

Postgraduate Studies: Graduate School Experience

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Ph.D. Student

Centre for ICT4D, University of Cape Town

CSC1011H Invited Talk | May 18, 2016

Part I: Prologue

Prologue (1)



<http://wikimedia.org>

Prologue (2)

2003 – 2007

- B.Sc. Computer Science, University of Zambia

2007 – 2011

- Business Analyst, Database Administrator, Bhati Airtel

2011 – 2013

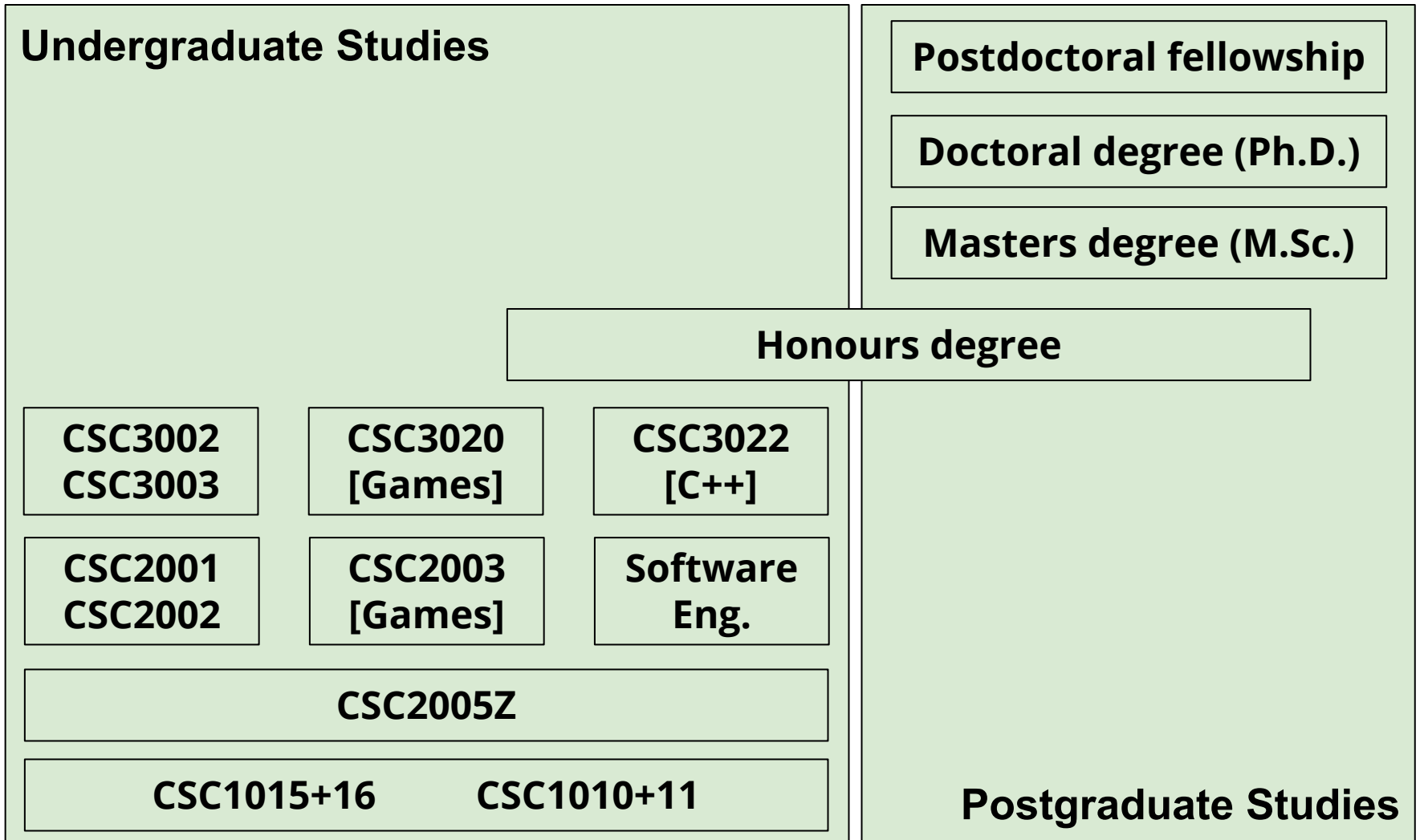
- M.Sc. Computer Science, University of Cape Town

