Hello everybody,

I am going to talk about two dynamics that shape technological possibilities for collective action. The one concerns the forces, actors that control information flow largely but not exclusively for profit. The second dynamic concerns social movements that are working towards establishing an information commons, a collection of shared information resources that are, in principle, freely available to all.

I would like to argue that both these dynamics invite us to rethink the connections between citizenship and collective action, advocacy and technological literacy by showing us that technologies are not mere tools. They are processes that express specific values and agendas that structure participation in very concrete and specific ways. We heard this point being raised.

So my task for today is to show you that the new politics of technology involve new actors and movements and that any critical and constructive engagement with them challenges us to move beyond our intellectual comfort zones.

I want to start with the forces, the new gatekeepers, that have a critical role in regulating the online environment. I recently followed a discussion on the CITIGEN mailing list about the role of Facebook in the uprisings in Egypt and Tunisia. It is my strong belief that we need to have more discussions such as this one about the role of emerging actors and corporate ones at that in controlling access to global public goods. Although debates such as this are becoming more and more prominent in certain circles, the concerns that they reflect have yet to inform development practice.

I have tried to promote this awareness through my contribution to the IKM emergent, a research and communications programme that analyses how different forms of knowledge inform development practice. This work consisted of a series of commissioned articles that explored different facets of the emerging information and communication environment. These included contributions on the importance of the net neutrality debate for developing countries and the role of mobile service providers as information gatekeepers. I want to spend a few minutes talking about the role of mobile service providers as the mobile revolution is regarded as the catalyst in recent developments. In her article on mobile service providers for IKM emergent Claire Milne highlights some of the key factors that render mobile service providers an important force in the emergent information and communication environment. The importance of this role largely derives from the character of the mobile spectrum, which is a naturally limited resource. Unlike the Internet, the mobile spectrum has natural choke-points. There are only so many operators that a country can have and most countries are stuck with a mobile network oligopoly. This has important implications for affordability. The cost of SMS messages, for example, is still very high in many developing countries. This is not the only problem.

In the Global South most people are likely to access the Internet through their mobile phones. Mobile service operators can therefore exercise an inordinate degree of control over what access to information, what parts of the web people have. They can switch off access to the Internet at any point and they can create walled gardens by allowing access to services and content only provided by their business partners. They can prohibit users from installing third party applications on their mobile phones. Similar to ISPs they can be carriers of policies for circumventing privacy and anonymity by requiring, for instance those wishing to buy a SIM card to be formally registered and they own masses of data about subscribers that could help target specific teams of individuals.

Certain groups working at the interface of technology, development and human rights are working to promote awareness of issues around security and privacy and equip activists with tools and solutions for advocacy enabled by mobile phones. A look at the information provided at the Tactical Tech website reveals that the level of technical proficiency required, for example, in order to set up a secure network and bypass censorship is far from trivial. It requires a level of technical expertise far above the level of a relative proficient computer user.

What's more the majority of these groups work at a tactical level. They provide advice and technical solutions that can counteract dominant strategies but they usually stop at that. They rarely draw attention to higher level policy issues in ways that make sense to activists by linking these higher level policy issues back to practice.

Why are issues such as these important? Well, there is a paradox at the heart of these developments. Although it is true that social movements have access

to tools and resources, the Internet, mobile phones, social networking, that facilitate mobilisation and coordination, these tools are never neutral: they encode the choices of their designers and those who yield them, imposing their own restrictions on collective action. To give another example of an important new gatekeeper, that we have been hearing a lot about the last three days, Facebook

Facebook is a corporate entity that has been made through its success, the steward of a global public good, social networking, and a default choice for many activists and social movements. Facebook was not designed for human rights advocacy and political engagement. It's purpose was and has always been to generate revenue through advertising, through manufacturing audiences. These two factors, the fact that it's bottom line is profit, the fact that it has not been designed for collective action and it's lack of accountability to its users, renders it as a potentially problematic solution for social movements.

