Managing
Unintended Consequences of
Democratizing Land Rights

Dr Robin McLaren

Know Edge Ltd
Edinburgh, UK
robin.mclaren@KnowEdge.com

FIG Working Week Sofia, Bulgaria
TS02B, Monday 18th May 2015

Overview

• Democratisation of land rights
• Unintended consequences
• Managing the risk

Source: http://www.urbansamurai.com
Blade Runner [1982]

Philip K Dick’s (1968) ‘Do Androids Dream of Electric Sheep?’
Why the Internet of Things will not work under capitalism [Philip K Dick's "Ubik" (1969) ]

He vigorously strode to the apt door, turned the knob and pulled the release bolt.

The door refused to open. It said ‘Five cents, please.’ He searched his pockets. No more coins: nothing. ‘I'll pay you tomorrow,’ he told the door. Again he tried the knob. Again it remain locked tight. ‘What I pay you,’ he informed it ‘is in the nature of a gratuity; I don't have to pay you.’

‘I think otherwise,’ the door said. ‘Look in the purchase contract you signed when you bought this canapt.’
Why the Internet of Things will not work under capitalism [Philip K Dick's "Ubik" (1969)]

In his desk drawer he found the contract. Sure enough; payment to his door for opening and shutting constituted a mandatory fee. Not a tip.

‘You discovered I’m right,’ the door said. It sounded smug.

From the drawer beside the sink Joe Chip got a stainless steel knife; with it he began systematically to unscrew the bolt assembly of his apt’s money gulping door.

‘I’ll sue you,’ the door said as the first screw fell out.

Joe Chip said, ‘I’ve never been sued by a door before. But I guess I can live through it.’
The need for scale

Current Land Administration Systems are geographically limited and lack scale

Only operational in 30 - 50 mainly OECD and transition countries in central Asia.

Source: http://earthobservatory.nasa.gov

Having the capacity to deliver

Limited Land Professional capacity

FIG represents 350,000 Land Professionals world-wide

1,100,000,000 Slum Dwellers world-wide

In 2010 Uganda only had 38 licensed surveyors

There are not enough professionals.
The current paradigm is frustrating demand.
Recognizing everyone

75% world's population have no access to formal Land Administration services

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

Tenure insecurity has a knock on effect on sustainable cities, climate change management, food security, poverty alleviation and more.

Focus of Crowdsourcing

Family of Mobile Devices

Land rights capture will involve a range of devices in the mobile ecosystem, such as tablets, cameras, GNSS, mobile remote sensing / photogrammetry and mobile power.
Trusted based systems are replacing (complementing) legal based systems

Legal vs. Legitimate

Democratizing Land Rights

Source: http://socialevolutionforum.com

Source: http://www.shutterstock.com/pic-11778223
Global Cadastre

MapMyRights™ Movement

Trust based land rights solutions

Crowdsourced land rights

Source: http://pixdaus.com

Closing the cadastral divide

Grassroots land rights recordation

Democratisation of land rights

Source: http://uwnews.org

Current Experience

Democratisation of Land Rights

• USAID Mobile Applications for Secure Tenure (MAST) Tanzania
• Resource Rights Initiative
• Rainforest Foundation UK
• BRAC
• The Indigenous Peoples Alliance of the Archipelago (AMAN)
• Namati
• Open Tenure (SOLA)
• Cadasta
• .........
Abuse of Current Land Administration Solutions

- The elite and rich take advantage of current land administration systems – the same could well happen with the democratisation of land rights.

- Land is the third most corrupt activity and will always attract vested interests and innovative, new ways of abusing the system.
Unintended Consequences

What can go wrong?

- People record claims for land that is not theirs.
- Slum dwellers want to hide and do not record their rights.
- Citizens record their rights, but do not want their rights publicised.
- The technology savvy members of communities take control of land.
- Tribal chiefs abuse power over new land rights.
- The cost of trusted intermediaries turns them into gatekeepers.
Managing the Risk

Managing Unintended Consequences

- Use trusted intermediaries & societal evidence
- User driven reputation systems
- Technology triggers & interventions
- Land governance capacity building
- Create pathway for formalising rights
- Use AI and crowdsourcing

Source: http://www.urbansamurai.com

©Know Edge Ltd
Managing the Risk

**Use a Network of Trusted Intermediaries**

- Avoid open crowdsourcing at the outset.
- Land professionals / NGOs train trusted intermediaries in communities.
- Self-organize into collaborating networks.
- Intermediaries could be shared with other information services, e.g. health and agriculture.
- Land rights simply a bi-product of other services, e.g. microfinance, micro-insurance.

Managing the Risk

**Community based Quality Assurance**

- Local public display of the results combined with the witness function of the local land committee and the people is providing societal evidence of land rights.
Managing the Risk

User Driven Reputation Systems

- Centralised user reputation system based on feedback from citizens on trusted intermediary registrations.
- Simple colour coding to reflect reputation.

Managing the Risk

Passive Crowdsourcing Quality Assurance

- Analyse log of use and location of the mobile phone, inferring the location of the owner.
- Network timestamp provides a robust (99.999%) piece of evidence that can be associated with land rights data.
- Use proximity triggers to warn citizens of rights claims in their vicinity.
Managing the Risk

Capacity Build Good Governance in Communities

- Community empowerment efforts that promote good governance of local lands and natural resources.
- Intra-community mechanisms established to ensure good governance.

Formalise Crowdsourced Land Rights

- Agree pathway with governments to upgrade and formalise crowdsourced land rights.
- Support of Fit-For-Purpose approach to land administration.
Managing the Risk

Apply Artificial Intelligence techniques used to detect credit card fraud

• Can we use artificial intelligence techniques that are employed in systems for detecting credit card fraud (online and offline) and insider trading within the Bourses?

• And can this be augmented / trained by crowdsourcing?

Managing the Risk

Guiding the Land Professionals to a New Space

• The profession is being seriously challenged to solve land issues faster.

• Land Professionals are at a very significant juncture.

• If Land Professionals don’t rethink their roles then other professions will fill the vacuum.
Managing the Risk

Vigilance in auditing and monitoring mis-use

• Continually monitor use and mis-use of crowdsourced land rights and improve the authentication processes, including innovative use of mobile technology, to reduce abuse.
• Make users aware that recording of rights claims are being monitored to build trust.

The risk of unintended consequences is not an excuse not to democratise land rights

Source: http://pixdaus.com
Know Edge Limited
Location Information Innovation

Contact Information:
Mobile: +44 7803 163137
Email: robin.mclaren@KnowEdge.com
Twitter: @knowedgeltd
Skype: robinmclaren    Edinburgh, Scotland