TDDD89

Lecture 6
Feedback and Outlook

Christoph Kessler
and guest lecturers

LiU LINKÖPINGS UNIVERSITET

Agenda:
- **General feedback on Academic English**
  - Shelley
- **Extended Break until 16:15**:
  Individual Q&A on Academic English feedback in two breakout rooms
  - Shelley
  - Brittany
- **General feedback on Stylistic issues, LaTeX hints**
- **TDDD89 Final Steps**: UPG1 submission
- **Exjobb process and upcoming wexupp-deadlines** for starting the Exjobb Process
- **Some final advice**

Feedback on Academic English in ETP Introductions

By Shelley Torgnyson or Brittany Shahmehri
- see your Lisam feedback text (Lisam / PDF comments)
- published yesterday

Lisam "grades" map to grading-rubric colors as follows:
- 1 = red
- 2 = orange
- 3 = yellow
- 5 = green

This feedback is for pure information only –
to be considered during ETP revision for the final UPG1 submission.
- No re-submission to Shelley/Brittany

Questions on your feedback?   Ask Shelley / Brittany during the extended break in breakout rooms

LINKÖPINGS UNIVERSITET

Descriptive Title

- Scientific authors want their publications to be easily found by others.

- When searching broadly for potentially related work (see Lecture 3), the *title* of a publication is the only piece of information that may really be read when quickly scanning a list of search results.

- Choose a *descriptive* title (and if possible, *without abbreviations*), even if the title becomes a bit longer.
Avoid company-specific jargon.

- Example:

  Parallelization of the TSS interpreter
   vs.

  Parallelization of the interpreter in a test system for mobile telecommunication components

Overlong headings?

- Overlong chapter or section titles lead to ugly linebreaks in the headings and in the table of contents

- **Solution**:
  Use the optional short-hand argument
  in \chapter[Short chapter title]{Leeeeeengthy chapter title},
      \section[…]{…}

Referencing chapters, sections, figures, tables, algorithms, etc.

- *"see Figure 3 for …"*   -   *"as shown in Section 2.3"*

  Here, *"Figure 3"* is a proper name,
  and thus, the first character is capitalized.
  - In LaTeX source: `... see Figure~\ref{fig:somegreatfigureID} for ...`

- but:
  "see the third figure …"   -   *"see the previous section"*
  Here, *"figure"* is an ordinary noun.

Keeping distance; Pluralis majestatis

Never use "I" in a scientific thesis or paper
(except, maybe, in the preface where you sign with your name).

- Instead, we use the so-called *pluralis majestatis*, that is, "WE".
  - "We" is used in the sense of "the author(s)"
    and sometimes also in the sense of "the reader and the author together as a team".
- Examples:
  "We have shown in previous work [3,4] that..."
  "We will see that..."
  "Let us consider now ..."
- If you want to mark something as your own personal opinion or experience, use the third person: *"The author thinks that ..."*

Never use "you" to directly address the reader,
and **never command the reader** by using imperative form.

- Keep the distance:
  "The reader may have noticed that ..."
  "We refer the interested reader to ..."

Write "with your LiU-hat on"

- No advertising nor endorsement of the company or its products
- Stay neutral – write from the LiU-student perspective,
  not as a representative of the company
  - Even if you are also employed there (or even own the company)
  - Rephrase the company's project description in your own words
- Recommended to *not* start Section 1.1 (Motivation) with the company description

Referencing chapters/pages in (monograph) books

pp. 26–31.

[3] S. Pemmaraju, S. Pemmaraju, and S. Skiena. *Computational Discrete Mathematics: Combinatorics and Graph Theory with Mathematica* ®. Computational Discrete Mathematics: Combinatorics and Graph Theory with Mathematica. Cambridge University Press, 2003, ~~p. 248~~. ISBN: 9780521806862.

[4] S. Pemmaraju, S. Pemmaraju, and S. Skiena. *Computational Discrete Mathematics: Combinatorics and Graph Theory with Mathematica* ®. Computational Discrete Mathematics: Combinatorics and Graph Theory with Mathematica. Cambridge University Press, 2003, pp. 249–250. ISBN: 9780521806862.

[5] Federico Rossi, Rick Zhang, Yousef Hindy, and Marco Payone. "Routing autonomous

- **Avoid duplicates in the list of references**.
- For annotating citations with specific page or chapter information,
  use the optional argument: `... see Pemmaraju et al.~\cite[p.~248]{Pemmaraju2003}`
  → ... see Pemmaraju et al. [3, p. 248]
  - Exception: If citing different stand-alone chapters written by *different* authors in a collection book, cite each chapter separately by author and title instead
    (then the book's authors are called *editors* instead)

Reference symbols and interpunction

video editing.[3] It has a Python API[2] that allow developers to modify parameters program-

video editing [3]. It …   … has a Python API [2] that …

that the distance measurements gained from the RSSI values are accurate. This might not always be the case, due to for instance interference by other radio signal sources that share the same radio frequency. [2]

the same radio frequency [2].

