



INTEGRATED PROJECT INTERDISCIPLINARY | INTEGRATED | INTERACTIVE

Lecture 11 | Final preparation



Short presentations

- 🌿 **Part 1: Poster preparation, design and presentation in mini conference**
- 🌿 Part 2: Project documentation, Geodata & Metainformation

Assoc Prof Dr Hermann Klug

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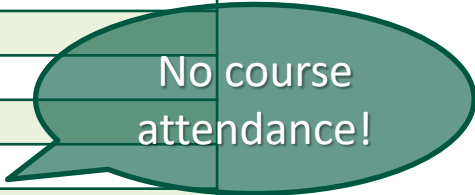
✉ hermann.klug@sbg.ac.at

🌐 <https://www.plus.ac.at/zgis/klug>

TechnoZ | Building 13 | Room 311

Recap: IP Schedule

No	Date	Content
1	04.03.2025	Introduction to the Course
2	11.03.2025	Project Management I
3	18.03.2025	Abstract presentations
4	25.03.2025	Project Management II (hands on Kanban, Gitlab, Wiki, Gantt) Blended Learning with video tutorial!
5	01.04.2025	Consulting 1 (Poll Link)
6	08.04.2025	Consulting 2 (Poll Link)
	15. + 22.04.2025	Easter Break
7	29.04.2025	Preparing the mid-term Pecha Kucha presentation
8	06.05.2025	Mid Term presentation
9	13.05.2025	Consulting 3 (Poll Link)
10	20.05.2025	Consulting 4 (Poll Link)
	27.05.2025	No course presence (working on the project!)
11	03.06.2025	Communication & Presentation
	10.06.2025	Whit "Tuesday" (working on the project!)
12	17.06.2025	Consulting 5 (Poll Link)
13	24.06.2025	Final Poster Presentation & Submission
	30.06.2024	Submission of the project achievements (no course attendance)



No course attendance!

Recap: Main Goals of the IP

- 🌐 Facilitation of a project based on (some) practical question(s)/challenge(s)
- 🌐 Data capturing and integration (don't forget about metadata!)
- 🌐 Organisation of data: Geodatabase, what else?
- 🌐 Problem specific spatial analysis workflows
- 🌐 Learn your software in depth (e.g. ArcGIS 10.x)
- 🌐 Cartography at its best: bring in your skills

Recap: Grading in the IP

Project management

- Defining the project idea (project abstract 10 %, extended abstract 10 %)
- PIP, risk log and 'lessons learned' report (PM homework 15 %)
- Progress during the semester (midterm Pecha Kucha presentation 10 %)

Communication & Presentation

- Poster presentation of the results (final presentation 10 %) → Input today
- Project Documentation (progress during the semester) → ePortfolio

Contents of the project

- Content and formalities of manuscripts (final manuscript 45 %)
- Discussion

Recap: Deliverables

Deliverables 24.06.2025 | 6am

- 🐉 'Pitch' presentation 5 min + 3 min discussion
- 🐉 Poster (digital, part of presentation)

Deliverables 30.06.2025 (all information in GitLab)

- 🐉 Geodata & meta-information
- 🐉 Refined poster
- 🐉 Project documentation



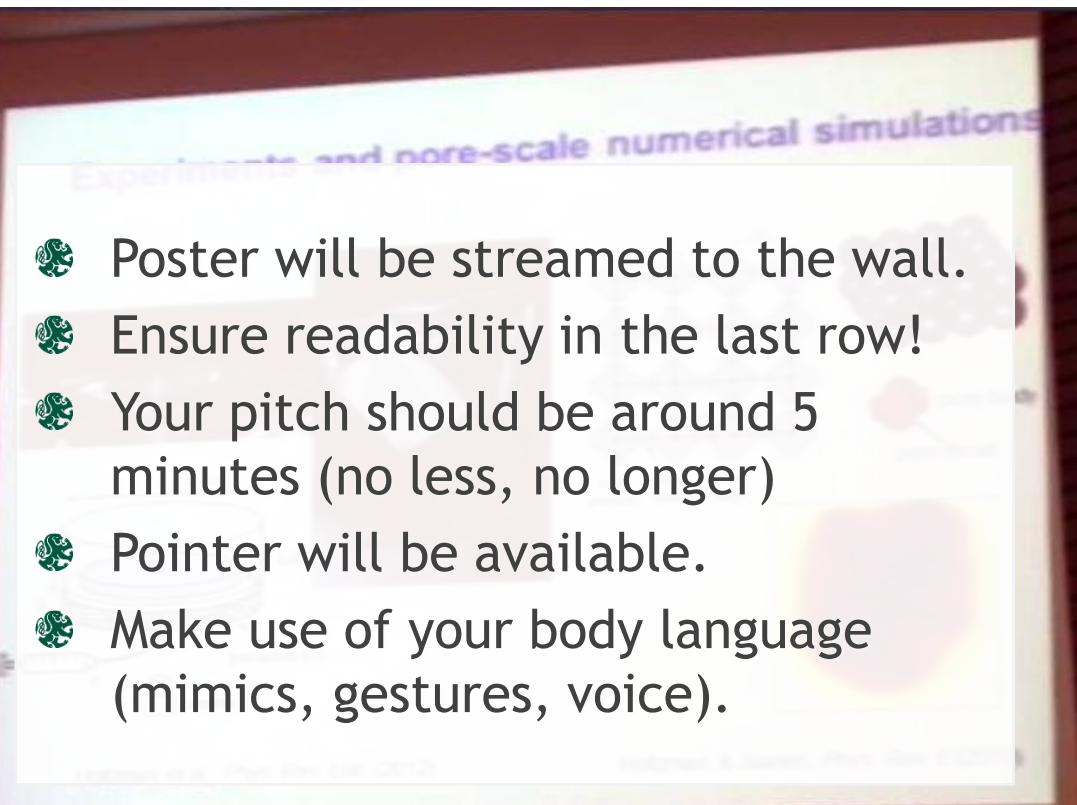
Final Manuscript Template

The final manuscript has to be delivered by June 30. Please find attached a MS Word template. Additionally, citations should follow the AGIT format and Endnote is a mandatory citation manager to be used. Both are available in the "Available Ressources" -> "Software and Tools" section. Please again review the sensors-template.dotx to identify what makes a good paper.