2014 – present

- Ph.D. Computer Science, University of Cape Town

Part II: Graduate School

Undergraduate & Postgraduate studies in Faculty of Science (1)



Undergraduate & Postgraduate studies in Faculty of Science (1)

Undergraduate Studies

~5 years

B.Sc.: 3-4 years

Honours: 1 year

Postdoctoral fellowship

Doctoral degree (Ph.D.)

Masters degree (M.Sc.)

Honours degree

CSC3002
CSC3003

CSC3020
[Games]

CSC3022
[C++]

CSC2001
CSC2002

CSC2003
[Games]

Software
Eng.

CSC2005Z

CSC1015+16

CSC1010+11

~11 years

M.Sc.: 2 years

Ph.D.: 3-4 years

Postdoc: 1-5 years

Postgraduate Studies

Undergraduate & Postgraduate studies in Faculty of Science (2)

Undergraduate Studies

~5 years

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[Games]

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CSC3020
[Games]

CSC3022
[C++]

CSC2001
CSC2002

CSC2003
[Games]

Software
Eng.

CSC2005Z

CSC1015+16 CSC1010+11

Honours degree

Postdoctoral fellowship

Doctoral degree (Ph.D.)

Masters degree (M.Sc.)

~11 years
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Postgraduate Studies

M.Sc. degree in Faculty of Science

- Planning
 - Preliminary research ideas, funding arrangements, relocation, academic requirements
- Application
 - Provisional acceptance, formal application
- Registration
 - MoU with supervisor(s)
- Research
 - Do actual work
- Submission

Postdoctoral fellowship

Doctoral degree (Ph.D.)

Masters degree (M.Sc.)

~11 years

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Postgraduate Studies

CSC5001/2W: M.Sc. research focus (1)



digital libraries laboratory @ uct . cs

mission

The Digital Libraries Laboratory conducts research and provides support for information management problems with particular emphasis on the poor countries of the world with their associated unique constraints, such as cultural differences, limited Internet bandwidth and limited access to skilled staff. Our activities are research-focused, but include some advocacy, training and consulting. Our work is oriented towards the goal of making all forms of information (heritage, research, education, etc.) more accessible to all people.

For completeness, these pages also reflect all digital library activities within the CS department pre-2008, including those conducted within the AIM, CVC and HPC laboratories, and work conducted by Hussein Suleman before joining UCT.

As of 2013, the DL laboratory is part of the [Centre for ICT for Development](#). Students, projects and publications listed are typically related to either ICT4D, Digital Libraries or at the intersection of the 2 areas.

As of 2015, Maria Keet and her students have joined the DL laboratory, with a focus on multilingualism and African languages.

Contact [hussein](#) if you have any queries.

digital libraries
 **laboratory**

Contents


















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<http://dl.cs.uct.ac.za>

CSC5001/2W: M.Sc. research focus (2)

Simplifying the architecture of Repository tool and services

- Simplifying the architecture of repository software tools and services for easy management
- Redesign repository sub-layer of typical repository software

-  Acknowledgements
-  Abstract
-  Table of Contents
-  List of Tables
-  List of Figures
-  List of Abbreviations
- +  Chapter 1. Introduction
- +  Chapter 2. Background
- +  Chapter 3. Design principles
- +  Chapter 4. Designing for simplicity
- +  Chapter 5. Case studies
- +  Chapter 6. Evaluation
- +  Chapter 7. Conclusions
- +  Appendix A. Developer survey
- +  Appendix B. Experiment raw data
-  Bibliography
-  Index

<http://pubs.cs.uct.ac.za>

Ph.D. degree in Faculty of Science

- Planning
 - Preliminary research ideas, funding arrangements, relocation, academic requirements
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 - MoU with supervisor(s)
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Postdoctoral fellowship

Doctoral degree (Ph.D.)

