THESIS TITLE IS AUTOMATICALLY TYPESET IN UPPERCASE

ABSTRACT PAGE WILL USE THE ORIGINAL CASE

ENTERED IN THE LATEX SOURCE FILE

Approved by:

_____

[Chair/Advisor Name]
(Department Name)
Dissertation Committee Chairperson

_____

[Committee Member]
(Department Name)

_____

[Committee Member]
(Department Name)

_____

[Committee Member]
(Department Name)

_____

[Committee Member]
(Department Name)

_____

[Committee Member]
(Department Name)
(Institution Name)

THESIS TITLE IS AUTOMATICALLY TYPESET IN UPPERCASE

ABSTRACT PAGE WILL USE THE ORIGINAL CASE

ENTERED IN THE LATEX SOURCE FILE

A Dissertation Presented to the Graduate Faculty of the

[Lyle School of Engineering]

Southern Methodist University

in

Partial Fulfillment of the Requirements

for the degree of

[Doctor of Philosophy]

with a

Major in [Major]

by

[First] [Last]

M.S., [Major], [Name of the Institution] (on the title page)
B.S., [Major], [Name of the Institution] (on the title page)

Month Date, Year

ACKNOWLEDGMENTS

This page is usually included but is not required. If included, it goes here ONLY IF YOU ALSO HAVE A DEDICATION PAGE. If you do not have a dedication page, the acknowledgment page comes directly before the text—as the last preliminary page.

Thanks.

[Last], [First]   M.S., [Major], [Name of the Institution], [Year] (on the abstract page)
B.S., [Major], [Name of the Institution], [Year] (on the abstract page)

<u>Thesis Title is Automatically Typeset in Uppercase</u>
<u>Abstract Page Will Use the Original Case</u>
<u>Entered in the LaTeX Source File</u>

Advisor: [Chair/Advisor Name]

[Doctor of Philosophy] conferred Month Date, Year

Dissertation completed MONTH DAY, YEAR

Abstract will be a short summary or overview of the thesis. Length can vary; 1-2 pages is a desirable length. Suggest you avoid using direct wording from other parts of the paper

Dissertation completion date can be optionally supplied while creating the abstract page. If a dissertation completion date is not given, then the template will automatically use the compilation date.

Previous degrees are added to this page using the \prevdegreeshort commands. The list of degrees on the title page is generated using \prevdegreeslong commands. This way the user can choose how their previous degrees appear on the Title and Abstract pages.

This is an abstract.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

This Dedication page is *optional*.

1. If you are not including a Dedication page, place the Acknowledgment page here. Else the Acknowledgment page should be placed before the Abstract section.

2. If the Acknowledgment page (generated using the `makeackpage` option of the LaTeX template) is placed here, then it will be automatically numbered and included in the Table of Contents.

3. If this page is used for Dedication (generated using the `makededicationpage` option of the LaTeX template), then the LaTeX template will not number this page and will not include it in the Table of Contents.

4. Read the comments in the `frontpages/preliminary.tex` file for more information.

Chapter 1
Introduction

Type your introduction here. This is "technically" your first chapter of the dissertation/thesis.

SMU Lyle School of Engineering Dissertation Class Documentation

`smudissertation.cls` (March 09, 2018, version 0.9) — a document class for dissertations and theses conforming to the revised 8/13/2012 Southern Methodist University, Lyle School of Engineering guidelines.

`smudissertation.cls` (April 02, 2018, version 0.9.1) — a document class for dissertations and theses conforming to the revised 8/13/2012 Southern Methodist University, Lyle School of Engineering guidelines.

`smudissertation.cls` is based on LaTeX2ϵ version 2017-04-15 and book.cls version 1.4h 2014-09-29. The book.cls is Copyright 1993–2016 The LaTeX3 Project.

This PDF file is generated by compiling `smu_dissertation.tex` file. The examples/discussion in this PDF file are from the original `dissertation.tex` document from Duke University[1]. However, the LaTeX `smudissertation.cls` class is written by Saurabh Gupta[2].

