Using Minecraft to involve citizens in urban planning and design
Real-world data in Minecraft
Minecraft
- a 3D computer game about placing and breaking blocks
- can be played in
  - survival mode, where you fight monsters
  - creative mode, where you build and explore
- more than 100 million users worldwide
- created by Mojang in Sweden
- sold to Microsoft for 2 billion dollars in 2014
- normally played in fictitious worlds generated by the game engine
The world is urbanizing

People living in cities:

1950: 746 million
2014: 3.9 billion

... 2050: 6.4 billion (~ 66 % of the world’s pop. is urban)

Why involve children and youth in urban design and planning?

They
- see cities from their perspective
- learn about architecture, sustainability, urban planning
- contribute with ideas
- gain confidence, when listened to
- become more engaged citizens
- grow up and become tax payers and voters
“We think [Minecraft] is a great tool for engaging citizens, particularly normally hard to reach groups such as youth, women and slum dwellers in urban design.” Pontus Westerberg, Digital Projects Officer, Urban Planning and Design Branch, UN Habitat
Denmark in Minecraft

Data used: Danish Geodata Agency and Danish Municipalities
Denmark in Minecraft
43,000 km²
4000 billion Minecraft blocks
Elevation models and map data
Made for the Danish Geodata Agency in 2014


Data used: Danish Geodata Agency and Danish Municipalities
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Vibcraft - the municipality of Viborg in Minecraft

3D overview of Viborg in Minecraft.
Use
- in education
- citizen involvement in urban planning
- branding
- fun...

Vibcraft - the City of Viborg in Denmark in Minecraft.
Data used:
Elevation model
Map features
3D city model
Building materials
Geology
Crops in fields

3D point clouds

Vibcraft
Stavanger city in Minecraft

Data used: Stavanger Kommune and OpenStreetMap contributors
... Stavanger city in Minecraft
How to get started?

Have your area made in Minecraft
Elevation models
Topographic data; eg. roads, buildings, vegetation, land use
3D city models
3D architectural drawings

Engage with local Minecrafter(s) to assist

Conduct a workshop

Data used: Stavanger Kommune and OpenStreetMap contributors
GeoBoxers generate Minecraft worlds based on real data:

- Elevation models
- Topographic data; eg. roads, buildings, vegetation, land use
- 3D city models
- 3D architectural drawings
- 3D point clouds from laser scans or photogrammetry
Visit www.geoboxers.com for more information

GeoBoxers bring real-life geodata in play - 3D play. Our approach and experience opens up new possibilities to introduce the real world in gaming for education, citizen involvement, tourism... and fun.

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Real-world data in Minecraft - for the world

GIS and geospatial data
We are experienced professionals
Copenhagen in Minecraft

Data: Denmark in Minecraft + 3D citymodel
Watch it here: http://demo.geoboxers.com
Rundetårn

Data used: Danish Geodata Agency and the City of Copenhagen
Mars in Minecraft by GeoBoxers