



Surveying the future:
mapping the bitcoins



MONDAY
18 MAY 2015

14:00 – 15:30
Hall 7.1 / 7.2, NPC

Session #1 - Surveying the future: Mapping the bitcoins

Is it possible to publish a land transaction completely transparent, secure, legal, open and reliable using bitcoins?!

In this session we apply the principles of the innovative and game-changing concept of bitcoins and the blockchain. You never heard of it before? But you are curious to learn more. Then this is the session to be! Instead of using bitcoins as a tool for currency transactions, why not use it as tool to register the transaction of property. Google Maps for the cadastral mapping, LinkedIn for the Legal Register and Bitcoins for the transactions...? Imagine what happens if you see one square meter in a land transaction equal to a bitcoin. This sounds impossible to you - it doesn't to us! Within this session we want to challenge all surveyors, young and experienced, to verify how bitcoins and blockchains contribute to the

Everybody is welcome!

Paula DIJKSTRA Christiaan LEMMEN
Eva-Maria UNGER Annet de BOER



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Volunteer?



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A transaction is about

- Trade
- Currency
- Trust



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What is a bitcoin?



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Bitcoins: Most important facts

- Open source
- Digital currency
- Decentralised system
- No bank or institute required
- Transaction verified by network of multiple users
- Transaction is recorded in a public ledger (block chain)
- Maximum number: 21 million



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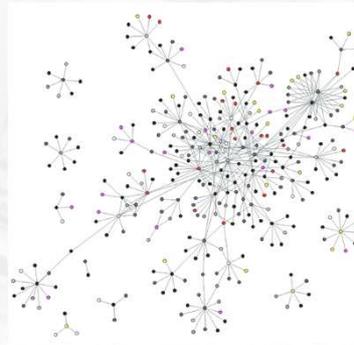


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Blockchain: one single source of truth

- **All transactions are logged**
 - Time
 - Date
 - Type of transaction
 - Amount
- **It is public**
- **Everybody can access the ledger**
- **Multiple users verify**
- **There is only one version, one truth**



<http://cryptogeld.net/uitleg>



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1 Bitcoin

- **100.000.000 units with unique id**
- **Each unit is programmable**
- **Each unit can represent (a different) property**
- **Unit can be specified / labelled**



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1 bitcoin

- Money
- Share in a company
- Energy
- Certificate of ownership
- Oil
- Votes
-or land!



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Transactions with bitcoins and blockchains

- Innovative
- Efficient
- Transparant



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Challenges in Land Administration

- 70% to be done
- Complex institutional setting
- Corruption / Transparency
- Automation
- Trustworthy Parties
- Trend: decentralisation



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Bitcoins

- for land administration -



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Imagine

- Land Rights and right holders at LinkedIn?
- Spatial Units on Google Maps (or:....)?
- Transactions via blockchains...



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The screenshot shows a web browser window with the URL <http://www.stdm.gltm.net/>. The page title is "Social Tenure Domain Model" and the navigation menu includes "FOR USERS", "FOR DEVELOPERS", "RESOURCES", and "APPLICA". The main heading is "Social Tenure Domain Model" with the subtitle "A pro poor land information tool." Below this, the section "STDM AS A CONCEPT" explains that there is a gap in conventional land administration systems for customary and informal tenure, and that the model aims to bridge this gap by providing a standard for representing 'people - land' relationships. A blue button labeled "MORE INFORMATION" is visible at the bottom of the content area. The Windows taskbar at the bottom shows various application icons.

FLOSSOLA
Open Source Software Community

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Home > Community > Groups

Open Tenure

 *The Open Tenure initiative seeks to address the need of people in many countries to have their tenure rights recognized at a community level through the use of mobile devices and crowdsourcing techniques.*

The FAO SOLA Team has recently begun development of Open Tenure and will be regularly posting development versions of the software to ot.flossola.org.

The FAO SOLA Team invite members of the SOLA community to review and comment on Open Tenure through the Open Tenure discussion group. Be aware that the software is under development and it is not yet fully functional. Development of Open Tenure is expected to continue until October 2014.

Group links

- This group has no group links.

Group menu

- You must [register](#) or [post](#) into this group.

Recent content

- [Open Tenure Progress](#)
- [Presentation to the Vi](#)

20.

ing and UT Austin developing centimeter-accurate smartphone GPS?We have done a lot of testing with...

LinkedIn™ Groups

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This could be exciting news! Samsung and UT Austin developing centimeter-accurate smartphone...

 **Melanie Langlotz**
Business Development Manager at Augview

what mobile devices your company chooses to use and are you connecting any GPS gear to your mobile...

