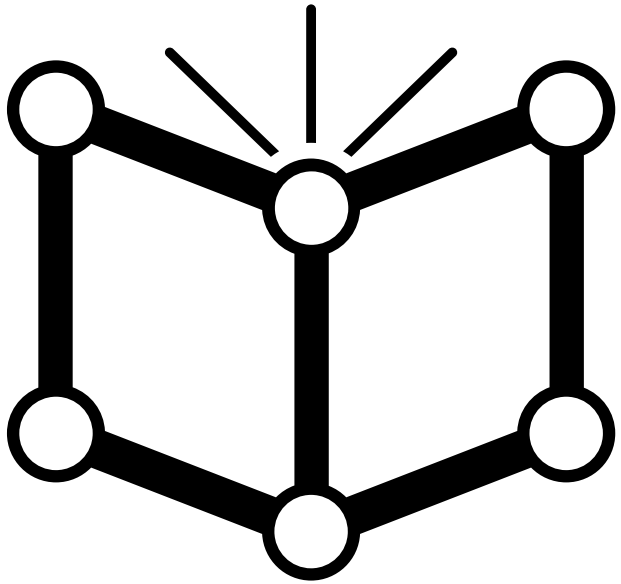
Living Textbook



Rob Lemmens

Department of Geoinformation Processing
Faculty of Geo-Information Science and Earth Observation (ITC)

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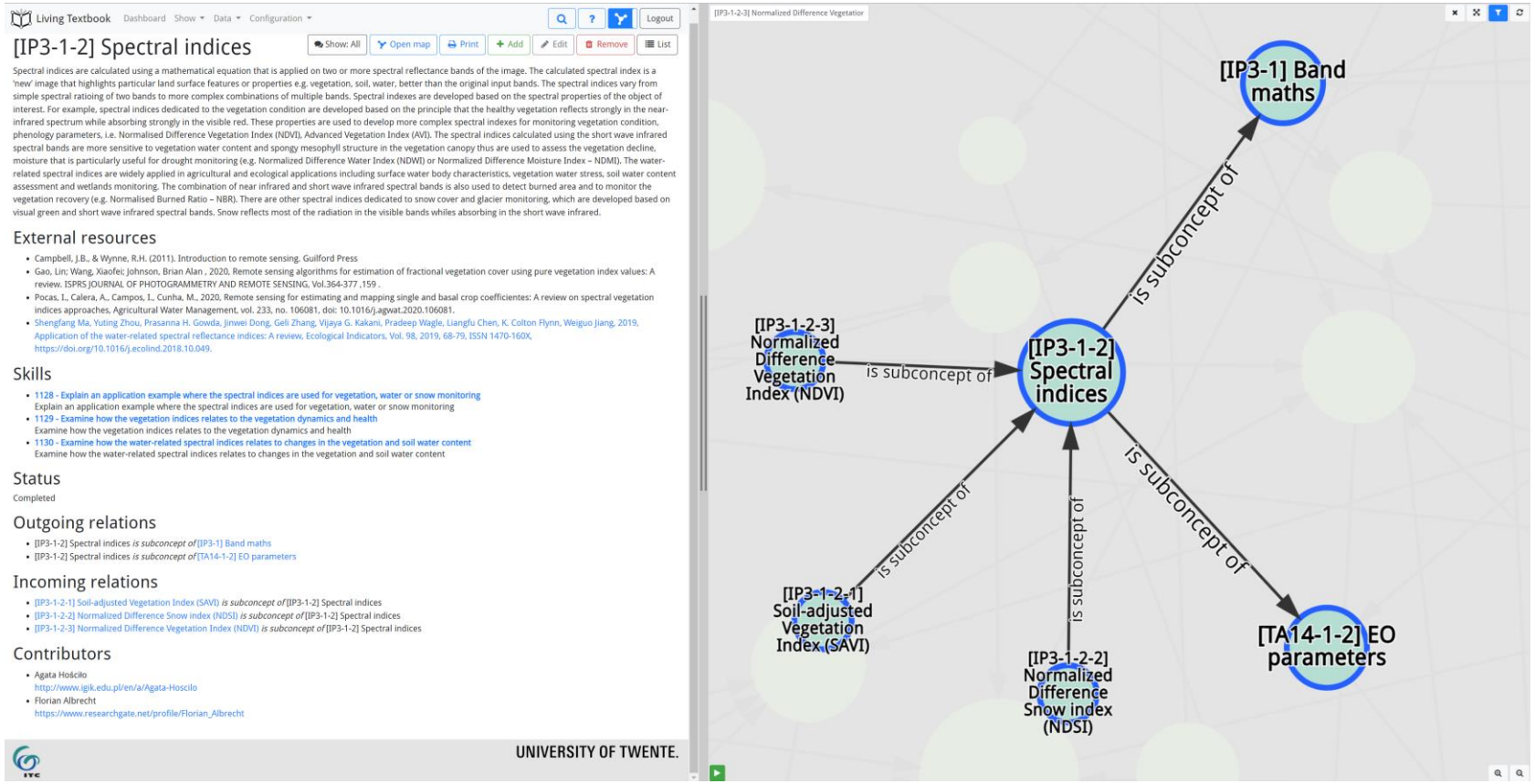
Living Textbook (LTB)

A novel way to display content digitally

Wiki + Concept map

Learners explore concepts through their relationships

Experts collaborate on representation of domain knowledge



https://ltb.itc.utwente.nl

https://itc.nl/about-itc/organization/resources-facilities/living-textbook/

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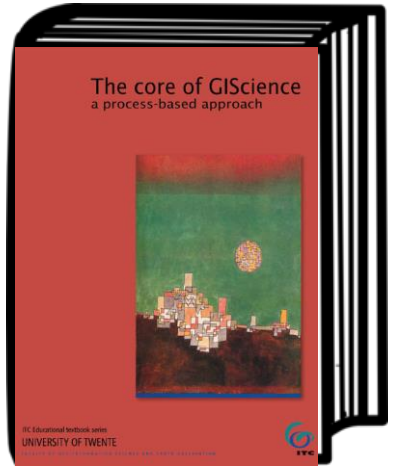
Living Textbook – course content

