

Seminar

Big Data Technologies in Geoinformatics



<https://ayushaggar.wordpress.com/>

Prof. Dr. Markus Endres

Chair for Digital Libraries and
Web Information Systems

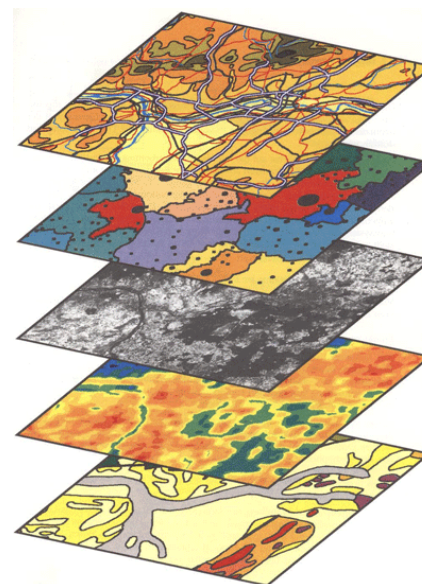
<http://www.fim.uni-passau.de/en/digital-libraries/>

Big Data

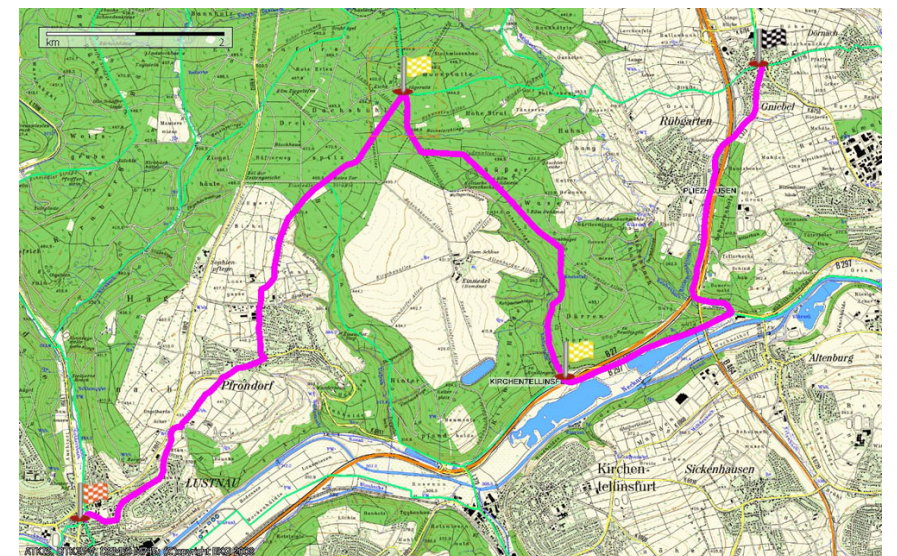
Facebook	user data	300 PB
Google	data per day	20 PB
Large Hadron Collider, CERN	6 quadrillion proton collisions, per sec	300 GB
Open Street Map	Planet.osm, uncompressed	1059 GB
1000 Genomes Project	DNA of 1700 humans	200 TB
Englisch Wikipedia	uncompressed	10 TB



