

Sensors, empowerment, and accountability (SEMA) in Africa

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Spatialist November 10, 2011, Leuven

The screenshot shows a WordPress blog post on the website 'inesmergel.wordpress.com'. The page features a colorful, abstract background with floral and geometric patterns in shades of red, orange, yellow, and green. The main heading of the post is 'Social media in the public sector' with sub-headings 'Social Networks - Social Software - Social Technologies'. Below this is a navigation menu with links for Home, Social Media Policies, Research, Publications, Teaching, and About. The post itself is dated October 10, 2011, and is titled 'Crowdsourced Ideas Make Participating in Government Cool Again (PA Times October 2011)'. The text of the post discusses the PA Times special edition 'From Bureaucratic to Cool: A Call for Public Service' and mentions the author's article on crowdsourced ideas. A Facebook social plugin is visible on the right side of the post, showing the profile picture of Ines Merget. The browser's address bar shows the URL: 'inesmergel.wordpress.com/2011/10/10/crowdsourced-ideas-make-participating-in-government-cool-again-pa-times-october-2011/'.

Some preliminary remarks

ICT as silver bullet for development

“Mobile telephony... can contribute meaningfully to every single MDG. The gains are breathtaking in promoting livelihoods, improved health, better schools, and other areas.”

- *Prof Jeffrey Sachs, special adviser to the UN Secretary General on the MDGs*

“New technology-based solutions that did not exist when the [Millennium Development] goals were endorsed can and should be leveraged to allow for rapid scaling up. The most important of these technologies involve use of mobile telephones, broadband internet and other information and communication technologies”

- *UN Secretary General Ban Ki Moon*

ICT Applications

For commerce, social interaction, knowledge production, citizen science and political action on the **web**

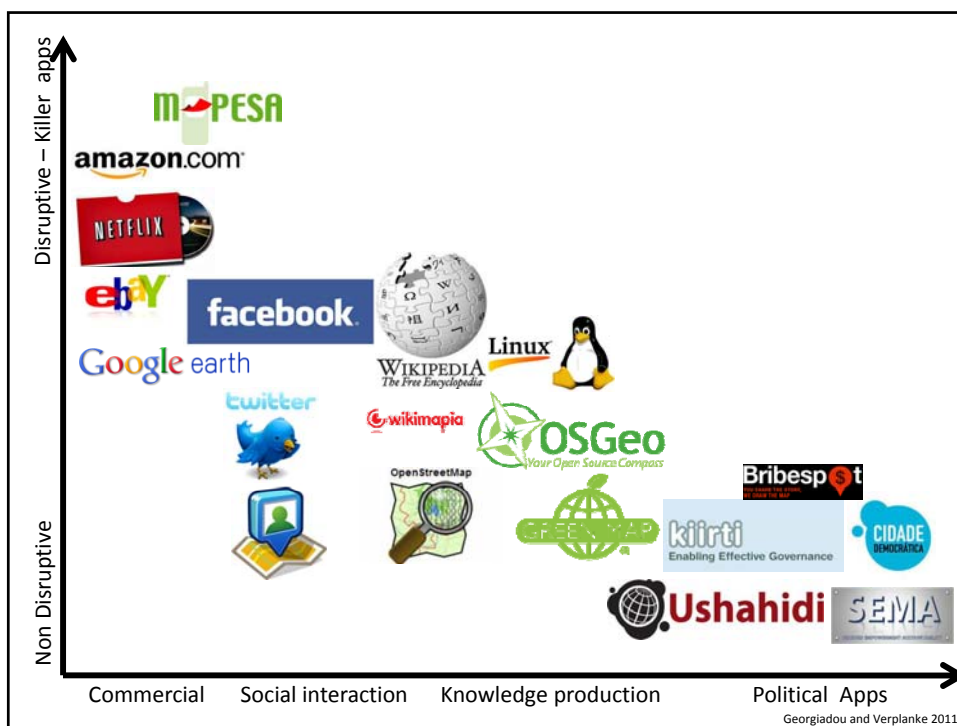
- Disruptive / Killer apps
- Non-disruptive apps (yet)

An app is a killer when...

1. Users adopt the app and abandon their old way of doing something

Because it improves their experience by changing how they do that thing

2. Organizations harnessing the app displace organizations using old ones

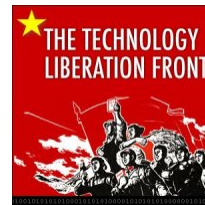


Focus on political ICT applications

Apps for commerce, social interaction, knowledge production, citizen science and **political action** on the **geoweb**

- Disruptive / Killer apps ?
- Non-disruptive apps (yet)

