

## Unlocking relevant Web content for the next 4 billion people

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Over the last 25 years, the Web has been at the centre of a transformative shift in how we connect with one another. We live in a world where communication is quicker, information is more available, commerce more efficient, entertainment and education more easily accessible than ever before. In the wealthier parts of the world, this has been a relatively inclusive process – something that has touched ordinary citizens and the technologically savvy alike. However, only a minority of the world's citizens have been included to date. Globally, 4 billion people remain unconnected, 90% of whom are in the developing world. Even in the developed world, the economic rewards of a global web are becoming more and more centralized, with profound implications for culture, access to information and economic opportunity.

At the same time, we are currently undergoing a rapid shift from feature phones to smartphones, even in the world's less economically developed regions. Towards the end of 2013, mobile broadband connections in the developing world passed 1 billion. [By 2017, this will have crossed 3 billion, half of which will be smartphone connections.](#) Mobile technology will enable billions to join the Web in the near future. But few have taken the time to ask: What kind of Web do we need to build to unlock social and economic opportunities for people in emerging markets? Even if we solve key issues like access, affordability and efficiency, what will the next wave of users find when they get online? Will it interest them? Will it be a place where they can access and create content that has a meaningful impact on their lives?

Getting the next billions of Web users online will not occur automatically. It has to be affordable. The tumbling price of smartphones, such as the [Firefox OS handsets](#), is one element of this transition. However, widespread adoption is also contingent on people being able to access mobile networks at a price they can pay. Around the world, we see a significant increase in the number of mobile subscribers at the point where the cost of owning and running a mobile falls to 2-3% of total income. For this to happen, serious investment from operators will be required. In the last 6 years, operators have invested \$1 trillion into mobile networks globally. A similar level of investment will be required over the coming years. Responsible and transparent taxation and regulatory policies on the part of governments will be equally important in providing consumers access to affordable networks.

### Content that people understand

Maximising this unprecedented opportunity will also require a huge investment in digital skills. Populations coming into contact with digital technologies for the first time will need to be taught how to effectively navigate, evaluate and create on the Web. Organisations interested in ensuring that the Web remains a place for the many and not for the few, should be considering how they can help work to cultivate these skills.

Over the course of its history, most of the users and creators of content have been located in a relatively small number of countries. A clear example of this is the fact that English dominates the Web, despite the fact that a relatively small proportion of the world speak it as a first language. Just over half (55.8%) of Web content is estimated to be in English despite the fact that less than 5% of the world's population speak it as a first language, with only 21% estimated to have some level of understanding. By contrast, some of the world's most widely spoken languages, such as Arabic or Hindi, account for a relatively small proportion of the Web's content (0.8% and less than 0.1% respectively). Those designing content have a clear imperative to deliver

material that is relevant, understandable, and meets the demands of its audience. With some notable exceptions, this is not something that has yet taken place in much of the world.

## Where the status quo would lead

If the industry continues on its current path, we will have a broadly connected but less empowered Web citizenry. Even if operators keep investing in network capacity, and even if handset costs will continue to drop, the next billion users will find a less welcoming content landscape, which is effectively closed to their contributions except for a handful of private content silos. The long-term impact of that could include delayed adoption of smartphones, meaning the potential benefits of a connected planet are not realised.

## Enabling local content – the key to unlocking the value of the Web

At present, there is a shortage of digital content that has a sufficient understanding of specific cultural contexts, local conditions and the needs of local populations. An internet that is available to more people is a welcome development, but increased access alone will not solve these issues. A more dispersed digital content ecosystem, in terms of how content is created, distributed and monetized will also be needed. At present, digital content creation remains centred in a few geographical locations and in certain languages. This is in large part due to the fact that developing localised content is expensive and perceived as a risky proposition. As a result, a large amount of content is created for a 'global' audience, with handset vendor app stores providing a particularly prominent illustration of this. To date, one of the consequences of the shift to mobile has been the [increasing dominance of platform providers, with a Google and Apple duopoly currently dominating in more mature markets.](#)

The arrival of the Web through smartphones in emerging markets represents an opportunity for challengers to this duopoly, through the arrival of open, collaborative solutions that allow for interoperability across multiple platforms and that ensure healthy participation from all players across the mobile ecosystem. For those willing to address this issue, including mobile operators, this could represent a host of new revenue streams across a broad range of areas, such as health, education and e-commerce, as those currently underserved in those sectors connect to the Web for the first time.

