**Course Notes Week 01**

To skip to the next major section, find ~~ (tilde), do Ctrl-F ~~

In the Wildemuth chapter section, to skip to the next chapter, do Ctrl-F ~

**~~Week 01 Overview**

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| **Brief introduction** | This week introduces a very broad understanding of research and begins the discussion of the dimensions / facets / characteristics that serve to define different types of research.  This is an underlying theme in Lecture 01.1 *General introduction to the course* and is explicitly addressed in Lecture 01.2 *What is research and why do we need it*.  This lecture emphasizes in particular the purposes and reasons for doing research.  There would be no point in doing research if we do not have a purpose in mind. |
| **This week's topics** | **1 Why research? Use of results, research purposes, types of results / knowledge discovered. Research topic.**  **1a- 1e Dimensions related to study purpose and use of study result**s  . **1a** The basic research ꟷ applied research continuum  . . **1a1** Basic research  . . **1a2** Applied research  **. 1b** General purposes / applications / uses of research results  **. 1c** Specific purposes of research  **. 1d** Nomothetic vs. idiographic research  **. 1e** Exploratory vs. confirmatory research  . . **1e1** Exploratory research  . . **1e2** Confirmatory research  **1j - 1k Dimensions related to the creation and distribution of knowledge**  . **1j** Degree to which the study adds to the general stock of knowledge  . . **1j1** Study assembles and organizes what is generally known already  . . **1j2** Study assembles and organizes and reframes existing knowledge  . . **1j3** Study changes belief in existing knowledge  . . **1j4** Study produces new knowledge  . . **1j5** ab ovo study vs. replication study  . . . **1j5.1** ab ovo study  . . . **1j5.2** Replication study  . **1k** Scope of distribution and use of study results  . . **1k1** Wide distribution and use of study results, public  . . **1k2** Distribution only to one or few persons / organizations / groups  . . . **1k2.1** Proprietary research |

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| **Week 00. A place to list materials for the entire course** | | |
| **00.0** | **$0** UBLIS575DS-00.0$0-Calendar2021-08.docx  **$0** UBLIS575DS-00.0$0-Syllabus.docx  **$0** UBLIS575DS-00.0$0-ResearchMethodsTextbooks.docx (new version coming)  **$0** UBLIS575DS-00.0$0-CourseTechnology.docx With addendum UBLIS575DS-00.0$1-CourseTechnologyAddendumDMSlack.docx  **$0** UBLIS575DS-00.0$0-MindfulMicroInformationArchitectureV8.docx  (Must read and follow)  **$1** UBLIS575DS-00.0$1-DimensionsOfResearchSoergelV0Quick.docx |  |
|  | **$3** **Assignments/deliverables, instructions/guidance and templates**  The Week00 folder includes all assignment/deliverable guides and all templates in one place. The primary location for these documents is with the course unit (lecture etc.) where they are first introduced.  **Example**:  **$3** ►UBLIS575DS-01.1$3-Deliverable4FinalCourseSynthesisEssay.docx  This is the template you must use. You can use it from the start to keep notes. As soon as you open the document, save it under a new name as instructed in the document *Course Technology*.  **$3** UBLIS575DS-01.1$3-Deliverable4FinalCourseSynthesisEssayGuide.docx Read this explanation on what you need to do. The guides are usually quite extensive, with much useful information. |  |

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| **Part 1. What is research and why do we need it? Research topic** | | |
| **Week 01 09-01 ꟷ 09-07** | | |
| **01.0** | **$1** UBLIS575DS-01.0$1-CourseNotesWeek01  **$1** UBLIS575DS-01.0$1-ReadingsOnOrientationToResearch.pdf  **$1** UBLIS575DS-00.0$1-DimensionsOfResearchSoergelV0Quick.docx  **$2** UBLIS575DS-01.0$2-**GreetingWeek01.pptx** In Lecture 01.1  **$3** ►UBLIS575DS-01.2$3-**Assignment0PersonalIntroduction**.docx due 09-14 Optional UBLIS575DS-01.2$3-Assignment0PersonalIntroductionGuide.docx UBLIS575DS-01.2$3-Assignment0PersonalIntroductionSoergelD.docx  **$6** ►UBLIS575DS-01.0$6-LearningBlogWeek01.docx |  |
| **01.1** | **General introduction to the course**  **$2** UBLIS575DS-01.1$2-Lecture01.1**CourseIntroduction.pptx**  **$3** ►UBLIS575DS-01.1$3-Deliverable4FinalCourseSynthesisEssay.docx Due 11-02 / 12-15UBLIS575DS-01.1$3-Deliverable4FinalCourseSynthesisEssayGuide.docx  **Keep notes always**. |  |
| **01.2** | **What is research and why do we need it?**  **$2** UBLIS575DS-01.2$2-Lecture01.2**TheWhatAndWhyOfResearch.pptx**  **W** 1b**●**Using Research Results to Improve Practice in the Information Professions   **W‑Ch. 1**, p. 3-7 |  |
| **Assignments due 09-07** | **None** |  |

