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Cooperation in isolation

Reshaping team dynamics when working from home

Simplified graphics and screenshots in software documentation

From text-heavy documents to easy-to-understand instructions

Content management systems are not born multilingual

The urgent need for CMS that support multiple languages

imprint

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From the editor

Punch in "working from home" into your image search engine, and you will get the impression that nothing good can ever come from our new workspace reality: There are cats walking across the keyboard, babies to be nursed, and toddlers running off with your reading glasses. And even this scenario is only valid for those of us who are not sound asleep with our heads resting on the laptop, having spent the last hour crunching paper into balls and scattering them across the desk.

So how are we still getting anything done? For many of us in white-collar professions, working from home has become the new normal and, very likely, it is here to stay. Today there are plenty of studies that contradict the picture that search engines draw: A study by Prodoscore, a provider of a software activity tracking system, recorded a staggering 47 percent increase in productivity during the coronavirus lockdown that prompted employees from around the globe to work from home. According to its observations, the average worker begins the day at 8:32 AM and finishes at 5:38 PM. Fridays are least productive, followed by Mondays, while on Tuesdays we reach our most constructive peak. However, on an average day, it takes us one to three hours to ramp up our productivity.

Such studies, of course, provide only a very generalized glimpse into the work-from-home reality and reveal little about our personal work habits and attitudes. Undoubtedly, lockdowns have reduced the time we spent traveling to the office or in large meetings that have little relevance to our work. They've helped us become more focused on our own tasks and less distracted by tasks that someone else has asked us to help them with.

And while we are still adapting to the dynamics of the new workplace, the interaction with colleagues and stakeholders is perhaps more essential than ever. For that, we need more than modern technology and reliable bandwidth. We need engaging online exchanges. And, as our author Kirk St.Amant writes in our focus theme, "Technical communicators can play a central role in shaping emerging work from home practices and contributing value to organizations" (read the full story, starting on page 12).

Our own surveys at tekom are shedding a promising light on the perception of virtual conferences such as the tcworld conference in November 2020. We thank everyone who joined us at this special event and left their feedback (read more on page 44). In 2021, the tcworld conference will turn into a hybrid event, combining the benefits of the virtual with the face-to-face encounters made possible at the physical conference held in Stuttgart, Germany. Many other community events – both virtual and in-person – have been scheduled for 2021. We look forward to seeing you there.

C. Melville
Corinna Melville

2020 Customer Success Story Highlights



COGNEX

CUSTOMER SATISFACTION

"The whole experience for users is much more intuitive. From a beautiful, modern documentation website to localized content and an intuitive knowledge base, MadCap Software has helped enable us to create an inviting, best-in-class experience for our customers."

KELLIE FREEMAN
Principal Technical Writer

PLEXSYS

PRODUCTIVITY

"We've effectively halved our work time using MadCap Flare. It has enabled us to do a whole lot more without scaling our team as much as we would've needed to if we had remained using other products."

JENNI CHRISTENSEN
Training and Technical Documentation Manager

illumina

REPLACING LEGACY TOOLS

"The advantage we saw with MadCap Flare was that we could continue to produce PDFs of the same quality that Adobe® InDesign® was giving us, and the main reason we were moving was for the HTML5 support."

JASON ROSS
Senior Science Writer

unqork

USABILITY

"MadCap Flare stood out for its usability, single-sourcing, support for integrating with everything, and the ability to create gorgeous state-of-the-art documentation."

OLGA GOMONOVA
Head of Client Enablement

Read More Customer Success Stories at MadCapSoftware.com

Cooperation in isolation

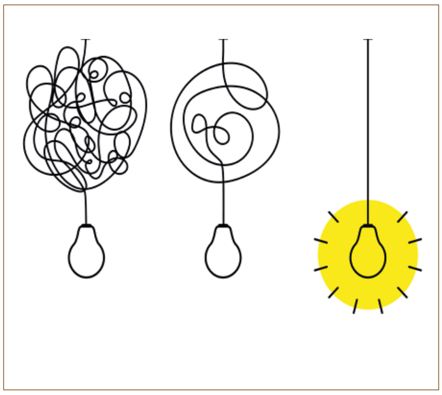
2020 has changed the way we work and many changes are here to stay. When working from home, employees rely on consistent content and reliable models for interaction. And technical communicators are well equipped to help establish these.

page 12

Simplified graphics and screenshots in software documentation

Graphics not only make documents lighter and more attractive, but also easier to understand when designed well. Simplicity is key here.

page 24



Content management systems are not born multilingual

Only a small number of content management systems have built-in support for content in a variety of languages. How can we make our systems more compatible for a global market?

page 32

SDL outlines predictions and trends for the year

Trust, agility and intelligence are what matters in 2021

For these predictions, we asked our industry experts across SDL to provide insights into what they believe will be the prevailing trends during 2021. They looked specifically at how brands can adopt a closer and more trustworthy relationship with their stakeholders through the use of more agile technology and content that is deployed intelligently across any format to customers wherever they are in the world.

The trust trend

The truth is out there… and truth will matter even more than it did before the pandemic

2021 will continue to see a tide of disinformation, but efforts to combat it will increasingly be made by organizations and individuals alike. A skeptical public will be more wary and will examine claims with greater scrutiny. This will not just be limited to areas such as politics and health – brands too must be above board and beyond reproach in all that they do. Honesty really will be the best policy. Consumers will continue to move more of their life online, but beset with sophisticated scams and dodgy dealers, trust in who you are dealing with online will assume ever greater importance.

Rogue algorithms – clarity over the human-designed decision chain

The use of automation and AI will increase in 2021 as companies look to cut costs and be more efficient in how they operate. However, the pitfalls of the "rogue algorithm" and the decision-making process will draw increased scrutiny – as evidenced during 2020 with the UK school exam results and multiple examples where rogue algorithms have generated biased results. Consumers will increasingly demand to see greater transparency and justification of automated decision making to make sure it is fair and non-discriminatory. Technology helps – but it should not always be the sole authority and decision-maker. In 2021, businesses must be transparent and prepared to provide answers about their algorithms.

Easy access for all

With companies more conscious than ever of their responsibilities to society, technology and AI will help drive greater accessibility in the digital world. Investments in AI make content and online shopping more open and available

Image: © Dilok Klaisataporn/istockphoto.com to all. But it is not exclusively focused on retailers. Healthcare accessibility is mandated by law and spans not just deafness, blindness and other physical impairments, but includes Limited English Proficiency (LEP). Any U.S. organizations that provide healthcare and receive federal funding (Medicare, Medicaid) must be compliant with the Americans with Disabilities Act (ADA). Increasing AI across accessibility channels will position a brand as a leader, enabling quicker-to-market processes to happen and faster regulatory compliance. As 2021 rolls on this is expected to grow significantly.

Agility will drive stability

Working effectively when working remotely

The shift to remote working will last. A swing back to more office work when offices are able to reopen is only to be expected, but workers have experienced too many positive changes to their work-life balance to go back to full-time office work. At the start of the pandemic, few companies were fully set up for working from home, with many stumbling their way through 2020. In 2021, it is time to put working remotely on a proper footing, with effective processes and technology in place to enable the workforce to work efficiently and effectively together – even when choosing to work apart.

Evolution not revolution

Being more adaptable in a digital world that is rapidly changing requires finding and deploying technology that gives you greater agility and is to a degree "future-proof". But in 2021, organization-wide overhauls are less likely. In the middle of the worst recession in 300 years, no one has the time, budget or stomach for overhauling everything all at the same time. The focus in 2021 will be on smaller improvements that give the greatest returns in terms of scale, efficiency and intelligent customer engagement, and will be led from the front line, rather than those at the top. Changes will be evolutionary rather than revolutionary.

Winging it won't do

Companies that have deployed intelligent technology thoughtfully are thriving. Businesses have found that they cannot cling to the old order anymore – digital is no longer a "nice-to-have". In 2021, intelligent technology will prove essential to businesses, allowing greater responsiveness to a constantly changing business landscape.

The year of intelligence

Talk to the heart – intelligence with empathy

Flat global marketing campaigns deliver flat results. For many businesses, if you are not engaging audiences around the world at an emotional level, your campaigns will always be pushing water uphill. 2021 will see a greater understanding of and respect for other cultures by businesses – but that respect must be genuine, must be authentic, otherwise the trust and engagement that brands work so hard to build will be undone. Transcreation – adapting content for different cultures – will assume a new significance and AI-powered machine translation will provide an intelligent solution that helps brands deliver more content and quicken the rollout of their global campaigns.

Making it personal

Personalization will move beyond just mere credentials, which feel fake and fool no one, to more genuine, more useful interactions that are valued by customers. Companies will move toward smarter contextualization, based on location and customer knowledge, in 2021. The companies that will come out ahead will have a single source of trusted content, delivered efficiently and intelligently, to a multitude of localized destination interaction points in whatever language and context are required.

Enhanced experiences

5G rollout and faster fiber will see the Internet of Things become a reality and the demand for greater customer experiences explode. Intelligent content systems will become a necessity to meet the challenge of delivering all this content. Once again, trusted, intelligent content, deployed with agility, will provide a leadership platform for any brand, enabling businesses to do so much more with the same or less, and providing the best possible outcome for the consumer.

www.sdl.com

MEMSOURCE ACQUIRES PHRASE

Memsource, developer of the AI-powered translation management system, has acquired Phrase, a software localization platform. The Phrase platform provides cloud-based localization for software, websites, and mobile applications. The transaction expands Memsource's product portfolio and customer base while extending its operations into Germany, a country in which it previously did not have a presence.

www.memsource.com

XTRF LAUNCHES FREE NETWORKING EVENTS IN LOCALIZATION

Krakow-based firm XTRF has announced the official launch of LocTalks by XTRF – a series of free, all-digital networking events aimed specifically at localization professionals. The company is set to host bimonthly editions of LocTalks with the first to be held on February 4 at 5pm CET and the second edition to follow two weeks later.

https://xtrf.eu

BELAZY RELEASES FULL AUTOMATION FOR PLUNET

The technology platform BeLazy has released its first software update in 2021 featuring full automation for Plunet when used as a vendor portal or a business management system. Today, Plunet has more than 350 software implementations and serves both language service providers and the translation departments of global enterprises.

https://belazy.cat

VOLARIS GROUP ACQUIRES ACROSS

Canadian private equity firm Volaris Group has purchased Across Systems GmbH (Across), a provider of professional translation software based in Germany. Across delivers secure, automated translation processes for companies, service providers, and translators, helping to increase productivity and reduce the cost of quality translation.

www.volarisgroup.com

Five decisions HR leaders must make in 2021

Image: © metamorworks/istockphoto.com

As HR leaders continue to address the changes in business environments as a result of the COVID-19 pandemic, Gartner, Inc. has identified five future-of-work decisions HR must address this year.

Major shifts in customer behaviors and government regulations as well as in organizational strategies have substantially shortened HR leaders' time horizons when planning for the future.

"2021 will be a year of not just recovery, but renewal and acceleration as organizations adopt new business, technology and talent strategies," said Emily Rose McRae, director in the Gartner HR practice. "Given the tectonic shifts of 2020, HR leaders will have to face decisions they must be ready to make in order to set their organizations up for success."

The five critical future-of-work decisions that Gartner has identified include:

Triggers for revising workforce strategies

At some point in 2021, organizations will need to revisit the remote and hybrid work policies written during the crisis. Successful HR leaders will establish triggers for reviewing and revisiting their organizations' remote and hybrid workforce strategies, rather than waiting for the strategies to become impractical.

There are two types of workforce triggers – talent and situational. Talent triggers ensure that business leaders can monitor threats to the organization's talent strategy. With situational triggers, HR leaders identify challenges emerging from strategic decisions, such as having teams in different regions and at one-off locations.

Emerging technologies for onsite employees

HR leaders will need to look for opportunities to reduce the necessity for employees to perform tasks onsite, and emerging technologies will play a key role in this.

Robotic process automation (RPA) and immersive technologies – such as Virtual and Augmented Reality – are two categories of technology that are likely to help reduce the need for onsite work. RPA addresses barriers to create more efficient workflows; as a result, organizations have turned to this technology as a solution for business recovery and renewal. A 2020 Gartner survey revealed that nearly a quarter of senior finance leaders plan to increase investments in RPA as a direct result of the COVID-19 pandemic.

Immersive technologies will help organizations create new channels for high value digital interaction, experiences that would be otherwise difficult to replicate in a hybrid workforce. HR leaders should consider how investing in these technological tools will create demand for new roles or skill sets.

Redefining the office space

In 2021, employees will work at home, onsite and potentially in third-party spaces. Corporate offices will now compete to serve employees' physical and emotional work needs. Organizations must decide what their corporate offices can offer employees that other spaces cannot.

To do this, HR leaders must understand employees' emotional needs and identify opportunities where the workplace can meet these needs. This requires HR to work with other business leaders to make decisions about the purpose of corporate spaces and how to evolve them, while also determining how and when to reduce the organization's real estate footprint.

Employment model innovations

Many organizations experimented with innovative employment models as a pandemic response, such as offering 80 percent pay for 80 percent of full-time hours to employees who needed more flexibility, bringing in gig workers for pilot projects or setting up formal talent sharing arrangements with other employers to make up for low talent supply.

Organizations need to decide whether to continue using these employment models going forward. This will be particularly relevant for organizations with a high percentage of older employees in critical roles – offering greater flexibility in not just when employees are working, but how much they work, can help retain employees who otherwise might retire.

Commitment to diversity, equity and inclusion (DEI)

Many organizations made new or heightened commitments to create more diverse, equitable and inclusive workplaces during 2020. A 2018 Gartner survey found that 74 percent of employees expect their employer to take a stance on current societal or cultural issues, even if those issues have nothing to do with their employer. Those demands have only become more urgent during recent protests demanding social equity and justice. In 2021, HR leaders need to evaluate their organization's talent strategy to ensure it will meet their commitments to DEI.

www.gartner.com

Embracing virtual conferences

Whether you love them or hate them, virtual conferences are here to stay.

Text by Leah Guren

By now, it should be clear to everyone that the world will never fully return to the pre-pandemic past. Companies have discovered that they don't need to maintain large offices if most of their employees can work from home; universities have recognized that remote learning solves more problems than it creates; conference organizers have accepted that the benefits of virtual events outweigh the drawbacks.

This means that virtual conferences – whether you love them or loathe them – are here to stay.

The painful pivot

I freely admit that I am a live-audience junkie. I prefer to stand up in front of an audience and play to their reactions. I love seeing their smiles and hearing their laughter when I successfully tell a funny story. My preference is so strong that I delayed making the move to virtual conferences until I no longer had a choice.

Oddly, I have been doing online training for decades; but conferences – actual, physical, real-life conferences – were a different thing, and I didn't want to give them up.

All that changed in 2020. As one conference after another made the painful pivot to a virtual

Image: © Maxim Tarasyugin/123rf.com

tcunplugged

event, I (along with countless other speakers) had to adjust. The results were both predictable and surprising.

The big issues

When surveyed, conference participants mention these issues as the most significant differences between live and virtual conferences:

Travel

Traveling to another city is fun; to another country is even better! But for every person who loves the travel experience, there are many who cannot travel, whether due to health issues, time or budget limitations, or personal preference.
The surprise: I didn't expect to miss my conference travel adventures quite so much!

Costs

Not having to travel saves a lot of money: airfare, ground transportation, hotels, meals, and incidental expenses. We knew this.
The surprise: The enormous environmental impact. How many of you were stunned to see clear water in Venice or blue skies in Los Angeles?

Time

Visiting a conference in person requires more time away from work and family, especially if you add on personal time to visit some interesting sites around the destination.
The surprise: Well-organized virtual conferences can telescope a wealth of experiences into a few days, leaving you feeling that you had a much longer break from work.

Access to sessions

In traditional conferences, you can only attend one session in any specific time slot. Many conferences did not record sessions, or only recorded certain sessions. This meant that if you missed a session because you chose something else for that time slot, well, you missed it. End of story.
The surprise: Virtual conferences make everything available, often almost immediately after the actual session. This means that I end up seeing far more sessions than I would in traditional conferences.

Technology

Traditional conferences require tech savvy to download apps, print tickets, and more, so most of us assumed that virtual conferences would not have a significant learning curve.
The surprise: The tech load can feel overwhelming. When virtual conferences require multiple platforms to perform different tasks within the conference, the frustration is intense, even for us tech-savvy speakers. Content strategy expert and popular speaker Rahel Anne Bailie highlighted the burden for speakers: "Each conference uses a different platform, with different functionality and weird interfaces, and you start to mix up which one has which button where, and inevitably make some error despite the rehearsals and dry runs."

Social interaction

One reason we love conferences is the chance they provide to visit friends and colleagues from around the world. I dearly miss those social interactions: dinner with a friend, late evening groups, and discussions over drinks. My expectation was that virtual conferences would not be able to replicate the social dimension.
The surprise: Some virtual conferences have provided participants with opportunities to visit with each other. Other conferences have gone a step further by providing fun activities and encouraging social interaction. Conference veteran and TechComm leader Cindy Currie spoke of her enhanced opportunities to see colleagues. At one conference, the tradition was a luncheon. "The past few in-person conferences, we had a dozen at most attending the luncheon. This year, we organized a Zoom meeting and had double that number! It was so good to 'see' everyone, including some I had never met!"

Trade show access

Who doesn't love cruising through the booths of a trade show associated with a conference? Grab a chocolate, enter a raffle, watch a demo… the trade show is great fun.
The surprise: More focused interaction and scheduled appointments with vendors proved to be more effective. Yes, I miss the chocolate and fun giveaways, but I didn't have to carry things home, push through crowds, or strain to hear a vendor in a noisy hall.

Conclusion

I predict that some conferences will choose to remain virtual, while others will offer a blended experience. But the benefits for us – personally, professionally, and globally – are obvious enough to guarantee that virtual conferences are here to stay.

Do you have a virtual conference experience that you would like to share with tcworld? Let us know!

ABOUT THE AUTHOR

Leah Guren
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Cooperation in isolation

Working from home has become the new norm and – more likely than not – it is here to stay.
But many challenges remain.
Technical communicators can play a central role in shaping new models for better virtual collaboration.

