The Digital Futures Thesis Survival Guide or:

How I learned To Stop Worrying and Love my Thesis

Part 1

Companion document to

*DF Thesis Syllabus*
*Thesis stage 2: experimentation and development*
*Thesis stage 3: production, reflection and exhibition*

And

*Graduate Studies Guidelines for the Preparation of the Thesis*

Version 1 TB 16\textsuperscript{th} Sept 2012

DIGF6G01 MDES/MFA
DIGF6G02 MA
The Digital Futures Thesis Survival Guide or:
How I learned To Stop Worrying and Love my Thesis

Part 1

CONTENTS

- Introduction
- Confucius says a thesis has 3 parts but only 1 project
- How do I start?
- But how can I explain my creative process?
- So dude, where’s my method?
- Most methods you’re likely to need
- Yeh, yeh, how much do I write?
- Holy cow! Text citations, quotations, references and footnotes
Introduction

Holy crap! You suddenly have this huge thesis task ahead of you, you’re getting drowned in academic guidelines and advice from all directions.. and out of it all somehow you want to do the best project in your life so far. Feel any pressure? Nah!

Well if you didn’t feel a stack of pressure then you wouldn’t be human. On the other hand, just like alcoholics anonymous (I’ve heard) getting through a thesis is a combination of one day at a time plus keeping sight of the overall vision.

Digital Futures (DF) has crafted a thesis approach that gives you good structured support while letting you take a creative direction that you are passionate about. The structure is there to help you to achieve your aims.

This DF Guide has information that is additional to the ‘DF Digital Thesis Syllabus’ document and the Graduate Studies ‘Guidelines for the Preparation of the Thesis.’

We have our own approach because we want the set of complimentary components that make up the thesis to be innovative and evolve coherently in a project-based academic environment.

By being specific, this guide short-circuits some of the decision making that relates to things that are not very interesting – such as what system of referencing to use in your text. The guide also tells you how much you should be writing and when, as well as how to stage your prototypes. The guide even throws the most likely research methods your way – we can’t do your research but we can tell you which research paths are the most trodden.

Finally, the guide is simple because there is already plenty of administrative stuff to read and we’d prefer that you read some good books or articles than become an expert in OCADU’s beaurocracy.

In the end, this thesis process has to work for you, not vice versa. Plus you have to enjoy the whole thing and be able to look back on the dark moments (and there will be some) with a sense that you pulled off something really special. Our job is to help you get there :-)

– Tom
**Confucius says a thesis has 3 parts but only 1 project**

Remember that the breakdown of parts for a DF thesis project (MDes/MFA) is as follows:-

- Exhibition – the creative / created work (50% of grade)
- Presentation – the defence in person (25% of grade)
- Writing – the thesis document (25% of grade)

This will be by far your most substantial created work as well as written element and these aspects will interact and grow together as you research, prototype, iterate, and build.

Your work will evolve as a project that is reflected in the three thesis parts. The parts are complimentary and should evolve together and symbiotically. Things will go very wrong if you treat these three parts as individual projects or try to do them sequentially. The entire rationale behind the DF thesis is to give you a format that allows you to integrate the applied creative aspects of your work with academic research and prototyping. Throw in users and industry engagement where necessary and the result is a potent project-based research crucible in which you can forge your magnum opus (which is latin for your hottest creative achievement ever).

**Survival Tip 1:** make sure that you do something every week to progress each of the thesis components. For example: write a couple of pages (good for your document), make some physical models or prototypes (good for the created work), do a diagram that explains something (good for your presentation). And photograph what you are doing. The relentless accumulation of content and outcomes should be way too much and it will allow you to edit down to tell your story clearly and effectively.
How do I start?

Getting going with some basic planning is always a good idea. It is good to throw some lines onto a blank canvas early on – ask any artist. Planning isn’t creative and it often needs to be updated or changed, but it is a start. That’s right, it means you are actually working on your thesis rather than worrying about it.