Final Manuscript 30.06.2025 (Blackboard + GitLab)

- 🐉 Use of given template!

Streaming poster presentation

- 
- Poster will be streamed to the wall.
 - Ensure readability in the last row!
 - Your pitch should be around 5 minutes (no less, no longer)
 - Pointer will be available.
 - Make use of your body language (mimics, gestures, voice).



Agenda MSc Applied Geoinformatics Final Conference

Tuesday June 24, 2025 | 08:00 – 12:00 | GI Lecture room







ID	Time	Person(s)	Discussant
1	08:15 – 08:25	Klug (Welcome)	
2	08:25 – 08:35	Xie, Xinyun	Bao, Yizhou
3	08:35 – 08:45	Tkalec, Isabella	Xie, Xinyun
4	08:45 – 08:55	Schneeberger, Max Walter	Tkalec, Isabella
5	08:55 – 09:05	Liu, Yiqi	Schneeberger, Max Walter
6	09:05 – 09:15	Liu, Xiao	Liu, Yiqi
09:15 – 09:25 Short Break			
7	09:25 – 09:35	Hopp, Timm	Liu, Xiao
8	09:35 – 09:45	Herbst, Florian Georg	Hopp, Timm
9	09:45 – 09:55	Guo, Wenxu	Herbst, Florian Georg
10	09:55 – 10:05	Chen, Yueyi	Guo, Wenxu
11	10:05 – 10:15	Bao, Yizhou	Chen, Yueyi
	10:15 – 10:25	Klug (Conclusion)	

The procedure is as discussed in the meeting preparing the poster presentation. After an introductory talk from Hermann Klug, the first discussant takes over responsibility for an introduction of the next presenter. The presenter presents the poster. The discussant keeps the time of the presentation and takes over again for leading the discussion on the presented poster. Once the discussion is finished, Chen takes over responsibility for the next presenter. This procedure follows until the final presentation.

1 min brief intro
5 mins presentation
3 mins discussion

Final presentation

Mini Poster Conference

-  Introduction: Project topic, challenges, research question, objective(s)
-  Study area
-  Method(s) & Implementation
-  Result(s)
-  Discussion & Outlook
-  References

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1 min brief intro
5 mins presentation
3 mins discussion

Role of discussants

-  Introducing the next presenter
-  Keeping the time
-  Stimulating discussion
-  Asking a question if the audience is silent

What is a poster?

... get your main point(s) across to as many people as possible through

- advertisement
- sound bite
- conversation starter
- source of information

AGIT Program - AGIT

https://agit.at/en/program/

Import bookmarks...

Finish setup

agit2025

CONFERENCE

DATES REGISTRATION SUBMISSIONS CONTACT ARCHIVE

PARIS LODRON UNIVERSITY SALZBURG

Program

Tuesday, July 1st

Time	Session
16.00 h	Pre-registration
17.00 h	Icebreaker Event (until ~ 20.00 h)

Wednesday, July 2nd, 2025

12.00 h	Lunch Break	
13.00 h	Earth Observation & GIS for Disaster Monitoring and Mitigating: Studio 3D GIS Applications: Grüner Hörsaal Geoland Forum: Blauer Hörsaal Meet the Keynote Speaker: HS 414	Empowering Geoinformatic Innovators: Dekanatsaal Räumliche Simulation: Lab
14.15 h	Coffee Break	
15.00 h	Natural Hazards & Dynamics: Grüner Hörsaal GIPat Forum: Blauer Hörsaal Story of Success AGEO: HS 414	Empowering Geoinformatic Innovators: Dekanatsaal Copernicus Data: Studio Introduction to ArcGIS esri: HS 413 Räumliche Simulation: Lab
16.15 h	Coffee Break	
16.45 h	Environmental Monitoring & Modeling: Grüner Hörsaal Smart Solutions of Public Data: Blauer Hörsaal Poster Session: Studio Meet & Match: HS 414 AGEO Forum: Dekanatsaal	Migrating from ArcMap to ArcGIS Pro esri: HS 413 Umfrage & Geodaten: Lab
18.00	Apéro from Team AGIT: Marketplace	
19.00	Social Event, Dinner & DJane: Mensa & Terrace	

Conference announcement

agit2025

Getting there - From the idea to the presentation



It all starts with an idea

You must turn that idea into a succinct message and support it with a combination of images and short blocks of text.



Know your message

What is the **ONE** thing you want your audience to learn?

Focus on your message throughout the poster

If it doesn't reinforce your message, leave it out!!



Know your audience

Your audience determines the tone and content of your poster



Write an effective abstract

You have to get your poster accepted -- and get people interested in viewing it.



Create an effective poster

Carefully plan, draft, edit, and construct your poster.



Present your poster effectively

What to do when you get to the meeting.



Evaluate the results

Incorporate what you've learned into your next poster.

20 ways to reuse repository content

Leveraging connections to external services and encouraging the reuse of repository content. We share methods used in LSE Research Online and more...

OPEN ACCESS DIGITAL FILES

Research papers including AAMs and permitted publisher PDFs, theses, images, blogs, reports, grey literature, learning objects

RESEARCH DATA

DESCRIPTIVE METADATA

SHARING THROUGH SOCIAL MEDIA AND ALERTS

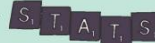
18 Social media sharing tools eg, AddThis

19 Setting up automatic tweets of new content on Twitter via @LSErchrchOnline

20 RSS feed subscriptions for author, search results and latest addition alerts



ANALYSING USAGE

1 Statistics packages eg, EPrints IRStats2 

2 Link records to external altmetric services and find out how content is discussed on social media, in the news and government documents eg, Altmetric.com

3 Google Analytics usage data to assess traffic sources, referrals and bounce rate

4 Benchmark usage across institutions by exposing data eg, IRUS-UK



ENHANCING METADATA AND REPORTING

14 Metadata enhancements to record funding information eg, RIOXX, V4OA



15 Becoming OpenAIRE compliant and providing data for monitoring open access in Europe

16 Bibliographic metadata used to report to funders eg, HEFCE and EPrints REF 2014 Bazaar package for UK research reporting

17 Adopting a reliable author name authority eg, ORCID



INTEGRATING WITH INTERNAL SERVICES

5 Adding repository content as data source to a unified resource discovery tool eg, Primo

6 Current Research Information Systems (CRIS)

7 Populating staff profile or webpages publication lists

EXPORTING

8 Export records to reference management software

NEW JOB!

