

*Lab Handbook of the
Digital Geography Lab
Department of Geosciences and Geography
University of Helsinki*

Tuuli Toivonen & all the members of the Digital Geography Lab 2024

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Everyone participates in building the lab spirit. "Celebrate every step" is our motto!

Preface

Our research lab was established in 2009. We started with the name Accessibility Research Group of the University of Helsinki. In 2016, we changed our name to Digital Geography Lab to reflect our growth and broader research scope.

At the release of this handbook, we are 20 researchers in the lab. Many more researchers have worked in the lab over the years. Most have moved forward to positions they had dreamt of. Five have received professorships while still at the lab or soon after.

We are a diverse group in terms of academic backgrounds and nationalities. Currently, there are seven nationalities from three continents in the group. Each present and past member has contributed to the lab practices by making suggestions, initiating new practices, participating in the lab life, or passing on the traditions.

We run several projects at the same time. Now our project portfolio has 11 projects, including a large ERC Consolidator Grant project GREENTRAVEL and several H2020 or other international projects. Each of the projects has their own respective practices, but we attempt to keep them somehow aligned with the lab practices. This document concentrates on the lab level activities and how they are arranged.

We share the document with the hope that other labs would find something useful from here and we could, in our turn, learn from others. Naturally, our practices will change as we develop as professionals and as a group.

In Helsinki, January 2024,

Tuuli Toivonen & the Digital Geography Lab team

Note: You can refer to this document as follows:

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Check also for updates: <https://blogs.helsinki.fi/digital-geography/2024/02/18/sharing-our-lab-handbook/>

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Our Lab values

We discuss the lab values on a yearly basis, and they are communicated to newcomers and shown in our Lab Practices document (see page 11). We have mapped the values since the year 2016, sometimes updating, sometimes starting from scratch.

We have identified three main areas where we want to express our values:

- 1) academic quality of our work,
- 2) principles of sharing our knowledge, and
- 3) community and the lab culture.

The figure on the right shows the keywords in these three broad categories as for 2023.

Our 2023 version of values presented using keywords, as defined jointly by the group members. These are revised yearly and presented to newcomers with oral explanation.



Coming together

We work continuously together in various projects, and when writing articles and teaching students. To ensure time for discussing general or individually important matters, we have established the following meeting system on top of project-specific meetings and activities:

- Weekly Lab meetings (page 7)
- Weekly PhD researcher catch-up slot (page 8)
- Yearly strategy day for the entire group (page 10)
- Yearly development discussions with everyone individually (page 9)
- More or less monthly afterwork
- Christmas and summer parties
- (Other parties, often, hopefully!)

Weekly Lab meetings

The time of the weekly meeting is set and reserved, but the meeting type varies. We have:

- “Rounds” of people or projects allow everyone or every project to share their topical activities and/or news. The turn can also be used for seeking general advice or bringing forward interesting papers or topics. Everyone gets the floor!
- Journal clubs for discussing a jointly selected interesting paper. One member presents the paper and leads the discussion.
- Presentations by the lab members particularly focusing on ongoing work (paper plans, papers to be submitted or practicing for upcoming conferences).
- Rehearsals for any application-related events (teaching demonstrations, funder interviews, etc.).
- Visitor presentations. When encountering researchers doing work that might be interesting for other lab members, we invite them to give a low-key presentation in our lab meeting. Any lab member can make invitations.
- Topical discussions around themes like research ethics, open science, data policy, etc.

Lab meetings are prioritized. Everyone attempts to be present!

Lab meetings are coordinated. One of the PhD researchers is dedicated to coordinating the lab meetings calendar, content and making sure that the remote participation for the meetings is smooth.

Lab meetings are documented. Each lab member on their turn takes notes, and the notes are shared with everyone in Slack on the dedicated #Lab_Meetings channel.

We do birthday praises! Praises are given to all of those who have had their birthday since the previous meeting. This is how it goes: we write praises anonymously to an online document. The colleague who received the praises previously reads them out loud overwhelming the Birthday Hero with positive comments. This is quite embarrassing, yet lovely at the same time :).

Weekly PhD researcher catchup slot & support for PhDs

In the busy project life, the broader picture of individual PhD processes might sometimes be missed. The university is supporting the PhD researchers by the thesis committees that gather once a year to discuss the thesis process. On top of this, we have the practice of a weekly time slot which is dedicated for the PhD researchers who then rotate in using this weekly hour so that everyone has a meeting roughly once every 1.5 months.

The PhD researcher may choose to meet only with the lab leader or to call together also the other supervisors of the thesis.

This practice helps in finding time to discuss about broader matters related to the direction of the thesis, supportive studies, workload or issues related to the defense (e.g., choosing the pre-examiners or opponents) closer to the end of the thesis process.

