Reactions to Crowdsourcing Proposal

“Violence would probably ensue and the intervention of riot police to sort out hostilities could be expected – crowdsourcing thus becomes crowd crunching and probably a lot of people get hurt.”

Michael Ulrich Jnr., American Surveyor
The 21st Century Challenge for Land Professionals

If Land Professionals are going to seriously contribute towards solutions to the 21st century’s global problems then we will have to change our relationship with citizens and adopt a new paradigm.

Challenge to Land Administrators

Only 25% of the 6 billion land parcels worldwide are formally registered and have robust security of tenure.

Land Information Management Systems & security of tenure at scale in critical path of sustainable cities, climate change management, food security, poverty alleviation etc.
Radical and Scalable Solutions Needed

We need radical and innovative new solutions.

Our Current Solutions are not Scalable or Sustainable.

Continuum of Land Rights

Continuum rhymes with choice, transition and integration

Land Rights:
- Legitimate
- Legal
- Non-Documented
- Documented

Recording Rights:
- Paper
- Sophisticated ICT

Securing Land Rights:
- Bared-feet Practitioners
- Qualified Experts

Data Accuracy:
- Kilometres
- Sub-centimetre
Continuum of Land Rights – Fit for Purposes

Adoption and implementation is a major change management programme across the Land Sector:

- Land approaches and methods.
- Land markets.
- Legal frameworks.
- Land technology.
- Land measurements.
- Citizen awareness.
- Education and capacity building.

Many interventions are required…

The Perfect Storm of Change

Urbanisation
Global Navigation Satellite Systems
Web 2.0 Social Networking

Security of Tenure Chasm
Image Based Mapping
Crowdsourcing

Too Few Land Professionals
Mobile Phones
Spatially Enabled Society

Crowdsourcing supporting a partnership between Land Professionals and Citizens

Source: http://pixdaus.com

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Mobile Phone ‘Cyborg’ Functionality

By 2015 the majority of Mobile Phones will be Smart Phones

Voice Recording
Internet Access
Video Recording
GNSS Positioning
Applications
Sensors

Citizen

Empowering Citizens to Engage with Land Administration

Potential Mobile Land Administration Services

• Accessing Customer Information Services
• Recording Land Rights
• Obtaining Title
• Accessing Land Information
• Paying Fees and Mortgage Instalments
• Marketing Real Estate
• Participating in Development Control / Planning
Proposed Land Administration Crowdsourced Pilot

Objectives:

- to test the concept of participatory or crowdsourced approach to capturing land rights information to support land administration and to understand citizens’ and communities’ reaction;
- to understand what land rights information needs to be captured along the continuum of rights;
- to identify a range of technology tools available, affordable and appropriate to support the approach; and
- to judge how best to engage with Land Administration authorities and other key stakeholders in adopting radical change.

pdf download available on RICS website:
Land Sector Gate Keepers

Resistance to changing the status quo – vested interests:

- Land Administration Agencies.
- National Mapping Agencies.
- ‘conservative’ Governments.
- Surveying Profession.
- Legal Profession.
- Financial Services.
- Land and property investors taking advantage of the current chaos.

Source: [http://www.jumpstartgrowth.com](http://www.jumpstartgrowth.com)

Land Sector Gate Keepers

- Legal Restrictions
- Corruption
- Professional Licenses
- Mortgage Restrictions
- Restrictive Regulations
- Expensive Transactions

Source: [http://www.free-desktop-backgrounds.net](http://www.free-desktop-backgrounds.net)
Land Sector Gate Keepers

Do we need to work with and convince the gate keepers to change?

Three Scenarios

Acceptance by Land Professionals

Supplement to the Formal Property Register

Influence by Pilot Experience

Wait and See by Land Professionals

Rejection by Land Professionals

Shadow / Alternative Land Rights Register (OpenCadastreMap)

Source: http://www.free-desktop-backgrounds.net
Land Sector Gate Keepers

Need to engage with these stakeholders to bridge crowdsourced land rights with formalised land rights.

But How?

Engagement Strategy

Involves in Hybrid Project Governance Arrangements

- Crowdsourcing based initiatives, by definition, are grass roots based and are normally created to challenge formal systems or to offset constraints and inadequacies.
- A bottom-up crowdsourcing initiative for land administration would seem more appropriate where strong partnerships are formed amongst local stakeholders, including local communities, local government, NGOs and CSOs.
Engagement Strategy

Involve in Hybrid Project Governance Arrangements

• Directly involve senior representatives from Land Administration Agencies and National Mapping Agencies in the Project Board with oversight responsibilities.
• Provide guidance on how land rights captured can be formalised wherever possible.

Source: http://www.upsilon-xi.net

Engagement Strategy

Involve Land Professionals in Training Programmes

• The new role of land surveyors will be for capacity building, enabling technology and data flow and quality control, but not for field work.
• Land professionals train trusted intermediaries in communities.
• Intermediaries could be shared with other information services, e.g. health and agriculture.

Source: http://landsurveyorsunited.com
Engagement Strategy

Include wider data capture to secure interest

- Use crowdsourced data to also update old base maps which is a responsibility of national mapping agencies.

Source: http://kijabe.org/nairobi/nbimap.gif

Engagement Strategy

Include wider data capture to secure interest

- Target crowdsourcing exercise in countries that have done national or regional systematic registration of land rights, e.g. Rwanda or Ethiopia, and use the data to fill in the spatial data framework gaps.

Source: http://www.zguesthouse.com/location/ZGH_Map.jpg
Engagement Strategy

**Include wider data capture to secure interest**

- Undertake crowdsourcing in countries that have completed large areas of systematic demarcation of land parcels (especially producing Survey Plans or General Plans) some time ago that have been overtaken by sub-divisions.
- Crowdsourcing could be used to collect spatial data for sub-divisions.

![Image](http://www.robinsonsphilcondos.com)

Source: http://www.robinsonsphilcondos.com

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Engagement Strategy

**Include wider data capture to secure interest**

- Crowdsourcing in very dense urban slums with very tiny land parcels to generate land rights data and socio-economic data required for planning the updating of infrastructure and social services.

![Image](http://www.robinsonsphilcondos.com)

Source: http://www.robinsonsphilcondos.com
Engagement Strategy

Include wider data capture to secure interest

• Use crowdsourcing projects to create employment for para-professionals (para-surveyors and semi-skilled GIS/IT experts) such as those in Rwanda since its national program is now virtually complete.

Source: http://www.geomath-data.ethz.ch

Engagement Strategy

Include wider data capture to secure interest

• Capture other socio economic information decided by Civil Society Organisations, e.g. garbage, water, health and other socio-economic information.
• The scope will be driven by user demand.

Source: http://cleanwaterforall.files.wordpress.com
Engagement Strategy

Review and adapt the legal framework

• Review and adapt the legal framework and associated regulations to ensure flexibility to accommodate land right definitions along the continuum of rights and has the capability to lead to formal rights.
• Provide toolkits?

Source: http://www.teddyoung.org

Engagement Strategy

Adopt Open Standards

• Open standards should be used wherever possible, e.g. LADM/STDM model and Free and Open Source Software (FOSS).
• Neutral development environment.
• Provides the opportunity to build open source communities in this application area.
• This will help to build capacity locally and provide revenue generating opportunities.
Let’s try it and pilot it and make land administration by the people for the people a distinctly 21st Century phenomenon.

Land Sector Gate Keepers

- Legal Restrictions
- Corruption
- Professional Licenses
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