9 Transferring records eg, for a researcher moving institutions

10 Exporting records to populate academic profile pages, eg, Google Scholar Citations

HARVESTING BY OTHER DATABASES

11 Subject repositories eg, Research Papers in Economics (REPEC)

RePEc

12 National repositories eg, ETHOS for theses



13 International OA aggregating repositories eg, CORE





What's my message?

- You must be able to state your main point(s) or conclusion(s) succinctly.
- Pick one thing you want readers to learn.
- If visuals and text do not support that message, leave them out!
- What is the average time spent at a poster?





Effective Poster Design ...

- delivers a clear message
- is highly visual
- is read easily from 1-2 meters away

→ <https://agitposters2021.blogspot.com/>

Software



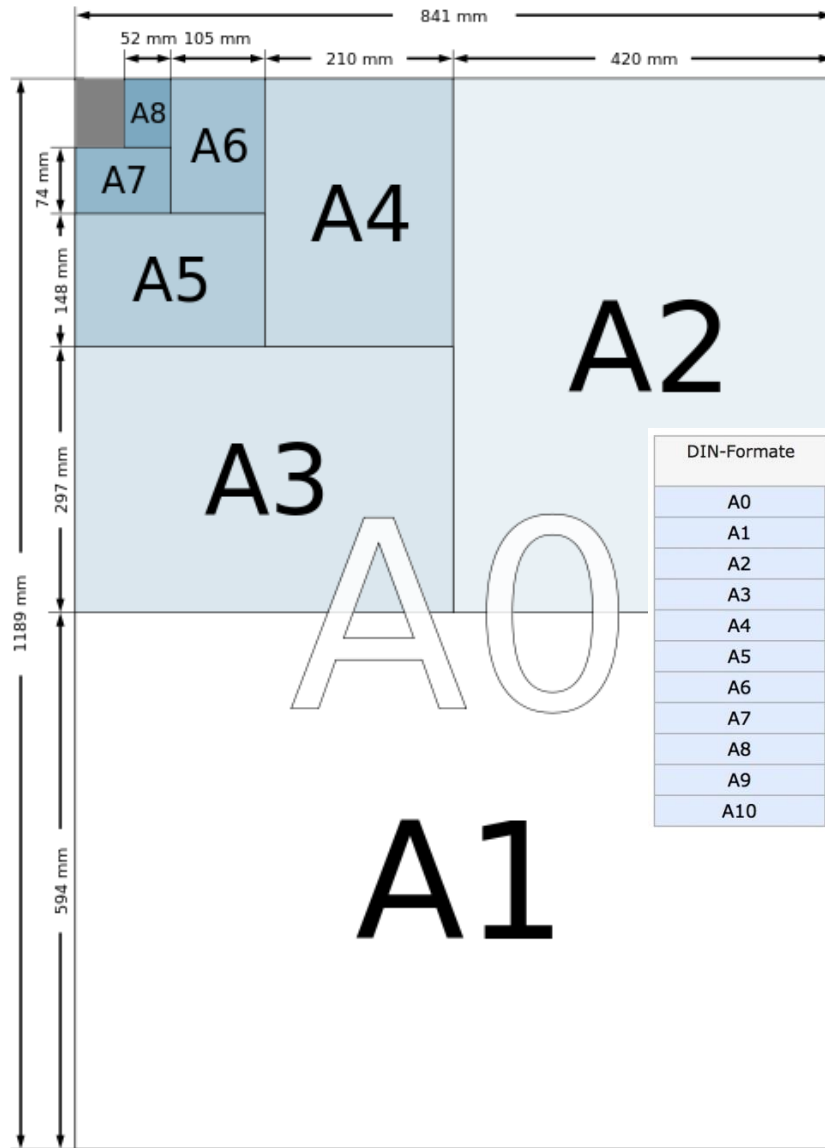
Poster contents

- Title of the project
- Involved persons and institutes
- Introduction
- Material & Methods
- Results
- Discussion & Outlook
- (Acknowledgement)
- Logos
- Literature, References, Sources

A person wearing a dark blue suit and a patterned tie is holding a small, rectangular chalkboard with a light-colored wooden frame. The chalkboard is black and has the words "Know the rules!" written on it in white, hand-drawn chalk. The person's hands are visible, holding the board from the sides. The background is a plain, light color.

Know the
rules!

Poster formats



DIN-Formate	in mm	enthalten in A0	Pixel bei 300 ppi (dpi*)	Pixel bei 150 ppi (dpi*)	Pixel bei 72 ppi (dpi*)	Größe in qm	in qm bei Teilung von 1
A0	841 x 1189	1 x	9933 x 14043	4967 x 7022	2384 x 3370	0,999949	1
A1	594 x 841	2 x	7016 x 9933	3508 x 4967	1684 x 2384	0,499554	0,5
A2	420 x 594	4 x	4961 x 7016	2480 x 3508	1191 x 1684	0,24948	0,25
A3	297 x 420	8 x	3508 x 4961	1754 x 2480	842 x 1191	0,12474	0,125
A4	210 x 297	16 x	2480 x 3508	1240 x 1754	595 x 842	0,06237	0,0625
A5	148 x 210	32 x	1748 x 2480	874 x 1240	420 x 595	0,03108	0,03125
A6	105 x 148	64 x	1240 x 1748	620 x 874	298 x 420	0,01554	0,015625
A7	74 x 105	128 x	874 x 1240	437 x 620	210 x 298	0,00777	0,0078125
A8	52 x 74	256 x	614 x 874	307 x 437	147 x 210	0,003848	0,00390625
A9	37 x 52	512 x	437 x 614	219 x 307	105 x 147	0,001924	0,001953125
A10	26 x 37	1024 x	307 x 437	154 x 219	74 x 105	0,000962	0,0009765625

