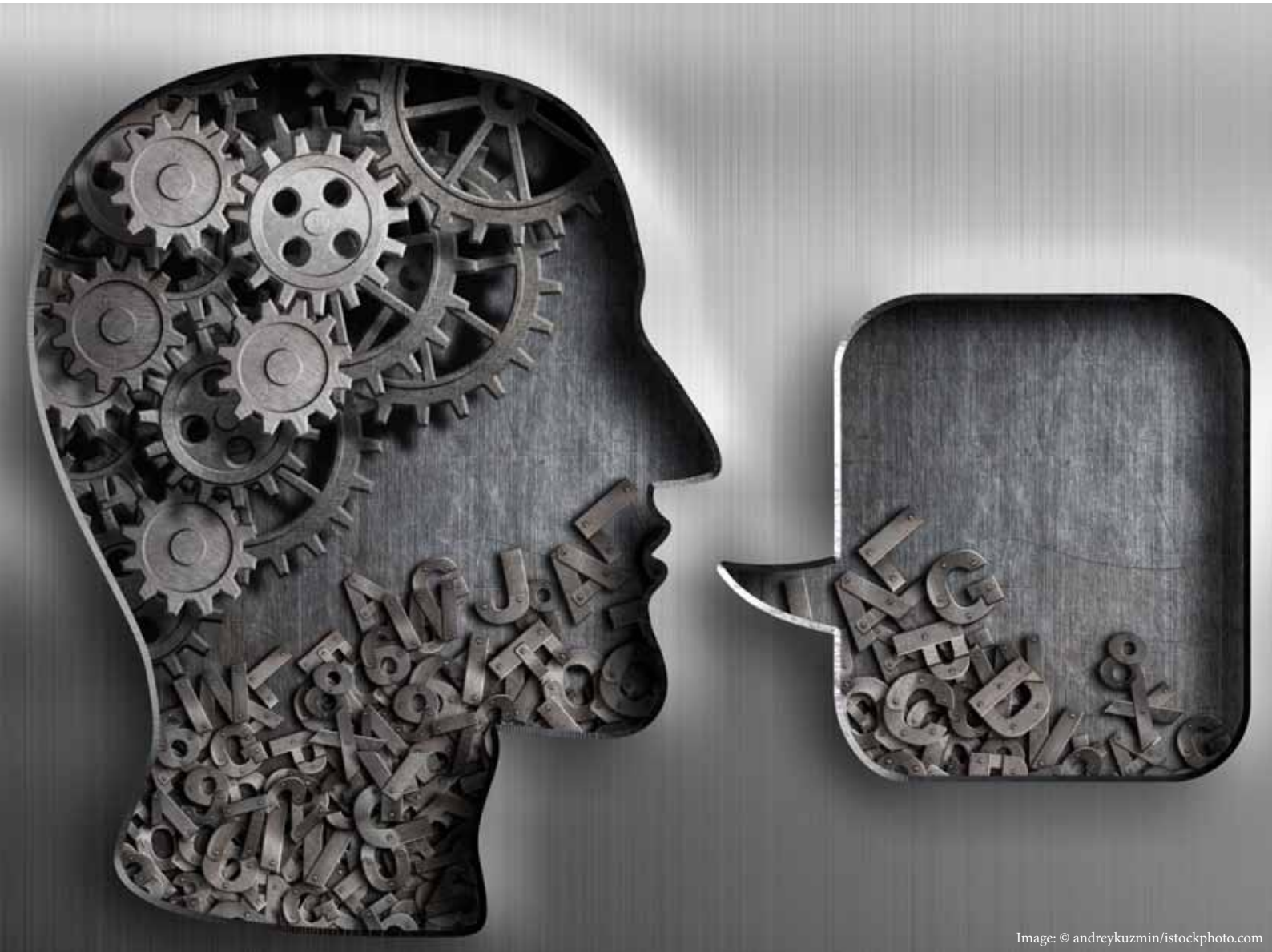

Image: © andreykuzmin/istockphoto.com

For many decades, computer scientists have been trying to teach computers to understand the human language. It's a difficult task: Sentences that are easy to understand for us humans can be incredibly complex for machines. A major reason is that humans can see meaning behind words. We know how to put a word in context, know how to reason with it, and know how to use it to give it meaning and relevance. But computer scientists have struggled to teach this sort of deep understanding to a computer. Only recently, a new technique has emerged that promises unprecedented advances: embeddings. In this article I try to shed some light on this new approach in natural language processing.

The problem with one-hot vectors

Many computer programs work with self-learning algorithms: mathematical problem solvers that work with a "numbers in, numbers out" approach. For example, we might be able to predict the weather by applying numbers to an algorithm of six dimensions: temperature, air pressure, the amount of clouds, yesterday's temperature, wind speed, length of the day. Drawing this is difficult, but applying learning algorithms is easy. And having these numbers is extremely useful, as it allows you to apply mathematical formulas to calculate the weather.
To use self-learning algorithms in natural language processing, we have to convert words to numbers. One way to represent a word is creating a so-called "one-hot vector". This vector consists of only zeros and a single number one. To simplify the idea, let's pretend we only have three words in our system: "machine learning rules". The one-hot vectors for these words would be:

machine: [1 0 0]
learning: [0 1 0]
rules: [0 0 1]

Having applied one-hot vectors, these vectors can now already be used in many machine-learning algorithms!
Unfortunately, there is a major issue with this representation: it is very sparse. As you can easily imagine, creating a more comprehensive word base will soon raise other problems:

1. You need a lot of memory to store that many strings of numbers for a long text.
2. The difference between cat and kitten is as big as the difference between cat and refrigerator: both show different values for two digits of your vector.
3. Analyzing the sentiment of a sentence in this way is simply a matter of checking if a certain word is in a sentence or not.

Introducing embeddings

In 2013, Google research scientist Tomas Mikolov developed the word2vec program. Mikolov and his team took on the challenge of using neural networks. They based their research on the assumption that in order to know what a word means, you need to know the context of the word.
This assumption can be interpreted in two ways: predict a word based on its context, or predict the context based on the word.
Take a look at the following examples:

1. XXX barks XXX
2. The dog barks XXX

The word "barks" can be used in many contexts: dogs bark, other animals bark, and a person can bark at somebody by speaking very loudly. You really have to ask yourself: In what kind of instances can there be a bark and what properties can a bark have? This limits the context of the word "barks" immensely.
The second example also leaves limited possibilities. Dogs can bark loudly, but also bark at somebody. You have to ask yourself: what can dogs do with a bark?
Word2vec can train a neural network – or artificial brain – in this manner. First, it generates a random set of numbers for each word: the embedding. Next, it takes two pairs of words. Given one word, the second word could be predicted (e.g. "dog" and "barks"). It takes the embedding for the first word and puts it through its network to predict what word will come next (see Figure 1).
You now have a neural network that, given a word vector, predicts how likely it is that a certain word surrounds that word vector. For example, let's say our input is "dog":

0.1. 0.3 -0.8 0.9 -0.3

The network now predicts the following surrounding words:

- barks
- jumps
- refrigerator

If we teach the neural network that in this case the right answer is "barks", the network learns that "jumps" and "refrigerator" were wrong. It is thus less likely to predict these words the next time it receives the same input. At the same time, the network also learns that "dog" is a likely value to surround the embedding for "barks". This way, the neural network and the embedding are simultaneously trained.
After we have trained our network and the embeddings, we can use them for other tasks. This is like performing well on one task, then removing the part of the brain that performs this task, and replacing it by another task brain. For example, the "predict-word part" can be replaced by a "predict part of speech tag" brain, or a "sentiment of this word" brain. This is the most exciting aspect about neural networks: you can take a trained part and use it to train another part.