Text by Kirk St.Amant

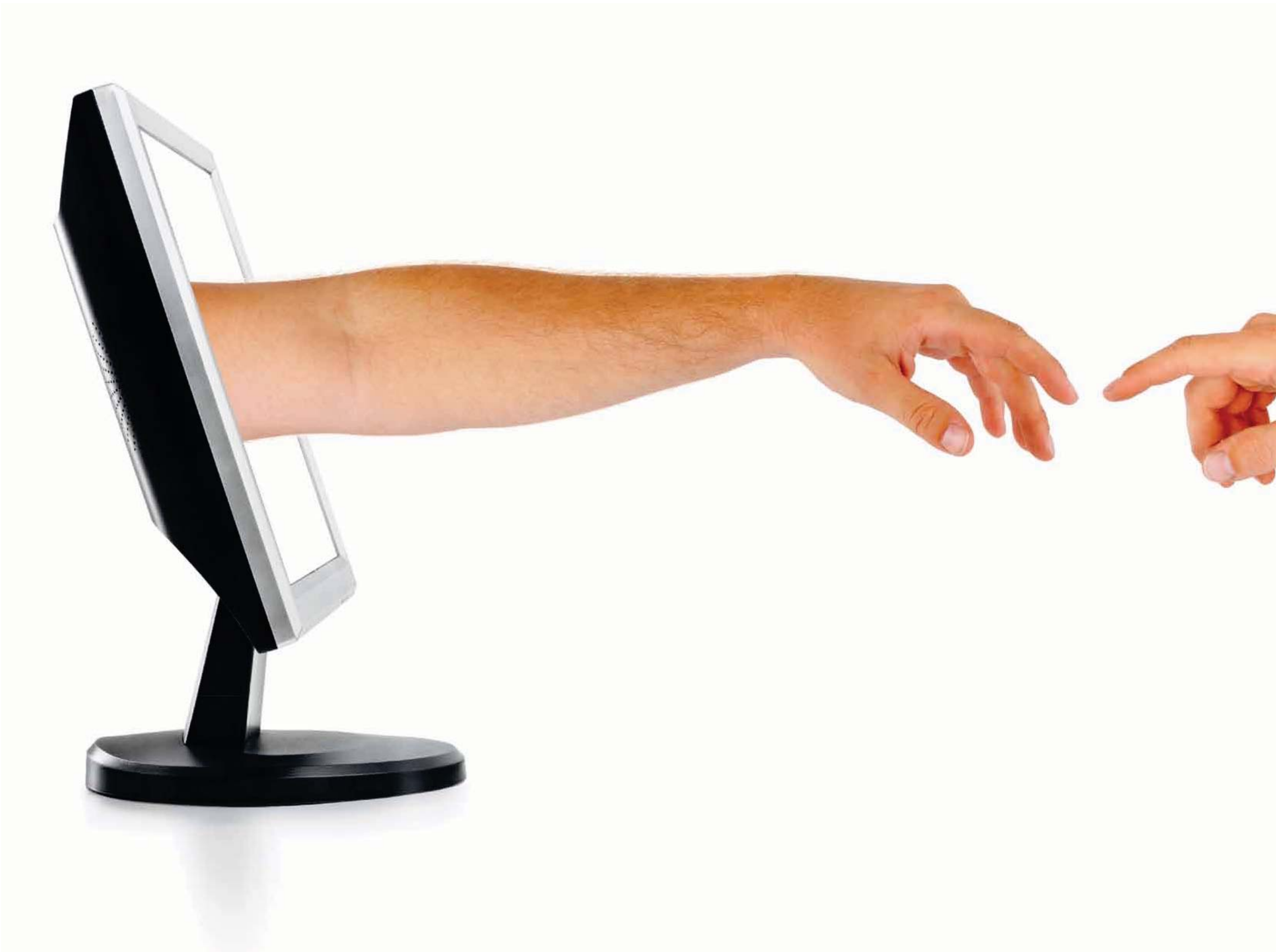
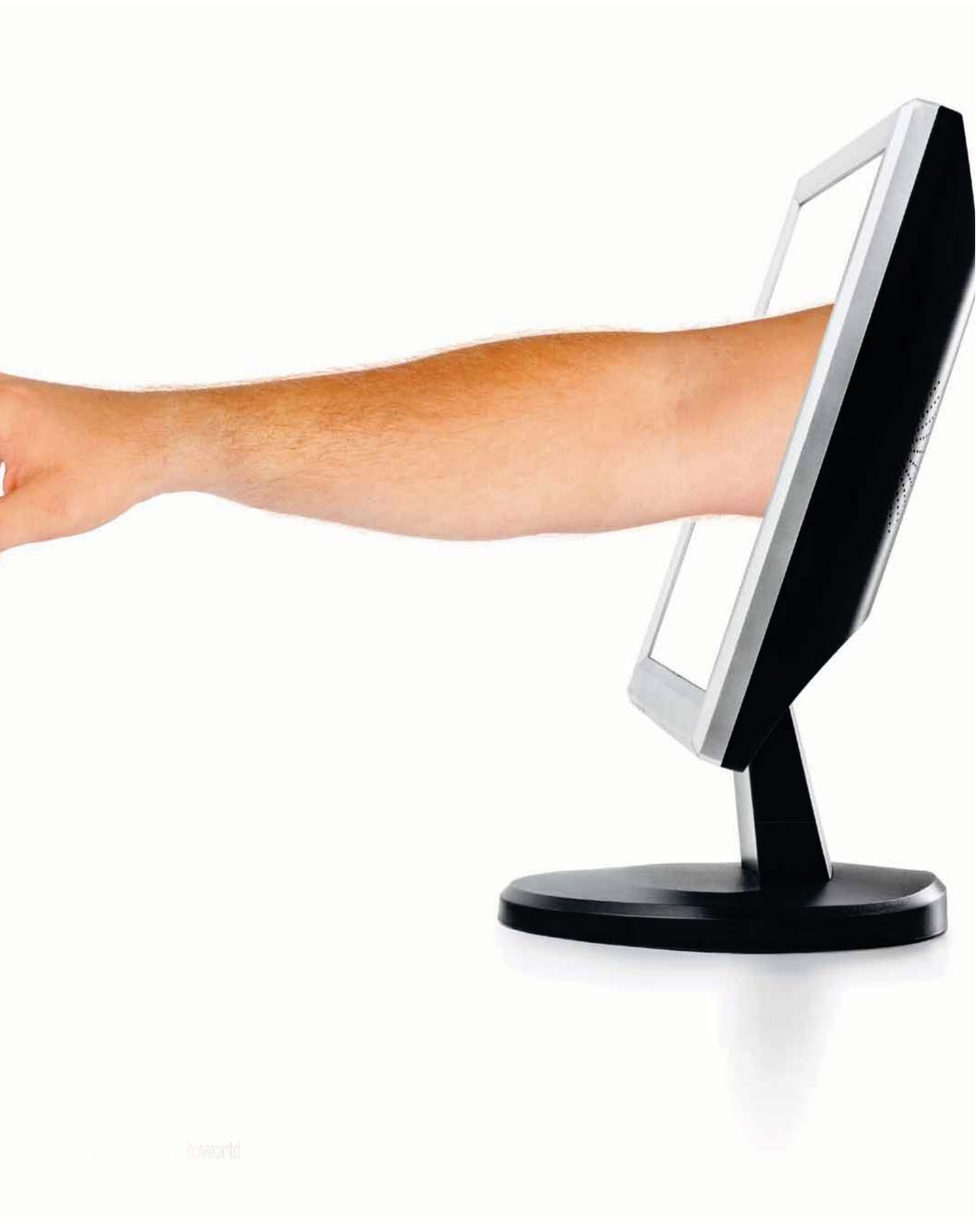


Image: © GlobalStock/istockphoto.com

The COVID-19 pandemic has shifted an unprecedented number of employees to online work environments. This move was not easy, but the work from home (WFH) trend has prompted many organizations to make it part of their regular practices. This transition offers organizations several benefits including reduced costs for office space and access to a broader range of talent. It also offers benefits to employees like eliminating travel time and allowing more flexible schedules.

Most individuals are still learning the dynamics of this new workplace context, for it encompasses many factors. One core aspect, however, has become clear: Effective WFH practices involve more than access to certain technologies or bandwidth. They also encompass how individuals perceive and engage in online exchanges. By understanding such factors, technical communicators can play a central role in shaping emerging WFH practices and contributing value to organizations.



Interaction expectations

Most of our interactions begin with a mental model that guides our behaviors. This model is like a mental movie or story depicting how we think persons or objects will respond to our actions. Essentially, we perform an action as depicted in our mental model and wait to see if persons and objects react as anticipated. If they do, we continue to follow this mental model and perform the next step in the related process. If they don't, we select a new mental model and try again.

Feedback is central to both processes. Responses from individuals and objects allow us to identify potential problems as issues arise. This awareness helps us to adjust our approach as we go in order to achieve our overall objective. As a result, we are often able to address issues immediately and ideally correct small-scale issues before they can turn into larger and more complex problems.

WFH situations often alter such feedback dynamics by placing physical distance, technological barriers, and timing variations between the individuals involved in projects. These factors can create problems depending on the mental models of the interacting individuals. As a result, establishing effective WFH practices often involves understanding how mental models can affect actions and interactions in online contexts.

Expectation alignment

Mental models affect both how we use technology and how we expect others to use it. For example, many of us have experienced an "I didn't know" moment when using some device. These include "I didn't know the technology had this feature" moments as well as awkward "I didn't know you expected me to use the technology this way" events. These situations arise when mental models do not align and individuals bring different expectations to using technologies when communicating or collaborating. Such factors can create issues affecting WFH situations.

In some cases, these "I didn't know" moments affect when and how individuals expect colleagues to use a technology in WFH contexts. The process of uploading files to a shared system, for example, can cause such problems (e.g., "You should have known to provide updates at this time"). These situations can create trust issues should individuals wonder "Can I trust (rely on) this person to perform activities as needed?" and can quickly expand to "Can I trust this team to complete this project?"

In other instances, "I didn't know" moments can involve what information individuals need to send and when to send it. Many of us have requested information from an off-site colleague only to have them send incorrect content (e.g., "I didn't mean this information; I meant that information") or fail to provide the depth of information needed (e.g., the infamous "Yes" or "No" reply to queries that require additional information on how to proceed based on the "Yes" or "No" response). Such interactions affect whether we trust collaborators to provide the information we need based on communication patterns.

These "I didn't know" situations aren't a matter of access to certain technologies. Rather, they reflect differences in how WFH employees use technologies to perform tasks. Specifically, they result from WFH employees using different mental models to guide their activities and interactions with colleagues. Without immediate, regular feedback to identify such differences, the online media that facilitate WFH situations also limit essential feedback until tensions mount or problems arise.

Trust dynamics

Trust is based on predicting the behavior of others. The more predictable the behavior, the more we trust others to perform tasks and meet deadlines. These dynamics involve aligning mental models to guarantee the predictability of behavior among individuals. Such alignment often occurs organically in face-to-face contexts where regular, immediate interactions and continuous access to feedback allow individuals to adjust their mental models to predict how others act and react. In WFH contexts, such continuous, real-time interaction is often not possible. As a result, aligning mental models in online contexts can be difficult. It is a situation where misperceptions can quickly arise and unexpected developments – including mistakes – can occur.

Addressing such situations involves creating common mental models to guide the expectations, actions, and reactions of all involved. Such models help establish the predictability essential to creating and maintaining trust in WFH contexts. Certain technical content can help achieve this objective. Such content needs to describe and define the roles and responsibilities of individuals in WFH contexts. It would also include creating policies and procedures to guide WFH interactions and collaborations.

The resulting documentation would help establish a common framework on which individuals could found parallel WFH expectations and practices. Technical communicators are ideally suited to play a central role in the development of such content. The key is for documentation to focus on processes that align mental models to increase predictability and establishing trust in WFH situations.

Managing trust in WFH contexts

The documentation essential to establishing trust in WFH situations involves addressing four core objectives. Each objective is central to establishing common mental models to guide predictable actions and interactions in WFH contexts. These objectives – and the content and related documentation needed to achieve them – are as follows:

Objective 1: Establishing roles and responsibilities

☞ **Needed content/documentation: position descriptions**

Establishing trust in WFH situations involves individuals knowing what they are expected to do and what they can expect others to do when collaborating. Such knowledge allows all involved to predict the actions of others and adjust their own activities in relation to such expectations. For this reason, aligning mental models for WFH processes should begin by creating position descriptions that document the roles of individuals and what they are expected to do, how, and when.

To facilitate the predictability needed to establish trust in WFH contexts, such descriptions should note certain factors for all individuals involved in a project and be shared with individuals before they begin collaborating. The resulting content should clarify:

- The role individuals will play in a WFH context
- The activities persons are responsible for performing in these roles
- The technologies individuals will have access to and use to perform these activities
- The information or products individuals will create and share with others working on a project
- The persons with whom these materials will be shared, when, and how

These descriptions help WFH employees understand what they are expected to do and allow them to plan their activities as well as plan interactions involving other team members.

Objective 2: Creating schedules and defining interactions

☞ **Needed content/documentation: project schedules**

Timing, or establishing when individuals are expected to perform activities and provide materials, is central to predictability and establishing trust. Aligning mental models for such actions is essential to planning one's actions – including the information individuals might need or what kinds of questions or requests individuals might receive during a project. Project schedules are central to addressing this need, and aligning expectations is essential to building trust in WFH situations.

The solution involves anticipating and providing the scheduling information WFH employees need to plan activities and perform tasks during a project. Such schedules need to be developed and shared before the start of projects so WFH employees can align mental models from the start of a process. To meet this need, technical communicators can work with their organizations to create project schedules that contain certain essential information, including:

- An overview of the major steps or milestones in a project
- A chart identifying who will be involved with different activities at each stage in these processes
- A master schedule noting when individuals will complete their tasks for the project
- A process for when and how individuals will share materials at each stage of these processes
- A protocol noting when and how individuals will share project updates with team members

Such information allows WFH employees to engage in short- and long-term planning and allows

individuals to create a common foundation for what to expect when collaborating on projects.

Objective 3: Developing protocols for accessing and sharing information

☞ **Needed content/documentation: policies and procedures for accessing information**

Aligned mental models are essential to the predictability needed to establish and maintain trust in WFH contexts. Central to such processes is content noting the information individuals need to provide, when, and how, so others can perform essential WFH tasks. Similarly, individuals need information on the materials they can expect others to provide to perform WFH activities. Such factors are difficult to intuit, and the limited nature of WFH interactions can cause issues around this topic.

To address this need, technical communicators can create policies and procedures that clarify the information different WFH employees will need to perform certain tasks. Such documentation also needs to note when and how WFH employees can access that information. Additionally, this content should identify which WFH colleagues can or will provide needed information or materials and when to request or expect such items. To achieve these objectives, these policies and procedures should include:

- The information WFH employees can access, from where, and how
- The questions and requests for information WFH employees are expected to address in their roles
- The process for requesting information or materials from other WFH team members – including when and how to do so
- The procedures for reporting unexpected developments (to whom and how) including when errors happen or when delays arise
- The protocol for what to do if individuals need to revise the tasks they will perform, the materials they will produce, or the deadlines for activities

Such documentation helps create common expectations to guide interactions with WFH colleagues in context when direct interaction is often limited and clarification is essential.

Objective 4: Touching base and aligning models

☞ **Needed content/documentation: meeting protocols**

Aligning mental models is not a one-time process. Rather, it is something that requires regular review and maintenance to ensure the predictability essential to maintaining trust across WFH contexts. Regular meetings of WFH teams are central to such processes, for these meetings allow individuals to interact in a common context and align expectations for working with others. For these meetings to be effective, they should focus on core activities central to establishing common expectations across WFH employees. Specifically, individuals need guidelines for when such meetings will occur, how they will take place, and what they will cover. They also need information on what they are expected to do at or provide for such meetings. This information can help WFH employees predict what they (and others) are expected to do during these interactions and what to take from them. In creating such protocols, technical communicators should work with project managers and include the following information:

- The schedule for when all WFH employees on a project team will meet to review progress and plan the next steps on a project
- The technology used for such interactions – including if such interactions will be recorded and how core ideas from the meeting will be shared (and with whom)
- The updates or information WFH employees are expected to share at these meetings – including how and when to share such information
- The procedure for asking questions or requesting additional information or materials during these meetings
- The process for discussing (and making) changes to a project at a meeting – including what is required to finalize changes and how to follow up on decisions

These activities help WFH employees regularly assess their understanding of their own activities and their expectations of others in relation to roles and projects. They also allow individuals to regularly revise their mental models to maintain the predictability essential to success in WFH contexts.

Final thoughts

Working from home is not new, but organizations and employees need to determine how to best realize the benefits of WFH situations. Achieving this objective involves creating technical content that helps to align models for interaction in such contexts, and technical communicators can play a central role in shaping these practices. By using their content creation and documentation expertise, technical communicators can create the framework essential to establishing trust in WFH settings. In so doing, they can enhance professional practices in a way that highlights the value they add to organizations.

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How to write your best documentation in a collaborative world

Working as a team allows us to tap into a pool of diverse experience, skills, and strengths. But how can we align the different perspectives and expectations?

Text by Matt Reiner

Image: © sturti/istockphoto.com

We can all relate to the difficulties of writing documentation on our own. Creating something from nothing can be a difficult task. But in the pain of composition, we have the opportunity to turn our own thoughts into a valuable resource for our readers.

While we can create something unique by ourselves, there are different challenges when working as part of a fast-moving team. Not only are we left with the responsibility of documentation, but we may also use tools or processes that actually discourage others on the team from contributing. For this reason, a number of cloud-based collaborative writing tools and processes have grown in popularity. These tools have ushered in a new era of collaborative writing that has improved the way content is created.

- Teammates can contribute to documentation quickly.
- Subject matter experts can review content easily.
- Everyone has access to the content.

While these new capabilities contribute to a more powerful and inclusive workflow, we as writers can't expect everything to remain the same. Collaboration brings new challenges that can help us to be better writers and stronger teams.

Personalities

As we begin working with a spectrum of personalities, it can become very obvious how differently we all think about certain topics. Rather than seeing our different perspectives as a drawback, we can focus on the benefits of having a diverse set of opinions reflected in our content.

Promotion vs. prevention

The people we collaborate with tend to focus either on the big picture or the small details. [1] Promotion-focused individuals are "big thinkers". They work quickly, take risks, and assume all will go to plan. Taking big risks can often yield impressive results.

In contrast, prevention-focused individuals are "detail thinkers" who work more slowly, focus on the details, and plan for the worst. While their contribution may not seem grand, catching a small mistake can make or break the success of a team.

As we collaborate on documentation with our team members, it's important to include insights from both ends to ensure that our technical content contains all the major themes as well as the crucial details needed to make our users successful.

Introversion vs. extroversion

We're all energized by different things. Some of us are stimulated by the presence of and interactions with other people, while others might just need some silence to focus and re-energize. This behavioral concept is known as extroversion and introversion. [2]

An extroverted individual does their best work in the outer world of people and things. These people are often outgoing, dynamic, and thrive within a group. As team members, they are prone to start writing quickly, sometimes without a proper plan in place.

Those who are more introverted gravitate toward the inner world of ideas and images. Reflective and reserved, these team members are often at their best when working on content alone. They can sometimes get lost in their thoughts, forgetting to check if their ideas and assumptions align with reality.

When collaborating as a team, it's valuable to understand where each team member is on the introversion/extroversion scale to know how they can best contribute to documentation. For some teammates, the best way to write and review might be an in-person session, whereas others might benefit from an asynchronous review where they can think things through and leave comments on the content.

Leading from within

When writing alongside different personality types, we must understand how to lead them. [3] At first, this might seem odd, as we generally view management as the leaders of our teams. Instead, we must be the leaders within the team to help our teammates think outside the box and collaborate well.

To understand how to collaborate with others, we must first be fully aware of our own strengths, temperament, work and communication style. Being self-aware enables us to focus on the strengths of others.

By understanding the team's strengths, we can write from a place of humility and the team can thrive relying on each other's skills. This removes issues of envy or competition and replaces them with a dependence on each other's abilities.

Knowing our teammates' strengths also enables us to use our own curiosity to draw them into new ways of thinking. Being able to ask

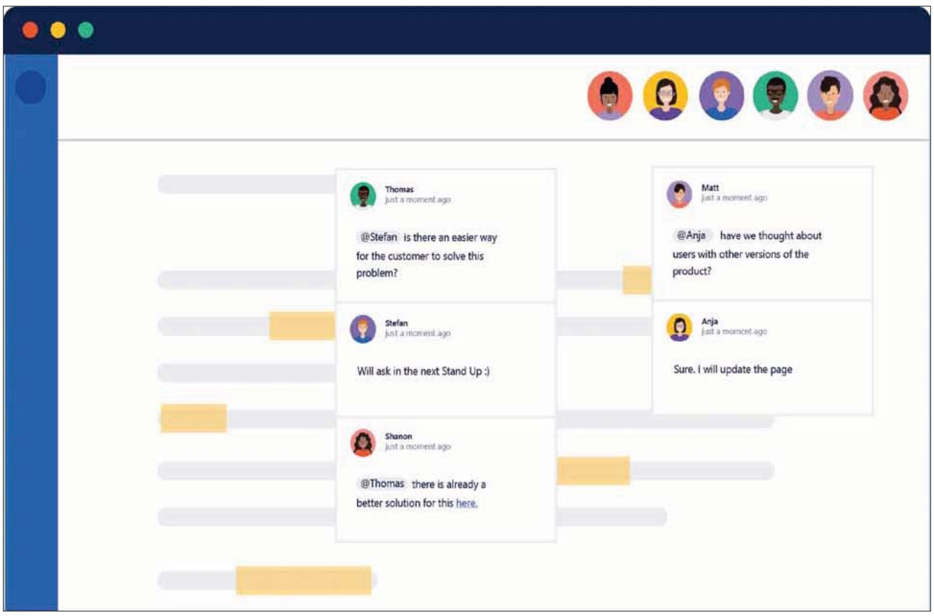

Figure 1: A modern writing tool enables anyone on the team to quickly collaborate in context.

questions that spark our colleagues to think from a new angle enables the team to document from a user's perspective.