Masters degree (M.Sc.)

~11 years

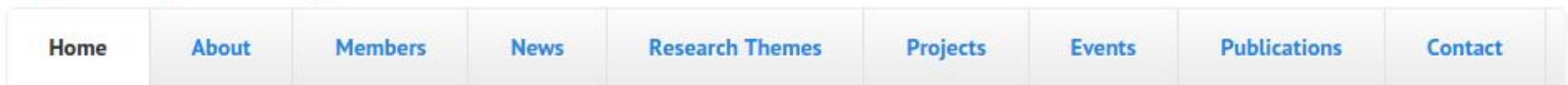
M.Sc.: 2 years

Ph.D.: 3-4 years

Postdoc: 1-5 years

Postgraduate Studies

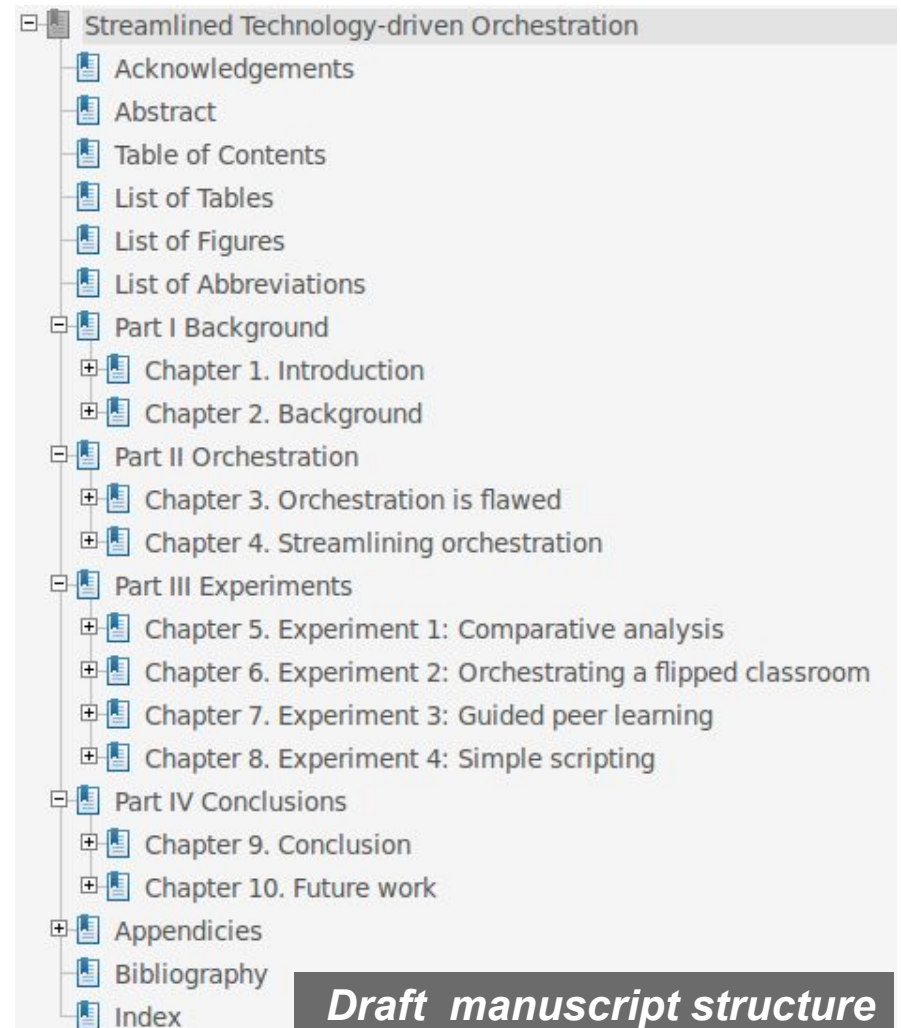
CSC6000W: Ph.D. research focus (1)



