

IA for the Rest of the World

by Miles Rochford

Information Architecture

Note: All opinions expressed in this article are those of the author and do not necessarily represent the official view of Nokia.

As designers, one of the greatest challenges we face is designing for other people. It is remarkably easy to design for oneself and infinitely more challenging to design for others. Like me, you are probably experienced in designing for others in your own world – likely a Western country, in a large city, with high quality information infrastructure.

So when the call comes in and you find out that you need to design for the rest of the world, you are immediately forced to leave your comfort zone as a designer. All of a sudden, your experiences and assumptions are no longer relevant, and you need to understand a different design context. This new challenge may even require you to leave some personal comfort zones behind.

The Rest of the World

When I joined Nokia Design, I realized that I was going to be out of my depth as a designer, purely because of the global reach of the company. At the same time, this aspect was one of the things that attracted me to the opportunity.

So when I did receive a call last year, inviting our team to be involved in service design for emerging markets, I jumped at the chance. We were asked to help in the research and design of a new service (publicly announced last November) called Nokia Life Tools. Our focus was on understanding consumer needs in a range of countries including Egypt, Brazil, Nigeria and India.

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The term *emerging markets* was coined by Antoine van Agtmael in the early 1980s when he was working for the World Bank's International Finance Corporation. There are many competing definitions, but all generally classify countries or regions into three types – for example, advanced, emerging and least developed. But this classification is by no means universally agreed – some consider South Africa, Brazil and Saudi Arabia emerging markets. As such, emerging markets tend to be diverse, and although they share some characteristics, the way in which these characteristics are expressed varies widely.

In general, though, there are several things that I have seen emerging markets doing:

- **Urbanizing** – This trend is perhaps the strongest one across all emerging markets, with hundreds of millions of people moving to existing cities to seek wealth and opportunity.
- **Growing** – Growth has slowed as a result of the global financial crisis, and capital inflows to emerging markets have stalled, but growth is still a major part of their economies.
- **Westernizing** – This particular feature varies from country to country, but in general terms, adoption of Western approaches has focused on those areas relevant to trade including legal systems, economic structures and education (especially languages).

As a result, there are many opportunities for designers. The scale of emerging markets is staggering – both India and China have more people than the United States and Europe combined; indeed, three-quarters of the world's 20 largest cities are in emerging markets.

But beyond sheer numbers, there is a huge potential to have a meaningful impact on peoples' lives. Enabling people to maintain their livelihood and improve their lives is a rewarding outcome from a good design. Of course,

the impact could be positive or negative – perhaps a frightening possibility for a designer – but it is a possibility rarely seen in developed markets.

The way in which emerging markets are embracing change is also an opportunity for designers. The rate of change in developed markets is relatively low, unlike emerging markets (although this factor varies widely, especially between cities and rural areas). Embracing and enabling change is a strategy that can lead to real innovation.

Of course, there are many challenges in emerging markets, most of which have been difficult for developed markets at some point in their history.

Infrastructure, particularly electricity and telecommunications infrastructure, is often unable to handle the scale of growth and change and frequently fails to deliver what is needed. Of course, people adapt – for example, phoning ahead to see if there is power and that their employer will be open – but the lack of infrastructure is a limiting factor.

Education is an ongoing challenge, particularly in terms of literacy and numeracy. There are more than one hundred million children who do not have access to a basic education, and although access to education is improving, it is nowhere near the universal opportunity seen in most developed countries.

Finally the environment, particularly health, resources and sustainability, is a constantly changing issue – affecting individuals, corporations, countries and the world as a whole. There is a greater appreciation of environmental impact in countries where the effects of climate change are already being seen – in Bangladesh, with rising sea levels impacting agriculture, for example.

