High performance. Delivered.

Digital disruption:
Development unleashed

Multiply innovation, collaboration
and impact through digital in
international development

by F. Roger Ford and Ian Lobo

In isolation, digital technologies are no silver bullet for the international development sector. But linked to their mission, programs, operations, partnerships and people, they can drive profound economic and social transformation.

Changing the world is changing fast

The international development community is no stranger to disruption. However, the velocity and intensity of change in the sector today is unprecedented. New players, business and funding models, societal expectations, demographic shifts, globalization and digital technologies are rapidly changing the face of the sector.

Every economy will be a digital economy. World Economic Forum and Accenture analysis estimates the combined value of digital transformation to industry and society at $100 trillion over the next decade.[1] The international development sector is at a defining moment in this rapidly changing world. Will organizations harness digital to amplify outcomes or fall victim to inertia?

Today, there is an opportunity to move beyond digital point solutions to an interwoven market of digital solutions and economies. This can accelerate the impact of interventions and sustain economic growth long after they end. Because digital for development is not about the innovation of solutions themselves. It is about how they reimagine the way people live and work in developing countries.

DISRUPTION

Digital disruption in development will be a slow burn, not a big bang

The Fourth Industrial Revolution—essentially the digital revolution—is the most transformational force that the international development sector has seen in decades. It brings opportunities and obstacles. Development organizations will have complex choices to make in how to respond. It is a matter of disrupting themselves or being disrupted.
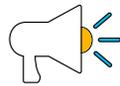
Why digital for development?
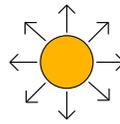
Increase program reach and innovation. Use analytics and research to better understand audiences and target high-impact expansion areas.

Strengthen program efficiency. Develop iterative processes with predictive and real-time insights to make real-time adjustments.
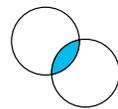
Grow program awareness. Reach a wider audience despite limited resources through the use of digital channels.
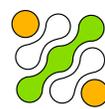
Connect better with donors. Harness digital channels to optimize and personalize donor experiences.

Support organizational transparency. Rely on digital tools to capture key metrics and communicate results through analytics powered dashboards.

Cultivate organizational flexibility. Create agile business and operating models for greater responsiveness supported by open IT platforms.

The private sector has faced its own defining moment in this climate. Some companies sat it out and failed. Others transformed themselves. Digital disruption in development is not the big bang that reinvented industries like music after Apple, retail after Amazon and transportation after Uber.[2] Development organizations that do not embrace digital to transform mindsets, operations, service, and risk tolerance are vulnerable to compressive disruption, and run the risk of failing in their missions. This is deterioration of efficiency, funding, impact and relevance over time. Slow burnout, not mass displacement.

Even organizations with healthy reputations and donor relationships must engage their constituents digitally. There is pressure to use digital to engage supporters, improve productivity, innovate programs and enable transparency. Digital acuity is influencing funding decisions at all levels. As digital natives, millennial donors expect development organizations to meet them in the digital environment. And major philanthropists—who are often tech giants themselves—value digital innovation.

INNOVATION

## Advanced digital technologies are not a pipedream for the developing world

Adapting digital technology effectively to speed impact has been a longtime challenge for the international development sector. New technology in developing countries has historically been a second market for older or excess western technology.

Digital is an outlier to this pattern. Take mobility. The Pew Research Center reports that 84 percent of people in developing and emerging economies own a cell phone. This is not so far removed from the 90 percent of people in the United States who do.[3] Thanks to lower price points, expanding networks and sturdier devices, mobility has become an on-ramp to global information and collaboration. Basic SMS-equipped cell phones are providing essential services, becoming part of the fabric of people's lives. Pew also reports that emerging economies experienced a dramatic increase in smartphone ownership from 2013 to 2015.[4] A similar surge is likely in the developing world in the near term.

With high penetration of mobile phones and advanced affordable digital technologies becoming more available fueled by low cost storage, cloud solutions, and drastic price drops in processing power, digital is empowering the sector to leapfrog technologies for development *now*. Contrary to common assumptions, these solutions are not necessarily out of reach. Combined with innovative business models such as pay-as-you-go-services, these technologies can be put to work in local communities without the barrier of high upfront purchase costs.

