

MARCH 2015

A Locally Relevant Web

*Early Research &
Recommendations*



mozilla

Introduction

Fulfilling the promise of a global web will require innovative partnerships and solutions to radically increase participation in mobile digital life.

To meet this challenge, Mozilla and GSMA have created a partnership to research and invest in new approaches to stimulating local content creation in new smartphone markets.

In this note, we share early findings from a six-month field research program based in three emerging smartphone markets (Bangladesh, Kenya, and India), and invite industry participation in the shared mission of growing locally relevant web content.

OUR GOAL

Understand how people perceive and use technology, mobile devices and the Web in emerging digital economies, in order to enable local content creation.

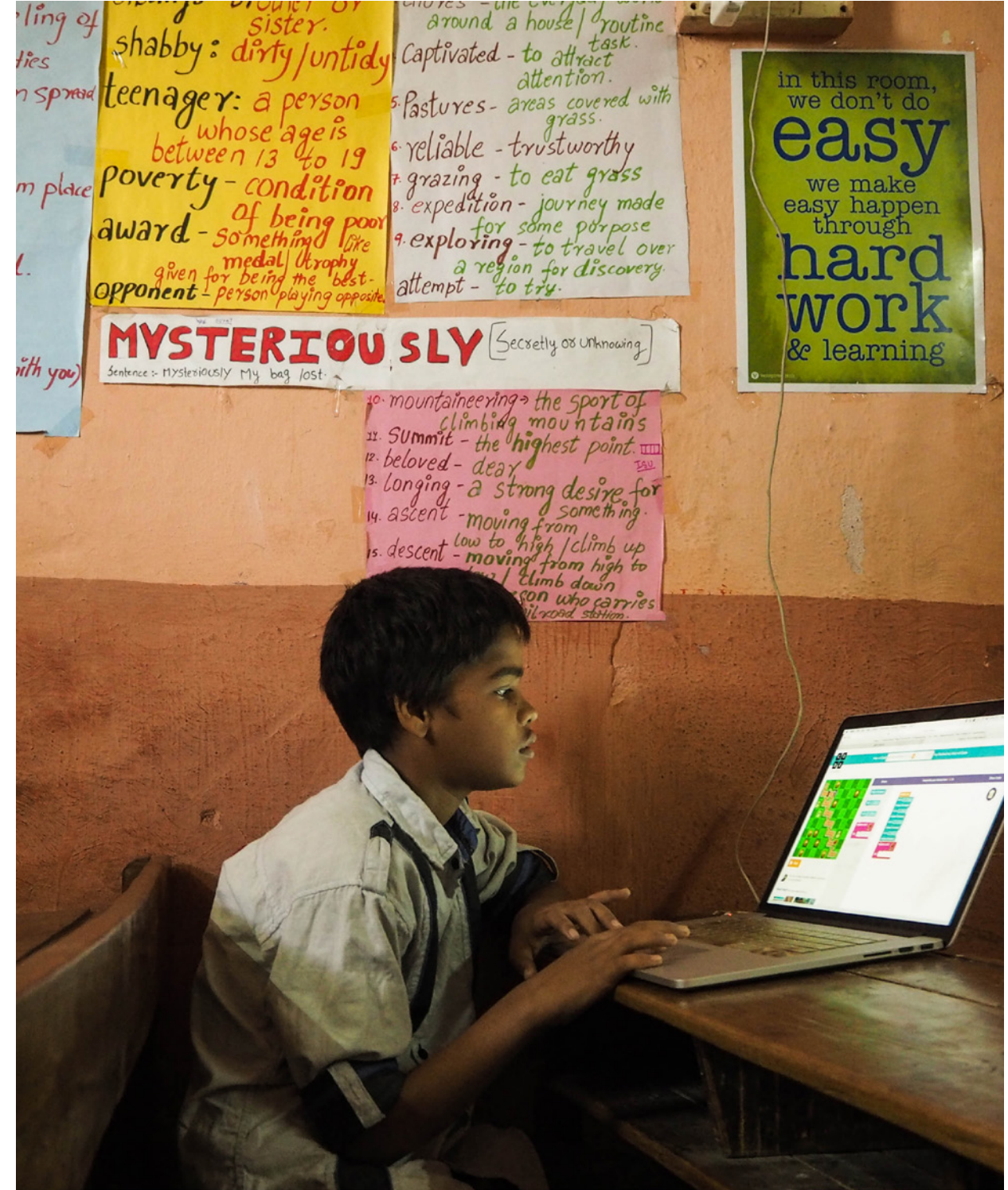
WEBMAKER

As part of this initiative, Mozilla has designed Webmaker, a free & open source mobile content creation tool.