Evaluating this method

By now you are probably wondering if this artificial brain is able to understand natural language. This, of course, depends on what we mean by

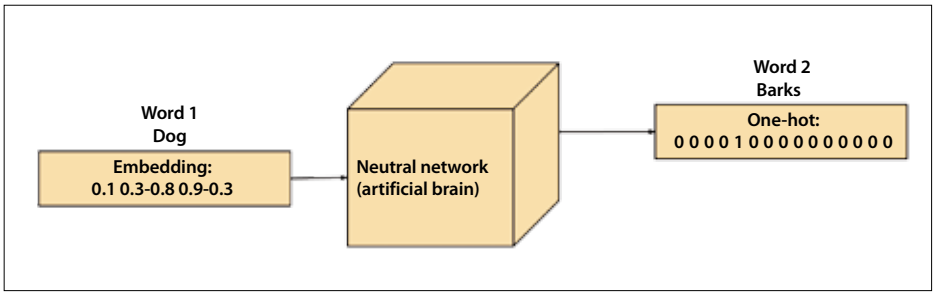

Figure 1: Example of a word embedding using the word2vec model

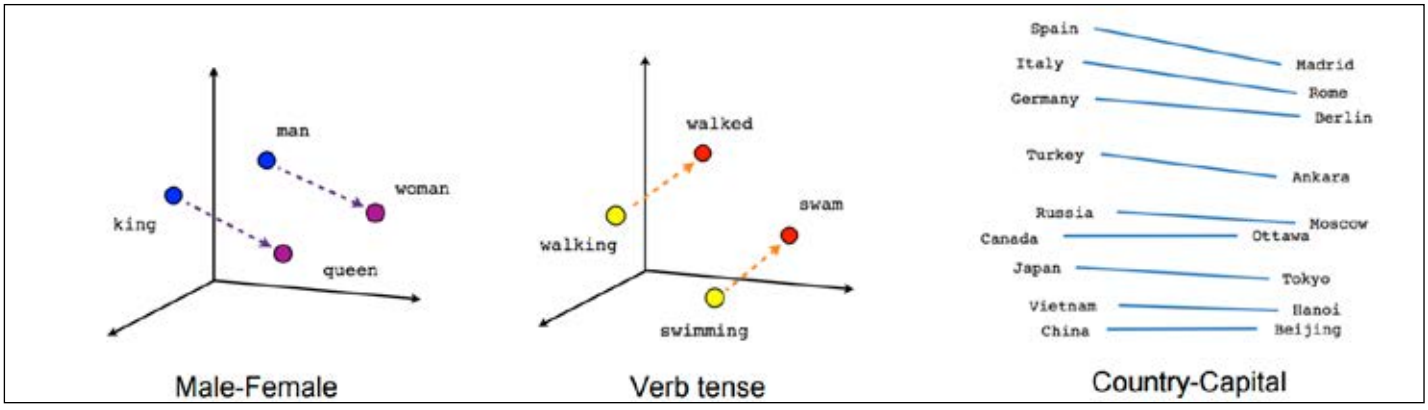

Figure 2: Semantic relations in word2vec

Source: www.tensorflow.org/versions/master/tutorials/word2vec/index.html

"understanding". One way to evaluate how well embeddings work is by trying to calculate with them. For a human, the following riddles provide little challenge:

- What Paris is to France, Amsterdam is to XXX (answer: the Netherlands)
- Large and larger, small and XXX (answer: smaller)

With embeddings trained by word2vec, you can perform some of these calculations. Take the embedding for "larger", subtract the vector of "large", and add the vector of "small". You will end up with a vector that is close to the vector of "smaller".

Mikolov created a test set with 8869 semantic relations and 10675 syntactic relations, which he used as a benchmark to test the accuracy of the model. This evaluation gave valuable insight into how to create good embeddings. What remains unclear is: how much data do we need? And which way do we train our network (predict context given word, or predict word given context)? There are also other ways to train embeddings, but I will not cover these in this article.

Another way to evaluate the model is to see if similar words are close together. If words share a lot of properties (e.g. "cat" and "dog" have more in common than "cat" and "hovercraft") they should be closer together. Figure 3 reveals what happens if we bring these vectors down to two dimensions. Take a few minutes to assess how well you think this model is trained. Single letters seem to be grouped in the upper left corner and numbers are clustered right next to it. There appears to be a cluster for countries and another one for pronouns. Based on this figure we can assume that this representation was successful.