- Portrait or landscape format
- Three colours maximum
- Highlight important things
- Leave enough space
- Avoid abbreviations

Poster formats

Information for Poster & Storymap Presentations at the GI_Salzburg23

Dear Poster/Storymap Author,

thank you for your poster/storymap contribution to GI_Salzburg23. We look forward to your presentation during our GI_Salzburg23 poster session. Below are some tips for the session.

* The ideal poster

The ideal poster generates attention and interest. Attractive posters stimulate discussion and pique the interest of others. It should provide a creative brief overview of your work and the results obtained.

* Poster Guidelines ...

- A poster is created in either portrait A0 or landscape A1 format.
- A storymap is easily readable on a screen from two meters away (16:9 format)
- Both tell a story and are creatively connected by a common thread
- They include a title, graphics, images, tables, explanations and author contacts
- A consistent summary is available (possibly also as a printout)

* Submission

Please upload your finished poster/storymap to our platform by **June 1** as a **jpeg file** with a **maximum size of 10 MB** (<https://www.conftool.com/gi-salzburg2023>). For storymap submission, please take a screenshot & upload it to Conftool along with the relevant link.

When submitting, please write in the comments field whether it is a poster or a storymap.

* Format

Posters will be mounted on one (1) moderation wall with four (4) pins provided. The format of the moderation wall provides for **A0 (841 x 1189 mm, portrait)**, or **A1 (841 x 594 mm, landscape)** format. Please print your poster in advance. We are unable to provide on-site poster printing. We will inform you about time & place of poster hanging in time. There will be a list on site at the beginning and at the end of the poster exhibition with assigned moderation wall/ and screen respectively.

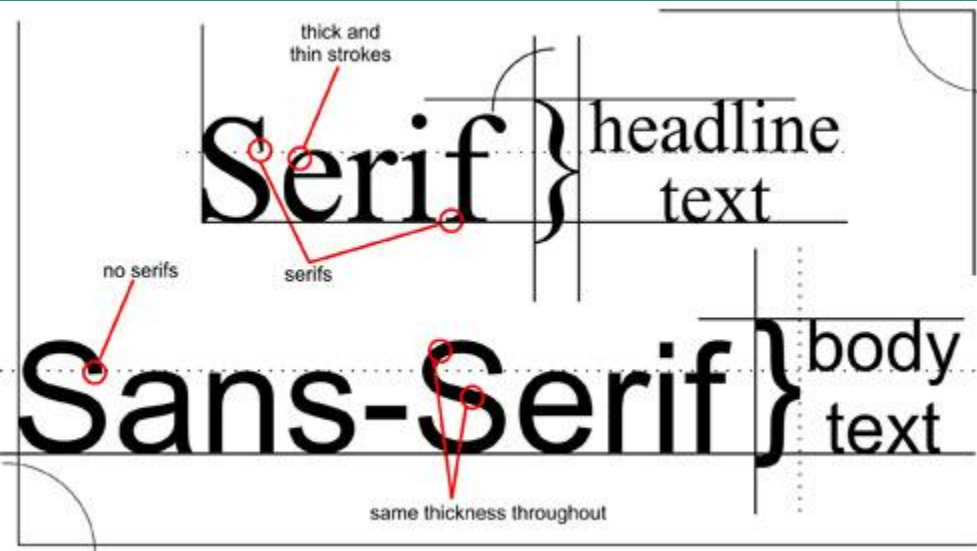
Storymaps will be displayed as interactive posters on screens and therefore should be in **16:9 format**. Please ensure that the information is easily readable from two meters away.

But what about virtual poster presentations?



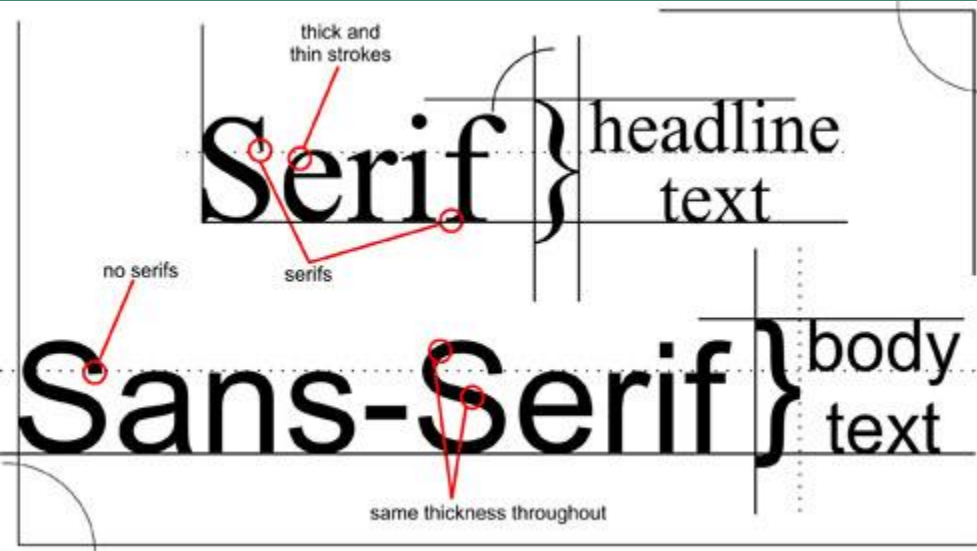
- Use screen format 16:9 or 16:10
- Ensure readability of (less) text
- Consider participants looking at 24" monitors