To otherwise support the PhD researchers, we

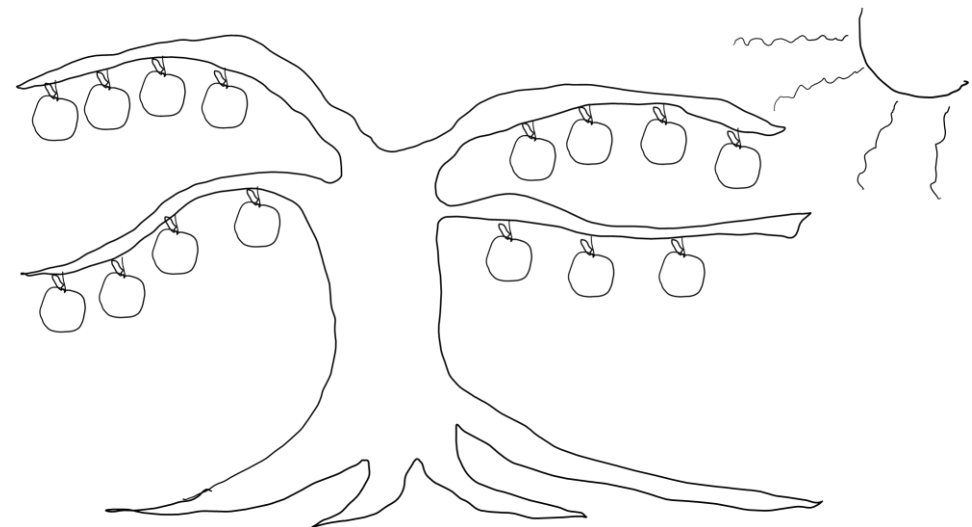
- have developed a common formula for writing a convincing synopsis with relative ease;
- organise a course around the thesis, to allow practicing the defense itself and related publicity with a larger group of people;
- provide input from the entire group to the synopsis, lectio, arrangements, etc., depending on the need.

Yearly development discussions

According to the university HR system, all employees participate in the yearly development discussions, which involves filling in the work plan. We have discussions also with all grant researchers and doctoral researchers, even though the university does not require this. In addition to the university form, we use our own goal setting template: an apple tree with branches representing different themes and tangible goals, such as articles, marked on apples. The apple tree acts as a platform to discuss and agree on the adequacy of working hours, the feasibility of the goals and the level of ambition for each task (low and high hanging fruits).

During the year, employees use the apple tree to monitor the progress of their own work. The tree has been in use since 2018, and the group members have learned to think about their goals and monitor their achievements through it.

One version of the apple tree used for the development discussions. It's super simple but works well! What are your low or high hanging apples, what are the roots/foundations of the work, what's the sun?



Yearly planning/strategy meetings of the Lab

One day every year is reserved for Lab level planning of activities, practices and directions. We typically retreat to some peaceful destination for the day. We use simple tools as platforms of our discussion:

- Revisiting our **webpages** provides a platform to discuss strategic directions and how to communicate our interest and expertise.
- Seeing our Lab's work through the **frames*** presented by Bolman & Lee (2008) and Gallos & Bolman (2021) has proved to be useful: how are we doing considering organizational, *Human Resources and Skills, Political and Symbolic* aspects of our work? In the original books these aspects are treated also through metaphors of *Machine, Family, Jungle, and Temple*. So, how to work like an oiled machine or a loving family, how to navigate in the academic jungle and how to celebrate the meaningfulness of our work as in a temple.

The (self-help interpretation of the) Japanese word **Ikigai**** has shown to be a useful tool to discuss our personal and lab level *mission, passion, profession, and vocation*.

* Bolman, L.G. & Deal, T.E. (2008) *Reframing Organisations*. Wiley. 492pp.

Gallos, J.V. & Bolman, L.G. (2021) *Reframing Academic Leadership, 2nd Edition*. Jossey-Bass.

** Ikigai is a Japanese concept referring to something that gives a person a sense of purpose, a reason for living. The self-help literature has simplified and misinterpreted it, but the self-help version works for us.

Documenting the Lab Practices

We collect our lab practices into two documents: **a WIKI** containing all important practical links and **a PowerPoint** explaining the broader framework, the history of the lab and our values. The PowerPoint has slides that can be used as general lab presentation slides and to welcome newcomers. These documents are constantly updated, and they are also used to record matters that have been jointly agreed upon. People with specific responsibilities update the documents for their own part. The document can also be used to record development needs.

The lab practices documents are reviewed with all **new employees at the beginning of the employment contract and together with everyone *annually, at the least.***

The Lab Practices PowerPoint includes the following titles:

Digital Geography Lab

- What do we study?
- How do we work (the values of DGL)?
- People & Lab history

Communications

- Lab meetings
- Communication: web pages & tweeting
- Communications: research profiles
- Websites
- Updating the websites
- Keeping up to date (internal communication)
- How to communicate in Slack
- Keeping up to date (ongoing papers)

Scientific practices

- Open Science practices
- Paper authorship practices

Documents & Data

- Storing of documents
- Storing and retrieving data
- Version control and sharing resources: GitHub & Zenodo
- Sharing data with others: Data agreement

Human resources & admin stuff

- Checklist when a new person arrives
- Joining the lab as a university employee
- Joining the lab as a grant researcher
- When hiring
- Traveling
- Teaching & supervision
- Using the credit card
- Rooms (plants, coffee etc.)

