

Reaching 4 billion

The sustainable business of closing the digital divide



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According to the UN's 2015 Millennium Development Goals Report, "Mobile-cellular and Internet penetration rates have grown strongly, but the digital divide between the rich and the poor is growing." Like the UN, Huawei recognizes the urgent need to reduce the expanding digital divide between those who benefit from online access and those who don't.

By Adam Lane

In its White Paper, *Digital Enablement: Bridging the Digital Divide to Connect People and Society*, Huawei shows that profit-driven business models for connecting people are more effective than traditional models that give away services for free. Although finding a viable business model is not easy, particularly one that works for rural or lower income populations, several successful cases already exist.

Connecting more people has tremendous benefits for society as a whole. Equally as importantly, it creates successful and sustainable outcomes for carriers, ICT enterprises, governments, and other industries. The current state of play with the existing digital divide, therefore, offers a mix of problems and opportunities.

So, what exactly are the problems? After all, the quantity of networks, Internet connections, and affordable smartphones is on the rise. Today, more than 87 percent of the world's population is within range of a mobile signal, with 55 percent able to access 3G networks. But, that still leaves an estimated 1 billion people without telecommunications, and an additional 3 billion without broadband. For them, the divide is deepening because they miss out on all the benefits broadband provides.

The technology paradox

One problem is the dichotomy of what happens when a new technology enters the global arena. As a force for good, technology has the extraordinary power to enable people, transform communities, and

propel social development and economic growth. Better connections, sensors, devices, data, video, and analytics create more productive agriculture, healthier individuals, stronger economies, thriving ecosystems, and efficient transport.

However, technology also has the potential to create a massive digital divide almost overnight, separating the connected and unconnected, and those who lack the skills to exploit being connected. With the advent of IoT, a new divide caused by a connected world of things will only serve to accentuate the gap between the haves and have nots.

Running parallel to the problems are rich opportunities for sustainable business. For carriers, connectivity packaged with the right solution can build trust, attract new users, and increase revenue from value-added services. Of course, we should not kid ourselves into thinking that the 4 billion offline are the most profitable market segment. However, we should still recognize the size of this untapped market and its huge potential for bringing in revenue, particularly in the medium-term. With up to 20 percent of people offline, developed countries also present a major business opportunity.

In the developing world, though, it's not just about providing connectivity; it's also about the services that the unconnected are so desperate to consume, often more keenly than their wealthier counterparts. Most unconnected people are poorly educated and have access to very limited health information. Few job opportunities exist and productivity tends to be low, especially in the agriculture sector. Many lack bank accounts or insurance,



and often pay more than the wealthy connected for basic services like water, healthcare or energy when they're available. Despite low disposable incomes, the unconnected are highly likely to consume affordable services that they need.

The UN believes that only when the digital divide is closed can the “transformative power of ICT and the data revolution be harnessed to deliver sustainable development for all.” However, ICT on its own isn't the silver bullet that can bring down inequality. What it can do, though, is provide solutions at much lower cost, greater scale, and higher efficiency than traditional alternatives.

Solutions that use ICT make new business models possible, which in turn can stimulate new collaboration modes between the ICT industry, governments, and other private sector companies. Yet, serving this large market profitably by providing digital enablement solutions requires new ways of thinking. Huawei suggests that this can happen in two main ways.

One: Rethinking how connectivity is funded

A service is clearly unsustainable unless it provides services that are valuable enough for someone to pay for. Typical digital enablement programs rely on a charitable model that fails to cover operating costs. To build in sustainability, organizations must adopt a more commercial, profit-driven model that works in tandem

with development outcomes. Several methods can help this happen.

The first involves monetizing organizational assets like networks, distribution channels, and data alongside consumer-specific assets such as relationships and trust. In Kenya, Safaricom partnered with Britam and Changamka to jointly launch the micro health-insurance product, Linda Jamii, in July 2014, offering affordable and sorely needed health insurance for families. Currently, only 3 percent of Kenyans have insurance, which are mainly employer-based policies, leaving 38.8 million without cover. Safaricom's trusted brand ensures effective marketing campaigns, while its technological capabilities help deliver and manage the product. Ultimately, Linda Jamii helps prevent sick people from being pushed further into poverty.

The second method is to find new funders such as consumer goods producers, banks, online content providers, and governments. For example, the Audrey Pack in Nigeria provides free samples for expectant and new moms to try before they buy, bringing mothers into the fold of the mobile health information service. So far, Audrey packs have been distributed to over 170,000 women in Nigeria and incentivized a million women to receive regular health information on their mobile phones. Designed to reduce maternal and child mortality in Africa, the Audrey Pack initiative, including communication costs, is funded by the marketing budgets of private enterprises like Cussons Baby, Kenya Airways, and GSK.

