

# **Insights into Asia: 19 Cities, 7 Countries, 2 Years— What People Really Want from Technology**

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## Insights into Asia: 19 Cities, 7 Countries, 2 Years—What People Really Want from Technology

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### **Overview: Studying Real-World Needs**

At Intel, we employ anthropologists, psychologists, and social scientists—ethnographers—who work with computer scientists and product developers to architect innovative new technologies that are most likely to meet real world needs. Our social scientists provide us with a fresh perspective, and help us understand how people actually use technology in their daily lives. Intel ethnography\*\* teams also collaborate with academic and industry researchers around the world in their investigations.

One of our scientists, Dr. Genevieve Bell, recently completed two years of ethnography field work in seven Asian countries to find out how different cultures think about and use technology. Here, she explains what ethnography is, discusses the Asia project and describes what she was hoping to discover. She also gives her perspective on some of the differences between the seven countries she visited, and explains how the differences between those people's cultural ideals and cultural practices can affect their use of technology.

This is the first article in a three-part series.

### **What Is Ethnography?**

*Dr. Bell, what is ethnography? How much of it is "mapping the mundane?" Or rather, what exactly does it mean to "identify the needs of multiple diverse communities across a range of social relationships, where a variety of technology processes are used to meet diverse needs and social practices?"*

What is ethnography? Ethnography comes out of anthropology. Anthropology would be the study of people and culture at a pretty broad level. Ethnography is about trying to make sense of people, not as individual personalities, not in a psychological sense, and not as societal movements, but as people embedded in what Clifford Getz used to call "webs of significance." It's thinking about people from the multiple ways in which they identify themselves, in a very holistic way.

Ethnography's hallmark is this notion of participant observation, the idea that you learn about other people's cultural practices by going there, being there, and by doing it with them. Most traditional anthropologists who would consider themselves to be ethnographers have spent years living in other cultures with people, and not just watching what they do, but actually doing it, too.

*Why is participant observation so important in ethnography?*

One of the things we all are prone to do as human beings is to try and make sense of data points from very limited perspectives. You give us two data points, and we want to immediately jump to the story that makes those two points make sense.

As soon as you connect those two points, you're using a story line or a narrative you're already familiar with. Often, those narratives or story lines are so embedded in our own cultural assumptions and practices that you're not getting at what other people think. You're just getting at what you think they should be thinking. Participant observation allows you to spend enough time with people till their own narratives percolate up to the top. Till you get to the point where you know the stories they would use to make sense of those two points.

\*\*Ethnography – "The branch of anthropology that deals with the scientific description of specific human cultures," *The American Heritage Dictionary, Third Edition, 1996.*

It also means you've got to be prepared to be a bit stupid.

*You mean to go in without assumptions, to go in ready to learn?*

Yes. You can see this in me. I'm a child of an anthropologist. I grew up in my mother's field site in central Australia, when she went off to live with aboriginal people. I was about seven, my brother was five, and my mother was in her early thirties. She showed up in this aboriginal community, and basically said, "I'm here to live with you. I'm here to learn about aboriginal women" and the people said, "Oh, that's fine, whatever, okay."

But about three months into it, they were saying, "Well, what do you mean, you don't know how to kill the lizard? What's wrong with you? What kind of idiot are you? You're really badly socialized."

So they treated my mother like she was a child, because she didn't understand the way the system worked. For her, that was a real advantage. It meant things got explained to her in patient ways.

A large part of doing good field work is that ability to make yourself vulnerable and slightly stupid. That willingness to suspend early assumptions about the way the world works, and to let other people's ways of making meaning be the ones that make sense for you.

Doing ethnography is that process of going somewhere else, of going to where the thing is that you're interested in, of being there, and of being engaged in what it means to be somewhere different.

## ***Tapping into the Technology Culture***

*How do you tap into the technology culture at that 'somewhere else'?*

I don't. I think I'm most effective when I'm least interested in technology. The only way you make sense of people's relationships with technology is to make sense of their broader cultural patterns, because people's relationships to technology don't operate in a vacuum. Unless you understand the bigger picture in which those technologies exist, you can't really understand why people use them.