Urban planning

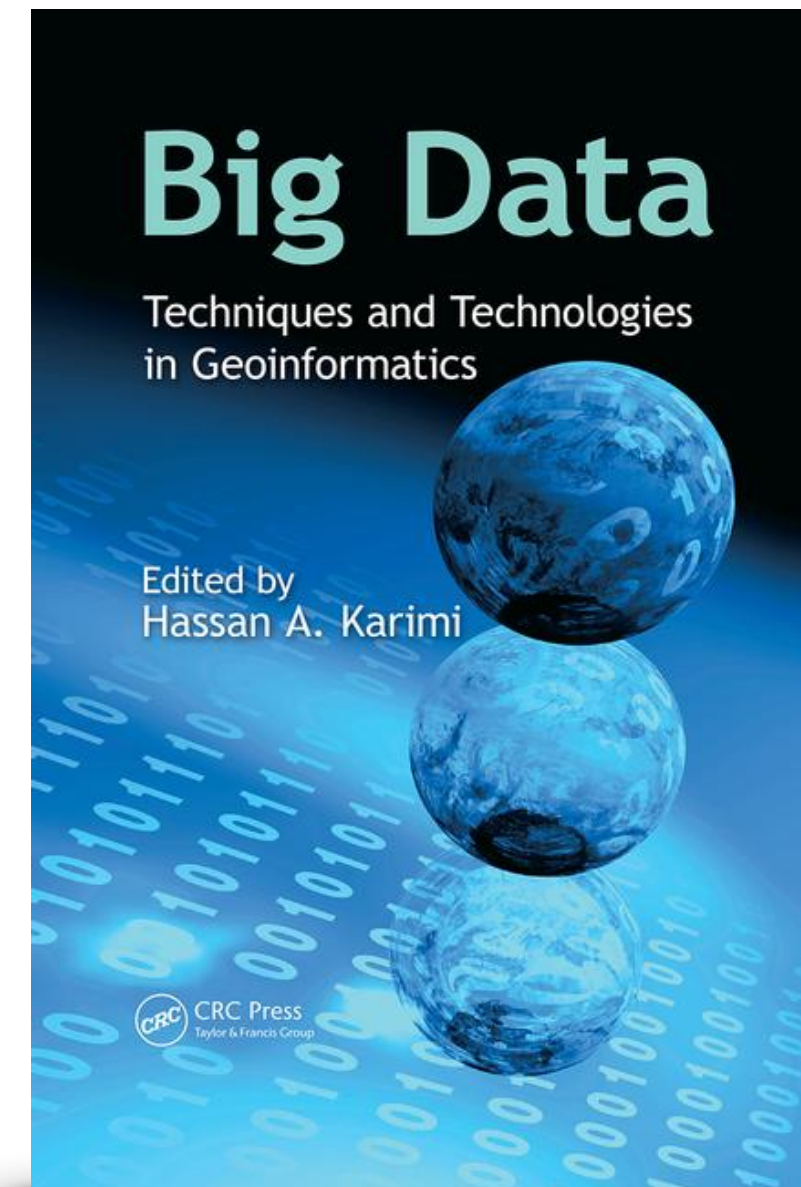


Cartography



Route planning

- Geospatial resources for global **earth observation systems**
- Cloud computing to process **3D spatial datasets**
- Big Data **challenges** in earth sciences
- **Visualization** and analysis services for **NASA satellite data**
- **Algorithmic design** for geospatial and temporal Big Data
- **Machine Learning** on geospatial data
- **Routing** and navigation services
- **Frequent sequence mining** on Taxi trip records
- Geoinformatics in **social media**
- **Knowledge Discovery** from geospatial data
- Geospatial **cyber-infrastructure** in the WWW
- OGC **standards** and geospatial Big Data



Organization

- **Topic:** Big Data Techniques in Geoinformatics
- **Supervisor:** Prof. Dr. M. Endres

Chair for Digital Libraries & Web Information Systems

- **Fields of Study**

- Master Computer Science
- Bachelor Computer Science

- **Grading**

- Report of 8 pages LNCS style (incl. references, figures, etc.)
- Own literature/paper research related to your topic is necessary
- Summarization and critical review of the book chapter and papers
- Presentation: 20min + 5min discussion



<https://www.octacom.ca>

Timeline (preliminary)

- **Registration** in Stud.IP necessary
- **10.10.2019: Election** process (12 topics => 12 students)
- **15.10.2019:** Meeting and **topic selection**
- Time to **read** the **book chapter**
- **04.11. - 07.11.2019: Q&A**, personal appointment with me, if necessary
- **04.11. - 08.11.2019:** Presentation on **scientific writing**
- **December/January:** Paper research, Writing
- **01.02.2020:** Paper submission
- **10.02.2020 + 11.02.2020:** Presentations