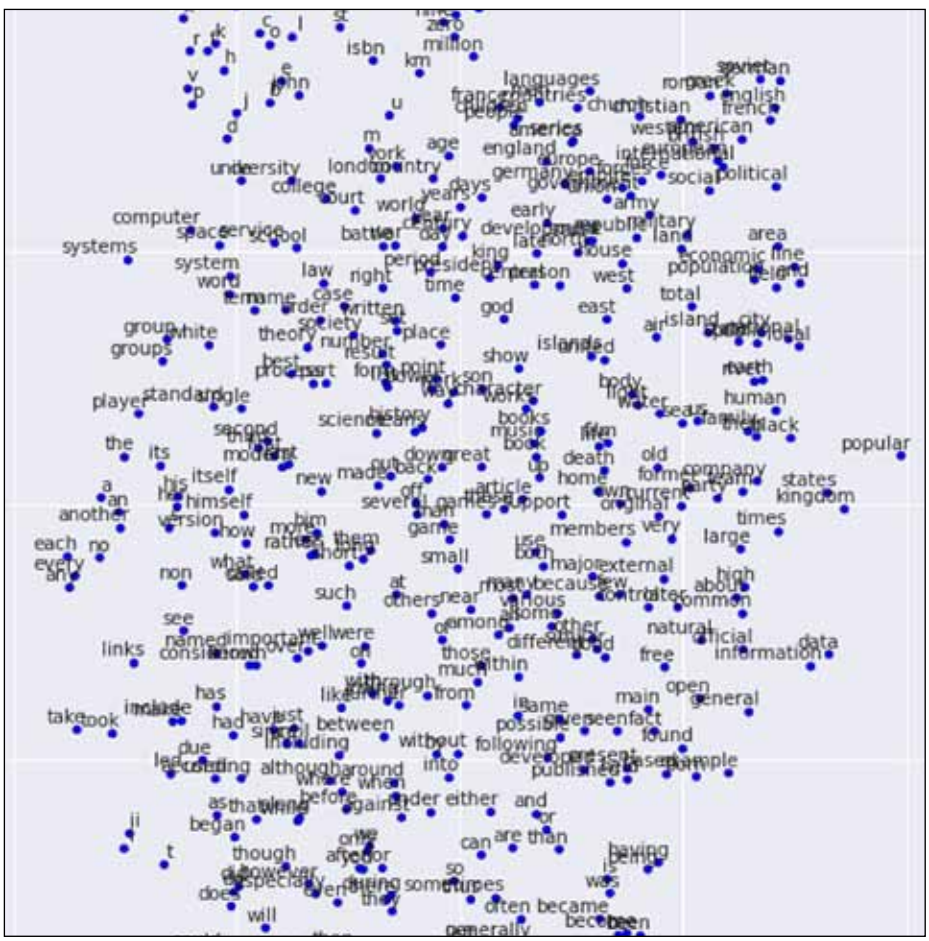

Figure 3: A two-dimensional representation of vectors in word2vec

Source: www.tensorflow.org/images/tsne.png

Conclusion

Embeddings are able to represent words while taking up less memory than one-hot vectors, and allowing for a larger word base. They enable us to use existing machine-learning algorithms in natural language processing. Nowadays embeddings are one of the most important components of many new natural

language processing applications. Examples of such applications include:

- **Neural machine translation**
  Before feeding a word to the translation engine, it is replaced by its embedding. Although neural machine translation needs a lot of data, its output shows a high level of accuracy. In large part, this is due to the fact that the computer "understands" each word better. The bigger the embeddings are (that is, the more dimensions they have), the better the translation. However, more data is needed for its training.
- **Sentiment analysis**
  Does the user who wrote a certain review feel positive or negative about the product? There is a big difference between a user writing "This is a good product" and "This is not a good product". But if you only search for specific keywords (like "good") you might fail to understand the meaning. By turning each word into an embedding and "reading" the sentence, you can catch the sentiment much more accurately.

Although embeddings have only been around for a relatively short time, they have shaken up the world of natural language processing. While in the past many applications were inaccurate because word bases were too sparse, embeddings allow the creation of many applications.

Further reading

- Train your own embeddings model at www.tensorflow.org/tutorials/word2vec
- Inspect a model at www.anthonygarvan.com/wordgalaxy

ABOUT THE AUTHOR

Roland Meertens is a research engineer implementing tools that help with the translation of technical documents. His background in Artificial Intelligence has given him an understanding of neural network techniques. You can get a glimpse of his many interesting projects on his blog Pinch of Intelligence.

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Cleaning up and harmonizing your translation memory

Inconsistent, polluted translation memories? It might be time for a TM spring cleaning. Here is how you will achieve the best results.

Text by Michael Oettli

Image: © Amy Walters/123rf.com

Translation memories (TMs) continually grow over time and with increasing localization activities. At the same time, corporate terminology is often created and managed in a parallel process, not in sync with the TM development. This situation inevitably leads to significant inconsistencies between a company's content assets and can jeopardize quality while increasing cost and process times. So how can we overcome this hurdle?

It's quite common that companies dealing with high volume TM assets consider their translation memories to be polluted with inconsistencies. But even if they know the problem, they often hesitate to take action, fearing the resulting costs.

What are the challenges?

Two main issues can cause inconsistent translation memories:

1. Inconsistencies in target translations

The translation memory contains multiple and different translations for exactly the same source sentence. This often occurs when multiple translation suppliers are used in an uncontrolled and decentralized setting and no effective TM maintenance program is employed. The current trend of mergers and acquisitions in some industries, such as life sciences, has led to an increase in companies centralizing translation management and consolidating translation assets, which has also aggravated this problem.

2. Inconsistencies between validated corporate terminology and the terms used in the TMs

This seems to be the most common and most important issue, as the use of the proper terminology is very important for every company and often tightly connected with the company's brand identity. Companies invest time and money in building a solid and validated termbase, but in most cases this is out of sync with their growing TMs. TMs were also often started long before a systematic terminology approach was initiated.

The dilemma begins when new content is created or updated by reusing previously translated and approved content. Should the new deltas follow the approved terminology, leading to inconsistent use of terms between new content and legacy-approved content? Or should the approved terminology be ignored to create consistent documents, which results in losing the meaning and power of a validated corporate terminology?

What is the solution?

The problem is obvious and the impact on quality, cost, and timelines can be significant. Many companies desire to clean up translation memories in order to eliminate inconsistent and multiple target entries, and to bring the terminology used in the TMs in sync with the approved company's terminology. But what are the best viable options to accomplish this?

When it comes to terminology mismatches, in many cases companies select a project-based TM cleanup approach. With every new translation project, they reopen pre-translated content, by adding a penalty to the reused context and 100% matches, asking the LSP to review this content and to harmonize the terms based on the approved corporate terminology. However, depending on the volumes and scope, this can be a never-ending and time-consuming process with ongoing and substantial costs.

Imagine having to translate high-volume product documentation based on previous documents reusing 80 percent of the content. This will result in significantly added costs and could even jeopardize the company's product release date due to the additional time needed to review all the content.

Would it not be more appropriate and efficient to conduct a universal cleanup project, which may require a higher one-off investment, but leads to the desired results in a much shorter timeframe?

The suggested approach

At NLG, we successfully followed this approach for enterprise clients who wanted to benefit from clean translation memories in a shorter timeframe, because many of their internal processes were dependent on clean translation assets. What follows is a detailed description of this type of approach.

Before starting, you need to clarify certain details regarding your terminology management and translation process as well as your current TM management and maintenance process.

Ask yourself the following questions:

- How many years have you used translation memories?
- How many languages do you translate into and for how many do you maintain translation memories?
- How are the TMs updated? Do you add new features or overwrite existing ones?
- Do your TMs contain metadata such as status, project name, product type, etc.?
- If you have in-country reviews, is the reviewed content imported in the TM? Do you use a specific status for this?
- Do your TMs contain display messages, software items, broken segments, etc.? If yes, are these somehow tagged or marked in the source documentation?
- Have you ever migrated content to your TM that was created in a different translation tool than the one you are currently using?
- Do you maintain separate TMs by company division/department or do you have one master TM?
- Do you manage TM in-house or do you outsource TM maintenance?

This gives a better indication of which actions to take and whether there are specific corporate and content characteristics that must be considered moving forward. Also, to conduct such a project, you should work closely with a language engineer who understands terminology and the techniques of manipulating data in the translation memory databases.

