

**Designing for the  
Rest of the World:  
A Consultants  
Observation**



It ought to be obvious that it is important to evaluate the usability of user interfaces in all of the cultures in which they will be used. After all, as Human Factors professionals, we preach that it is important to understand the user; yet, only recently have we begun to see active international usability testing of designs. Perhaps this should not be too surprising. It can be hard enough for developers to focus on understanding users close to home, let alone people on the other side of the globe. Too, they may be unaware of the vast differences that exist among different cultures, or how these differences can affect technology usage.

In the past several years, however, there have been more reports of companies doing international usability testing. It makes good business sense, after all. For many U.S. companies, the

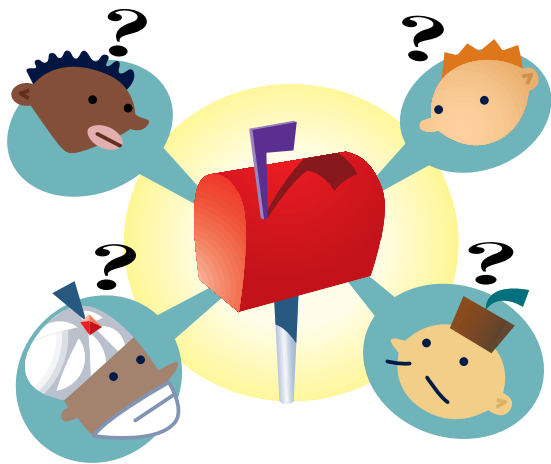
main avenue for growth is their overseas sales. It is important, therefore, to make sure that products will work equally well in Bonn, Boston, Bogota, Beirut, Beijing, and Brisbane—a tall order indeed, and one which calls for our discipline to take the lead in creating ways to gather performance and preference data quickly, effectively, and accurately. Ideally, a project would be iteratively designed with input from each target culture at each step in the process. This is not possible in the “real” world, however, where cost and schedule dictate a much tighter process. If you are able to do some of this, count yourself very lucky.

An alternative strategy is to come up with a global base design, plan for localization, and then do as much usability evaluation as you can as the interface matures. This approach can also

be quite successful. In addition, there are a number of ways to increase the probability of success. In this article, I share some of the things that I have done to make the seemingly daunting task of global design and international usability evaluation as effective and efficient as possible. Not easy, mind you, but easier.

### Know Your Users

A global design starts with an in-depth awareness of the other cultures, or target locales, as Tony Fernandes calls them [1]. Just as with any interface, you need to begin by clearly identifying and understanding your users. With an international interface, this is somewhat more challenging. Learn as much as you can about



each of the places in the world where this product will be used. There are many excellent books that can help you. For instance, if you are working on a business application, consider the *Putting Your Best Foot Forward* series. Because they were originally written for people travel-

ing on business, they focus on business cultures around the world. Other sources include travel books (esp. the *Lonely Planet* series and the *Insight Guides*) or a number of excellent guides appearing on-line (for instance: for access to a wide variety of information about many locales, try: <http://www.solutions.mb.ca/rec-travel/>).

### Start with a Global “Base Design”

Once you are familiar with who your users are and what their culture is like, you are ready to begin design. A global base design will include all of the core features that will be common to all versions. Only those things that are truly shared across all sites should be included in this base. The global base becomes the basis for the tailoring, which comes from linguistic and cultural localization. The latter make the “look and feel” compatible with the expectations of the many different users worldwide who will

become our customers.

Using visual communication can help you deal with the problem of language. The more the interface uses internationally recognizable symbols and actions, the easier it will be to localize. Be aware, however, that there can be significant differences in the way even so-called “everyday” items, such as mailboxes, telephones, and calendars, look in different parts of the world. There are some excellent illustrations of this [1]. In addition, it is important to avoid potentially insulting images.

There are a number of sources that can help you make wise choices, including Fernandes [1] and the *Apple Guide to Macintosh Software Localization* [2], among others. Make sure, therefore, that you use images that will work well in all of the target locales.

### Plan for Localization

Good global base design is only a start, however. The key to successful international products is often localization. Localization involves far more than simple translation. It includes both linguistic and cultural elements. Linguistic localization involves providing all aspects of language support. It can extend to providing multiple formats for dates and times, supporting the script or character set of multiple languages, allowing for multiple writing systems, and supporting all other aspects of written language. Linguistic localization can raise significant layout issues. For example, in general, text expands by as much as 200% when translated from English, so it is important to leave adequate room for expansion in dialogue boxes, menus, and alerts [3]. Cultural localization involves providing culturally appropriate designs that reflect the values and tastes of a particular culture. This may involve stylistic variations, altered color schemes, and changed symbols or even typeface. This type of localization is extremely important, and extremely difficult.

### Run Usability Studies

After a design has been localized, it is critical that there be usability tests to make sure that the design and the localization are effective in all of the target locales. As important as usabil-

ity testing is in a single culture, it is many times more important for an international product. As expensive as international testing can be, it is an important investment to make.

However, doing international usability testing is a lot more complicated than doing testing in your own laboratory or your own town. What can you do to make it work more smoothly? Here are some pointers based on this and other experiences with international testing:

#### **Localize the test plan and the protocol.**

The normal process of developing the screener, test plan, and protocol needs to include the extra steps of making sure that the tasks made sense to a international tester. The scenario may need to be altered to make it applicable in a different culture. Be sure to have all documents, including the protocol and confidentiality/release forms translated in advance. Make sure you are mindful of local customs in setting up your evaluations. For instance, when Claris went to Japan to do usability evaluations, they were careful to use Japanese protocol, such as bowing and offering tea [1, 4].

