Background

The Information Systems discipline lies at the intersection of two of the most exciting and dynamic fields today: Business and Information Technology. The aim of the discipline is to understand, predict, and support the effective design, use, and management of information technology in organizations and markets and to develop knowledge about phenomena relating to information technology-in-use. This involves breaking new ground in emerging topics (the latest technologies) and enduring topics (how best to design, implement, and use information technology).

As a research student in information systems, you are expected to contribute to the body of knowledge in this field by designing and conducting original studies and to publish your findings. This course is designed to introduce doctoral and other higher-degree research students to the process of scientific research in the fields of Information Systems. The course develops both broad and detailed understanding of different strands of information systems research, relevant research methods and theories associated with the strands of research, and the craft and processes of writing and publishing information systems research articles.

Purposes and Objectives

The purpose of this course is to develop IS research skills and learn how to write good research articles. We recommend teaching an introductory course to IS Research based on the textbook


The course on basis of this book provides a comprehensive and broad rather than substantive and deep coverage of different views on IS research including scientific research, theory, research method, ethics and writing/publishing. It includes recommendations from a variety of general and specific leading textbooks and also incorporate further reading materials for in-depth study of every element.

The objective of this course is not to replace but rather to complement education offerings in universities for research students. Unlike many other courses, this course is not primarily about research methods but instead covers the entire research process from start to finish. It places particular emphasis on understanding cognitive and behavioural aspects such as motivational components, various modes of inquiry in scholarly conduct, theorising, planning of research, as well as publication plans, and the ethical challenges of becoming a researcher.
The course is meant to guide research students in their process of learning the life of a researcher. In doing so, it provides an understanding of the essential elements, concepts, and challenges of the journey of research studies. It provides a gateway for the student to inquire deeper about each element covered (such as a particular research method) by directing them to the appropriate resources.

**Structure**

The course is structured into three parts:

Part 1: *Basic Principles of Research* introduces to the student the journey and challenges of pursuing a research degree in information systems. Motivational components are discussed as well as key underlying principles drawn from the paradigms of the scientific method. It introduces the vocabulary of scientific research and lays the foundation for reflecting upon research in Information Systems, be it the students’ own research or the ones they encounter.

Part 2: *Conducting Research* dissects the research process in information systems as a science into the phases of planning, designing, and executing. Each of these phases then receives due attention in terms of planning the research design, developing and appropriating theory in research, and executing relevant research methods. In doing so, this part of the course aspires to give a general process model applicable to all doctoral students in information systems, and contains guidelines that can help in tackling challenges along the way.

Part 3: *Publishing Research* reflects upon the outcomes of the research process and provides practical suggestions for managing these outcomes. Publication strategies and writing tactics are the focus of this part alongside with ethical considerations pertaining to research in terms of conduct and publication. It also offers a closing reflection on the key processes and outcomes of scholarly work.

**BASIC PRINCIPLES OF IS RESEARCH**

**Overview**

The first part, *Basic Principles of Research*, is concerned with understanding the key principles and concepts of scientific research that will constitute the key exercise of any doctoral program in Information Systems. The elements therein focus on understanding the requirements of a doctoral education, and introducing Information Systems research as a science. Therein, we will revisit scientific research, and the fundamental principles of the scientific method on which it is built.

**Learning Outcomes**

After the unit participants are able to
- Understand their motivation, ambitions and rationale for undertaking a PhD program in Information Systems
- Appreciate and reflect on basic principles of scientific inquiry
- Understand types of knowledge contributions
- Distinguish relevant concepts in Information Systems research

**Material**

CONDUCTING IS RESEARCH

Overview

The second part of this course, Conducting Research, is concerned with understanding three key stages involved in any research project. The first element in this part is devoted to theorising, and examines what a theory is, why we require them in research, how theories are composed, and how theories can be developed and applied.

The second element in this part concerns research design, the act of developing a blueprint for executing a study of a particular phenomenon or problem of interest. Therein we discuss the formulation of research questions, the development of a research plan and the choice of an appropriate research methodology.

The third element in this part then discusses various key research methods that can be elements of the research design. Broadly, we will distinguish quantitative methods from qualitative methods of inquiry, and we will touch upon other forms of research such as design research and mixed methods.

Learning Outcomes

- Design and frame research questions
- Plan and evaluate research designs appropriate to the research questions
- Understand building blocks of theory and the theorizing process
- Choose an appropriate research methodology
- Develop a basic understanding of different research methods

Material


PUBLISHING IS RESEARCH

Overview

The final part of this course, Publishing Research, is concerned with an essential stage of the research process subsequent to the actual research itself – that of publishing the findings from the study. In this part, the course will address challenges that relate not just to doing good research but also to the craft of communicating effectively and efficiently about your research in the form of articles, reports or theses.

The first element in this part of the course presents advice on developing good research articles from the studies conducted. Therein, various writing strategies are exemplified, essential parts of good papers are reviewed, and advice is offered for handling reviews and dealing with rejections and revisions.
The second element in this part of the course, then addresses important ethical considerations in conducting and publishing research. Three aspects of ethics considerations will be discussed – ethics in research conduct, ethics in research publication, and ethics in research collaboration.

Learning Outcomes

- Understand the stages of the publication processes in academic journals
- Learn about the craft of structuring and writing scientific papers
- Understand strategies to manage reviews and revisions
- Appreciate ethical responsibility, accountability, liability and due process in research conduct, collaboration and co-authoring

Material

- Gray, P. "Journal Self-Citation I: Overview of the Journal Self-Citation Papers – The Wisdom of the IS Crowd," Communications of the Association for Information Systems (25:1) 2009, pp 1-10.

Recommended Citation