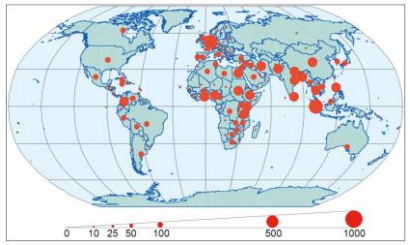


Living Textbook

Show: Own | Open map | Print | Add | Edit | Remove | List

Map

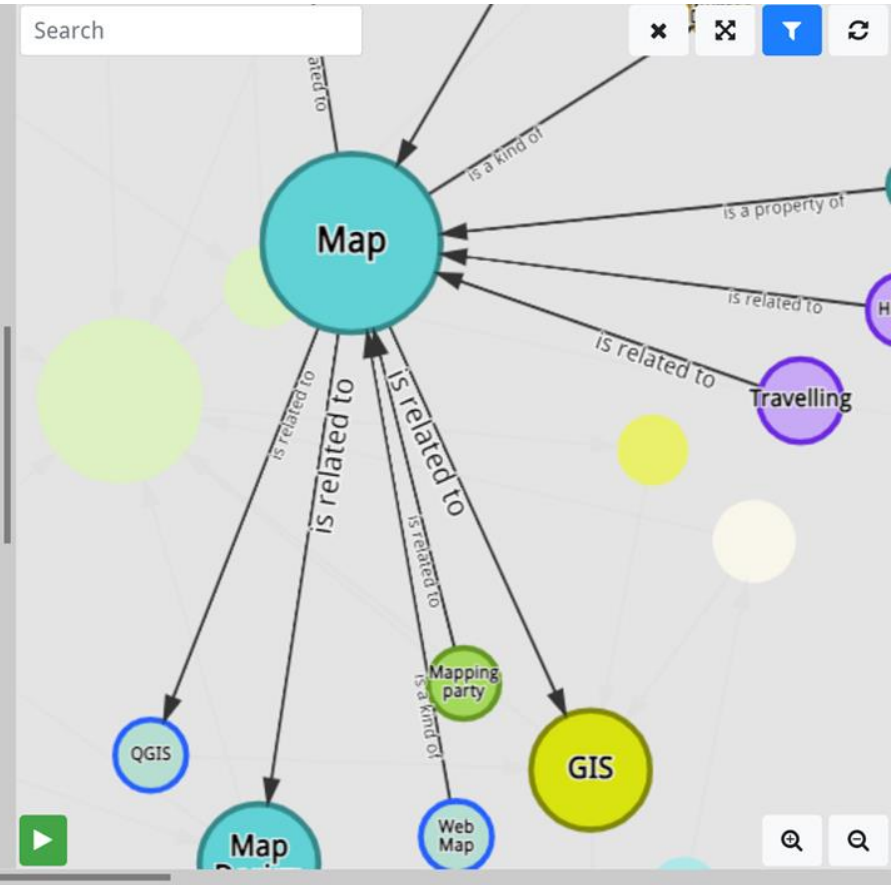
Information sharing



Introduction

In the GIS environment, the most familiar model is a ***map***. A map is a miniature representation of a part of the real world.

Board (1990) defines a map as "a representation or abstraction of geographic reality. A tool for presenting geographic information in a way that is visual, digital or tactile." The first sentence in this definition contains three key words. The "geographic reality" represents the object of study: i.e. our world. "Representation" and "abstraction" refer to models of these geographic phenomena. The second sentence reflects the appearance of the map. Can we see or touch it? Or is it stored in a database? In other words, a map is a reduced and simplified representation of the Earth's surface, or parts of it.