- Available in many languages
- Supported by Mozilla's volunteer mentors over 20 countries

We invite mobile operators and NGOs to join in this initiative and activate the potential of the users in their networks.





Our Research

3 Countries, 308 Participants, and 9 Weeks in the Field

BANGLADESH

IN-DEPTH INTERVIEWS

- 12 Small Business Owners
- 17 University Students
- 6 High School Students
- 6 Teachers
- 1 Parent

26 AD-HOC INTERVIEWS

Teachers, students, drivers, shop owners, laborers, families, employees

KENYA

IN-DEPTH INTERVIEWS

- 6 Artists
- 6 Experts
- 5 Journalists
- 3 Teachers
- 4 Parents
- 19 Small Business Owners
- 4 High School Students
- 16 University Students
- 4 Farmers

58 AD-HOC INTERVIEWS

Market sellers, matatu drivers, teenagers, teachers

INDIA

IN-DEPTH INTERVIEWS

- 17 University Students
- 5 Experts
- 5 Teachers
- 11 Teenagers
- 2 Cotton Mill Owners
- 4 Artists
- 4 NGO workers
- 1 Cyber Cafe Owner
- 11 Small Business Owners
- 4 Artisans
- 1 Farmer
- 3 Employees
- 1 Web Developer / Wikipedian
- 1 Retired Man
- 2 Housewives
- 2 Laborers

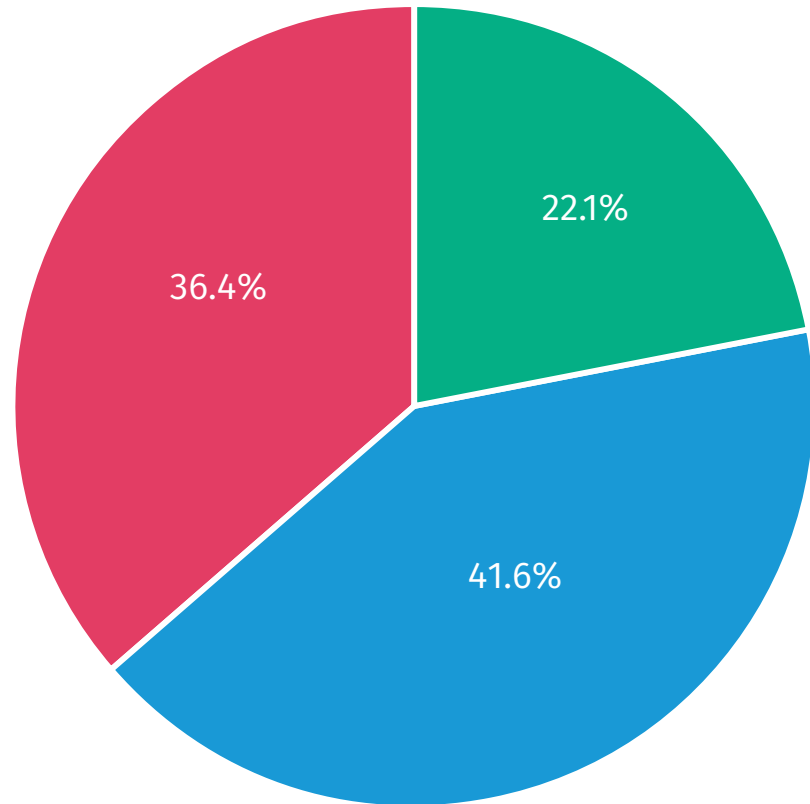
38 AD-HOC INTERVIEWS

Phone stall owners, cyber cafe users, workers, micro-business owners, families, teachers, students



