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Circling the point: from ICT4D to Web 2.0 and back again

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Introduction

By 'circling the point' I want to explore the relationship between information and communication technologies for development (ICT4D) and Web 2.0 for development (Web2forDev).[1] The term ICT4D is actually relatively new. When the Association for Progressive Communication (APC) network started using online information-sharing and email systems in the late 1980s, the term did not exist. By 1990, we described ourselves as a network supporting global computer communications for the environment, human rights, development and peace.[2] Even the United Nations Sustainable Development Networking Programme (SDNP) – which, in partnership with the APC, provided many people in developing countries with their first email access – did not use the term ICT4D.[3] People and institutions were actively working with information, documentation and technology in developing countries, but did not see themselves as being ICT4D protagonists. Mostly, they were rooted in their own

sectors, be it health, environmental sustainability, or women's rights.[4]

The flaw of the technology hype

The term ICT4D became more common in the late 1990s at the height of the telecommunications boom. Liberalisation, privatisation, policy reform and a drive to expand markets coincided with the idea that ICTs could transform the world. High-level initiatives such as the Digital Opportunity Task Force, the United Nation's High Level Panel of Experts, the United National ICT Task Force, and the World Summit on Information Society (WSIS), demonstrated this new preoccupation with the role of ICT in development.[5][6]

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Perhaps the main flaw of ICT4D was the frequent tech-

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[1] For a definition of the terms Web 2.0 and Web2forDev, see glossary, p.123-124 and overview article, p.8 (this issue).
[2] Founded in 1990, APC is an international network and non-profit organisation that wants everyone to have access to the Internet to improve their lives and create a more just world. To read more about the history of APC see www.apc.org/en/about/history.
[3] The SDNP closed several years ago. For more information see: www.sdnp.undp.org.

[4] E.g. early ICT adopters included Satellite/Healthnet www.healthnet.org and HURIDCOS www.huridocs.org. IDRC (International Development Research Centre) were active in ICT4D as early as the 1970s. See http://tinyurl.com/dgmgwr. The Food and Agricultural Organisation's (FAO) IMARK initiative (Information Management Resource Kit) was conceived and developed by people with both an understanding of farming and libraries and information.
[5] The Digital Opportunity Task Force (DOT Force), created at the G8 Kyushu-Okinawa Summit in July 2000, consisted of governments, private sector entities, not-for-profit and international organisations from developed and developing countries. Its purpose was to identify ways in which the digital revolution could benefit all of the world's people, especially the poorest and most marginalised. See: *Digital Opportunities for All: Meeting the Challenge*, May 2001. Online at: www.g8.utoronto.ca/summit/2001genoa/dotforce1.html
[6] www.unicttf.org/index.asp

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nology-driven hype. It created a misleading expectation that ICTs enabled 'leapfrogging' over development obstacles. This often diverted attention from development fundamentals (e.g. improving governance, ensuring basic freedoms and human rights, education and training, institutional capacity, etc.). In the ICT sector itself, it obscured the need to invest in more traditional information and communications infrastructure – such as libraries and community media – and the human skills needed to disseminate, manage and produce information effectively. None of these are mutually exclusive with ICTs. In fact they should be closely integrated. But somehow the ICT4D paradigm put too much emphasis on new technologies, and too little on the need to integrate with other tools and skills, and with development theory and practice. Also, the people doing the thinking, planning and implementation of ICT4D were selected for their technology expertise, or links to a very dynamic and assertive IT industry. There were ICT4D protagonists at international and local levels who understood development and advocated for more holistic approaches to ICTs. But their voices tended to be less glamorous, and not as easily heard, as those suggesting quick and cheap solutions.

Unclear transparency and accountability
Part of the ICT4D paradigm was public private partnerships (PPPs) and new ways of thinking of the role of the state in development. We still need to find ways to address both state weakness in developing countries and channelling private sector investment into building essential infrastructure. However, PPPs in the ICT sector were often short-sighted, lacking the necessary procedures to ensure accountability and transparency. A weakness in the ICT4D paradigm became an unclear relationship between business and government. The fact that many governments continued to own and control national telecommunications monopolies – even after privatisation – made things even less clear.

Appropriating ICTs: from work to play and back again
Another disadvantage with ICT4D was a short-sighted approach to project development and capacity building. This did not encourage sustainable appropriation of ICTs. Projects

were often introduced with limited funding and resources, with minimal access to ICT infrastructure and support. People implementing these initiatives were expected to demonstrate, in very short time, how ICTs would alleviate poverty. In many developing country organisations, when email was introduced, people had shared email addresses instead of private ones. Using email for personal purposes was frowned upon. ICTs for development were strictly for 'development' work. School networking initiatives took special precautions to prevent scholars from playing computer games.

