教育資料與圖書館學
JOURNAL OF EDUCATIONAL MEDIA & LIBRARY SCIENCES
InSight

Using Visual Methods to Explore How Students in Information-Related Fields Express the Concept of "Information"

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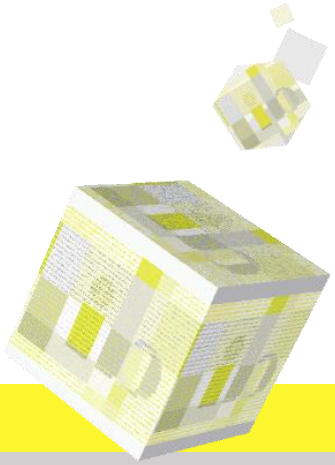
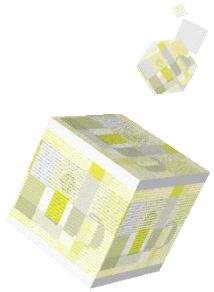
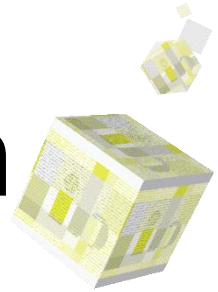


Introduction



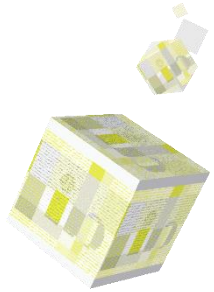
- Students in information-related fields not only interact with information for everyday-life purposes but also tackle the issues regarding information in their coursework and research
- Students in information-related fields may study “information” from very different perspectives
- Hartel developed the method and coined the term “iSquares”
  - A method and pedagogy to study the concept of “information”
- Research questions:
  1. How do students in information-related fields express the concept of “information” through drawing and writing?
  2. How similar or different are the elements used in students’ iSquares across information-related fields? And how similar or different are their perspectives?

Methods: Data Collection



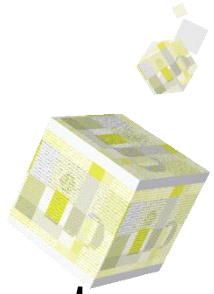
- Visual method with a draw-and-write technique
  - Followed Hartel's (2014) iSquare protocol
- With instructors' permissions, students were recruited from LIS, IM, and CS required courses
  - junior-level undergraduate courses
  - first-year graduate-level courses
- All data were collected in classroom settings
- 219 students were recruited
  - LIS (31.05%), IM (33.33%), CS (35.62%)

Methods: Data Analysis



- A 25-question codebook included two major parts:
  1. Composition and elements
  2. Perspectives and meanings of the information concept
- Codebook development
  - Items developed based on Hartel (2014a, 2014b), Tsai (2015), and relevant literature
  - Three major revisions and several minor adjustments
    - Testing with approximately 5%, 8%, and 10% of the 219 iSquares (i.e., 12, 18, and 21 iSquares) by the researcher and two other coders with LIS background
- Chi-square tests were used to reveal differences among the three disciplines

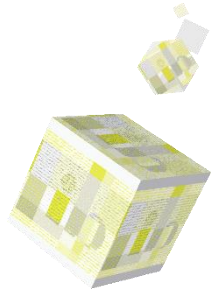
Results



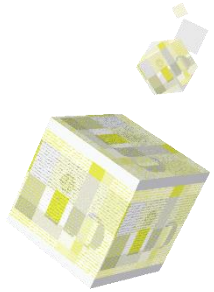
- Students in different disciplines tend to present their iSquares differently

Discipline	Compositions	Elements	Perspectives	Metaphor
LIS	Complex	More image of people and print materials	Uncertainty; Information seeking; DIKW hierarchy	More abstract
IM	Mid-level	In-between	Big data; Data →Information; Problem solving	In-between
CS	Simple	More tools and equipment, binary codes, and algorithms	Coding; Problem solving	More concrete

Discussion



- The iSquare compositions somewhat reflect the nature and approaches of different disciplines
- Contents introduced in the textbooks can explain the differences in the conceptual elements and perspectives appeared in the iSquares
- The current study provides insights for instructors to reflect on how they might want to address the concept of information, and thus shape the field in the future



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