Killer apps: political mobilization



PROGRAM ON LIBERATION TECHNOLOGY



Killer apps: political decision making



Positive Externalities

Points

- SEMA: a story
- Political killer apps on the geoweb ?
- Propositions

Water





Human Sensor Web (HSW): Pilot - Jeroen Verplanke & Robert Becht

google.org



UN-HABITAT

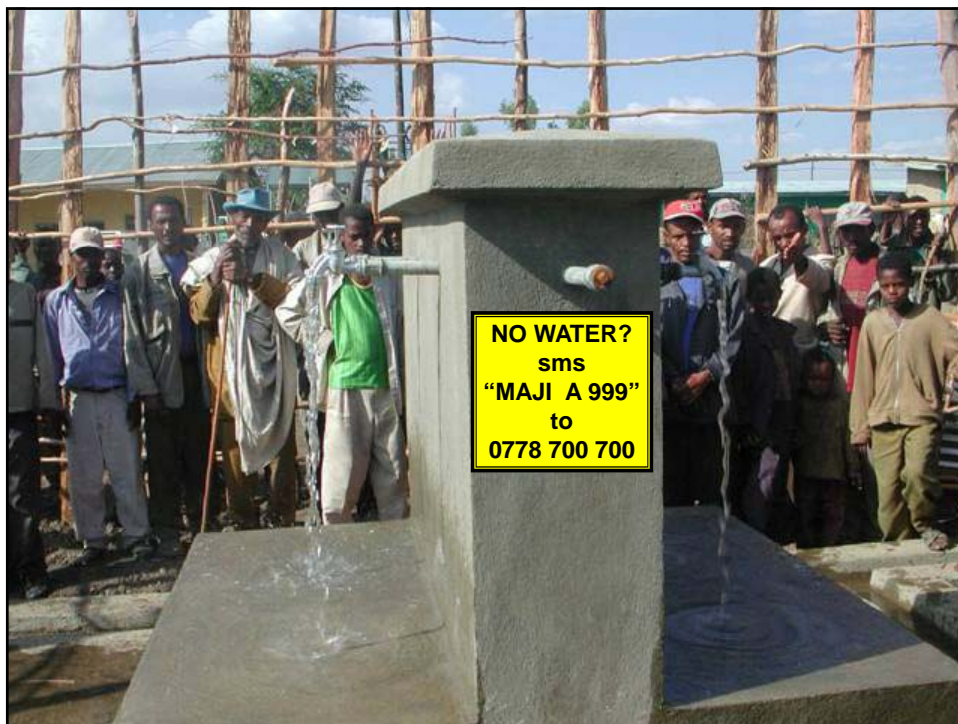


52north
exploring horizons



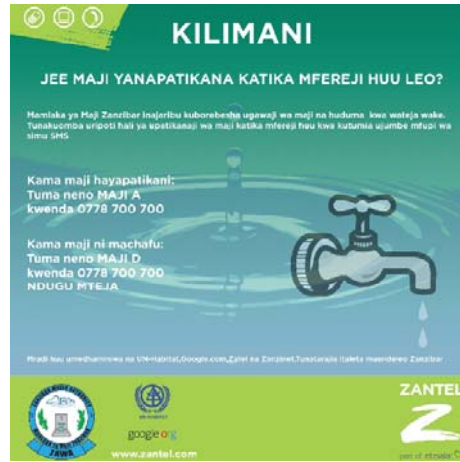
WMC
Training Institute for Women and Mobile Communications





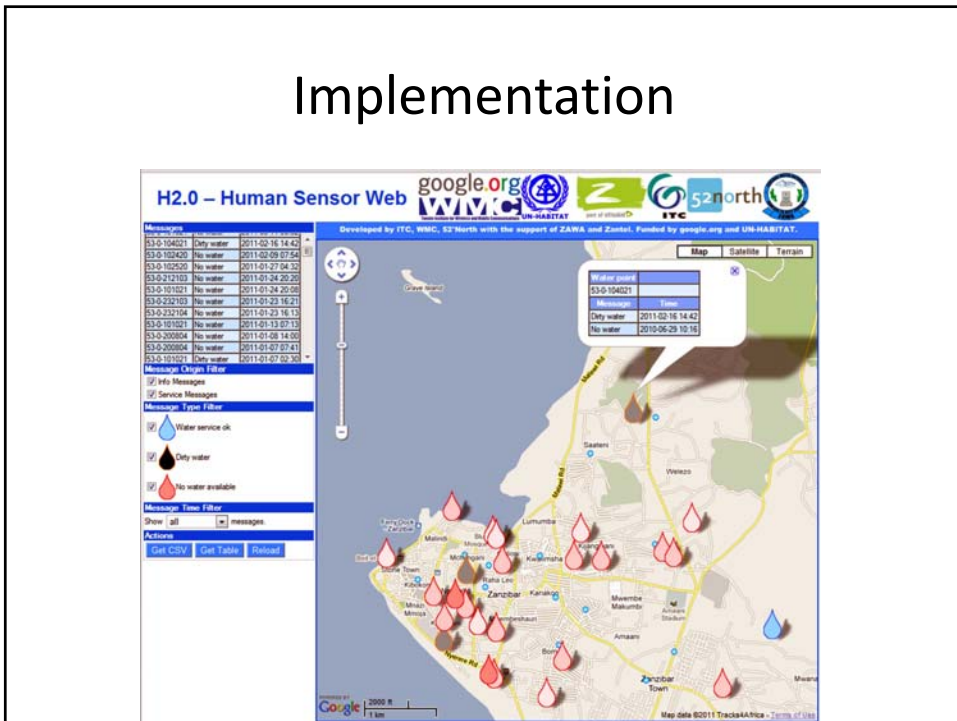
Google Maps UK interface showing search results for "water supply tap africa". The search results include a "Location:" field and a "Search Maps" button. The map displays a satellite view of East Africa with several orange circles indicating water supply issues. A legend on the right shows "June 2010 No water" with 1 small circle and 10 large circles, and "June 2010 Dirty water" with 1 small circle and 10 large circles. A yellow sign with the text "NO WATER? sms 'MAJI A 999' to 0778 700 700" is overlaid on the map. Red arrows point from the sign to a "Web server Processing" box, which then points to "Google community" and "SMS alert community" boxes.