In contrast, at the same time in the developed world, people were appropriating ICTs in a very different way, using personal email, playing computer games, or checking stock portfolios. Online dating, gambling and shopping soon followed. Now, music and video downloads are part of the norm. These are everyday activities for many people with Internet access, as common as using ICTs at work. But for people in the developing world, with slow and expensive Internet connections, these activities remain unfeasible. In many communities these are not yet part of the cultural norm.

The difference is fundamental. In the developed world, a whole new generation has explored new technology on their own terms, driving and creating the Web 2.0 developer and user base. As we move forward in the transition into Web 2.0 for development, we must not repeat the error of the narrow approach to appropriating technology.

The benefits of the ICT4D paradigm
There were also many positive outcomes. ICT4D put the lack of Internet access and infrastructure in the developing world clearly on the agenda. Development donors were forced to accept that a huge and growing gap existed – and that, if not addressed, it could deepen the existing exclusions and sharp divides between the haves and have-nots. These divisions created and entrenched gaps not only between rich and poor, but also between those who benefited from access to new technologies and those who did or could not.

Debates on Internet content raised important concerns around cultural and linguistic diversity – an issue that had been neglected in most development discourse. In addition, the ICT4D paradigm also created awareness of the need for capacity and skills needed in the use, management and production of ICTs. At a macro-level, governments were required to include ICTs in poverty reduction strategies. At project level, ICT4D initiatives were expected to address fundamental issues such as local ownership, community participation, building local institutional capacity, ensuring sustainability and integrating learning in their project implementation.

Is the hype around ICT4D over?

Do we no longer need to think of ICT4D as a priority in its own right? This view seems to be held by many development agencies. There have been many significant improvements and opportunities for addressing the infrastructure gap. Mobile phone handsets can be used to interact with the Internet. Fuel cell technologies and improved solar technology provides workable solutions to ICT energy needs. More energy efficient computers are being produced. These are positive developments. Yet equally, many development agencies, particularly non-governmental organisations (NGOs), are only just beginning to see ICTs as relevant to development – and they are at risk making the same mistakes again. There is also an assumption that the basics (access to telephony, and technology and communications infrastructure) has been taken care of – that market-led expansion of products and services, particularly in mobile telephony, are solving the problems which governments and international organisations have failed to address for decades.

Do we still need ICT4D?

Development funding has moved on from focusing on ICT4D as a sector in its own right. There is less financial support for ICT focused projects – and the emphasis has shifted to integrating ICT4D into 'traditional' or mainstream development.

The 'mainstreaming' of ICTs in development can be seen as a kind of victory.[7] The hype might be over, but development agencies now recognise the importance of incorporating ICTs into developing country infrastructure development. People working in health, agriculture, governance and transparency no longer question that ICTs can add value. Non-governmental organisations no longer have to persuade donors to fund computer technology, Internet access, and website development. But a truly integrated and inclusive approach to ICTs in development is still rare, and limited by the lack of affordable access to infrastructure – and capacity – for many people.

Businesses in developing countries, from small and medium enterprises (SMEs) to multinationals are being enormously creative in developing new products and services to respond to – and generate – demand from low-income communities, e.g. Mpesa in Kenya, a mobile phone based money transfer initiative in Kenya.[8] Yet both governments and local development organisations often lack the capacity and skills to effectively integrate ICTs in ways that contribute

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to sustainable development, relying instead on consultants, and third party hardware and software companies. The result is ICT projects which lack a longer-term developmental perspective and impact assessment, and fail to build local capacity to ensure sustainable and innovative use of technologies. The problems produced by technology-driven approaches remain. We still need a special focus on ICT4D to develop specialised knowledge and capacity, holistic approaches to social change and development – and reliable, grounded ICT4D practitioners.

Like gender mainstreaming, the risk is that ICT4D could be mainstreamed out of existence. Basic infrastructure development challenges remain. Many people still do not have affordable, reliable Internet access. Mobile telephony and the mobile Internet have enormous potential, but costs are still too high for many people. A new digital divide is growing: the broadband divide. Without broadband access in key institutions like universities, businesses, government and the media, developing countries will remain on the edge of knowledge generation and access. One online discussion group participant that preceded the Web2forDev conference commented:

As soon as a few rural communities begin to understand the basics of the Internet and World Wide Web, a new toolbox with new knowledge emerges. It is like running a race in which there is no finishing line. If you are a participant in this you can't help but feel a sense of fatigue.

What can Web 2.0 for development offer?

