"OWNING" YOUR DPHIL

CS Dept. JCCG
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OWNING YOUR DPHIL…?

You've just heard all about the process and requirements…

…but how does it actually work --- and what goes wrong?

This is about **Project Ownership** and **Supervisor Relationships**

WHAT CAN POSSIBLY GO WRONG?

Supervisory relationships

- Good relationships lead to fewer delays and finishing sooner
- Understand what your supervisor expects and what you expect from your supervisor

Working Hours

- Studies have shown 4th year students tend to work 10 hours more per week than 1st years, on average
- Keep work-life balance! Consistency builds trust and fosters balance.

Deadlines & Goals

- Managing a long project takes practice & patience
- Your deadlines and progress are ultimately your responsibility

Source: Oxford Materials Dept JCCG

MANAGING YOUR DPHIL

Have you discussed expectations with your supervisor?

Project Ownership

- Do you have a plan?
- Are you ready for that plan to change?

Supervisor Relationships

- How often do you meet?
- How involved (personally, professionally)?
- Resources --- conferences, travel, equipment, space…

Source: Oxford Materials Dept JCCG

PAST STUDENTS

"Know what's a reasonable amount of time for things to take"

"Don't just go to your supervisor with problems and no solutions"

"The major thing I'd say is don't be afraid to talk to your supervisor as often as you can. They find nearly everything else they do more boring than your results"

An ingredient for success is to write and submit one or more substantial papers before half-way through the funding.

"The key is to plan to complete and submit within the duration of the initial funding, to work consistently"

"Don't ignore problems. If its broken then tell your supervisor(s)"

"My work always went better when I was talking regularly to them"

"If you get to a point in your work where you can't make any progress due to one serious bottleneck, you need to start developing alternative strands of research"

Source: Oxford Materials Dept JCCG

RESOURCES

Internal

- CS Department Handbook: https://www.cs.ox.ac.uk/teaching/dphil/docs/handbooks/Handbook2019.pdf
- Supervisor
- Students (especially in your group/theme)
- Your JCCG representatives
- CoGS Coffee

  Every Wed @1430, in the common room

External

- College advisor
- Oxford Learning Institute: http://www.learning.ox.ac.uk/supervision/
- Vitae: http://www.vitae.ac.uk/
- MPLS division skills website:

  http://www.mpls.ox.ac.uk

  http://www.mpls.ox.ac.uk/skills/gap

  Training Needs Analysis:

  https://www.mpls.ox.ac.uk/graduate-school/information-and-resources-for-supervisors/tna-for-dphil-students

Source: Oxford Materials Dept JCCG

OH, AND THE WORK…

Along the way, you also need to do some research.

At transfer, one of the goals should be to have a solid **research question(s)/ statement(s)**

Use as a vehicle to guide interactions with your supervisor

Recall the transfer requirements

- Topic and approach are suitable
- Clear knowledge and understanding of background
- An articulated plan
- You can describe your results

Source: Dept. of Computer Science Research Student Handbook 2014

EXAMPLE

Thesis Proposal (6 pages)

- - Introduction
- - Proposed Problems

    Itemized list of problems:

    P1. Problem statement

        - Description of problem
        - Requirements of problem
        - High level how problem will be approached
        - Reference to relevant literature (outline in detail in Lit Review)
        - Discuss relative risk, respond to potential drawbacks
- - Research to Date
- - Timeline (organize your problem statements above to reflect a timeline, if possible)

Literature Review (5000 words)

Source: Dept. of Computer Science Research Student Handbook 2014

EXAMPLE

1.2 Proposed Problems

Introduce the holistic view of your problems here. Provide a goal statement and brief supporting statements of methods to achieve those goals here.

P 1. Define the syntax and semantics for query language.

This problem will focus on defining the query language extensions required to support data integration and aggregation operations for data analysis. This language will support complex datatypes, including matrices. Complex datatypes will provide an optimization for aggregate queries in a distributed environment that will be described further in the next problem. Extensions will include operations that support interaction with external software and aggregate operations that manipulate complex objects and matrices. Thus, the extended language will require extensions to both the types and expressions of NRC.

The surface syntax of the language will be based on the Collection Programming Language (CPL) [10]. CPL was designed as a heavily sugared version of NRC and provides a clear syntax for performing comprehensions over collection types. CPL also provided a native means to specify operations over comprehension types by supporting interaction with external software via language primitives. The example query pipeline in Figure 1.1 for the MDD correlation analysis can be represented by the following CPL query:

```
{( v.#contig, v.#start, oddsratio @ ({( g.#call, c.#iscase ) | \g <- v.#genotypes,
        \c <- clinical, g.#patient = c.#patient })), | \v <- variants }
```

A surface syntax provides support to non-expert user to specify queries without the proposed language. The definition of such will be used to describe the data integration and aggregate queries that are described in the problems that follow.

*Bare in mind this is merely a sample of a student transfer proposal. Problem statement and structure will vary depending on application domain.

STUDENT PANEL

RESEARCH QUESTION WORKSHOP

Take turns discussing your research questions

- Focus on the question/statement (not necessarily the research area, but the presentation)
- Use the feedback to see if you can refine
- Practice for your transfer interview, report preparation
- Non-judgemental!

Goal: A *clearly articulated* question (or at least an idea about what it could be!)

RESEARCH QUESTION WORKSHOP (CONT.)

Examples:

- Too broad and does not define the segments of the analysis:

  Why did the chicken cross the road?

  (The question does not address which chicken or which road)

- Too narrow and overly specific:

  How many chickens crossed Broad Street in Oxford, on February 6, 2014?

  (Could be answered in one sentence and does not leave room for analysis. It could, however, become data for a larger argument)

- A more precise question:

  What are some of the environmental factors that occurred in Oxford between January and February 2014 that would cause chickens to cross Broad Street?

(Allows the author taking a stand on which factors are significant and argue to what degree the results are beneficial or detrimental)

Source: What Makes a Good Research Question?
http://twp.duke.edu/uploads/media_items/research-questions.original.pdf