Human Sensor Web (HSW) Implementation





Implementation



1st lesson

People do not send SMS: “no”, “dirty”.

Greeting, how are you this holiday? In the area, Mwembe Shauri, there is no water since 7:00 in the morning; we do not know what the problem is. We request you to come and help us.

The software of the human sensor web does not understand complex speech acts

2nd lesson

There is a gender mismatch

The mobile phone owners are usually men

Those who fetch the water from the public water points are usually women.

3rd lesson

Community loyalty may override the urgency of reporting the grievance.

Community members are loyal to their leader

They may refrain from using the human sensor web unless the community leader endorses it.

4th lesson

Distrust towards the water authority in Zanzibar runs deep in some communities.

This is due to the past history of the water authority.

The water authority often did not respond to citizens' grievances in a timely fashion

5th lesson

Citizens will report problems with service delivery to *independent* parties, who they trust and who are closer to them than official authorities.

Citizens must clearly see a benefit—that their voice is heard & their grievance is taken to the Member of Parliament representing their district.

6th lesson

Government may use the HSW for two reasons:

(1) to tap on citizens as ‘cheap labour’ to report on problems in sparsely populated rural areas

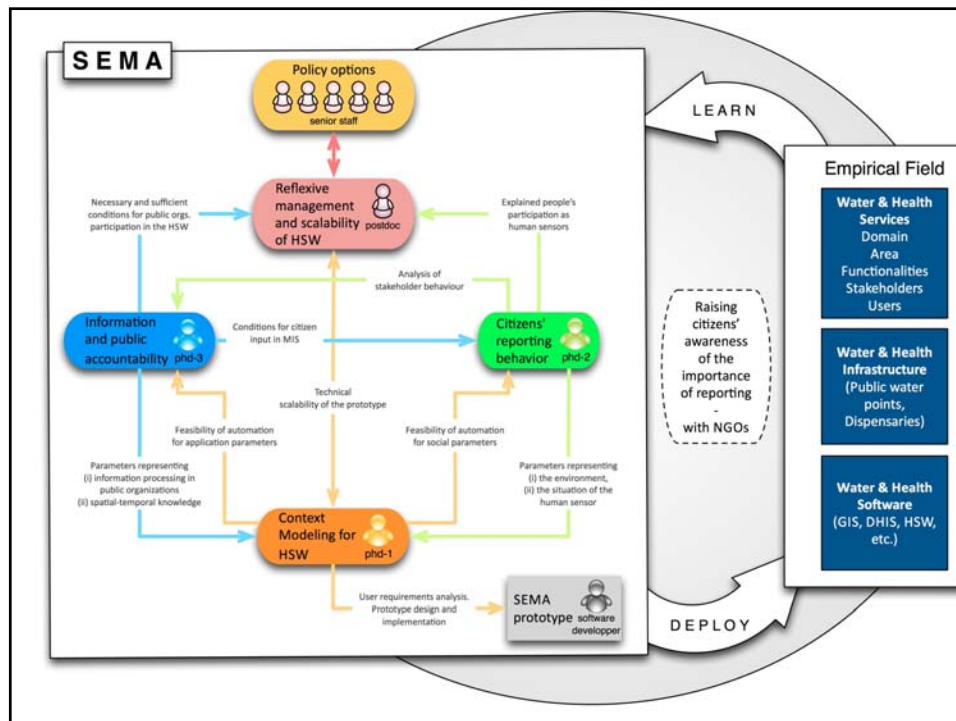
(1) as independent information to verify their own official information.

Question

To what extent and how can citizens in Tanzania directly exact accountability from public service providers with the human sensor web (HSW)?



