

The Artemis interface: supporting K-12 student inquiry in digital libraries

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Artemis is an interface to the University of Michigan Digital Library (UMDL), developed to help support K-12 students doing inquiry in complex information environments such as the WWW. The Artemis interface, which is programmed in Java, is designed to overcome some of the limitations of conventional WWW browsers and search engines. K-12 students often find WWW searching to be disorienting and unproductive, and typically have trouble formulating keyword searches in unfamiliar content areas, sorting through long lists of search results, and organizing and storing results of their searches. Artemis has features such as support for keyword 'browsing', storage for past results, and other organizational aids (see figure below) to help support student inquiry.

Artemis was developed for the University of Michigan Digital Library, and provides access to the proprietary collections of that project, as well as the WWW. The UMDL is an NSF-sponsored project that uses current technology, including agent-based architecture and learner-centered interface design, to support learning with digital media. The Artemis interface has been through two rounds of beta testing at the middle school level, and is being deployed in high school classes during the 1997-98 school year.

Browse Broad Topics:

- Recall prior knowledge
- Generate keywords
- Access controlled vocabulary

Search:

- Access unique UMDL content (Proquest, UMDL Cybrarian Collections, UMI)
- Access the Web via HotBot

Driving Question Folders:

- Organize and focus work
- Keep track of resources
- Refine questions
- Available to teachers as a resource

Browse Past Results:

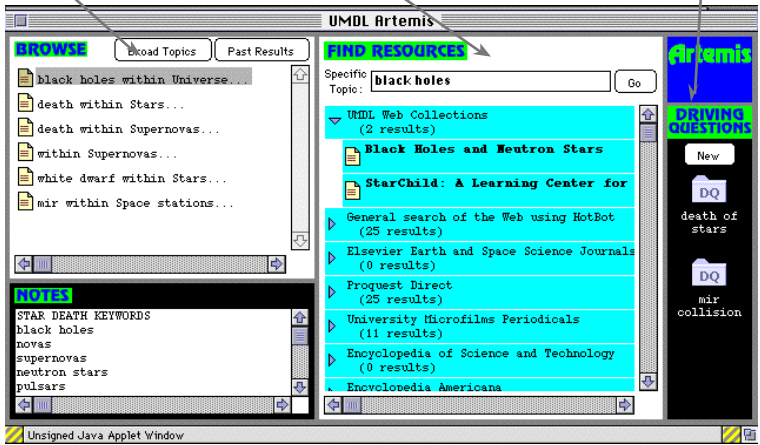
- Avoid repetition
- Continuous over time
- Resource available to teachers for assessment of work

Notes:

- Organize and focus work
- Consolidate workspace
- Available for teacher assessment

ARTEMIS: A Persistent Workspace for Students

- Saves student work: previous searches, question folders, & notes
 - Available from any site
 - Continuous over time



The screenshot shows the UMDL Artemis interface. It has a top navigation bar with 'BROWSE' and 'FIND RESOURCES' buttons. Below 'BROWSE' is a list of topics like 'black holes within Universe...'. Below 'FIND RESOURCES' is a search box with 'black holes' entered and a 'Go' button. To the right is a 'DRIVING QUESTIONS' sidebar with folders like 'death of stars' and 'mir collision'. At the bottom left is a 'NOTES' section with 'STAR DEATH KEYWORDS' and a list of terms. The interface is titled 'UMDL Artemis' and is an 'Unsigned Java Applet Window'.