Some perceive Web 2.0 as a new phenomenon, others do not. I think both views are true. For example, social networking is definitely not new. People have been networking socially with ICTs since the technologies were introduced. In the pre-web era thousands of 'usenet newsgroups' or 'bulletin boards' allowed people from all over the world to participate in online discussions that were very much like text-based versions of blogs.[9][10] APC hosted hundreds of these 'conferences' during

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[7] Mainstreaming is often used to describe a process of integrating an issue into other areas, rather than having a special focus on it, in other words treating it as a crosscutting issue rather than a topic in its own right.
[8] Mpesa: www.safaricom.co.ke/index.php?id=228

[9] http://en.wikipedia.org/wiki/USENET
[10] For a definition of 'blog', see glossary, p.121. See also Blogging p.106 (this issue).

This Bulgarian environmental campaign in 2006 was waged on and offline.

the 1990s. Many served as spaces for collaborative work among environmentalists from all over the world both before and after the 1992 Earth Summit in Rio de Janeiro.[11]

Recent trends have introduced fundamental differences in how people interact with the web. New social networking platforms like YouTube, Flickr and Facebook might seem frivolous, but they generate excitement.[12] They can add an element of fun to how we network 'for development'. The technology learning curve can be alienating, but it can also encourage new creativity. I would describe Web 2.0 as a user-driven trend in platforms, tools and approaches that strengthens the power of online networking. It responds to some of the problems of the online universe. In particular, it helps people deal with the proliferation of online content. It gives us

new plain language tools for classification (tagging) and searching.[13] It also gives us better content collation and information aggregation tools such as RSS (Really Simple Syndications).[14] Blogs and easy-to-use content management systems makes it fast and easy for anyone with access to create online content in multiple mediums, including audio and video. Moreover, the proliferation of sharing and copying content is proving a far more powerful challenge to restrictive, top-down intellectual property regimes than years of lobbying by open content activists have been able to produce.

Web 2.0 goes much further than the traditional web in removing the barriers between producers, consumers and creators of content. It gives people working in development information and communications an opportunity. Development content is hard to find. It is difficult and expensive to create. Web 2.0 can help us to do it in an interactive way. It creates new opportunities for existing journalists, and allows

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[11] The Association for Progressive Communications and the networking of global civil society: APC at the 1992 Earth Summit, by Rory O'Brien and Andrew Clement, APC 2000. See: www.apc.org/about/history/apc-at-1992-earth-summit
[12] YouTube is a video sharing website where users can upload, view and share video clips. Like YouTube, Flickr is a free to use image and video hosting website and online community platform. See www.flickr.com and www.youtube.com. Facebook is a free-to-access social networking website. See www.facebook.com.

[13] See glossary, p.123, also Tagging, p.117 (this issue).
[14] See glossary, p.122, also RSS, p.115 (this issue).

Women with stories to tell learn how to create short clips with images and sound and share them for human rights education and training. Uploading the videos to sites like YouTube, they are both the producers and the disseminators.

Photo: Women'sNet

for the emergence of citizen journalists. It builds a culture of sharing and has strong links with the movement for free and open source software (FOSS).**15**

Can Web 2.0 tools make the Internet more accessible?

That Web 2.0 is user-driven is significant for those of us who believe in the value of the 'participatory web for development'. If users are shaping the future of the Internet, then **who** those users are, **what language** they use, and **where** they live matters. The majority of Internet users are from developed countries. Is it possible to create a body of users from the developing world who are active and engaged enough to influence Internet development?

If sharing information is a fundamental characteristic of Web 2.0, so is a stable and permanent Internet connection.

People often see the lack of broadband access as a barrier to using Web 2.0 tools in development work, and in developing countries. APC views Web 2.0 as an opportunity for better use of limited connectivity and driving demand for much-needed broadband. Used effectively, Web 2.0 tools can reduce limited and expensive online time. Perhaps the greatest opportunity lies in how Web 2.0 integrates text, images, sound, and video, with huge potential for development workers. It helps us to manage content and share it with people who are not literate or who are visually impaired. It also becomes an effective information-sharing medium in cultures where text is not an obvious means of storing information. An excellent example are farmer blogs where podcasting effectively connects rural communities with wider information networks.**16 17**

Ultimately, Web2.0 is about people working, sharing and playing together online. We must not lose this concept when

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15 FOSS is software which is licensed to grant rights to its users to study, change, and improve its design by making its source code available. See e.g. http://en.wikipedia.org/wiki/Free_and_open_source_software also glossary, p.122 (this issue).

