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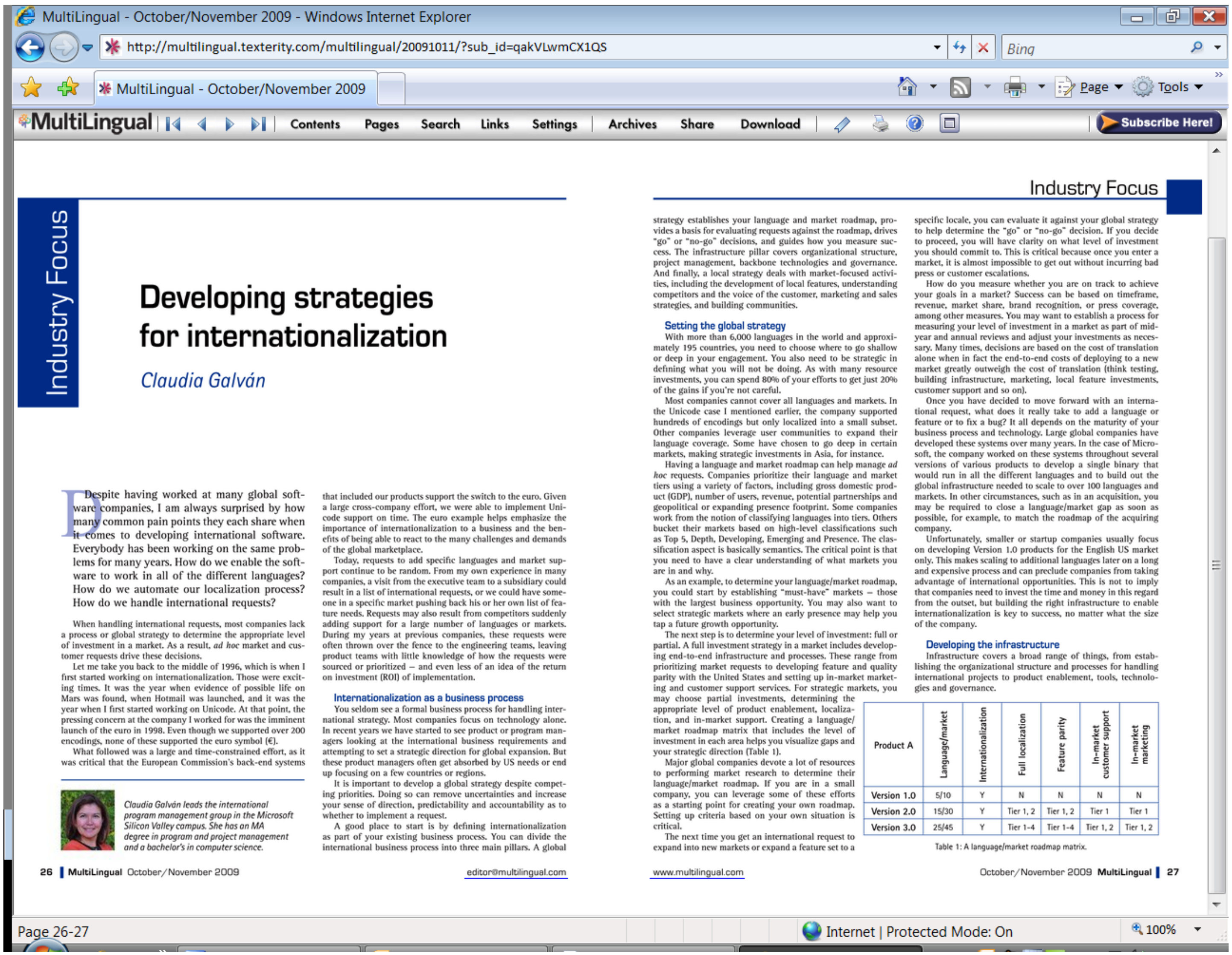

Industry Focus

Developing strategies for internationalization

Claudia Galván

Despite having worked at many global software companies, I am always surprised by how many common pain points they each share when it comes to developing international software. Everybody has been working on the same problems for many years. How do we enable the software to work in all of the different languages? How do we automate our localization process? How do we handle international requests?

When handling international requests, most companies lack a process or global strategy to determine the appropriate level of investment in a market. As a result, *ad hoc* market and customer requests drive these decisions.

Let me take you back to the middle of 1996, which is when I first started working on internationalization. Those were exciting times. It was the year when evidence of possible life on Mars was found, when Hotmail was launched, and it was the year when I first started working on Unicode. At that point, the pressing concern at the company I worked for was the imminent launch of the euro in 1998. Even though we supported over 200 encodings, none of these supported the euro symbol (€).

What followed was a large and time-constrained effort, as it was critical that the European Commission's back-end systems that included our products support the switch to the euro. Given a large cross-company effort, we were able to implement Unicode support on time. The euro example helps emphasize the importance of internationalization to a business and the benefits of being able to react to the many challenges and demands of the global marketplace.