Netherlands Organisation for Scientific Research



International Journal of Digital Earth

Volume 4, Issue 4, 2011

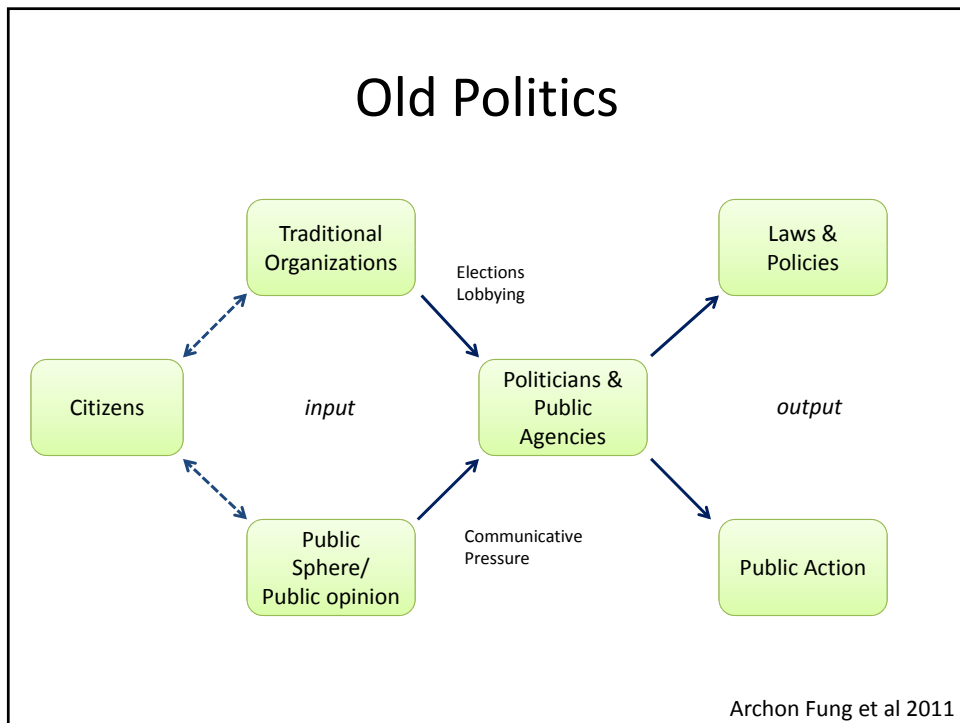
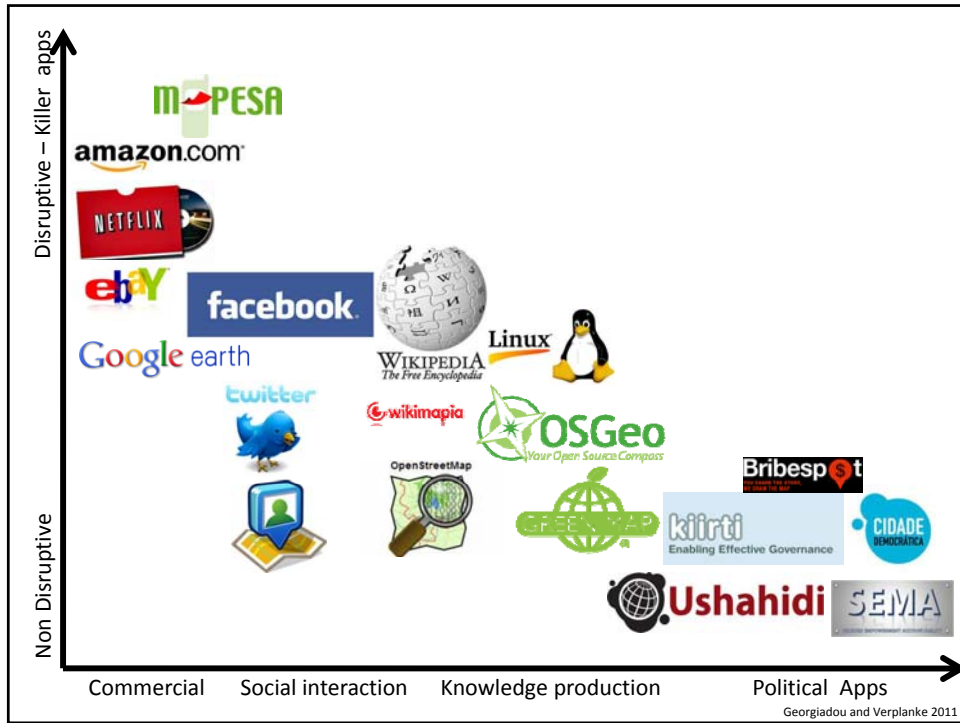
**Sensors, empowerment, and accountability: a Digital Earth
view from East Africa**

DOI:10.1080/17538947.2011.585184

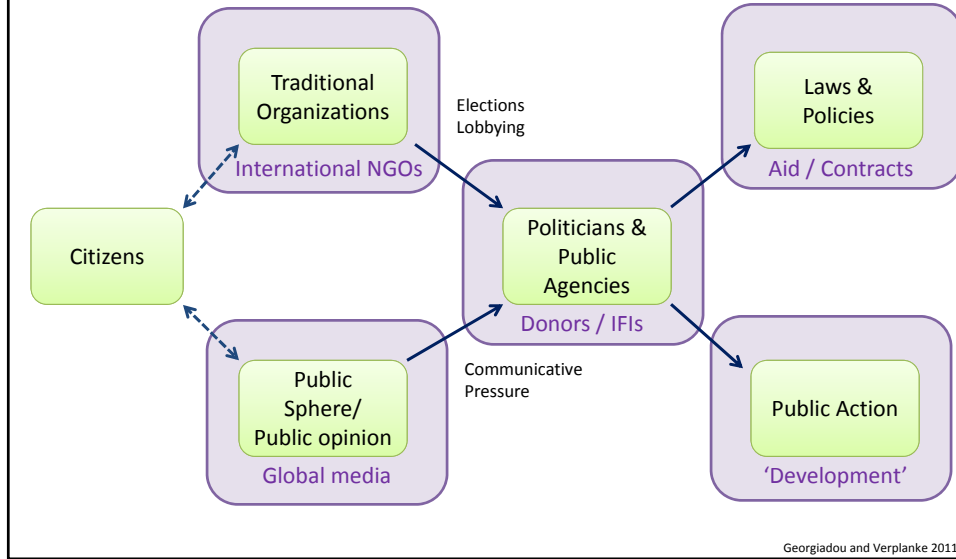
[Yola Georgiadou^{a*}](#), [Benson Bana^b](#), [Robert Becht^a](#), [Robert Hoppe^c](#), [Justinian Ikingura^d](#), [Menno-Jan Kraak^a](#), [Kate Lance^a](#), [Rob Lemmens^a](#), [Juma Hemed Lungo^d](#), [Michael McCall^a](#), [Gianluca Miscione^a](#) & [Jeroen Verplanke^a](#)