Imagine, for instance, that an activist network decides at some point to switch platform, to transfer its content and network to a more secure solution, like Crabgrass, an open source social networking site that was designed from the beginning as a tool for social organising. Under the existing Facebook policies this is impossible. You cannot export your profile or content, nor do you have any control over how this content may be used. I find the acceptance of such restrictions particularly problematic for groups that aim to uphold democratic values.

And I don't want to imply that rejecting these solutions is easy. Network externalities and Internet economics can be ruthless and reach and convenience can be compelling drivers for choosing a well-established solution over an experimental one. What I want to argue, however, is that we need to move beyond an opportunistic use of ICTs that sees them only as tools and start thinking about their adoption more strategically: what are the long-term implications of choosing one platform over another, what risks are there for a movement to become locked in a technology beyond its control, what do we lose and what we gain by adopting different solutions including the barriers to access that we might be creating for others.

I want to turn attention now to the second dynamic: the social movements and communities that are fighting against these forces by promoting the idea that some forms of information are important public goods, whose production cannot be entrusted to private actors, but need to be managed collectively. The main advocate of this idea in Internet politics has been the open source software movement. Open source has given us much more than free software. It has given us templates for collective production that have helped create resources like Wikipedia and institutional innovations, such as copyright licenses designed to prohibit the appropriation of the results of the collective effort. The creative commons movement, the open content and access movements and more recently the open data movement are deeply connected with open source's effort to democratise information and could not have existed without it.

Open source relevance for development is increasing, not only because of the reasons that I have mentioned thus far, but because the next generation of open source technologists has taken an active interest in development processes.

I have recently participated in a study that examined some of the challenges and opportunities involved in creating and sustaining an information commons in poor and marginalised communities.

One the projects that the study examined was the Map Kibera project. Map Kibera is a marriage of two worlds: the world of development with that of open source. The project started out in 2009 with the aim of producing the first digital public map of Kibera. It was based on the idea that without access to basic geographical information about their community, Kiberans would not be able to improve their living conditions and claim their rights.

The project was founded by two American open source advocates who wanted to engage the local community in producing the map and then help them use it for advocacy and coordination.

The founders of the project wanted to achieve this by training local youth in the use of open source geospatial technologies to create the map themselves. They wanted to instil in them the values of open source, reciprocity, collaboration, information sharing.

So this was the map that the youth created with the help of Map Kibera. It's actually quite rich. Besides the basic geographic information, it contains information on local hospitals, schools, water points and security hotspots.

One of the challenges that the project faced concerned the dissonance between the ideals of open source and the realities of the people on the ground, of the participants. And to name just a few. Open source, like many other forms of online collective production relies on volunteer participation. People contribute to the collective production effort for their own benefit as well as to improve the world in which we live. Participants living in Kibera did not have that luxury. Each hour that was spent in building up this collective resource was an hour spent away from work that could put food on the table.

As the project grew, important decisions needed to be made about how the initiative should be governed, about who was going to be involved in deliberations as to how the map would be used, whether additional people from within the community were going to be trained, about what should be mapped and who the audience of the map was. This created tensions within the project as both the youth and the project founders needed to assume roles and responsibilities that stretched their capacities and understandings beyond that of technology actors.

This need to develop new capacities, to extend beyond their comfort zones is a challenge that all of us face. Those whose starting point are the issues at stake, rather than the technology, are faced with the task of developing their understanding of technologies as processes. Those whose starting point is the belief in the processes of participation and deliberation that technologies can sustain as my colleagues from Map Kibera, have to develop their understanding of the complexities of mobilisation and citizen action across different contexts.

And the question that emerges here is: how much can we learn, how much can we become fluent in the language of technology or in the politics of action without losing what's important to us.

And the tentative answer that I want to give is that we don't need to do this in isolation. There is enough common ground between certain technological communities, like those coalescing around open source and development practitioners and researchers to start learning from each other. And the main way to do this, in my experience by finding new ways of working together that weaves new connections between theory, methodology and practice.

I also believe that there is a need for intermediaries, for people and organisations, who can move between these two communities, who can help

unpack the vocabularies of different communities and spell out the implications of different technological and policy choices.

Weaving new connections, as has become apparent in the last three days and as Anita has pointed out is a risky business. However, I am not really sure of whether there is another way to push the debate forward.