First, do a gantt chart that is broken down week by week, starting now and running until the end dates. A gantt chart looks like this:

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Sub tasks</th>
<th>Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Literature review</td>
<td>Comics</td>
<td>1-3</td>
</tr>
<tr>
<td></td>
<td>Online</td>
<td>1-3</td>
</tr>
<tr>
<td></td>
<td>Books</td>
<td>1-3</td>
</tr>
<tr>
<td>2 User centred studies</td>
<td>Mouse experiments</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Frightening people</td>
<td>5</td>
</tr>
<tr>
<td>3 Try to take over the world</td>
<td>Attempt No. 1</td>
<td>6-8</td>
</tr>
<tr>
<td></td>
<td>Review attempt</td>
<td>6-8</td>
</tr>
<tr>
<td></td>
<td>Attempt No. 2</td>
<td>6-8</td>
</tr>
<tr>
<td></td>
<td>Reflect + document</td>
<td>6-8</td>
</tr>
<tr>
<td>4 Celebrate or commiserate</td>
<td>Party like it’s 1999</td>
<td>9</td>
</tr>
</tbody>
</table>

You can make a gantt chart in Excel or even word (like I did above). Although you can make cool charts in Illustrator and other packages it can be much slower to update them and you’ll be doing plenty of that.

If you are hardcore, then go ahead and use Microsoft Project – the visual results will be pig ugly but if you know how to use this software then you’re probably going to benefit from the many features, even though it is overkill when there’s only one person at work.

Looking at Pinky and the Brain’s project above, you can see they have taken our tips on making a successful gantt chart:
A gantt chart is a great way to see if you have balanced your workload: if you have too many overlapping activities then spread them out a bit.

You should also include iterations. Iterations are what makes creative design great and there is no such thing as linear design research. Pinky and the Brain programed in two attempts to try to take over the world, with time in between to reflect. They had time to document their work and they also didn’t prejudge the outcome of the project – their last task allowed for failure or success. Nice gantt chart!

**Survival Tip 2:** keep your gantt chart simple. If you stick to just main tasks and sub-tasks then both you and your supervisor will be able to follow it easily. If you have sub-sub-tasks and sub-sub-sub-tasks or more then it will be slow to update and hard to see the big picture. A good gantt chart fits on US Legal or A3 but a great gantt chart fits on US Letter or A4. You do need to include key deadlines (Pinky and the Brain have been careful to include their exam weeks).
But how can I explain my creative process?

Gantt charts are all good and well and they helped make the developed world great, but they don’t tell you much about your creative process. For that reason it is important to have first attempt at making a diagram of your creative process. An example is given below:

![Figure 1: a creative process](image)

Everybody generally has their own diagram – you may have several if you have been in practice or academia for a while, in which case why not draw them all? Just to show you how different these diagrams can be, another example is shown here:

![Figure 2: another creative process](image)

This diagram isn’t your research method or methodology – don’t worry about that for now. Research method sounds a bit scary and research methodology sounds like something the Scientologists invented. Well, it is just possible that they did ;-)  

So you’re drawing your own process diagram now before you get swamped with all the clever stuff that other people have come up with.
So dude, where’s my method?

If there’s one thing that research academics will have gone on and on about during your time at university it will have been research methods or methodology. If there’s two things, the other will be something weird and intangible they call critical thinking or critical analysis – more on that one later.

There are loads of research methods and because design is such a young discipline that was invented by Raymond Loewy in 1929, pretty much all the research methods have been borrowed from other fields. Trusty old science developed research methods as far back as 1000 years ago, although being empirical and measurable these methods tend to get messed up in design where the designer can be part of the experiment, creativity isn’t repeatable and there is plenty of subjective or qualitative stuff going on.

Fortunately, design researchers have been able to draw on methods from other fields which have to deal with qualitative (non-empirical) data and the social sciences in particular have been handy for that. Unfortunately, designer researchers have a bad reputation for abusing a lot of these methods and there are plenty of published papers out there in which a tiny sample of people is used to prove that a cup handle should be a particular shape and so on. Sometimes in design we just need to pick our terms carefully: it is rare for a design researcher to undertake a full blown ethnographic study, but a field trip can provide plenty of useful data. Oops, there we go using long words again! Ethnography is research that studies cultural phenomena. Actually, on long words, here’s the next tip.

Survival Tip 3: don’t use the word ‘methodology’ within earshot of your program chair. Academics love making words longer than they need to be and most words that end in -ology aren’t needed. If you are using several methods, call them your methods. You can use words like approach and program as well of course, your methods will sit within those.
Most methods you’re likely to need

DF has a certain ethos and we choose our students carefully to reflect that. This means that despite a varied range of disciplines among our students there are plenty of common goals and everybody is here to innovate and make creative works, benefit from the academic environment and generally engage with both users and industry. This makes it possible to list most of the research methods that you’re likely to need.