Feedback

While working with many different people, the ability to improve each other's writing using feedback becomes essential (see Figure 1). It's key to understand various types of feedback that can be used, and which types to avoid.

Open dialog

Trust is not something that takes place right away, yet it is essential for effective collaboration. To give and receive feedback, the entire team must feel that they are part of an open dialog where any idea, correction, or improvement can be brought up. This can be particularly hard to achieve if members of the team have been hurt by careless feedback in the past.

To begin a respectful dialog within the team, we must be willing to put ourselves out there. It's not the task of a manager to create healthy feedback but rather ours, as members of the team. To begin the free flow of feedback, we need to share with the team what we need feedback on and how we'd like to receive it.

Types of feedback

With a trusting dialog in place, we're bound to encounter more feedback while collaborating. This is particularly enhanced by writing tools that streamline the ability to give feedback through commenting and @mentioning. The effectiveness of feedback given relies on the way it's given within the team. [4]

While it can be motivating to get positive feedback like "This sentence is great!", this won't really help anyone improve in the future. The best way to praise great work while encouraging improvements is to use constructive feedback. The value in feedback like "I like the tone of this sentence, but you could consider shortening it" is evident and actionable. The person receiving this feedback can apply it immediately as well as in the future.

Avoid giving negative feedback. Statements like "I can't understand anything in this sentence" will demotivate the person receiving the feedback and won't show them how to improve. This undermines healthy collaboration.

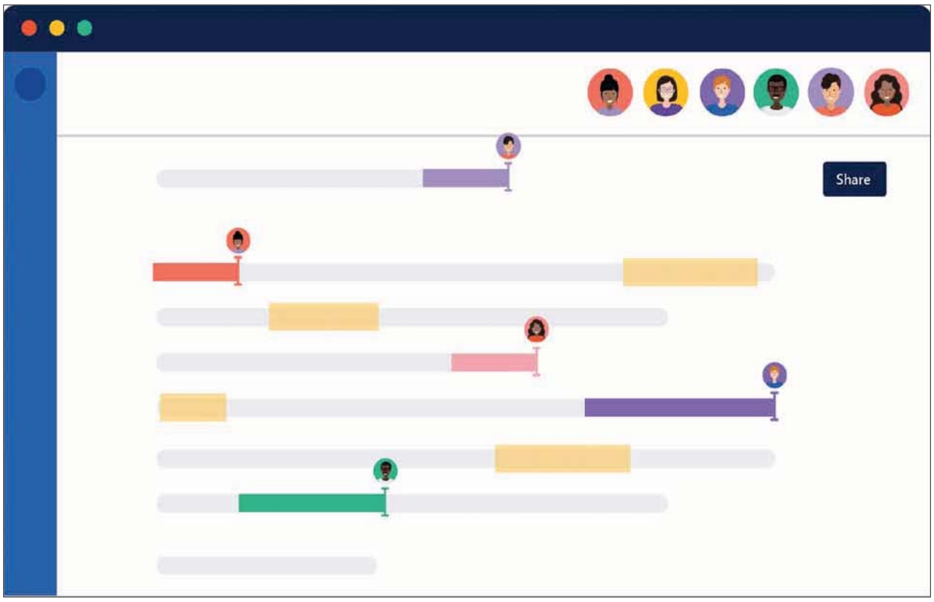

Figure 2: In a modern writing tool, the team can write together to create the best documentation.

Modeling feedback

To show our team members how to give healthy feedback, we can model it ourselves. [5]

It's best to balance the use of positive and constructive feedback. Also, when negative feedback takes place within our team, we must tell it like it is. It's important to use our healthy feedback skills to show how people can improve their own.

Passion

With everyone able to share feedback and contribute, it may be obvious who is passionate about documentation and who isn't. While not everyone we write alongside will be as passionate about content as we are, we can all share a common motivation to contribute.

Value

When the entire team works together on content, it can be easy to lose sight of the value we offer as technical communicators. With everyone contributing to content, giving feedback, and making corrections, it can make our role as technical communicators seem easy to replace.

We should keep in mind the unique skills we offer the team and share our individual successes. [6]

We can also seek out a mentor to help us focus on personal growth and to identify personal projects to help us work outside of the norm and be creative.

Understanding the abilities we bring to the team is essential as we share our passion for technical communication with others and help form a shared set of values within the team.

Increasing awareness

It's easy for accomplishments to get lost in our day-to-day work. This is especially true given how easy modern writing tools have made it to review content, give feedback, and move on. It's common for collaborators or outsiders to never even see the final version of content. To showcase the great work done through collaboration, we must share the outcomes within and outside the team. [7]

We can share what's gone well, what we've learned, and what we've yet to figure out. This type of valuable information can be shared in team standup meetings, or as internal blog posts, email newsletters, or in whatever format is most suitable. The goal is to have a mechanism for sharing accomplishments and helping everyone collaborate better in the future.

Transparency

Having the team share their entire writing process is a big challenge. While it's difficult to be open and honest about the content creation process, teams thrive in a transparent and collaborative environment.

The ebbs and flows

There are days when we can write lines and lines of high-quality content, and then there are days when we struggle to deliver even a comprehensible paragraph. This is how writing works, but it's hard to be honest about that with the rest of our team.

All members of the team create in one form or another, and each of us has varying outputs day to day. Just as with writing content, writing code, creating marketing campaigns, or planning new features, it can be a slow process one day and a boom the next. Once we've come to grips with the fact that creation is a series of drafts, revisions, and constant iteration, we can be honest and truly collaborate with our team. [8]

Pair writing

Sometimes it can be beneficial to write in pairs. [9] Pair writing, like pair programming, is the process of two people writing the same piece of content at the same time. This is best done using a tool with a collaborative editor so you can both make changes at the same time. This will seem haphazard at first, like two people trying to drive a car at the same time, but it's a great way to train new writers or to bring a subject matter expert (SME) and a writer together.

Pair writing can be effective when writing about a new subject we don't have much experience with or when revising some old content. Peer writing alongside an SME at the beginning of the writing process can help quickly assemble a first draft of the content, which includes many important details that might otherwise be missed.

Another situation in which pair writing is helpful is as a response to masses of feedback going back and forth regarding the content. This is often a sign that important content is missing or hasn't been explained properly. This is a good time to sit down with an SME and straighten things out in person.

While it may seem as if pair reviewing with an SME will take too much of their time, it typically saves time because many important details are clarified much earlier in the writing process. This makes content review and feedback much faster.

From pain to passion

Collaborative content creation involves working with all sorts of people who have unique opinions and passions, with whom we have to share the writing process. It can be scary and rather painful at times. But challenges notwithstanding, collaboration allows us to embrace the power of diversity and community in an otherwise lonely and one-sided creation process.

So, the next time we're feeling the pain of composition, we should seek out the passion of collaboration.

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ABOUT THE AUTHOR

Throughout his time on multiple product teams, **Matt Reiner** has contributed as a scrum master, technical writer, marketer, UX writer, and speaker. He was a K15t app user, and now advocates for users within the teams that make K15t apps. Matt believes good information matters to users, good tools matter to information creators, and fluid collaboration matters to leaders seeking out tools.

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The virtual language service provider

There is hardly a business around the globe that hasn't felt the impact of the pandemic in one way or another. Both businesses and workers had to adapt quickly and swiftly.
For one translation provider, Brexit and COVID meant the end of the physical office forever.

Text by Terena Bell

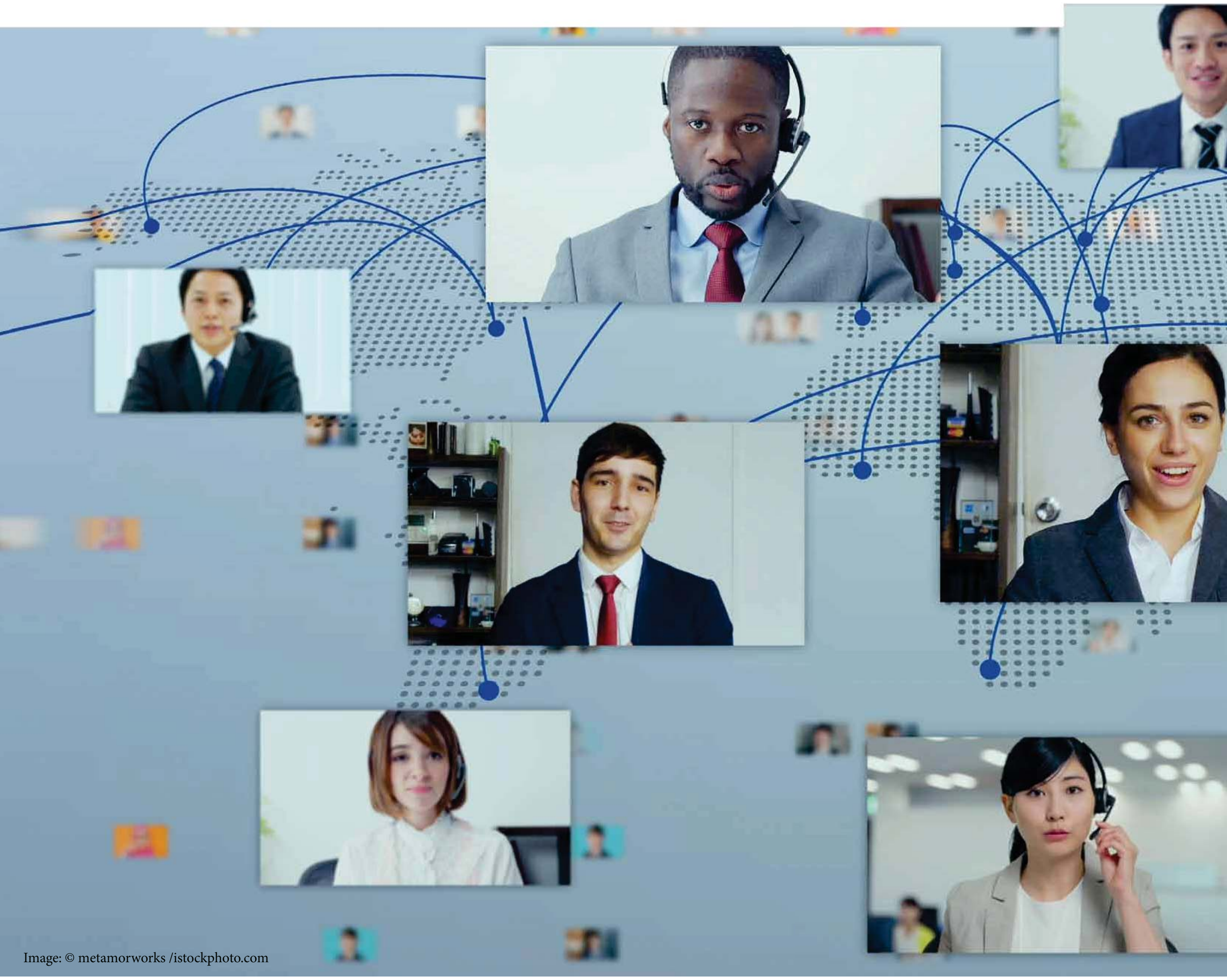
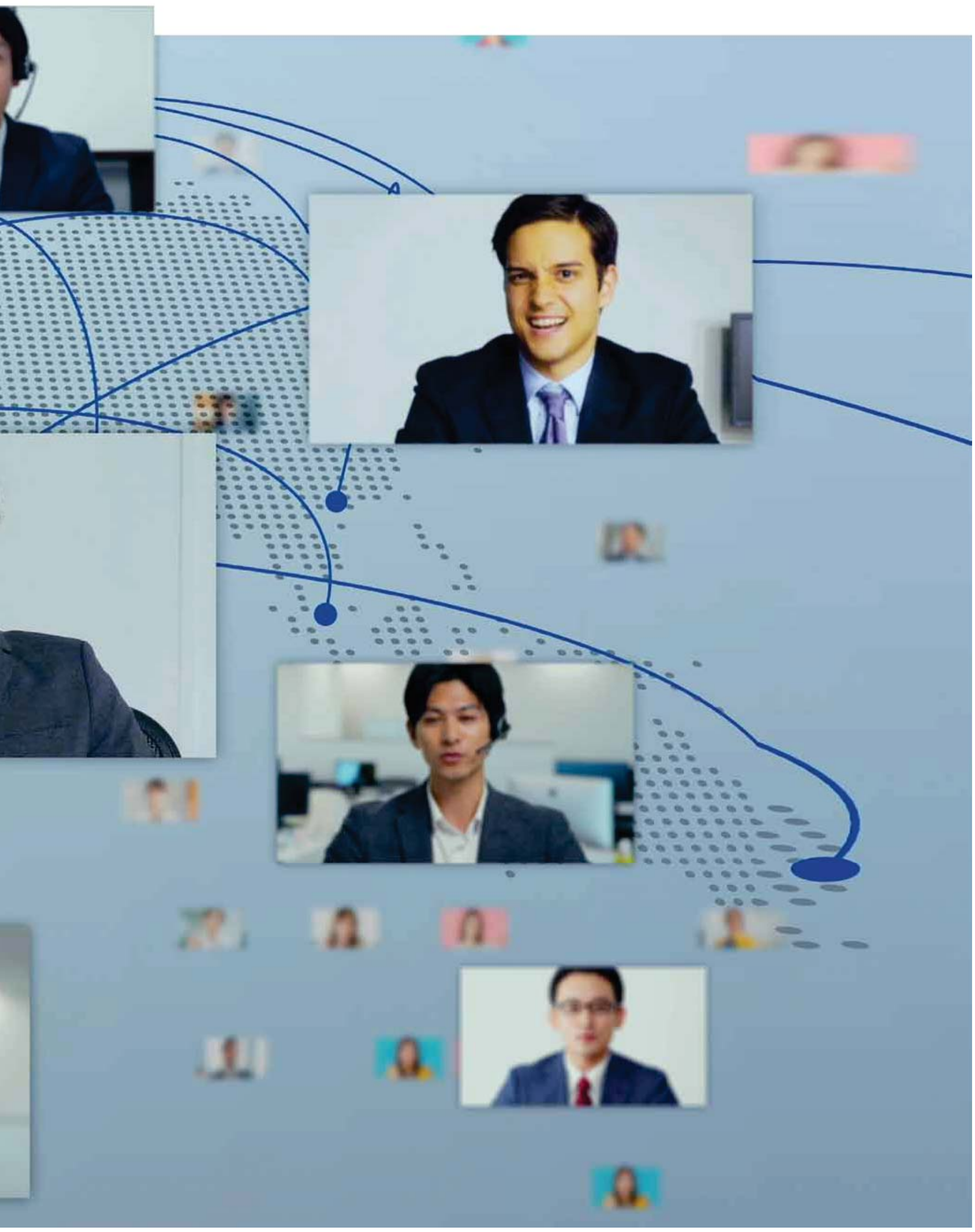


Image: © metamorworks /istockphoto.com

When COVID hit, Anja Jones Translation (AJT) had already gotten a head start. Not on translating medical material or on economically protecting its bottom line, but on going virtual. Before the COVID-19 pandemic, 78 to 83 percent of people who worked for language language service provider providers (LSPs) worldwide reported into a physical office, according to Common Sense Advisory. But in March 2020, everything changed. On Friday the 13th, the United States declared the virus a national emergency. Video meeting platform Zoom became the most downloaded app in the Apple store, collaboration tool Microsoft Teams saw a 500 percent use increase in China, and Google started offering its video Hangouts Meet product for free. Three days later, on March 16, French President Emmanuel Macron ordered mandatory fines for people who left their homes and on March 23, UK Prime Minister Boris Johnson followed suit. By the end of the month, only 13 countries* in the whole world had not experienced some form of governmental quarantine, lockdown, or "on pause."

And the number of global LSP employees going into a physical office every day? Well, that fell to as low as three percent. In two and a half weeks, white-collar workers went from being strapped to their desks to stuck in their homes – homes that had now become offices whether they or their employers liked it or not. The world was virtual.

But over in the sleepy tourist town of Newquay, England, population 20,343, AJT had gotten a head start. Over the last year or so, managing director Anja Jones had been working with office manager Nikki Cowland to transition the company out of the physical world and into the virtual. Not because of COVID-19 – which even Jones couldn't see coming – but due to Brexit, the January 31, 2020, departure of the United Kingdom from the European Union. Pre-Brexit, "anyone from within the EU could come to the UK and ha[ve] the right to live and work [t]here," she says. This had enabled her growing company to employ native language translators originally from the continent. But, Jones explains, with the "UK declaring itself out of the European Union, that freedom of movement stop[ped]." Work visas were now required. New hires had to prove prior residence or apply for an EU settlement scheme. "What that means for us as employers is, we need to register as visa sponsors and we need to pay a certain amount of money to obtain those visas," Jones says. To make matters even more costly, visas also now require a minimum salary of £25,600 a year. Starting pay for AJT translators is £18,000. That left Jones with two choices: raise salaries to an amount the company could not afford or operate virtually with translators outside of the United Kingdom.



Working from home has long been the norm for freelancers

Virtual translators are, in effect, not a foreign concept to the LSP. A predominantly freelance profession, translators typically work from their homes, bouncing between assignments for multiple companies. In the United States, it can actually be illegal for them to physically work inside an LSP's office, as state and federal governments each have their own labor and tax laws regulating employees versus independent contractors. Treat an in-house translator like a freelancer – or vice-versa – and an LSP can face debilitating fines for misclassification. Jones says this type of delineation doesn't exist in the United Kingdom, but as far as AJT is concerned, like most translation companies, they have off-site freelancers they work with from time to time as well as full-time individuals integrated within the team. So, like any LSP, AJT had a bit of a jump on managing telecommuters, as project managers were already used to com-

* Belarus, Botswana, Burundi, Cambodia, Chad, Gabon, Gambia, Madagascar, Mozambique, Nicaragua, Seychelles, Sierra Leone, and Somalia.

municating with the company's 150 freelance translators. In this way, every LSP had the same head start. But since Brexit, Jones had taken the lead, grappling with physical/remote concerns not just for freelancers, but for herself and AJT's 20-member staff: four project managers, office manager Cowland, and multiple in-house translators, "jobs that aren't strictly speaking just translation or editing... like QA [quality assurance] or TM [translation memory] updates or glossaries we've used," she says.

And so Jones set out on a two-year plan to transition AJT to a fully virtual model. As Newquay-based staff gradually exited the company, she filled their roles with telecommuters. By the time the shutdown came, eight of her staffers were already remote. Then Johnson's order restricted the rest to their homes and, before Jones knew it, her company had spent three months telecommuting. In June, Cowland sent the team a survey. "Basically 80% of our staff were like, we'd either seriously consider working from home indefinitely or we would take that option," Jones says, which cinched the call to remain permanently virtual: "We're a small company and a decision like that is obviously massive. It affects everyone. And if we made that decision and everyone really loved the office and really want[ed] to stay here, then it would have been a different story."

Rethinking the importance of physical offices

According to Common Sense Advisory, at the height of the pandemic, larger LSPs – those annually billing 20 million USD or more – saw the harshest decrease in the percentage of employees physically coming into work, going from 83 percent to 28. How many were happy about it, no one knows. "Just like companies in other industries," the research provider writes in its October report, "COVID-19's Impact on Staffing and Offices at LSPs", "LSP executives are rethinking the importance of physical offices and their purpose. By now, larger LSPs have already invested in the technology and processes to support large amounts of virtual work."

"As a smaller company, we're much more flexible," says Jones. AJT translates 1.5 million words a month for a total revenue of 1.5 million GBP a year with cloud-based translation platform Smartling as anchor client. According to Jones, it is this relationship that has kept AJT growing during what for many other LSPs was a financially difficult year. (Smartling declined to share 2020 revenue figures.)

Like the Smartling tool itself, Jones says AJT has "always been cloud-based. Everything we do is cloud-based – everything from how we store our documents to the CAT [computer-aided translation] tools we use to the communication tools we use [Slack] – everything is cloud-based. So that's always been our strategy." Yes, the company had an office – Jones was required to give six months' notice in order to vacate the lease – but that office was more of a place to gather and collaborate than a load beam she built her company around. "There was no pivoting," Jones says. When COVID hit, "It was literally, okay, well, we will work from home, you know?"