Poster text



- Font type
- Font size printed (min 36/24 pt)
- Font combinations
- Indents and spacing
- Bold, italicised, underlined, shadowed
- Alignment
- Contrast

Poster text



- Bullet points
- Avoid excessive text & long sentences
- Keep text elements to 50 words or less (on printed version)
- Use an [active voice](#)
- Short title and heading
- Reflect on text colour

<https://webapps.towson.edu/ows/index.asp>

Playgrounds in Berlin Pankow

Spielplätze in Berlin-Pankow GIS-Analyse der fußläufigen Erreichbarkeit

Die Bedeutung von Spielplätzen und die Anforderungen an ihre **räumliche Erreichbarkeit** wachsen mit zunehmender Urbanisierung. Zur Untersuchung der aktuellen **Versorgungssituation** von Kindern mit Spielplätzen im Bezirk Berlin-Pankow wurde eine **Netzwerkanalyse mit GIS** durchgeführt.

Rahmenbedingungen in Deutschland:

Benötigte Spielplatzfläche | KiSpG §4(1)
1 m² / Einwohner
Max. Entfernung zum Spielplatz | DIN 18034
 < 6 Jahre: 200 m
 6-12 Jahre: 400 m
 > 12 Jahre: 1000 m

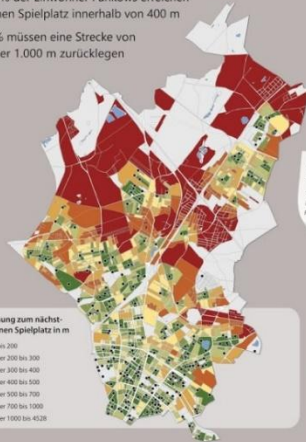
Datengrundlage für das Analyse-Netzwerk sind OSM- und Einwohnerdaten sowie die Spielplatzstandorte. Zur Vermeidung von Fehlern im Randgebiet werden Spielplätze der Nachbarbezirke im Umkreis von 1000 m in die

Analyse einbezogen. Nachfolgend ist in den Karten die **allgemeine Versorgungssituation** dargestellt: Berücksichtigt werden hierfür alle bewohnten Blöcke und die unterschiedlichen Spielplatztypen.

... Ergebnisse der Versorgungsanalyse ...

NÄCHSTGELEGENER SPIELPLATZ

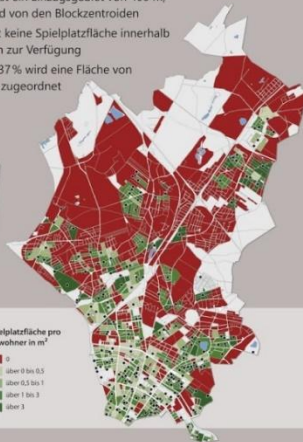
- 68 % der Einwohner Pankows erreichen einen Spielplatz innerhalb von 400 m
- 5 % müssen eine Strecke von über 1.000 m zurücklegen



Die kleinräumige Versorgungsanalyse in Berlin-Pankow zeigt, dass große **räumliche Disparitäten** innerhalb des Bezirks bestehen und in einigen Bereichen die Erreichbarkeit mit Spielplätzen nicht den Planungszielen entspricht.

SPIELPLATZFLÄCHEN-EINWOHNER-RELATION

- Definiert ist ein Einzugsgebiet von 400 m, ausgehend von den Blockzentroiden
- 31 % steht keine Spielplatzfläche innerhalb von 400 m zur Verfügung
- Lediglich 37 % wird eine Fläche von über 1 m² zugeordnet



Die angewendeten Methoden berücksichtigen nicht die **Nachfrage**. Durch hohe Kinderzahlen können Spielplätze gut zu erreichen, gleichzeitig jedoch überlastet sein. Zur **Vertiefung der Analyse** sind weitere Faktoren und Entwicklungen einzubeziehen.



Lines and sinuosity -

A GRASS GIS tool detecting lineaments on remotely sensed data.

Sebastian Baumann¹, Jörg Robl¹, Lorenz Wendt² and Syke Hilberg¹.

¹University Salzburg, department of Geography and Geology; ²University Salzburg, department of Geoinformatics.

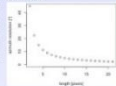


Theoretical basics:

The identification of geological structures is an essential task of groundwater surveys in hard rock aquifers (1). Due to minor or no primary porosity in hard rock aquifers, geologic structures as joints and fractures largely determine the rock bodies' water transmissibility. Lineaments on satellite images or hillshades of digital elevation models possibly indicate such hydrogeologically relevant structures. We present an automated lineament extraction tool for remotely sensed data and discuss the results for different freely available input data (Landsat, SRTM). We compare these results with a hand-drawn lineament map and investigate the theoretical and practical limitations of our lineament extraction tool.

Automated lineament analysis on remotely sensed data requires two general process steps: The identification of neighboring pixels showing high contrast and the conversion of these domains into lines. The target output is the lineaments' position, extent and azimuth. We use the established Canny edge detection algorithm (2, 3) to generate such domains in a GRASS GIS environment and focus on the line conversion of these raster maps to line vector maps.

The dependency of azimuth resolution on line length is a fundamental limitation of such a conversion. A straight line generated from a raster map needs at least a length of eleven pixels to ensure a azimuth resolution of 5°. Therefore our line conversion tool uses an adjustable line length threshold to generate the required azimuth resolution.



Line conversion:

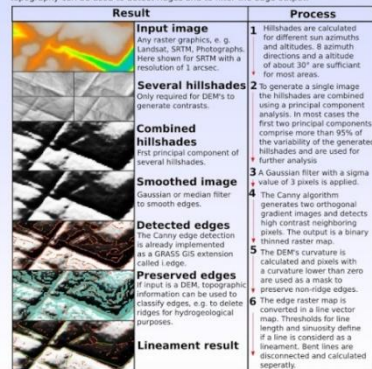
In a first step the binary edge image of the Canny algorithm is transformed to a line vector map. This lines show all kinds of curvatures. The lineament extraction tool chooses randomly a starting or ending node of such a line and adds further nodes until an upper limit for sinuosity is exceeded. An upper limit close to 1.1 ensures to detect lineaments that deviate slightly from perfect straight lines, but also to reject line segments that are too bent. If the sinuosity limit is reached and an analysed line segment is longer than the line length threshold, its starting and ending node define the resulting lineament. The remaining line segment is analyzed in a next step. This process is repeated until all lines of the line vector map are analysed.

