

Writing Academic Papers as a Designer

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This talk is focusing on the publishing of exploratory design work. I have found several good resources online about how to write a good paper, but these have not addressed the issues I always face with my students, and which I need to explain again and again. Hence, I wanted to create a small slideset, which could explain the key ideas that I appreciate and which I would like to share.

Academic writing is not the printed display of one's fully formed thoughts. It starts with flawed, incomplete, vague hunches, ideas and concepts.

Murray, R., & Moore, S. (2006). *The handbook of academic writing: a fresh approach*. Maidenhead, England New York: Open University Press.

One of the key points to keep in mind is that writing on exploratory design is different from reporting ready-made thoughts. If there is a method to my own writing, I would call it re-writing. It, however, does not mean that I throw away the previous version! It is about re-using the best parts, throwing out the worst, and then leaving something aside for later consideration.

What's in a paper

- Title
- Abstract
- Introduction
- The Dilemma <- looks odd!
- The Project <- seems weird!
- Details
- Findings
- Conclusion
- References

This is the structure of an exploratory design paper. You may find two odd words here, which are not usually seen in academic papers in this form. These are “The Dilemma” and “The Project”. In the following pages I will go into the details of these, and show how these are presented so that you won't be immediately shot down by the reviewers.

Abstract

1. This is the dilemma
2. It is an interesting dilemma
3. This is what our project intended
4. This is what we contribute

This is what you should put into the abstract. A short abstract shouldn't require more than 4 sentences.

1. "This is the dilemma": The first sentence explains what is the problem/challenge/conundrum that the paper addresses
2. "It is an interesting dilemma": The second sentence opens up why it is an interesting dilemma, thus motivating the study.
3. "This is what our project intended": Here you tell what you did, what the project was about
4. "This is what we contribute": This is the contribution of your paper, it is real beef for the readers.

ABSTRACT

1 Scholars often face significant difficulties in making a clear
point in their writing. Arguing clearly is not only important
2 for authors in making their thinking more effective, but
good argumentation also makes reading more rewarding
and can reduce the time the readers need to spend figuring
3 out what is worthwhile to remember. This paper presents a
basic argumentation flow for a good paper, and functions as
4 a concretising example of how a paper makes a point. The
generic structure presented here can be applied in many
research publications across domains.

This could be an abstract. It has 4 sentences according to the scheme presented in the previous slide.

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ABSTRACT

Doing chores can be a source for stress and arguments in households. The felt responsibility for such chores can have negative effects on our health. The idea of collocational technology can be used to provide for a basis of shared responsibility for the execution of chores, as it can help communication and the feeling of togetherness.

This paper describes the work of a project that sets out to create a mobile app to support households in joint ownership and responsibility of chores, as well as equal distribution and commitment. The paper describes the route taken and design choices made in order to create this app. The result was a mobile app for use during household meetings that randomly distributes chores among household members and allows them to exchange these chores with each other via the use of an in-app resource.

Can you find the four parts in this abstract, which is taken from a real conference paper? This is a longer abstract and has more sentences about each of the points.

Introduction

- States the dilemma
- Describes the contributions

These are the two main points that a good introduction does. You should write these so that a reader, who comes from a different field than you can understand what the paper is actually addressing and what it is contributing. Introduction uses some literature references, but not many. It is good if you manage to keep the introduction within the first page of the paper (on most conference paper formats).

To add additional grip to your introduction think and explain why it is important to study this topic right now. And why the dilemma is interesting more generally than for you.

Introduction

- Introduction makes claims
- The rest of the paper provides evidence for the claims
- It also provides the necessary context for understanding the claims

The Dilemma

- This is the 'theory part'
- Describes clearly and in depth with references what forms the dilemma

The Dilemma refers to what is commonly labeled as “Background Theory” or the “Theory” section. Here you really go into the deepest conceptual depths about the dilemma that your paper talks about. It can be structured for example around a couple of key concepts, which are presented with relevant literature. This forms the conceptual foundation for the whole paper.

You are possibly familiar with the term “Literature Review”. Basically this section contains the results of your literature review, but in a different format. It is not a list of mentioning who has done what, praising their work and going on, but actually an argumentative section, where you dig into the key concepts of your work. So, instead of framing this section in terms of “Literature review,” “Related works,” or “Background theory” I simply would frame it as “The Dilemma”.

The label for this section could be the concept(s) that you are telling about. So, if your Dilemma is about User Experience, label the section about “The User Experience,” or even “The Dilemma of User Experience”.

The Project

- This is the 'methods and data' part
- States what the approach was in the project
- States the key activities that are analysed in this paper, i.e. what was done to create the knowledge
- Gives some numeric details about what you studied

Typically you are asked to include the “Method and Data” part into your work, whether it is an academic conference paper, journal paper, or thesis. When I was writing my own doctoral thesis I heard people saying that this (Method and Data) is the easiest part of your thesis. But for me, it was the most difficult one.

When writing as a designer, I got to know a not-too-old discussion about using designing as a legitimate research method. The field is called practice-led research, or Research through Design depending on where you look for it. The design project is instrumental for the production of new academic knowledge, and this section is where the way you produce it, becomes spelled out.

Details

- Explain all (and only) the necessary details for justifying your claims
- This is as 'raw empirical data' as it gets in your paper

This is the empirical part, or the grounding for whatever you are able to claim in your paper. This part contains the pictures, the transcripts, etc. which will enable you to justify your argument. This section is often called "the analysis" "the process" etc.

It is important to tease out, underline, point out, all the key issues from your data, which will be then recapped in the Findings section.

Findings

- Present what you discovered in the light of previous research

Findings need to be connected with literature. The paper often works rhetorically well, when you have introduced this literature in the Dilemma section, so that the reader can easily see the contribution in the light of the literature. Once the literature is already introduced, it could be expected that the reader might even get an 'aha' experience, when realising, how your data works with literature.

Conclusions

- Links back to the introduction and to the Dilemma
- Re-states the contributions

This is where you rise back to the level that you started your paper with.

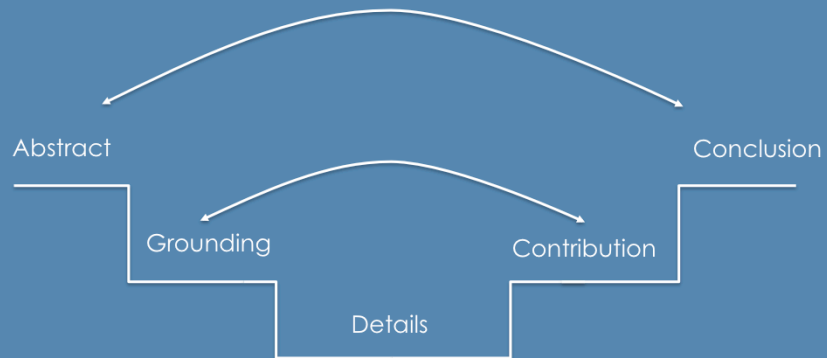
References

- Use Google Scholar to find what you need
- For many articles you can get the original files through SDU Summon (Google that to find it)
- Use a reference manager, e.g. Zotero

Reference manager is a real time saver! Forget the fiddling with keeping your reference list consistent with what you have actually cited in your text. The reference manger does this for you, automatically.

The Bathtub Model

- The conceptual structure of academic text



This is a simplified version of the Bathtub model, which my thesis supervisor presented to me. The idea is simple. The higher in the bathtub, the more general is the content.

The 'grounding' refers to the theory background/literature and the contribution is about your findings backed up by literature.