This file may be distributed and/or modified under the conditions of the LaTeX Project Public License, either version 1.3c 2008-05-04 of this license or (at your option) any later version. The latest version of this license is in http://www.latex-project.org/lppl.txt and version 1.3 or later is part of all distributions of LaTeX version 2003/12/01 or later.

2.1 Features

This class conforms to the 2012 SMU Lyle style guidelines for dissertations, including:

1. Margins: 1in top, 1in right, 1in left, 1in below footer for regular text.

    2in top margin is used on the preliminary pages.

    2in top margin is also used on the first page of: list of figures, list of tables, chap-

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[1] https://gradschool.duke.edu/academics/theses-and-dissertations

[2] Computer Science and Engineering Department, Lyle School of Engineering, Southern Methodist University. E-mail: sgupta@smu.edu

ter headings, appendix headings, and bibliography as per the SMU Lyle dissertation guidelines.

Abstract page and table of contents page has a 1in top margin.

2. Page ordering and numbering: Page numbers centered in the footer of each page. Roman numerals are used for page numbers in the frontmatter (preliminary pages prior to the Chapter 1). Starting with Chapter 1, Arabic numerals are used for page numbering.

3. 'Double' spacing throughout body text (really about 10pt extra instead of 12pt extra.)

4. Double spacing between and single spacing within the Table of Contents, List of Tables, List of Figures, Endnotes, Footnotes, Bibliography, and in chapter, section titles, and figure/table captions. Paragraphs are indented.

5. New commands to generate preliminary pages are detailed in Sections 2.3 and 2.4.

6. \frontmatter: Commands for all the preliminary pages should start after this command. Issue this command once and then issue all the commands for the preliminary pages. This is a LaTeX document class 'book' command.

7. Details regarding chapters, sections, subsections, figures, tables, etc., from the basic LaTeX document class 'book' are given in Chapter 3. Commands related to these macros have been redefined in the smudissertation.cls template to follow the SMU Lyle dissertation guidelines.

8. \mainmatter: Commands for all the numbered chapters should start after this command. Issue this command once and then issue commands for the remaining text. This is a LaTeX document class 'book' command.

9. Footnotes are numbered consecutively within a chapter and placed at the bottom of the page on which the reference number appears.

10. \backmatter: Commands for all the appendices, and the bibliography should start after this command. This is a LaTeX document class 'book' command.

2.2   Packages Used to Design the Template

The `smudissertation.cls` template has been designed to rely on minimal number of external LaTeXpackages. This is done so that the template ages well even if some external packages are discontinued in the future. This template uses the following LaTeX packages for some of its features:

ulem: Natively, LaTeX cannot underline long text with line breaks in it. The ulem package provides the `\uline{}` command to underline texts that include line breaks. The template uses this command to underline thesis title in the Abstract page as required by the Lyle dissertation guidelines. Package version used during template creation: 2012-05-18.

indentfirst: LaTeX does not indent the first line of the first paragraphs of any chapters/-sections by default. Using this package changes this default behvaior. Package version used during template creation: 1.03.

setspace: The native way of modifying `\baselinestretch` in LaTeX changes line spacing for text everywhere including footnotes, figure captions, etc. The package `setspace` handles this gracefully. More details at http://www.tex.ac.uk/FAQ-linespace.html. Package version used during template creation: 6.7a.

xifthen: This package is used for some conditional statements within the template using the `\ifthenelse` command. Package version used during template creation: 1.4.0

geometry: Makes setting up page geometry and margins easier. Package version used during template creation: 5.6.

custom_packages.tex: Some extra packages are configured and added in this file. The packages included in the `custom_packages.tex` are not required to use the template but they can provide some useful features.

2.3   New Commands to Enter Author Data Required for the Preliminary Pages

These commands are used to enter author data (name, graduation date, major, etc) that is eventually used by the commands (shown in Section 2.4) to generate the preliminary pages.

Thus, these commands need to be issued before issuing all the commands for the preliminary pages.