Adapting to the virtual

Without cloud-based technologies, Jones admits taking her LSP virtual would have been a much more difficult chore. AJT can only use Smartling when its clients use the tool as well, which leaves the team without a project management system for other customer projects. "We don't have a dedicated translation project management system at the moment," Jones says. This has posed a challenge, making work more manual than she would like, keeping staff from being able to effectively plug into CAT tools and restricting project management to Excel.

She's looked into Plunet, but fixing the problem would pose another challenge: how to remotely teach employees the new tool. "If you think about the training, when you have someone who sits with you and you can physically train them, sit next to them and have a conversation, look at the same screen and go through things," she explains. Go remote, she says, and staff can no longer "just shout across the desk."

"Not physically being in the same room means it can be difficult to gauge how someone is feeling and if they need any help," says office manager Cowland, whose job includes employee health and wellbeing, something she adds "has taken on a whole new level of importance" during COVID.

Jones says, "For some people – especially younger guys – if they're living in shared accommodation and they have a bedroom and that small desk and then all of a sudden they're in that bedroom all day, that has psychological effects." Part of this can be avoided by letting new hires know they will have to work from home, but with COVID-19, this unexpected change was thrust upon us all. In its virtual LSP report, Common Sense Advisory addresses "pandemic fatigue," writing "Once the community of an office and its interaction is replaced by people on teleconference or audio-only phone calls, there is the potential for social distancing of a different sort – the breakdown of the values, standards, and culture of your company."

It would be unfair, however, to confuse the dynamics of a virtual environment with any emotional fallout caused by poor management, enforced overtime, reduced salaries, physical safety concerns, and all the other issues that befell some LSP employees during the coronavirus pandemic.

"We really tried hard to kind of come together as a team and support each other," says Jones, explaining the company hosts casual – not mandatory – Zoom calls "where people could hop on and just hear another voice and that kind of thing." For new employees, there are also get-to-know-you video calls and presentations. Jones has implemented what she calls "a very structured onboarding process" with a week's worth of one-on-one sessions between new and existing colleagues.

Checking in on people to see how they're doing also continues to fall on Cowland, the essence of whose role has undergone a massive change: What does an office manager do when there's no office? For Cowland in particular, she keeps up with accounting, payroll, and human resources concerns – which might or might not overlap with the same position at other LSPs. During the transition, Cowland says she's also been charged with the dirty work of shifting a still-thriving company out of the physical environment, "liaising with managing agents, landlords, tradespeople, cleaners, rubbish, and recycling collections." Yes, when going virtual, don't forget to tell the trash guy.

Is virtual business here to stay?

As for how many other companies will make a move like Jones's, Common Sense Advisory reports that this depends on location and size. In Western Europe, including the United Kingdom, 49 percent of LSP employees had returned to the physical office by the report's October release, with a 63 percent anticipated return once the pandemic is over. In North America, where Smartling is based, this compares to 22 percent and 44 percent respectively. (Smartling went 100 percent virtual in March and plans to remain so at least until spring.) Post-corona, North Americans were most likely to continue working from home; China was least with 95 percent of employees expected to return. And for all Jones's talk about smaller companies being easier to pivot, AJT's annual revenue bracket is not the one anticipated to see the greatest change: The report contends that 77 percent of employees of smaller LSPs (one to 4.99 million USD) went into a physical office before the pandemic; 58 percent plan to return. But larger LSPs (20 million USD or more) hosted 83 percent of in-office employees pre-corona. Only around half of those workers plan to physically return.

Employee head count – not revenue, says Common Sense Advisory, is the true tipping point for how readily LSPs were able to shift to the virtual. "Moving over 100 workers to remote work at the height of the pandemic was done more quickly or easily than it was for those with under 100 FTEs," the report reads, conjecturing that possibly "companies with 51 to 100 employees simply kept more people in the office at the height of the pandemic for what they thought were strategic, regulatory, or other reasons."

AJT principally translates for consumer brand, marketing, and technology clients, as well as other LSPs – industries that tend to require less regulatory oversight and that also typically understand the intrinsically cloud-based nature of modern translation. Also, Newquay is in a remote part of Cornwall, a region in southwestern England. This means that even when AJT did have a physical office, it was in what Jones calls "a fairly removed part of the world anyway." While AJT does collaborate with the local business community, the majority of its clients are outside the United Kingdom. "So for them, whether there's a physical office here or not, I don't think they could care any less," says Jones.

Accepting home-based work

That said, whether they require special regulations to be followed or not, it is important for any LSP contemplating the shift to communicate with customers about the move and how it impacts them. From 2005 to 2015, I owned a Louisville, Kentucky-based LSP called In Every Language, which transitioned from office to virtual in 2010. At that time, the shift created local rumors that the company could no longer afford an office. Truth was, we needed to hire better-trained project managers than what the city's workforce had available. Yet many were unable to understand that by moving to a 100 percent cloud-based environment, we weren't hurting – we were actually ahead of our time.

Ten years later, as many of today's LSPs prepare to physically welcome back employees post-pandemic, AJT may still be ahead of the curve. Fortunately, Jones isn't seeing a similar negative pushback. "The last six to nine months [have seen] a much bigger acceptance for home-[based] work," she explains – regardless of industry. From translation to journalism, everyone white-collar has had to do it. "I think it's going to be a massive revolution of how we all work and live. I don't think it's going to come as a massive surprise to anyone," she says. "But I think it's all about how we communicate that."

For Jones, that communication is clear: "We need to close the office. I kind of wanted it to be much more, no, this is what we're doing. This is our response. And this is how we take our own destiny in our own hands."

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Terena Bell is an independent journalist reporting on language for tcworld, MultiLingual, The Atlantic, The Guardian, and others. She is a former LSP owner and GALA board member.

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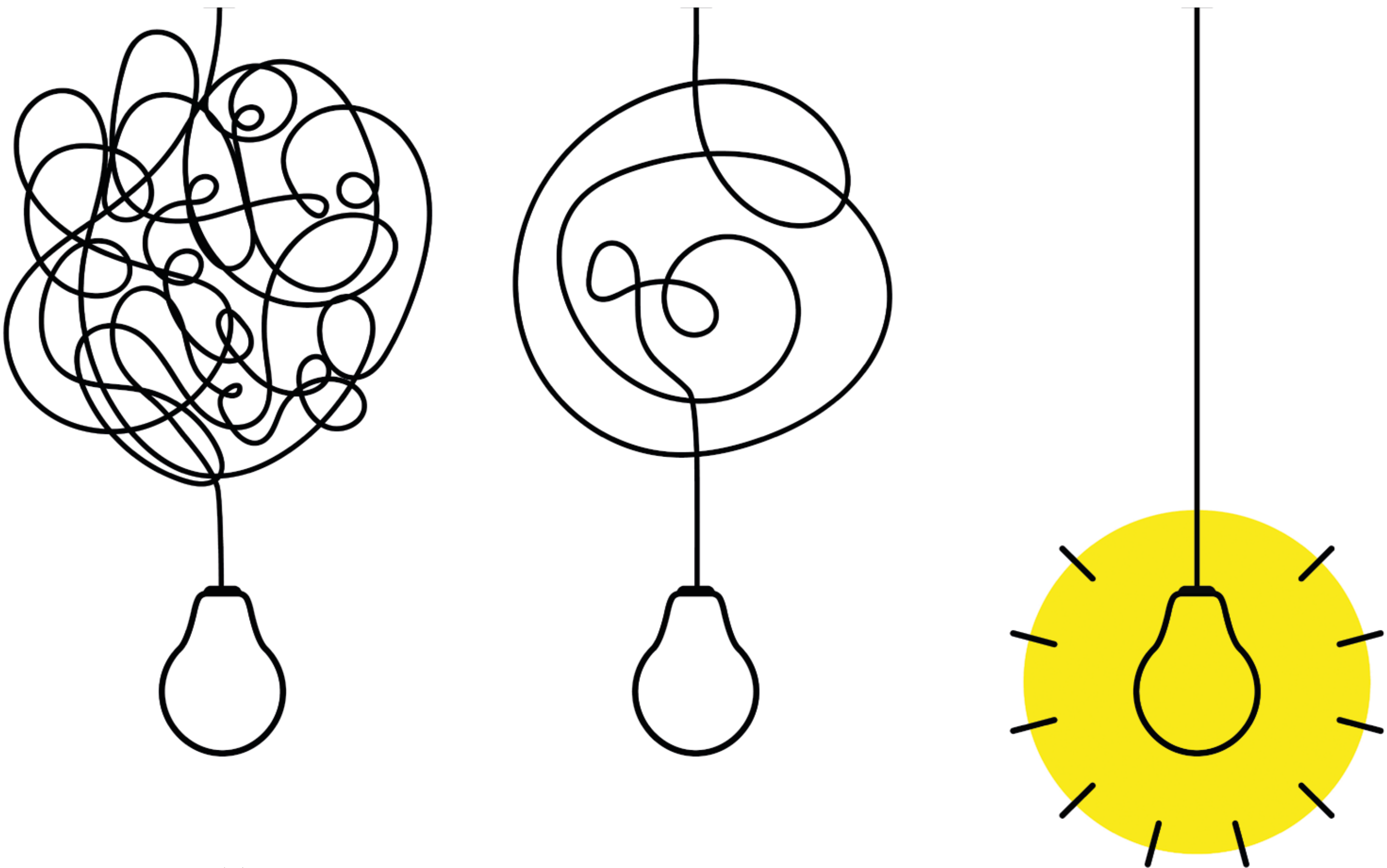
Simplified graphics and screenshots in software documentation

Graphics and screenshots are a popular way of making text-heavy documents lighter, more attractive and, most importantly, easier to understand. But does this visual information really help a user to better understand the text?

Text by Anton Bollen and Leonie Saremba



To make processing visual information as easy as possible, it helps to understand the user's psychological and cognitive processes. These are as much a product of social conventions as they are innate reflexes, and being aware of them means you can apply certain principles to produce visual content that is tailored to the user's needs. And that requires graphics that are intuitive and easy to understand.

Force of habit

Our brain favors habits and familiarities. It can process recurring, consistent information more easily, which also means more quickly. This also applies when we process visual content. The more familiar we are with how something looks, the quicker we can identify abstract versions of it. For example, we don't have to be able to read every letter on the page to know the layout of a newspaper. We don't need to look at every detail of a website to recognize a media player. We can do this because of the habits we have developed based on learned conventions. Throughout life, patterns and macrostructures help us make quick connections, get our bearings, and find and understand information efficiently.

Familiar patterns are the perfect foundation for designing both simplified graphics and user interfaces that guide the user's focus and promote "intuitive" software use. While this can be an advantage for users, sometimes this principle can be deliberately deployed unethically. Who hasn't fallen for a "dark pattern" when visiting a website and hastily accepted more cookies than needed? In fact, who even knows what they're accepting when they do it? There was only one clickable option to continue – wasn't there (see Figure 1)?

Culture can also have a significant impact on conventions. Think about the direction we learned to read in – it shapes the way we structure and scan visual information. Or think about different cultural connotations of colors, or how the granularity of shared information varies. The list is endless. So, how did standardized conventions, such as a newspaper's layout, the structure of a letter, or the look and feel of a user interface become so widely established? To answer this question, let's take a deep dive into the cognitive and psychological factors involved in the way we perceive and process visual information.

Understanding and guiding perception

Closely related to the Gestalt laws, the following section outlines profound aspects of how visual information is perceived.

Figure and ground

When we look at a graphic, we instinctively work out the foreground and the background. This is an automatic cognitive process, and it also works with the various layers of a graphic. There is, however, a very fine line between making the distinction naturally, immediately, and "effortlessly", or, on the contrary, having to concentrate and analyze a very complicated element. Reversible images demonstrate this principle in a fascinating way. They are a good example of what not to do when designing simplified foregrounds and backgrounds. At first glance, a reversible image might look like a young woman; then, when we look again, our understanding shifts, and an old woman comes into focus.

So, when creating simplified graphics, it is important to avoid nesting information in multiple layers. Instead, content that conveys information needs to be expressed through simple basic shapes. In this way, designers draw on natural cognitive processes that take place when viewing graphics.

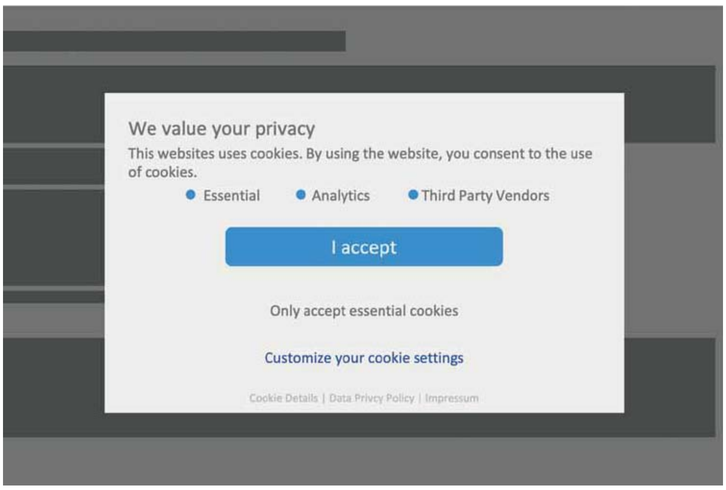


Figure 1: A typical cookie banner that tries to lure users into clicking "I accept" is a good example of how dark patterns are used in UX design

Source: © Leonie Saremba/Anton Bollen

Proximity

If some elements of a graphic are close to each other, users perceive these elements as belonging together. This is the Gestalt principle of proximity. This instantaneous process of interpretation has significant implications for how to arrange visual information within a graphic. Using this principle, designers can visually represent groupings and associations of elements simply by placing them close to each other. Users will perceive them as columns, blocks, rows, or other kinds of groups.

Symmetry

We rely on symmetry to orient ourselves, around either a point or an axis. This does not mean all our simplified graphics have to be symmetrical works of art. All that users need to efficiently get their bearings are visual elements neatly arranged around a shared axis or a certain reference point. Let's try a thought experiment: how long and intensively would you have to search for a face in a randomly positioned crowd on a photo? It's much easier when you have a fixed grid layout of portraits, isn't it?

Similarity

Users perceive similar-looking graphics as being related. According to the Gestalt theory of psychology, this is because we're always trying to establish meaningful relationships between objects. This principle can be used when creating graphics, for example:

- By using color coding and accompanying legends.
- By ensuring that any elements that convey information look similar.

In doing this, designers can make their graphics seem neutral, and reduce visual noise to a minimum.

Anomaly

As we have just learned, when it comes to perception, the human mind is always establishing relationships, comparing elements, and finding its bearings. It is also processing any informative content, so if any tiny detail slips out of line, our attention is drawn to exactly this. In short, the secret to guiding focus lies in steering the user's attention by using anomalies, such as:

- Accent colors
- Different shapes and positions
- Different alignments and fonts

The key point is that anomalies must be used consciously, in a targeted way and, above all, sparingly.

Connectivity

When elements in a graphic are directly linked by lines, users will perceive them as connected. Once you are aware of how powerful this effect is, you can visually represent connections and sequences using very simple techniques. However, it is important to remember that less is more.

Theory in action

Figure 2 shows the above-mentioned perception principles in use. The original diagram on the left is a perfect candidate for revision: The significance of the shapes and colors is unclear, and the information is not presented with a fixed data model such as a UML diagram or a flowchart. The shapes are not aligned, and the connections are not mapped out symmetrically. The simplified diagram on the right is still quite complex. Nevertheless, it is easier to perceive because it uses identical shapes, fewer colors, and a legend for further information. This symmetrical graphic helps users find their bearings quickly because the graphic itself supports the naturally triggered cognitive and psychological processes we use for information processing.

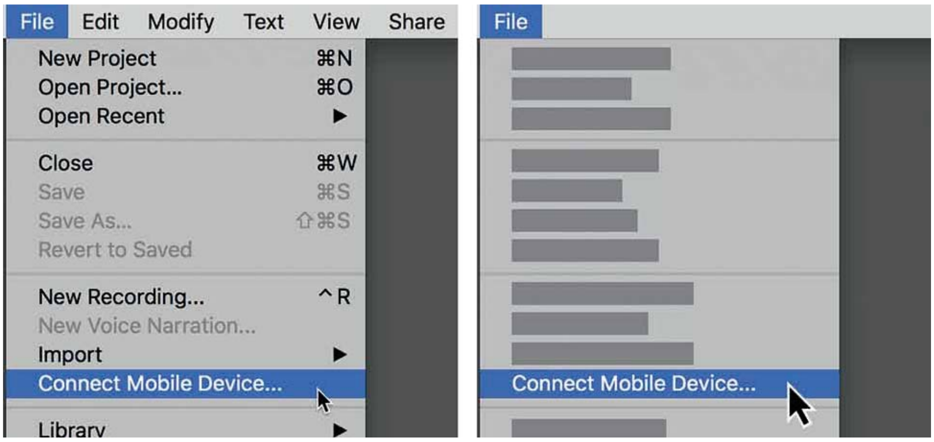


Figure 3: The user interface is shown in a simplified form; all details relevant to the instructions are clearly visible

Source: © Leonie Saremba/Anton Bollen

Switching from classic screenshots to simplified user interface graphics

Even screenshots can be made clearer, simpler, and more efficient if they are designed using the perception principles discussed here, for example, with simplified user interface (SUI) graphics. In SUI design, user interfaces and other content (e.g., web content) are reduced to the essentials, and unnecessary elements are removed or abstracted. Text and visual elements that aren't relevant are reduced to simpler shapes (e.g., rectangles to represent text). The user will only be able to see the elements they need to understand the text. This results in a stylized, yet immediately recognizable image of the user interface (see Figure 3).

Since 2013, this design style has been cropping up more and more in marketing and software documentation, and it has been adopted by technology companies such as Microsoft, Dropbox, and Google. Today, simplified graphics have become prevalent across many areas of business communication. They are also increasingly used in onboarding, training, and marketing content, both as regular images and in small animations. The advantages of simplified design really come into play here: they are easy to understand, future-proof, and language-neutral.

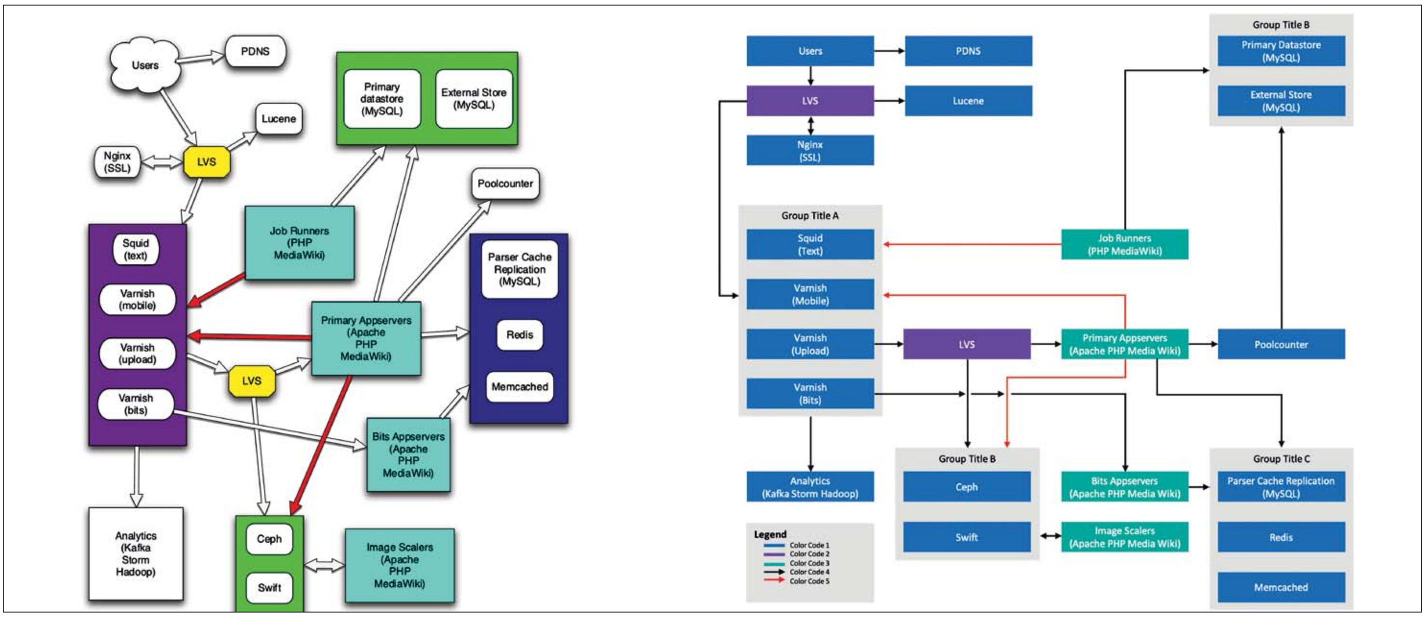


Figure 2: Comparison of the original diagram on Wikimedia Server Architecture (Wikipedia, 2003) (left) and its simplified version (right)

Source: © Leonie Saremba/Anton Bollen

SUI graphics: Why they work and where to use them

In the following section, we discuss specific advantages and possible applications of SUI graphics.

