

2. Making Opportunities Inclusive for First-time Digital Users

Shrinath V.

Abstract

Worldwide smartphone subscriptions are estimated at around six billion today, but are forecast to grow by over a billion users over the next four years. The biggest drivers for growth will be first-time digital users from the Global South. Building for this segment requires us to rethink fundamentals of usage, interfaces, and policies to align with their context. Done right, firms can help unlock opportunities for them, and new revenue streams for themselves.

Keywords: inclusive design, next billion users

I live in Bengaluru, often called India's Silicon Valley. Bengaluru has a huge population working in the technology domain. It serves as a testbed for most technology innovations as the level of technology adoption is high. The level of digital awareness is much higher than other places in India. That's why I was surprised when one Monday a couple of years ago, our house help, Bhavani, knocked at our door at 6 a.m., an hour earlier than her usual time. We were surprised to see that she had brought her twenty-two-year-old daughter, Seeta, with her. Seeta was an outlier in their family. She was college-educated, unlike Bhavani's other two daughters. She had recently got a job at a nearby fashion store as a salesgirl. Bhavani had always been proud that Seeta was working in an establishment that had air conditioning, which she saw as a marker of an important firm. Her other daughters had dropped out of school early on and were also engaged in paid domestic work. But Seeta had been able to break free by virtue of finishing her education.

That morning, Bhavani's attitude was different. She was barely able to hold back her tears. The previous night, Seeta had arrived home from work,

distraught and weeping. Bhavani could not understand what she was upset about. They spent the night tense—the daughter wailing that her future was ruined and the mom trying to placate her without understanding what the fuss was about. After a while, she thought my wife would be able to understand their situation, and they came in as soon as day broke.

My wife asked them to sit down and made them a cup of coffee each. Seeta calmed down a bit and spoke about what happened at the store the previous day. The store owner was unhappy with her using her mobile during work hours. He had threatened her that he would put up photos of her slacking on Facebook. This had terrified her, as she thought her reputation amongst her friends and her local community was at stake. She felt her family would lose face—everyone was envious of them and she had managed to get a good job. If they felt her reputation was sullied, she would not be able to find a groom. Over the night, they had envisioned a worst-case scenario over the trivial affair.

After she narrated the incident, we checked whether the sales manager was a Facebook friend. He was not. She later confessed that she had deleted her Facebook account a while ago. Why was she so agitated then? She assumed that any photos of hers posted by anyone else would be seen by all her friends. Facebook's privacy settings had been too complex for her to understand, so she assumed the worst.

We had to reassure her that once she deleted her Facebook account, no one could tag her or make any content public. Even if she had not deleted her account, she could remove tags from photos others posted *before* any of her friends could see them. It took her a while to get convinced about this, but she left a lot calmer than she came.

This incident got me thinking.

Here was a college-educated salesgirl in an urban fashion store. We would assume that she would be comfortable with social media usage. And yet, she was so confused by the controls on the site that she thought there was a threat to her reputation. Finer aspects like abuse of power and violation of privacy were tough for her to comprehend. A threat about posting photos on Facebook from someone who was not even her friend turned her into a nervous wreck.

The story illustrates how we often overlook vast segments of users by assuming they are “just like us.” Using smartphones and apps is like second nature to us. Boardrooms resonate with terms like customer-centricity and human-centred design. Throughout the COVID-19 lockdown, we have seen even young kids adapt to online interfaces and apps. It's easy to assume that if we just hand over a smartphone to someone who's never used it earlier,

they would be able to start using it within a few hours. This is true for many users, especially those in our immediate circles. But we often do not realize that a vast majority of new internet users today are not like us. These are first-time digital users. They have no background to using a computer; the mobile is their first computing and internet device. Many aspects that seem trivial to us can seem confounding to them as they have no earlier reference for using a digital interface.

A decade ago, I led product management for Nokia's location services for the Next Billion Users segment. Back then, smartphone penetration was low, and many users were first trying out services on feature phones that were data-enabled. While traditional location services for smartphones revolved around maps and navigation, we realized that we needed to think ground-up for this segment, most of whom didn't own a vehicle of their own.

Detailed consumer research across different markets showed that there was a huge willingness to try services, provided we understood the constraints of users. Based on consumer insights, we designed a set of data-light services where we built apps that served immediate needs for users like local search, sharing their location with family, and local language interfaces.

Smartphone penetration has improved since then, but I see that many of the challenges of this segment are still difficult to comprehend for those designing technology solutions. I believe that tech firms need to treat the New Internet Users differently. Rather than rush to make decisions, they need to pause, understand context, and then design for them. We need more conversations to make this happen.