CSC6000W: Ph.D. research focus (2)

Exploring technology-driven orchestration

- A new approach for attaining streamlined technology-driven orchestration
- Building software tools and services to improve effectiveness of educators in formal learning spaces



The image shows a table of contents for a draft manuscript. The title is 'Streamlined Technology-driven Orchestration'. The contents are organized into four parts: Part I Background, Part II Orchestration, Part III Experiments, and Part IV Conclusions. Each part contains several chapters. The chapters are: Chapter 1. Introduction, Chapter 2. Background, Chapter 3. Orchestration is flawed, Chapter 4. Streamlining orchestration, Chapter 5. Experiment 1: Comparative analysis, Chapter 6. Experiment 2: Orchestrating a flipped classroom, Chapter 7. Experiment 3: Guided peer learning, Chapter 8. Experiment 4: Simple scripting, Chapter 9. Conclusion, and Chapter 10. Future work. There are also sections for Acknowledgements, Abstract, Table of Contents, List of Tables, List of Figures, List of Abbreviations, Appendices, Bibliography, and Index.

Streamlined Technology-driven Orchestration
Acknowledgements
Abstract
Table of Contents
List of Tables
List of Figures
List of Abbreviations
Part I Background
Chapter 1. Introduction
Chapter 2. Background
Part II Orchestration
Chapter 3. Orchestration is flawed
Chapter 4. Streamlining orchestration
Part III Experiments
Chapter 5. Experiment 1: Comparative analysis
Chapter 6. Experiment 2: Orchestrating a flipped classroom
Chapter 7. Experiment 3: Guided peer learning
Chapter 8. Experiment 4: Simple scripting
Part IV Conclusions
Chapter 9. Conclusion
Chapter 10. Future work
Appendices
Bibliography
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Draft manuscript structure

CSC6000W: Ph.D. research focus (3)

- *Comparative analysis prototype workbench*
 - *Technology stack: Bootstrap+POJ+NodeJS*
 - *Tooling: Bower+NPM+Git*

TOW 1.0 +

4

1

2

3

4

Content

Bookmarks

Calendar

Participants

Polling

Stored Energy in Fuels

1.1 What are fuels?

In Gr. 4, we learnt that there are many different types of energy. This year we are going to learn about stored energy and how we can use the stored energy to do something useful.

New Words

fuel

QUESTIONS

What do you understand about the term fuel? Discuss this word with your partner and write down your own definition below.

Learner dependent answer (a material such as coal, gas, or oil that is burned to produce energy)

Natural Sciences and Technology: Grade 5--B Teacher's Guide

1.1) What are fuels?