Beyond interactive, mobility, analytics, cloud and security, there are other digital technologies new to the sector that have exciting potential to deliver high-impact, sustainable outcomes at speed in the developing world (See sidebar.) They can put good development practice on hyperdrive, both in how an organization operates and in the way it works on the ground with communities.

Digital innovations like these will contribute to bridging the technology divide that has long plagued the developing world—likely sooner than the sector realizes. This is not a perfect fix. Infrastructure, policy, governance, financial, security and other barriers will not disappear. But there is exciting potential to use these technologies to break down barriers to sustained economic growth.
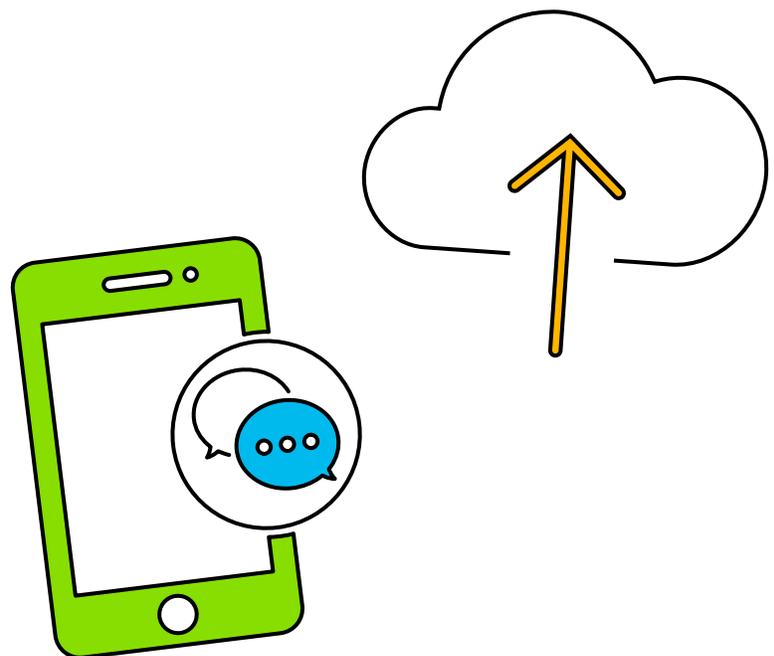
Five emerging digital technologies that could transform international development

Internet of Things: A network of physical objects, systems, platforms and applications that contains embedded sensors that capture and share real-time information. In Rwanda, Zipline's mini robot airplanes deliver vaccines, medicine and blood where ground transportation cannot go. Healthcare workers can text an order, and the drones respond quickly at 100 kilometers an hour. The Government of Rwanda is partnering with Zipline to deliver blood products to 20 hospitals.[5]
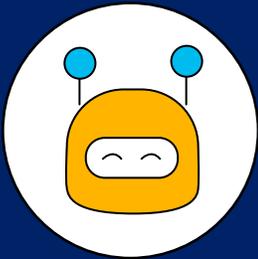
Artificial intelligence: Information systems and applications that can sense, comprehend and act—intelligent machines that can perform vital processing work faster and more accurately than humans. Plan International and Accenture are using an intelligent photo analyzer with digital facial recognition technology to ensure the quality of photos of sponsored children to leverage data in new ways and improve sponsor engagement.[6]
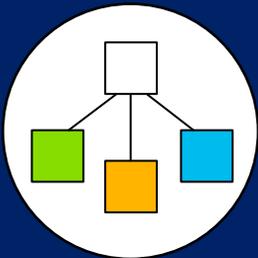
Blockchain technology: A data technology that creates decentralized shared ledgers, allowing people to move "value," such as assets, currency or information, securely. China's e-commerce leader Alibaba is planning a blockchain solution to track philanthropic donations made using its digital payments platform.[7] Still in its infancy, blockchain has a number of potential use cases in development, such as tracking goods across supply chains or medical records.

Data as a service: The aggregation of multiple data sources into one system to cost-effectively and efficiently share insights among organizations in a "pay for play" purchasing model. In the international development sector, an open data platform can facilitate the exchange of market, population, health information and more among stakeholders. AidData is a data portal that tracks development funding with the goal of "making data more accessible and actionable for everyone."[8]
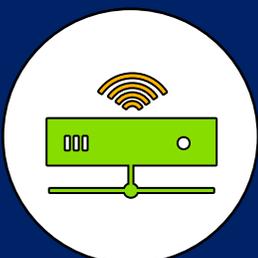
Robotic process automation (RPA): The use of digital technology to automate front office, back office and support functions—essentially an intelligent virtual workforce ideal for completing rules-based and repetitive tasks. RPA can create processing efficiencies in the sector. Yet as RPA does the job of multiple workers for a fraction of the price, it is a potential threat to job creation in developing markets that need service jobs the most.