Today, requests to add specific languages and market support continue to be random. From my own experience in many companies, a visit from the executive team to a subsidiary could result in a list of international requests, or we could have someone in a specific market pushing back his or her own list of feature needs. Requests may also result from competitors suddenly adding support for a large number of languages or markets. During my years at previous companies, these requests were often thrown over the fence to the engineering teams, leaving product teams with little knowledge of how the requests were sourced or prioritized – and even less of an idea of the return on investment (ROI) of implementation.

Internationalization as a business process

You seldom see a formal business process for handling international strategy. Most companies focus on technology alone. In recent years we have started to see product or program managers looking at the international business requirements and attempting to set a strategic direction for global expansion. But these product managers often get absorbed by US needs or end up focusing on a few countries or regions.

It is important to develop a global strategy despite competing priorities. Doing so can remove uncertainties and increase your sense of direction, predictability and accountability as to whether to implement a request.

A good place to start is by defining internationalization as part of your existing business process. You can divide the international business process into three main pillars. A global strategy establishes your language and market roadmap, provides a basis for evaluating requests against the roadmap, drives "go" or "no-go" decisions, and guides how you measure success. The infrastructure pillar covers organizational structure, project management, backbone technologies and governance. And finally, a local strategy deals with market-focused activities, including the development of local features, understanding competitors and the voice of the customer, marketing and sales strategies, and building communities.

Setting the global strategy

With more than 6,000 languages in the world and approximately 195 countries, you need to choose where to go shallow or deep in your engagement. You also need to be strategic in defining what you will not be doing. As with many resource investments, you can spend 80% of your efforts to get just 20% of the gains if you're not careful.

Most companies cannot cover all languages and markets. In the Unicode case I mentioned earlier, the company supported hundreds of encodings but only localized into a small subset. Other companies leverage user communities to expand their language coverage. Some have chosen to go deep in certain markets, making strategic investments in Asia, for instance.

Having a language and market roadmap can help manage *ad hoc* requests. Companies prioritize their language and market tiers using a variety of factors, including gross domestic product (GDP), number of users, revenue, potential partnerships and geopolitical or expanding presence footprint. Some companies work from the notion of classifying languages into tiers. Others bucket their markets based on high-level classifications such as Top 5, Depth, Developing, Emerging and Presence. The classification aspect is basically semantics. The critical point is that you need to have a clear understanding of what markets you are in and why.

As an example, to determine your language/market roadmap, you could start by establishing "must-have" markets – those with the largest business opportunity. You may also want to select strategic markets where an early presence may help you tap a future growth opportunity.

The next step is to determine your level of investment: full or partial. A full investment strategy in a market includes developing end-to-end infrastructure and processes. These range from prioritizing market requests to developing feature and quality parity with the United States and setting up in-market marketing and customer support services. For strategic markets, you may choose partial investments, determining the appropriate level of product enablement, localization, and in-market support. Creating a language/market roadmap matrix that includes the level of investment in each area helps you visualize gaps and your strategic direction (Table 1).

Major global companies devote a lot of resources to performing market research to determine their language/market roadmap. If you are in a small company, you can leverage some of these efforts as a starting point for creating your own roadmap. Setting up criteria based on your own situation is critical.

The next time you get an international request to expand into new markets or expand a feature set to a specific locale, you can evaluate it against your global strategy to help determine the "go" or "no-go" decision. If you decide to proceed, you will have clarity on what level of investment you should commit to. This is critical because once you enter a market, it is almost impossible to get out without incurring bad press or customer escalations.

How do you measure whether you are on track to achieve your goals in a market? Success can be based on timeframe, revenue, market share, brand recognition, or press coverage, among other measures. You may want to establish a process for measuring your level of investment in a market as part of mid-year and annual reviews and adjust your investments as necessary. Many times, decisions are based on the cost of translation alone when in fact the end-to-end costs of deploying to a new market greatly outweigh the cost of translation (think testing, building infrastructure, marketing, local feature investments, customer support and so on).

Once you have decided to move forward with an international request, what does it really take to add a language or feature or to fix a bug? It all depends on the maturity of your business process and technology. Large global companies have developed these systems over many years. In the case of Microsoft, the company worked on these systems throughout several versions of various products to develop a single binary that would run in all the different languages and to build out the global infrastructure needed to scale to over 100 languages and markets. In other circumstances, such as in an acquisition, you may be required to close a language/market gap as soon as possible, for example, to match the roadmap of the acquiring company.

Unfortunately, smaller or startup companies usually focus on developing Version 1.0 products for the English US market only. This makes scaling to additional languages later on a long and expensive process and can preclude companies from taking advantage of international opportunities. This is not to imply that companies need to invest the time and money in this regard from the outset, but building the right infrastructure to enable internationalization is key to success, no matter what the size of the company.

Developing the infrastructure

Infrastructure covers a broad range of things, from establishing the organizational structure and processes for handling international projects to product enablement, tools, technologies and governance.

Product A	Language/market	Internationalization	Full localization	Feature parity	In-market customer support	In-market marketing
Version 1.0	5/10	Y	N	N	N	N
Version 2.0	15/30	Y	Tier 1, 2	Tier 1, 2	Tier 1	Tier 1
Version 3.0	25/45	Y	Tier 1-4	Tier 1-4	Tier 1, 2	Tier 1, 2

Table 1: A language/market roadmap matrix.

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