The way we think about mobile phones, the things we use computers to do—these are things we've done for hundreds or thousands of years. They're all about communicating with people. They're about sharing information, and they're about forms of social networking and reciprocity.



These magazines and books for sale in Guangzhou, China offer instructions on how to flirt using text messages and instant messaging, as well as how to tell jokes.

*Connecting people?*

Yes. In fact, the very last question I ask people is, "What do you do with your computer?" The first question I ask people is, "Tell me what you did yesterday."

You'll get to technology, because it's in everyone's lives, but you'll want to make sure you understand the kinds of lives in which it is embedded. You can't work out what someone does with their mobile phone unless you know how they care about their family.

*You've been quoted as saying, "One of the things that makes a successful technology is a technology that supports experiences that people want to have." How do you go about discovering what people really want and why they really want it, rather than what they assume they want, think they want, or say they want?*

That's a really good question. One of the things that distinguishes anthropology from a lot of other social sciences is that it gets at the difference between people's cultural ideals and people's cultural practices. It's not only about the cultural ideals and cultural practices independently, but about the tension between them.

As human beings, we're all pretty good at articulating cultural ideals: I should exercise regularly. I shouldn't smoke. I should go to religious services regularly. I should be nice to my children. We know what the cultural ideals are. We also know what the cultural practices are: I'm going to have that food whether it's good for me or not. I'm going to be really angry with my kids because they haven't done what I told them to do.

We also know—for those of us who are a bit cynical—that, in the West, traditional marketing has always appealed to cultural ideals: And we also know that a successful product is one that will work only if it plays to cultural practices, to what people are really doing. Part of what you get by going to people's homes and spending time with them is, you get at that sense of cultural practice. You get at what they're really doing.

***How useful, in comparison, are focus groups and surveys?***

I never rely on focus groups and surveys. They're useful tools for getting at a certain set of things. Focus groups are incredibly good at soliciting between product A and product B, which product do you like better? But often people in a focus group will tell you what they think you want to hear.

Surveys are incredibly good for giving you a sense of the volume of something. They'll tell what people are doing. They won't tell you why, and they won't tell you how. They won't tell you all the ways in which people are subverting what they just told you they're doing.

Also, you give people a questionnaire or a survey, and they're responding to the questions you've already framed. They're responding to questions that suggest you already have a set of assumptions about what it is they should and shouldn't be doing, or what they might or might not be doing. When you spend time with people in their homes or wherever else they're having their lives, you get at what they're really doing.



A child (above) in a market in Pekanbaru, Indonesia plays with his Game Boy\*.

Part of this is because you get at that critical disjuncture, where people say to you, "Oh, yes, my children always come home from school and do their homework." But you can hear the television in the other room, so you ask, "Where are your kids now?" And they say, "Well, they're watching television. I wish they'd do their homework."

That information is powerful. That suggests some very different notions. If we built technology based solely on the assumption of what the cultural ideals were, that might be great, but no one would ever use it.

## **Cultural Ideals vs. Practices**

*This is the dichotomy you've mentioned that exists between cultural ideals and cultural practices.*

Absolutely. Part of the challenge is, how do you make sense of both the cultural ideals and the cultural practices? I often think that the places where the tensions are strongest between those two things are the most interesting. They're also often places where technologies are very successful. I think you could argue that mobile phones have been very successful because they appeal both to a cultural ideal and a cultural practice.

The cultural ideal: I should keep up with my family, be nice to my relatives, talk to my mother-in-law every week. The actual cultural practice: Arrgh, I'm much too busy. Mobile phones let you keep up with family in other bits of time and space.

Part of my job at Intel is to get at those cultural practices. It's to try to make sense of what those people are really doing, not what they say they're doing. The only way you can do that is to be with people where they live their lives. I think that being on the ground, being there gets you at those things that are really intangible, and gets you at that sense of the way someone's space is organized.