## GSMA and Mozilla: why we care

As the representative of 800 operators in 220 countries around the world, these questions are of critical importance to the [GSMA](#). All who work in mobile recognise that the mobile Web lies at the heart of industry's future. In recent years, our operator members have faced slowing revenue growth as traditional revenue streams, voice and messaging services, have diminished. This trend is going to continue across the globe, and all operators are now considering how they can remain an integral part of the future ecosystem. We believe that addressing the local content issue has the potential to lead to an increase subscribers, customer loyalty and data revenues, as well as stimulate a culture of innovation across the industry. This may involve some change in how operators work, for example exposing their core capabilities through Network APIs to third parties. However, ultimately we think that by growing the ecosystem, operators in emerging markets have the opportunity to position themselves as leaders in innovation and to be a rich source of content to subscribers.

As a global community of technologists, thinkers and builders, Mozilla is working to keep the Web alive and accessible, so that people worldwide can be informed contributors and creators of the Web. We do this through open source products like the Firefox Web browser, the Firefox OS mobile operating system, and the Webmaker digital literacy initiative. Mozilla is keen to ensure that people have both the skills and the tools to be makers and not simply consumers of digital content. We believe that just like Firefox did for web browsers, software in the hands of inspired individuals can shift markets. As a result, we are building a mobile content

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authoring system (Mozilla Webmaker) which is designed to allow anyone with a smartphone to create content that they think will be relevant to their peers and neighbours—useful, profitable, or just fun—much like the Web we enjoy today.

## Why are we coming together?

Both Mozilla and the GSMA believe that connecting the 4 billion people around the world who currently do not have access to the Web will be one of the most significant events of this century. We also both recognise that mobile will be the principal way in which this group will come online. This is something we have already seen unfolding rapidly, and recent years have seen much excitement about the role mobile phones have to play in improving social and economic outcomes around the world. Clear barriers exist: we see some common obstacles that have the potential to dampen the impact of this transformation, and ways to overcome them. We share a common hypothesis: that locally relevant content will truly unlock the benefits of the Web for the unconnected billions.

As a result, over the next 6-12 months, we will be exploring some of the potential solutions to the issues discussed above through projects focussed on low-cost smartphones, digital literacy training and local content. Initial field tests in Bangladesh, Kenya, Brazil and India are currently underway. We are looking to build a coalition of mobile operators, device manufacturers, educators, international development donors, and NGOs who are interested in positively shaping the future of the Web.

## How to get involved

We are looking to join forces to help along every dimension of this initiative, from user research partners who can help us understand the needs of local communities, to pilot partners who want to try our approach in their communities and networks of users, to distribution partners. Interested organizations are invited to contact [mobileopportunity@mozilla.org](mailto:mobileopportunity@mozilla.org) to register interest and find out more.

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The GSMA represents the interests of mobile operators worldwide. Spanning more than 220 countries, the GSMA unites nearly 800 of the world's mobile operators with more than 230 companies in the broader mobile ecosystem, including handset makers, software companies, equipment providers and Internet companies, as well as organisations in industry sectors such as financial services, healthcare, media, transport and utilities. The GSMA also produces industry-leading events such as the Mobile World Congress and Mobile Asia Expo.

For more information, please visit the GSMA corporate website at [www.gsma.com](http://www.gsma.com)

# mozilla

The Mozilla Foundation is a non-profit organization that promotes openness, innovation and participation on the Internet. We promote the values of an open Web to the broader world.

Mozilla is best known for the Firefox browser and Firefox OS, but we also advance our mission through other software projects, grants and engagement and education efforts such as Mozilla Webmaker. These efforts aim to empower a new generation of digital creators and webmakers, giving people the tools and skills they need to move from using the Web to actively making the Web.

For more information please visit [www.mozilla.org](http://www.mozilla.org)



## Mobile for Development Impact

GSMA Mobile for Development Impact supports the digital empowerment of people in emerging markets through its Mobile for Development resource. It is a central platform of data, analysis and insight used to inform investment and design decisions for mobile services.

Our work is freely accessible through support from Omidyar Network and in partnership with The MasterCard Foundation at:

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