1.08 Visualization

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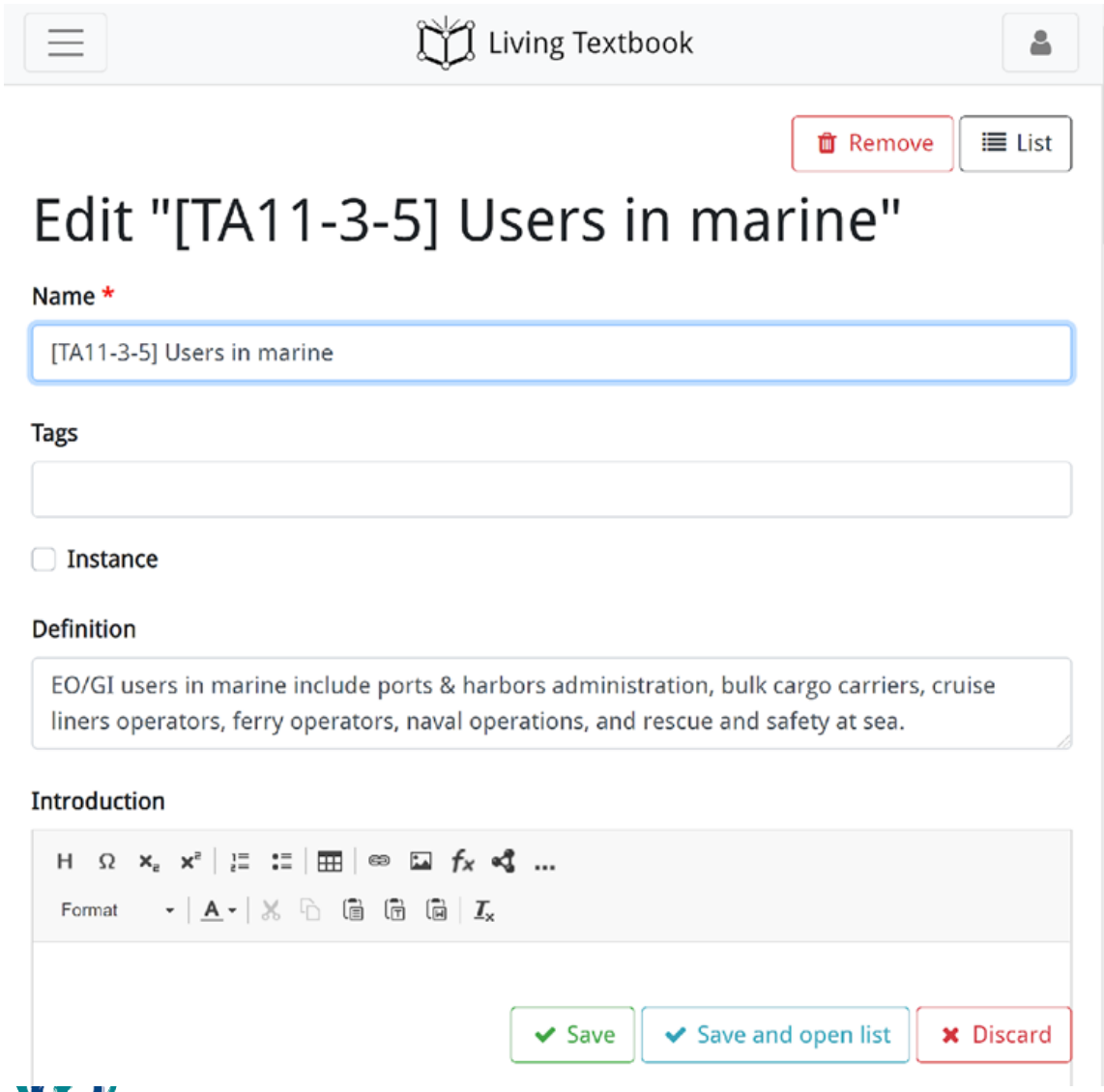
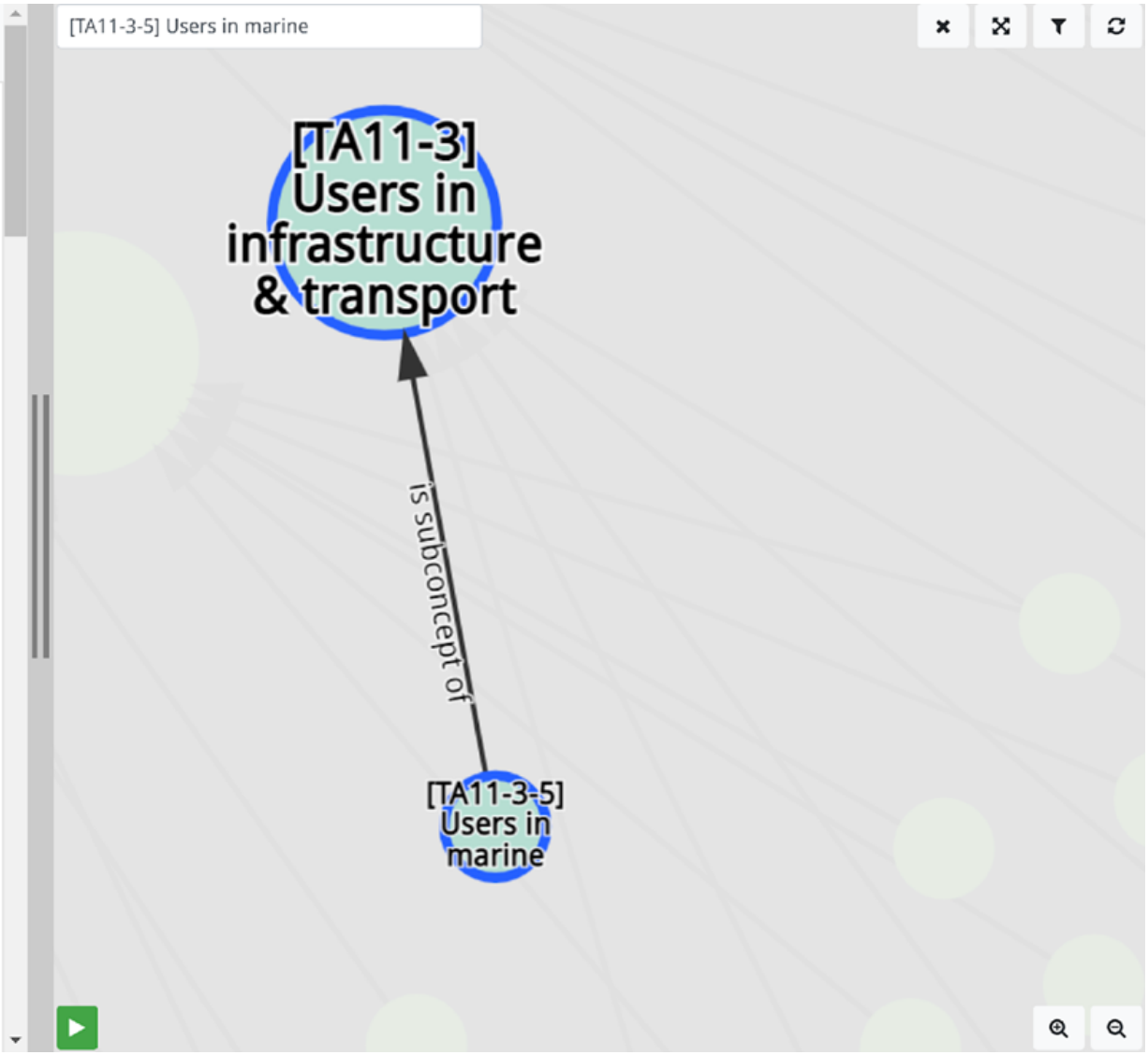
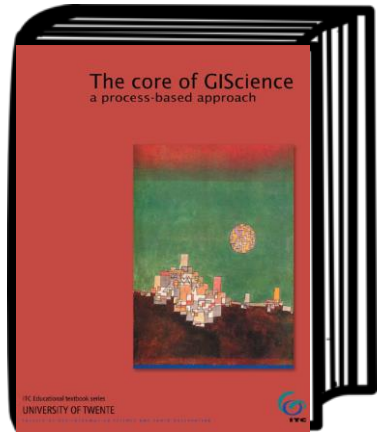
Edit concept content





Review process



Living Textbook

Logout

Pending reviews

The submissions below are currently pending review.

Submissions from other editors

The following submissions are pending review.