The first goal is to analyze your TM entries at a general level with regard to the use of each translation unit (segment). Very often translation memories grow over time, while content evolves, and technology and language also change. This can result in a large amount of translation units remaining unused for years. A proper TM analysis will illustrate the frequency of use, as well as the dates of the last usage of a translation unit. You can then make an informed decision whether to keep these old units or remove any translation units that haven't been used for a certain amount of time. This helps you to initially reduce the volume of the TM, making further analysis easier.

Correcting TM inconsistencies

As a next step, the TM is analyzed to identify multiple target segments for the same source segment. To do this, you first normalize source and target segments. Normalization means fixing

Source	Target
Inconsistency in Target	
Please refer to local country requirements for these areas.	Consulte los requisitos locales del país para estos ámbitos.
Please refer to local country requirements for these areas.	Consulte los requerimientos locales del país para estos ámbitos.
Inconsistency in Target	
Product availability is subject to regulatory approval in the respective markets.	La disponibilidad de los productos está sujeta a la aprobación normativa en cada mercado.
Product availability is subject to regulatory approval in the respective markets.	La disponibilidad de productos depende de la aprobación conforme a la reglamentación nacional en cada mercado.
Product availability is subject to regulatory approval in the respective markets.	La disponibilidad de los productos depende de la aprobación conforme a la reglamentación nacional en cada mercado.
Inconsistency in Target	
Catalogue number	Número de catálogo
Catalogue number	Número de referencia en el catálogo
Inconsistency in Target	
These can be adjusted in Settings.	Estos mensajes pueden configurarse en Ajustes.
These can be adjusted in Settings.	Estos mensajes son configurables en Ajustes.

Figure 1: Inconsistent target segments

Key Term Mismatch (Visual status indicators / Optische Statusanzeigen)	
Audible and visual status indicators See figure	Akustische und visuelle Statusanzeigen Siehe Abbildung
Audible and visual status indicators See figure 3	Akustische und visuelle Statusanzeigen Siehe Abbildung 3
Audible and visual status indicators See figure 3	Akustische und visuelle Statusanzeigen Siehe Abbildung 3
Your processor is equipped with audible and visual status indicators (beeps and LEDs).	Ihr Prozessor ist mit akustischen und visuellen Statusanzeigen ausgestattet (Signaltöne und LEDs).

Figure 2: Inconsistent terminology

anything that could make identical segments appear inconsistent due to the use of different punctuation, such as quotation marks, dashes (short vs. long), apostrophes etc. or double spaces.

After normalization, harmonization and automated correction processes can take place. This is where the multiple target segments are identified and replaced by one target segment. Typically we *replace* translation units, rather than *remove* them, as these may carry metadata and contextual information important for proper use. Don't just rely on your LSP to replace one translation unit with another. You might know the history of the development of a translation memory better than the LSP. In some cases it might come down to the date of the entry, meaning that multiple target segments get replaced by the most recent entry. In other cases the defining criteria might be in the supplier metadata, meaning that multiple target segments will be replaced by a segment coming from LSP "A". Or the segment might depend on the site, product line, status, etc.

There may be different techniques and tools that fit the purpose of the above-described normalization and harmonization processes. At NLG, we have seen the best results achieved by developing and implementing scripts and applying rules with Perl, a programming language originally developed for text manipulation.

Correcting terminology inconsistencies

Once the inconsistent translation memory is harmonized, you can move to the next process step, the correction of inconsistent terminology used in the translation memory against the approved corporate terminology.

For this step, you first run a terminology consistency analysis to identify any key term mismatches in the TM. To do this, you can export a reduced TMX file containing only unique segments and analyze using an off-the-shelf quality assurance tool such as QA Distiller, XBench, ErrorSpy, Verifika, etc.

These QA tools analyze the translation memory against the validated corporate terminology and generate a mismatch report, which should be reviewed to eliminate false errors.

To correct any key term mismatches in the translation memory at this point, you engage with the translators. First, you export a new, further reduced TMX containing only translation units with identified mismatches. The translators receive this TMX for correction, together with the mismatch report from the QA tool. This correction can be performed either in a Computer Aided Translation (CAT) tool or using a TMX Editor. To ensure a thorough understanding of the requirements, to set the expectations and goals of the process, and to explain the task, it is recommended to arrange a training session with the translators before they start the TMX editing. Once you receive the corrected TMX you should run basic QA checks (spell check and inline tag check) to avoid introducing any errors the translators might have produced during their editing step.

Once the TMX is corrected and spell-checked, it can be merged back into the original master TM. At this point, we recommend exporting the master TM from the Translation Management System (TMS) again, and to run the original scripts and rules to normalize, harmonize and correct the translation memory from multiple target segments, especially if there has been any translation activity during the course of the cleanup project. This ensures that any newly introduced TM inconsistencies due to multiple target segments are addressed. Lastly, before importing the merged TMX back into the system, it is advised to run a validation of the master translation memory to avoid any import complications.

Results

After cleaning up the translation memory and aligning its terms with your approved corporate

terminology, you will see immediate positive results within your next localization activity. The newly cleaned TM will produce improved leveraging due to "better" matches, thus also reducing costs.
The harmonized terminology is now the basis for consistent and high-quality translations. Your brand identity expressed by the unique use of key terms is now perfectly reflected in your content translated into any language. Translator questions regarding the dilemma whether to follow the termbase or the pre-translations coming from the TM will be eliminated, and the whole translation process will be streamlined. QA checks on the LSP side can be performed smoother and faster with significantly reduced error findings, enabling a considerable decrease in the turnaround time for large volume translations.

Keep it clean

Now, as a last and very important step, it is recommended to implement a Standard Operating Procedure for managing your TM and for dealing with approved terminology, including standard QA procedures for every LSP working on your content. This will ensure that the TM will not be polluted again, and there will be no need for additional TM cleanup projects anytime soon. If you have an in-country review process in place, this procedure must be extended to the reviewers as well to guarantee that they follow the approved terminology and avoid making unnecessary term changes that might have a negative impact on your translation assets.
If you're working with a TMS – and if the process allows it – it is also advisable to change the setting from "add as new segment" to "overwrite segment". This ensures that you are not creating TMs with multiple target segments again.

Conclusion

Discussions with different clients highlight the fact that TM and terminology inconsistency is a common issue of which they are perfectly aware. However, many companies are very hesitant to explore their options of cleaning their TMs. Some lack the necessary budget, while others will tell you that the TMs will just be polluted again anyway within six months, so what is the point? The majority of these companies are not working in a controlled translation management environment, but rather in a decentralized manner and with multiple LSPs.
If you are working in one of those global corporations where localization is still seen as a necessary evil, just devouring money, it might be very difficult to procure the additional budget to clean translation assets.
However, for organizations with a certain translation maturity, clean and consistent translation assets are essential. These companies often have a structured terminology management process. They view terminology not only as an asset facilitating higher quality, but also as one that contributes to brand identity, differentiating their "lingo" from the competition in marketing tools as well as in technical documentation. For these companies, the only way to go is to clean up translation memories and to establish an ongoing structured and controlled procedure to avoid the future pollution of translation assets. Building a solid case with data and ROI information to secure the necessary budget should be easy.

