The African Technology Environment

AiCE Africanism & Pan-African Studies — Understanding your actual user

Understanding Your User: The African Technology Reality

Effective product design begins with a deep, honest, empirically grounded understanding of the user and their context. For African product designers, this means confronting several realities that differ fundamentally from the technology environment in which most of the world's software is designed.

The African Technology Environment: Key Facts for Product Designers
Smartphones: approximately 50% of African mobile phones are smartphones — but feature phones remain dominant in rural areas and among lower-income users.
Internet connectivity: approximately 40% of Africans have internet access — quality varies enormously; rural areas often have 2G only; data is expensive relative to income.
Data costs: 1GB of mobile data can cost 5-20% of average monthly income in many African countries, compared to under 1% in Europe and North America.
Electricity: approximately 600 million Africans lack reliable electricity — affecting device charging, internet infrastructure, and power-dependent services.
Banking: approximately 57% of Africans are unbanked, but over 80% have mobile phones; mobile money is the primary financial tool for hundreds of millions.
Literacy: adult literacy across sub-Saharan Africa averages approximately 65%, varying enormously; many users have limited experience with complex digital interfaces.
Languages: Africa has over 2,000 languages; products designed only in English or French exclude the majority of potential African users.
Address systems: most African cities lack formal street address systems, making delivery logistics and location-based services that assume addresses non-functional.
Digital payments: card penetration is low; mobile money dominates; any product requiring card payment excludes the majority of African users.

The Five African Product Design Questions

Before designing any product for an African market, every product designer must honestly answer five questions. If the answer to any of these questions is 'no,' the product either needs to be redesigned or will fail.

The Question	Why It Matters — and What to Do
1. Does it solve a real African problem — not a problem that exists in San Francisco?	African users need solutions to African problems: financial exclusion, agricultural price information, healthcare access, job matching, logistics in informal settlements. Design starts with problem discovery in African communities, not problem importation.
2. Can ordinary people afford it?	The average income in sub-Saharan Africa is approximately $2-5 per day. Products priced for middle-class American consumers exclude most potential African users. Freemium models, pay-as-you-go pricing, and mobile money integration work.
3. Does it work on low-end phones or feature phones?	Test your product on a $30 Android phone with 1GB of RAM. Does it run smoothly? Does it use too much storage? Does it drain the battery?
4. Does it function with unreliable or expensive connectivity?	Offline-first design — working without internet and syncing when available — is essential. Low-data design — minimising data consumed per interaction — is equally important.
5. Can rural and low-literacy communities use it effectively?	Design for the least-experienced user, not the most experienced. Voice interfaces, icon-based navigation, and simple task flows extend accessibility to lower-literacy users.

Key Takeaways

The African technology environment — feature phones, expensive data, unreliable electricity, unbanked users, low European-language literacy, informal addresses — is not a set of obstacles to work around at the margins. It is the actual starting point every

serious African product designer must design from. The Five African Product Design Questions give you a concrete checklist to apply before building anything. The next lesson examines the product that answered all five questions correctly: M-Pesa.