1.2) Burning fuels

1.3) Fire safety

Activities

Resources

Right C

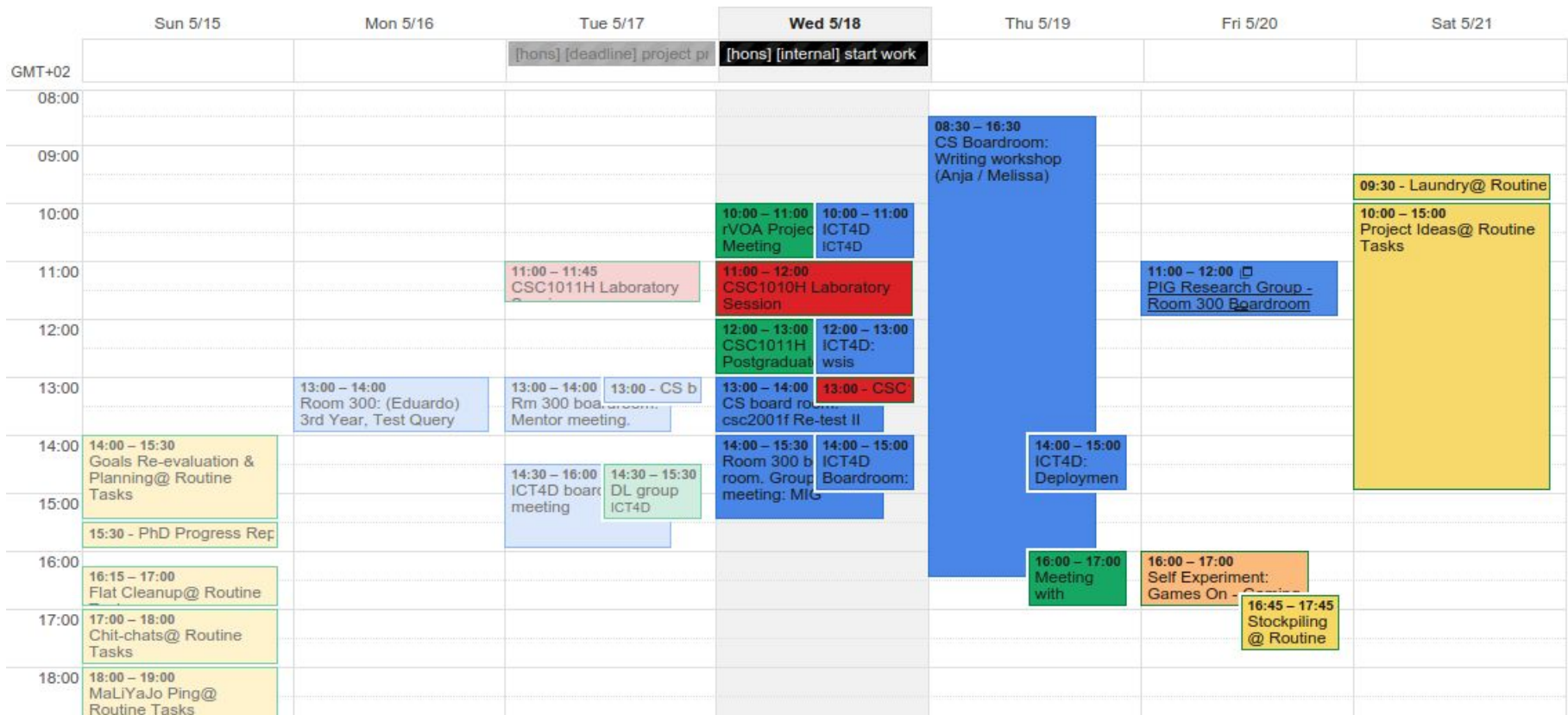
CSC6000W: Ph.D. research focus (4)

- *Flipped class case study prototype*
 - *Technology stack: Bootstrap+POJ*
 - *Tooling: Bower+Git*



