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Aalto University
School of Electrical
Engineering

Joy & pain of thesis work

- Doctoral studies, thesis work, and career



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My background

M. Sc. 2000, Lic. Sc. 2003, university teacher 2004→

- Lots of teaching, lots of administration at all levels
- Two small children



Aalto ELEC decided: only doctors are capable to be teachers

Thesis work 2012 → Doctoral degree 8th October 2015

2012-15: author of 6 journal papers, 9 conference papers (+ few scientific publications on pedagogy), seven of these were included to the thesis

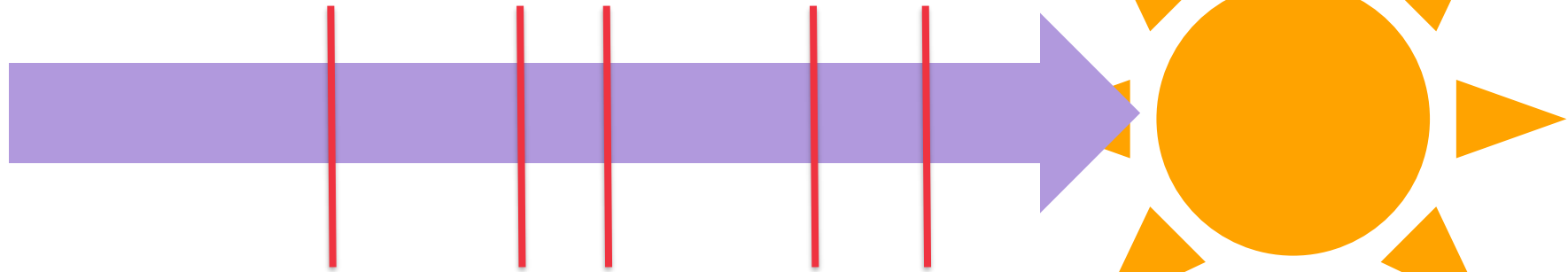
Currently a senior university lecturer and vice head of ELE department

- Worked with different professors and research groups
- Four instructed doctors + one thesis defense today + one thesis in pre-examination + one will be submitted to pre-examination in few weeks ...

Some facts on the thesis work

There are two strategies become a doctor:

1. be super-talented
2. work hard



The thesis process of each doctor...
... was in reality:



A brute force approach to doctoral studies

What is needed? – A certain number of publications

Therefore, important issues (my personal opinion):

1. Make a publication plan and schedule

- This gives you a target, which makes working efficient.
- You can update the plan as often as needed.

2. Start to submit and publish as soon as possible (= write!)

- Review process may take long (and you may have to resubmit...)
- Review comments are important feedback!

3. Remember that your time is very valuable

- Use your time to efforts which are the most useful
- Publish your results wisely

Six essential habits for your Ph.D project

by Jakob Rosenkrantz de Lasson

- 1. Write a work journal every day**
 - *Easier to continue the next day*
 - *Remind you of the progress you have made*
 - *Important notes when you have forgotten a solution or arguments*
- 2. Organize literature in a database**
- 3. Set up a regular schedule for supervisor meetings**
 - *Create deadlines and formulate concrete next steps*
- 4. Deal with procrastination**
 - *Making plans, setting deadlines, splitting work to pieces, ...*
- 5. Develop and pursue your own ideas**
 - *Convert your knowledge into new ideas, discuss on these*
- 6. Go home – and have fun**
 - *Your brains need a break every day*

Writing papers together

Important to keep clear the responsibility of doctoral candidate

- Be ready to answer questions in thesis defense. You cannot say “I have not written this.”
- If two doctoral candidates include one paper to their thesis: clear division, which sections/topics are written by whom

How to do it? Goal is to develop skills for future.

- Use comments to make suggestions, writing few sentences
- Use track changes for small (language, technical) corrections
- Overleaf for LaTeX documents
- Learn tips and tricks for figures/visualization from others

How outsider reads the paper

Official issues: aalto.fi

← 5
Pub I : Minor → Accept
Pub II : Accept
Pub III : Major → Minor → Accept
Pub IV : Reject → Reject → ? → ?
Pub V : Reject → ? → ?

Schedule:

From pre-examination to public examination it takes roughly six months



Career

The world is small. The persons you meet during the thesis process are your colleagues, competitors, and mentors in the future.

During the thesis work, collect as much skills, expertise, and knowledge as possible, develop your own strengths.

***“Don’t try to perform better than others
but better than **you** did in the past”***

(Everything you do) you do it for your career

The Dissertation Journey

Hover over each stage of the Journey to find out more about what to expect along the way.

