FOUR FAMOUS DISSERTATIONS AND THESES

A Thesis

Submitted to the Graduate Faculty

of the

North Dakota State University

of Agriculture and Applied Science

By

[Your Name]

In Partial Fulfillment of the Requirements

for the Degree of

MASTER OF SCIENCE

Major Department:

[Name of Degree option. This is optional.]

March 2022

Fargo, North Dakota

ABSTRACT

This short practical exercise is intended to help you learn how to work with the LaTeX typesetting system. It contains text, headings, tables and figures, equations, cross-references, citations, and bibliography. We hope you enjoy learning how to use LaTeX!

1. INTRODUCTION AND LITERATURE REVIEW
   1. Introduction

When writing your dissertation or thesis, you may be wondering who will ever read your work. And it is true: some theses and dissertations do not draw a wide audience. However, there is always a chance that the work you are doing will strike a nerve, lead to new discoveries, or even change the world.

This paper is a very brief discussion of four of these dissertations and theses. Two are from the field of Physics, two are from Electrical Engineering. The document is intended to be converted to LaTeX formatting for our workshop, and it contains the basic elements you may use in your dissertation or thesis: text, headings, a table, a figure, an equation, citations, and a references section.

Table 1. The Authors Given in This Thesis

|  |  |  |
| --- | --- | --- |
| Author | Field | Work |
| Marie Curie | Physics | Recherches sur les substances radioactives (or Research on Radioactive Substances) |
| Albert Einstein | Physics | *A New Determination of Molecular Dimensions* |
| Claude Shannon | Electrical Engineering | *A Symbolic Analysis of Relay and Switching Circuits* |
| Ivan Sutherland | Electrical Engineering | *Sketchpad, A Man-Machine Graphical Communication System* |

* 1. Literature Review

The citations included in this section are intended to be drawn from diverse sources – books, journal articles, and even popular articles drawn from the internet. We cite them here following APA conventions, and the References section at the end of the document also follows APA. Please feel free to use whichever style manual you prefer – LaTeX and BibTeX make it easy to change style manuals if necessary.

There is an extensive body of work that examines the process of writing the dissertation itself, including in specific disciplines. Borden (2005) has discussed writing an Architecture Dissertation, and Butin (2009) discusses the same within Education. More general guides are also available (Roberts, 2010; Rudestam & Newton, 2014). There is also work regarding the advisor’s role (Acker, 2002; Blanton, 1983; Cassuto, 2010).

To examine and survey famous or great dissertations, one can turn to what the internet is often best-known-for: lists! You can even find these in Google Scholar – for example, one list is focused on the field of Psychology (Roedinger, 2004). Of course, we must also seek out less-scholarly work (Online PhD Degrees; Gajani, 2014).

The next chapter will largely draw upon these popular sources.

1. FOUR FAMOUS DISSERTATIONS AND THESES
   1. Physics
      1. Marie Curie

Marie Curie’s 1903 PhD thesis (remember, in some countries PhDs write theses) is called *Recherches sur les substances radioactives* or *Research on Radioactive Substances*. The original copy of Curie’s thesis is, to this day, radioactive and must be stored in a special container.

A picture containing person, person, posing, dark

Description automatically generated

Figure 1. Marie Curie.

* + 1. Albert Einstein

Einstein’s PhD thesis from 1906 is titled *A New Determination of Molecular Dimensions*. Einstein would later go on to give us the famous equation:

E = mc2

While Einstein is often remembered as an older man with wild, gray hair, the below image, from 1904, shows a much different, much younger man.

A person sitting at a desk

Description automatically generated with medium confidence

Figure 2. Einstein in 1904, prior to completing his PhD.

* 1. Electrical Engineering
     1. Claude Shannon

He thought up the idea of using electrical switches to signal ones and zeroes in computer chips and basically ushered in the digital age of technology. His master’s thesis, titled *A Symbolic Analysis of Relay and Switching Circuits* was finished in 1937.

Diagram

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Figure 3. From Shannon’s Master’s Thesis – a Curcuit for an Electric Adder.

* + 1. Ivan Sutherland

Sutherland’s dissertation was on a technology tool called Sketchpad, and his dissertation was called *Sketchpad, A Man-Machine Graphical Communication System*. Sketchpad was a Graphical User Interface, and Sutherland is considered a pioneer in this area.

A picture containing text, indoor, person

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Figure 4. Sutherland Using Sketchpad.

1. CONCLUSION

We hope you have enjoyed today’s workshop, and that you can take the skills learned today in formatting your own dissertation or thesis using LaTeX.

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