IA in Emerging Markets

At the ASIS&T 2009 IA Summit in Memphis last April, I shared eight observations from my work in emerging markets to help designers understand some of the challenges and opportunities that they present:

1. **People rich, time rich, money poor.** Emerging markets have few shortages of labor (especially unskilled labor), and where labor is underutilized, no shortage of time. This balance tends to be the opposite of developed markets, and as such, different approaches to completing tasks, even regular tasks, are used. These approaches may

appear inefficient to the observer, but generally demonstrate highly efficient use of available resources. This environment is particularly suited to entrepreneurial activities, and as a designer you can often create products or services that enable others to add additional value for the ultimate consumer.

2. **It's not what you know, it's who you know.** Social knowledge is embedded in the way people live – navigation and even communication (in a local dialect) rely upon finding local knowledge upon your arrival in a new area. This approach defies attempts to automate or digitize and highlights the challenge of integrating design in a social context. Social networks can be much more complex and interrelated than those in developed markets. A successful approach can be seen in dating websites that involve third parties (like parents or chaperones) in the process of finding and establishing a romantic partnership.
3. **Order through chaos.** Situations that look chaotic to an outsider often follow some implicit order, which is clear to those within it. Although roads in emerging markets often appear to have no structure (at least, one that follows road markings), there are many different levels of communication and codes of behavior that provide some order. Allowing people to find the signals relevant to them in a sea of noise can sometimes make more sense than trying to remove noise from a design.
4. **Everything is shared.** In many emerging markets, the density of human life is so great that there is a lack of personal space. In addition, people tend to share things more readily – mobile telephones, for example. One design response is to facilitate sharing but also allow people to protect privacy and potentially use virtual personal space to deal with a lack of physical personal space.
5. **Context is king.** One of the great things about designing for emerging markets is the way in which designs are embraced by people and used for totally different purposes than those that the designer originally intended. Context will dictate the way in which a design is used, rather than the objectives of the design itself. This lack of control over use can be threatening to a designer, but designing for openness and

flexibility, by maximizing the degrees of freedom in interactions, can create new opportunities.

6. **Expect the unexpected.** As noted earlier, infrastructure in emerging markets can be unreliable, so it is important to design interactions that can be interrupted and resumed later. In addition, allowing people to share their attention between tasks helps them manage multiple tasks effectively. Even simple design changes, such as allowing people to take longer to complete a task, can make a big difference.
7. **Stay on the beaten path.** When creating alternatives to current behavior, it is not enough to be “as good as” – you need to be considerably better than the alternative. Beyond being old habits, the paths people are currently using are highly efficient for them, and your solution needs to provide a beneficial alternative. Disruptive alternatives that completely supplant current solutions can be particularly effective in these situations.
8. **Everyone is MacGyver.** This theme seems to be a common across every emerging market. People are constantly fixing things when they break, and if they don’t know how, they’ll try, and if that doesn’t work, they’ll find someone who can fix it. These actions contrast sharply with the disposable and expendable view of technology in developed countries. Designers can create “fixable” solutions that are easy to repair – using screws instead of glue, for example, can make mobile phone chargers “field serviceable.”

Literacy and Numeracy

Information architecture, with its focus on language and structure, is crucial to effective communication. This emphasis is particularly important when designing for people who have limited literacy and numeracy and little experience with highly structured data.

In many emerging markets, levels of literacy are barely above 50%, while in some rural areas can be as low as 10-15%. These levels can lead to huge challenges with embracing technology and socioeconomic opportunity – how can you use a telephone (even a mobile telephone) if you are unable to dial numbers?

Going beyond words, using pictures and iconic metaphors is one way to engage people with limited literacy and numeracy. Voice-based navigation is also emerging as a possible solution and can already be seen in mobile phones as a feedback mechanism (the Nokia 1200, Nokia’s lowest-cost handset, features a speaking clock/alarm).

Role of IAs

Information architects and user experience professionals, if they have a deep understanding of peoples’ needs, can use design to support development, growth and sustainability. Good design helps people maintain their current livelihoods and enables life improvement.

Ultimately, good design is a right, not a privilege. It is the role of designers to ensure that good design is available to everyone, no matter where they are. ■