Making Digital Technologies More Inclusive

Smartphones have fuelled the imagination of many who have just started understanding the power of the internet. In many ways, this has been timely. We are already seeing that the world post-COVID-19 will rely a lot more on digital technologies. As we shift to transacting more online, we will see a larger number of gig jobs. From entertainment to education, smartphones, apps, and online services will play a greater role in the lives of the new digital initiates.

A lot of this, no doubt, will improve the lives of millions. Going online opens new vistas for exploration and provides new opportunities. Thanks to smartphones, new entrepreneurs and business models are plentiful. We see housewives post extra plates of lunch on WhatsApp groups for others in their locality to order. Local teachers take to Telegram to coach

students appearing for exams. Drivers-on-hire get you and your car safely back home after a late night at the bar, so you need not drive when drunk. Women learn skills like tailoring from YouTube and set up small side-hustles to earn extra money. Others come across videos about what kind of feed to give cattle to improve milk quality and yield, and use the knowledge to improve their revenues.

And yet, there are unexpected challenges. Internet-driven models and services are largely designed for people who are comfortable with digital literacy. There are a lot of assumptions baked into how these are designed or delivered. As first-time digital users start using these services, many of these assumptions do not hold. As digital technologies are likely to play a bigger role in the future of work, here are some points to consider.

Rethinking Design Ground-up

I advise start-ups and large organizations on building and marketing products for the Next Billion Users segment. As someone who's worked closely with the tech industry, I know that the gig model may seem exploitative by design. I believe there are multiple reasons for this, not all malicious. People designing these interfaces view these solutions as engineering tasks, and often do not understand the complexity of making design decisions. Very often, there is a strong bias in assuming that the Next Billion Users are just like us—only poorer. Since few designers come from this background, these biases get solidified in the existing design decisions they take. Decisions once made are hard to reverse as technical capability is usually earmarked for building new features, not redoing existing ones unless there is a strong reason. More focus on understanding users early on in the process can go a long way in reducing design inequities.

Just before the pandemic, I was helping a firm that worked with rural women to think through their product and design. We were looking to encourage first-time users from rural areas to explore the internet to set up micro-businesses (typically a tailoring setup or a beauty parlour in a village/small town), improve their health, and improve their financial literacy.

While conducting market research with a set of users, we realized that there were basic elements discouraging usage. Our initial design followed a typical app usage pattern—users would download and open the app, see a couple of screens with information, login, and then start using the app.

We quickly realized that logging in was a big challenge for users. While it seems natural for those of us who have transitioned from using the internet on desktops/laptops, they found it difficult to understand the concept of

login and why it was required. On enquiring further, we realized that when they bought the smartphone, often the seller would set up the phone for them. The apps they used most frequently were YouTube (which didn't require a login once the phone was set up) and WhatsApp, which had a simple SMS-based authentication. Even apps like Facebook had SMS as the means to sign in, eliminating the need for a login mechanism.

This helped us review the design ground-up. We realized that even something as simple as a login screen was a gate that they found intimidating. We redesigned the flow so that users could use a lot of the content without having to sign in. For any specific information, we built a simple SMS-based authentication and a mechanism to automatically read the One-Time-Password (OTP). This immediately helped ease the transition into app usage.

The exercise also made us look carefully at elements like iconography. The origins of digital iconography can be traced back to inspiration from offline elements present in the Western world. The ubiquitous "save" icon is still a representation of the floppy disk. Most e-commerce sites allow us to add to a cart, which is a visual symbol of a shopping cart. These icons worked well as they were relatable. The first set of users of digital technologies were sufficiently clued into global trends to identify many of these icons. However, many of these representations break down when you think of first-time digital users. A vast majority of users in India have never been in a shopping mall, so they do not relate to a shopping cart. While many of the icons can be *learnt* over time, they can be intimidating to first-time users. A few firms have replaced the shopping cart icon with a traditional shopping bag, or *theli*. This is a far more relatable element that helps users transfer what they know in their offline world to the online world.

Some firms have realized that new users need coaching to build digital confidence. Rather than leave first-time users to ask family members or friends to help them, they are building simple assistive workflows where a visual or voice prompt kicks in when users are stuck on a screen for a period of time.

While building for first-time digital users, it's helpful to start with the basics. Assume they know nothing about elements like login and icons, and cannot read text. Start by exploring their context and the elements they find relatable, and incorporate them into the design.

Being Sensitive to their Context

For most of us, smartphones are deeply personal devices. Our concerns around privacy revolve around larger firms using our data for business purposes. However, for many households in the Next Billion Users segment,

smartphones are shared devices. A family may have a single smartphone that is used by all members.

