

Microsoft Hardware's Perspective on Emerging Markets - Interview with Andy Cargile, User Experience Manager, Hardware Group Microsoft Corp.

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Andy Cargile

Mr. Cargile, Andy is the User Experience Manager in the Hardware Group at Microsoft. He and his team are responsible for creating great user experiences with consumer hardware products. Cargile works with the user experience team, business and marketing leaders, product planning and product development groups to deliver compelling user experiences and provide growth and innovation for Microsoft Hardware. He has also worked with consumer speech recognition applications for the corporation.

Prior to Microsoft, Cargile was director of design research at Attenex, a start-up that developed innovative methods for visualizing massive amounts of textual information to detect patterns in content. Over the last 20 years, he has worked in user research and interaction design in small start-ups, large corporations and higher education. He ran scores of field studies, usability tests, market research surveys and has designed, prototyped and built hundreds of products and product features. Always passionate about the user and user experience, Cargile thrives on helping create products that solve meaningful needs and make a difference in peoples' lives.

Cargile has an MDes in human centered design from the Institute of Design with a focus in education. He also holds an M.S. and B.S. in biology from Stanford University. He and his wife, Debbie, co-taught the Advanced Product Design Studio in the ID program at the University of Washington for several years.

Wei : Good afternoon Andy, glad to have the opportunity to interview with you on emerging markets. Could you please first tell us about the definition of “emerging market” to Microsoft?

Andy: We think the emerging markets on two levels: there are the BRIC countries (Brazil, Russia, India and China). These are the big emerging markets. They are just now coming into computing and they have huge populations. But there are a whole lot of other emerging markets around the world. There are people in Microsoft that have done a framework for those emerging markets and they have gotten very granular about those cultures.

Zachary: Why is the emerging market important to Microsoft?

Andy: Thinking about what we do in terms of user experience here, I usually draw a pie chart of human factors. There are cognitive, social, physical or ergonomic, emotional, and cultural human factors. And cultural human factors, they grow. Understanding cultural human factors is necessary to a global company like Microsoft to help identify what products or services will fit people's lives. Then we know how to be smart about how we design that kind of product, you know; with the things that are similar, we can invest in common design, if you will, and with the things that are different, we can modulate that design so the things are captured in tune to the different cultures.

For example, we are going to China and yes, there is an audience there that is very computer savvy. Education is huge there and a parent might purchase a computer giving priority to kids, which is different from the US. In the US, you walk into almost any household and the most powerful computer is going to be in the office, it'll be Mom & Dad's computer, and they all will have an average of three to six computers in that household. This is most US households. And other computers are hand-me-down. Some of them may be laptop, most of them will be hand-me-down, and hand-me-downs may be accommodated in the kid's room, but pretty much you can guarantee that the kids don't have the first priority on the new powerful computers you've just purchased. You go to China, the houses are smaller, there are generally one or two rooms, and there are more family members in the household. They may have a computer and the priority is to give it to the children for educational purposes.. Again, being very general, parents who might like gaming will not do that when the kids are using it for school.

A market of 1.3 billion people gets everyone excited. And although a small number of people there now actually use or have potential for Microsoft products, we can create new products or services for the huge population by understanding the cultural differences and people's needs. For example, most people in China can not afford a computer, but there are still a lot of gamers. They are at the places called “gaming cafes” where you can go even if you don't have a computer and you can pay to play games. You can become an expert at Counter Strike, or whatever the game is. That's a good example because the people who go to gaming cafes, they may not have a computer, but they may buy a mouse if it gives them advantages in

the game. So when you go into the gaming cafe you could imagine the condition: most of the mice and keyboards and headsets get used four hours a day by people who get frustrated because they lost, and they may blame the keyboards or something, right? So it's not uncommon to find people who have their own mice and keyboards because they want have one that would work right. They don't want to die in an online game like Counter Strike because somebody before them breaks the mouse button, right? So for us, that is an opportunity. We went to look at that and see how we could reach those Chinese gamers who might not have a computer of their own, but might value the mice that can give them the advantages over the competition. It's a new way to think about it.