1. `\smuthesistitle`: This command is used to enter the thesis title. Example usage: `\smuthesistitle{Your Thesis Title. Used verbatim in Abstract}}`

   Internally it generates two commands used by different macros in the template:

   - `\MYTHESISTITLE`: Converts the title to all UPPERCASE. Used internally while generating the Approval and the Title page.
   - `\mythesistitle`: Preserves title case as entered by the user. Used internally while generating the Abstract page.

2. `\smuschool`: This command is used to enter the name of the school. Example usage: `\smuschool{Lyle School of Engineering}`.

3. `\authorfirst`: This command is used to enter the author's first name. Example usage: `\authorfirst{FirstName}`.

4. `\authorlast`: This command is used to enter the author's last name. Example usage: `\authorfirst{LastName}`.

5. Commands to Enter Previous Degrees and Degree Years: To provide more flexibility to the users, two separate commands are defined to enter the list of previous degrees of the author. This way the list of the previous degrees can be shown in different formats on the Title and the Abstract pages.

   - `\prevdegreestitle`: Previous degrees entered using this command show up on the Title page. Users can enter longer degree names as there is more horizontal space available on the title page.

     Previous degrees for the Title page can be entered as follows. Example usage:

     `\prevdegreestitle{M.S., Major, Institution Name}`

     `\prevdegreestitle{B.S., Major, Institution Name}`

- `\prevdegreesabst`: Previous degrees entered using this command show up on the Abstract page. Users can choose to enter shorter degree names to fit in the available horizontal space on the Abstract page. Degree conferral dates/years can also be entered here if the user wants their degree years to appear on the Abstract page and not on the Title page.

  Previous degrees for the Abstract page can be entered as follows. Example usage:

  `\prevdegreesabst{M.S., Major, Institution Name, Year}`

  `\prevdegreesabst{B.S., Major, Institution Name, Year}`

6. `\smudegreedate`: Official degree conferral month and date. Example usage:

   `\smudegreedate{Month Date}`

7. `\smudegreeyear`: Official Degree conferral year. A separate command is defined for degree conferral year because the copyright page needs just the year. Degree date and year is used on the Title page and the Abstract page. Example usage:

   `\smudegreeyear{Year}`

8. `\committeeChair`: This command is used to provide the name of the thesis advisor/committee chair. Optionally user can also enter advisor's department/institution name which will be used for the Approval page if its provided. Example usage:

   `\committeeChair{Chair/Advisor Name}` – Chair name without department name.
   `\committeeChair[Optional Department Name]{Chair/Advisor Name}` – Chair name along with the department name.

9. `\committeeMember`: Names of all the committee members for the Approval page can be given using this command. Similar to the `\committeeChair` command, this command can also be used to supply department name. Example usage, adding names of 5 members (more names can be added):

   `\committeeMember[Department Name A]{Committee Member A}`

   `\committeeMember[Department Name B]{Committee Member B}`

   `\committeeMember[Department Name C]{Committee Member C}`

```
\committeeMember[Department Name D]{Committee Member D}

\committeeMember[Department Name E \\ Institution Name]
{Committee Member E}
```

2.4   New Commands to Generate Preliminary Pages

Preliminary pages (front pages) should be precluded by the `\frontmatter` command. Issue the `\frontmatter` command only once and then add commands for all the preliminary pages *in order*. Preliminary pages before the actual text/chapters, are generated using the following commands and environments:

1. `\makeapprovalpage`: Approval page

2. `\maketitlepage`: Title page

3. `\makecopyrightpage`: *(Optional)* Copyright page

4. Environment `makeackpage`: *(Optional)* Acknowledgments can be written between `\begin{makeackpage}` and `\end{makeackpage}`. Starting from this page, all the preliminary pages will show page numbers in roman numerals. Place Acknowledgments here **ONLY** if the Dedication page is used as well. See 9.

5. Environment `makeabstractpage`: Abstract can be written and formatted between `\begin{makeabstractpage}` and `\end{makeabstractpage}`.