**~~Topic /chapter synopses**

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| **1** | **Why research? Use of results, research purposes, types of results / knowledge discovered. Research topic.**  Each of the topics is addressed in Lecture 01.2 |
| **1a** | **The basic research applied ꟷ research continuum**  To what extent is the research motivated by or directed at solving a specific problem or designing a specific product? To what extent are the researchers collaborating with decision makers or designers / developers. |
| **1a1** | **Basic research**  *Fundamental research*, *pure research*. Driven by a researcher’s curiosity or interest in a question about the functioning of nature, individual people, or groups or organizations or society or nations. The main motivation is to expand knowledge, not to create or invent something. |
| **1a2** | **Applied research**  Carried out to solve practical problems, rather than to acquire knowledge for knowledge’s sake. The goal of the applied researcher is to improve products and services. *Research and development (R&D)*, *action research*, *assessment research*. |
| **1b** | **General purposes / applications / uses of research results.**  Research is pursued   * to understand the world around us and within us * to inform action, to translate research results into improvements in practice |
| **1b W-Ch. 1** | **Using Research Results to Improve Practice in the Information Professions. W-Ch. 1,** p. 3-4  Chapter 1 is an atypical chapter.  The short introduction positions the book as dealing with research primarily from the perspective of "using research results to improve practice"  The rest of the chapter introduces the structure of the book and how to best use it. |
| **1c** | **Specific purposes of research**  There are myriads of specific purposes, at varying levels of generality, for example   * describe a social phenomenon, * explain why something occurs, * determine the distribution of some parameter in a population, for example, income distribution in a society, * explain the past or predict the future, * find out what properties of chewing gum consumers value, differentiated by age. |
| **1d** | **Nomothetic vs. idiographic research**  1d1 *Nomothetic research* looks for general laws that apply to a whole class of cases, for example general effectiveness of a drug or factors that cause a school to fail  1d2 *Idiographic research* focuses on one individual case and tries to fully understand it, for example understand all aspects of the functioning of a given patient and the effects of a drug in that patient, or understand the interacting factors that caused a particular school to fail (many of these factors may be idiosyncratic). |
| **1e** | **Exploratory vs. confirmatory research**  1e1 Exploratory research. Initial research conducted to clarify the nature of the problem, to become familiar with the basic facts, setting, and concerns., to identify potentially important variables, to discover suspected relationships between these variables. Generates a posteriori hypotheses (discovered by/after looking at data).  1e2 Confirmatory research. Research conducted with the aim of testing one or more preexisting [a priori] hypotheses or of measuring the value of a variable in a population Research that is driven by (at least partially) existing theory. Tests a priori hypotheses (given before data analysis begins) |
| **1j** | **Degree to which the study adds to the general stock of knowledge**  . . **1j1** Study assembles and organizes what is generally known already  . . **1j2** Study assembles and organizes and reframes existing knowledge  . . **1j3** Study changes belief in existing knowledge  . . **1j4** Study produces new knowledge  . . **1j5** ab ovo study vs. replication study  . . . **1j5.1** ab ovo study  . . . **1j5.2** Replication study |
|  | **1j5.1** **ab ovo study**  {DS term}  A study starting from the beginning rather than replicating another study. A study about a new topic / research question or using a methodology not before applied to a topic.  Note on terminology: In discussions of replication, the study being replicated is usually referred to as the "original study" or "original research". But outside this context, "original research" has many meanings and interpretation, so it would not be a good term to use in a classification. {DS} |
|  | **1j5.2** **Replication study**  A replication study repeats a study’s procedure and observes if the prior findings repeat in similar conditions. A study is replicated when the results of the original (ab ovo) study are closely related to the newly collected data. A replication study may changes one or more variables of the original study, such as sample population, industry sector, etc.  The credibility of a scientific studies is established only if it is replicable under similar or closely related conditions. Findings collected from such studies give greater validity to the originally conducted research. Furthermore, it means that the original study is more likely to be generalizable for larger applications and future research scope. From the perspective of contributing to scientific research, replication studies are important for the continued progress of science. Without validation, how do future researchers know whether to build on the findings of that original work?  Replication studies are broadly classified as:  • Exact or Direct replications – repetition of an experimental procedure to the exact degree as possible. It means that exactly same equipment, material, stimuli, design and statistical analysis should be used.  • Conceptual replications – research conducted to repeat the original study using different methods . Despite difference in methods, the new data is similar to the original study findings.  Edited from {19**}** |
| **1k** | **Scope of distribution and use of study results**  . . **1k1** Wide distribution and use of study results, public  . . **1k2** Distribution only to one or few persons / organizations / groups  . . . **1k2.1** Proprietary research |

**~~Non-Wildemuth readings with abstracts**

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| **Calendar2021-08** |

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| **Syllabus** |

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| **UBLIS575DS-00.0$1-CourseTechnology.docx**  With addendum UBLIS575DS-00.0$1-CourseTechnologyAddendumDMSlack.docx | |
| **Abstract** | Explanation of and rationale for the course technology used.  Detailed instructions |

