



GEOSPATIAL QUALIFICATIONS

Schools, Citizens and Professionals

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Digital Earth

'a digital future where a young girl could sit before a computer generated 3-dimensional spinning Earth and access information from around the planet with vast amounts of scientific, natural, and cultural information to describe, entertain, and understand the Earth and its human activities. This vision states that any citizen of the planet, linked through the Internet, should be able to access vast amounts of free information in this virtual world ...' (Al Gore)



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Roles

author – serve – use

VIEWER
USER
DOER

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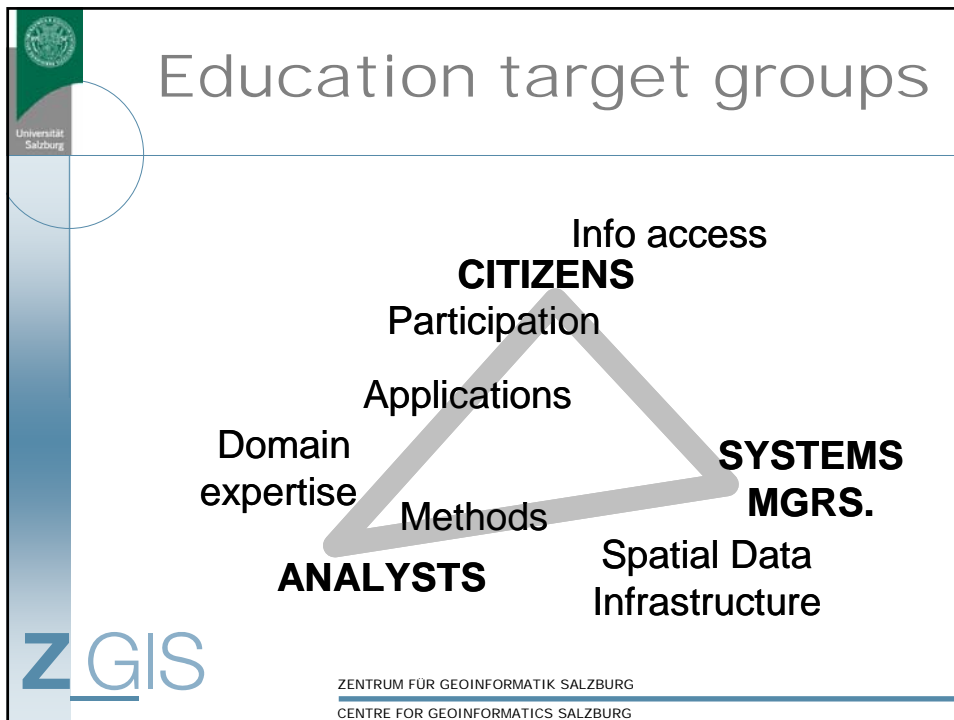
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Roles


- 1. Spatial Communication**
awareness – literacy – thinking - participation
- 2. Spatial Analysis**
answer questions; information from data
- 3. Spatial Systems**
build and maintain SDI components

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- # Levels: ‚Citizens‘
- **C1 – ‘Consumer’** – map reading, orientation and navigation, finding one’s place and identifying a destination.
 - **C2 – ‘Prosumer’** – ability to participate by labelling a feature, mark up (‘redlining’) and rate a place or feature of interest and comment on alternative spatial scenarios, like a zoning proposal.
 - **C3 – ‘Producer’** – contribute one’s own data like a GPS-recorded hiking track, a geocoded photograph and perhaps even a draft proposal map for a conservation measure.
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Levels: ‚Analyst‘

- **A1 – ‘Applying tools’ by competently using existing functionality to answer simple questions and fulfil single-step tasks.**
- **A2 – ‘Design analytical workflows’ by creatively using established methods and existing functionality to solve complex problems requiring multiple transformations and operations.**
- **A3 – ‘Develop methods’ for new problems or conceptualise new solutions or complex workflows, and implement them for general use.**

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Levels: ‚Systems‘

- **S1 – ‘System setup’ and maintenance for out-of-the-box installation of well-documented system components.**
- **S2 – ‘Architecture design’ – competence to orchestrate multiple components, set up complex interfaces and profiles and link to external services.**
- **S3 – ‘Server / service development’ – implement specifications and design and develop new services.**

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Complementary Qualifications



G/R – Competence in establishing, using and transforming Spatial Reference Systems (SRS), ‘measuring space’ and advanced geocoding. This geodetic / surveying engineering qualification is an essential prerequisite for setting up DE frameworks and to guarantee high quality operations.

T/A – Technician qualification mostly for data acquisition and data conversion. As a profession this can be implemented from a vocational angle, or in other cases from a technologist or sensor specialist viewpoint.

P/M – Project management and organisation is a generic skill and frequently implemented as a standalone (e.g. consulting) career path, critically important to cover business perspectives and for managing complex projects and implementations.



Profiles



| | Levels | | | | | Tech programme | | | | |
|----------|-----------|-----------|-----------|--|------------|----------------|-----------|-----------|-----------|------------|
| C | <i>C1</i> | <i>C2</i> | <i>C3</i> | | <i>G/R</i> | C | <i>C1</i> | <i>C2</i> | <i>C3</i> | <i>G/R</i> |
| A | <i>A1</i> | <i>A2</i> | <i>A3</i> | | <i>T/A</i> | A | <i>A1</i> | <i>A2</i> | <i>A3</i> | <i>T/A</i> |
| S | <i>S1</i> | <i>S2</i> | <i>S3</i> | | <i>P/M</i> | S | <i>S1</i> | <i>S2</i> | <i>S3</i> | <i>P/M</i> |

So ... ?

- We've done a lot of curriculum work
 - Improved job prospects by *'introducing GIS into curricula'*
 - Have argued for GIS in schools
- ***But rarely did this from a broad target groups / qualifications viewpoint.***

GISociety