   Abstract environment automatically generates the 'Dissertation completed' date for the Abstract page. However, users can provide custom dissertation completion date by using `\begin{makeabstractpage}[Month Date, Year]` and `\end{makeabstractpage}`

6. `\maketableofcontents`: Table of Contents

7. `\makelistoffigures`: List of Figures

8. `\makelistoftables`: List of Tables

9. Environment `makededicationpage`: *(Optional)* Dedication can be written between `\begin{makededicationpage}` and `\end{makededicationpage}`. Dedication page will not be numbered. If the Dedication page is **NOT** used then place the Acknowledgments page here. See [4](). *IF* the Acknowledgments page is placed here then it will be numbered and included in the Table of Contents. `smudissertation.cls` takes care of this automatically.

Chapter 3

Basic Document Class Features

This chapter is an example of how to format normal material in the dissertation style. Most of this information is standard to LaTeX.

3.1 Intra-chapter divisions: Bold Section Titles

Section headlines are `\textbf{bold}` and in the standard font. Compare them to subsections below. Likewise, you can use the next level of sectioning.

3.1.1 Subsections: Normalfont Subsections

Subsections are in normalfont. Subsections are numbered and appear in the Table of Contents.

3.1.1.1 *Subsubsections: Wow! Italics!*

Yes, italics. You may now dance. Isn't it funny that upright letters are called "roman" while slanted letters are "italic". That's like Italian, and Romans are Italians too. What gives?

Subsubsections are allowed, numbered and appear in the table of contents.

Paragraphs   These divisions are unnumbered and do not appear in the Table of Contents.

Subparagraphs   This is the finest division possible. It's also unnumbered and omitted from the Table of Contents.

3.2 Let's do some math

Let's look at an equation:

$$\partial ft = f(t) \quad \text{subject to} \quad f(0) = c. \tag{3.1}$$

You can get a second derivative like $\partial^2 ft^2$ by adding some sneaky superscripts. Fancy.

More advanced equation formatting is available in the AMS environments. See the guide amsmath user's guide. Here are some nice examples of cases people usually have trouble with.

An equation that's too long for one line — use `multline`:

$$a + b + c + d + e + f + g + h + i + j + k + l + m + n + o$$
$$= p + q + r + s + t + u + v + w + x + y + z. \quad (3.2)$$

An equation with multiple parts and one number per line — use `align`:

$$a_1 = b_1 + c_1 \quad (3.3)$$
$$a_2 = b_2 + c_2. \quad (3.4)$$

The same equation, set inside the `subequations` environment:

$$a_1 = b_1 + c_1 \quad (3.5\text{a})$$
$$a_2 = b_2 + c_2. \quad (3.5\text{b})$$

Notice that by clever placement of labels, I can reference the pair via (3.5), the first (3.5a), or the second (3.5b). One number for multiple equations can be accomplished using the `split` environment:

$$
\begin{aligned}
a &= b + c - d \\
&\quad + e - f \\
&= g + h \\
&= i.
\end{aligned}
\quad (3.6)
$$

People often struggle under the complicated and ugly 'eqnarray' environment. Don't do it!

The AMS ones are easy. Other stumbling blocks are cases:

$$a = \begin{cases} b & \text{for } x > 0 \\ c & \text{otherwise,} \end{cases} \tag{3.7}$$

matrices:

$$A = \begin{pmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{pmatrix} = \begin{bmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{bmatrix}, \tag{3.8}$$

and evaluation bars:

$$a = \left. \frac{\partial u}{\partial x} \right|_{x=0}. \tag{3.9}$$

See the source file for details.

When we reference an equation with something like `\eqref` (3.1). If you click on the above references in the PDF, your viewer should scroll up to the above equation. It's handy. Labels and references may be attached to all sorts of objects. There is a `\label` attached to this chapter (it appears at the top of this file), and we may reference it by (`Chapter~\ref{chap:documentClass}`), producing "Chapter 3". By default these ref's are hyperlinked as well. Later, we'll see labeled and referenced figures and tables. Particular pages may be labeled with standard `\label` commands in the text and referenced via `\pageref`.

