# Which Came First:
## *The Whale or the Egg?*

*Dr. A. M. Salaz, Reference & Instruction Librarian, Carnegie Mellon University in Qatar, asalaz@cmu.edu; Teresa MacGregor, Director of the Library, Carnegie Mellon University in Qatar, teresam@qatar.cmu.edu*

### NUTRITION INFORMATION
For a short information literacy session that introduces the strengths and limitations of discovery tools, present students with a written question that contains ambiguity and lacks context. Then ask them to find the answers by searching library systems without the aid of additional human interaction. Wrap up the experience—designed to draw out common frustrations—with a review of best practices when first investigating an information need. This lesson is particularly useful for helping both ESL and non-ESL students examine the role of language and vocabulary in describing information needs and in expanding and narrowing search.

#### Learning Outcomes
Students will be able to:
- Analyze the clues within a stated information need in order to determine the best sources to meet that need.
- Apply basic and advanced search techniques to refine their results both on the web and within library discovery tools.
- Identify and critique the operational strengths and limitations of library discovery systems through experimentation and comparison with web searching.

### NUMBER SERVED
5 to 15 students

### COOKING TIME
Preparation time: 30 to 45 minutes (less if you are re-using questions/clues)
Lesson delivery: 1 hour. (This could be split into two sessions or "flipped" with the student exercise occurring at one time, for 15 to 30 minutes, and the explanation occurring afterward, for 30 minutes).

### DIETARY GUIDELINES
*Frame:* Searching as Strategic Exploration

*Knowledge Practices:*
- Utilize divergent (e.g., brainstorming) and convergent (e.g., selecting the best source) thinking when searching.
- Understand how information systems (i.e., collections of recorded information) are organized to access relevant information.

*Dispositions:*
- Understand that first attempts at searching do not always produce adequate results.
- Persist in the face of search challenges, and know when enough information completes the information task.

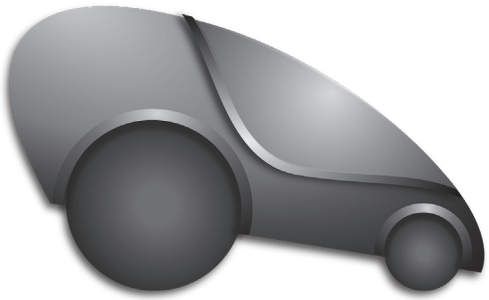
### INGREDIENTS & EQUIPMENT
- Internet-enabled computer (in the library or a lab)
- One copy of original question and one copy of (visual) clue per student
- One copy (minimum) of print or e-book containing the answer (e.g. *Dream Cars*). Substitutions encouraged!
- Classroom time for follow-up presentation (script provided, Figure 2) and Q&A
- Instructor station and projector (for follow-up presentation)

### PREPARATION
- Instruct on-duty library staff about how much or how little help they are expected to provide to students during the exercise.
- If available in print, stage the target book (e.g. *Dream Cars*) in the desired location.
- Print copies of the handouts (question and visual clue) for each student.

### COOKING METHOD
1. Gather students in the library and present them with the following questions: Which came first: the whale or the egg?
   a. What are the whale and the egg (provide a general description)?
   b. Name a person associated with the whale and the egg?

   c. When were the whale and the egg invented?
   d. Can you find a print source in the library that includes information on the whale and the egg? Provide the source name, location in the library, and location of the information within the source.
2. After 5 to 10 minutes of struggling, provide students with a second, visual clue:
3. Give students another 5 to 10 minutes to discover the answer (Figure 1).
4. Follow up immediately after the exercise with a discussion on the challenges encountered, the behavior of the search systems utilized, and the best approaches to interacting with systems in ways that are likely to produce the desired results.

"The Egg." Early electric car prototype, as shown on page 66 in Schleuning, S. & Gross, K. (2014). *Dream cars: Innovative design, visionary ideas*. Atlanta, Georgia: High Museum of Art.



The image above is a placeholder only. Due to copyright constraints, we cannot print the actual image here. However, under fair use rules, you could use the actual image from the text in your teaching materials.

**FIGURE 1.** Spoiler Alert—Answer Key

Which came first: the whale or the egg?

The Whale (*La Baleine*) predated the Egg (*L'Œuf*) by four years

- What are the whale and the egg (provide a general description)?
  Early electric car designs or vintage electric concept cars
  The Whale = *La Baleine*
  The Egg = *L'Œuf*
- Name a person associated with the whale and the egg?
  Paul Arzens, French artist, sculptor, and designer
- When were the whale and the egg invented?
  The Whale (*La Baleine*) = 1938
  The Egg (*L'Œuf*) = 1942

Can you find a print source in the library that includes information on the whale and the egg? Provide the source name, location in the library, and location of the information within the source.