Owner	Notes	Submitted at	Requested reviewer	Actions
Augustijn, P.W.M. (ITC)	I have added a definition. This was missing in the...	Mar 10, 2020, 12:28 PM	Krol, B.G.C.M. (ITC)	Start review
Adugbila, E.J. (ITC)	I submit the following to you for your review for ...	Jun 10, 2020, 11:44 AM	Krol, B.G.C.M. (ITC)	Start review

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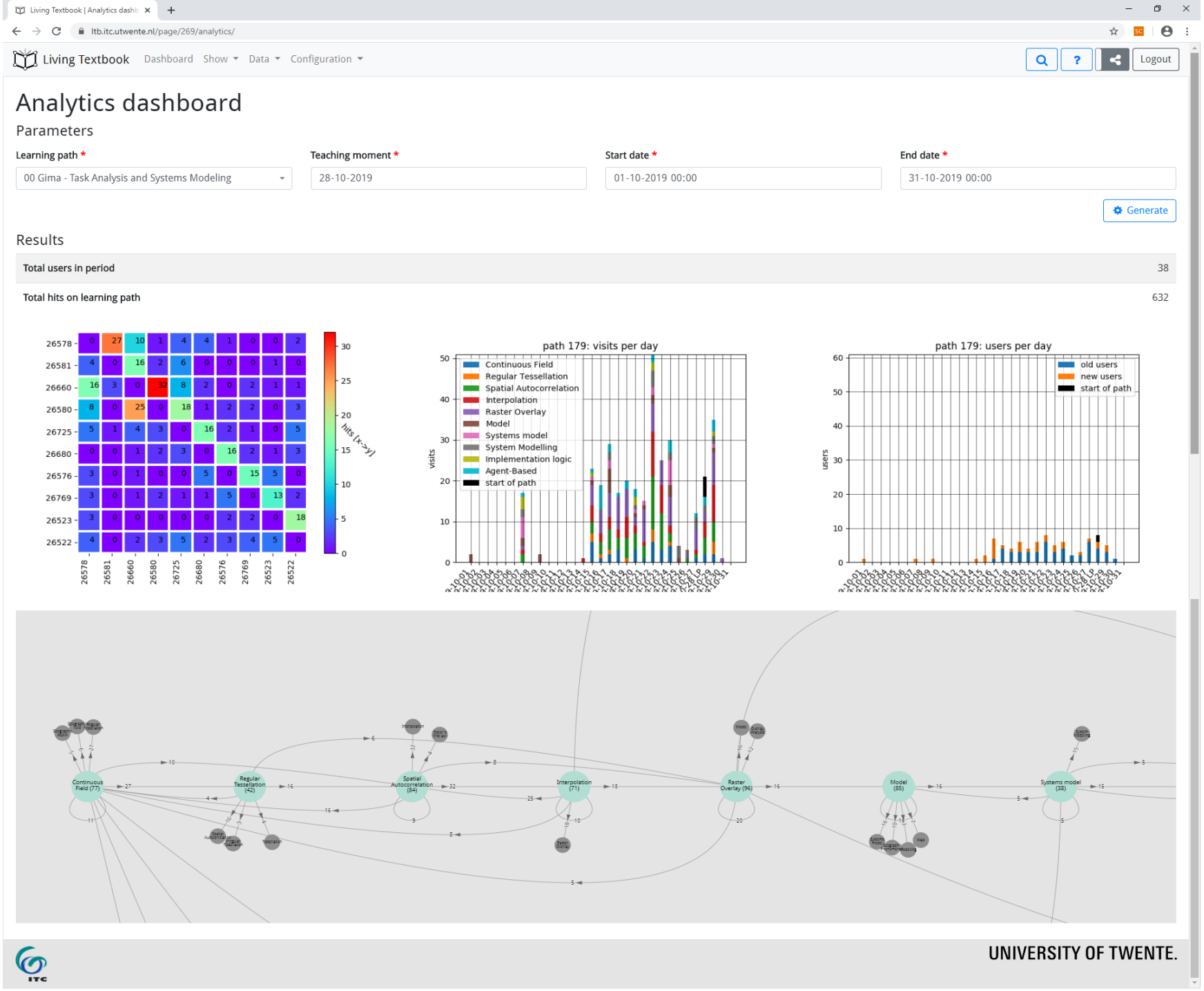
Learning analytics

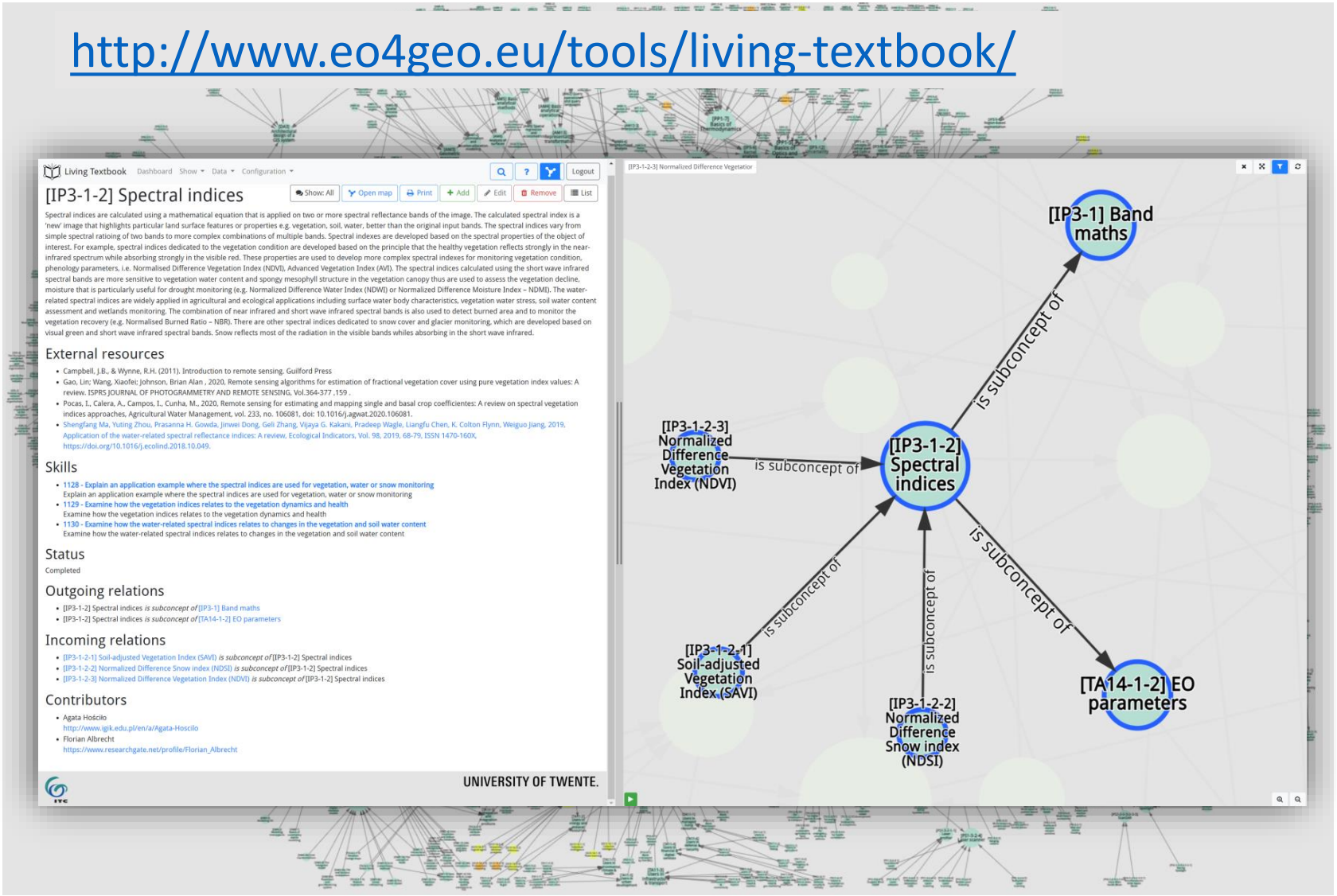
(4TU project - Ellen-Wien Augustijn)