ABOUT THE AUTHOR

Michael Oettli is the founder and managing director of the global language service provider NLG GmbH. He has been running the company for 17 years.
Michael's aim is reflected in the company's focus on delivering services beyond translations: consulting on and implementing process improvements and offering customized technology solutions.
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Technical communication gains ground at Chinese universities

The profession of technical communication is still in its infancy in China. But this is set to change as the demand for trained tc professionals is growing steadily. Fudan University in Shanghai recently introduced students to this promising sector.

Text by Monica Xie

Technical communication as a profession was introduced to China only in the late 20th century when international enterprises were establishing their R&D centers in China. At almost the same time, local enterprises such as Huawei started to develop technical information.

On the educational side, foreign professors were invited to give technical communication seminars in higher education institutions. Originally, only a few universities like Xi'an International Studies University and Peking University offered courses in technical communication. However, in 2015, technical communication started to gain more attention from higher education institutions. Today, more than ten universities offer courses in tc and the number keeps growing. One institute has even established a technical communication department.

One of the challenges that universities face is the shortage of technical communication faculty. They lack not only teachers but also appropriate teaching materials. On the other hand, industry practitioners are going beyond their job descriptions by not only conveying the business value that technical documentation brings, but also acting as evangelists and helping people understand technical communication, equipping students with tc competencies, and bridging the gap between educational institutions and industrial enterprises.

A pilot for teaching tc

Shanghai, the financial center of China, is one of the three metropolises with the largest number of technical communicators (the other two are Beijing and Shenzhen). Located in Shanghai, Fudan University is among the top 5 universities in China.

For the first time in 2017, Fudan University offered technical communication as a selective course for graduate students of its MTI program (Master of Translation and Interpretation). The new course, which was run as a pilot

Image: Students and teachers of the technical communication elective course at Fudan University

program, kicked off at the beginning of the second semester.

Students of the MTI program have a strong language background but limited experience with technical matters. The course consisted of 13 lessons and one final exam. As teaching time was limited to one lesson per week, the lecturers streamlined the course to focus on writing and practicing. Topics included information types (DITA), languages and styles (MSTP), rules and guidelines (DQTI), and authoring tools (Word/XMetaL), among others. The course was run over three months, from March to June 2017.

Four practitioners (including myself) with strong backgrounds and many years of experience in technical communication were chosen as lecturers. Nine MTI students selected the course, and one student with a major in Chinese attended the classes as an auditor.

Course highlights

We all agreed that technical writing is a practical skill. Practice is essential, and this is particularly true for students who have no technical background. Of course, the short timeframe wouldn't allow us to train students to be technical writers. Instead, we decided to focus on providing them with the reasoning behind our practices: Why do we need to use simplified/controlled English? Why do we need to follow specific styles (MSTP) or guidelines (DQTI)? And why do we use structured writing? Only when students understand the reasons will they grasp the essence of technical communication and perhaps even add value to our profession. We acknowledged this by adding classroom practices to each lesson. These activities were not necessarily what you might do in a technical writing job, but rather served as a means to reveal the essence of technical communication: helping people.

One lesson, for example, included a game that required students to describe a specific picture to their partners. The partner then had to draw this picture on the blackboard without seeing the original one.

In my teaching of DQTI, I explained and gave examples of each quality characteristic (clarity, accuracy, completeness, concreteness, style, organization, retrievability, task orientation, visual effectiveness). Later I gave them an online quiz that included ten revisions and asked students to identify the exact characteristic that a revision represented. This revealed the chasm between understanding and applying: Students took longer than anticipated to complete the quiz and appeared to be very uncertain about some answers. As one student remarked: "I thought I was clear until I took the quiz, which made me unclear again."

We were pleased to find that students soon started to develop a sense for technical communication. With the help of the lectures and homework projects, they began to think more logically and in a user-oriented way. To illustrate this, one student noticed a misleading metro sign and proposed a new one that is more accurate and user-friendly.

Enterprise visits

To put their learning into context, we had the opportunity to visit the technical communication departments of Lenovo and IBM on May 19. Lenovo's senior writer Edison gave students a presentation on Lenovo's technical communication processes, from which students learned how a technical writer collaborates with different functions, and how a CMS adds value to a company. Lenovo also offered students internships, which was met with great interest.

IBM's senior writer Nancy showed students around the office, where they could observe a technical writer's work environment. Students were particularly interested in IBM because several lessons had been related to IBM – namely DITA and DQTI.

Student feedback

One student remarked: "This course has benefited me a lot – I used to be less exposed to technical things, but now technology has opened a new door to a new field. I think the most important and precious thing is the change of thinking mode."

Another commented: "I think the biggest change since I took the technical writing course is that I now focus more on my own user experience. Specifically, when I use a product now, I consciously think from a user's perspective: since the ultimate goal of product design is to help customers, why don't I use the product to best serve myself? That is, I am now learning to communicate with products."

Examination

The examination required students to write a manual, either on applying for study abroad or on buying a room in Shanghai. Requirements and instructions were sent to students two weeks before the examination, which allowed them enough time for preparation. Students could choose to finish the project in groups or on their own.

On June 13, students presented their manuals to lecturers and professors, who rated both their presentations and manuals. By combining this with their homework and classroom quiz, we calculated the final score for each student. Eight of the nine students received a score of 80 or higher (out of 100).

Conclusion

The teaching project is considered a success and we have received positive feedback from both students and faculty. The aim to equip MTI students with basic tc competencies has been achieved. However, the shortage of tc faculty and teaching materials remains. We, as industry professionals, will work with universities to close the gap.

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Communicating with Canada, Europe's newest trading partner

In the past year, Canada became Europe's newest trading partner, a relationship sealed with the ratification of the Canada-European Union Comprehensive Economic and Trade Agreement (CETA). So who is this partner? And more importantly, how can technical communicators fashion materials for the Canadian market?

Text by Saul Carliner

Image: © David Carillet/123rf.com

As an immigrant who has lived in Canada for almost 15 years, I have learned a few things about Canada. In this article, I introduce you to my findings and describe considerations for professional communicators and translators when developing materials for Canadian users.

Canada is not the 51st U.S. state

On the surface, much of Canada appears like the U.S. We're geographic neighbors and share the longest unarmed border in the world. We share many of the same brands. Our cities share architectural styles. Many natural features – like the Rocky Mountains – straddle both sides of the border. And the majority of the Canadian population lives within 250 km of the U.S. border.

But Canada is not the 51st U.S. state and most Canadians value the distinction.

Some examples of major differences:

- Although the country uses the same name (dollar) for its currency as the Americans and most Canadian coins bear a striking similarity to their American counterparts, Canada has its own currency.
- Canada has an entirely different health-care system: no Obamacare exchanges in Canada (and definitely no Obamacare debates). Canada has a single payer system that many consider to be a central part of the Canadian identity.
- In fact, the social safety net is strong in Canada, as is the public K-12 school system.
- Canada is geographically larger than the U.S. Yet Canada only has about one-tenth the population of the U.S.