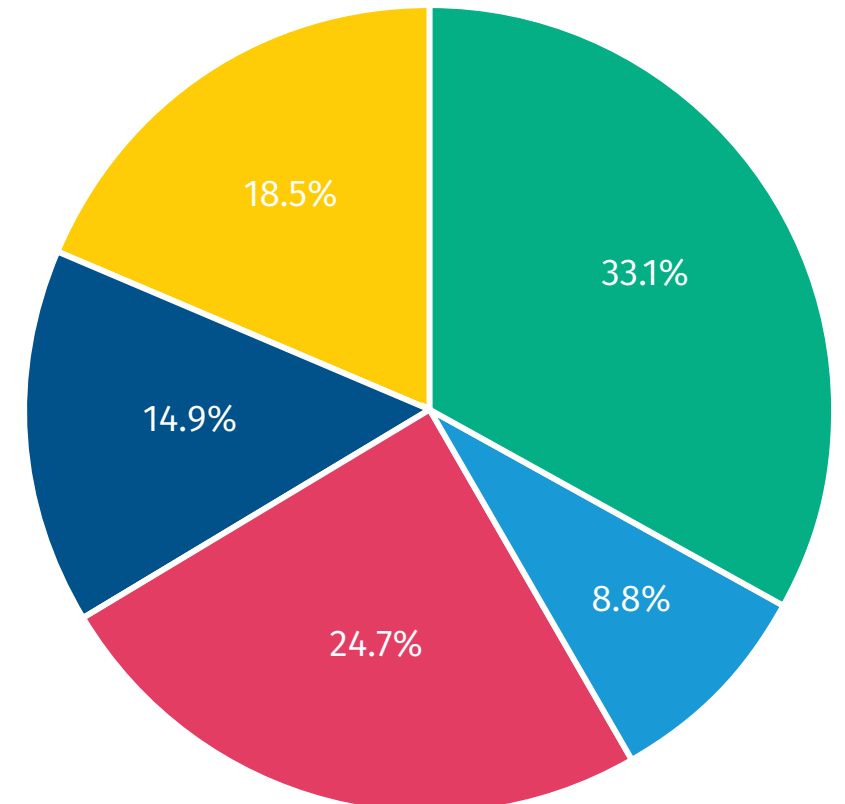
Number of Participants per Country Researched

- INDIA
- BANGLADESH
- KENYA



Participant's Environment

- URBAN
- RURAL
- URBAN SLUM
- UNKNOWN
- TOWN



Recommendations and Call to Action

Addressing digital literacy gaps is a first step toward cultivating local content creation. Through retail, distribution, and agent networks, operators are the most universal front-line for delivering digital skills in an informal setting.

- Operators should experiment with customer on-boarding that teaches essential skills and competencies;
- Invite youth, who are often the most active and lead users, into sustained digital learning experiences;
- And under the network banner, help the most engaged users become peer advocates for digitization and digital skills.

Cultivating local content creation will also require investments in the tools directly available to users. Low-cost smartphones will enable meaningful mobile content creation

for the first time. Through pricing structures, mobile service portfolios and marketing, operators have the ability to nudge user behavior.

- Operators should invest in value-added services that help users in their journey from basic skills to content creation;
- Make it easy to share and learn by doing, activating a ripple effect where creation itself becomes a viral process;
- And harness the creative energy of users to fill market-specific content gaps, socialize the processes of creation, sharing and recreation, ultimately increasing demand for data services that drive profitability.

These are investments in market development, aimed at kickstarting demand cycles and socializing new technology practices. They provide users with more reasons to

upgrade to smartphones and use advanced network services. These investments could also help with short-term customer retention, by increasing youth customer loyalty, differentiating and creating brand affinity.

At Mobile World Congress 2015, Mozilla and GSMA invite industry participation in the great challenge of enabling user potential and creating a locally relevant web. As a public interest technology company, Mozilla is an enthusiastic partner in deploying open source and community-driven solutions to shared technology problems.