Points

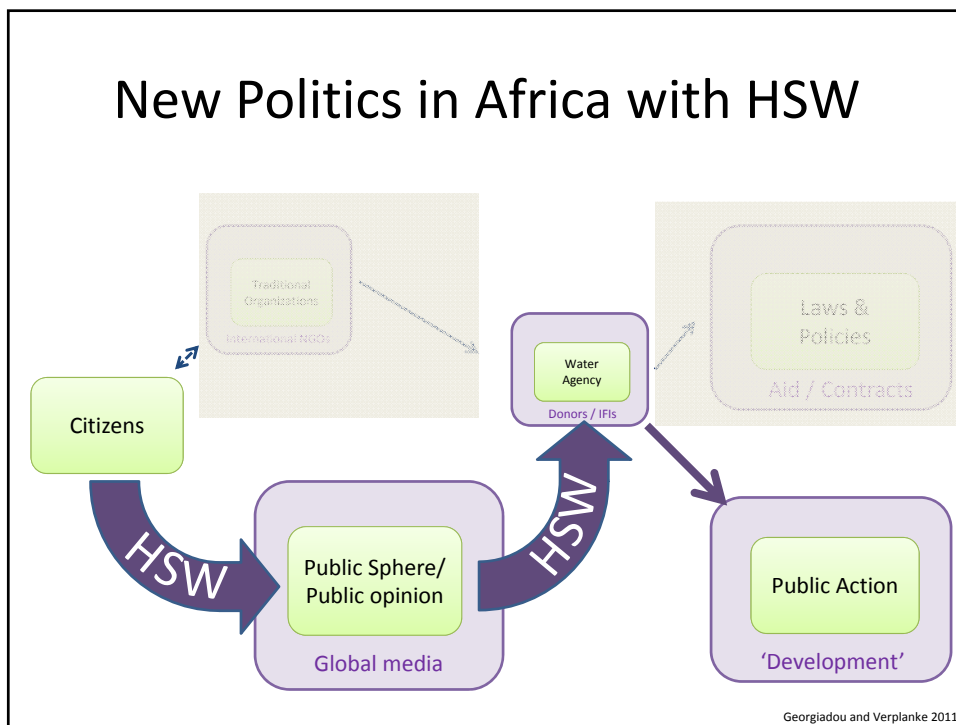
- SEMA: a story
- Conceptualising political killer apps on the geoweb ?
- Propositions



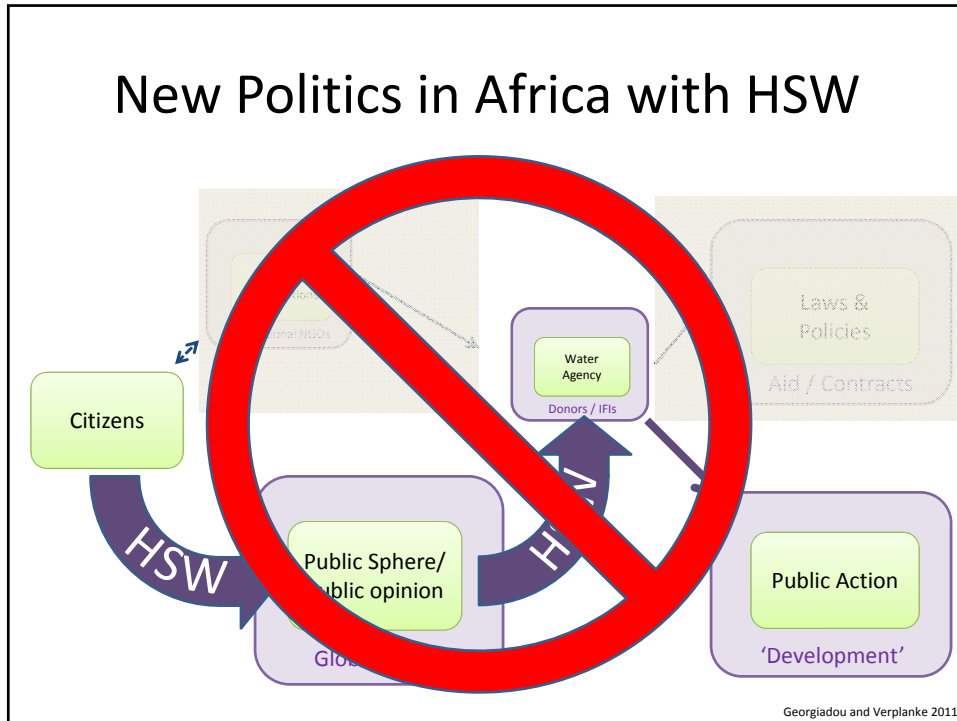
Old Politics in Africa (our POV)



