

Version 1; January 29, 2004

Guidelines for Writing an Internship Report

Master of Electronic Commerce (MEC) Program

Dalhousie University

This document is partly based on the Co-op work term report guideline of the Faculty of Computer Science at Dalhousie University.

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1. Introduction

The internship is an integral part of the Master in Electronic Commerce program. This work term should provide you with valuable insights into the professional and industry-oriented side of electronic commerce in practice. To fulfill the academic requirements of the internship you are required to submit an internship report following the specifications outlined in this guide. Please consult the program web pages for the latest version of this guideline.

Success at the workplace demands effective communication skills. Your unique proposal for a new software package or marketing scheme will die on the drawing board if you cannot convince others of its potential. Most work place communication is written. To grab attention it must concisely articulate a clear, interesting message. An involving topic, an organized text, and a readable style increase the likelihood of your work being noticed and taken seriously. Often, written work such as reports, assessments and memos are the first and only impression upper management receives of you. Your writing becomes your sole representative and reflects the quality, accuracy and professionalism of your daily work activities.

An Internship Report for the electronic commerce program must include an outline of the business of the company for which you worked, summarize the work you did, and discuss the specific electronic commerce relevant aspects of your work term. The report must demonstrate your ability to communicate what you have done in your internship, it must demonstrate your ability to relate your work to the bigger picture, and it must demonstrate your ability for critical thinking. You have to demonstrate that your internship had a major electronic commerce component, or that you are able to relate your work term to electronic commerce issues.

The goal of this document is to help you write an appropriate internship report. This guide attempts to explain the purpose of the internship report, it includes recommendations on the focus your report should take in order to fulfill the academic requirements associated with the internship, and it offers some suggestions on improving your writing style. It is recommended that you study this guideline before you commence your internship.

2. The Required Components and Purpose of an Internship Report

Your internship report has to contain three subject areas:

1. Outline of the background and specific business of the company and/or department in which you performed your internship;
2. Outline of the work that you have performed in the company;
3. A discussion of a specific electronic commerce issue related to your internship.

The first two components can be brief, and they can be included in the introduction of the report. The major focus of the report should be on the third component, the critical discussion and analysis of a specific internship-related topic. We refer to this component as **analytical component**. The analytical component should relate academic knowledge to practical experience. Its purpose is to help you develop written and analytical skills; you will not only gather information but interpret, organize and present it clearly and understandably.

It is common that the analytic component and the demonstration of the electronic commerce focus of the internship is perceived as a major challenge of the internship. However, note that it is well acknowledged that many aspects of your daily work can be praxis oriented rather than academically oriented. It is thus clear that your work might include administrative duties as well as mundane tasks required by your employer. It is, of course, important that you follow the direction of your employer. However, to pass the academic requirements of the internship you must go, if necessary, beyond the following of instructions and demonstrate your ability in critical thinking and the electronic commerce field. Thus, the internship report allows you to examine aspects of a project or the organization beyond the work performed by the company. Ideally, the report will be of practical benefit to your employer and demonstrates initiatives beyond your instructed work.

3. Developing your Report

3.1 Research and Planning Phase

Starting early is the key to producing a top-notch, professional report. Last-minute efforts are reflected in a lack of research and poor quality of writing and usually result in an "unsatisfactory" grade. While you cannot write your report the first month on the job, you can begin gathering information and outlining your ideas. Once you have chosen a topic, keep a notebook to record your activities related to the report's research -- methods, observations, meetings attended. Preparation is an on-going process.

Planning is essential -- a well-laid out, logical report reflects similar thinking. Decide what you want to say and to whom and keep that in mind as you organize your thoughts. Gather together all the information you have collected and divide it into categories. You may want to put each section heading on separate pieces of paper and rearrange them until you have found a satisfactory order. Some of what you have gathered will be useful as background information in the introduction, some as support material in the appendices and some will be discarded. The information you finally decide to use becomes the basis of your outline -- an essential organizing tool in report writing. Remember that the outline can be modified in the planning stages but, once you start writing, stick closely to it so you do not stray off the topic. By the time you complete your report, the outline will have naturally evolved into your Table of Contents.