The dynamics of the testing situation itself may require modification. For instance, in some countries, evaluations will be more successful if they are carried out by a local national, rather than a foreigner; in others, this is less of an issue. In some countries, a woman facilitator can be most effective, whereas in others, it would be wiser for her to observe from another room. It is important to do your homework before you set up your test, so as not to inadvertently cause a problem that otherwise could have been avoided.

#### **Allow more time for testing than for similar tests in your own home culture.**

International usability testing is even more intense than similar testing in the United States. Even if you are using English, you may need to concentrate more carefully to understand fully the terms used, the way evaluators talk about tasks, and even the word order. This makes the process of testing even more intense, so it is important to allow adequate time between session.

If you are running the evaluation yourself in

a foreign language, the testing is orders of magnitude more tiring. As would be expected, the translator is critical in order to make sure that you are communicating accurately and to keep track of the conversation. Even listening to a translator can be more tiring than listening directly to an evaluator.

#### **Use local knowledge to help with local logistics, such as recruiting, translation, and scheduling.**

You will need local help to advise you on important issues ranging from scheduling, how to find evaluators, how much to pay them, where to hold the sessions, to which translators would be best for the study. All of these contribute directly to the success of the evaluation process.

#### **Consider carefully whether to run the evaluations in English.**

We have found that in some countries, such as Germany, it is often possible to run an evaluation in English. This is supported by Lotus experience in Germany [5]. One way to determine this is to find out how many English-speaking people there are in the target locale (see [3]). This decision must be weighed carefully, however, as it has social and political as well as technical implications. This is a decision that requires local input.

If you do decide to run the test in English, be sure you are using nonidiomatic standard English. Avoid cultural references, jargon, slang, and verbal humor, all of which can make it very difficult for the evaluator to understand you.

#### **The ABC Story**

Let me illustrate the benefits of this kind of global design with a story. A. Bigg Company (ABC, for short) is a major multinational company, which manufactures computer equipment for the world. It prides itself on a reputation for the highest quality of design and

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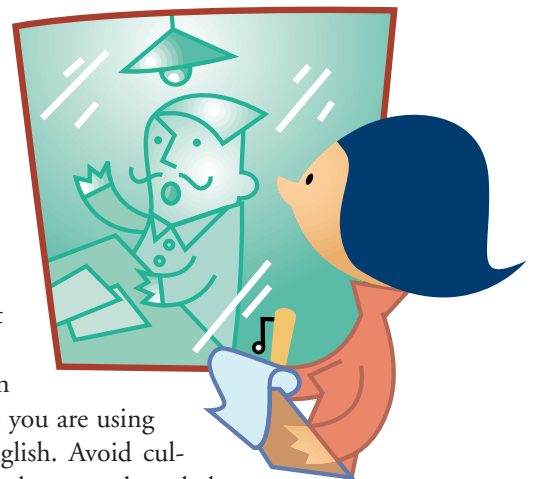
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outstanding service to back up its warranties, which set the industry standard for excellence in many of the sectors in which it competes.

ABC was particularly upset, therefore, when it discovered a quality problem with one of its products. It turned out to be a manufacturing problem that only showed up after the units had been in use for several months. Imagine ABC management's chagrin when they discovered that they had already shipped thousands of new units with the problem, mostly to their German market!

Given their reputation and commitment to quality, ABC wanted to fix the problem. But how? Focus groups quickly showed that buyers were willing to "forgive" ABC if the units could be repaired with little inconvenience to the users. Therefore, ABC faced a choice: they could

recall and fix all the defective products, or they could create a repair kit so customers could fix it by themselves. According to the focus groups, customers preferred the latter. Clearly, the repair kit would have to be extremely usable.

ABC saw that they would have one—and only one—chance to help their customers.

They recognized that usability was even more important in this effort than usual because of the circumstances. If this kit was not usable, customer loyalty would be dealt a serious blow. Repair costs and customer support calls would skyrocket. And the German market, which represented the second largest market for ABC after U.S. sales, might turn its back on ABC forever.

The team developed a good global base design, and planned for localization. Then, as the kit (called the Fix-It Kit) neared technical completion, there still was the issue of whether it would work in Europe, especially in Germany. It was time to do international usability testing.

We did two rounds of usability testing of the Fix-It Kit in two countries in Europe. The kit

consisted of several parts, both hardware and software, as well as accompanying written materials including the packaging, introductory letter, and instructions. The information obtained from these evaluations was extremely valuable and led to important changes.

The result? When the Fix-It Kit was announced, people saw the kit as a "feature, not a bug" and many commented on how very easy it was to use. It received excellent press coverage, and turned into a major PR coup for the company. Indeed, one industry source said the company had gone "From lemons to lemonade." Best of all, ABC stock actually went up 2 points when the problem and its solution was announced.

Not all international usability testing has such a dramatic effect, of course; but even when the results are less visible, international testing can still deliver solid business benefits.

### The Goal: Global Software

In the end, there is no "cookbook" that will guarantee a perfect international design. However, if your company embraces the goal of global design and works to make it happen, you may find, like ABC did, that it can make the difference between having a truly great product and a merely good one. In these volatile days, can you really afford to have a product that is anything short of great? 🍷

### References

- [1] Fernandes, T. *Global Interface Design*. AP Professional, New York, 1995.
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- [4] Halgren, S. Personal communication, 1995.
- [5] Butler, M.B. Personal communication, 1994.

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