



Electronic Mapping Systems, Inc.

e-maps

10340 Democracy Lane, Suite 302

Fairfax, VA 22030

Website: www.e-mapsys.com

Phone: 703-385-9320

Email: e-maps@e-mapsys.com

Fax: 703-385-0999

January 8, 2011

Subject: PREDICTABILITY FOR SEARCHES

1. Purpose. To explain the applicability of “predictability for searches,” a library science concept, to information technology (IT) interoperability and information discovery.
2. Basic Points. Those seeking to improve IT support of interoperability need to exploit the concept of “predictability for searches” from library science. In *Library Research Models*, Thomas Mann, a librarian who has worked at the Library of Congress, uses the phrase and concept of “predictability for searches” to explain the role of systems of terminology for categories of knowledge.
3. Background. This paper was written because advances in the capability of IT to store and process data and information have not been matched by advances in the providing users with better data and information. Advances in IT often lead to ever larger stores of data and information in which users find it increasing difficult to find the data or information they needed. Ever-more irrelevant information too often only makes the relevant more difficult to find.
4. Discussion
 - a. Librarians have long used the term / concept of predictability for searches. This is “the capability of a system to move searchers efficiently from whatever search strategy they think of themselves to the strategy that will produce the best results.”¹ This approach is different from keyword searching of which *Library Research Models* says:

Key word searching, which is used more frequently nowadays because of the widespread availability of computer databases, is an *avenue* of access to knowledge records; but it is not a *system* of access because it lacks the critical element of predictability. There is no intellectual structure or direction that enables you to proceed from the little that you know to the retrieval of whole *categories* of sources that contain works whose key words you could not specify in advance.²

- b. Mann observes: “In the large majority of cases, librarians do not need subject matter expertise as long as they have predictable systems of access.”³ The same is true for non-librarians who have information to report or are seeking information.

1 Mann, Thomas, *Library Research Models*, Oxford University Press, New York and Oxford, 1993, page 121

2 Ibid, page 89

3 Ibid, page 120

c. Warfighters, the rest of DoD and the world in general have long used systems of terminology to facilitate searching for information and interoperability. Doctrinal publications are classic warfighter examples. The World Geodetic System (WGS) 84 is a classic example for DoD and the rest of the world. The issue is not creating something new. Rather the IT community needs to understand that systems of terminology have been created by many communities of practice and need to be exploited in IT endeavors, particularly those intended to promote interoperability.⁴

⁴ Interoperability: 1) The ability to operate in synergy in the execution of assigned tasks. (JP 3-0). 2) The condition achieved among communications-electronics systems or items of communications-electronics equipment when information or services can be exchanged directly and satisfactorily between them and/or their users. The degree of interoperability should be defined when referring to specific cases. (JP 6-0)