3.2 Subject Choice

Choosing a subject is a crucial aspect of your success of your internship report. It is sufficient to concentrate on one specific aspect or problem related to your internship, and it is not required that you report in depth on all the projects that you might have encountered during your internship. However, the chosen subject has to be discussed with enough depth, if necessary with efforts beyond your daily work, so that your treatment of the subject demonstrates a specialist-level ability in electronic commerce. Managers may help in the selection of a topic. This is to their advantage since their early contribution can lead to a report that will be of direct use to them. Your 'fresh' objective view of a problem or situation can benefit the organization.

Your internship report must have an analytical component. Because of this, user guides, descriptions of processes, systems or existing mathematical models, summaries of technical papers or literature are all unacceptable on their own as internship reports. If, for example, you have been developing computer programs that your employer has required you to document, this documentation is not acceptable as a suitable internship report unless it also contains objectives, constraints, feasibility analyses of alternatives and criticism of the outcome. Even if your employer does not require this information, it must be included in the report submitted to the electronic commerce executive committee in order to be evaluated by a faculty member as an internship report.

Even if you have not been assigned a specific project during your internship, your report must still contain an analytical component. You could, for example, present an evaluation of the way your employer's organization functions in such areas as electronic commerce strategies, technology related law or management issues, or technical realizations of specific company related objectives. The topic does not have to be original, but the report must be your own work and it must be related to your internship. Just stating that your employer is interested in, for example, cryptography, and then writing a standard review of cryptographic techniques is not enough. You have to state clearly the objectives of your employer and then relate the cryptographic techniques to these objectives.

If you doubt your judgment on a topic, speak with your supervisor or contact your faculty advisor. Above all, choose a topic which interests you; even good writing cannot mask boredom.

3.3 Writing Phase

Once you have gathered your information and planned an outline you can begin writing. Do not worry about fancy beginnings or profound ideas – just write! As you work, keep your audience in mind. Are they familiar with the technical terms and acronyms of your work place? Your language must be their language.

Once you have completed your first draft, put it away and give your mind a rest. When you take it out again, begin revising. Substitute accurate words for ambiguous ones; clear sentences for complicated phrasing. You may want to rewrite paragraphs or entire sections. The bottom line is to produce a smoothly written, logical report. Having someone else read your revised draft is a sure test of effective communication. A friend or colleague will tell you if what you have written is

understandable. Revise a second time on the basis of this criticism. Your final version should be flawless. Your report's credibility is based as much on perfect grammar and spelling as on content.

4. Report Format

The following format guideline outlines the specific requirements of the internship report in terms of the overall structure and necessary sections which are appropriate in most circumstances. There is no strict rule on the length and specific formatting of text. You should be able to format your report in the style most appropriate for your studies. However, a typical internship reports consist of three main sections: the preliminaries, the main text and the reference material, all of which are outlined on the following pages.

4.1 Preliminaries

The preliminaries have to include

1. Title Page
2. Acknowledgement and Endorsement
3. Executive Summary
4. Table of Contents

The **Title Page** introduces your reader to your report by listing the following information: report title; employer's name and location; date of report; your name, student number, email address, and internship course number and year; the university name; and the "partial fulfillment" phrase. (See the sample title page, Appendix A.)

The **Acknowledgement and Endorsement** on the second page should contain any acknowledgement of assistance and a statement of endorsement, which states that you wrote the report yourself and that it has not already received academic credit from another institution. (See the example page, Appendix B.)

The **Executive Summary** is the most important part of your report. It summarizes the body of the report, outlining its scope, purpose and major findings, highlighting the key conclusions and recommendations. The Executive Summary allows a busy manager to understand the report's significant information without reading the whole text.

Write your Executive Summary after you have written the report. It is not enough to state what you are 'going to discuss' in the report. The executive summary has to be self-contained and must state all the major points of the study. You are not required to discuss in detail how you derived the conclusions or argue about it; this is part of the main body of the text. However, you have to indicate enough details about your study so that a specialist reader has a good understanding of your contributions detailed in the report.