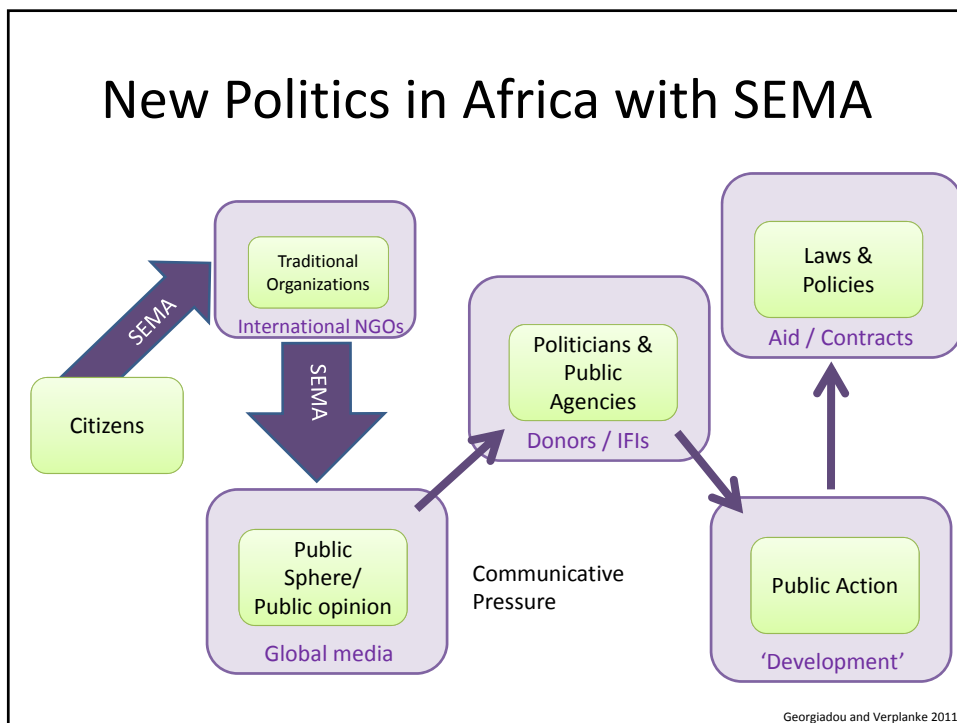
New Politics in Africa with HSW

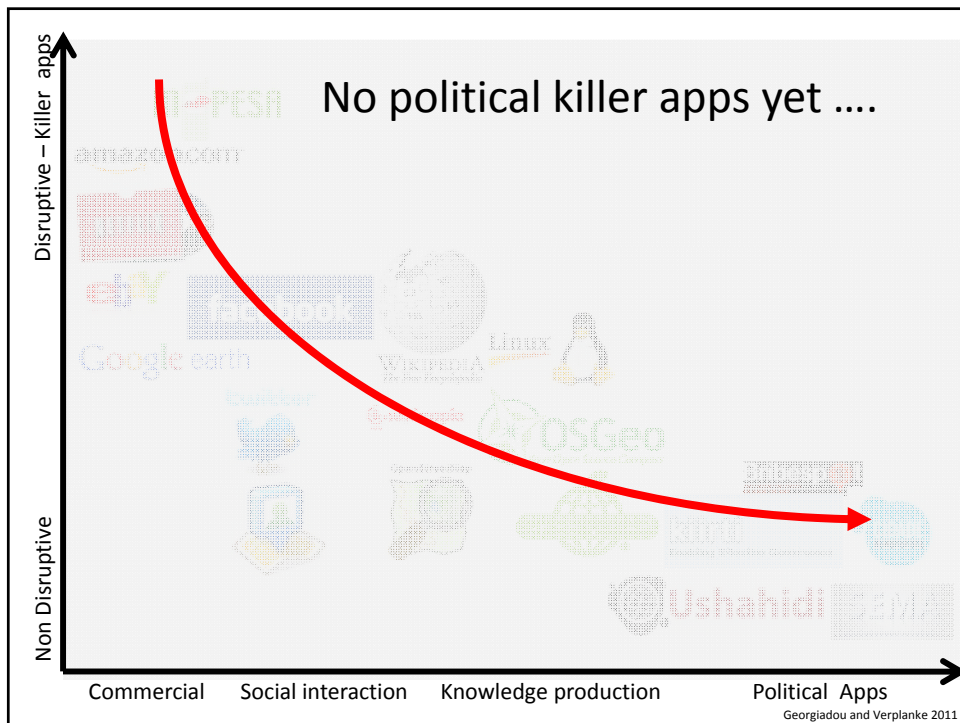
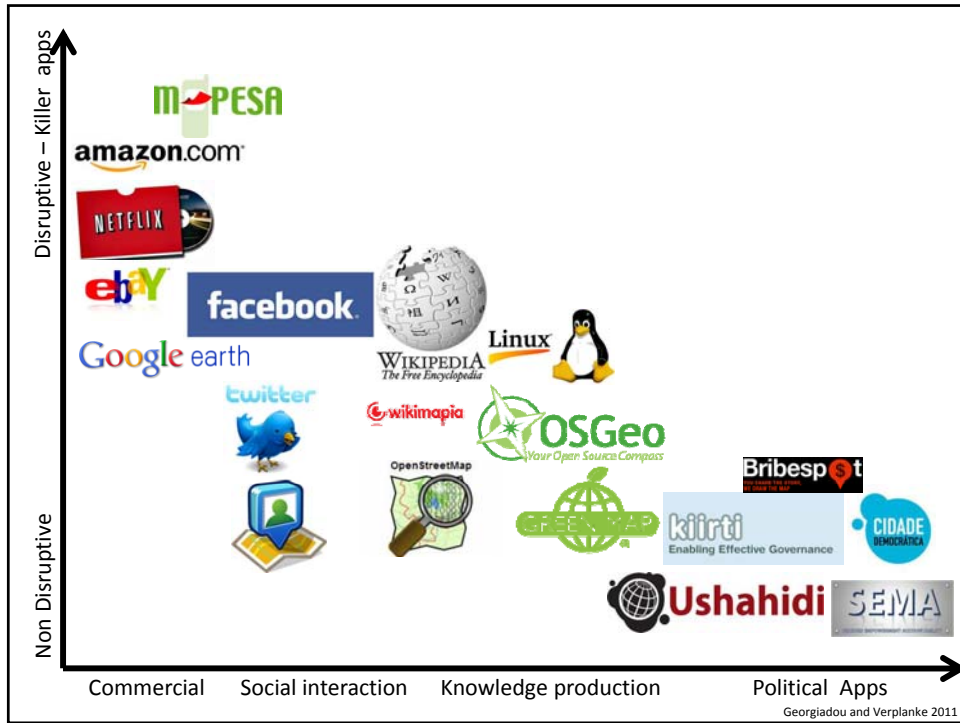