EO4GEO Body of Knowledge in LTB

A formal **description of a professional domain** represented by a complete set of **concepts in a structured way**, including the theories, methods and technologies.

http://www.eo4geo.eu/tools/living-textbook/



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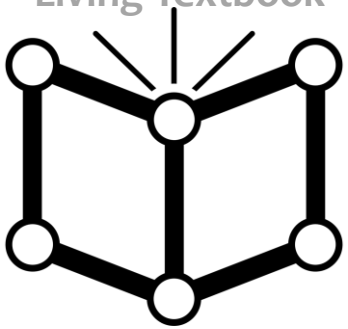
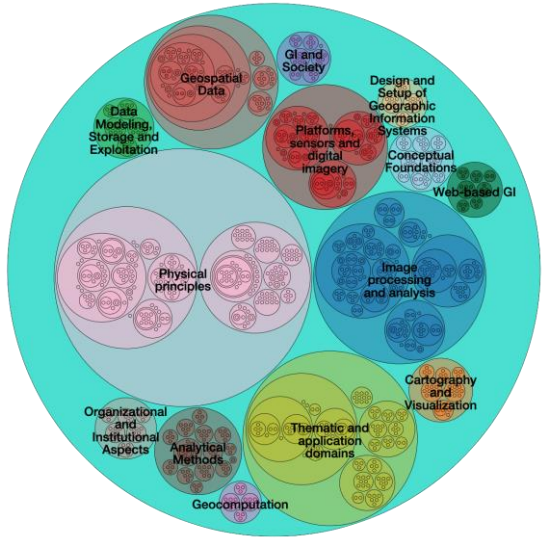
EO4GEO BoK - Master – V7.0 (current BoK version)