The upper limit for sinuosity is also crucial regarding azimuth errors. A too high upper limit results in lineaments' azimuths that strongly deviate from the line segments' azimuths. On the other hand a too low value generates many short lineaments with unsatisfactory azimuths. However, the azimuth direction of the final lineament is always the mean azimuth direction of shorter line segments.

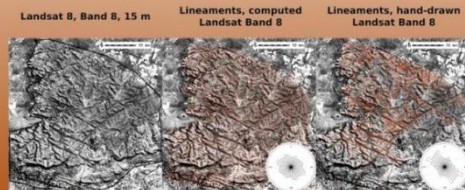
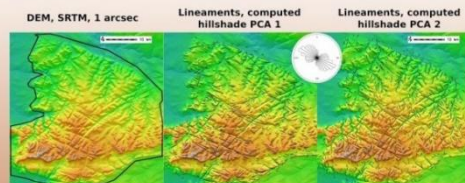
Step 6 on the workflow chart shows a visualisation of the line conversion process.

Workflow:

The lineament extraction tool works for any raster graphics but is presented here for digital elevation models. Lineaments derived from DEMs solely rely on elevation information and therefore represent topographic features that are linked to geologic structures. Reflectance images or aerial photographs also contain anthropogenic features as streets and buildings that do not originate from geologic structures (2). Another benefit using DEMs for lineament extraction is that lineaments can be filtered with topographic information. E.g. the Canny algorithm detects ridges as edges also on reflectance images. Ridges of course have a geologic source and mark watersheds but are not relevant for ground water flow in the first place. The curvature of the topography can be used to detect ridges and to filter the edge output.



Application:



Test site and input data:

The chosen test site is an area with clear and distinct, large-scale lineament features. The area is close to the Marakele National Park in the northeastern part of South Africa on the western edge of the Watersberg mountains.

As input data we used free available SRTM DEMs with a resolution of one arcsec and Landsat 8 (band 8) surface reflectance image with a resolution of 15 meters.

A lineament map was hand-drawn on the basis of the Landsat 8 (band 8) reflectance image and both input datasets were computed with our lineament extraction tool. The data was processed as described in the workflow chart and an upper limit for sinuosity of 1.1 was used. To ensure a appropriate azimuth resolution the line length threshold was set to a length of twenty pixels. The curvature filter was used computing the lineaments from the DEM. The black framings on the input maps mark the computed area.

Conclusion:

Results of automated lineament extraction tools are reproducible and independent from a processors' conception. This is the main advantage compared to hand-drawn lineament maps.

In general all approaches detect the large-scale structures, but differ in small-scale features. This is especially clearly documented on the azimuth rose diagrams of the computed and hand-drawn lineament map of the Landsat surface reflectance image. The azimuth rose diagram of the hand-drawn lineament map shows an explicit preferred orientation. In contrast the azimuth rose diagram of the computed lineament map slightly shows such a preference, but shows a broad range of azimuths in nearly every direction. Interestingly this azimuth "noise" is reduced if the line length threshold is increased. The following azimuth rose diagram shows the azimuth of lineaments longer than one kilometer computed from the Landsat reflectance image.

The main advantage of a hand-drawn lineament map is that the length of large scale structures are preserved. In contrast the automatically detected lineaments are separated in areas where lineaments with other orientations intersect.

Lines and sinuosity

Lord of the rings

DER HERR DER RINGE MIT GEOINFORMATION SICHER DURCH MITTELERDE

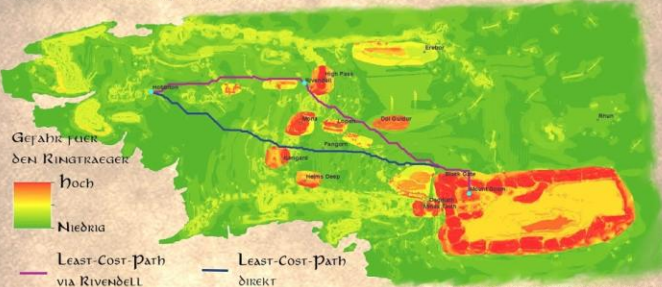


Mittelerde, tausende Quadratkilometer voller toedlicher Gefahren und Herausforderungen. Wie sollen sich Frodo und seine Gefaehrten am schnellsten und sichersten durch dieses Labyrinth aus Orks, dunklen gefaehrlichen Waeldern, steilen Berghaengen, toedlichen Kreaturen und vielem Mehr durchkaempfen?

Ganz einfach, GIS-Hobbits unterstuetzen mit ihren Faehigkeiten das Gute in Mittelerde. Sie digitalisierten Mittelerde bis ins kleinste Detail, vom Hoeihenmodell bis zu den gefaehrlichen Zonen und ermittelten dann mit einer Least-Cost-Path Analyse den sichersten Weg vom Hobbingen zum Schicksalsberg.



Mit ihren magischen Methoden fanden sie so zum einen den sichersten Direktweg zum Schicksalsberg und zum anderen eine Alternative mit Zwischenstopp in Rivendell, einem wichtigen Ort Frodos Reise.



Diese magische Geschichte soll durch Ueberlieferungen fuer anfaenger und fortgeschrittene auch viele andere Hobbits dazu ermutigen durch die Geoinformation diese Welt etwas besser zu machen.