- Always have a blank space before \cite{...}
- *Never* put \cite{...} *directly after* the end of a sentence or even paragraph.
- Reference symbols should appear in the text
  as close as possible to the term/phrase [47] they refer to.
- **et al.** is an abbreviation for Latin *et alii* (and others) − Firstauthor et al. [13] stated …
  − used in the *running text* (not in the bibliography!) for 3 and more authors   →

Referencing, rule of thumb:

- In the running text: as short as possible.

- In the bibliography: full details.

The work *Static Deadlock Detection for Java Libraries* by Amy Williams, William Thies, and Michael D Ernst [6] investigates how static deadlock detection can be done on libraries rather than complete programs, specifically for Java libraries. […]

Williams et al. [6] investigate how static deadlock detection can be done on libraries rather than complete programs, specifically for Java libraries. […]

- Short citation symbols → minimal disruption of the flow of reading

Citing Properly

Another approach to mixed reality is described by **Holger et al. [9].** In their study kinect
sensors from Microsoft were used to capture a volume of 2.5 cubic meters. Kinect sensors

[9] **Holger Regenbrecht,** Jung-Woo (Noel) Park, Claudia Ott, Steven Mills, Matthew Cook
och Tobias Langlotz. "Preaching Voxels: An Alternative Approach to Mixed Reality".
I: *Frontiers in ICT* 6 (2019), s. 7. ISSN: 2297-198X. DOI: 10.3389/fict.2019.00007.
URL: https://www.frontiersin.org/article/10.3389/fict.2019.00007.

[10] Hamed Sarbolandi, Damien Lefloch och Andreas Kolb. "Kinect range sensing:

- **Only last names** of authors are given in the running text → described by Regenbrecht et al. [9]
  - If using BibTeX (recommended), the meta-word "and" separates the authors in BibTeX, not comma
    - (alternative author name format in BibTeX: author = {Regenbrecht, Holger and ...})
  - If copy-and-pasting from other documents with references listed in inverted first-author last-name-first
    format (`Regenbrecht, Holger and` ...), first- and second names might get swapped

- **No paper titles as reference symbols in the running text!**
  - even if MS Word thinks this should be the default...

No long flat lists of citations, please!

- `\cite{refid1,refid2,refid3}` → [3,5,6]

    - By the way: If `\cite`-ing multiple items together in IEEE style, ascending order is preferred.

- From a background chapter:

> A lot of loop transformations have been developed to increase data locality, for example [3,5,6,7,10,11,12,13,16,17,20,21,22].

Instead, more effort should be put into reviewing and structuring:

- Many loop transformations have been proposed in the literature of the last two decades. For instance, Kennedy et al. [10] give an in-depth treatment of loop interchange. Tiling of multidimensional loops is discussed in a seminal paper by Wolf and Lam [21]. Polychronopoulos [13] proposes cycle shrinking for loops with dependence cycles of static distances larger than one. Banerjee [5,6] gives an introduction to the theory of unimodular transformations. Ancourt and Irigoin [3] introduce the polytope model for the representation of index spaces, which is used in subsequent work by Lengauer [16], Xue [22], ... For a comprehensive overview we refer to Wolfe's textbook [20].

Bibliography (1)

- The bibitems in the bibliography should be alphabetically ordered by first author's last name
    - BibTeX does this automatically e.g. for bibstyles `plain`, `abbrv`, `alpha`.
    - Alternatively, they may be ordered in the order they appear in the text (BibTeX bibstyle `unsrt`)

Bibliography (2)

- For each (non-web) bibitem,
  - give the author, title, year and publisher.
  - The ISBN/ISSN is optional (uncommon in scientific articles).
  - For articles, give also journal name, month, volume, issue, and page numbers, and the DOI.
  - For papers in conference proceedings, give the conference name and the page numbers, and DOI.
  - For a PhD or master thesis, give the name of the university, thesis number.
  - For a technical report, give the name and address of the organization,
  - For a web document (such as online documentation), give the author (if known), the year, the URL (use `\url{https://aa.bb.cc/~dd/ee}` with LaTeX packages `url` and `hyperref`), and the organization (e.g. university, research institute or company)
- NB BibTeX entries auto-generated from *Google Scholar* may be wrong or incomplete
  - better download BibTeX from the publisher's original publication page
- URLs in BibTeX / Bibliography should not contain browsing history (e.g. the prefix for LiU library access)
  - Prefer the universal access via the DOI if known,
    e.g., DOI: 10.1007/978-3-319-91734-4_27 → `\url{https://doi.org/10.1007/978-3-319-91734-4_27}`
- BibTeX un-capitalizes all but the first word in the `title` field!
  Frame acronyms etc. by {...} to prevent that:
  - `title = {A Great Paper about {GPU} Programming},` → A great paper about GPU programming.

Remarks

- These stylistic recommendations are common practice for scientific articles.

- In addition, each different scientific publisher / journal / ... has their own stylistic guidelines and templates to be used.

- Using BibTeX is recommended.