eo4geoplatform

http://bok.eo4geo.eu

Living Textbook





eo4geotools

http://www.eo4geo.eu/tools/

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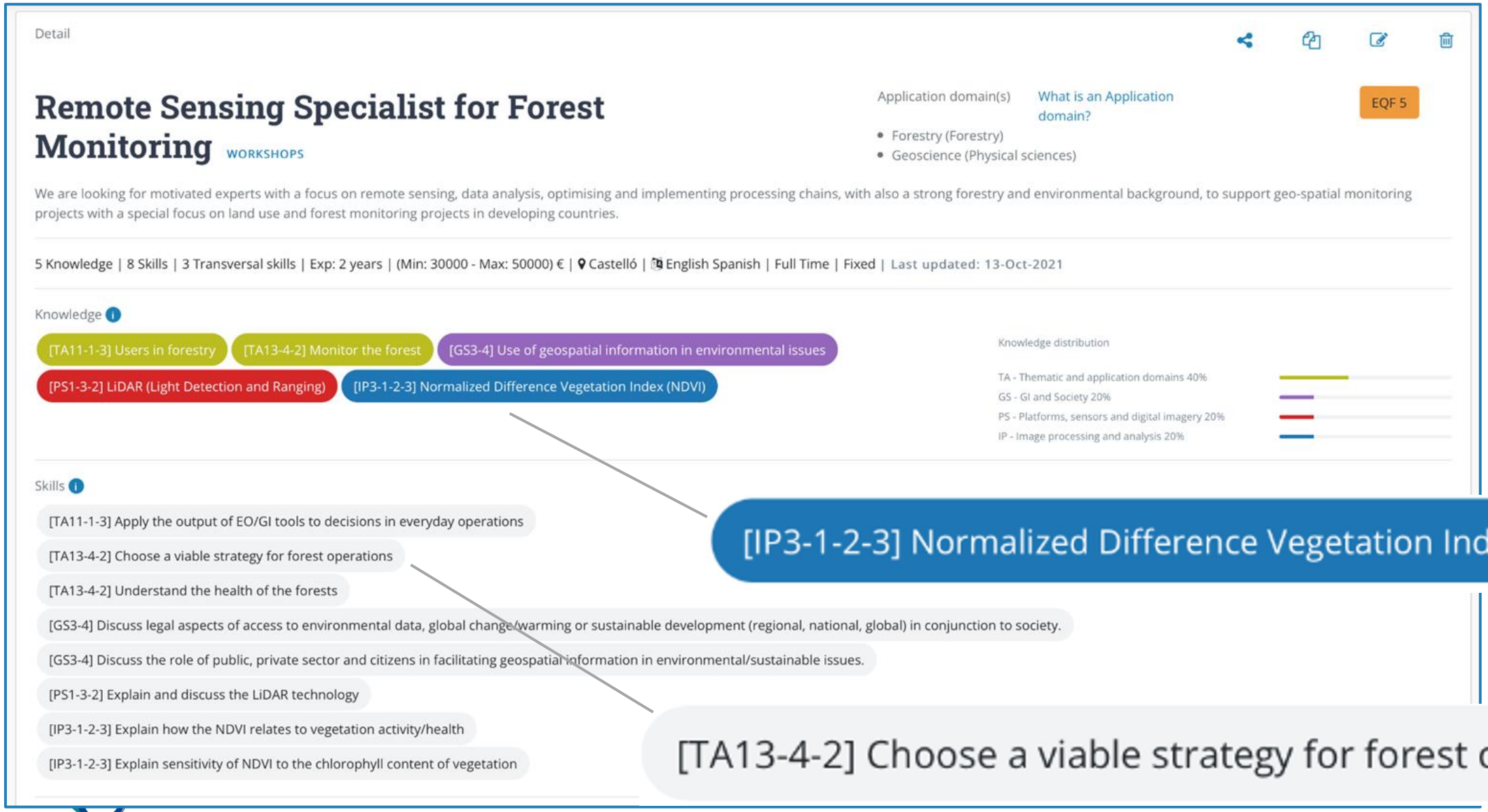
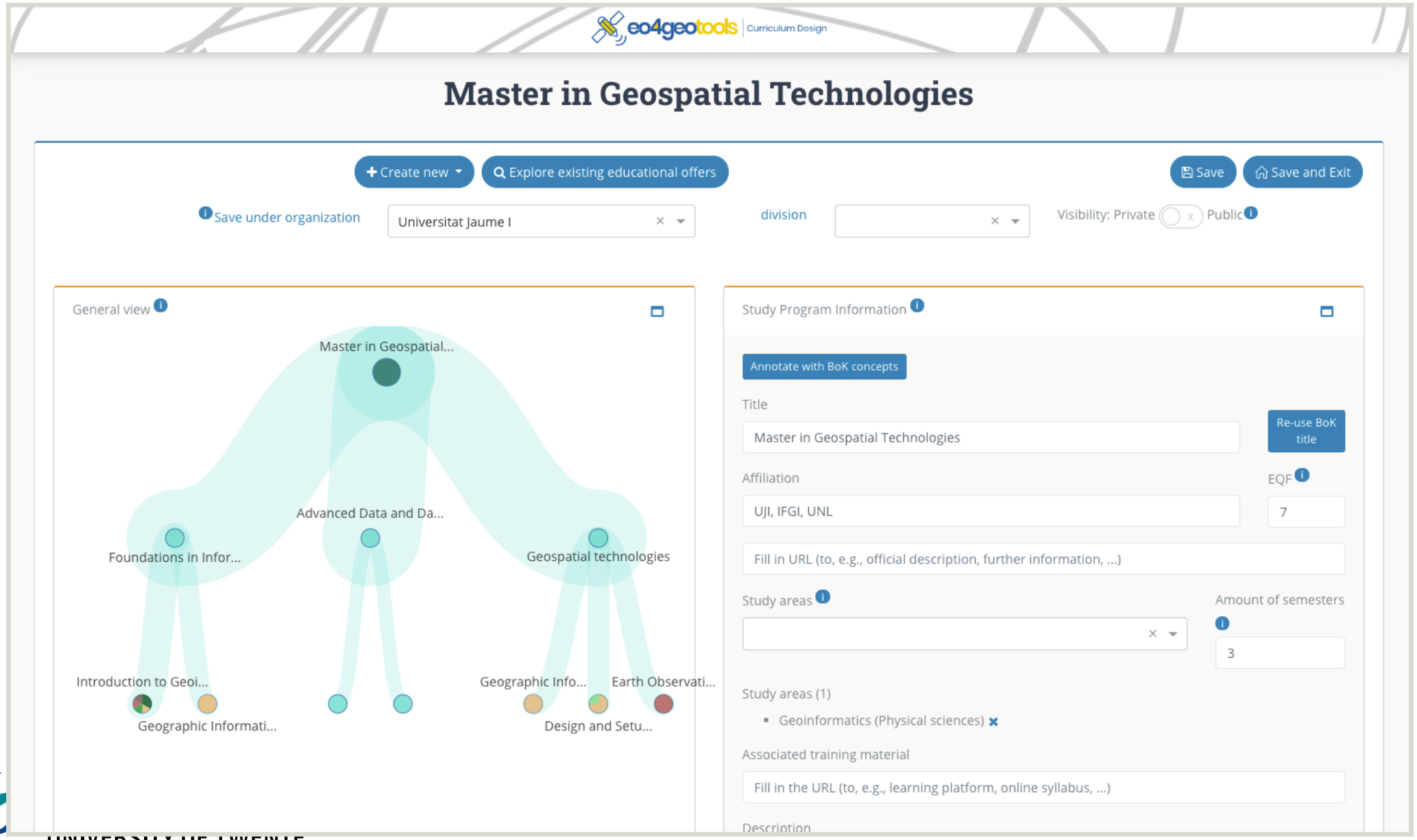
eotec