Sharing common responsibilities

There are some common tasks in the lab that support the work of everyone. This is how we deal with them now:

1. We identify and list the common tasks once a year, e.g., during the strategy day.
2. Every PhD researcher has a task of their own. At the moment, these include responsibility over:
 - a. Certain databases and data management
 - b. Web site updates and development
 - c. Blog posting
 - d. Social media activity
 - e. Running the lab meetings
 - f. Organising social events
 - g. Curating our GitHub
3. Postdoctoral researchers may have dedicated duties, but their principle common duty is to be available for others for whatever support – to provide mentoring, comments for papers, help with certain methods or support during academic milestones such as defenses.
4. These duties are written down in the Lab Practices document.

Participating in teaching & supervision

In principle everyone at the university is expected to do both research and teaching. In our lab, we support this idea with the following guidelines.

- Anyone can teach and supervise based on their own expertise.
- Teaching is learning, and it can be seen as an opportunity rather than an obligation.
- People getting their salary from the university (even if with outside funding) are expected to teach c. 5 % of their time. The teaching should be meaningful 😊
- Grant holders (not on salary) will get paid for their course teaching. This needs to be separately agreed upon.
- Every year, the university organizes courses on University pedagogics. Highly recommended!
- When supervising students, make sure that your efforts get formally recognized.
- Remember to add the supervisions to your CV and verbalize this experience, e.g., in job interviews.

Authorship guidelines

We follow common guidelines of authorship practices, including those presented by the [ICMJE \(Vancouver guidelines\)](#) and the [Finnish TENK](#) (see the links for more information).

This is from the ICMJE website:

“The ICMJE recommends that authorship be based on the following 4 criteria:

- Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND
- Drafting the work or reviewing it critically for important intellectual content; AND
- Final approval of the version to be published; AND
- Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

In addition to being accountable for the parts of the work done, an author should be able to identify which co-authors are responsible for specific other parts of the work. In addition, authors should have confidence in the integrity of the contributions of their co-authors.”

Projects may follow the varying traditions of different disciplines, but authorship practices are always openly discussed from the beginning. Most often, we do as follows:

- The lead author is the first author. She/he typically does most of the work and writes most of the paper.
- Two or more lead authors may have equal contributions. This should be clearly stated.
- The second-most important position is the second or the last. Usually, the most senior is the last.
- After the first authors, the other authors are listed in diminishing contributions or alphabetically by surname, depending on the case.

Open science practices

We practice openness by default. This applies to everything from the publications to data, tools and code.

- Open Access publishing (see e.g., <https://libraryguides.helsinki.fi/oa/eng>)
 - Prioritise Diamond or Golden open access journals. If choosing Golden, make sure there is money for article processing charges (APCs).
 - Hybrid OA journals are not recommended. Let's not support this unless absolutely necessary.
 - In case choosing green open access, always self-archive in the university archive: <https://libraryguides.helsinki.fi/oa/eng/self-archivingguide>
 - Think carefully about the publishers, they matter (open access practices, embargo times, reputation).
 - Publish a preprint when appropriate!
 - Seek assistance from the university services when something is unclear.
- Open methods, releasing your code:
 - Use GitHub and store the “frozen” article version of code in Zenodo.
 - Get DOI for your repo: <https://guides.github.com/activities/citable-code/>
- Open Data:
 - Package research output data with metadata to a shareable format, and include the license.
 - Store the data in an archive (e.g., [Zenodo](#), also Qvain or [FAIRDATA](#)) to receive a DOI.
 - Write a data description article whenever possible. This allows proper method description and citations.

When people move forward: Exit discussions

Mobility is part of the business in research groups. When someone leaves, we naturally want to make sure that all relevant information has been passed to someone in the group. In addition, we are interested in the time in the Digital Geography Lab. These are explored through our exit discussion template questions:

- Your time in the Lab – open discussion from different angles.
- What did you learn?
- What did you gain professionally?
- Did you gain something personally?
- How would you evaluate the functioning of the Lab?
- What works and what could be improved?
- Is there something that would have made you thrive (better)?
- How would you like to continue collaborating?
- Appearance in the webpages, participation in the activities?

More information on us

Read more about our Lab: <https://www.helsinki.fi/en/researchgroups/digital-geography-lab/>

Or follow us on:

- X: @digigeolab
- Mastodon: @digigeolab@mastodon.online
- LinkedIn: Digital Geography Lab

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