The **Table of Contents** lists all sections and sub-sections and uses the same numbering system as the main body of the report. The preliminaries are not listed. Remember -- ease of use is paramount.

4.2 Main Text

The main text has to include

1. Introduction
2. Body
3. Discussion, Conclusions and Recommendations

The **Introduction** defines the subject of the report so that the reader is prepared for the text that follows. Here you can outline the company and/or department for which you worked, and you can summarize the work you performed at the company. Setting the background is important because the faculty member evaluating the report may not be familiar with the detailed operations of your employer. Of course, there is no need to give a highly detailed account. The information on the site layout and number of employees would only be given if it relates to later parts of the report.

The second part of the background should outline the history or objectives leading up to the project or study detailed in the report. The purpose of this part is to argue why the specific project or the study outlined in the report is of interest. From this second part of the background, the reader can now anticipate the objectives of the study. The **objective or goal of the study** outlined in the report should be crisply stated and conceptually separated from the background and the method used.

An introduction answers the question, "Why was the specific work or study done?". Keep your introduction brief, but remember to outline the background and scope of the report and **give a clear statement of objectives** of the study. Ask a question that you will try to answer in this study. After reading the introduction, your reader should be prepared for the report that follows, and remember that a reader will be looking for sections dealing with the issues addressed in the introduction.

The **Body** is the longest part of your report. It is here that you develop your theme by examining the problem, your findings and their meaning. This body of the report should be formatted appropriately with sections and headings to guide the reader through the report.

Although every report will have different section headings, there are certain themes which run through all reports - a description of the methods used to acquire data, a summary of the data obtained and finally a discussion of the interpretation of the data. In this context the word "data" can have such different meanings as actual scientific measurements, textbook information, manufacturer's literature, plant logbooks, financial statements, opinions of experts or employees and so on.

Conclusions and recommendations are often confused but they are not the same thing. Conclusions are derived from research outlined in the main body and do not introduce new material. They may be presented in a sequence of two or three sentence paragraphs. The

conclusions should specifically answer the questions raised in the introduction or conclude how the goals or objectives stated in the introduction have been met.

Recommendations are proposed plans of action for the future. They are suggestions following logically from the conclusions. Remember that conclusions deal with the present, recommendations with the future. Each should be presented on a separate page.

4.3 Reference Material

The reference material can include

1. References
2. Glossary
3. Nomenclature
4. Appendices

References lists all those books and journals, and if necessary web pages, to which you specifically refer in your report. Materials from other authors and diagrams that you have not drawn should be acknowledged explicitly when they are first used in your report. The references should follow a well-established and consistent style.

It is very unlikely that no references are needed in your report. References have to include links to any information that is coming from external sources. This includes data or any other material on which your analysis is based. Any statement has to be justified. For example, a statement like “The internet is expanding exponentially” need to be justified. How do you know that? You have to refer to the source of this information or back-up your statement on your own account if this is a novel observation. In the former case you have to make sure that you agree with the statement, or state otherwise (in which case you would have to justify your opinion.) If asked about any detail of the report you must be able to answer all the questions or be able to point to the right references.

The **Glossary** is only needed when you have used specialized terms, mathematical symbols or professional jargon in an extensive way. If you have used specialized terms only occasionally, it is acceptable to define it within your text. This same rule applies for the **Nomenclature**. It is only required if a large number of symbols are used throughout the report.

The **Appendix** (or appendices) provides your reader with supporting information that elaborates on, but is not essential to, the development of your theme, or any information that is necessary to justify your statements and which are too lengthy to include in the main text without interrupting the line of thought developed there. The appendices are identified by numbers or letters. Do not include appendices that have not been cited in the text.

5. Evaluation

A faculty member, and possibly your manager, evaluates your internship report placing equal emphasis on content and literary quality. Reports receive grades of either 'pass' or 'unsatisfactory'. Unsatisfactory reports will be returned for revision; a second such grade on the same report means a failure of the internship. Grammar and spelling errors result in an automatic "unsatisfactory".