Mozilla is looking for partners in its global Webmaker initiative (<http://webmaker.org/localweb>). Webmaker is a free and open source platform for mobile content creation. It's backed by a volunteer network of digital skills mentors in over 30

countries. Working together, we can deploy the Webmaker app on many mobile networks and in many languages, and create informal digital skills teaching associations in thousands of cities. These kind of market-level investments will unlock content creation and grow talent pipelines.

We don't believe that Webmaker is the solution, but we hope to light the way and show what's possible.

Together we will build a web that empowers its users as agents of economic and social opportunity, and invite the next billion users under conditions where innovators can deliver new services that create jobs and economic value.



Findings

THE WEB IS UNKNOWN

Although users are gaining access to advanced devices, a significant number still lack knowledge and understanding of the web. Many don't use data at all.

SOCIAL MEDIA DOMINATES

Most users limit their use and understanding of the data services to social media, and specifically Facebook and WhatsApp, which are dominating today's online interactions.

DATA IS STILL TOO EXPENSIVE

Pre-paid data can be prohibitively expensive. The marginal cost to access new and unknown web services discourages exploration and experimentation with the web, a trend worsened by a lack of locally

relevant and local language content.

As a result, users see little incentive to pay for access beyond what they know—a small number of services like Facebook and WhatsApp.

“Until Internet access gets better, there will be no local content.”

Journalist, Kisumu Town, Kenya

INTERNET IS NOT FOR ME

A huge number of people feel that the internet is not something they can be a part of. Users with low levels of formal education fear the unknown, associating web services with risk for their children and themselves.

These users can also lack confidence,

expressing that the web is only for office workers and highly skilled professionals.

“Giving me a smartphone is like giving a farmer a car. Useless.”

Ola Cab driver, Chennai, India

“I thought that Internet was something for the people who work in big offices.”

Small Business Owner, Nairobi, Kenya

THE WEB IS IN ENGLISH

In markets where English is spoken as a second language, the predominance of English language content affects the esteem of people with low levels of education, creating

a stigma that prevents these users from venturing online.

This is also true of users who are highly literate in their native languages.

“When someone is accessing the Internet, you can be sure that they speak English.”

Teenager, Pune Region, India.

“If I look for something in Swahili, I am sure that I won't find it.”

Small Business Owner, Mombasa, Kenya

GENDER EQUITY ISSUES

In many societies, the web is perceived to be an “inappropriate” place for women, where they are likely to be overexposed, immodest, or run afoul of conservative social mores. This affects how women can access the web and their freedom to publish web content.

“My daughter and I, we can’t go on the Internet. It’s like this. It is the same for the others in this community it is not appropriate for us, but if my brother wants, he can.”

Artisan, Ahmedabad, India

BASIC DIGITAL LITERACY GAPS

A lack of cognitive skills and models for navigating the web, as well as discovering and installing apps, further compounds these users’ inability to develop their own understanding of how to use, leverage, or create for the web.

“My brother is a computer genius, so he transfers things for me. He always tells me that I have a virus. I had a virus on my phone and it died.”

Small Business Owner, Kisumu Town, Kenya



Using Is Not Understanding Access Is Not Enough

We interviewed a man doing Mehndi work in the streets of Delhi. This art is very popular for Indian women, and generally informally executed by men who wait for clients in market streets. One of the man we interviewed had a dual sim feature phone and a tablet where he kept pictures of his designs. When we asked him if he shared the pictures on the Web, he asserted yes, while pointing out the WhatsApp and Facebook icons from his tablet. He then handed us his business card, for us to be able to find him on Facebook. He mentioned: "This is my Facebook, this email ID".

As you can see on the card, he displayed his 'email id' (which is in fact his phone number), along with the password to connect. This simple

business card allows literally anyone to log into his personal profile and access all his conversations, friends, pictures and other private details.

While lots of people are coming online through social media, there is still a lack of basic understanding of the Web. Just because someone is on Facebook, does not mean that they know how to use it, what is an email, what is a Facebook profile VS a Facebook page etc.



User Insights

Mobile Content Creation

USERS DON'T KNOW THEY CAN

When users are interested in creating content on the Web, they are not able to do so, because of lack of awareness about what is possible and relevant tools.