Nehmen Sie am Kampf um Mittelerde teil und laden Sie die Ueberlieferungen fuer Ihre Hobbits hier herunter:

Abb.: Basismapen fuer die Datenanfertigung

Fritzer J., Mandl J., Vietz M., Rescheggler M.
Steinbecker Geoinformation und Umwelttechnologie

FACHHOCHSCHULE
KÄRNTEN
CARINTHIA
UNIVERSITY
OF APPLIED
SCIENCES

HOW WELL DO TERRAIN OBJECTS DERIVED FROM PRE-EVENT DIGITAL ELEVATION MODELS SPATIALLY CORRESPOND TO LANDSLIDES?

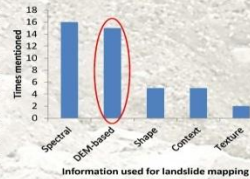
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Background

In Earth Observation (EO) based landslide mapping digital elevation models (DEM) and derived terrain objects (e.g. landforms) and terrain variables (e.g. slope, curvatures) are commonly integrated with optical satellite images to map landslides and to classify landslide types. Ideally, the EO data and the DEM should document the same state of the environment; i.e. data should be acquired at similar points in time.

However, this is rarely the case, since EO data is being produced at higher temporal frequencies than DEMs. Consequently, the DEMs used for automated landslide mapping are often outdated, i.e. they are significantly older than the EO data. This leads to the problem that the DEM does not represent all the landslides that are present in the optical images.

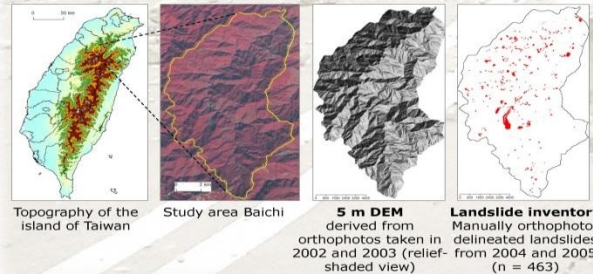


Aim

The aim of this study is to analyze how well terrain objects that are derived from a pre-failure (outdated) DEM spatially correspond to landslides.

Study area & data

The study area, the Baichi catchment, is located in Northern Taiwan, and covers about 120 km². Elevation ranges from 1,000 to 3,000 m.a.s.l. The area is frequently affected by landslide events, mainly caused by heavy rainfalls during typhoons.



Methodology

1) Calculation of 40 terrain variables

Based on the pre-failure 5 m DEM basic (e.g. slope, curvature) and more complex terrain variables (e.g. terrain wetness index, Slope Length Factor (LS factor)) were computed.



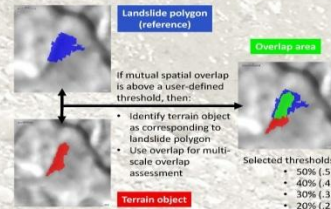
2) Generation of terrain objects for each variable

The multiresolution segmentation (MRS) as implemented in eCognition was applied to partition each terrain variable into consecutive coarser scales of terrain objects. MRS applies region-growing to merge neighboring grid cells with similar values to objects.

The statistical method of local variance was employed to identify the three most significant terrain object scales for each variable.

3) Identification of terrain objects corresponding to landslides

The mutual spatial overlap between terrain objects at each scale and reference landslide polygons was calculated. Based on selected thresholds the corresponding terrain objects were identified.



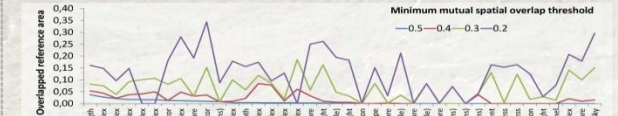
4) Calculate the percentage of overlapping reference landslide area

The corresponding terrain objects at the three scales were merged into one dataset. The merged objects were intersected with the reference polygons to eventually compute the percentage of the overlapped reference area.

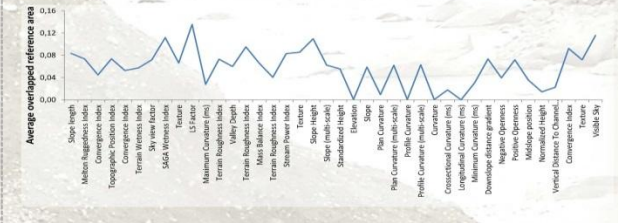
Results & Discussion

The diagrams below show the percentage of the total landslide reference area that is overlapped by the corresponding terrain objects, i.e. the set of merged objects that fulfilled the respective minimum mutual overlap threshold (step 4 of the methodology).

The higher the threshold, the fewer landslides were overlapped by the terrain objects, regardless of terrain variable. Highest agreements between reference landslides and terrain objects (up to 35%) were achieved for the Slope Length Factor (LS Factor), Visible Sky, and Slope Height.



When averaging the produced spatial overlaps over the four thresholds, similar conclusions can be drawn: obviously, LS Factor objects have the most predictive power with respect to landslide mapping.



Conclusion

This study demonstrated that terrain objects based on pre-event DEMs generally have a limited landslide predictive capacity. However, some terrain variables generated significantly higher spatial overlaps with reference landslides. In cases where no post-event DEM is at hand, especially these variables should be preferred as auxiliary layers for automated EO based landslide mapping.



GIS SUPPORTED ANALYSES OF THE URBAN BUS TRANSPORTATION NETWORK IN UDINE

CAROLIN ÖRTNER



Urban Transportation

MOTIVATION

In urban areas bus networks represent a very important component of public transport and transit. Population and important facilities always change. As well exists a lack of parking facilities. Since 1995 the company SAF Autoservizi F.V.G SpA is mainly responsible for the public transportation service in Province of Udine, Friuli-Venezia Giulia (FVG), northeast of Italy. To improve the transport infrastructure regarding the population's needs GIS techniques can be very useful to support the bus company.

STUDY AREA

- Municipality Udine and its surroundings

GEODATA

- Road network
- Administrative units
- Socio-economic data
- Buildings
- Bus network
 - Stop
 - Lines
 - Departure times
 - Etc.

