The Literature Review Seminar

Goals and types of reviews

- Familiarize ourselves with different forms of reviews
- Dissociate goals and review types, along with their dimensions
- Appreciate the key elements of a review protocol

Forms of literature reviews

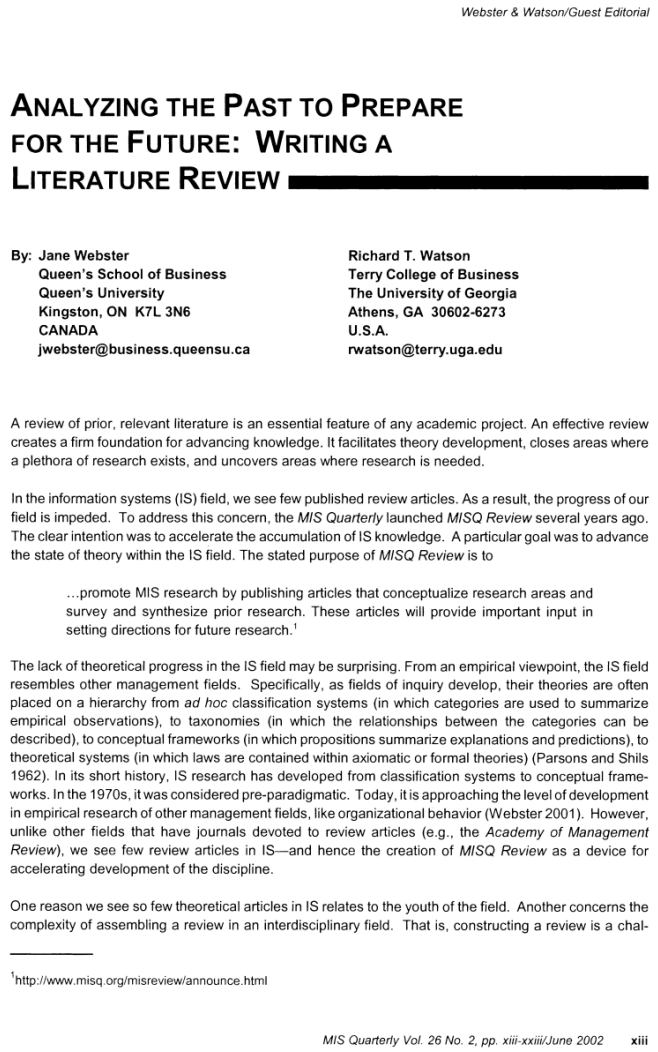
Generally, literature reviews can take different forms, including

- a **standalone review paper**
- a **background section** of a primary study (e.g., related work, theoretical background, conceptual foundations)
- a mandatory **part of a funding proposal**
- a part of a **Ph.D. thesis**
- a **review protocol** (e.g., published in a conference or a registry)

Our focus is on **standalone reviews**: an "independent paper whose purpose is to synthesize the extant literature in a field without collection of empirical data" (Templier and Paré 2018).

Literature reviews in information systems

- Early editorial by Webster and Watson (2002, MISQ, > 12.000 citations) with key suggestions
  - Rigorous search, including forward and backward searches
  - Concept matrix
  - Concept-centric writing instead of author-centric summaries
- Establishment of the Theory and Review Department at MISQ, and similar initiatives at JAIS, and JSIS
- Active discourse covering typological pluralism, systematicity, and transparency across top journals in Information Systems



Webster & Watson/Guest Editorial

ANALYZING THE PAST TO PREPARE FOR THE FUTURE: WRITING A LITERATURE REVIEW

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A review of prior, relevant literature is an essential feature of any academic project. An effective review creates a firm foundation for advancing knowledge. It facilitates theory development, closes areas where a plethora of research exists, and uncovers areas where research is needed.

In the information systems (IS) field, we see few published review articles. As a result, the progress of our field is impeded. To address this concern, the *MIS Quarterly* launched *MISQ Review* several years ago. The clear intention was to accelerate the accumulation of IS knowledge. A particular goal was to advance the state of theory within the IS field. The stated purpose of *MISQ Review* is to

> …promote MIS research by publishing articles that conceptualize research areas and survey and synthesize prior research. These articles will provide important input in setting directions for future research.[1]

The lack of theoretical progress in the IS field may be surprising. From an empirical viewpoint, the IS field resembles other management fields. Specifically, as fields of inquiry develop, their theories are often placed on a hierarchy from *ad hoc* classification systems (in which categories are used to summarize empirical observations), to taxonomies (in which the relationships between the categories can be described), to conceptual frameworks (in which propositions summarize explanations and predictions), to theoretical systems (in which laws are contained within axiomatic or formal theories) (Parsons and Shils 1962). In its short history, IS research has developed from classification systems to conceptual frameworks. In the 1970s, it was considered pre-paradigmatic. Today, it is approaching the level of development in empirical research of other management fields, like organizational behavior (Webster 2001). However, unlike other fields that have journals devoted to review articles (e.g., the *Academy of Management Review*), we see few review articles in IS—and hence the creation of *MISQ Review* as a device for accelerating development of the discipline.