Modern design meets easy understanding

SUI graphics are clear, contemporary, and visually appealing. Because users only see the menu items or commands that are required for the instruction, SUI graphics contain less visual noise than normal screenshots. This can be seen in the eye-tracking experiment in Figure 4.

With SUI graphics, the relevant information is in the foreground, so the user's focus is drawn right to it. Removing distracting and irrelevant menu items reduces the user's cognitive load so they can understand the content more easily. This allows users to process and follow the information more effectively.

Future-proof

Because SUI graphics show an abstract user interface with fewer concrete details, they can often still be used even after the software is changed. Consequently, SUI graphics remain up to date across multiple versions and need to be changed less frequently. This is a major benefit for using simplified screenshots in documentation, especially in cloud environments with rapid update cycles.

Sometimes, SUI graphics can even be used in different versions of platform-dependent software because of their abstract form.

Smoother localization

By reducing or getting rid of text, SUI graphics simplify the localization process or even remove the need for image localization altogether. Because of this enhanced reusability, the same SUI graphic can be used for all localized texts. The relevant instructions can then be conveyed in the text or through image captions. Microsoft and Adobe have embraced this approach in their documentation and onboarding content.

Practical tips and best practices

Both simplified and SUI graphics can be created using any graphics software. The following tips and best practices are recommended for their effective design.

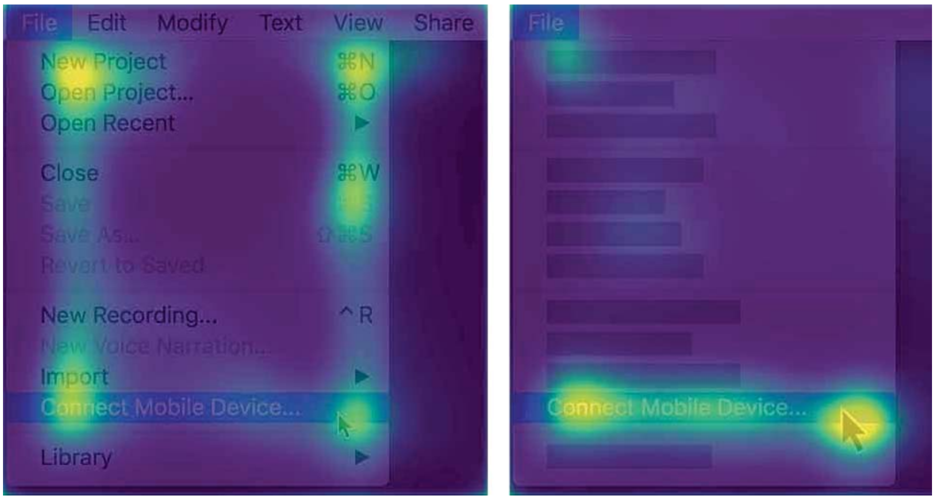


Figure 4: Comparison of eye-tracking heat maps for a classic screenshot (left) and a simplified screenshot (right) *Source: © Leonie Saremba/Anton Bollen*

Boil it down to the essentials

Simplified graphics can represent very complex elements without losing focus on the key message. You can safely omit any peripheral details, design elements, or additional information that are irrelevant in the context. Simplified graphics work particularly well with fewer layers. In many cases, one foreground element is enough. Too much nested information is a good first sign that a simplified graphic has strayed from its key message.

As with all screenshots, it helps to crop the image so that the action being shown is in the center.

In both classic screenshots and SUI graphics, irrelevant buttons, menus, and tooltips can be removed or reduced.

Keep a clear link with the original user interface

One important aspect of SUI graphics is the way they mirror the original user interface. The design of the SUI graphic needs to be based closely on the design of the source interface so it can easily be recognized and processed. The following tips help with the simplification process:

- For SUI graphics, the basic shapes that are used to represent relevant content should reflect the hierarchy of the elements on the screen, i.e., thicker bars for headlines, thinner ones for running text, blank boxes for images, etc.
- Visual anchors, such as icons, stand-out buttons, and menu titles can be left as they are to help orient the user.
- If the instructions refer to a specific element directly, it should be recognizable and set apart from the rest of the simplified user interface graphic.

Make your visuals consistent

Set out and follow some design rules to ensure consistency across simplified graphics in your software documentation. To make adhering to these rules easier, you could document them in a style guide. These rules should address:

- Rules for horizontal and vertical alignment of elements
- Rules for positioning and spacing of elements
- Rules for consistent sizing of elements
- Set usage of additional graphic elements, e.g., icons or pictograms
- Fixed number of layers
- Fixed preferences for element shapes
- Fixed line thickness
- Fixed color palette

Pick the right colors

A significantly reduced color palette works best for simplified graphics. All you need are two or three highly saturated accent colors for the foreground and one or two gray tones for the background. The background colors of digital simplified graphics should reflect the background colors used in the output. For black backgrounds, use very dark gray tones; for white backgrounds, very light gray tones. If cross-media publishing leads to two different design schemas (e.g., a mix of dark and light tones), the best solution is to adjust the reduced color palette to suit both use cases.

In some cases, simplified graphics require color coding. Whenever needed, this should always be accompanied by a legend and an explanation. If it then turns out that a legend is not necessary, you know that you do not need any other colors, so the same color can actually be used for all the elements. Any noticeable difference will lead to more intense cognitive processing and interpretation.

Standardize your work environment

Depending on what software you are using, it may be possible to apply templates. Templates, building blocks, and repeatable color themes make it much easier to ensure consistency across simplified graphics and SUI graphics in your software documentation. Many of the consistency rules specified above can be implemented in templates before the design process even starts. Where possible, it is a good idea to appoint one team member as the resident expert for simplified graphics and screenshots. This will make it a lot easier for team members to learn about editing software and SUI graphics while also providing an expert-based peer review system.

These recommendations should work effectively for most editing programs. In case you are looking for a more convenient solution, Snagit by TechSmith is a specialist tool for simplifying screenshots. This tool partially automates the process of creating and adjusting SUI graphics with a consistent color palette.

Keep your graphics simple!

Countless factors influence the way we perceive graphics and screenshots – on a conscious and subconscious level. They also give us a clear indication of what is easy to understand and simple to create. While the design techniques outlined in this article optimize the way information is conveyed and understood, many other approaches are similarly efficient. Because what it all really comes down to is one straightforward message: Keep your graphics simple!

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Minimalism at 30

Thirty years ago, the book *The Nurnberg Funnel: Designing Minimalist Instruction for Practical Computer Skill* introduced the concept of minimalism. To celebrate this anniversary, we take a look at the genesis, principles, and evolution of minimalism.

Text by Nicky Bleiel

Image: © mikekiev/123rf.com

To really understand a movement – and its importance – it helps to look back at its origins. Thirty years ago, *The Nurnberg Funnel: Designing Minimalist Instruction for Practical Computer Skill* was published. It introduced the concept of minimalism and established the author, John Carroll, as "The Father of Minimalism." For this anniversary, Dr. Carroll joined me for a session at the virtual tcworld conference in November 2020 to discuss the book, the origins of minimalism, and the state of minimalism today.

Dr. Carroll explained how the book got its name. "As I was working on this material and preparing a book, I happened to be in Germany, in Nurnberg. In the basement of Nurnberg Castle, I found a postcard [picturing] two medieval scholars pouring knowledge into the head of a child they were restraining. They had stuck a funnel in his head. I'm aware that most Germans know this [story] but it was quite striking to me, and shocking, really. I had never heard of it. That's where I got the idea for the book."

Regarding the name "minimalism" itself, he noted: "One of your goals is to have an impact and get people talking and thinking, and maybe even criticizing, but to engage in what you're doing. I think calling this body of work minimalism actually had that effect. I think it was really a great idea to call it that, and I hope if I had to do it again, I'd do the same thing."

Before discussing minimalism principles, it is interesting to note that *The Nurnberg Funnel* introduced these core principles of technical communication:

- Software documentation should be designed
- Documentation should be modular (topic-based) and support both sequential use and random access
- Documentation should be user-centered (so it is important to know our audience)

Regarding the first point, Dr. Carroll specified: "Information is designed, it's not just presented. That's an important point that can be underappreciated. Our job is not to present information, that's way too easy. It's to convey information effectively. If it's not designed, it will not work."

Principles and practices

The Nurnberg Funnel identified three main principles of minimalism. These principles can be directly mapped to practices we follow today, see Table 1.

One of the theoretical foundations of minimalism is "people need to act". Dr. Carroll elaborated on this in our discussion: "This is an insight into human learning. It's not really my insight. It's in the work of Piaget. It's in the work of John Dewey. It's in the work of many psychologists from many different traditions. It's the heart of Maria Montessori's insights into education. You wouldn't teach somebody to make Indian food just by giving them a recipe or describing the taste or something. It's got to be a matter of acting, practicing, engaging."

Nurnberg Funnel Principle *(Source: The Nurnberg Funnel)*	**Practice**
Allow learners to start immediately on meaningfully realistic tasks.	Use an action- and task-oriented approach. Provide tasks and tutorials instead of a narrative listing menu items and dialog boxes.
Reduce the amount of reading and other passive activity in training.	Avoid information the user doesn't need – such as multiple ways to perform the same task and edge cases. Avoid jargon, standardize your language, and employ parallelism.
Help to make errors and error recovery less traumatic and more pedagogically productive.	Let users know what to expect. Provide a variety of troubleshooting information, which includes "Notes", "Tips", "Warnings", "FAQs", and "Prerequisites".

Table 1: The Nurnberg Funnel principles and according practices

"This serves a number of purposes, including keeping people engaged in learning because learning is hard work. It's hard to transform your own mind. We do it regularly, but it's not easy to do. We need to be engaged, and action is engaging."

Misconceptions

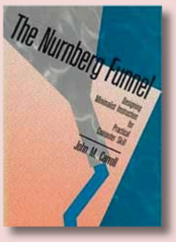
Of course, there were and still are misconceptions about minimalism. In the follow-up book, *Minimalism Beyond the Nurnberg Funnel*, these ten misconceptions about minimalism were identified.

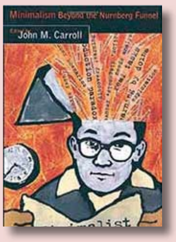
1. Minimalism means brevity.
2. Minimalism means incomplete instructional analyses.
3. Minimalism means trial-and-error learning.
4. Minimalism does not support people who learn by reading.
5. Minimalism over-emphasizes errors.
6. Minimalism is just another word for job aids.
7. Minimalism only works for simple domains.
8. Minimalism merely reflects the preconceptions of users.
9. Minimalism offers a complete documentation solution.
10. Minimalism has no theoretical foundation.

By far, the biggest misconception on this list is "Minimalism means brevity." Brevity doesn't simply mean reducing the word count, Dr. Carroll explained. "If you design a refined piece of information, it will tend to be concise. It will tend to be brief. It will tend to be easy to understand. But that's not because brevity itself is the objective. I think (brevity) is a consequence of minimalism. The objective is usability or user

Nurnberg Funnel facts on its 30th anniversary:

- It was published in June 1990 by MIT Press
- At the time of its publication, John Carroll was the Manager of User Interface Theory and Design at IBM's Watson Research Center
- It has been cited 928 times in academic publications (source: Google Scholar)
- DITA incorporates minimalism theory
- In 1998, it was followed up by *Minimalism Beyond the Nurnberg Funnel,* a collection of essays exploring the evolution of minimalism by John Carroll, Hans van der Meij, JoAnn Hackos, Ginny Redish, David Farkas, and other luminaries





experience, to put it somewhat more broadly. Brevity will come along with that, but it's a mistake to put it in front of your real goals, which is serving people's information needs."

Benefits, risks, and rewards

Several benefits of minimalism were identified in *The Nurnberg Funnel:*

1. Content is focused on user goals.
2. Obstacles (extras) that can get in the user's way are reduced.
3. Emphasis on exploratory and active learning.
4. Learning from errors increases understanding and promotes retention.
5. Users can get started quickly.
6. Modular content supports both sequential use and random access.

As minimalism continued to evolve, risks were identified and explored in *Beyond the Nurnberg Funnel* and other publications:

- The user may not complete the task successfully. [1]
- The user may complete the task but spend more time than they wished. [1]
- While trying to complete the task, the user develops an incorrect mental model of the system. [1]
- Providing the exact amount of information users need is challenging – it requires extensive usability testing. [2]
- Learning from errors is situational; users who are in a hurry or confused won't have a good experience. [3]

Technical communicators have embraced the concept of providing the right amount of information in the right place at the right time. We are up to the challenge, but this requires extensive usability testing that we might not have the time or the resources for.

Errors can be frustrating. Dr. Carroll noted: "They can turn a person from an eager, new user to a disgruntled non-user. This is a high-stakes event for a designer, so error management is still very important." Dr. Carroll also elaborated on mental models: "When you look at the state of the art, which I'm relatively up on – I'm teaching my freshman course in user-centered design this semester – we should deliberately convey through the design of the user interface and other materials, including information design, what an appropriate or a useful conceptual model of the system is. Part of designing a system is designing a conceptual model and designing strategies to convey the conceptual model. It's what information designers will do or are doing. That's a good thing in my mind. You wouldn't want to have a field that, 30 years later, was celebrating the exact same things that were said 30 years ago and nothing had changed. Everything has changed. Some things are still true, but the situation is quite different."

As Dr. Carroll noted in *Beyond the Nurnberg Funnel*, there can never be an end to the project of reconstructing minimalism. This has certainly been the case, and the reward has been that many professionals in technical communication continue to refine minimalism, including Hans van der Meij, JoAnn Hackos, Ginny Redish, David Farkas, William Horton, Joe Welinske, Scott Boggan, Jakob Nielsen, Cheryl Zubak, and many others.

Minimalism has evolved to include performance support (interactive demonstrations and guidance), improvements to the findability of information (popups, embedded help, context-sensitive help), conceptual and reference information, videos, quick starts, and progressive disclosure, which was originally a user interface design theory that has been successfully adapted for information design and helps to reduce obstacles. Minimalism has also entered the conversation regarding translation cost savings and is essential for mobile outputs.

Dr. Carroll agreed that the evolution of minimalism is encouraging: "That's all positive, a great sign that it's vital, and can continue. That's what's happening to online information and the user's experience. The higher level of integration between online information and the user interface, which used to be seen as this entirely different thing, that's a great step. That separation is only historical. It's not a separation from the user's point of view."

Minimalism increases the time and effort needed to design and write content. It doesn't save time. It's not minimalistic in that respect, and it requires the knowledge and expertise we bring to the table. The following quote from Dr. Carroll sums up how the expertise about minimalism that technical communicators acquire and use, and the time that we spend designing content, makes our users successful:

> "People intrinsically want to be stimulated and learn things. And so, if we do it right really, we're not just doing our job, we're really enriching the human experience, I think."
> (From *Minimalism Revisited: An Interview with John Carroll.*)

Further reading

- Carroll, John M. (1990). *The Nurnberg Funnel - Designing Minimalist Instruction for Practical Computer Skill.* MIT Press.
- Carroll, John M., ed. (1998). *Minimalism Beyond the Nurnberg Funnel.* MIT Press.
- "Minimalism Revisited: An Interview with John Carroll." STC *Intercom* magazine February 2013.

Summarized from:
[1] Farkas, D., *Beyond the Nurnberg Funnel* (1998)
[2] Carroll, J.M. and van der Meij, "Ten Misconceptions about Minimalism." (1996) IEEE Transactions in Professional Communication
[3] Carroll, J.M., Smith-Kerker, P.A., Ford, J.R., and Mazur-Rimetz, S.A. (1987-1988). "The Minimal Manual" Human-Computer Interaction

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Content management systems are not born multilingual

There are more than 5,000 content management systems (CMS), but less than 200 of them have built-in support for content in multiple languages and a modern localization workflow.
It is the task of the next generation of localization managers working in CMS companies to add these features and help their products become multilingual.

Text by Konstantin Dranch

Image: © DKosig/istockphoto.com

Imagine the endless number of software programs that store content: website builders like WordPress and Typo3, product information systems like inRiver, email newsletter tools and marketing automation platforms like Mailchimp and HubSpot, game assembly kits like Unity3D and Unreal Engine, design workbenches like Canva and Figma, blueprint labs like Adobe Illustrator, and writing tools like the Hemingway App and Google Docs. It would take a book to list the names of all the products in all categories. But if we wrote only the names of tools that can handle multilingual content, well, one or two pages would suffice.

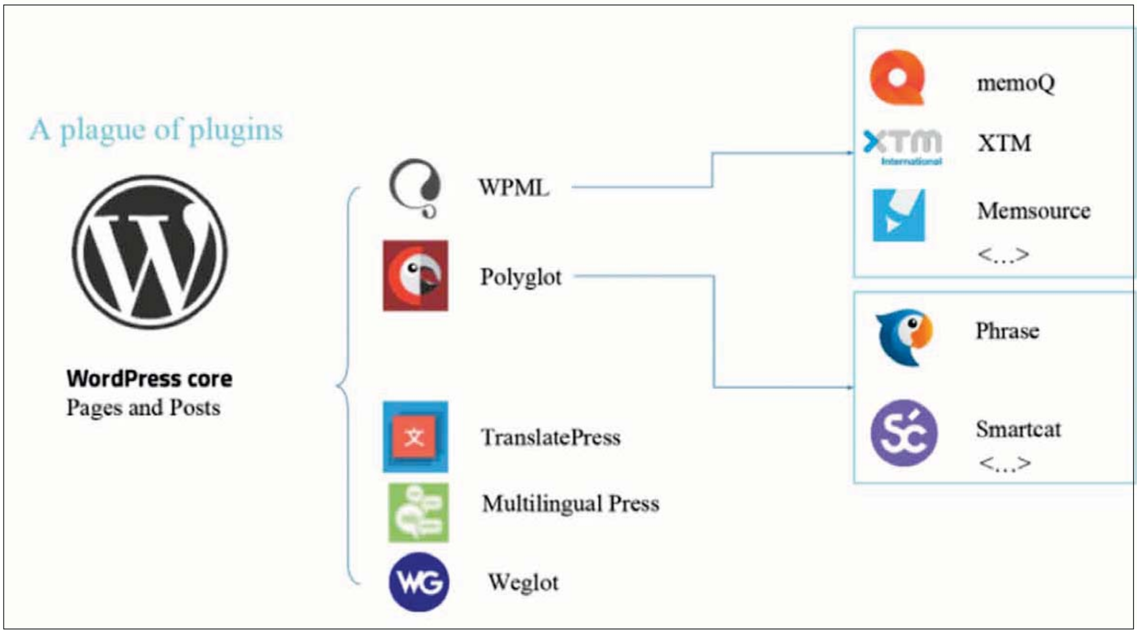

Figure 1: WordPress multilingual website plugins and TMS integrations

In 2021, at a time when Facebook and Microsoft support over a hundred languages, being unable to deal with just two or three is a major disadvantage. The reason for this disparity is that developers who embark on the journey to create a CMS are often not familiar with localization. When they begin working on their products they don't know about multilingual content or don't focus on it. Even developers who are aware of localization often prioritize more glamorous features that will drive sales and leave localization for later. Or they assume that localization is part of the CMS: that a translator will log into the CMS and work in the same way as a content author does, clicking on each individual text box in the CMS and retyping it in another language. In reality, things are different. Translators work with professional translation tools that include translation memory, machine translation, terminology support, spell checkers and automatic QA.