Canada is part of the British Commonwealth

Canada, a former British colony, is a constitutional monarchy and recognizes Queen Elizabeth as its leader. For all practical purposes, however, her duties have been delegated to the Governor General of Canada, who acts as head of state.

Canada has a parliamentary government headed by the prime minister. Justin Trudeau, the current prime minister, has made quite the splash on the international scene for his youth, optimism, and good looks. Government might be in Trudeau's blood; his father was prime minister between the late 1960s and mid-1980s and his maternal grandfather was a Member of Parliament.

Canada also maintains ties to France, the other European power that colonized the country. Canada is a member of the Organisation internationale de la Francophonie, whose Secretary-General is Michaela Jean, a former Governor General of Canada.

Canada Goose is a bird… and a brand

With so much space and so few people, Canada has a well-earned reputation for unparalleled natural beauty. With the sea on one side and the mountains on the other, Vancouver is the most beautiful city in North America (an observation I made before moving to Canada and have since affirmed several times).

The Canadian Rockies attract visitors from across the globe to ski the challenging slopes and marvel at their beauty. The stark Canadian north attracts adventure travelers. The forests of Ontario and central Canada inspired some of our most beloved artists, the Group of Seven. Montreal and Quebec City maintain a European charm unique in North America. The Maritime provinces rival the fjords of Scandinavia for their beauty.

With such a vast land area and sparse human population, Canada is home to many plant and animal species. One is the Canada Goose (species *branta canadenis*). Sharing this land and its resources plays a key role in the diverse Canadian economy.

Canada Goose is a popular brand of winter weather coats, known for both their fashion and ability to keep wearers warm on a cold winter day. This is just one of many well-known Canadian products. Some Canadian brands that might be familiar to Europeans include Aldo Shoes, Blackberry, Bombardier, DSquared, Lightspeed, Lululemon, and Shopify.

Europeans might not be aware that some of their most famous department stores are actually Canadian-owned, including Galeria Kaufhof (which HBC, the oldest North American company, purchased in 2016) and Brown Thomas, Selfridge's, and de Bijenkorf, which are owned by the Canadian Weston family, who also own Canada's leading luxury retailer and largest chain of supermarkets.

Image: © LordRunar/istockphoto.com

The Canada Goose: More than just a bird

Canada has a diverse economy

The Canadian economy is as diverse as its regions. We maintain a strong presence in the aerospace, agricultural, biotechnology, computer gaming, financial services, manufacturing, resources, and software industries, among others. This diversity is one of the key reasons that our economy survived a number of recent shocks that hurt other developed countries, like the worldwide economic slowdown of the late 2000s and the drop in oil prices earlier in this decade.

For professional communicators, this means that Canada is a stable, reliable trading partner offering a variety of trading opportunities.

Canada has a diverse population

Except for the aboriginal population, all Canadians either immigrated themselves or descend from immigrants. Immigration con-

tinues to shape the country. According to the most recent census, about one in five Canadians was born outside of the country.
In recent decades, the largest groups of immigrants arrived from Asia: the Philippines, India, China, Iran, and Pakistan top the list. Large numbers of immigrants also come from South America and Africa.
For professional communicators, this means that they should not assume that the Canadian whom they are addressing has European ancestry.

Canada uses metric, not imperial measures

Europeans visiting the U.S. might need a few moments to adjust to weather reports because the U.S. uses the Fahrenheit scale. Crossing the border into Canada also means crossing into more familiar measures. Canada went metric in the mid-1970s and the conversion is complete. Food is sold in kilos. Distances are calculated in kilometers. Beverages are sold in liters. Only real estate continues to be sold in square feet, but square meters are also used.
For professional communicators, this means they do not convert metric measures to imperial ones when preparing materials for Canadian users.

Canada has its own strain of English

What Americans call	Canadians call
Bathroom, restroom	Washroom
Electricity	Hydro
The day after Christmas	Boxing Day
Legislative district	Riding
School district	School board

Table 1: Comparison of American versus Canadian-isms

Americans have a joke: "Who looks and sounds like an American but isn't an American? "A Canadian." But to the discerning ear and eye, a few telltale terms give the Canadian away.

Canadian terminology

For the most part, Canadians prefer American terms to British terms. Canadians have elevators like Americans, rather than British lifts. Canadians drive trucks (an Americanism) rather than British lorries. Canadians eat potato chips like Americans, not crisps like the British.
But Canadians also have a few unique terms. Consider the ones in Table 1.
Perhaps to confuse people, however, Canadians sometimes follow British conventions. This is especially true when referring to hospitals and universities.

Americans say
"She spent three days in *the* hospital."
Canadians say
"She spent three days in hospital"
(no use of "the").

Similarly, Americans tend to use the word "college" to refer to undergraduate studies. Canadians differentiate between colleges (which offer diplomas) and universities (which offer bachelor's and other degrees), so those in four-year degree programs attend "university".

Canadian punctuation

An additional characteristic to note about Canadian English is the placement of punctuation when using an end quote (”). Americans place the punctuation inside the quotation; Canadians place it outside.
Example:

American: "Wow!" Jill exclaimed.
Canadian: "Wow"! Jill exclaimed.

Canadian spelling

Canadian spellings sometimes differ from American spellings. A Canadian editor once characterized the difference to me as follows:
U in the word neighbor:

- Not used in American English.
- Definitely used in British English.
- Optional in Canadian English.

In practice, government documents and documents solely intended for the Canadian market use British spellings such as including the "u" in words like colo(u)r and neighbo(u)r, and using "re" to end words like theatre and centre.
Academic documents vary. Locally educated students tend to use British spellings while others tend to use American spellings (which are preferred by most U.S. journals). Commercial documents intended for use throughout the continent use American spellings. Microsoft Office offers a Canadian English dictionary for spellcheck. When in doubt, this serves as a helpful resource. If you have Canadian colleagues available to you, also check with them. Furthermore, some organizations use the same documentation in Canada that they use in the United States and do not localize for Canadian English. The primary risk in this approach is that the material will use American-centric examples or terms and this might offend some Canadians. As noted earlier, Canadians are proud of their unique identity. Most companies acknowledge this by localizing their materials.

The country of Canada is bilingual; the provinces, not so much

Although the discussion has only focused on English until now, Canada is legally a bilingual country, formalized in the Official Languages Act of 1968.
The other official language is French. France established the first permanent European colonies in Canada, and the French language survived the British conquest in the mid-1700s. (By the way, the French civil legal structure also survived the conquest, and forms the basis of the legal system in the province of Quebec).
Because the country is bilingual, all federal government services and information must be offered in both official languages. However, each province establishes its own language requirements for government and services under their jurisdictions. So language requirements differ at the provincial and local levels. Canada only has one bilingual province: New Brunswick. This province offers all of its services in English and French. Quebec, internationally known for its French culture, uses only French as the official language. The other provinces also have one official language: English.