You might also like the links from `\cite` commands to the corresponding bibliographic entry. Go look at this imaginary book by Stephen Colbert [1]. If you're not a bibtex expert, look in `mybib.bib` at the `@ARTICLE` that generated this entry. It shows an example of accents on author names and how to preserve upper-case for letters in the title. Other entries show the use of the `nd } keyword between` uthor names. You may order a particular author's name as either "first last" or as "last, first". The actual format of the bibliography is controlled by the `\bibliographystyle{}` command in `smu_dissertation.tex`.

3.3   Table of Contents Behavior

Now is a good time to look back at the Table of Contents. Notice that you may click on entries here to warp to the corresponding document location. In Adobe Acrobat and many

Figure 3.1: Longer caption for actual body of dissertation. Figure captions should be BE-LOW the figure.

other viewers, you can open a 'bookmarks' pane. This should be populated with named and numbered sections and subsections identical to the Table of Contents.

3.4   Figures and footnotes

Figures are set with very little space between the caption and the bottom of the included graphic. This is because most graphics programs pad the edges of images. If you find the spacing unsatisfactory, you may always add a bit manually. The text of the caption is single-spaced, and the word 'Figure' is set in small caps. See Fig. 3.1. Notice the use of the nonbreakable space "~" between the "Fig." and the reference. Figures (and tables) are examples of 'floats — objects that LaTeX decides where to place for you. You may give LaTeX some hints. Change the \begin{figure}[tbp] to a \begin{figure}[b!] to restrict the placement. Inside the [ ], you can put the following

t Allow placement at the top of the page

b Allow placement at the bottom of the page

h Allow placement 'here', in the middle of the page close to the text that the figure environment appears next to.

p Allow placement on a seperate 'floats page' that has no body text.

! Tighten the screws on the placement algorithm. This doesn't force things to happen as you say, but it makes it much more likely. Be careful: the bang option can cause figures to appear above the chapter title and in other bad locations.

Notice that each entry just changes what is *allowed*, but no preference among the entries can be registered. The default is [tbp], which is a very good default for a document like this, since floats in the middle of a page trap too much whitespace for double-spaced text. There is also a prohibition against having a page with more than 75% float. Instead, long floats will get kicked over onto float pages. Float pages are often a bad idea, as the creation of one will often cause a domino effect, with all subsequent figures appearing on float pages themselves, and all these float pages appearing together at the end of the chapter. (This is more like sinking than floating.) Avoid this by physically moving where the figure environment appears in your source file to an earlier location. Don't be afraid to put the environment before the first spot you reference it! Many float problems can be solved by a combination of relocating the figure environment and a little fiddling with the [ ] options.

Also notice the order of the graphic, caption, and label. If you deviate from this, strange things can happen. The caption of this figure shows the use of short captions (inside [ ]). These caption appear in the List of Tables, while the { } captions appear in the body. If you omit the [ ] short caption, the long caption will be used in its place.

Another technical note: since this style sheet is designed for processing by pdflatex, `includegraphics }` `looks` `for` textttPDFs, PNGs, and JPGs instead of the usual PS, EPS, and TIFF formats. You can convert existing graphics with a vareity of tools. PDF graphics are preferred, as they scale nicely. The open-source software Inkscape runs on Mac OSX, Windows, Linux, and some UNIX variants. Versions 0.46 and beyond have great support for creating and editing PDFs. It can even be used to convert other docs.

Table 3.1: Long table caption appears on in the body text. See the short caption in the List of Tables. Table captions need to be ABOVE the table.

Numbers	Letters	Symbols
1	a	†
2	b	⌣
3	c	×
4	d	♯

3.4.1 List of Figures

List of Figures is automatically generated for you if you do a `\listoffigures` in the master file. Go look at the list of figures now. You should be able to click on the figure number to warp to the figure. You'll also see the result of the 'short caption' used above.

3.5 Table example

Just to make sure tables are formatted correctly, here's an example of a table float, see Table 3.1. You should note that [b] formatting (`\begin{table}[b]`) can cause floats to appear under the footnotes. Try changing it here and see the ugliness. Tables are identical to figures, except that the word 'Table' appears in the caption and its entry is in the List of Tables instead of the List of Figures. Captions are placed above the table. Note the order of caption, label, and table here.