Digital ecosystems are silo smashers and scale multipliers in development

Massive fragmentation within the sector is a longtime barrier. Development organizations have made some progress to address it. One way is through multi-sector partnerships that combine complementary capabilities for more scalable, sustainable impact. And of course, the United Nations' Sustainable Development Goals create an important foundation for coordination and cross-issue focus. Even so, silos remain between the seventeen aspirational Global Goals, which have 169 targets among them.

It is not a lack of ideas that constrains innovation in development. It is the lack of an enabling environment to scale them locally and globally. The Global Innovation Fund reports that it regularly turns down funding applications for projects that do not demonstrate an ability to scale.[9] Internal silos are a major obstacle. Knowledge is trapped in pockets at headquarters and on the ground. Field offices are separated not just by miles, but by their inability to effectively collaborate. Pilots, point solutions and grants often have a narrow programmatic focus rather than wide enterprise vision. By incorporating digital services, however, more people can be served more quickly.

Digitally enabled collaboration by virtue of its social nature can cut through obstacles. Digital technologies like mobile, social, cloud and analytics have remade how individuals and organizations can access, share, store and analyze real-time information. They are the technology backbone for breakthrough ways of working that defy physical and virtual boundaries to scale sustainable system change.

Crowdsourcing is the epitome of digitally enabled, open collaboration. It levels the playing field among partners aligned around a common mission. Case in point: Participants in the world's largest ever mapathon held by Accenture and Médecins Sans Frontières

helped the Missing Maps project map make vulnerable communities visible. Volunteer mappers used satellite imagery to trace landscapes, and locals verified the mapping data on the ground to collaboratively build maps for formerly uncharted locations.[10]

Digital ecosystems create a multiplier effect to address complex social problems. Connected by a digital platform, shared data and common interests, these networks provide high impact services at lower cost and deliver outcomes that would be impossible for them to do alone. Market-expanding digital ecosystems are the "anti-silos." By integrating efforts, all partners share in and derive value. They enjoy wide access to resources, talent and innovation, which lowers individual investments. And connecting more people means creating more ways to scale single solutions.

Ecosystem business models exist in the private sector. Think about online travel agencies that allow travelers to book hotel, flights and rental cars easily in one place. They are taking hold in development too. Grow Asia is a farmer-centric ecosystem to increase farmer productivity and strengthen food security in Southeast Asia. Designed to address smallholder farmers' needs and mindsets, a digital platform virtually bundles vital products and services from companies, governments and NGOs for a digital one-stop shop for farmers to access information, markets and financing.

Moving from an organizational focus to an issue focus can break down silos too. The future could see the rise of liquid development agencies. They bring development without walls to life by adapting data insight and digital technologies. They are designed from the outside in, galvanized around issues, not rigid internal structures and roles. As digital ecosystems, they foster collaboration with partners, local communities and competitors. With no physical infrastructure and a virtual staff empowered by collaborative technologies, this model of silo-free development can scale organically, and quickly.

Digital puts people back at the heart of international development

The most innovative technologies and the most collaborative models mean nothing if development organizations lose sight of the people they want to help. In a sector that has always had to satisfy donor requirements first just to keep aid flowing, balancing fundable work with work that is needed on the ground can be a Catch-22.

Design thinking, leveraging digital technologies, can help organizations start with people centricity and also align donor requirements. It starts with harvesting and communicating real-time data, freeing it from complex governance settings. Development organizations can refine programs and inform funders while protecting data privacy. On-the-ground data is a digital touchstone of program relevance and effectiveness. Real world, not ivory tower. And closed feedback loops allow for continual improvement of interventions.

Solutions rarely work without a basis in local context. Grounded in this spirit, design thinking is a disciplined, interactive and iterative process by which an organization comes to understand the full breath of a person's need. Like this sector itself, design thinking is fueled by empathy. It is about developing solutions *with* people, not for them. Design thinking can help the sector develop cost-effective programs and experiences that serve a "customer segment of one" while balancing the need for scale.