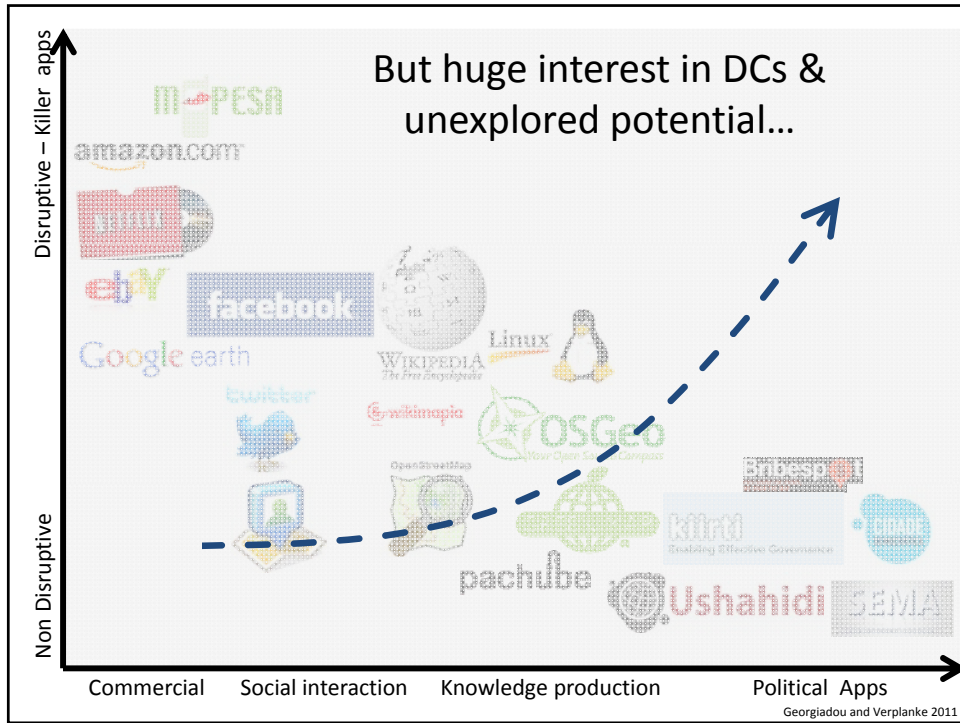
New Politics in Africa with HSW



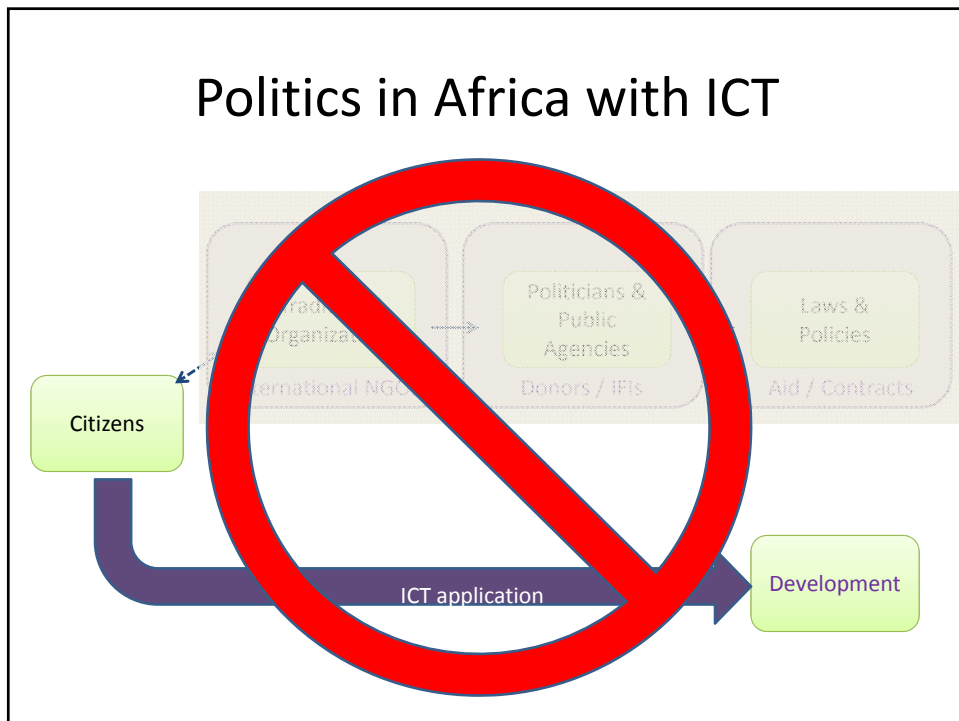
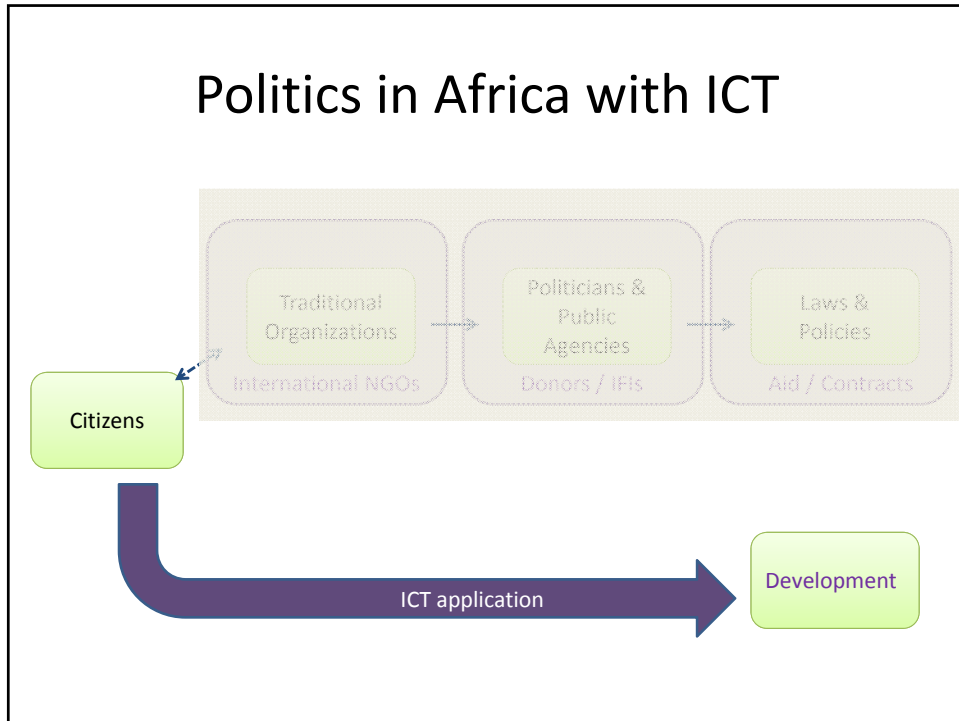
New Politics in Africa with SEMA







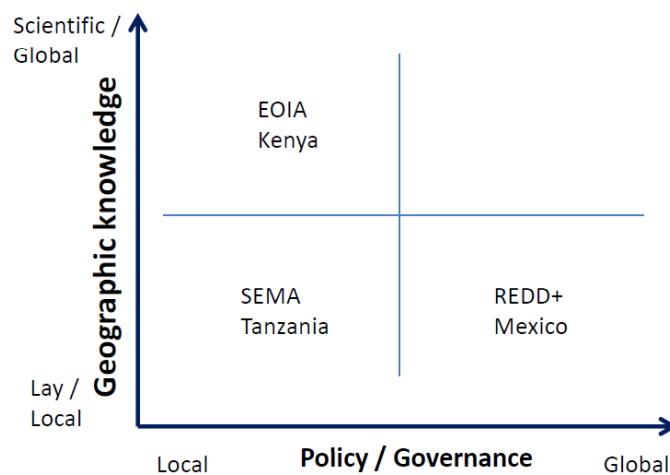
The silver bullet does not work...



Propositions

1. For Geo-information Science research to be truly global, attention to political apps on the geoweb is warranted
2. Inter-disciplinarity a sine qua non to understand the dynamics of success and rate of innovation of political apps

A template for research



Sources of inspiration for the ideas we present here:

1. **MSc students at ITC:** Field work with the pilot HSW in Zanzibar
2. **Prof. Robert Hoppe:** on differences between the media/the web as a means for improved deliberation and decision-making and the media/the web as a means for agenda-setting, issue formation and political mobilization.
3. **Kate Lance:** PhD research on the influence of donors on the behaviour of government agencies in the geospatial sector in Africa
4. **Archon Fung et al (2011)** Why Technology Hasn't Revolutionized Politics, But How It Can Give a Little Help to Our Friends, Program on Liberation Technology, Stanford University, March 3, 2011
video: <http://cddrl.stanford.edu/events/recording/6389/1/538>
[especially Fung's concept of political apps on the web & dynamics of different types of apps]

Georgiadou and Verplanke 2011