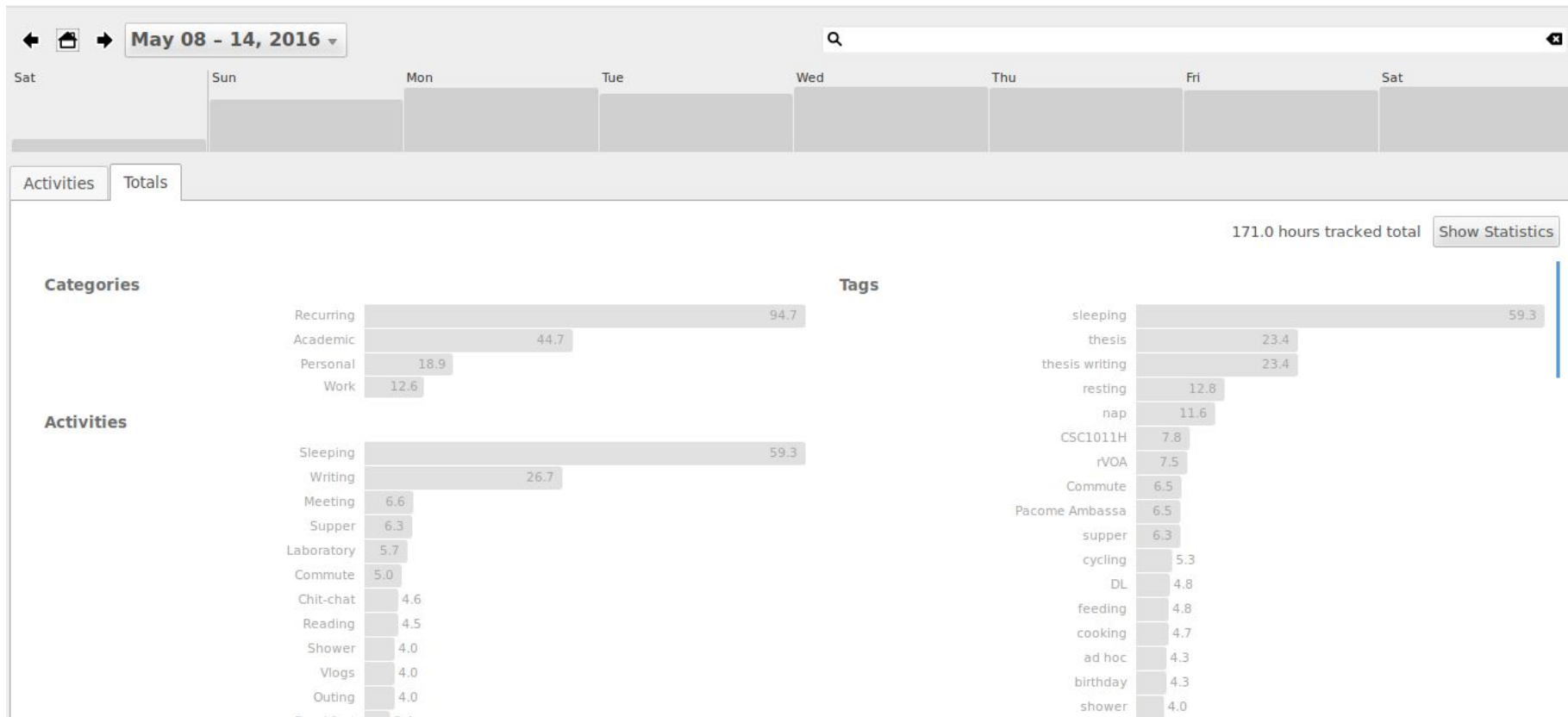
Typical week of a Ph.D. student (1)

I have found that organising my life increases my productivity



Typical week of a Ph.D. student (2)

I have found that tracking my time increases my productivity



Typical week of a Ph.D. student (3)

Academic activities (~61%)

- Read, write, review, prototype
- Research group reading sessions, seminars
- Honours students supervision (rVOA project)

Work activities (~11%)

- Teaching assistantship duties
- ICT4D centre duties
 - ICT4D centre executive committee student representative

Personal activities (~7%)

- ...

Part III: Epilogue

Thoughts about getting into graduate school

ADVICE: If you WANT to, NEED to or HAVE to, then get into graduate school

- Positives
 - Rewarding experience—working with smart and intelligent people
 - Firm grasp of science and research
 - Value of higher education qualifications (back home)
- Negatives
 - Financial stability
 - Conforming to rigid rules
 - Home and family

Concluding remarks

Make the best out of your university experience

- Study hard
 - Money is being spent to fund your stay
- Lookout for opportunities
 - Mini-projects with staff and postgraduate students
 - Tutoring, internships, events (breaktherules, uctdevsoc)
- Think about the future
 - What do you want to do with your life
 - Do you want to get into industry, academia or start your own venture

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