Confidential reports are usually not accepted. It is recommended (and usually possible) to choose a topic for your report that does not conflict with confidentiality requirements. If your report contains confidential information you must contact the program director to discuss if such material is acceptable in your internship report and how it will be evaluated.

The internship report has to be submitted to the MEC executive committee allowing at least four weeks for the evaluation.

6. Suggestions for Writing Effectively

"When your thinking is in order, your imagination perking, your knowledge of the reader sure and your own purposes firm, the words will come, the sentences will build. 'Take care of the sense and the words will take care of themselves.'" (Handout, Writing and Reporting Class; Brodinsky, Ben.)

You took care of the "sense" in your planning and outlining stages. The suggestions offered here will help you revise. Use them as you rip apart your first draft.

Use image-bearing nouns and active verbs to avoid generalizations and ambiguity. Use verbs that push, beat, throb, guide and thrust your ideas forward. Replace variations of "to be", such as "is" and "are", with more active verbs. Rather than: "This chapter is a presentation of my findings.", write: "This chapter presents my findings." Replace the passive ("The value of this procedure is being considered by the president of the company.") with the active ("The company president is considering this procedure's value.") Avoid future tense when referring to your report; the work should be done when you start writing. For example, do not write "In this chapter we will analyze ..."; rather, write "In this chapter we analyze ...". Avoid beginning your sentences with "there" and "it". Rather than "There are eight major components to this turbine.", write "The turbine has eight major components."

Take control of your material -- do not let it control you. Each sentence should contain one thought and each paragraph a series of connected thoughts. Having a host of information does not mean using it all; do not ramble. Say what you are going to do. Do it. Support it. Conclude.

Write to inform, not to impress. Jargon and colloquialisms confuse rather than clarify. Don't write: "Repairing the equipment was tough-going and the extra work cost the company a bundle.", when what you really want to say is: "Repairing the equipment was complicated, time-consuming and expensive." All of us have read sentences like this: "The lexical ambiguity and syntactic arrangement inherent in this prose communication tend to predict a degree of confusion in the desired recipient.", which should have read like this: "The meaning and order of the words in this

manual tend to confuse the reader." And constantly, as you write, ask yourself, "Who is my audience and what do they already know about this subject"?

Avoid using personal pronouns. Do not write "I worked with assembly line employees to become familiar with their work site concerns." but rather, "The author worked with assembly line workers..." Neither write "As you can see in the figure ..."; instead, write "As can be seen from the figure ...".

Avoid contractions. "The company can't proceed on the project until the work order's been approved." should be replaced by "The company cannot proceed on the project until the work order has been approved."

Avoid vague comparisons and references to quantity. Rather than writing: "A large amount of money was spent on maintenance," write: "The maintenance costs were \$50,000." Do not use: "The conveyor system operated much faster with the new belt.", but rather: "With the new belt, the conveyor system operated at 50 ft/min, twice the original speed."

As a master student you are expected to be concise and accurate in your statements but not to an unwarranted degree. Poor: "The temperature was kept constant at 93.476 degrees Celsius." Good: "The temperature was kept constant at 93.5 degrees Celsius."

Being accurate is part of being professional. Verify your figures, information and facts. Check spelling and definitions in a dictionary. Search for more accurate words in a thesaurus. Be consistent in tense, person and presentation. If you quote, provide a reference; plagiarism is unacceptable.

Above all, do not panic. If you are having problems with the report talk to your manager or contact your faculty adviser.

7. APPENDIX A

Dalhousie University, Master of Electronic Commerce Program
The Faculties of Computer Science, Management, and Law

Evaluation of electronic payment systems for m-commerce services
offered by ABC Inc.

by

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Performed at
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in partial fulfillment of the requirements of the Master of Electronic Commerce Program

Report of Internship ECMM 7005, September 2 – December 12, 2003

Date Submitted: January 15, 2004

8. APPENDIX B

This report has been written by me and has not received any previous academic credit at this or any other institution.

I would like to thank Ms. R. Jackson for providing the performance data used in this study, and Mr. M. Thompson for his useful suggestions on the manuscript.

(signature)

Able Smith