One reason we see so few theoretical articles in IS relates to the youth of the field. Another concerns the complexity of assembling a review in an interdisciplinary field. That is, constructing a review is a chal-

[1] http://www.misq.org/misreview/announce.html

Goals of literature reviews

Building on Gregor (2006), Rowe (2014) distinguishes four goals of literature reviews:

- **Describing**: summarizing or classifying prior research on a phenomenon with little or no contribution to theory, i.e., without discussing underlying assumptions or rationales
- **Understanding**: making sense of prior literature and new phenomena, working towards a conceptual understanding, and often involving an in-depth, broad, or critical discussion before drawing synthetic conclusions
- **Explaining**: drawing on the literature to develop a conceptual framework, or theory with testable hypotheses, i.e., statements that explain real-world phenomena, and can be tested empirically
- **Theory testing**: extracting data from empirical studies to assess the aggregated evidence that has accumulated

Task: Propose a research question that exemplifies each goal.

The typology of Paré et al. (2015)

- Paré et al. (2015) published the established typology of literature reviews, covering 9 distinct types of reviews (plus hybrid reviews)
- The review types can be aligned with the goals of Rowe (2014), as indicated in the table (Templier and Paré 2018)

🔍 **Task**: Familiarize yourself with the types of reviews in the typology of Paré et al. 2015.

Classification of information systems literature review types

Primary goals with regard to theory (Rowe 2012)	**Literature review types (Paré et al. 2015)**
Describing	Narrative Review
	Descriptive Review
Understanding	Critical Review
	Scoping Review
Explaining	Theoretical review
	Realist review
Testing	Qualitative systematic review
	Meta-analysis
	Umbrella review

Exercise: Reading circle

Task: Classify the selection of review papers according to the typology of Paré et al. (2015):

- Bélanger and Crossler (2011)
- King and He (2006)
- Kitsiou et al. (2017)
- Melville et al. (2004)
- Otte-Trojel et al. (2016)
- Petter et al. (2008)
- Powell et al. (2004)
- Seuring (2013)
- Shim et al. (2022)

Table 5
Types of IS review articles ($n = 139$).

Review type	Number of reviews	%
Theoretical review	52	37
Narrative review	38	27
Meta-analysis	14	10
Descriptive review	13	9
Hybrid review	9	7
Critical review	7	5
Scoping review	6	4
Qualitative systematic review	–	–
Realist review	–	–
Umbrella review	–	–

> Zhao and Zhu (2014) and Carillo and Beaudry (2006) may also be covered (depending on group size).

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Table 1
A Taxonomy of Literature Reviews

Characteristic	Categories
Focus	Research Outcomes Research Methods Theories Practices or Applications
Goal	Integration a) Generalization b) Conflict Resolution c) Linguistic Bridge-building Criticism Identification of Central Issues
Perspective	Neutral Representation Espousal of Position
Coverage	Exhaustive Exhaustive with Selective Citation Representative Central or Pivotal
Organization	Historical Conceptual

Goal
Describing
Understanding
Explaining
Testing

Type
Descriptive review
Narrative review
Scoping review
Critical review
Realist review
Theoretical review
Qualitative systematic review
Meta-analysis
Umbrella review

Dimensions
Focus
Goal
Perspective
Coverage
Organization
Audience

Methodological choices
Problem statement
Search
(Pre)Screen
Data extraction
Qualtiy assessment

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Exercise: Select the review type

Form groups according to the goals with regard to theory (describing, understanding, explaining, testing).

Task: Draft the research question, select a review type and explain why it fits.

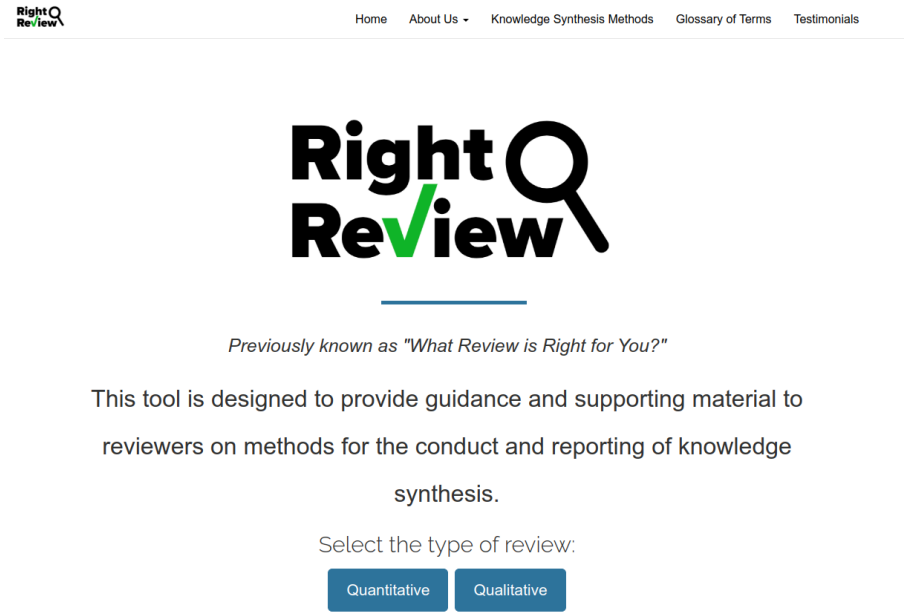
Discussion: Share your draft and discuss whether there is a high fit.