The three territories, each of which has significant indigenous populations, have both English and indigenous languages as official languages. Speakers of English in Quebec and French in the other provinces and territories have a right to receive essential services – education and healthcare – in their first language. So Anglophones have a right to educational and medical services in English in Quebec, while Francophones have a right to these services in French in other provinces. In addition, as a result of a Truth and Reconciliation process that took place earlier in this decade, most jurisdictions are also making efforts to provide services in aboriginal languages and to support the revival of these languages.
So what does all of this mean to an organization providing product labeling and documentation? The Canadian government places certain requirements on product labeling, which must be provided in both official languages. Companies have discretion with other product information. But to be sold in Quebec, all product information (print- or web-based) must be provided in French.

Canadian French differs from other strains of French

As a unique strain of English evolved in Canada, so have unique strains of French. Quebec French is the dominant strain and is characterized by its informality. For example, Quebec French makes extensive use of slang. Quebec French makes far more use of the familiar *tu* rather than *vous* when addressing strangers. (*Tu* and *vous* both refer to "you.")
Given the size of the Quebec market (Quebec has a population of eight million, the overwhelming majority of whom speak French) and between a half million and one and a half million Francophones in Ontario, and the notable differences in the two versions of French, many organizations choose to localize French language materials for the Canadian market. The French used for these efforts is Quebec French. Many word processors offer Quebec French dictionaries, and the Canadian software application Antidote provides comprehensive grammar and spelling assistance online.
Those organizations that choose not to localize their materials run the same risks as those who choose not to localize their English materials for the Canadian market.

To sum up

In other words, Canada offers opportunities, challenges, and rewards to those professional communicators who have the opportunity to serve the market. The text box below, "Further resources", provides links to some tips for communicating with the Canadian market.

ABOUT THE AUTHOR

Saul Carliner immigrated to Canada in 2003. He is a professor of educational communication and technology at Concordia University in Montreal, and a fellow and past international president of the Society for Technical Communication.

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Further resources

- General information about Canada? Visit www.thecanadaguide.com
- Writing for this market? Download Industry Canada Style Guide for Writers and Editors: http://publications.gc.ca/collections/Collection/C2-469-2002E.pdf
- Packaging and labeling? Visit the Canadian Competition Bureau's Guide to the Consumer Packaging and Labelling Act and Regulations: www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/01248.html
- Thinking about emigrating? Check out Welcome to Canada: www.cic.gc.ca/ENGLISH/resources/publications/welcome/index.asp
- Canadian trivia? Visit The Canadian Encyclopedia: www.thecanadianencyclopedia.ca/en

Promoting the language industry: Meet the LIND Expert Group

LIND is an expert group running under the aegis of the Directorate-General Translation of the EU. LIND members come from all branches of the translation industry and their meetings focus on direct experience, lateral thinking and productive output.

Textt by Eyvor Fogarty

Translation has come of age. What used to be described as an art and a niche for highly-skilled professionals is now defined in terms of revenue gains. Translation today is a global industry worth billions of dollars. From the isolation of kitchen tables and converted garages, translation has moved into an industry employing millions of people in a highly competitive market. It was against this background that the Directorate-General Translation (DGT) of the EU set up the Language Industry (LIND) Expert Group, aiming to enhance the industry's visibility, set best practices, advance rules and standards, and identify new trends and expectations.

The LIND Expert Group was established back in 2012 with the primary objective of generating data about the language industry. The Commission's *Study on the Size of the Language Industry in the EU*, published in 2009, had exposed a general lack of reliable and comprehensive data for essential and efficient planning.

The aim of coordinating good intranational input from experts backed up by hard data from surveys led to the LIND group becoming a partner in the European Language Industry Survey, a joint effort by major language industry associations such as EUATC, ELIA, GALA, FIT Europe and EMT. This expanded survey was first launched in 2016, with the aim of gathering Europe-wide information on industry trends such as sales, investments and training. The second edition of the survey was launched in January 2017, and the results were published in March. Data acquisition may seem to be one of the most prosaic things around, but big numbers bring the power to analyze, to compete, and to exercise some control over your business environment. The data from our survey can help everyone, from individual freelancers to small language service providers to large global organizations.

Over the past five years, the group has supported the European Commission in its various initiatives, such as addressing the skills gap (in graduate employment), enhancing employability and strengthening the business continuity of the language sector. In these initiatives, the LIND group has worked closely with other stakeholders, such as the European Master's in Translation (EMT) network and the European Skills, Competences and Occupations Classification (ESCO). All these activities are fully in line with the larger political objective of the European Commission agenda for new skills and jobs.

Occupational profiling

The collaboration with ESCO was particularly rewarding. ESCO's consultation on occupational profiles in engineering, scientific and technical activities also includes the translation and interpretation sector, and LIND experts were actively involved in developing these profiles. The original classification for the sector had contained three occupations: translator, interpreter and sign language interpreter. By 2017, the classification has been extended to include eight new occupations: localizer, lawyer linguist, linguist, subtitler, audio describer, translation agency manager, interpretation agency manager, and language engineer. With their definitions translated into all official EU languages, these occupations will be used in future classifications for cross-matching labor market needs, data generation and online job portals. For the latter, this means that job seekers will be able to match their CVs and resumes to these classifications and identify any gaps in their portfolios. The underlying goal is to improve employability and job mobility, with a system that can reveal differences and make useful connections in Europe's multicultural job environment. ESCO sent LIND its own "job reference", praising the team for its contribution to "making the first multilingual classification of skills, competences, qualifications, and occupations a reality." At this stage, ESCO is only open to public sector employers, but this is expected to change in the future to include private sector employers as well.

Working with European industry and universities

The LIND Group has also given advice on the shaping of the university quality label for the European Master in Translation. Here, its role has been to support the employability elements incorporated in the programs and to help students find work after graduation.

Universities are under more and more pressure to prioritize employment skills for their graduates. The LIND group has initiated projects where universities and companies jointly provide training to university students that will enhance their skills to help them find work after they graduate. These skills include project management, post-editing

and terminology management. The running of placements is a key area of expertise that LIND can offer. Students can look for work placements via EUATC, GALA and ELIA member lists.

With guidance and expertise from LIND member Kim Harris, the group launched a set of practical pilot projects in 2016, where EMT universities, tool providers and LSPs work together in the framework of translation assignment courses, providing students with real-life tools and mentoring when carrying out translation assignments during their translation course. Based on the positive feedback from university teachers, students and LSPs, the pilots have been extended for several EMT universities in 2017.

Further industry-university cooperation will be advanced by LIND, under the guidance of member Michael Fritz, with his keen interest in lifelong learning and technical communication.

