

# Threshold concepts & Information literacy

Transformative

Irreversible

Integrative

Bounded

Troublesome

## Overview & Assessment

### The Basics

*“As described by Jan Meyer and Ray Land, threshold concepts are the core ideas and processes in any discipline that define the discipline, but that are so ingrained that they often go unspoken or unrecognized by practitioners. They are the central concepts that we want our students to understand and put into practice, that encourage them to think and act like practitioners themselves.”<sup>1</sup>*

#### **Transformative**

Causes the learner to experience a shift in perspective.

#### **Irreversible**

Once grasped, cannot be un-grasped.

#### **Integrative**

Unifies separate concepts/lessons/facts into a unified whole.

#### **Bounded**

May help define the boundaries of a particular discipline, are perhaps unique to the discipline

#### **Troublesome**

Often counter-intuitive, the place where students stumble or get stuck

### Key Points

#### **Provisional**

Information literacy threshold concepts are not settled. The new ACRL Framework for Information Literacy, a recently completed Delphi study, and individual efforts from librarians continue an ongoing conversation about the big ideas of information literacy.

#### **Disciplinary Lens**

Though information science is an interdisciplinary area of inquiry, librarians share common ways of thinking and practicing. We can employ our subject expertise in analyzing our content for potential threshold concepts. Students are understood as potential disciplinary practitioners.

#### **Reflective Practice**

Your own disciplinary expertise is your most valuable resource in developing a more reflective teaching practice. We can engage with the theory of threshold concepts to improve our teaching and develop threshold concepts for our local contexts.

### Assessing Threshold Concepts

*“How might we get away from traditional assessment regimes in which a student can produce the ‘right’ answer while retaining fundamental misconceptions?”<sup>2</sup>*

#### **Liminal Space**

The liminal space is where the threshold initially comes into view. Learners often get stuck in this space, which is usually an uncomfortable place of confusion, both intellectual and affective. Learners approach the liminal space from different directions and with different levels of understanding. Some may move quickly through the liminal space and the threshold, others may take a while and require more guidance.

#### **Seeing Movement through the Liminal Space**

We need to make external the internalized ontological and cognitive shifts that indicate an approach to and crossing of a learning threshold. Assignments externalize this shift, but sometimes all the rules of the game — the citation styles, the sentence-level grammar issues, the unfamiliar vocabulary in academic writing — can hide whether or not students understand the big, conceptual ideas. Meyer and Land suggest that one way to assess conceptual understanding is to produce informally structured assignments that can help us see whether students are engaging with the concept, and treat the rules of the game as a separate learning objective.

#### **Beyond the Snapshot**

When we create assignments that ask students to interrogate the edges of the frame, to delve into why a source was created, and who holds authority, we can shift the focus of the classroom from mimicking the right rules to grappling with conceptual understandings. By striving to follow students AS they learn, we can acknowledge variation in student experience and discover when and how learning is happening.

#### **Proceed Slowly**

You cannot rush a threshold concept. By nature, these are the concepts that students will need to revisit again and again before they can get across the threshold with the “aha” moment. Once they are across, they will likely need to revisit earlier material as they integrate formerly disparate facts with their new understanding.



Korey Brunetti, Amy R. Hofer,  
Silvia Lu & Lori Townsend

# Threshold Concepts for Information Literacy: Delphi Study Preliminary Results

## Authority

Authoritative evidence comes from sources that possess the expertise, experience, and relevant credentials to be considered trustworthy. However, the disciplines have differing views of what constitutes evidence and different situations give rise to different criteria for evaluation of authority, whether acknowledged or implicit. Understood in this way, authority is a reflection of power structures reproduced through established systems and institutions.

## Format

Format is the way tangible knowledge is disseminated. For a print source, this can mean its physical structure (e.g., binding, size, number of pages) as well as its intellectual structure (e.g., table of contents, index, references). For a digital source, this means its presentation, intellectual structure and physical structure (e.g., file format). However, the essential characteristic of format is the process of information creation, production, and dissemination that underlies these visible structures rather than how that content is delivered or experienced.

## Information goods

Examining information as a commodity — something that has monetary value — means looking closely at the relationship between information and the economic systems that produce, reproduce, and disseminate it. Understanding the operations of these powerful economic interests helps explain, for example, intellectual property, hidden costs of “free” online services, and authentication paywalls. Once this concept is understood, alternative means of exchanging and valuing information can be explored.

## Information structures

Opening the hood on databases and search engines transforms them from mysterious boxes that magically produce good-enough information on command into logical systems that can be used precisely and effectively by leveraging features such as field searching or controlled vocabulary. Efficient retrieval or addition of information to such systems requires acting on an understanding of the underlying structures, as for example when a researcher adds appropriate metadata to research data for dissemination or preservation purposes. These structures are designed by people and should be demystified for beginners.

## Research process

The research process is characterized by iterative inquiry. Its practical purpose is to solve problems or answer questions. Identifying and articulating useful questions requires an existing foundation of knowledge and is difficult intellectual work. This process — from inquiry, to seeking out existing knowledge, to the selection of relevant information, to the development and testing of a thesis/hypothesis and subsequent analysis and synthesis of the results — results in the creation of new knowledge.

## Scholarly discourse

Information users and creators are part of an ongoing conversation in which new knowledge builds upon or refutes what has gone before, and in turn inspires new inquiry within a community. For example, this understanding reveals a primary function of citation as a point of access into a given conversation. Experts engage with the conversation by regularly consulting a limited group of disciplinary resources, including colleagues and journals, and sharing the results of their individual inquiry with the community through formal and informal means.

## Recommended Reading

Meyer, J.H.F. & Land, R. (2006b). Threshold concepts and troublesome knowledge: Linkages to Ways of Thinking and Practising within the Disciplines. Available from <http://www.etl.tla.ed.ac.uk/docs/ETLreport4.pdf>

Land, R., & Meyer, J.H.F. (2006). Threshold concepts and troublesome knowledge (5): Dynamics of assessment. In J.H.F. Meyer & R. Land, (Eds.) *Overcoming barriers to student understanding: Threshold concepts and troublesome knowledge* (pp. 61-79). London: Routledge.

Hofer, A.R., Townsend, L., & Brunetti, K. (2012). Troublesome concepts and information literacy: Investigating threshold concepts for IL instruction. *portal: Libraries and the Academy* 12(4). Available from <https://dr.archives.pdx.edu/xmlui/handle/psu/8542>

There is a complete Threshold Concepts Bibliography maintained by Mick Flanagan available from <http://www.ee.ucl.ac.uk/~mflanaga/thresholds.html>

<sup>1</sup> Hofer, A.R., Townsend, L., & Brunetti, K. (2012). Troublesome concepts and information literacy: Investigating threshold concepts for IL instruction. *portal: Libraries and the Academy* 12(4).

<sup>2</sup> Land, R., & Meyer, J.H.F. (2006). Threshold concepts and troublesome knowledge (5): Dynamics of assessment. In J.H.F. Meyer & R. Land, (Eds.) *Overcoming barriers to student understanding: Threshold concepts and troublesome knowledge* (pp. 61-79). London: Routledge.