3.5.1 Footnotes

Footnotes are allowed.[1] They are numbered with arabic numerals inside each chapter and appear at the bottom of the page.[2] The little footnote numbers are also hyperlinks. Try clicking them. You should place the footnote command immediately following the period of the sentence it is attached to. Any spaces or newlines will result in strange spacing between the number and the sentence.

---

[1]But, you should probably just work them into the text since it's annoying to jump around when reading.

[2]...rather than the end of the chapter or the thesis. Those would properly be endnotes, I guess.

3.6 Corner cases in formatting, such as very very very long section titles. Man, this goes on forever.

Common corner-cases involve very long titles (like above). In these cases, the long titles are set single-spaced both here and in the Table of Contents.

3.6.1 Figure and Table caption cases are neat, and this is an absurdly long subsection heading

Consider the shield logo again with an absurd caption, as in Fig. 3.2. Also examine the new table, Table 3.2. Both of these have been forced onto a floats page so you can see what that looks like.

SM

Figure 3.2: The SMU logo again, but now with a really long rambling caption. This caption should be set single-spaced in the LoF and in the body text. What do you think about having graphics in the main directory of a project? I'd prefer them in a folder, then put 'foldername/picturename' as the argument to includegraphics.

Table 3.2: The same silly table again, but with a really long caption.

Numbers	Letters	Symbols
1	a	†
2	b	⏑̈
3	c	×
4	d	♯

Chapter 4

ALL CAPS TITLE: LOREM IPSUM TEXT FOR LAYOUT PROOFING

Enjoy some Lorem Ipsum text! This should create about two full pages of text so you can verify the margins are correct (especially if you're doing two-sided).

4.1 Lorem Ipsum

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Sed vitae leo. Pellentesque quis nisi id orci consectetuer posuere. Quisque malesuada rhoncus dui. Vivamus mi. Mauris commodo. Phasellus lacus magna, feugiat ac, blandit ut, rutrum id, massa. In consectetuer magna vel justo. Cras eu diam. Nullam tortor turpis, bibendum non, consequat ac, tincidunt non, nisi.

Curabitur sagittis dignissim arcu. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Vestibulum ullamcorper. Curabitur faucibus euismod nulla. Vivamus sagittis. Sed fermentum neque a risus vestibulum convallis. Morbi id massa ut arcu mollis commodo. Aliquam erat volutpat. Pellentesque fringilla pellentesque nisi. Morbi tristique ornare libero. Vestibulum turpis sapien, iaculis ut, cursus non, condimentum in, tortor. Aenean vehicula. Integer egestas tincidunt erat. Aenean euismod ante vel lectus. Duis ac sapien vel erat euismod aliquet. Vivamus tempor placerat nibh. Curabitur pharetra, orci consequat pulvinar ultricies, orci enim tempor augue, non lacinia orci nisl et nibh. Nunc gravida dictum turpis. Duis sollicitudin commodo massa. Nam ac nunc. Fusce sodales posuere velit. Nunc ullamcorper sodales urna. Donec consectetuer accumsan ante. Morbi feugiat rutrum mauris. Praesent malesuada auctor est. Pellentesque quis odio non nulla ornare imperdiet. Aliquam dapibus. Suspendisse posuere, magna in molestie varius, ipsum velit rhoncus nisi, nec bibendum pede mauris in urna. Morbi purus lectus, molestie quis, laoreet id, tincidunt at, ligula.

Praesent sit amet libero id arcu adipiscing tristique. Quisque libero erat, bibendum nec,

malesuada in, gravida et, urna. Phasellus molestie vulputate nisi. Nullam massa magna, dignissim ac, accumsan a, scelerisque eu, erat. Nam tellus augue, tempus nec, molestie sit amet, rhoncus vel, libero. Vestibulum at neque. Aliquam laoreet tincidunt mi. Ut laoreet ligula ac urna. Nullam nisl pede, posuere id, dictum a, fermentum vitae, turpis. Nulla ante mauris, euismod et, mollis eu, tempor in, quam.