The story of the digitization of the Guide for Monitoring Child Development shows how design thinking works. In developing countries, the developmental monitoring of children rarely happens, and any interventions tend to be one-size-fits-all approaches. Fjord—design and innovation from Accenture Interactive—transformed the Guide from a paper process into a simple and powerful digital service. After visiting homes and speaking to community health workers, the team delivered a digital app that wasn't just easy to use, but also sensitive to the intimate home visit experience in which the tool is used.

User generated content is critical for mining the individual and collective perspectives and experiences of the people that development organizations help. Ushahidi is crowdsourcing, mapping and data visualization software with SMS integration. This and tools like it are ideal for development organizations to gather precious and often elusive data from staff or community members in the field. It gives people on the ground an easy, seamless way to report real-time information, ideal for election monitoring, crisis response and human rights advocacy uses.[11]
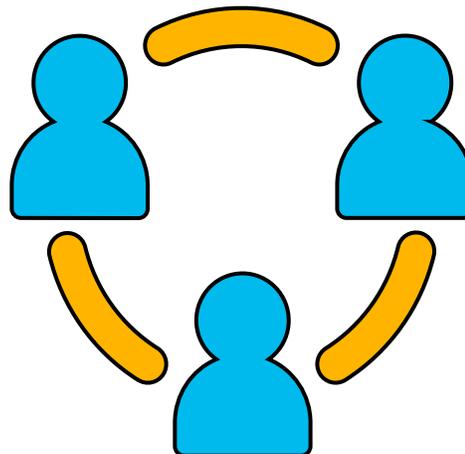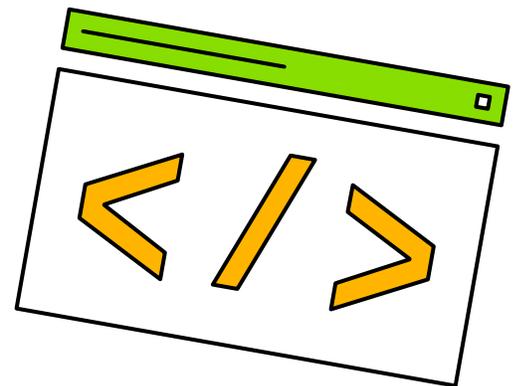
Be the change in a digital world

Digital technologies are agents of empowerment—the means to the end of unleashing scale, speeding impact and solving problems to help lift people and places out of poverty. Development organizations can drive that change now starting with these fundamentals:

Double down on good development practice

Digital approaches must be designed around the broader programs and services offered by governments, NGOs, social enterprises and partners so that communities' needs are supported holistically and change is not fleeting.

Digitally enable the entire organization social mission

The entire executive team must work together to leverage digital capabilities and justify investments. Leadership must assess business and operating models, considering "as a service" options to build capability and talent with on-demand, pay-as-you-go investments.

Embed design and innovation into the genetic code

Organizations must infuse innovation in the core values and put funding, metrics and structures in place to support it and measure performance and impact. Agile development replaces logframes and aligns limited resources with promising innovations to deliver better outcomes faster with a human-centered approach.

Unlock the right data from big data

The development sector needs strategies to hone in on the right data at the right time at the right place. An internal digital platform and analytics insight can consolidate data from programs, country offices and stakeholders to improve decision making and help all stakeholders understand what works and why.

Powerful. But not a panacea

Digital has the power to amplify and accelerate social, environmental and economic impact in international development. True. But not without a shift from a programs focus to systems thinking. This cannot happen without acknowledging the challenges unique to the digital era. There are complex security, governance and ethical issues associated with collecting and sharing data that are highly nuanced in the developing world. They must be anticipated and addressed with foresight, and sometimes, a little creativity.