What makes research methods fun for a designer is that you don’t have to choose one method and be stuck with it. That would be like wearing somebody else’s tailored jacket which is fine if it belongs to your identical twin but otherwise a real drag. Instead, we can be inspired by the old wedding saying:

“Something old, something new, something borrowed, something blue”

Research methods really work best when you combine some of your own way of doing things with other methods to achieve things that you wouldn’t have been able to do previously, or certainly not as rigorously or convincingly as you can when you adopt research techniques.

OK, but what is the blue bit? That’s relates to faithfulness and purity. We’ll keep that in because it really does matter that your methods reflect how you have do the project, they are not just a few pages in your thesis to keep the examiners happy.

Sadly, research methods can be overused by design researchers who have little practical design experience. Conversely, designers with lots of practice-based experience don’t always understand the value of research methods. The result is two camps that don’t meet enough in the middle. DF is about making sure you have the skills from both camps and can combine them really effectively and fortunately we have the diversity of faculty to help you achieve that.

So now we have the listing of the methods you’re most likely to need. There isn’t much explanation of these because you have to do some of the heavy lifting here and look them up on the web or in books. Many have lots of variations and you can study those – as the young philosopher Britney Spears once sang, it is your prerogative to choose in the end.

The research methods a little far out as you get down the list:
Action research, participative involved
   getting down and dirty working with a group or community

Action research, participative objective observation
   watching what you started with a group as it happens

User-centred design
   The user’s needs and wants drive the design – even has its own ISO number (ISO 13407)

Research as prototype
   Continuous prototyping right from the start drives the research

Practice-based research
   Borderline as barely research (figure 1 was an example of that)

Reflective practice
   Practice-based research but you document how it is impacting on your development as a practitioner

Scientific Method
   Empirical evidence based on experiment and measurement

Grounded theory
   Theory evolves from research – good if you don’t want to start with a research question (figure 2 was an example of this)

Phenomenology
   Subjective experience and consciousness, sensorial

Ethnographic (Field study is more likely in DF)
   Cultural phenomena through interviews and the researcher

Structuralism (and rich pickings in cybernetics, granddaddy to HCI)
   Analysis of complex systems as interrelated elements

Constructivist learning (if you’re into epistemology..)
   Guided learning, discovery and the use of prior knowledge

Constructivist art (yes, it can be a method)
   Practice of art and design for a social purpose

Hermeneutics (now we’re really grooving!)
   Interpretive process, using all communication and even objects
One last thing. As designers we are messy, subjective and prone to bias. That is generally what makes us great at design. There is a fancy term for this in research. We call it eisegesis, in which our own agendas and suppositions are introduced into the work. You can do this, just make it clear when you are doing and note the implications. You need to be self-aware at all times. There is incidentally a counterword to this: exegesis is where meaning is coming from available information and discovery through external sources. Steve Jobs rode both of these tigers and so will most great creatives.

**Survival Tip 4:** Treat the creation of your design research method or methods as a special design project, and start to draw up your research method. You can take elements of your own creative process that you have diagrammed and you can add elements of other research methods that you think will help you to undertake your project. You may choose to have project stages in which you change methods, or several methods may run in parallel. Don’t make things too complicated: use your creative eye to keep it simple and clear. If the diagram can’t be understood by your supervisor without a long explanation or lots of text then you need to make another iteration. Keep all the versions you develop – this is part of your research work.
Yeh, yeh, how much do I write?

The requirement for the DF written part of the thesis is given below. It may seem like a lot, but that’s why you need to be working on it every week (see Survival Tip 1): as an ongoing activity it works out as just a couple of pages a week.

Main Thesis written text
   40 pages minimum, 50 pages maximum

References
   All the literature that you cite in the text: 2 pages minimum, 6 pages maximum

Bibliography
   list of all the relevant books that you read wholly or partially: 1 page minimum, 3 pages maximum

Diagrams/illustrations/images
   10 pages minimum, 25 pages maximum; placed within the text document but on separate pages

Appendices: 0 minimum, 20 pages maximum; used for code, 'side papers', related personal work, etc.
**Holy cow! Text citations, quotations, references and footnotes**

Firstly, we don’t want any footnotes at all in your written text. They are a pain to format and a source of great misery. They are unnecessary. So **no footnotes** in your DF writing.

Citations, quotations and references, though, are very important. We want these to be in an international format that is easy for you to get right and easy for you to move chunks of text around when you are editing your writing.