The RightReview tool

The RightReview tool provides a survey of literature review dimensions to identify the right review type for your project.

Task: Complete the survey and check your results.

- Do you agree? Are there any dimensions that are unclear?



What can we publish from a review project?

- Review protocol: Open Science Foundation (OSF), PROSPERO, conference proceedings
- Search strategy: searchRxiv
- Options to publish standalone review papers:
  - Conference proceedings (e.g., ICIS track for literature reviews)
  - Specialized journals for literature reviews (e.g., International Journal of Management Reviews, Foundations and Trends® in [Information Systems, Entrepreneurship, Management, Marketing,...])
  - Journals with theory and review departments (e.g., Journal of the AIS)
  - Review special issues (e.g., Journal of Strategic Information Systems)
  - Regular submission to journals
- Review dataset: OSF, SYNERGY datasets

Review protocols: Their purposes

- Make concrete plans for a review project
- Pilot-test the feasibility and potential contribution
- Solicit feedback from peers
- Publish the protocol to signal your work (e.g., in a registry like PROSPERO or at OSF)

Review protocols: Conceptions

- A plan that is developed a priori and fixed. The protocol regulates researchers and requires them to follow an inflexible set of rules. Fixed protocols are more common in the health sciences and are often associated with theory-testing reviews like meta-analyses.
- A “living plan”. The protocol is a living document that is used as a work log that records how the review project has evolved over time. Researchers may deviate from their original plan. Protocol development is thus iterative.

Review protocols: Structure and contents (I)

- Title (indicating that this is a review protocol)
- Plain or structured abstract (written at the end) and keywords (up to 5)
- Introduction section (WHAT and WHY)
  - Generativity statements
  - Brief introduction of the topic, phenomenon, and theory of interest
  - Rationale for the review
  - Review objectives (and research questions)
  - Scope of the review
  - Expected contributions of the review
- Background section (WHAT / if applicable)
  - Definition of key concepts/presentation of the framework to be used to organize the review, presentation of the theory at the center of the review, etc.

Review protocols: Structure and contents (II)

- Methods
  - Type of review and justification
  - Search strategy and procedures
  - Screening strategy and procedures
  - Quality appraisal strategy and procedures
  - Data extraction strategy and procedures
  - Data analysis/synthesis strategy and procedures
- Expected results:
  - Structure of the synthesis (first-level headings)
  - Proposed presentation of synthesis (e.g., in the form of a table or figure)

Review protocols: Structure and contents (III)

- Conclusion
  - Methodological limitations
  - Potential implications for research, practice, and/or policymaking
- Appendices (WHO, HOW, WHEN)
  - List of contributors and their responsibilities
  - Detailed timetable
  - List of software tools used for what purposes
  - Intended publication plan (protocol publication/registration, strategy for reporting and publishing the full review article)
  - Other declarations (funding sources, etc.)

Where can we publish a review?

Journals with (theory and) review departments and/or regular calls for reviews

- Journal of Strategic Information Systems (see cfps)
- Journal of the Association for Information Systems (see literature review category)
- European Journal for Information Systems (see review article category)
- MIS Quarterly (see theory and review category)

Conferences

- International Conference for Information Systems (see literature review track)

Journals which publish only review articles

- Academy of Management Review (link), Academy of Marketing Science Review (link)
- International Journal of Management Reviews (link), Human Resource Development Review (link)
- Annual Review of Organizational Psychology and Organizational Behavior (link)
- Foundations and Trends in … [accounting, entrepreneurship, finance, information systems, management, marketing]

Until next session

Task: Explore the literature related to your topic and identify

1. **Related review papers** that should be mentioned in your review (protocol)
2. **A review paper that exemplifies your chosen review type**, which may serve as an inspiration for your work

Prepare to give an overview of the related review papers and explain what is particularly compelling in the exemplary review paper.

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Goals and review types

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Sample classified according to review types

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Dimensions

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Protocols

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