Writing the ug4/MInf Dissertation

structure and style

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For the reader, should be an experience . . .

> *"like taking a walk with a good friend, and having them tell you a story"*

A story with *background*, *definitions* and *clear conclusions*.

As the writer of a dissertation, you should pitch the level of your material to a member of your own class. Someone good!

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Common Mistakes and Oversights

- Assuming too much from the reader.
  Insufficient background chapter, definitions but no examples, writing “clearly”(for something that needs justification)
- Lack of clarity about “who did what”.
  If you are using Matlab resources, the reader needs to be told what functions *you* wrote, and which other parts were written by `matlab-expert@online-resource` (say).
  Same for someone writing Android software and making use of code available online (on the many forae, blogs) for standard layouts, etc.
  SPELL IT OUT - “written by myself”, “taken from resource x”, “adapted from resource y”.

Common Mistakes and Oversights

- Weak evaluations.
  “I got my friends to try it out and they said they liked it.” Not sufficient. Even having a Questionnaire for the person testing the software is not enough - need to design questions carefully, and think about other ways of Evaluating (Don will speak).
- Poor Structuring/Guiding.
  Poor decomposition into chapters, background (work by others) drifting into later chapters, insufficient “guiding" of the reader.

Guidance from our project webpages

The top-level of the project webpages (not the 2018-19 page, the overall page) has a link to pointers on how to write the dissertation.
The guidance page (“Report requirements ...”) is at

http://www.inf.ed.ac.uk/teaching/courses/proj/report.html

Don also has organised pages containing the best dissertations from 2015-16, 2016-17, 2017-18. These pages are here:

http://project-archive.inf.ed.ac.uk/ug4

Setting out *your* Contributions

Directly from the recommendation of our *External Examiners*

> *This Introduction chapter should include a clear and concise summary of your contributions (examples: adapting a suite of existing code; interpreting a theoretical algorithm; coding; testing; conducting an experiment) preferably as a bulleted list.*

This advice was missed *even* by many of our excellent dissertations.
Some examples of dissertations which did it well are: Matthew Hepburn (2015-16), Teodor Marinov (2015-16) and Margus Lind (2016-17).

Informal Guidelines for writing the report

http://www.inf.ed.ac.uk/teaching/courses/proj/guide.html

- Matthew Hepburn (2016) wrote an excellent short! dissertation on a tool to simulate Finite State Machines. More words/pages aren't always better.
- Lenka Marekova (2018) does a very nice job of combining well-written explanations and theory/algorithms (and diagrams) in her work on E-voting protocols.
- Nevena Blagoeva (2018) writes a nice presentation of systems-building and evaluation for a Inf2B "workbench".