In the project for building services for rural women, our research showed that usage was based on an accepted convention of priority. The man in the house felt most confident using the devices. Children used the mobile to play games, watch videos, and use social media. Women often had the last priority of usage. They usually had access to the device when the family was asleep or busy. Most of these households also had prepaid data plans, where they could utilize a fixed amount of data per day. Since data was scarce, women were extremely conscious of using data-related services. They were worried that if they ran out of data, they or their children would have to ask the man of the household to recharge it, and there would be uncomfortable questions about their usage. This helped us realize we needed to make the services data-light, but more importantly, give confidence to the users that we were not consuming a lot of data for their usage.

Better Terminology

Websites and apps often have different privacy and consent policies. These are difficult enough for digitally literate users to understand and can befuddle first-time digital users. Most are written in legal language that is difficult for users to comprehend. They are made easy to click through so the apps can claim they received approval from users.

As these vary per app or website, it is often easy to lose track of what one has agreed to. A more inclusive design could involve a common set of representations for terms like privacy and consent, preferably with videos explaining what the users are signing up for. For gig workers, this could greatly improve their understanding of what permissions the business asks of them. For example, as a delivery partner, knowing that you are being tracked only when you are on the job and not otherwise, can be reassuring.

Better Explanation of Downside Risk

Many first-time digital users sign up for gigs based on referrals from friends. But often, the downside risks are not well understood.

A while ago, I took a *tuk tuk* (auto rickshaw) to the office. As I chatted with the driver, I realized that he had signed up earlier as a cab driver for one of the many ride-hailing apps. As part of the deal, he had purchased his taxi on a loan arranged by them. After a few months, he wanted to take a vacation and go home. He parked his taxi at their designated garage.

When he returned, he was told that he had to pay a huge per-day parking charge before he could take his vehicle. This shocked him. He was just functionally literate and had pushed the button on parking policies without much thought during the sign-up. However, the terms were buried in text. He didn't recollect this when he chose the parking option, nor was he informed about the charges as he was deemed to have accepted the charges. Now, he was in a fix. He did not know enough to debate the terms with the company. After a few days, he realized his negotiation was going nowhere, and the taxi loan payments were due. He finally opted to forgo the taxi and the money he had paid for the loan as he felt there was no other choice. This made him wary of gig opportunities in the future, and he decided to take up a safer, though less remunerative route.

Though this may not have been intentional on the part of the company, it clearly illustrates the need of considering the basics of what users comprehend and highlighting downside risks, so users are aware of these. This could again be done by using tools like video, in languages that gig workers are comfortable with. The driver I spoke to would have understood things much better if the downside risks were better explained.

Better Avenues for Grievance Redressal

A food delivery partner I spoke to recently complained about a late-night delivery he had to make a couple of days ago. He had picked up the food but was accosted by local bullies on the way to the drop point. He could do nothing but plead with them to let him go. They relented—he could keep his phone, but they grabbed the food before they let him go. When he rang up the food tech firm, he was put through to a call centre. The agent was sympathetic, but as per policy, he was told that he would have to pay for the food stolen from his remuneration. The policy was likely in place to prevent delivery partners from consuming the food ordered by customers, but didn't consider cases like what had happened to him.

Many first-time users of digital platforms also face issues with unfamiliar interfaces. While “people like us,” fluent with reading, skim verbiage on interfaces, they are intimidating for those with limited literacy. If they end up making a mistake while using the app or service, getting help is difficult. As online businesses grow, we will see many such cases of grievances. Companies should consider a range of inadvertent errors seen from the lens of first-time digital consumers, partners, and others, and plan for grievance redressal.

The Benefits of Inclusivity

Even as we consider these, the big question for companies is: Why invest in these efforts? It's tempting to see this as a social good. But there is a strong business rationale as well. Worldwide smartphone subscription is estimated at over six billion¹ today but is forecast to grow by over a billion over the next four years. Most of these users will come from the Global South and will be first-time users. By investing in understanding their context and building products, features, or services tailored to them, firms stand to gain a strong foothold in this growing segment.

As growth in developed markets slows down, the biggest drivers for growth will be first-time digital users from the Global South. As these users come online for the first time and grow in digital confidence, they will end up consuming more services online. If we build our interfaces and policies thoughtfully for this segment, we can help unlock opportunities for them, and new revenue streams for firms. Done smartly, it could be a win-win.

About the Author

Shrinath V. (shrinath.v@gmail.com) is an expert product coach and consultant. In his last corporate role, he was the head of products for location services on Nokia's phones built for the Next Billion Users. He has been a mentor to various start-ups, building for this segment over the last several years.

¹ <https://www.statista.com/statistics/330695/number-of-smartphone-users-worldwide/>