You can do deal with citations and references the hard way or the easy way. The hard way is to carefully follow the pages of guidelines that are given below. But just in case you are thinking of blowing your brains out there is an easy way:

**Survival Tip 5:** Everybody in DF needs to use Mendeley [http://www.mendeley.com/](http://www.mendeley.com/) which does some fantastic things to make writing your citations and references easy. In fact, it writes them for you! Mendeley is a free download and it gives you a desktop application, a web site and a plug-in for Word. It includes a search engine for papers (though you should still use Google Scholar and the OCADU online library search databases) and it lets you simply click to add references to a library. From there, you click to place them into your text as citations and it automatically makes your references at the end of your document. Even better, you can all share your references with each other using Mendeley. The great thing is that Mendeley really keeps you organised as your work progresses. Download it and learn it now!

But for completeness, below is the APA guidance for Citations, Quotations and References ("APA Style Essentials" University of Southern California, © 2000-2007 Douglas Degelman and Martin Harris) which you must use for your DF thesis document.

Hopefully though you will be feeding the rest of this guide to your dog, starting from here ->
Citations

Source material must be documented in the body of the paper by citing the author(s) and date(s) of the sources. The underlying principle is that ideas and words of others must be formally acknowledged. The reader can obtain the full source citation from the list of references that follows the body of the paper.

A. When the names of the authors of a source are part of the formal structure of the sentence, the year of publication appears in parentheses following the identification of the authors.

Consider the following example:

Wirth and Mitchell (1994) found that although there was a reduction in insulin dosage over a period of two weeks in the treatment condition compared to the control condition, the difference was not statistically significant.

B. When the authors of a source are not part of the formal structure of the sentence, both the authors and year of publication appear in parentheses. Consider the following example:

Reviews of research on religion and health have concluded that at least some types of religious behaviors are related to higher levels of physical and mental health (Gartner, Larson, & Allen, 1991; Koenig, 1990; Levin & Vanderpool, 1991; Maton & Pargament, 1987; Paloma & Pendleton, 1991; Payne, Bergin, Bielema, & Jenkins, 1991).

C. When a source that has two authors is cited, both authors are included every time the source is cited.

D. When a source that has three or more authors is cited, all authors are included the first time the source is cited. When that source is cited again, the first author's surname and "et al." are used.

E. To cite a personal communication (including letters, emails, and telephone interviews), include initials, surname, and as exact a date as possible. Because a personal communication is not "recoverable" information, it is not included in the References section. For the text citation, use the following format:

W. Skinner (personal communication, February 12, 1978) claimed ...

F. To cite a Web document, use the author-date format. If no author is identified, use the first few words of the title in place of the author. If no date is provided, use "n.d." in place of the date.

Quotations

When a direct quotation is used, always include the author, year, and page number as part of the citation.

A. A quotation of fewer than 40 words should be enclosed in double quotation marks and should be incorporated into the formal structure of the sentence. Example:

Patients receiving prayer had "less congestive heart failure, required less diuretic and antibiotic therapy, had fewer episodes of pneumonia, had fewer cardiac arrests, and were less frequently intubated and ventilated" (Byrd, 1988, p. 829).

B. A lengthier quotation of 40 or more words should appear (without quotation marks) apart from the surrounding text, in block format, with each line indented five spaces from the left margin.

References
All sources included in the References section must be cited in the body of the paper (and all sources cited in the paper must be included in the References section).

A. Format

The references (with hanging indent) begin on the line following the References heading. References must have hanging indents after the first line. Entries are organized alphabetically by surnames of first authors. Most reference entries have three components:

1. Authors: Authors are listed in the same order as specified in the source, using surnames and initials. Commas separate all authors. When there are seven or more authors, list the first six and then use "et al." for remaining authors. If no author is identified, the title of the document begins the reference.

2. Year of Publication: In parentheses following authors, with a period following the closing parenthesis. If no publication date is identified, use "n.d." in parentheses following the authors.


B. Examples of sources

1. Journal article


2. Journal article, Internet-only journal


3. Non-English journal article


4. Book


5. English translation of a book


6. Article or chapter in an edited book


7. Article in a published proceeding

8. Article in an electronic proceeding

9. Article in print magazine or newsletter

10. Article in the online magazine or news

11. Unpublished master’s thesis or doctoral dissertation

12. Report

13. Web document on university program or department Web site

14. Stand-alone Web document (no date)

15. Stand-alone Web document (no author, no date)

16. Journal article from database

17. Abstract from secondary database