[View Discussion](#)

Contribute to active discussions

inquiry for DEM with z-index
Salwa Nabil

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Impact

- Everybody can see all transactions
- Locations are linked to units of transactions

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1 bitcoin = 1 sq land unit



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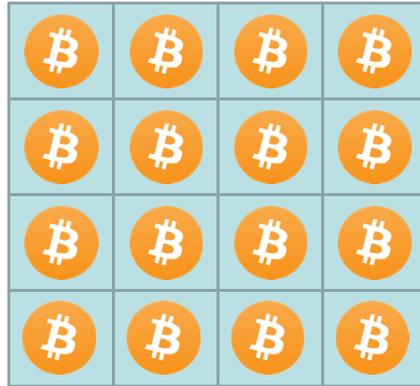




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Grid



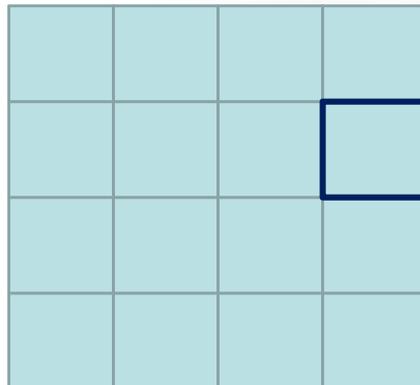
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Grid



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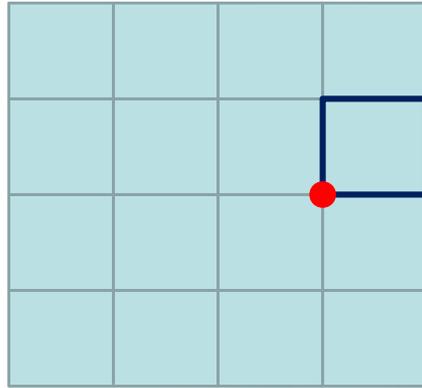




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Lower Left Corner in cm



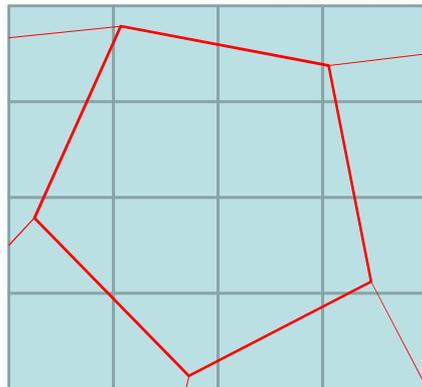
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Parcels



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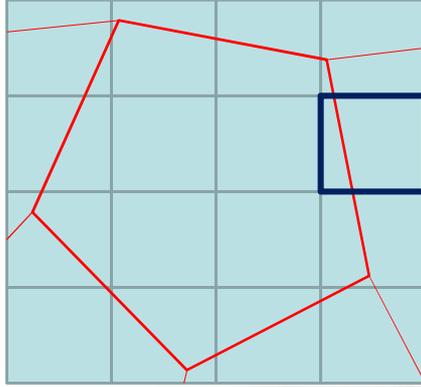




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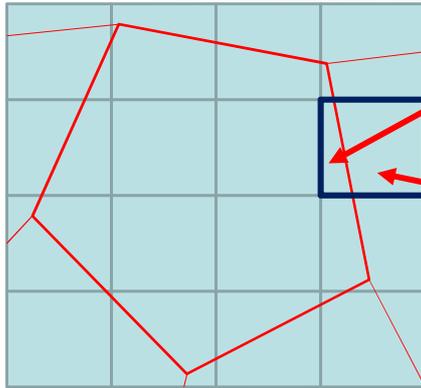
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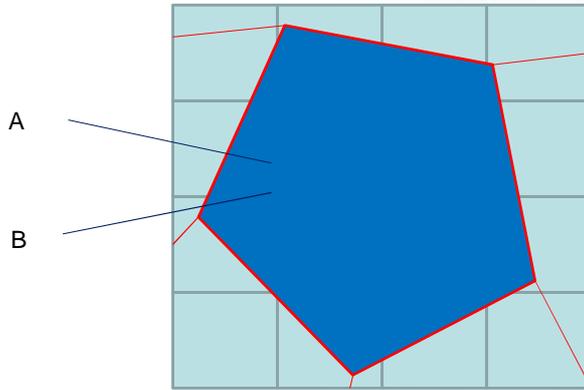




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Transaction



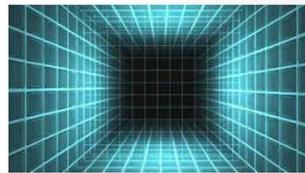
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Can we use the bitcoin & blockchain as tool to register transaction of land right?



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Discussion Group & Questions

1. What are the pros and cons of using bitcoins/blockchain?
2. Are trusted parties (institutions) needed?



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