As a result, CMSs are rarely created to be multilingual. It's a journey to build and improve language support – a journey initiated by language teams who understand the professional localization process and the fact that people around the world speak various languages.

With this article, I hope to provide guidance to CMS developers: pointing out where products fail at being multilingual and what needs to improve to achieve professional support for localization. Perhaps the reader will be the person who sets the path to developing a multilingual product.

When big CMSs fall short in language: WordPress

Let's start with the most popular website CMS in the world: WordPress powers a mind-boggling half a billion websites. Yet, despite the incredible spread of this CMS around the globe, WordPress has no built-in multilingual capability. The system's core creators elected to rely on partners to develop components for multilingual websites. Owners of WordPress websites need to install one of the plugins, for example, WPML, Polyglot, TranslatePress, MultilingualPress, etc. And this is where the problems begin.

First problem: decentralized content. Plugins like WPML can extract most of the content from core WordPress, such as pages, posts, menus, and media. But that's not all. Most WordPress websites have 20-30 plugins installed, and some of these plugins store additional content independently of the core. wpDataTables is an example of a plugin that creates beautiful chart visualization, while Amira is a plugin to schedule appointments. They store extra content externally and create shortcodes such as [wpdatachart id=22]. The page renderer then picks up these shortcodes and generates the visual, a chart, or a booking page. However, because this content sits outside the core WordPress, translation plugins don't pick it up. Therefore, the translator only receives the text when completing a task, but no new visual. To fix this, a translator needs to manually access the plugin and select the missing parts. In other words, whatever automation has been put in place, it invariably breaks here. Handling these exceptions that might only make for 20 percent of content takes 90 percent of the time in a localization project.

These issues can be solved by developing custom fixes, such as integration between WPML and wpDataChart, leading to the next problem of relying too heavily on crutches.

Second problem: fragmented integrations. WordPress plugins for multilingual websites support a limited set of translation tools. To be specific, WPML is integrated with MemSource and Wordbee, while Polyglot is integrated with Smartcat and Phrase; GlotPress supports Weglot. If you change a TMS, you have to change the plugin and vice versa.

Imagine you are using one translation company for French, and the company uses MemSource, so you integrate your plugins and custom code with WPML. Then, your company expands into Japan and you add a new provider for Japanese who uses Smartcat. Now you need another plugin to support all the new website components. And this integration story repeats itself with every new language.

As a workaround, cleverly built multilingual plugins support manual export via XLIFF, CSV, JSON, or HTML. Export from WPML can work in Phrase despite the lack of integration. On the downside, this is a step backward from today's elegant continuous localization process. In the case of a website with ten language versions, exporting a page every time the writer changes a few words and then importing the translation back ten times is just frustrating. In the case of a digital company such as Airbnb, which supports 60+ languages, this process is simply unsustainable.

Problem three: dependency on micro-companies. WordPress is omnipresent, flexible, and extremely resilient. There is little chance of this huge CMS being displaced from the market. Plugin developers, on the other hand, are typically micro-companies that come and go. If you are working for a large company such as Volkswagen or Deutsche Bahn, it's safe to build a website on WordPress, but it is not safe to add a plugin from a small company. There is no guarantee that a plugin developer will be around in two or three years' time to upgrade new types of content, new components, and the new processes of the day.

Outcome: WordPress is an immensely popular CMS but a difficult customer when it comes to building a multilingual website. Fishing out pieces of content and fixing exceptions, relying on third-party plugins developed by micro-companies, and the lack of built-in support for professional translation workflow tools create a mountain of challenges for any website manager. The story of WordPress is not unique. Many other CMSs rely on plugins, have decentralized content, and share the same whirlpool of multilingual woes as the biggest CMS of all times.

Mailchimp: the quest for a magic multilingual button

With about 14 million users, Mailchimp is the world's most popular tool for email campaigns. Like WordPress, the market leader is big on core features on the partner ecosystem but offers little support for multilingual.

I used to be a marketing manager in a software startup, running a biweekly email newsletter to 100,000 users around the world. The newsletter was published in English, but the big reader hubs were in Japan, Russia, the Nordics, and Germany. While we sent thousands of emails, it was always a struggle to maintain open rates above the industry's average 22 percent. After all, this was a technical newsletter detailing new features and the progress of the company from startup to scaleup, not a Stephen King epistolary novel.

At some point, we mounted a particularly important promotional campaign for Japan, and I decided to translate the email contents with the help of my Japanese team member. The resulting open rate exceeded 36 percent, a record for the company at that time. Smiling at our accomplishment, I vowed to localize every big campaign so that people could finally read all the stuff we were sending them. However, with the time pressures and deadlines on the publishing calendar and my teammate in Japan having little familiarity with our emailing tool and working in a different time zone, things didn't turn out the way I had hoped.

It was then that I realized how awesome it would be to have a magic button to automatically replicate a monolingual campaign into a multilingual one with translations automatically pushed through the translation tool. Millions of email marketers would stand to benefit as would readers from around the world who would finally be able to read our biweekly corporate marketing newsletter in their own language. Unfortunately, years later, this magic button still remains a fantasy.

For those unfortunates among us who need to generate a multilingual campaign in Mailchimp, a set of three options is available. But frankly speaking, each approach has its shortfalls.

Option A is to provide a link to a Google translation of the email. In this case, you have to trust the machine to render the message correctly and to generate emphatic verbiage that convinces the customers to trust your brand. Good luck avoiding unfortunate accidents!

Option B is to create a single huge HTML file in which texts in every target language follow one after another. Merge tags hide all languages but one, and the readers will only see the relevant part of the email. This approach is convenient for reporting because it provides a single campaign to track, but it is a patchwork quilt during preparation. First, it does not allow for automation, and everything has to be assembled manually with extremely rigorous testing. Second, to change even a couple of words in the text, the marketer will need to send this to a layout designer with HTML skills. This is bulky and cumbersome at best, and an absolute monster at worst.

Finally, **Option C** is to duplicate the campaign for each language and import translations via HTML. This is the closest to a professional approach and some translation tools like Language Exchange have been integrated to eliminate import and export operations. The downside is the reporting, where the marketer is obliged to track results across numerous campaigns per language instead of one consolidated report. Tough luck, marketing managers!

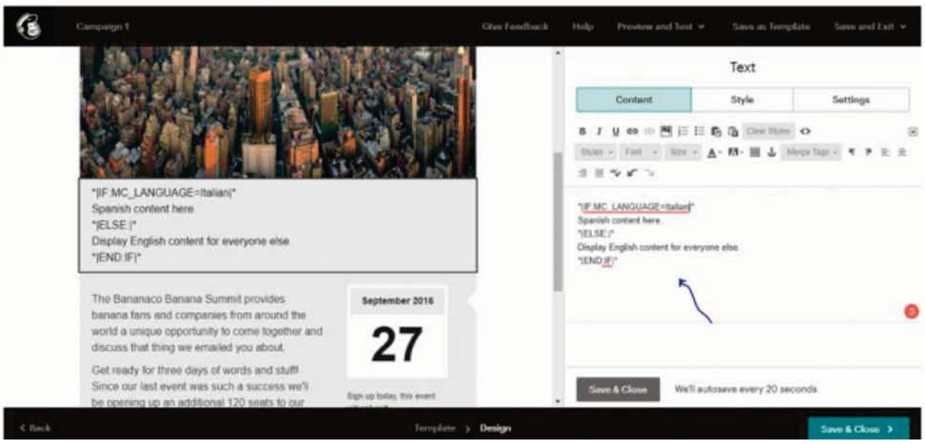

Figure 2: Mailchimp campaign with multiple languages crammed into one HTML file via merge tags

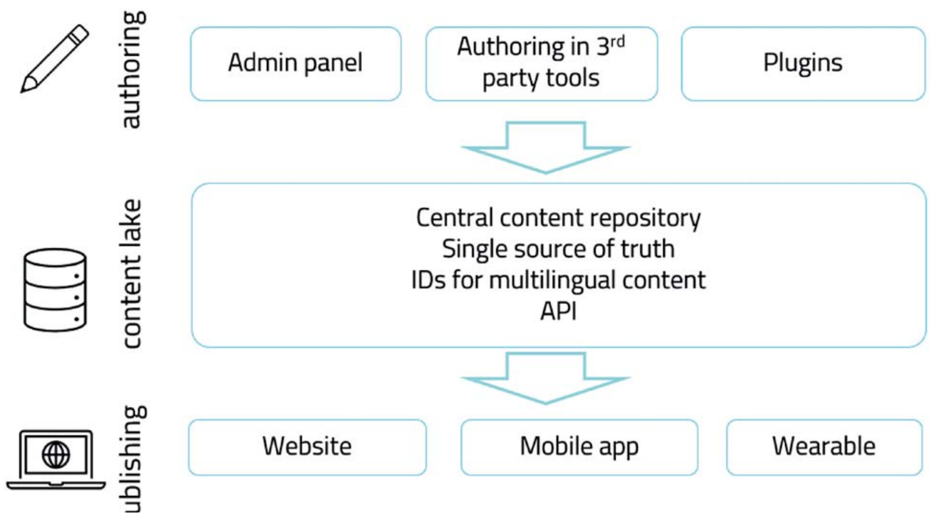

Figure 3: Headless content repo as an enabler of an automated localization workflow

To go from zero to hero and solve this problem, Mailchimp needs to do two things:

- Add the ability to nest campaigns in multiple languages under one title for reporting
- Promote more integrations for translation tools

Thousands of email marketers and millions of their readers around the world will give Mailchimp a collective "Phew, obrigado/arigato/thank you".

What constitutes perfect support for translation and localization?

Let's imagine that these two examples have convinced you – the product owner in a CMS company – to leave Ithaca and start teaching your software to speak in tongues. A perilous journey over uncertain waters lies ahead.

Given the speed at which technology moves today, it's hard to predict which specific controls and features will be needed one or two years from now, so it is important to get the basic architecture right and build for flexibility. With a strong frame, your boat can weather many storms.

The journey begins with content centralization. To enable an unbroken automated translation workflow, all content – be it text, images, media, or navigation items – should be accessible via a central repository. This content repository should ideally be decoupled from publishing following the modern "headless CMS" approach in which one system rules all. Website CMSs, mobile app CMSs, a product catalog, a car app, even a smart TV app – all of them connect to the central CMS, the single source of truth, to get the latest version of the content, while storing nothing themselves.

Next, everything should be accessible via an API. This means that the CMS's API, in addition to the usual pages, posts, and product descriptions, needs to support navigation text, menus, CDN items, URL text, tag names, category names, chart elements, accordions, anchors, SEO metadata, etc. No element that contains text should be left unsupported. Otherwise, the automation can't be completed.

Last but not least come the localization interoperability features to help translation management system developers create a rich app ecosystem. One of the features is built-in support for localization formats XLIFF and XLF. Another one is webhooks to detect changes in the content and allow translation systems to pull content as soon as it is changed into the localization workflow. The third feature is a set of visual library components to build a page preview in a third-party system so that translators can see the pages they are working on in layout as they go line by line. With previews, translators can understand the context better and can adapt translations to fit the text box size.

With centralized content accessible via the API and interoperability features in place, the frame is complete, and the next step is to add multilingual functionality beyond translation – functionality unique to your type of CMS. This encompasses magic buttons to make an email campaign multilingual for marketing automation platforms, language layers for videogame construction kits, interlinks between different language versions of product descriptions in PIM solutions, and stacks of text strings for blueprint design tools. At this point, you may venture into uncharted waters and pioneer new features not yet discovered or find new and more convenient ways to solve the many challenges of serving a global community of users with a multitude of cultures and tongues.

The future vision

When developing localization features, the pool of stakeholders includes all the experts who support CMS buyers: translators, project managers, and localization engineers in agencies as well as in-house language teams. These experts will be the ones to recommend your CMS to partners, clients, friends, and family.

In 2021, multilingual content in CMS should be a given. It should take zero clicks and should give the user the ability to plug in any translation technology. Few developers and CMS product owners outside the localization industry have a clear vision of this, and the task to advocate and push for this support falls on the shoulders of localization managers.

Good luck!

ABOUT THE AUTHOR

Konstantin Dranch is a market researcher, influencer, data geek, and entrepreneur specializing in language technology. He created the Language Technology Map used by industry professionals around the world, two industry conferences, as well as translation company rankings and regional market reports in the U.S., Germany, France, Russia, and other countries. The most recent project by Konstantin is Custom.MT, a specialist company that trains and implements machine translation systems and teams.

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Next door neighbors: Localization and technical communication

Localization often takes a back seat in the content creation process – the last step on the road to delivering solid, consistent, high-quality global content. Yet, content developers need to keep localization in mind right from the get-go.

Text by Marta Bartnicka

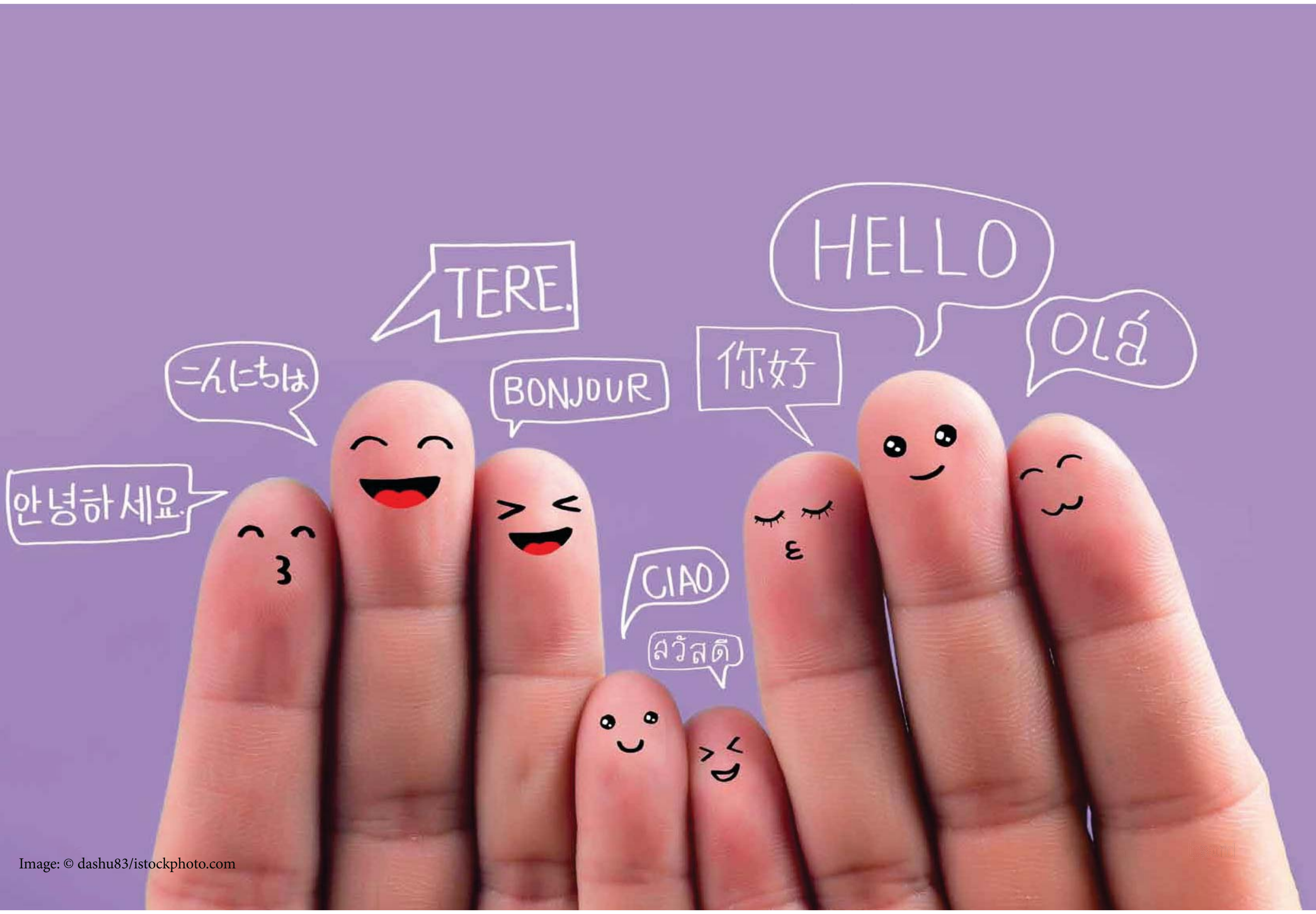

Image: © dashu83/istockphoto.com

For more than 20 years, I worked in a corporate translation/localization department. During this time, I strived to bring messages "upstream" to the providers of the content that we translated: UI developers and documentation writers. In fact, I communicated with the content providers regularly and, in many cases, successfully. The difficult part was that with almost every new development team or documentation team, the same messages had to be repeated.

In 2019, I moved "upstream" and joined the technical communications team at Dolby Laboratories as a publishing engineer and localization specialist. I gladly noted that some of the good practices of preparing content for localization were already in place at Dolby, and today, I am contributing to developing them further. The to-do list looks pretty familiar – not only from my previous experience, but also from what I have gathered through communicating with my translation colleagues who work as freelance translators, language service providers, or localization specialists at other companies (e.g., in software). This observation implies that the gap between content providers and localization providers is something that can be defined and filled, provided that localization is taken into consideration a little earlier in the content creation process and not just at the very end. Let me share with you some of the building blocks to build this bridge between technical communication and localization.

1. Documentation formats are translatable

This might sound trivial to some, but not to others: In 2021 you hardly ever need to send an output PDF document or fully rendered HTML to translation. Yes, it might be helpful for translators to get these as reference materials (to have the maximum context for translation), but for their actual work, they prefer the format you write in! DITA, MadCap, AuthorIT, and Markdown are all suitable formats for sending directly to translation and can be handled by computer-aided translation (CAT) tools. After all, CAT tools are the environments where the majority of technical translation is performed. They allow translators to reuse existing translations (either previous versions of content or text repetitions), apply predefined terminology, and maintain the format and tagging of content.

Why is it important to provide translators with the format you write in? Because when translators have to deal with output like PDFs or fully rendered HTML, they actually perform a kind of reverse engineering and generate an intermediate format which CAT tools can work with. This means not only extra effort and additional cost, but also a potential area for errors. Another error-prone process is turning translated content back into PDF or fully rendered HTML.

When translators receive your writing format instead, the CAT tool preserves it and you get translated text back in DITA, MadCap, AuthorIT, or Markdown, which you can then further process to obtain the actual output of the desired languages.

If your writing format is InDesign, Microsoft Word, raw HTML, or some XML variation, it will also be consumable for CAT tools "as it is". If your format is one of the "custom" or "seasoned" ones, I recommend consulting with your translators (or your LSP) if they can handle this format or what their preferred alternative interchange format would be. I bet that XLIFF will be the answer much more often than PDF.

As you can see in Figure 1, all content from the DITA file – including index terms, etc. – is available for translation in a CAT environment. What translators don't see in CAT is the placement of each topic in the context of the entire document, illustrations, etc. Therefore, a sample output (PDF, HTML, or other) greatly improves translation quality and reduces the need to answer questions from translators.

2. Proper content fragmentation: keyref, conref, snippet, etc.

Content reuse and automatic insertion of repeatable phrases are good for writers. However, they are not so good for translators. I would not go as far as to state that the interests of writers and translators conflict, but fragmentation of any translatable text should be handled with care. It is perfectly fine from a translation perspective – and cost-effective if we consider how CAT tools work – to reuse entire chapters or paragraphs of text. But things get difficult once the repetition drops below the full sentence level. A single translatable word inserted as a conref or snippet may make the entire sentence difficult or impossible to translate because the following things can happen in various languages:

- Depending on one word, the entire sentence may need to be changed (e.g., to another gender).
- The word may need to be modified to another form depending on the sentence you place it in.