UBLIS575DS-00.0$1-CourseTechnologyAddendum.DMSlackdocx

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| Soergel 2021, **Mindful Micro Information Architecture**  Lessons in being considerate, being logical, formatting for comprehension, and paying attention | |
| **Abstract** | This is a complement, and in places corrective, to what you learned in English 101 and  a good style book such as Williams & Bizup *Style: Lessons in Clarity and Grace*.12. ed  Using the maxim *Questioning time-honored rules is the beginning of good writing*,  the document gives pointers on   * *Inclusive language*, * *Writing well* (coherent flow, clear, concise, avoiding vacuous sentences and redundancy), * *The mechanics of language. Grammar and word choice* (with some examples of frequent,  even pervasive, mistakes and poor habits that are particularly offensive to the trained mind), * *Document formatting* for easy and quick comprehension, * *Doing small stuff right* when it makes life easier, such as date format and file names, * *Using software* to create better document and manage references and notes.   **Must read and follow** |

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| **Soergel, Dimensions of Research V0 Quick** | |
| **Abstract** | This is the first (Version 0) attempt at creating a comprehensive classification of dimensions of research. It is based on many documents (lectures, papers, and others) with a similar purpose, each of them incomplete or focused on a particular kind of research. It consists of 3 major sections:  Part 1. What is research? Why research?  Part 2. General ways of gaining knowledge  Parts 3 - 5. Specific research methods  This is very much a work in progress. Parts 1 and 2 need further elaboration. Parts 3 - 5 have just a smattering of examples of research methods, based on the coverage in Wildemuth. It would need to be expanded to a large, very detailed of specific research methods drawn from many disciplines / research areas.  Nevertheless, the document as it now exists is the intellectual foundation for the course and the overall outline in which students can orient themselves.  A much longer annotated versions, with sometimes extensive explanations and comments drawn from many sources, including original contributions from D. Soergel, will be available a bit later. The topic synopses in the Course Notes draw on the annotations in this document. |

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| Soergel, compiler 2021. **Readings on Orientation to Research** | |
| **Abstract** | This is an eclectic collection of pieces, from Faust's opening monologue to the tale of how Lama Ted diverted a hurricane, to Niels Bohr (Nobel prize winning physicist famous for the first model of the atom) on the shaky foundations of research methods, to Diesing's discussion of the validation of research methods through agreement in a community of researchers (with different communities building on often different philosophical foundations, including pragmatism, and existing in different cultural contexts), **all intended to engender critical reflection on research**. |

**~~Wildemuth chapters synopsis, introduction, and examples**

Each chapter is in its own subsection

Chapters are given in the order in which they are assigned, not by chapter number

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| **~ 1b Chapter 1. Using Research Results to Improve Practice in the Information Professions** {W p. 3-7} | |
| **Synopsis (repeated)** | An atypical chapter.  The short introduction positions the book as dealing with research primarily from the perspective of "using research results to improve practice"  The rest of the chapter introduces the structure of the book and how to best use it. |
| **Chapter outline** | * Introduction * Intended Audiences * Selection of Research Methods * Selection of Exemplary Studies * Using this book |
| **Chapter introduction** | **W-Introduction.** Information and library science (ILS) is a field that includes the profession of librarianship as well as a variety of other information professions (systems designer, database administrator, and information architect, to name a few). Although these professions are diverse in some aspects, in each case, their practice assumes a close interaction between the following:   * Information content, that is, the substance of the information being created, communicated, stored, and/or transformed * The people who interact with the content, including the creators of information, recipients of information, or intermediaries in the communication process * The technology used to support the creation, communication, storage, or transformation of the content   As with other professional fields, the research conducted in the field of ILS tends to be oriented toward the improvement of practice in these professions. Basic research may not have an impact on practice for a decade or more after it has been conducted, while more applied research and evaluation studies may have an impact on practice almost immediately. All along this research continuum, the researcher defines questions and conducts research studies that are motivated by the desire to improve practice in the information professions.  From the practitioner’s perspective, best practices can often be developed through significant amounts of direct experience. However, they can also be developed through an examination and application of research findings, as noted by Kaske (1993). For example, a study of student and faculty expectations of instant messaging for providing library reference services may guide the development of those services so that they are acceptable to and accepted by the intended users. This type of application of research results— to improve professional practice—is called evidence-based practice, a variation of the term evidence-based medicine, which came into vogue in the late twentieth century (Rosenberg & Donald, 1995).  Two things need to happen for the information professions to profit from evidence- based practice. The first is that effective research studies need to be completed; the second is that their results need to be applied to particular situations and questions that occur in practice. The aim of this book is to support this first effort by improving our ability to conduct effective research studies. Most information professionals receive formal education in research methods during their master’s degree education. The research method courses in graduate ILS programs are primarily supported by textbooks in related disciplines such as sociology and psychology. Although a number of these textbooks are well written and cover methods appropriate to our field, none of them contain examples illustrating how methods can be applied to ILS research questions. This book is intended to fill this gap, augmenting current research method textbooks. Specifically, it provides critical analyses of the application of a variety of social research methods to exemplary research questions in ILS. {W p. 3-4} |