The third method is to accept payment in installments or adopt revenue-sharing, commission, cross-subsidy or

DIGITAL ENABLEMENT:

Bridging the Digital Divide to Connect People and Society

THE DIGITAL DIVIDE IS GETTING
NARROWER

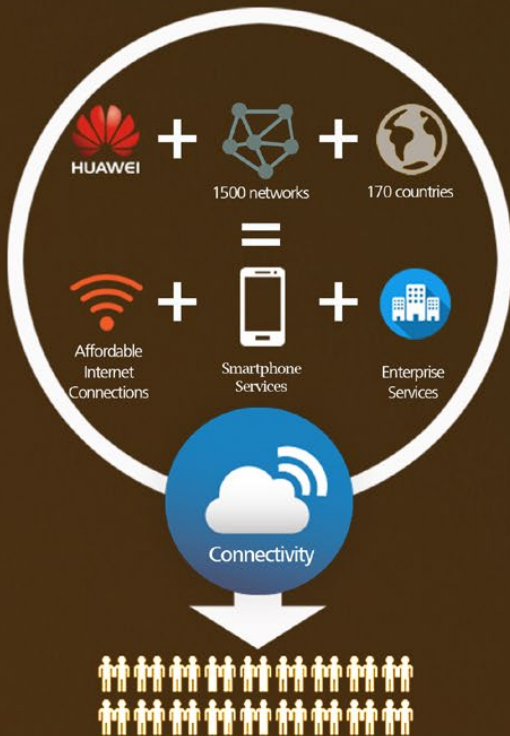


87%+ within range of mobile signal

THE WORLD'S POPULATION



55% 3G networks



Huawei contributed to connecting 30% of the world's population

BUT IT IS ALSO GETTING
DEEPER



UP TO **1 BILLION**
unconnected to
telecommunications



AND ANOTHER **3 BILLION**
unconnected to
broadband internet

(Source: ITU and GSMA estimates)

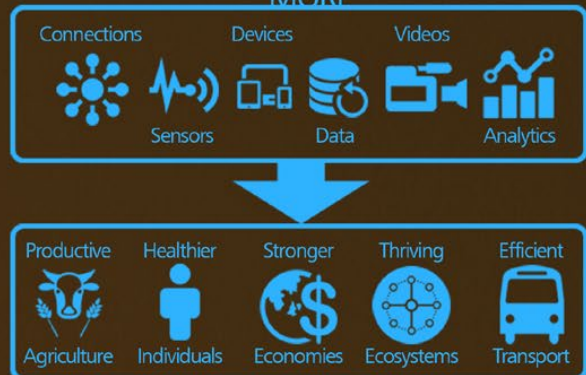
1 IN 3 vs **8 IN 10**

online in emerging
economies

online in developed
economies

Powerful new technologies have the potential to create unprecedented digital divides almost overnight which will create even greater separation between those with and without access or the skills to exploit them.

MORE



freemium models. Bridge Africa runs this type of model in Cameroon: Field staff go door-to-door and show locals how and why they should get online. Project costs are covered by selling MTN broadband packages and devices.

A fourth method involves finding faster routes to scale-up business activities by distributing or selling products through agent networks, franchises, mobile network operators, charities or strategic partnerships in other sectors. Telenor Pakistan, for example, enables agents to provide farming information and accurate prices for farmers. They work within existing social infrastructures to operate on a large scale and reach the last mile so they can more effectively help farmers who face connectivity and literacy issues.

Although unconnected populations are often poor, digital enablement solutions should not necessarily aim to provide services free of charge. The above examples are sustainable because they focus on creating services that are valuable enough for a beneficiary to pay for. In addition, the payment amount is affordable and the payment methods viable.

Creating the feedback loop

Ideally, the consumer should pay something, even if the amount is small. This creates the feedback loop. Services are forced to show they are worth paying for, which boosts quality. In addition, they receive the feedback they need to keep improving what they're offering. This, in turn, means more people want to use the service. Focusing on providing something worth paying for forces companies to anticipate market demand and develop solutions that people need.

If consumers are unable to pay, they should still invest something to show they value the service, whether it's time, desire, commitment, movement or a behavioral change. If a government or third party beneficiary funds the service, they need to be backed by a model that creates value. This ensures that services can be funded through a fee-for-service model rather than as a grant.

Two: Rethinking how third parties benefit from connectivity

Connectivity can reduce costs, prevent problems, and create value in other ways. Recognizing this value – which is sometimes not-so-obvious – is the key to unlocking new funding, partnerships, and business models.

If connectivity enables e-voting, for example, the increase in efficiency can save governments time and money by removing the need to send paper ballots to inaccessible populations in remote areas and count votes by hand. Enabling more payments to take place digitally could also bring new forms of tax revenue and uncover new data, which is especially valuable in countries where both are sparse.

Connectivity can also improve public health. For example, it can raise vaccination rates by sending e-reminders, and then monitoring progress by linking vaccinations with electronic medical records. Digital systems could prove invaluable at helping prevent deadly outbreaks and reducing treatment costs. Micro Clinic Technologies runs a complete ICT solution for rural clinics in Kenya that ensures access to safe, affordable medicines. It applies an affordable pay-as-you-go plan that increases clinics' revenues by between 40 percent and 70 percent. Rolling out this type of system nationwide could save US\$200 million in essential drugs that expire each year, and save the five days that health workers waste each month manually inputting data for government reports.

Everything begins with an "E"

The tremendous growth of mobile money services in the developing world for previously unbanked populations has all kinds of benefits. E-payments, for example, ensure that whole amounts are paid on-time, minimizing fraud and transaction costs. They also result in the better delivery of public services: studies show that teachers are more likely to turn up for work if they are paid in full, on-time. The knock-on effect of this is that students receive a better education.

Third-party benefits are intrinsically linked to consumer benefits. When all stakeholders focus on creating value, the whole ecosystem benefits because the chances of creating ongoing revenue streams and a sustainable business model are much higher.

Huawei's White Paper, Digital Enablement: Bridging the Digital Divide to Connect People and Society, sets out 19 recommendations and two tools to help enterprises develop sustainable business models and rethink value propositions to find new sources of revenue. As a growth market involving billions of people, the time has arrived for carriers to start connecting the unconnected. [iwm](#)

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