Let's have a look at the example in Figure 2a (page 38). Both keyrefs containing terms and uicontrol tags that are responsible for highlighting user interface items have been properly identified by the CAT tool as markup and will thus be protected from changes in translation. This is good for uicontrols; however, at least some of the keyrefs represent text that needs to be translated. Depending on the language and position in the sentences, the same text may need a different translation. In this case, "g_hard_dd" stands for "hard disk drive", and if this topic is translated into Czech, Polish, Russian, or any other inflected language, the nominative form ("dysk twardy") is not applicable here; you need a genitive ("dysku twardego"). In many other sentences, you may need the same term in the nominative or another case.

One possible solution is normalizing the content before sending it to translation – that is, resolving all keyrefs (or their equivalents in the content format you're using) to plain text.

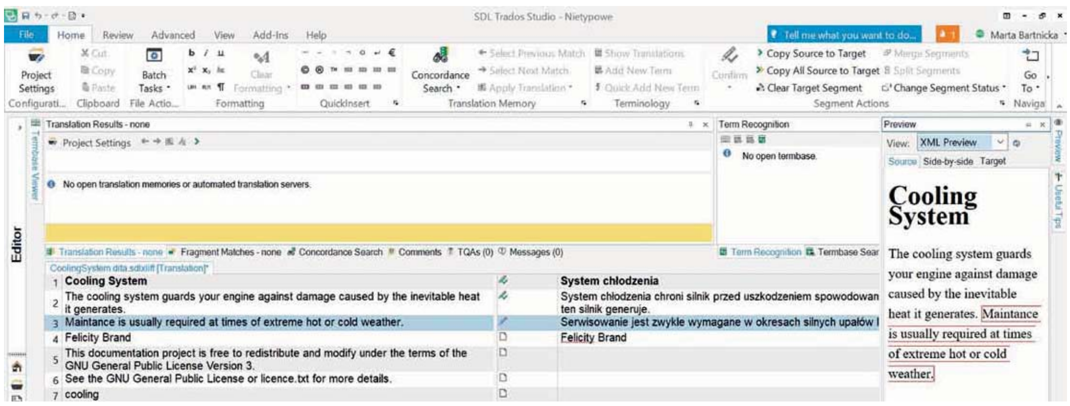

Figure 1: How translators see DITA content in SDL Trados Studio

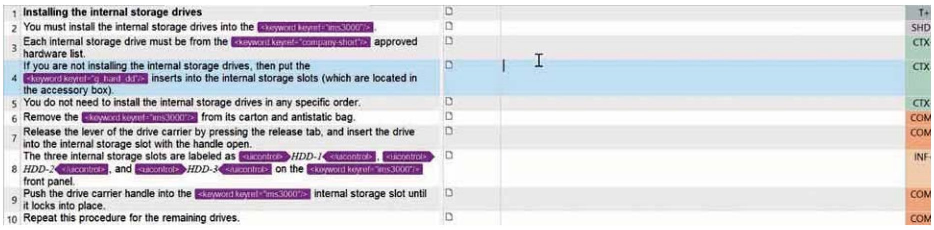

Figure 2a: Heavily tagged DITA content in SDL Trados Studio

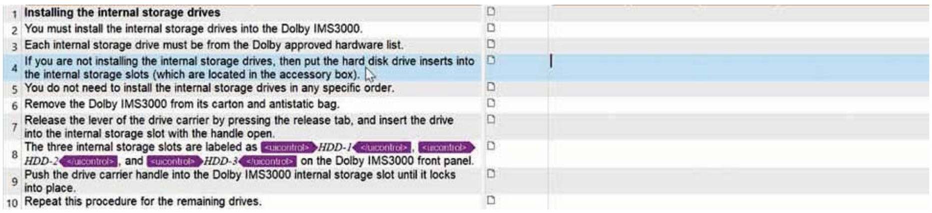

Figure 2b: Normalized DITA content in SDL Trados Studio

In the example in Figure 2b, the keyrefs were resolved to plain text because at least some of them will need translation. The uicontrols were left because they should not be changed in translation.

3. Translatable image text

Plenty of documentation contains graphics with text: diagrams, schemes, images, or screen captures. Most of this text needs to be translated when the content is translated. There are good practices for how to make graphics more time- and cost-effective in translation.

The basic advice is similar to the previous recommendation: avoid text fragmentation. It may be tempting for a visual designer to cut phrases into single words for a better alignment within the image (and some techniques go down to single characters). Don't do that if you want to avoid having to put the text back manually (or semi-manually) into meaningful phrases to get them properly translated.

My second important piece of advice is to place text on a separate layer from graphics, especially when annotating a picture. It's generally helpful for any future text maintenance or reuse, and the ease of replacing original text with translation is just one of the benefits.

And last but not least: if possible, select a graphics format that is friendly to CAT tools. Just as with writing formats, CAT tools can support many visual formats without manual copy-paste. If your graphics are not one of these formats, then discuss the interchange format with your translators.

As you can see in the example in Figures 3a and 3b, translators will only see the text in their CAT environment. It is only after translation that you obtain an image in the target language. Please keep in mind that providing the actual images (and/or output with images) as additional context is necessary for proper translation, even though translators do not do the graphics/DTP work.

A special type of graphics is screen captures. Before sending a document with screen captures (or any references to the user interface) to translation, you need to check a few facts:

- Is the user interface also localized?
- If yes, can you provide the localized screen captures for all languages to the translators, as reference material for the UI they are describing?
- If not, should the localized documentation mention UI strings in their original form (e.g., English), or should translators provide "orientation" translations along with original UI strings?

Delivering this information to translators up front saves a lot of effort (and frustration) once the translation has been completed.

4. Define which text you want translated

There may be large pieces of text that you don't want translated, for instance, a legal notice for U.S. Government users, or small, repetitive phrases such as trademarks. A good practice is to notify translators of all your "DNT" (Do Not Translate or Do Not Touch) when sending them content for translation. The best practice is to mark the DNTs directly in the content, in case the instruction is lost or translators do not read it thoroughly. An alternative is a good glossary, which I will describe in the next chapter.

Let me give you a few more examples of what can be on the DNT list (if in doubt consult your legal or marketing team):

- Product and brand names, if company policy is to use them globally with no alteration
- Programming code samples (Note: comments are still candidates for translation)
- True names, addresses, and geographical locations (Note: fake or sample names/addresses often should be localized)

One last piece of advice: Unless your entire content is legal, you should treat a legal text – copyright, warranty, licensing, etc. – as a special kind of translation. It is often handled by different translators (or even different translation agencies) than your regular content and uses different terminology and style. Inserting a legal fragment into your documentation may be perfectly useful from your users' perspective; however, mark it as "Legal – handle with care" when sending your content to translation.

5. Share glossaries with translators

Most technical documentation uses some kind of glossary: either published along with the content

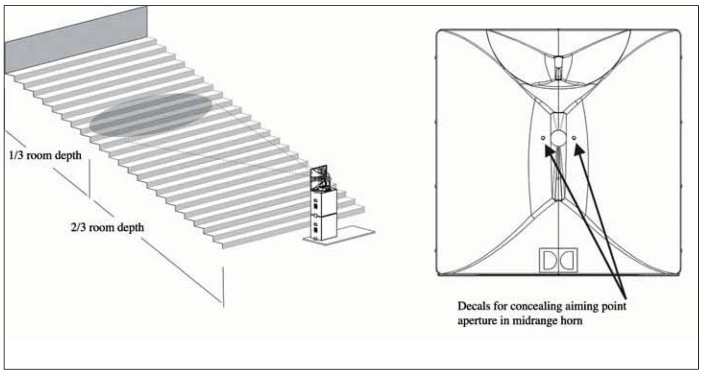

Figure 3a: SVG image with translatable text

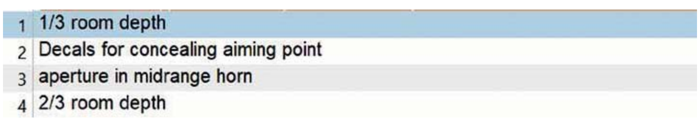

Figure 3b: Text from the SVG image in SDL Trados Studio

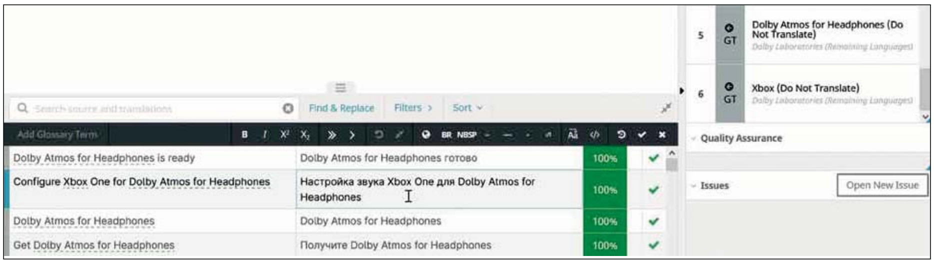

Figure 4: Glossary term marked as "Do Not Translate" in Smartling

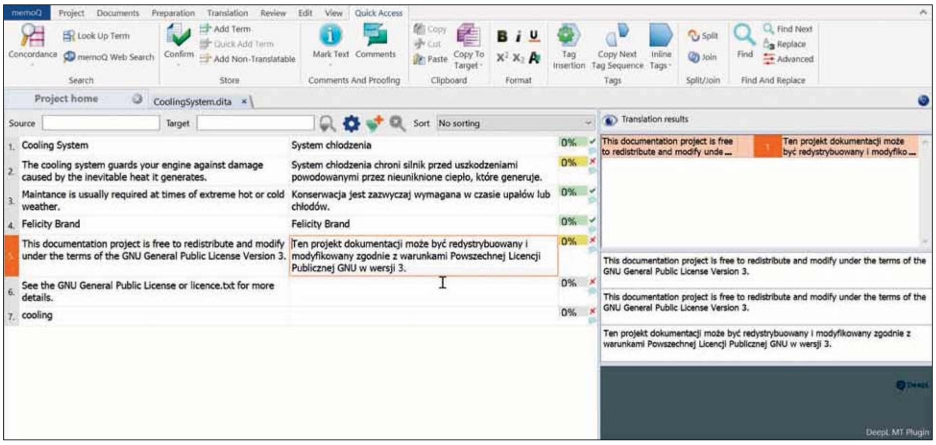

Figure 5: DeepL machine translation proposals in memoQ

(for users to look up technical terms), or internal (for technical writers to use terminology consistently). No matter what type of glossary – if you have it, share it with translators! This is the easiest way to get the terminology translated correctly and consistently, because by providing a glossary, you let translators know: "These are my terms. They are important. This is their meaning". When you provide a glossary up front, translators can create their localized glossaries and get an instant insight into your domain. After that, translators can import terms and their translations into their CAT tool and use them consistently when working on your content, without always checking "Have I seen this term before?" However, this will only work if you also adhere to your own glossary. Last but not least, a glossary is the easiest way to pass the information about "Do-Not-Translate" phrases!

The example in Figure 4 from another CAT tool – Smartling – shows that the DNT term "Dolby Atmos for Headphones" is tagged in the glossary with the information that it must not be translated.

6. Machine translation

Many technical writers don't even want to think about the fact that their content might be machine-translated. Many translators don't even want to touch MT post-editing, as the translation industry calls the human correction of machine output. Let's face the facts though: Machine translation may be available as an additional aid to professional translators working on your content, and your content will be passed through raw MT with no human touch.

The most important decision here is evaluating the risk for and impact on end users. Today, mission-critical documentation like aircraft maintenance manuals or medical equipment instructions should not be delivered as raw MT. However, some low-risk, high-volume documentation is already published as raw MT and many customers perceive it as more useful than not having any translation at all. Cases in point are bulk software documentation (Microsoft help pages) or online stores (AliExpress).

The second important decision is choosing the right machine translation provider. Google Translate has the broadest coverage of supported language pairs but is not necessarily the best MT for all of them. When dealing with English to German or English to Polish, DeepL Translate is usually a better choice. For English to Russian, Yandex Translate will do the best job. For any content referring to the public sector in Europe, an option to explore is eTranslate. A good source for this information may be the most recent Intento report plus a little MT market research.

So, if we accept that our content may be machine-translated, how do we write for machines? Apply the same rules as you do for human translation (file format, limited fragmentation, image handling, DNT, and glossary), but also aim at text simplicity and unambiguity – because, unlike professional translators, a machine will never ask questions!

Summary

There is nothing wrong with perceiving localization as the very last step of content creation, provided that localization is kept in mind during previous steps. The building blocks I proposed will help you reduce translation cost, effort, and delay caused by last-minute issues. The suggested approach lets you play in the same team as your localization provider, and ensures that no translator will stick pins into a doll that impersonates you.

ABOUT THE AUTHOR

Marta Bartnicka gathered experience in translation, localization and the use of machine translation at the IBM Translation Centre for more than 20 years. Since 2018 she has been running workshops on software/documentation localization and practical use of MT. In 2019 Marta joined Dolby Laboratories, leveraging expertise in localization and exploring publishing engineering.

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Centralize – what else?

To ensure that company guidelines and processes are understood and adopted across its global workforce, Nestlé needed to make its internal e-learning courses available across languages and cultures. Here is how the company optimized time-to-market and cost for its global content.

Text by Alex Zekakis and Germán Basterra

Image: © sindlera/istockphoto.com

Working life as we know it has changed significantly over the past year. With constant technological development and digitalization, we expect to get access to more information faster than ever before. The digital work landscape will look dramatically different in just a few years, and the required skills have to evolve with those changes. We need constant learning to adapt to these new conditions.

This is why global e-learning courses are particularly important to Nestlé. They drive company-wide understanding and assist in the adoption of guidelines, policies, and processes, ensuring consistent approaches across all countries. But learning content has a clear purpose and expiration date. Thus, courses need to be rolled out within a short period of time to the whole user population within Nestlé, which may be up to a few hundred thousand people.

The scope of this centralization effort that we will untangle and discuss in detail here refers to these courses, which span from online videos to interactive media to simple course pages. Over 1.5 million courses were completed in 2020 in the Nestlé LMS (Learning Management System) by its employees.

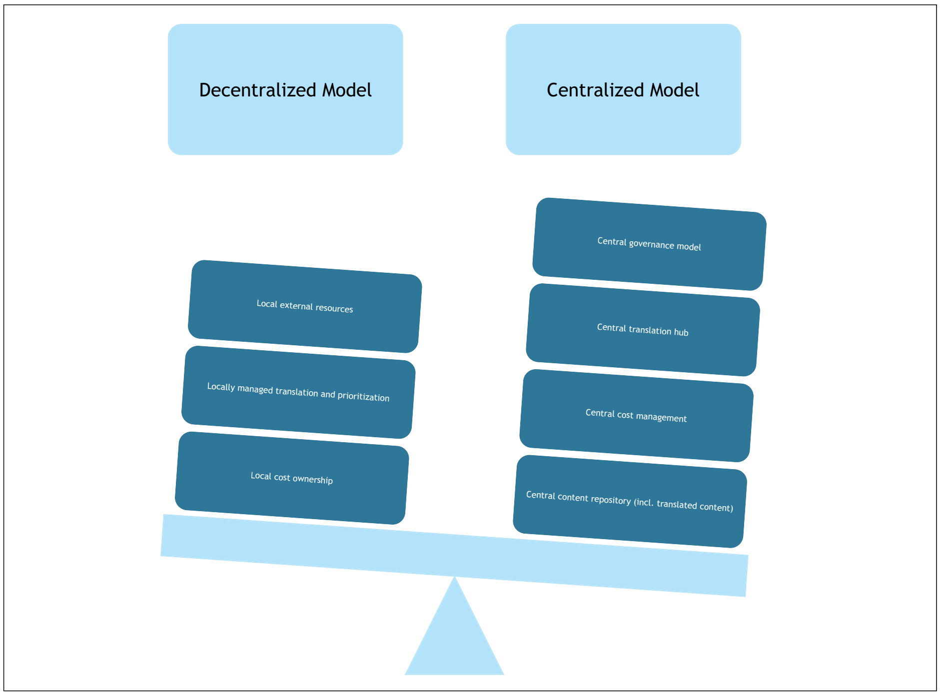

Figure 1: Benefits of a centralized content model

Translation on a large scale

First, let's look at the scope of the challenge within the company. Nestlé is a well-known food and nutrition company with over 150 years of history. The company boasts iconic brands such as Nescafé, Maggi, and Purina, among many others. Over the last few years, Nestlé has also been expanding in the health and nutrition areas through organic growth research (plant-based foods, etc.) and acquisitions. Simply put, for a company with production, distribution, and sales facilities in practically every single country where its products are sold, the requirement for localized content and translation, in general, is enormous.

Customer-facing content, such as marketing or websites, is often translated by agencies. Internal content for employees such as HR communications, intranet pages, standard operational procedures, and documentation in general are translated internally.

The company's e-learning courses are developed in English and it is up to the individual countries (markets or local organizations) to translate them into the local language, often using local translation agencies. While local resources offer a certain ease of access and direct service, the complexity of this type of content stream makes this approach unscalable. Content expiration is a key issue here: Quite often, by the time the translation is completed, the courses have lost their efficacy or relevance. Also, while using local resources may seem to be the most cost-effective solution, the decentralized approach does not allow for the individual countries to leverage central budget streams or even share costs with central departments. In many cases, content may not be translated at all or only be addressed "when possible", which might be six months after the content was created.

The question Nestlé teams faced was, as the e-learning courses developed have a global reach, wouldn't it make sense to centralize the entire process, including the translation and subject matter expert review?

While the obvious answer is "yes", this, in turn, begs the question of "how". To address this question, a solution was designed that provides a centralized content lifecycle workflow and combines machine translation (MT) with post-editing by internal employees who are subject matter experts (SMEs) on the topic at hand. This offers a double advantage: First, translation is practically free for the individual countries (they only need to invest some time to correct the MT output) and second, it is almost guaranteed that the final content reflects the market language, which is often a point of dissatisfaction Nestlé faced when involving external agencies.

In this approach, XTM Cloud functions as the central localization hub. The solution is enhanced by a central content repository including the English source as well as the translated output, a governance model for prioritizing courses, organizing reviews, etc., and a reporting system that provides transparency at any time about the scope and status of each piece of content.

Let's dive into the details of how this solution was developed and what results Nestlé achieved.

A decentralized vs. a centralized model

By simply looking at the business context and scanning the details about volumes, the complexity of content, and interdependencies between individual countries, it becomes obvious right away that a simple shift – or rather injection – of an all-new technology stack will not solve the issue. Technology – in this case, XTM Cloud – facilitates the process; however, several other considerations need to be taken into account to reach the ultimate goal. To turn a decentralized model into a centralized one, we first need to define the desired outcome. Figure 1 above shows some benefits of a centralized model.

Defining the requirements

After mapping the current state and defining the desired outcome, the next step in the process is to describe in rigorous detail all the particular requirements the new, centralized model must meet, along with defining the issues it is meant to resolve. The details will be used for a variety of purposes, including the required functionality of the technology stack, but also as a means to receive support from internal stakeholders and budget holders. While this process can be the most complex and time-consuming of all, it is, without doubt, the step in the whole chain of events that has the strongest impact downstream and will ultimately be the deciding factor of the success or failure of the new model. Nestlé defined the following high-level requirements.

For each of the items in Table 1, there exists a series of sub-requirements and associated definitions, which would exceed the scope of this article. For each of the identified components that form the final solution, key requirements are identified, along with the respective correlations and dependencies. Ultimately, for the solution to work, all requirements must be met or alternative solutions identified that align with the same goal without compromising the success of the model.

Translation management system proof of concept – buy-in

After having defined the requirements and listed the specifications it is time to put everything to the test. A proof of concept (POC) is the step during which we are looking at performing a roundup of common project cases and identifying any missing elements or discrepancies in the expected results. This is an iterative process that is performed within a specified timeframe and with clearly defined resources and expectations. When the POC is completed and the results are validated, the buy-in from the internal stakeholders can be obtained.