LIND member Claudio Chiavetta has highlighted the changes currently taking place in the industry, in the form of emerging new services, such as multimedia, e-learning, transcreation and post-editing MT, and has underscored the willingness of employers to bridge the gap between the industry and training through initiatives such as LIND. Chiavetta and Mirko Silvestrini from EUATC are part of the "bridge" group between LIND and the EMT network.

The Translating Europe Forum

In November, the DGT will run its fourth Translating Europe Forum (TEF), an annual gathering held in Brussels, where LIND provides crucial input for the content of the program. Students can showcase their work, researchers can disclose their findings, industry representatives can network, and translators can find work opportunities. By bringing together people from all sectors of the industry, the forum fosters synergies and promotes visibility and professionalism. TEF is an ideal platform for the LIND mission of sharing meaningful information and data.

The future of the industry and LIND

LIND is here to stay and to act as a reference point for all professionals willing to get involved in the very complex world of translation.

During the few years of its existence, the team has developed an all-embracing platform. The scope of the group has been extended to include external and internal issues of visibility and professionalization of the language industry; these are long-standing desiderata and have been widely welcomed within the industry.

Professor Jorge Díaz-Cintas puts this into a personal focus: "Having to adapt to constant, rapid changes is an enormous challenge for any industry and having a body whose mission is to encourage collaboration and to promote the cultural and financial significance of translation in our society, by supporting best practices and disseminating knowledge, is to me a most welcome step in the right direction."

ABOUT THE AUTHOR

Eyvor Fogarty

is a board member of FIT Europe, the European centre for the International Federation of Translators, with a remit for life-long learning. Her commitment to the translation profession has been recognized with a Pushkin Gold Medal from the Russian Union of Translators and the John B. Sykes Prize for Excellence from the Institute of Translation and Interpreting, UK.

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More information:

- **DGT: Directorate-General Translation**
  https://ec.europa.eu/info/departments/translation
- **LIND**
  https://ec.europa.eu/info/language-industry-facts-and-figures-lind-web_en
- **EUATC**
  www.euatc.org
- **ELIA**
  http://elia-association.org
- **GALA**
  www.gala-global.org
- **FIT Europe**
  www.fit-europe.org
- **EMT**
  https://ec.europa.eu/info/education/european-masters-translation-emt_en
- **ESCO**
  https://ocp.escoportal.eu/
- **TEF**
  https://ec.europa.eu/info/events/tef2017_en
- **LIND New Skills Agenda**
  http://ec.europa.eu/social/main.jsp?catId=1223&langId=en
- **European Language Industry Survey 2017**
  https://ec.europa.eu/info/sites/info/files/2017_language_industry_survey_report_en.pdf

Image: LIND members from left to right: Claudio Chiavetta, Andrejs Vasiljevs, Francoise Bajon, Jorge Diaz-Cintas, Kim Harris, Mirko Silvestrini, Eyvor Fogarty, Inkaliisa Vihonen (DGT), Nino Platteel. Missing: Christophe Declercq, Michael Fritz.

events

tcworld 2017/2018

UA Reloaded 2017

July 25-26, 2017
St. Leon-Rot, Germany
http://ua-reloaded.de

At the first ever UA Reloaded participants will be in for a brand-new conference format that tekom has developed together with the UA experts of SAP. Instead of back-to-back PPT lectures, UA Reloaded is all about interaction, improvisation and inspiration.

Content Marketing World 2017

September 5-8, 2017
Cleveland, OH, USA
http://contentmarketinginstitute.com/events/

NORDIC TechKomm

September 12-13, 2017
Copenhagen, Denmark
http://conferences.tekom.de/nordic-techkomm

Brand2Global

October 2-3, 2017
Silicon Valley, CA, USA
http://brand2global.com

Brand2Global is designed for executives who drive global marketing and are responsible for international market share and revenue.

TAUS Annual Conference

October 30-31, 2017
San Jose, CA, USA
www.taus.net/events/conferences/taus-annual-conference-2017

LocWorld Silicon Valley

November 1-3, 2017
Santa Clara, CA, USA
www.locworld.com


Image: © Forum_Pau Grecaud_ 123rf.com

Translating Europe Forum

November 6-7, 2017
Brussels, Belgium
https://ec.europa.eu/info/events/tef2017_en

The 4th edition of the Translating Europe Forum is organized by the Translation Department of the European Commission. This year's focus is on translators' skills and employability.

tcworld conference 2017

October 24-26, 2017
Stuttgart, Germany
http://conferences.tekom.de/tcworld17

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Nordic Translation Industry Forum

November 22-24, 2017
Helsinki, Finland
http://ntif.se


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Gilbane Digital Content Conference

November 28-29, 2017
Boston, MA, USA
http://gilbaneconference.com

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Outsourcing World Summit

February 18-21, 2018
Orlando, FL, USA
www.iaop.org/summit

MadWorld

June 3-6, 2018
San Diego, CA, USA
www.madcapsoftware.com/conference/madworld-2018

tcworld conference 2018

November 13-15, 2018
Stuttgart, Germany
http://conferences.tekom.de

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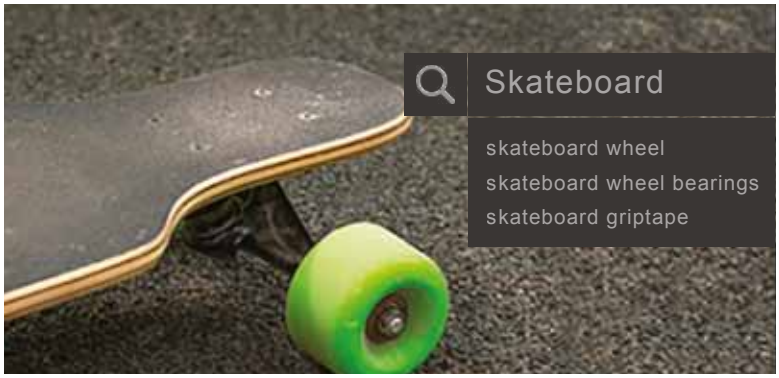

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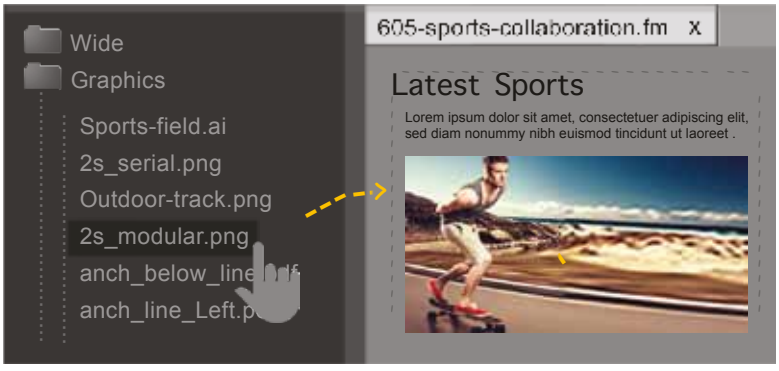

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