*Do you mean local perceptions as opposed to global perceptions?*

Yes. But it also gets at the things people don't even know how to tell you, things you don't know how to ask about. Sometimes you have to go somewhere else to violate your own expectations about what technology should do.

Malaysia is a quintessential example of a technology that we could never have invented from here. In Malaysia, your mobile phone will find Mecca for you. If you're a good Muslim, you pray to Mecca five times a day. But if you're on the road, you aren't near a mosque, you don't know where Mecca is. Your cell phone can find it for you.

How would we even have framed that question from here? Would we have written on a survey: "Do you use your mobile technologies to find a religious site, institution, or major god?" As in, do you use your phone to find the Pope, the Archbishop of Canterbury, or the Vatican? That's just not something we do with technology here, so even framing the question would have been almost impossible.

But it was immediately clear when I was there, watching people have their daily lives, that this was going on. When

someone whipped out their phone, and I'd ask, "What are you doing?", they'd say, "Finding Mecca." And I'd say, "What?"

It was this wonderful thing that would only have become clear *in situ*, in place, right there, at that particular moment in time. It would have been impossible to work out how to add that onto a questionnaire. It also would have been very hard to create the space to let someone tell you about using his mobile phone to find Mecca. You wouldn't even know how to ask about it.

That's part of what you get by going somewhere else: you get to be surprised. That's one of the other hallmarks of doing good ethnography.

## **Surprising Insights**

*What kinds of surprises and unexpected insights have you discovered?*

The one at the moment I'm really stuck on is thinking about the relationship between technology and religion, which is deeply controversial.

One of the things that's become really clear to me in spending all this time in Asia over the last two years is all the ways in which people are using technology to support their religious practices. There's everything from mobile phones finding Mecca, to Web sites that let you do all kinds of Islamic things, to Buddhists having their phones blessed, to people getting their fortunes sent over their phones, to people using the Web to arrange marriages. There are all manner and kinds of things.

It got me thinking about whether that's going on in the West, too. It turns out that it's hugely important. In the United States, hits on religious Web sites in the last year were almost on a par with music downloads. Two-thirds of teenagers report using religious Web sites, more than report using pornography—which might be a reporting error, but nonetheless interesting that that's what they choose to tell the researchers.

*Is investigating religion and technology one of the reasons you decided to go to Asia? Or was it because Asia is a market Intel is interested in, or was it something else?*

A couple of reasons. As a researcher, I'm embedded in one of the R&D arms of the company. We have a portfolio of 14 or 15 strategic research projects. Most projects were about silicon photonics, sensor nodes, and other really technical problems that we needed to solve—things that were in the long-term interests of the company, but in the short-term interests of no one business group.

One of our questions was whether there was a global middle class, a homogeneous middle class around the world who were going to consume Intel's products universally in the same way. If so, we didn't really need to think about localization. We didn't need to think about some of the harder issues of what it might mean to appeal elsewhere.

I was the cultural anthropologist, and it struck me that there couldn't be a global middle class. Middle-classness is embedded in a very Western tradition. It didn't seem to me that middle class homes—if you could find them in India—would want the same things as Chinese middle-class homes, or Indonesian middle-class homes. We ended up having a fierce series of arguments about it.

We settled on Asia as an interesting place to test the "middle-class" proposition, partly because it's one of the most heterogeneous regions of the world. There's just an extraordinary amount of diversity there. You've got religious diversity: Hinduism, Islam, Buddhism, Confucianism, Christianity. You've got government structures from the last remaining huge communist state, to nascent democracies, republics, and monarchies. You've got all kinds of government policies around technology. You've got different social organizations, from strongly patriarchal, patrilineal families in China, to loosely matrilineal ones in southern India, to everything in between.



Above is a mobile phone repair store in a market in Kuching, Malaysia. You can have your phone fixed, the ring tones changed, or a new graphic installed on your phone screen. At right is a similar store in a technomart in Seoul, South Korea.