Central governance model *must*	**Central translation hub *must***	**Central cost management *must***	**Central content repository *must***
Clearly outline the prioritization model of courses (market impact, ROI, intangibles)	Be cloud-based and integrate TM, terminology, and CAT tool functionality in a single system	Define budget pre-allocation and respective split into buckets	Display all current courses with individual states per language
Gather, manage and maintain available resources for each language (SMEs)	Offer extended PM capabilities (workflow definitions, template configurations, user and user group management)	Continuously keep track of running budget against each defined bucket	Offer interactive capabilities to users accessing the system (download/upload/modification of items)
	Offer a self-service model for Nestlé employees	Enforce a cost approval mechanism with thresholds for >€5,000 value projects	Automatically render individual states based on information received from Central Translation Hub
	Be able to integrate with selected MT providers		
	Allow for employees to submit new projects in simple steps with simplified login via SSO		

Table 1: Requirements for a centralized content management model

Change management – onboarding

It is one thing to define all the requirements, validate the results via a POC, and secure the budget. It is yet another, entirely different thing to get users to actually use the newly created systems in an optimum way. Change management is key for success, particularly when deploying a new model of this scope. In the case of Nestlé, this included several process elements: asset migration, system configurations, training and, to some extent, customization. Figure 2 shows the high-level details associated with each of the outlined elements relating to change management for the implementation of the centralized translation hub (XTM Cloud). Accordingly, similar steps were taken across all newly introduced technologies and functionalities.

Results

While the centralized model has been in place for a relatively short time (less than a year), the current results already speak volumes. Time-to-market has been effectively reduced from months to weeks. The fact that work is controlled centrally, the budget is pre-allocated, resources are identified, and priorities are governed centrally has smoothed out the entire flow. The results are manifold, with the prime outcome the effectiveness and relevance of translated training materials. Content managed through the central translation hub is now controlled, budgets and approvals for them are clear and tracked and, most importantly, content is reused by the application of translation memories. The centrally managed budget has effectively led to sinking costs associated with translation efforts: direct benefits due to TM application and reuse as

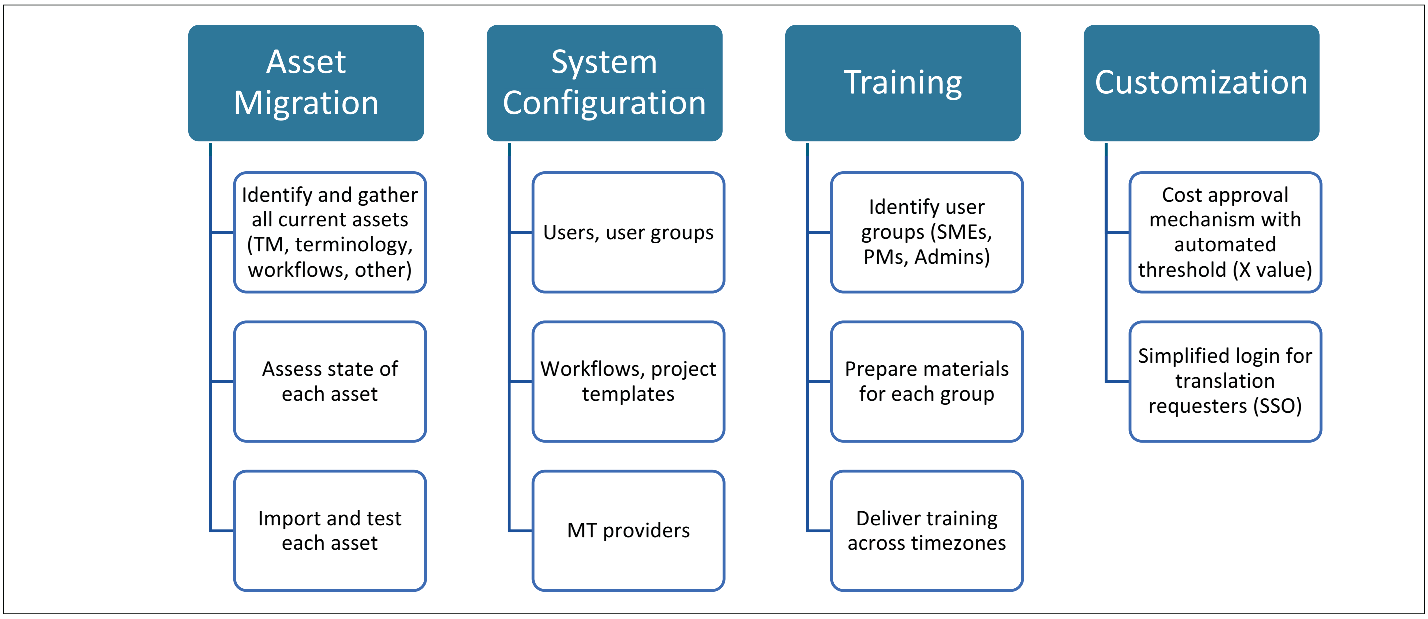

Figure 2: Steps to implement XTM Cloud

well as reduced hours spent managing translation across countries.

To put matters into perspective, there are now approximately 1,000 users actively working within XTM Cloud, the vast majority of whom are SMEs reviewing machine-translated texts. In Q4 2020, for example, a total of 400 projects were created in XTM Cloud, summing up to 2.5 million words processed in some 30+ target languages. Machine translation was heavily used and managed to pre-translate some 1.9 million words (78 percent) while the translation memory leveraged approximately ten percent of the content to be translated. A very low number of words was new to the system, requiring human translation effort. In the decentralized model, this entire content would have gone through human translation via external resources and neither MT nor TM would have been leveraged.

Thoughts and next steps

We are only at the beginning of a centralized model for Nestlé and will continue to further enhance the applicability of this model and its overall footprint within the organization. The data from the first results is overwhelming: The new centralized model is widely adopted across the user base, and Nestle achieved extensive financial and time gains while maintaining and improving quality output. While the Iron Triangle would typically force us to sacrifice either cost, time, or quality to enhance the others, the specific implementation allowed for improvements across all of them. However, this is only the beginning. Currently, new projects are underway that aim to extend the integration of XTM Cloud to further Nestlé systems, thus leveraging the centralized translation hub to accommodate more content streams. As the centralized model is working so well and has proven to solve long-standing problems, future enhancements have already been given the green light. To use the old cliché: The sky is the limit.

This project was a big effort and if we were to summarize some key tips, these would be:

1. Assess the current and desired state clearly and in detail
2. Define the requirements of the desired state in detail
3. Validate the requirements and results of the solution via a proof of concept
4. Implement with clear goals and timelines; reassess continually

As stated above, constant learning is needed to adapt to the new conditions brought about by digital transformation. One way for enterprises to achieve this is to build a robust technology and process stack that enable global e-learning systems to scale. As this past year has shown us, needs will change and what we believed to be solid norms can and will be adapted.

ABOUT THE AUTHORS

Alex Zekakis has been in the localization industry for over 10 years. Alex currently holds the role of Global Solutions Architect Manager at XTM International, where he leads the solutions team that is responsible for supporting pre-sales activities, as well as implementation.

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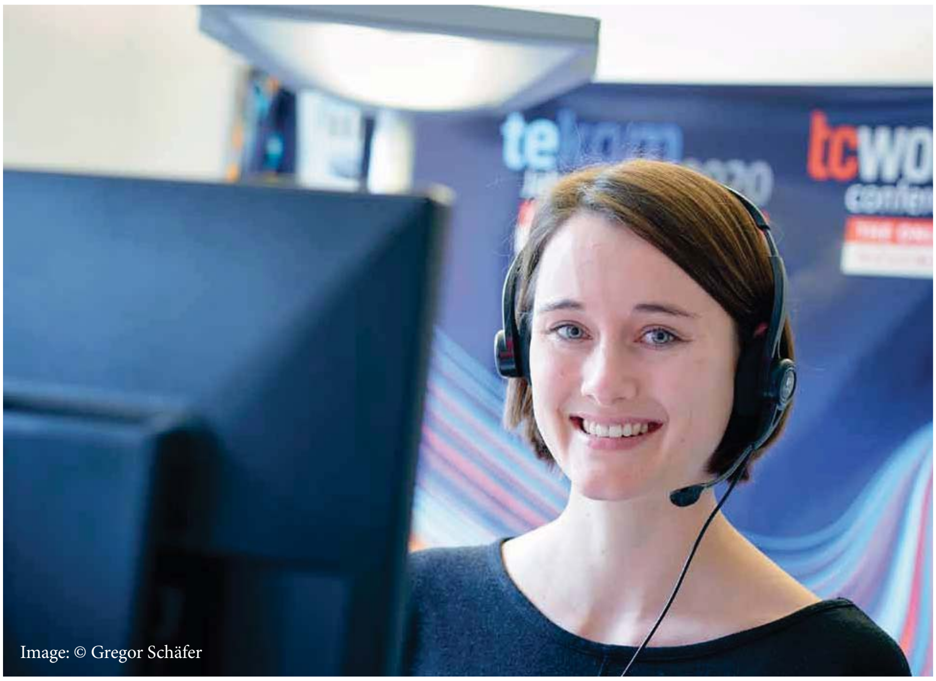
A virtual conference experience

Participant feedback about the tekom 2020

The year 2020 was characterized in almost all areas by the Coronavirus pandemic. Like many companies, tekom was affected by the prevailing situation. Thus the tekom Frühjahrstagung (spring conference) 2020 had to be canceled because of the virus. tekom quickly adapted to the changed circumstances and devised a way to provide an alternative platform for topical presentations. The result was the completely virtual and free of charge tekom SummerCON, a four-day event that took place in June 2020: a novelty, for tekom as well as for many conference visitors. As there were no signs of an easing pandemic situation in the second half of 2020, tekom decided to make the tcworld conference – which has been held annually for over 25 years – purely virtual for the first time. The objective was to virtually reproduce the offerings of the on-site annual conference to enable further education, to share information about current trends and service offerings, to network and exchange ideas and thoughts. As a result, the virtual tcworld conference offered presentations, meetups, a tekom cafe, chats, and a virtual trade show on various online platforms. Although a challenging novelty for tekom, the event that attracted more than 2700 participants and visitors proved to be very successful. But how did visitors experience the new virtual tcworld conference? What were the advantages? What were the challenges? What was good and where is there room for improvement? Everyone involved was eager to find out and study the conference survey. Feedback came from 423 conference participants, about one third of whom were international.



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As expected, most participants (at least 77%) experienced the conference as different from an on-site event. But for many, the virtual conference did have a number of advantages: For 90% of the respondents, it was useful that the recordings of the lectures were available afterward. The fact that there were no travel expenses was also cited as an advantage by 74%, and another 71% cited the overall lower costs. For 67%, integration into the daily work routine was advantageous and 66% see the lower time expenditure as a benefit. This may be part of the reason why it was easier for about one third of respondents to attend a virtual meeting paid for by their employer. Around 90% had no problems obtaining time off from work to attend the virtual conference. A total of 96% of respondents reported that it was easy to have their costs covered by their employers. Participation in the virtual conference was easily compatible with the work schedule for 76%. The fact that virtual participation is effortless is also shown by the fact that 76% were online on all five days of the event and another 12% attended on 4 days; 37% of the participants spent an average of three to four hours on the virtual conference, 25% five to six hours and 22% more than six hours.

The offerings were well received. As expected, 98% attended the presentations, 42% also attended the keynote, 60% participated in the chats related to these, about one third met in the meetups, and nearly half of all confer-

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ence participants also visited the digital fair. In addition to the organizational and financial benefits of a virtual conference, a clear focus of the participants was on the transfer of knowledge and the exchange of information: 70% deemed the presentations very important and a further 25% rated them as important. 72% of the survey participants assessed the presentations as very stimulating or stimulating, and 22% as somewhat stimulating. For 93% knowledge acquisition was not a challenge. In contrast, only 26% of the survey participants found networking good or very good, and another 25% found it rather good. Around 30% rated it as rather poor and 18% as poor. This is consistent with the statement that around 50% saw the exchange and direct communication as a challenge. Establishing contact was also an unfamiliar challenge for 39%. However, it can be assumed that the technical possibilities will develop further and enable realistic meetings and that people will find digital contact and exchange easier through regular use – even if these will never completely replace a personal exchange.
These statements of participants sum up the virtual meeting experience nicely:

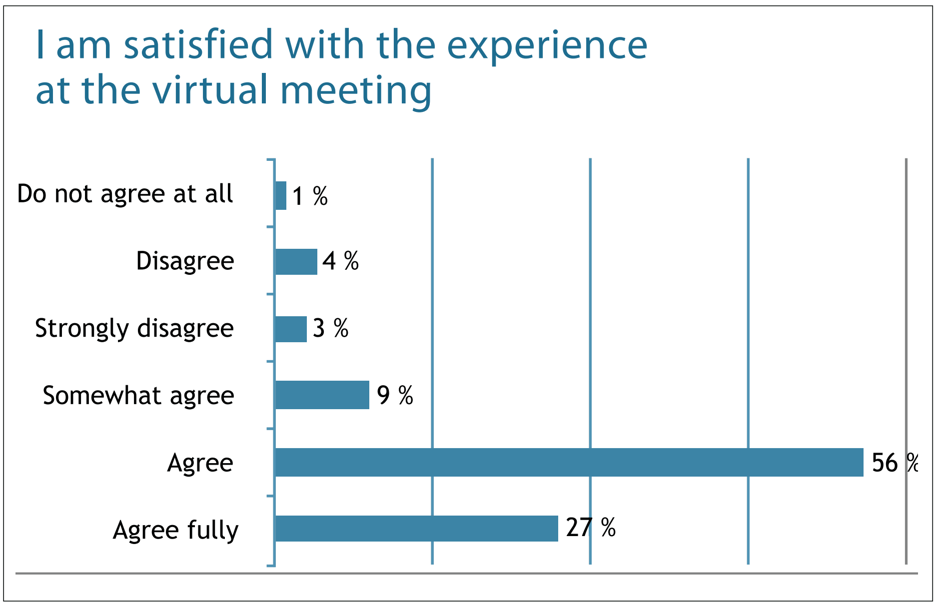
“A virtual meeting may not replace the face-to-face contact and flair at a conference, but it does provide a knowledge-building opportunity for those to whom it would have been difficult to get a business trip approved or to fit an all-day event into their workday.”

“The experience between virtual and face-to-face events is different and both have advantages and disadvantages. To me, the value of the exchange at face-to-face events doesn't compare to that of virtual events. But otherwise, I prefer the virtual format. I thought it was great how tekom organized everything. Hats off!”

“I found the virtual meeting very good. Everything has been easy to use. Since I have a longer journey and the traffic in and around Stuttgart is very congested, I found the virtual participation much more relaxed and also easier to plan. I did miss the personal contact, but when the next hybrid conference takes place, I will probably participate virtually.”

Overall, it is a pleasant result for tekom that 30% rated the conference as very good, 48% as good and another 16% as rather good. Altogether 83% were satisfied with their experience at the virtual tcworld conference 2020.

Encouragingly, 85% of survey participants would attend a virtual meeting again, with another 10% likely to do so. It is still too early to predict how 2021 will unfold. In any case, the spring conference will take place as a virtual event. Regarding the tcworld conference in November 2021, a hybrid format is planned, effectively combining the advantages from both event forms.



events
tcworld 2021

International Conference on Interdisciplinary Studies in Education Research & Technology
February 24-27, 2021
Dubai, UAE
http://laeconference.com

tcworld India
March 25-26, 2021
Online
https://tcworld-india.com

GALA Connected 2021
March 23-25, 2021
Online
www.gala-global.org

Global Ready Conference
April 14, 2021
Online
www.smartling.com/conference

tekom Spring Conference
May 5-7, 2021
Online
https://fruehjahrstagung.tekom.de

International Conference on Artificial Intelligence & Robotics
May 24-25, 2021
Dubai, UAE
www.meetingsint.com/conferences/artificialintelligence

Evolution of TC
June 9-11, 2021
Online
https://evolution-of-tc.com

Machine Translation Summit XVIII 2021
August 16-20, 2021
Orlando, FL, USA
www.gala-global.org

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tcworld China
September 16-17, 2021
Hybrid event
(location to be announced soon)
www.tcworld-china.cn/en

Languages & the Media 2021
September 20-22, 2021
Berlin, Germany
www.languages-media.com

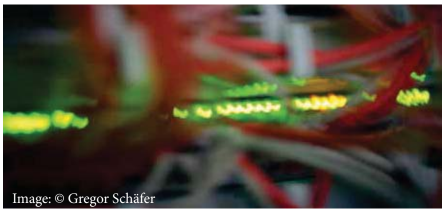
NORDIC TechKomm
September 22-23, 2021
Copenhagen, Denmark
https://nordic-techkomm.com

Content Marketing World 2021
September 28-October 1, 2021
Cleveland, OH, USA
www.contentmarketingworld.com

MadWorld 2021
Oct 3-6, 2021
Austin, TX, USA
www.madcapsoftware.com/madworld-conferences/madworld-2021

TAUS Massively Multilingual Conference & Expo 2021
November 1-3, 2021
San Jose, CA, USA
www.taus.net/events/conferences

tcworld conference
November 9-11, 2021
Stuttgart, Germany and online
www.technical-communication.org/tekom/conferences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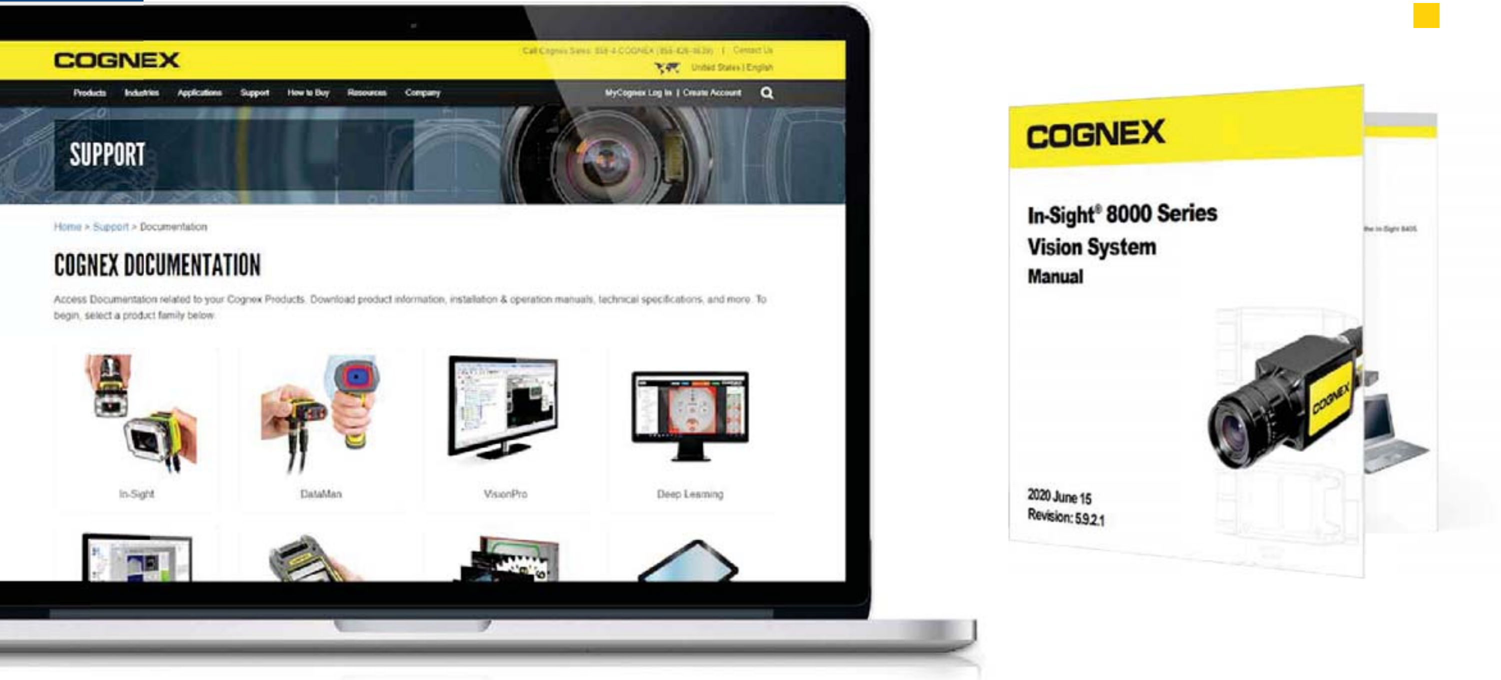

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