TDDD89 Final Steps

TDDD89 Final Steps

- For **UPG2** (seminars), all seminars must be passed (webreg).
  - Late complementations only during re-exam periods
- If you have passed at least 3 seminars, we will sign you up in Webreg for **UPG1**
- After Seminar 5, revise and extend your extended thesis plan.
- Remove unused chapters from the thesis template
  and any template placeholder text, as it will generate hits in URKUND/OURIGINAL
- The final extended thesis plan is expected to have at least **10 pages** in total

3-4 chapters
+ references
  - 2-3 pages Introduction
  - 3-5 pages Background and Related Work (can be 2 chapters)
  - 2-3 pages Project Plan (Method, Time plan, Milestones, Risk analysis
  - 1-2 pages References (incl. at least 4 peer-reviewed publications)

- **Submit** by **11 January 2023** via the Lisam submission link for UPG1,
  which includes an automated submission through URKUND

Any questions on TDDD89 Final Steps?

LINKÖPINGS UNIVERSITET

Example

(from an extended thesis plan, TDDD89 2021)

LiU LINKÖPINGS UNIVERSITET

Contents

The End?

"*Now this is not the end.
   It is not even the beginning of the end.
   But it is, perhaps, the end of the beginning.*"
   – Winston Churchill

Starting the Exjobb-Process

1. If you have several re-exams or other course work left after mid of January,
   we recommend you to not start with the thesis project in January yet and complete these first.

2. Find a (real) topic if you have none yet.
   - Check the IDA/ISY exjobb pages for open topics
   - or ask directly a professor/senior researcher about open topics in your area(s) of interest.

3. Sign up in Wexupp
   - If applicable, attach your current TDDD89 ETP as description.

   For external exjobb projects:
   - Start of external exjobb projects in batch at beginning of each lecturing period
   - Wexupp IDA deadline for external (industry) exjobb projects: ~1 month before start →
   - Notification about assigned examinator in early January

   For internal exjobb projects:
   - No restrictions/deadlines – just agree with your examinator and indicate your examinator in wexupp

4. Meet with your examinator, who needs to approve that the topic is suitable for a thesis project at advanced level.
   DO NOT START AN EXJOBB PROJECT BEFORE YOU HAVE AN EXAMINATOR AND GOT HIS/HER APPROVAL OF THE TOPIC!

5. Book a startup meeting with examinator, local supervisor (company) and LiU academic supervisor.

6. Register at TekFak via your study counsellor for your program's exjobb course code (e.g. TQDT33).

7. Deadline for the (real) thesis plan is 2 weeks after project start,
   to be read and approved by LiU supervisor first, then by the examinator.

8. For the further steps, see the IDA resp. ISY exjobb pages:
   https://www.ida.liu.se/edu/ugrad/thesis/   resp.   https://www.isy.liu.se/en/edu/xjobb/

Upcoming IDA Deadlines for _external_ thesis project registration

- VT1: Project start date 2023-01-16. Application in WExUpp at the latest **2022-12-16**.

- VT2: Project start date 2023-03-27. Application in WExUpp at the latest **2023-02-24**.

- HT1: Project start date 2023-08-28. Application in WExUpp at the latest **2023-07-28**.

- HT2: Project start date 2023-10-30. Application in WExUpp at the latest **2023-09-29**.

NB: No deadlines, no synchronized start for _internal_ thesis projects at IDA.

Some Final Advice … for the thesis project

- Put effort in your project plan.
  It becomes a kind of contract between your company, your examinator, and yourself.
- For implementation-heavy projects, plan sufficient time for the experimental evaluation, its preparation and analysis (e.g., additional/refined experiments for identifying the root causes of observed performance anomalies or bottlenecks).
- Plan writing on your thesis continuously.
- Read much in the beginning, keep searching for more related work during the project.
  Keep a copy (hard/soft) of all articles you have read.
- Keep contact with your examinator and academic supervisor.
    - Status email every Friday afternoon: achievements, next steps, problems
    - These will also be useful at the end, when writing the mandatory *reflection* about your thesis work.
- Team up with others doing a similar project
    - Some divisions/examinators may organize such groups for projects starting in January.
    → joint startup, feedback, batched half-time presentations, opposition within group.

Good luck with your thesis project!

Some final advice ... for later

- Most career paths are ***employment-based*** (i.e., ***dependent*** employee – even as a manager)
  - In industry, your company through your manager(s) sets the goals (e.g. what to work on)
    - And as a self-employed person, you instead depend on your customers ...
  - In academic research, "academic freedom" only relates to the *choice of research area / problems*, which is still constrained e.g. by external funding programmes and university priorities, and to the *presentation of research results*, which also follows some rules (e.g. peer-review)
- Permanently work on your **employability**:
  Keep your only *weapon* as a dependent employee
  (= the option – or need – of changing the employer) *sharp*!
  - Keep a "red thread" in your CV
    - how will your planned next move look in your CV when applying again a few years later?
  - Try to avoid very short employment periods (and unemployment periods)
  - Keep a good professional relation to your boss
    - you will need him/her later, at least for a good reference
  - Try to be flexible (e.g., w.r.t. work location) – can open more career options
  - Collect merits (esp. in academia)
  - Never stop learning!

Best Wishes for a Successful New Year 2023!