UNIVERSITAT JAUME I

Job offer tool



Curriculum design tool



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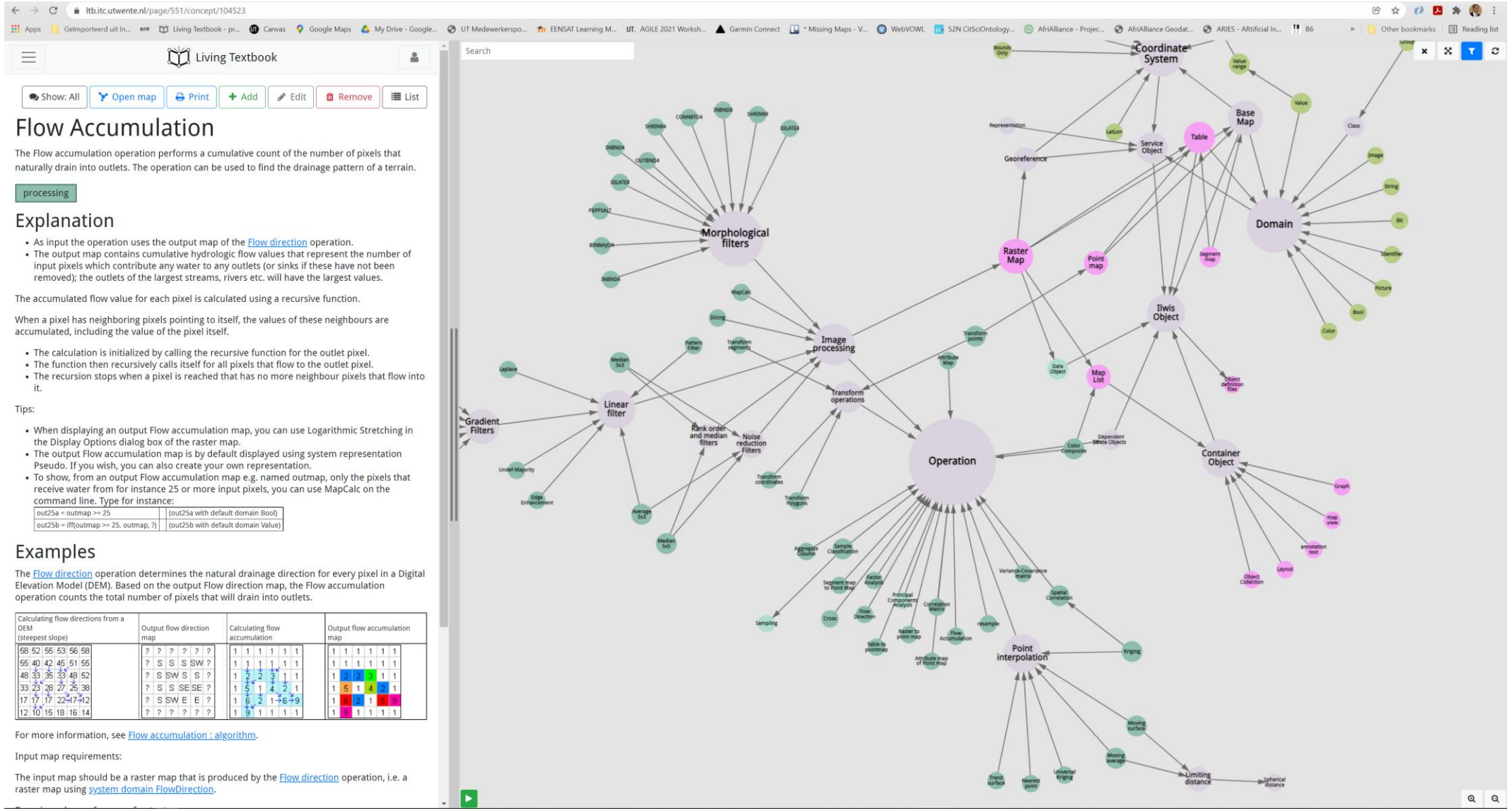
http://www.eo4geo.eu/tools/

Software documentation (ILWIS)



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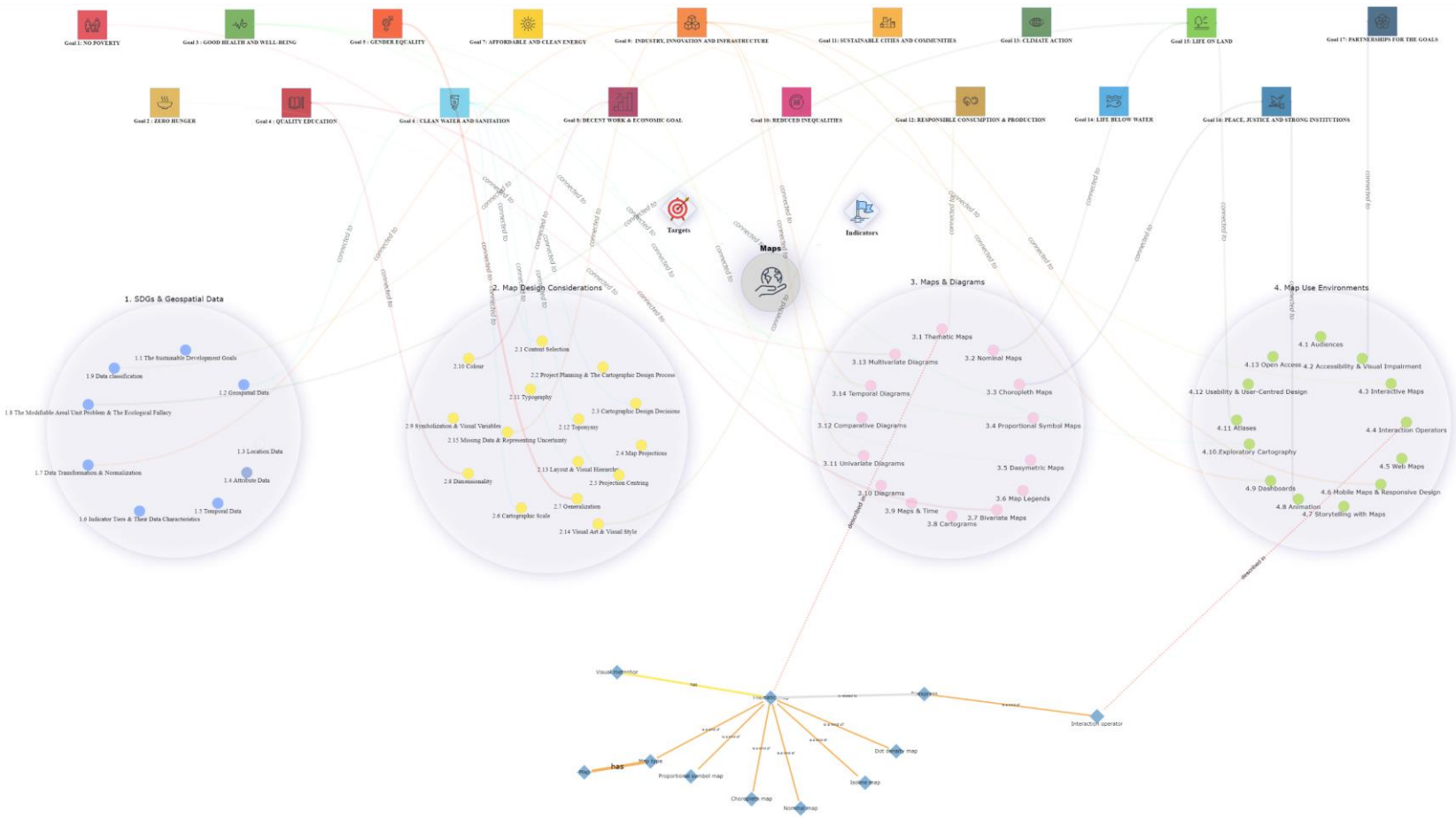
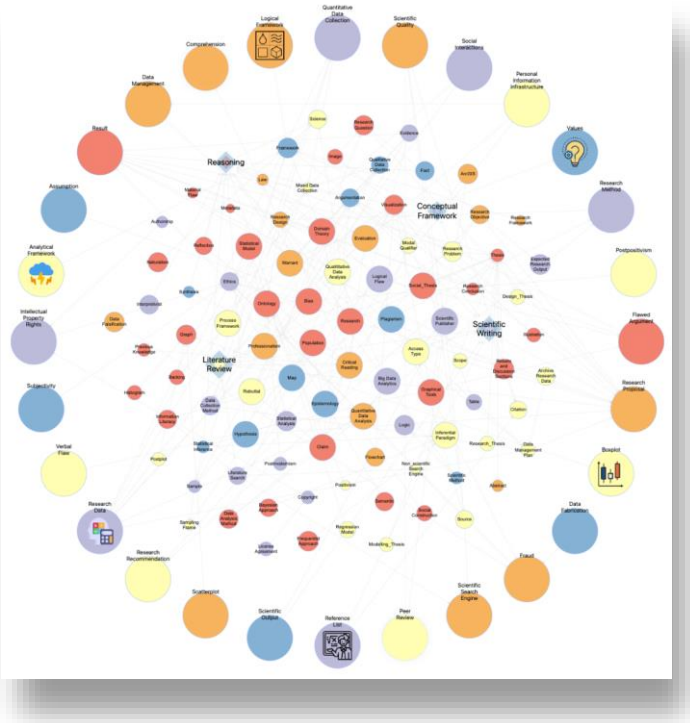
Concept map visualization 2.0