In pede augue, elementum varius, tincidunt in, condimentum ut, erat. Etiam vulputate faucibus velit. Aliquam porttitor. Nam fringilla adipiscing nisi. Sed in magna. Aenean non ante. Aenean facilisis, nunc sed aliquam porta, magna est aliquam nisi, vitae semper turpis orci ac dolor. Praesent nec tellus. Cras vulputate rhoncus sem. Curabitur eu mi. Mauris euismod lacinia nibh. Suspendisse eget sapien et nunc accumsan elementum. Nulla dapibus. Donec interdum elit mattis velit imperdiet aliquet. Mauris feugiat, ante vel faucibus rutrum, eros mauris sollicitudin neque, ut varius diam ipsum et massa. Nullam non nisi sit amet tortor rhoncus molestie. Cras consectetuer condimentum ante. Phasellus fermentum risus fermentum turpis. Mauris dignissim iaculis sem. Fusce nisi lorem, viverra id, auctor et, scelerisque ut, massa. In hac habitasse platea dictumst. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Aliquam pulvinar neque ac dolor.

4.2   More Lorem Ipsum

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Sed vitae leo. Pellentesque quis nisi id orci consectetuer posuere. Quisque malesuada rhoncus dui. Vivamus mi. Mauris commodo. Phasellus lacus magna, feugiat ac, blandit ut, rutrum id, massa. In consectetuer magna vel justo. Cras eu diam. Nullam tortor turpis, bibendum non, consequat ac, tincidunt non, nisi. Curabitur sagittis dignissim arcu. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas.

Vestibulum ullamcorper. Curabitur faucibus euismod nulla. Vivamus sagittis. Sed fermentum neque a risus vestibulum convallis. Morbi id massa ut arcu mollis commodo. Aliquam erat volutpat. Pellentesque fringilla pellentesque nisi. Morbi tristique ornare libero. Vestibulum turpis sapien, iaculis ut, cursus non, condimentum in, tortor. Aenean vehicula.

Integer egestas tincidunt erat. Aenean euismod ante vel lectus. Duis ac sapien vel erat euismod aliquet. Vivamus tempor placerat nibh. Curabitur pharetra, orci consequat

pulvinar ultricies, orci enim tempor augue, non lacinia orci nisl et nibh. Nunc gravida dictum turpis. Duis sollicitudin commodo massa. Nam ac nunc. Fusce sodales posuere velit. Nunc ullamcorper sodales urna. Donec consectetuer accumsan ante. Morbi feugiat rutrum mauris. Praesent malesuada auctor est.

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APPENDIX A

Ode to Spot: (Data, Stardate 1403827) Throughout the ages, from Keats to Giorchamo, poets have composed "odes" to individuals who have had a profound effect upon their lives. In keeping with that tradition I have written my next poem . . . in honor of my cat. I call it. . . Ode. . . to Spot. (Shot of Geordi and Worf in audience, looking mystified at each other.)[1]

> Felus cattus, is your taxonomic nomenclature
> an endothermic quadruped, carnivorous by nature?
> Your visual, olfactory, and auditory senses
> contribute to your hunting skills, and natural defenses.
> I find myself intrigued by your sub-vocal oscillations,
> a singular development of cat communications
> that obviates your basic hedonistic predilection
> for a rhythmic stroking of your fur to demonstrate affection.
> A tail is quite essential for your acrobatic talents;
> you would not be so agile if you lacked its counterbalance.
> And when not being utilized to aid in locomotion,
> It often serves to illustrate the state of your emotion.

(Commander Riker begins to applaud, until a glance from Counselor Troi brings him to a halt.) Commander Riker, you have anticipated my denouement. However, the sentiment is appreciated. I will continue.

> O Spot, the complex levels of behavior you display
> connote a fairly well-developed cognitive array.
> And though you are not sentient, Spot, and do not comprehend
> I nonetheless consider you a true and valued friend.

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[1] www.niu.edu/rwinkler/tex/niuthesis/example/app2.tex

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