



How to build digital solutions for girls' digital realities

Technology is creating tremendous opportunities for young people in emerging markets. Edtech, mhealth, fintech, and others are links to information, education, healthcare, and employment for previously excluded young audiences.

But despite best intentions, digital products and solutions are often designed for more generic, mostly male, users, and often do not fully consider female users. Women and girls' digital realities can differ greatly from those of men and boys. Failing to design for their needs means that female user numbers are often very low. Consequently, women and girls engage less and benefit less from digital solutions.

This guide supports readers in developing digital products that work for young women and girls as well as male users.

It gives practical advice to design for female user journeys and digital realities in order to reach a user base that includes young women and girls.



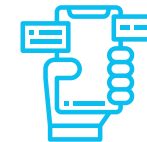
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01. Research girls' actual digital realities

To design for a girl's digital reality, you first need to understand that reality. There is a gender gap in girls' digital access and usage.

According to Girl Effect, globally, boys are 1.5 times more likely to own a phone and 1.8 times more likely to own a smartphone than girls.

Only 27% of girls use their phone for the Internet, versus 46% of boys.

Local contexts have unique circumstances, so research must fully explore the female digital landscape. Which devices do girls use regularly? How does this compare to boys? What are they using their devices for? Are they online, and what do they do online? Which restrictions do girls face in using technology compared to boys? How do these affect usage?

Suggested sources

- [Girl Effect's global study](#)
- [ITU Facts and Figures](#)
- [Digital Gender Gaps Portal](#)
- [We Are Social](#)
- [USAID Gender and ICT Survey Toolkit](#) for primary research guidance on methodology as well as example research tools

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02. Build for a variety of devices, handsets and operating systems

Girls and young women in emerging markets tend to use more basic handsets and older operating systems than boys. Smartphones are often lower end, with limited and slower functionality.

Accordingly, new digital products must consider the range of devices, handset types, and older operating systems that girls use

- Apps should be lightweight to run on low-end devices that use limited storage space.
- Apps should accommodate lower screen resolutions and older software (eg Android 5 and above).
- App designs and user interfaces must work on all screen sizes and not crash on older operating systems.

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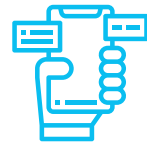
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03. Design for a range of digital literacy levels

Girls and young women tend to have (or believe they have) lower levels of digital literacy than boys. They also often have less opportunity to build digital skills through practice or online gaming. Female users can therefore struggle with more complex features. Complicated user journeys or unclear instructions can discourage female users and reduce engagement.

- Create simple user journeys.
- Use clear instructions with main messages at the beginning of instructions so users immediately know which actions they must complete.

Low-end Indian smartphone for users with low digital literacy

In India, Jio launched the JioPhone, a low-end smartphone that gives non-smartphone users first-time access to an affordable 4G-enabled handset. The JioPhone is specifically designed for a wide range of users. The team considered needs of female users with lower levels of digital and technical literacy levels, and who had not previously used the Internet or typed on keypads. JioPhone has a very simple interface and user experience. It looks and feels similar to basic feature phones, so it feels familiar for new (female) users who previously used a more basic device. It also has a text-to-speech feature for illiterate or semi-literate users.

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04. Leverage audio or visuals for users with low literacy

Gender inequalities in some education systems mean that girls and young women often have lower levels of reading and writing skills compared to boys. Audio or visuals can support and retain female users.

- Text-to-speech features enable users to hear written content read aloud.
- In-app tutorials can be visualised with images and video links.
- Interactive voice response (IVR), by which users press their keypad to select from audio-recorded options, can reach more female users with lower levels of literacy. IVR runs on any phone, so it is especially accessible to users who cannot access smartphones or the Internet.

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05. Consider female users' privacy and security needs

Many digital products and services put users at risk by not safeguarding their personal information or data. This risk is particularly acute for young women and girls, as they often have lower levels of digital literacy and knowledge about risks. They are less able to understand issues of consent to subscriptions and sharing of personal data. In some contexts, female users encounter far greater risk to their personal privacy than male users, as their use of digital services and platforms may be monitored by parents or relatives, especially if they share devices.

Any product service design needs to put a gender lens on these issues, and ensure that data security, protection, and discretion are carefully considered. See Box 2 for a case study of Oky, a digital menstruation product. [Girl Effect's Digital Safeguarding tool](#) includes detailed guidance and templates to help your team consider girl users' privacy, safety and security at all design stages.

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Box 2

Design of a private, discreet and secure digital menstruation product

Oky, a period tracker app designed specifically for and with adolescent girls in Indonesia and Mongolia. This lightweight app, designed for low-end handsets from the Android 5 operating system and up, uses passcode-protected user accounts and is designed for multiple logins on one app. This allows for shared phones, and it also protects female users from monitoring of topics that may be private.

Menstruation is regarded as taboo and not discussed openly in many contexts. Female users involved in co-creation were concerned that their male relatives would not let them use it if they saw the app and recognized it as something taboo. Accordingly, Oky is designed with a discreet icon and name, and it looks like a game.

Oky also has very strict data privacy and protections built in. Unlike other commercial period tracker apps, Oky stores data locally on the user's device so that personal entries are not accessible.



06. Consider offline functionality

Female users are much less likely to be online than boys, and they have more limited access to the Internet. They often have lower-end devices, and they tend to be more price-sensitive about data costs. Rural girls often have limited network connectivity.

Consider 'older technology' like IVR, SMS or USSD platforms that do not require users to purchase internet data. If your digital product does require data (for example, a prediction engine for period tracker apps), make it available offline so users can access features when no Internet connection is available.

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07. Design for users who share devices

It is far more common for girls and young women to share or borrow devices with family members or friends than it is for boys. To include such female users, design for multiple user logins, by which different users use one app on one device but with unique accounts and passwords. Protect user privacy with password prompts each time the app is opened.

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08. Test on devices that female users actually use

Young women and girls use the Internet in different ways to boys. Far fewer young women and girls have email accounts, and they cannot access the Google Play Store, which requires an account and email address to download apps.

- Include girls by making products available in multiple locations, not only the Google Play Store.
- Use shareable links or QR codes for app downloads. Likewise, design for alternate ways for users to secure accounts, rather than just through email addresses. For example, use a (simple) two-step verification process such as setting security questions.

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Want to know more about designing digital products for the digital realities of adolescent girls and young women?

Check out these other great resources:

- [Girl Effect Girls and Mobile Report](#) to understand more about how girls access and use digital technology
- [GSMA mHealth Gender Toolkit](#) for tips on product and service design for women and girls
- [USAID Gender and ICT Survey Toolkit](#) for research tips on women and girls' digital realities
- [Girl Effect Digital Safety and Safeguarding Principles](#) for ideas on how to design for girls' safety and security

Do you have additional tips for designing for the female user journey? Have you come across any key resources? Are you interested in being part of a community of practitioners working on digital products with and for girls?

Get in touch with the UNICEF EAPRO Gender and Innovation team via Gerda Binder (gbinder@unicef.org) or Alex Tyers-Chowdhury (atyers@unicef.org)