

Discussion Panel: From Informing Objects to Learning Objects

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Introduction

Harman & Koohang (2005) stated that a learning object "... is not merely a chunk of information packaged to be used in instructional settings. A learning object, therefore, can include anything that has pedagogical value - digital or non-digital such as a case study, a film, a simulation, an audio, a video, an animation, a graphic image, a map, a book, or a discussion board so long as the object can be contextualized by individual learners. The learner must be able to make meaningful connections between the learning object and his/her experiences or knowledge he/she previously mastered. "

The above definition asserts that a learning object must have "pedagogical value" and that a learning object is 1) anything digital or non-digital such as a film, a simulation, or a case study, and 2) the ability of the learner to contextualize the object, i.e., the learner is capable of making "meaningful connections" between the object and his/her previous experiences and/or knowledge. Once the contextualization occurs, the object will have "pedagogical value" and it no longer merely an object, it is a learning object.

Can all objects be contextualized? Is it necessary for all objects to be contextualized? What shall one call an "object" that is retrieved (and may even have some value other than pedagogical value and/or use) from an open access or commercial learning objects repository labeled as a "learning object" with no pedagogical value? If these objects are not learning objects, but have some sort of value and use, how shall one refer to these objects? Perhaps "informing objects"?

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Keywords: informing objects, learning objects, Informing objects situations, dense Informing object, sparse informing object

Purpose

The purpose of this panel is to define informing object and make a clear distinction between a learning object and an informing object. Four themes re-

lated to informing objects are presented. They are: 1) informing object definition; 2) informing objects within situations; 3) dense and sparse informing objects; and 4) the use of informing objects. The discussion will be based on these themes as described in the following section.

Themes

Informing Object Definition

An informing object is always framed. It always presents, silently, a frame. A pattern is an informing object. Recognition of a pattern is the beginning of an articulation of a frame. An informing object informs because of the frame it infers and references.

An informing object is an artifact. It can be some kind of document, a text; or observations written down in a field journal, even as the observations describe and analyze phenomenal affairs, doings and sayings.

An informing object is an affair which provokes a conception or informational frame and details. An example of an informing object is a course syllabus or a document that contains information about the Museum of Science and Industry in Chicago.

Informing Objects within Situations

Informing objects are intentional or purposive, aiming at results and consequences which are situational. Informing objects are aiming at goals or outcomes (properties of situations and their circumstances). Information objects possess informational uses that are made public and common within various situations.

An informing object is a way of informing the results and consequences of communities of action (Dewey, 1986) or communities of practice (Wegner, 1998) in which social groups openly share expressed practices and meanings.

An informing object is a system of meaning, or is part of a system of practice; this is what is articulated. This articulation is a symbol or structure illuminated by frames defining the informing object's values and use in various situations. An informing object represents an ontology. A category or set of categories create an ontology. An ontology is an articulation of the "*What's in my world?*"

Dense and Sparse Informing Objects

Informing objects are dense or sparse informational symbols or structures. Dense informing objects present details enjoined in situations and their circumstances. A dense informing object constrains practice and meaning; a sparse one affords practice and meaning. A dense informing object affords transparency but constrains uncertainty in its control of the doings and sayings of a situation; it is explicit in its articulation of the power relationship. An example of a dense informing object is a course syllabus.

Sparse informing objects present details broadly which evoke, rely on, a shared situation and its circumstances, a shared understanding. A sparse informing object affords opaqueness and thus ambiguity in its control of the doings and sayings of a situation; it is implicit in its articulation of the power relationship. An example of a sparse informing object is a map.

Informing Object as a Metaphor

The concept of volume (i.e. dense versus sparse) is used to describe highly symbolic language like poetry or mathematics. Compare, for example, the texture or volume of the poetry of Shake-

speare versus the texture or volume of the poetry of American poet E.E. Cummings. Similarly, compare these two objects: (1) “The exponent of 10 to the second power,” and, (2) “10².” Each of the two objects is a longer or denser way of saying or stating “100.” Each of the two objects provides a frame but we are offered no clue as to how many of what is being framed.

The idea of framing is fundamental. Framing is a kind of “primary key” such as one finds in a database like MS Access or at a minimum framing may an identical table structure. Regardless of the type of join involved (with referential integrity enforced versus a simple equi-join) frames of reference allow us to relate two or more tables as a step towards applying queries and generating reports.

Note that the frame can be with or without referential integrity. For example a “mountain” can be a frame for many ideas or it can be constrained (via definition) to be a frame for a particular idea. It is the learner who decides to “enforce referential integrity” or to use an equi-join, not the object itself. So the frame is silent till it is consciously and purposefully viewed. Likewise a metaphor ultimately needs an author and an audience. And further, an informing object needs a learner.

The Use of Informing Object

An informing object is and can be a realizing of multiple intentions, aims, and goals. A materializing of ideas in words, using a vocabulary, being located in complex spaces, multiple discursive spaces, inferring and referencing multiple “*What’s in a situation?*”, representing and being grounded in multiple frames.

The Structure of the Panel

The panel will consist of four themes. They are: 1) informing object definition; 2) informing objects within situations; 3) dense and sparse informing objects; and 4) the use of informing objects. Panelists will present one theme at a time. Audience will be invited to ask questions and contribute to the discussion.

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Panelist’s Biographies



Robert Joseph Skovira is a University Professor of Computer Information Systems in the Department of Computer and Information Systems, School of Communications and Information Systems, at Robert Morris University, Pittsburgh PA USA. He teaches undergraduate and graduate (MS) courses including Java Programming, Secure Programming, Knowledge Management, Global, Economic, Social, and Ethical Issues of Computing, Decision Support Systems, Information Design, and Ethical and Legal Issues of Technology. In the Doctor of Science program he teaches Ethnography of Information Systems. He was a

visiting professor at Comenius University, Bratislava, Slovakia, in 1997 and 2006. Dr. Skovira's research interests include information and information system use within organizations (politics of information, information system bias, secure programming), cultural and moral frameworks, decision making and knowledge mapping, and information design and thinking visually.



Alex Koohang is Peyton Anderson Eminent Scholar and Professor of Information Technology at Macon State College. He serves as the Dean of the School of Information Technology at Macon State College. Dr. Koohang has been involved in the development of online education, having initiated and administered some of the earliest asynchronous learning networks. His current research interests are in the areas of e-learning, learning objects, open education, usability, and knowledge management.



Frederick G. Kohun, Ph.D., Associate Provost and University Professor at Robert Morris University in Pittsburgh, Pennsylvania has more than 33 years experience as a professor, department head, and academic administrator in the information systems field. He holds a bachelor degree in economics from Georgetown University, graduate degrees in economics and information science, from the University of Pittsburgh, and a Ph.D. in applied history in technology from Carnegie Mellon University. At Robert Morris University he led the design and implementation of eight technology based academic programs at the undergraduate and graduate level (including a doctoral program) as well as the attainment of ABET-CAC accreditation. He is known both nationally and internationally from his numerous publications and presentations in health informatics, decision support, technological impact, and culture as well as his active involvement as an accreditation evaluator and team leader.



Richard Will is an Associate Professor in Department of Information Systems and Decision Sciences of the College of Business at the University of South Florida. His research interests are: IS for Education and Training, Multimedia Information Systems, Systems Development Methodologies, IT Project Management, Expert Systems Development and Implementation, Individual and Team Impacts of Emerging Technologies.