16 For a definition of 'Podcast' see glossary, p.122 (this issue).
17 See e.g. 'Sharing farmers' knowledge through audioblog.' Online: http://blog. web2fordev.net/2007/09/24/sharing-farmers-knowledge-through-audioblog/

Children at this rural Nigerian centre learn computer basics by playing games. It's unlikely that their Internet connection is stable enough for them to use Web 2.0 yet.

we use Web 2.0 tools for development. On social networking platforms like Myspace,[18] Orkut[19] and Facebook people share information about their ideas, work, music, and relationships, alongside discussing politics and participating in online activism. This mix of the personal, political, entertainment and work could be key to unlocking the potential of Web 2.0 for development. Web 2.0 makes it possible to share development information and knowledge in more accessible ways. It also gives us the tools to speak out and hold governments and development institutions to account. It allows us to network and learn more holistically. It increases options for marginalised communities to speak for themselves and create their own content.

Development is happening, but not everywhere or as much as many of us would like. For people in developing countries, relying on foreign aid and governments is not the most reliable strategy, even if these play critical roles. Increasingly, communities are creating their own local solutions. Web 2.0 is the perfect platform for mediating and negotiating this diverse, multi-layered response to development challenges. You can move from collaborating on one website to protesting on another. You can speak as an institution, as a community – or as an individual.

[18] See: www.myspace.com/
[19] See: http://www.orkut.com

Web 2.0: Challenges and lessons learnt

Learn to share but understand risks
There are many challenges to consider in implementing Web 2.0 for development. Sharing is a major challenge. To create a culture of sharing requires more than just talking. It requires a different approach to policy-making and information access, and a re-affirmation of legitimacy of global public goods and of the commons. It also requires us to trust others with our ideas and the products of our work.

Trusting becomes easier if you are organised and have good defences. We have to approach social networking for development through building good information skills and awareness of how to protect privacy and communicate as securely as possible. We must ensure that the communities we work with understand the risks of networking online, from privacy and security to the potential for the distortion, or abuse of information, negotiating what information should be private or public, and understanding who to consult when deciding.

Appropriating the tools for ourselves
There is also a business backend to Web 2.0. It is not just altruistic people creating platforms to allow people to have a good time on the Internet. It involves money, buying and

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selling. To appropriate these platforms for development we need to be conscious of these trends. We need to take charge. Many of these platforms run on open source tools that are readily available. We should use them and influence their development.

Developing capacity

Regarding capacity development, we need to think differently and not make the same mistakes of the narrow early ICT4D approach, the idea that you needed skills first, before you could have legitimate access to the tools – or that without first investing in creating 'useful content', Internet access would not benefit poor people. With Web 2.0 this will not work. People will only learn how to use the tools with relatively unrestricted access to them. Creating their own content becomes the key to accessing useful content created by others.

A challenge for many people in developing countries is learning how to appropriate the web as individuals, rather than as representatives of organisations or communities. Journalists are excellent at that and African bloggers are using this approach effectively. Yet people working in NGOs tend to be shy of blogging. We have a programme called APC Africa Women, were we train women to use ICTs. They do fantastic work, but are very cautious of making their voices heard online. One way of addressing this is to create group, or community blogs.

Language and culture

Linguistic diversity is another challenge. Web 2.0 is not only for English speakers. For example, the APC website has been bookmarked by more Spanish than English speaking readers on Delicious.[19] Let us not make assumptions that we cannot create linguistic diversity for these platforms.

Someone at the Web2forDev conference raised a point about whether culture influences how ICT4D is implemented. Working within existing culture barriers is a challenge. But perhaps culture changes and evolves even independently of technology. Culture is influenced by war, migration, poverty. What can sustain cultural coherence in any society are healthy, functioning social institutions. Social institutions come in many forms. Online communities can become part of the fabric of strong, inclusive societies. The power is in us. Development is about fighting daily battles, making connections with others who are doing the same, finding innovators and influencing policy makers, whether we are using Web 2.0 or not.

Conclusion

The challenge of using Web 2.0 for development is no different from the challenges of ICT4D. We need to remain focused on sustainable social change and development; on building capacity and ownership at the local level and on using holistic, integrated approaches in our work with people, information and technology. Web 2.0 can be an immensely powerful platform for development and for challenging fundamental social inequalities if we use it to speak out, but also to share, listen and learn. I will end with a quote that I think is relevant to how we should approach Web 2.0 for development: 'Fools talk. Cowards are silent. Only wise men and women listen.'[20] Let us not be quiet, and listen as much as we can on the participatory web.

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[19] Delicious (www.delicious.com) is a social bookmarking web service for storing, sharing, and discovering web bookmarks. See also Social bookmarking, p.119 (this issue).
[20] The Shadow of the Wind (Spanish: *La sombra del viento*) by Carlos Ruiz Zafón, 2001.