There are places that are so fundamentally different from each other I figured you could do something really interesting, and that any way you want to test that proposition, Asia would be a good place to go. And yes, in some ways, the choice was also driven by Intel's interest in India and China. They were, undeniably, large emerging markets at the time.

## Studying Asian Middle Classes

*What was the scope of the Asia project?*

The project was explicitly multisited. It was explicitly comparative. I had a whole series of questions I wanted to answer.

The idea was to look at middle class homes in seven different countries and try and get a sense of whether people's cultural practices were, in fact, shaping people's relationships to technology. If so, what were the vectors along which that was really happening? Was it about the physicality of people's homes? Was it about a set of cultural practices? Was it about aspirations? Was it about models of consumption?

*Where did you go first, and what did you do when you got there?*

We ended up going to India first. I spent anywhere between three to six or seven weeks on the ground in each country, three cities in each country. I wanted a range of different cities that had something in common across each one of the countries, bearing in mind that there's often strong north, south, east, and west divides, at least in China and India.

In each country, we looked at a city that was good to live in—somewhere that had a high quality of life; somewhere that was a tech-rich or university-rich environment; and then somewhere that was an industrial or financial market. Again, this was bearing in mind that, even if there was such a thing as a middle class, the middle-class life would be different in different cities. For instance, what it means to be middle class in Portland, is really different from what it means to be middle class in L.A.

So I did two years worth of field work. After each country, I have come back and done a report to key stakeholders around the company who are interested in that specific country. And, until about three months ago, I tried to resist saying what you could see across all of the data, because I wanted to put that off as long as possible. I was concerned that, if I started doing that too early, I'd start missing things in each one of these countries.

*Which seven countries did you study?*

The seven countries were India, Malaysia, Singapore, Indonesia, China, Korea, and Australia. They are very different, with lots of significant variation between them in terms of governmental structure, colonial history, geopolitics, government policies around ICTs (information, communication, and technology), the role of women, social organization, religion. There was variation, but also countries that were nice pairs for one another.

For instance, Australia and Korea turn out to be a really interesting pair. Demographically they're almost identical: 81 to 85 percent of both countries are in urban areas; 85 percent of the population has mobile phones; 70 percent of households have PCs. Household size, education level and GDP are pretty similar. The big difference is that one has broadband and the other doesn't. And, of course, one is a Confucian-Buddhist country, and the other is Western-Christian.

I wanted to see, if you could hold those demographic features in common, would you find people enacting completely different usage models of their technology? And of course, you do. There are strongly different usage models around technology.

*How much longer will you be putting your recent findings together? Or rather, how much longer will the Asia Project run?*

I finished the last piece of field work December 1, 2003. I'm just now starting to try and make sense of it, and try and think about if there are some sorts of critical themes that overarch all of that material, what might they be? I'm in the research, analyzation, and propagation phase. So I'm propagating research results around the company, slowly, carefully.

The project will run somewhere to another three to six months, but ethnographic work tends to linger. Because of the cycle of innovation at Intel, this work will still be getting traction two years from now. It will probably have more impact two years from now than it's having right now.

## **More Info**

Look for the next two parts of this series in upcoming issues of Technology@Intel Magazine.

Learn more about the people-centered research conducted by Intel at the Intel Web site.

Discover more about or contact Genevieve Bell at the Intel Web site.

Read an interview with Christine Riley, director of Intel's People and Practices Research Lab, at the Intel Web site.

## **Author Bio**

Genevieve Bell is an anthropologist and senior researcher in the People and Practices Research Lab within the Corporate Technology Group. During her five-and-a-half years at Intel she has conducted ethnographic research in Western Europe, Asia and the United States. She has worked on issues around eCommerce, online and digitally enhanced museums, and technology up-take in middle class households in Europe and Asia. Bell has bachelor's and master's degrees from Bryn Mawr College, and a Ph.D. in anthropology from Stanford University. Prior to joining Intel she taught anthropology, Native American studies and a range of other courses at Stanford University.

—End of Technology@Intel Magazine Article—