The true digital disruptors in development are not those who finally get the latest digital gadget to the last mile and stop. They are the development organizations that act with a sense of urgency to mainstream digital tools and technologies beyond the program into the traditional economy—a rising tide that lifts all boats.
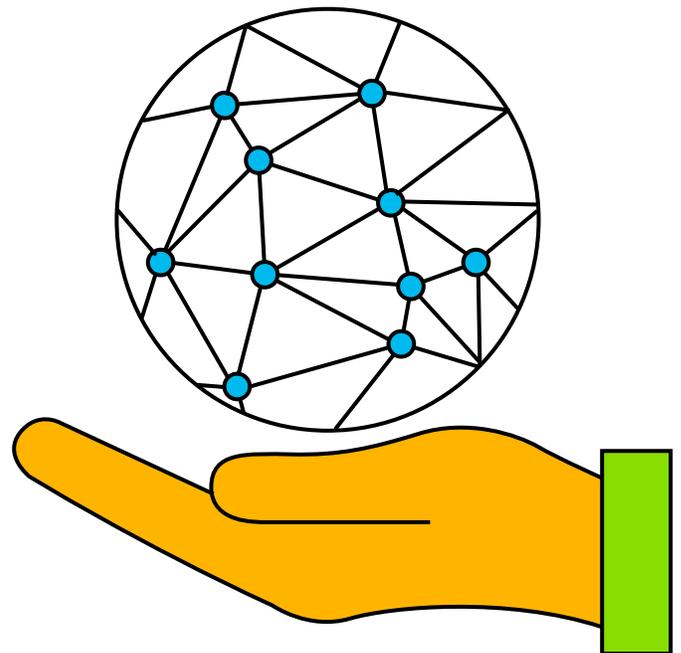
Contact the authors:

F. Roger Ford
Managing Director
Accenture Development Partnerships
Washington, D.C.
f.roger.ford@accenture.com

Ian Lobo
Managing Director
Accenture Development Partnerships
London, England
ian.lobo@accenture.com

References:

1 World Economic Forum, An Introduction to the Digital Transformation of Industries Initiative, retrieved on October 23, 2016 at reports.weforum.org/digital-transformation-of-industries/an-introduction-to-the-digital-transformation-of-industries-initiative/

2 Accenture, Big Bang Disruption: The Innovator's Disaster, https://www.accenture.com/us-en/insight-outlook-big-bang-disruption-innovators-disaster

3 Pew Research Center, Communications Technology in Emerging and Developing Nations, March 19, 2015, retrieved on October 23, 2016 at http://www.pewglobal.org/2015/03/19/1-communications-technology-in-emerging-and-developing-nations/

4 Pew Research Center, Smartphone Ownership and Internet Usages Continues to Climb in Emerging Economies, February 22, 2016, retrieved on October 23, 2016 at http://www.pewglobal.org/2016/02/22/smartphone-ownership-and-internet-usage-continues-to-climb-in-emerging-economies/

5 Zipline, The Future of Healthcare is Out for Delivery, retrieved on October 23, 2016 at http://flyzipline.com/product/

6 Plan International, Intelligent Photo Analyzer, http://planprototype.eu-gb.mybluemix.net

7 Naki B. Mendoza, Alibaba's Blockchain Embrace: A Watershed Moment for Financial Transparency?, August 15, 2016, retrieved on October 23, 2016 at https://www.devex.com/news/alibaba-s-blockchain-embrace-a-watershed-moment-for-financial-transparency-88574

8 www.aiddata.org/our-story

9 Katie Carrasco, 2,000+ Pitches Later: How to Improve Your Odds, 2015, retrieved on October 23, 2016 at http://www.globalinnovation.fund/blogs/2000-pitches-later-how-improve-your-odds

10 Missing Maps 2016 – Digital Mapping from Accenture with Médecins Sans Frontières, September 16, 2016, retrieved on October 23, 2016 at https://www.youtube.com/watch?v=XjUYhUsaCIo&app=desktop

11 https://www.ushahidi.com

About Accenture

Accenture is a leading global professional services company, providing a broad range of services and solutions in strategy, consulting, digital, technology and operations. Combining unmatched experience and specialized skills across more than 40 industries and all business functions—underpinned by the world's largest delivery network—Accenture works at the intersection of business and technology to help clients improve their performance and create sustainable value for their stakeholders. With more than 394,000 people serving clients in more than 120 countries, Accenture drives innovation to improve the way the world works and lives. Visit us at www.accenture.com.

About Accenture Development Partnerships

Accenture Development Partnerships works with leading international development organizations to address the world's social, economic and environmental issues. By delivering the power of Accenture's global capabilities and experience, we help our clients develop sustainable, innovative and market-based solutions to maximize value while driving measurable impact.