Another level I'm interested in in emerging markets is being able to bring closer to the emerging markets that are doing manufacturing, the ability to do the actual development part. So we can do a better job of really getting across what we are trying to achieve in the product, and do a better job in the execution.

Wei: What methods do you use to help understand those differences?

Andy: We do some field research, we do purchase process research, and we do some trace evidence research (remote user research). Three very different components, but all very necessary for understanding what Chinese customers need, and how they think about things differently.

When I began field research, I had wanted to personally lead the research team in China, but there are actually two kinds of Chinese households. There are more western-style households, which are more inviting to non-Chinese researchers coming in and doing ethnography. Then there are more eastern-style households. It is really hard to get into those households to understand the differences. So if I had led the team, I would only have been able to go to the households that are open to westerners, and I would have compromised the results. This issue itself shows the importance of understanding the culture where you do research and how you do it.

So I actually hired people from the US who had researchers in Beijing to do the field observations and interviews, so basically we are local, and just work out here.

The purchase process in China is different from here, because if you want to buy a computer here, you would just order it from Dell. If you want to buy a computer in China, it's almost a two-day event. You generally ride a bicycle to the technology mall and you go around basically doing it yourself, you get all the components from a whole bunch of different stores in the technology mall - you might one, you might have somebody in the mall put them together for you -- you have to negotiate within these different vendors. That is a very different process, and when you're all done, you go out on the street, and you have to get a cab to take it home. Anyway, for the whole negotiating process, if we get anywhere close to that with just cameras, we would never observe what we need to observe.

The third part is something we did in the US, which is something I showed at the Institute of Design's "About, With and For" Conference last year, what I called "remote user field research". Think of the TV show "CSI: Crime Scene Investigation", the trace of evidence. So what we do is we got 50 Chinese households to do what we had 350 American household do, which is to take pictures of every computer you have, every computing environment in your home, your entertainment space; then draw a network diagram of your home, put circles on it, indicate what hardware you have in what kind of room. We really get an idea of what the computing ecosystems of households are. That gives us a good flavor of how Chinese households are set up differently from US households, and you can imagine there are tons of differences. This type of research bridges the edges of field research, you know, far more qualitative and quantitative research in the same area. So if you think of the AEIOU framework -- Activity, Environment, Interaction, Objects and Users -- the trace evidence is really focused on Environment and Objects, and the field research is much more focused more on the Users and Interactions.

Wei: How transferable do you think western ideas, products and business models are to emerging markets?

Andy: Everybody would like to go in thinking that business models and products are the same. I actually go into it differently, I assume they are going to be different, and I use what we learned from the country to help us determine what things should be similar, and what things need to be different. We also have subsidiaries worldwide, meaning we have sales offices in each country that we do business in. They are great resources for understanding the markets in those countries. Primarily what they are good at is telling what business model that works here in the US would work the same way in China.

Wei: What risks do Microsoft and other companies face when entering these emerging markets?

Andy: Firstly, doing research globally is always expensive -- doing research in areas where you don't have a network, and you have to build one from scratch, is expensive. I don't think that's a risk per se, but I think it as a challenge.

Secondly, I say one of the risks for us in hardware is, particularly in China, intellectual property. So if you think about the fact that simple features and product designs can be copied either in the US or China - and more easily in China - then you know we can not rely on just products or features alone to be innovative.

However, although there are many knockoffs of our product in China, I think that many Chinese users are coming to learn that quality is important. It's not terribly great if you buy a cheap new product that looks like a Microsoft product, but it only works right for the first few weeks, or it doesn't work well with the operating system or crashes your computer when you do a certain type of thing. Chinese users are realizing this and the market seems to be

becoming more interested in quality of products, so we actually have an advantage there.

Another big risk for any company is that they think they understand the market without having first-hand experience. I'd argue if you haven't been to China and haven't talked to Chinese customers, you probably will be exposed to a whole lot more risks than if you've done your homework.