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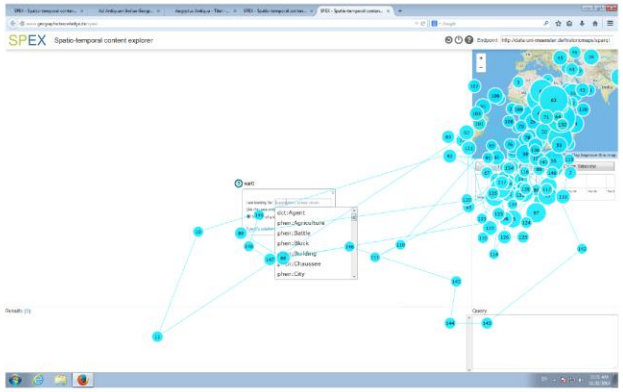
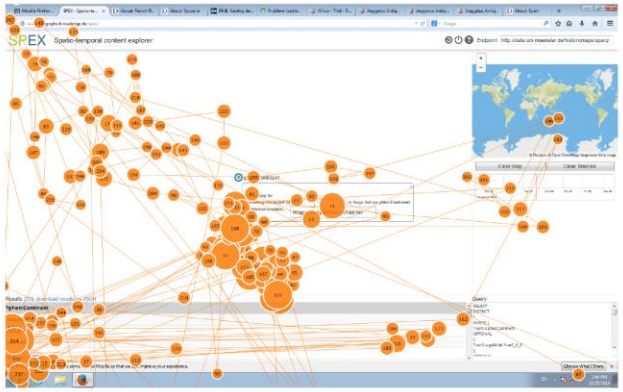
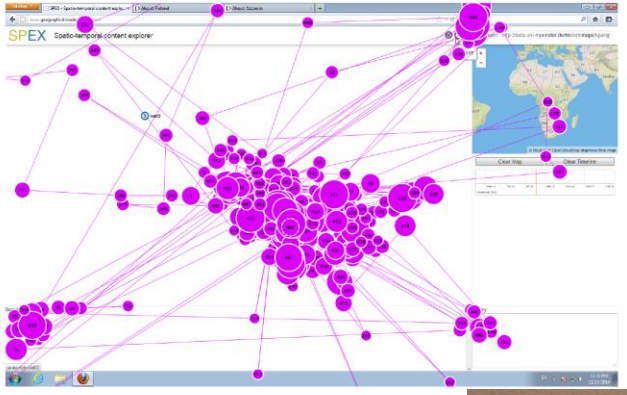
Usability testing



(a) A gaze plot of user 1 for Q 4a.



(b) A gaze plot of user 4 for Q 4a.



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Development framework

Software components	Purpose
Symfony PHP Framework	Backend implementation
Twig	Page generation
Bootstrap	Styling
D3	Map animation/simulation
LaTeX	PDF generation
Webpack	Frontend asset build
MariaDB SQL DB	Data storage

Development track

- Oct 2016 Initial ideas – prototype
- Oct 2017 First version Core book content
- Nov 2017 Start development by Drenso
- Nov 2019 LTB official editor of EO4GEO BoK
- Jan 2021 Launch Open content Core
- Sep 2020-22 Postdoc on visualisation
- Q3 2022 Open source release on GitHub - trusted partners
- Q4 2022 Open source release on GitHub - public

Living Textbook (LTB)

https://ltb.itc.utwente.nl

https://itc.nl/about-itc/organization/resources-facilities/living-textbook/

Demos open content

Living Textbook launch - The Core of GIScience 2020
https://ltb.itc.utwente.nl/page/509

EO4GEO BoK - Master – V7.0 (current BoK version)
https://ltb.itc.utwente.nl/page/671