

ALEXANDER DUNKEL

PROJECTS

SELECTED PROJECTS

- 2017–2023 **“Volunteered Geographic Information - Interpretation, Visualisation and Social Computing”**, Geovisual analysis of VGI for understanding people’s behaviour in relation to multi-faceted context (EVA-VGI), DFG Priority Program (SPP 1894).
- 2019 **Mapping The Geospatial Image Of Waynesboro**, MainStreet21 RCN NSF Seed Fund, UVA, Virginia, USA.
- 2019 **Green City – Information on and Navigation to urban green spaces – Data collection, Service infrastructure for App „meinGrün” (transl.)**, Institute of Cartography, TU Dresden together with Leibniz Institute of Ecological Urban and Regional Development (IOER).
- 2010–2016 **Strategic Environmental Impact Assessment (SUP) of the Dresden Land Use Plan (FNP)**, City of Dresden, city planning office
- 2012–2014 **R&D “Designing Landscape Change” (transl.)**, Landscape and regional planning potentials for the exemplary development and design of cultural landscapes in current transformation processes (UFOPLAN 2012), BMUV
- 2014 **Cultural Landscapes of Middle Saxony**, BMDV
- 2012 **Strategic Environmental Impact Assessment (SUP) of the Land Development Plan (LEP) 2012 for the State of Saxony**, SMUL

TEACHING

LECTURES AND WORKSHOPS

- 2022-24 **Mobile Cartography Lectures, TU Dresden, Institute of Cartography**, “Analysis and Visualization of Geo-Social Media” [link](#) and “Python data science 101” [link](#)
- 2021–2023 **Jupyter Lab Python Spatial Data Science Workshop Series**, together with Madalina Gugulica
1. Introduction to Social Media data, Jupyter and python spatial visualizations [link](#)
2. Introduction to privacy issues with Social Media data and possible solutions for cartographers [link](#)
3. Specific visualization techniques example: Tag Maps clustering [link](#)
4. Specific data analysis: Topic Classification [link](#)
- 2018-2021 **Development of Custom Visualization techniques for Big Data, TU Dresden, Institute of Cartography**, Lecture and Workshop Series [link](#)
- 2018 **Workshop on “Tag & Emoji Maps”**, Leibniz-Institut für Länderkunde (IfL), Leipzig, Germany
- 2015 **Student Workshop on “Tag Maps”**, University of Waterloo, School of Architecture and Workshop at University of Toronto, Canada

THESIS SUPERVISION

- 2021–present **Second Advisor for PhD thesis** Dominik Weckmüller, “LBSN-Dashboard - Demokratisierung raumbezogener Social-Media-Daten”
- 2019–2023 **Second Advisor for PhD thesis** Marc Löchner, “Privacy-aware social media data processing”

THESIS SUPERVISION

- 2023 **Master thesis Malte Stillein**, “Generative AI for map making using Stable Diffusion and geosocial data”, Faculty of Environmental Sciences, Institute of Cartography, TU Dresden.
- 2021 **Master thesis Dominik Weckmüller**, “Good Governance goes Smart - Social Media data supporting Evidence-Based Municipal Policies”, Department of Geography, University of Bonn.
- 2021 **Master thesis Junru Lin**, “Extraction of places of interest from Volunteered Geographic Information”, Faculty of Environmental Sciences, Institute of Cartography, TU Dresden.
- 2020 **Master thesis Jack Stephan**, “Privacy Aware Analysis of Spatial Social Media Data”, Faculty of Environmental Sciences, Institute of Cartography, TU Dresden.
- 2020 **Diploma thesis Claudia Tautenhahn**, “Mass Invasion: Social Media impact on landscape perception and selected vantage points in Europe” (transl.), Institute of Landscape Architecture, TU Dresden.
- 2019 **Master thesis Jan Kolditz**, “User-generated geographic content supporting geo-visual analysis of tourist behavior” (transl.), Faculty of Environmental Sciences, Institute of Cartography, TU Dresden.

REVIEW AND COMMITTEE WORK

- 2017–present **Peer review** for Journals Landscape and Urban Planning (Elsevier), Information Processing and Management, PLoS one, Information Visualization (SAGE), Gis.science - Die Zeitschrift für Geoinformatik, Journal of Spatial Information Science (JOSIS), Ecosystem Services (Elsevier), Applied Sciences (MDPI), see [Orcid 0000-0003-1157-7967](https://orcid.org/0000-0003-1157-7967)
- 2015 **External committee member**, Master thesis, Daniel Malka, “open territory”, University of Waterloo, School of Architecture, Cambridge, Ontario, Canada
- 2011 **Review panel**, LA203 Studio Presentations, Department of Landscape Architecture and Environmental Planning, UC Berkeley, USA

OPEN SOURCE AND TECHNOLOGY

PROJECTS, PACKAGES AND FRAMEWORKS

[Carto-Lab Docker](#)

Open source cartographic visualizations and spatial data pipelines based on a Docker container that runs a JupyterLab-Server with a collection of cartographic packages.

theplink.org

A Docker-based spatial discourse ecosystem to support community engagement and public participation for landscape and urban planning projects. Progressive Web App (PWA) prototype for federated, decentralized community engagement.

lbsn.vgiscience.org

A common language independent, privacy-aware and cross-network social-media data scheme, standardized conceptual data model and implementation for analyzing, comparing and relating information of different LBSN in visual analytics research.

pypi.org/project/tagmaps/

Maintainer for the Tag Maps Python package, for bottom-up spatial clustering and visualization of subjective attribution of values and meaning from Social Media.

pypi.org/project/lbsntransform/

Maintainer for LBSNTransform Python package, for quantitative, GDPR conform and privacy-aware visual analytics of Location Based Social network (LBSN) data with HyperLogLog (HLL).