“I cannot wake up and do something I know nothing about”

Small Business Owner, Nairobi, Kenya

Our research team demonstrated a prototype mobile content creation tool for a user group in Pune, and observed reactions:

“The problem is that we are not aware that doing this is possible.”

Teenager, Pune, India

CREATING IS EASIER ON DESKTOP

The latent motivations to create content and be a proactive user of the Web are not represented in current content creation pathways and tools. Mobile operating systems are optimized for utility, ease of use, and consumption—the app publishing and discovery models assume that content production takes place on desktop computers.

SHARING > CREATING

In the countries we surveyed, sharing and other online social dynamics can be stronger motivators for content creation than the act of creation itself.

In the countries we surveyed, “Making” and the “DIY” cultures were often negatively associated with

low-class, manual labor—in contrast with the positive connotation that exists in the West, where learning to create something is celebrated as expression and a way to acquire new skills.

“Making is manual labor, it is something people look down on. It is not in our culture, we are used to consuming things.”

Tech Blogger, Nairobi, Kenya

We observed this in interactions with potential users, and professionals echoed this popular perception.

REMIXING IS A CRIME?

Whereas web developers are taught to recycle, “fork” and re-use code, in

the countries we surveyed the digital learning modes of “imitation and iteration” can be perceived as theft, shortcut, or lack of character and originality.

“If you remix it, I call the police.”

University Student, Kisumu Town, Kenya

DIGITAL TOOLS CAN BE ACCESSED BY LOW LITERACY USERS

Although digital literacy requires a baseline of traditional written literacy, we have observed that low-literacy users are nonetheless able to develop competencies with digital tools.

In fact, more skilled peers and family members can share knowledge and

show these users how to operate interfaces, which sometimes leads to conceptual literacy even when users cannot read.

“Nobody needs to read and write to use MPesa. It does not require any literacy, anyone can use it, and this is how business is done on mobile.”

Micro-Business Mentor, Kisumu
Kenya

EFFORTS ARE NEEDED TO BUILD RELEVANT SOFTWARE

While most people access the web through mobile devices, mobile content creation is not ergonomic. There are very few creative tools adapted to mobile form factors

and input methods; these tools are generally built for Roman character input and assume high functional and conceptual literacy. This can make Hindi or Bangla text entry, for instance, a feat of patience and mastery.

“It took me three months to be able to type in my mother tongue. And I am very very tech savvy.”

Localizer and Web Developer, Pune,
India





In a village near Chittagong, Bangladesh, our research team conducted extensive interviews with 15 young people. **When we asked about the Web, all of them referred to Facebook.**

“Do you go on the internet?”

“No, I don’t have my Facebook account yet.”

“Sorry I did not mean Facebook. Have you ever been on a Website?”

“Not yet, I will make my facebook account next week.”

The assimilation of Facebook and the Web was so deeply anchored in people’s mind that for some of them, Facebook is the internet.

In a rickshaw driver community in Dhaka, Bangladesh, our research team met two men playing on a smartphone. We were surprised because usually, this community is among the poorest, and all the drivers we met earlier could only afford feature phones.

“I use this smartphone to play Angry Birds, and watch music videos.”

“What about browsing the Internet? Do you know what the Internet is?”

“No, I have never seen it. I don’t understand what it means.”

This new smartphone user only uses content that has been preloaded on his device or “sideloaded” at pirate media trading stalls—a common practice in urban Bangladesh.



Omar is 16 years old, and lives in Chittagong, Bangladesh. Like many other teenagers, he uses the web to watch TV shows and play games with his friends. He wants to create a mobile app for him and his best friend only, to allow them to curate and share the content that matters to them (sports, games and gossip).

Similar to other youth, creating the content themselves is compelling because they can be sure it will be relevant to them, but most importantly, they will then be able to share it with others and establish connections.

Sharing is what matters, creating is the first step of the process.

“Sharing is great, when we share it means we have something to talk about.”





Learn More

COUNTRY SPECIFIC LEARNINGS

Bangladesh

www.mzl.la/bangladesh

Kenya

www.mzl.la/kenya

India

www.mzl.la/india

LEARN MORE

<http://webmaker.org/localweb>

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