Campus Web Mapping and Analysis of Campus Area Quality. Participatory GIS in Poland

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PLAN OF PRESENTATION

• GIS AT WUST
• GIS STUDENT CLUB
• CAMPUS WEB MAP #GeoportalWUST
• CAMPUS MAPPING #MapWUST
• CAMPUS TACTILE MAP
• CAMPUS PERCEPTION STUDY #WhatILikeatWUST
• INTERNATIONAL COOPERATION MAP
• OTHER STUDENT PROJECTS
• CONCLUSIONS
WROCŁAW UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACTS & FIGURES

- 28,815 students,
- 854 doctoral students,
- 2,165 research and teaching staff,
- 16 faculties,
- 175 buildings,
- 154 student science groups,
- 19 student organizations,
- 14 student culture agencies,
- 51 fields of education,
- over 130 specialisations

GIS EDUCATION AT WUST

FACULTY OF ARCHITECTURE

Spatial Planning
- undergraduate/graduate programs:
  - BSc (first-cycle) full-time undergraduate program (7 semesters),
  - MSc (second-cycle) full-time graduate program (3 semesters)

FACULTY OF GEOENGINEERING, MINING AND GEOLOGY

Geodesy and Cartography
- undergraduate/graduate programs:
  - BSc (first-cycle) full-time undergraduate program (7 semesters),
  - MSc (second-cycle) full-time graduate program (3 semesters)

Geomatics

Mining and Geology
- graduate program
  - MSc full-time graduate program (3 semesters) Geoinformatics

POST-GRADUATE GIS COURSE

- (1 year / 2 semester)
- 17 editions
GIS STUDENT SCIENCE GROUP

- GISDay organisation,
- GeoMay mountain hikes,
- Day of Surveyor celebrations,
- Science Fair exhibitions
EXAMPLES OF STUDENT PROJECTS AND DIPLOMA TOPICS

- Visibility analysis for viewing towers in the Polish Sudety Mts.,
- WUST Campus Map for the visually impaired,
- Multicriteria analysis of electronic timetables location in public transport stops (Wroclaw),
- Dolny Slask on a map
  - Battles in Lower Silesia (11th Century > ),
  - Treasures of the World War II,
- Table Mountains National Park, so which peak is the highest?

http://knbgis.pwr.edu.pl/
WHY NOT MAKE A WUST WEB MAP?

• 1950 Map of WUST buildings by Prof. Andrzej Frydrycki

• Map in the WUST Prospectus

• Interactive map available on the WUST web page
WHY NOT MAKE A WUST WEB MAP?

Project #1. Development of WUST buildings database, basic feature attributes

Project #2. Updated database (additional, "what’s in buildings", features and attributes)

Project #3. Survey of expected content and functionalities, building floor plans

Project #4. New Web Map Application with more content and functionalities

Project #5. (planned) 3D
WHY NOT MAKE A WUST WEB MAP?

WEB BASED SURVEY OF POTENTIAL MAP USERS EXPECTATIONS (CONTENT)

- **Buildings**: 94%
- **Copy Centres**: 88%
- **Libraries**: 88%
- **Food Joints / Canteens**: 86%
- **Dean Offices**: 83%
- **Parkings**: 78%
- **Faculties**: 78%
- **Floor Plans**: 76%
- **Paper Shops**: 74%
- **ATMs**: 73%
- **Bicycle Stands**: 68%

Source: Zagrodnik P., 2017
WHY NOT MAKE A WUST WEB MAP?

WEB BASED SURVEY OF POTENTIAL MAP USERS EXPECTATIONS (FUNCTIONS)

Features proposed by respondents

- entrances to buildings,
- infrastructure for people with disabilities,
- Wi-Fi access points,
WHY NOT MAKE A WUST WEB MAP?

CAMPUS MAPPING

- RAMP
- PLATFORM
- ENTERANCE
- ELEVATOR

Source: Zagrodnik P., 2017
WHY NOT MAKE A WUST WEB MAP?

Source: Zagrodnik P., 2017
WHY NOT MAKE A WUST WEB MAP?
WHY NOT MAKE A WUST WEB MAP?

https://goo.gl/YXQyas
TACTILE MAP

- Color version
- Tactile version

Source: Zedel O., 2017
#WHAT I LIKE/DISLIKE ON THE CAMPUS?

- GeoForm Survey,
- Social Media,
- Student Activity Days.
#WHAT I LIKE/DISLIKE ON THE CAMPUS?
#WHAT I LIKE/DISLIKE ON THE CAMPUS?

![Functional and Visual Preferences for Men and Women](image.png)
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Select the degree of study that interests you to choose the universities available for that level of study.
INTERACTIVE MAP OF PARTNER UNIVERSITIES


https://goo.gl/FQQH6h
Heritage of WWII in Lower Silesia Region in the provincial Geoportal (Wysocki, 2016)
GIS STUDENT SCIENCE GROUP - PROJECTS

Battles in Lower Silesia (Derdacka, 2017)
CONCLUSIONS

• Development of the Campus Web Map Project (new layers, building floor plans, updated attributes, 3D models and 3D visualisations),

• Continuation of current projects (e.g. #WhatILikeAtWUST / #WhatIDislikeAtWUST),

• New projects (e.g. Analysis of solar potential for WUST building rooftops, interaction with academic community – reporting damaged infrastructure, indoor navigation)

• Development of organisational and teamwork competences (e.g. GISDays),

• Knowledge and building GIS skills (student projects),

• Interaction/cooperation with peers and young researchers during workshops, seminars and student conferences
THANK YOU

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