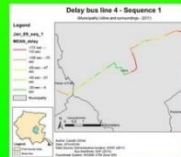
IMPLEMENTATION

- SPSS Statistics
- ArcGIS 10.2
 - Data Management Tools
 - Analysis Tools
 - Network Analyst
 - ModelBuilder
 - ArcPy

METHODOLOGY



RESULTS



What were on the posters?

Which one do you remember most?



WHAT?

Poster Awards AGIT 2015

Gewinner Postersession 2015



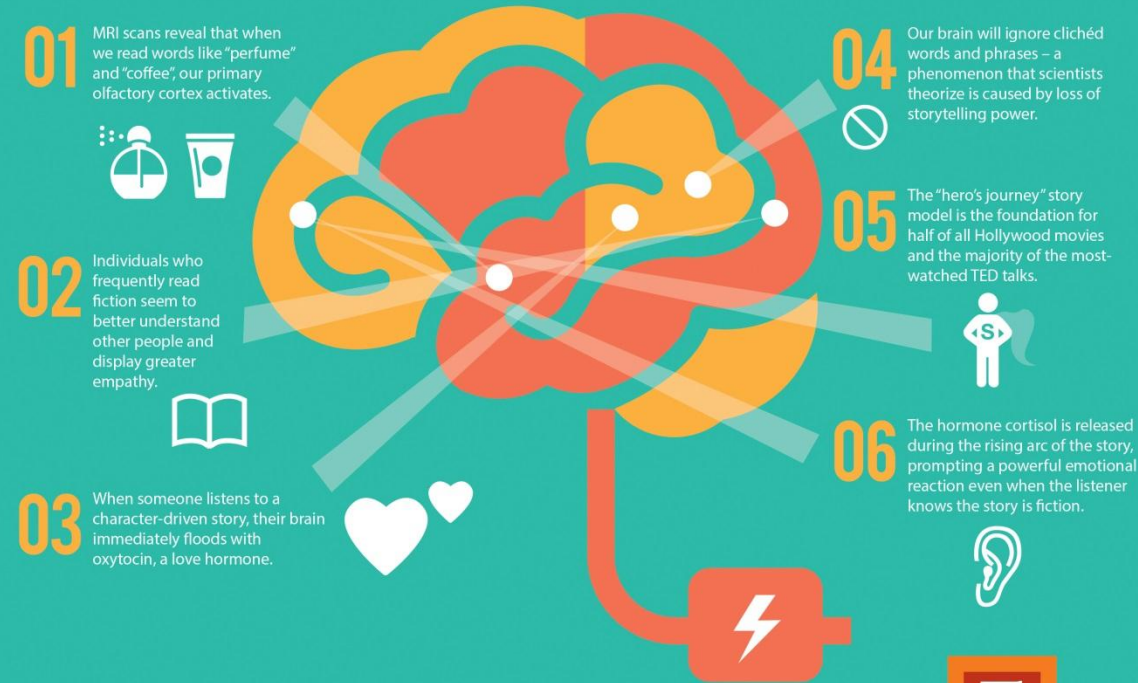
1. Platz

"Herr der Ringe – Mit Geoinformation sicher durch
Mittelerde"

Melanie Regenfelder, Josef Fritzer, Johannes Miedl, Marius
Vietz, FH Kärnten



THE POWER OF STORYTELLING



echostories.com

A poster should tell a story

- Spray perfume to the poster
- Imagine 3d buildings on a poster
- Insert something to touch
- Some interaction

60-Second Poster Evaluation

Presenter _____
Poster Title _____
Evaluator _____

Overall Appearance

Cluttered or sloppy appearance. Gives the impression of a solid mass of text and graphics, or pieces are scattered and disconnected. Little white space.

Pleasant to look at. Pleasing use of colors, text, and graphics

Very pleasing to look at. Particularly nice colors and graphics.

White Space

Very little. Gives the impression of a solid mass of text and graphics.

OK. Sections of the poster are separated from one another.

Lots. Plenty of room to rest the eyes. Lots of separation.

Text / Graphics Balance

Too much text. The poster gives an overwhelming impression of text only. **OR**

Not enough text. Cannot understand what the graphics are supposed to relate.

Balanced. Text and graphics are evenly dispersed in the poster; enough text to explain the graphics.

Text Size

Too small to view comfortably from a distance of 1-1.5 meters.

0.5 Main text OK, but **text in figures too small**

Easy to read from 1-1.5 meters

Very easy to read.

Organization and Flow

Cannot figure out how to move through poster

Implicit. Headings (Introduction, Methods, etc.) or other device implies organization and flow.

Explicit numbering, column bars, row bars, etc.

Author Identification

None.

Partial. Not enough information to contact author without further research. This includes missing zip codes on addresses

Complete. Enough information to contact author by mail, phone, or e-mail without further research.

Research Objective

Can't find.

Present, but not explicit. Buried at end of "Introduction", "Background", etc.

Explicit. This includes headings of "Objectives", "Aims", "Goals", etc.

Main Points

Can't find.

Present, but not obvious. May be imbedded in monolithic blocks of text.

Explicitly labeled (e.g., "Main Points", "Conclusions", "Results").

Summary

Absent

"Summary", "Results", or "Conclusions" section **present**

A large Mimaki JV5-160S wide-format inkjet printer is shown from a front-three-quarter perspective. It has a grey and black body with a purple accent stripe. A long roll of paper is being printed on, and a semi-transparent blue box containing a list of tips is overlaid on the paper. The printer has multiple ink cartridges visible at the top left.

Poster printing

- (Test) print your poster in A4 format and offer it with your presentation
- One Week before Presentation:
 - Is the plotter functioning
 - Who is responsible? Is there enough paper?
 - How many students need the plotter?
- Do not wait up to the very last minute
- Graphics: more than 300 dpi
- Check for transport possibilities



Examples for a poster presentation



How to present a poster?

- Voice, gestures, mimics (body language)
- Nervousness
- Digital or printed presentation

Scientific presentation



Contact to
audience



Transport
enthusiasm



Overcoming a
Blackout



self-conscious
appearance



Body language



Convincing
seating
arrangement



surpassing
stage fright