*Dream Cars: Innovative Design, Visionary Ideas*
Book
Call Number: TL7 .U62A85 2014
Library catalog entry: http://search.library.cmu.edu/vufind/Record/1575744
Location: Q-Display (Qatar Display Area)
Pages 66–69

**{ Will vary by library, of course }**

5. Incorporate a presentation on analyzing information needs and, in particular, how to use library discovery tools to answer those needs (Figure 2). This question-driven presentation may focus on issues generated through the activity, such as:
   a. Disambiguation of concepts through the use of specific language and keywords.
   b. Functionality within discovery tools such as "Related Terms," inclusions, and exclusions.
   c. The links between electronic records and physical items such as locators, call numbers, and other metadata.
   d. The challenges of description and classification.

## ALLERGY WARNINGS

Having only one copy of the target resource when the exercise must accommodate many students may create a bottleneck. Consider resource-to-student ratios when designing the activity.

This activity is run once per academic year. Questions, clues, and solutions are changed every year to prevent answers being leaked among students.

## CHEF'S NOTES

We have used this lesson plan several times with undergraduates in information systems courses, such as mobile application development and human-computer interaction. It works especially well with students in these disciplines.

Use of this exercise in a transnational ESL environment creates special linguistic and cultural challenges and opportunities related to resource description, keyword searching, and interactions with systems.

We recommend capitalizing on this with a liberal sprinkling of discussion on how discovery tools match (or fail to match) text and synonyms in descriptive records. Add more flavor with a discussion of bias (cultural, gender, academic, etc.). Do the discovery tools themselves carry bias? How can researchers understand and counter such biases?

This particular activity works only if you have the appropriate source in your library. In this case, the book titled *Dream Cars* (Schleuning, S. & Gross, K. (2014). *Dream cars: Innovative design, visionary ideas*. Atlanta, Georgia: High Museum of Art.). Substitutions are encouraged. We have used the same lesson design with other clues/books, such as "Show me the little tramp dining on unusual spaghetti" with the visual clue:

Charlie Chaplin as The Little Tramp eating shoelaces like spaghetti, from the movie *The Gold Rush* (1925), as shown on page 154 in Vance, J. (2003). *Chaplin: Genius of the cinema*. New York: Harry N. Abrams.

The image to the right is a placeholder only. Due to copyright constraints, we cannot print the actual image here. However, under fair use rules, you could use the actual image from the text in your teaching materials.

**FIGURE 2.** Library Research Challenge
Which Came First: The Whale or The Egg?
*Best Practices for Research*

When presented with an information need, the first thing to do is to get more information (a.k.a. background searching).

1. Ask questions
   a. Who or what is the whale? Who or what is the egg?
   b. If the whale and the egg were "invented" what could they be and/or not be?

2. Get more information
   a. Google it!
   *b.* *Wikipedia* it!
   [Run a Google search on: whale and egg. Show that the results do not help answer the provided questions.]

3. Get even more information
   a. Use smart search features such as putting full phrases in quotation marks
   [Run a Google search on: "the whale" and "the egg." Show that the results are getting closer, but still are not enough to answer the provided questions.]

4. Get still more information
   a. Seek out other clues such as keywords, synonyms, and images
   [Run a Google search on: "the whale" and "the egg" car. Show that the results are on point. Switch to Google Images to see the same image as provided in the clue (Student Handout 2). Cracked it!]

5. Follow the trail
   a. Now take your new information and find resources in the library
   [Run searches in the library's discovery tool. Show varying results with different keywords (l'oeuf, "the egg," arzens, concept car) and collections. Ultimately, navigate to the correct title in the catalog.]

6. Lessons Learned
   a. To find information, you need more information. Computers are dumb. They don't know anything about context
   b. Ask questions. A librarian will interview you at the Reference Desk. Sometimes you have to interview yourself.
   c. Google it or Wikipedia it.
   d. Seek out other clues (keywords, synonyms, images).
   e. Follow the trail.
   f. Search on the library website.
   g. The right answer may be in more than one location.

7. Questions?

## CLEAN UP

Assessment of this activity is conducted informally and formatively using open discussion and reflection on the search processes and analysis of the systems employed. Students' expressed observations and understandings of search system functionality, shortcomings, and strengths should aid and inform discussion of how to better interact with and manipulate these systems.

Assessment of this activity can be conducted formally by asking students to subsequently develop proposals for improving search system functionality, providing them with an opportunity to think critically about the utility of discovery systems for research and to show understanding of these systems' strengths and limitations.

## ADDITIONAL RESOURCES

- Print or e-book (e.g., Schleuning, S. & Gross, K. (2014). *Dream cars: Innovative design, visionary ideas*. Atlanta, Georgia: High Museum of Art.)
- Research question and (visual) clue handouts
- Answer Key
- Follow-up presentation script