Chapter 7.23
Information Quality:
Critical Ingredient for National Security

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ABSTRACT

Information Quality Management is critical for national security not just because of the myriad information types, including textual, audio, video and other complex information types and to the difficulties in collecting intelligence information, but because of the consequences of failure of national security caused by low-quality information. The diversity and breadth of the number of autonomous or semi-autonomous agencies create complexity in aggregating data from disparately defined databases. Federal laws, an open society, human rights and privacy further hinder the ability to collect, access, aggregate and use certain information. The collection of intelligence information requires rigorous procedures and technologies to error-proof the collection processes, to assure information quality and techniques for analyzing less-than-optimum-quality information. Data definition and database design for information required across multiple agencies can and must be standardized to prevent misinterpretation and analysis failure. Standard Information Quality Management processes with specific considerations applied to address the nature of intelligence information. Cultural transformation within various intelligence community organizations will enable agencies to sustain a level of information quality to minimize the risks of national security process failure.

IS INFORMATION QUALITY IMPORTANT FOR NATIONAL SECURITY?

On December 24, 2003, Air France canceled six flights between Paris and Los Angeles on the basis of intelligence information indicating that al-Qa'ida [also spelled al-Qaeda] might be planning to hijack aircraft for another September 11-style suicide attack.

Was the information accurate and timely? If yes, the world and the unsuspecting victims were spared another major terrorist attack and its devastation. But, what if the information was not quality? The cancellation of these flights had a significant economic impact on Air France and an inconvenience to more than 1,000 travelers, whose plans were disrupted.

Six persons whose names supposedly "matched" FBI watch lists precipitated the cancellations. However, all six turned out to be cases of "mistaken identity," caused by poor-quality information. One "suspected" terrorist happened to be a five-year-old child; another was a prominent Egyptian scientist, while a third was an elderly Chinese woman. "Errors in spelling and transcribing Arabic names played a role," said French officials (The Associated Press, 1/2/2004).

This encapsulates one of the difficulties of national security and illustrates the importance—no, absolute criticality—of information quality as a priority in national security.

A constant theme in the Joint Congressional Investigation into the September 11, 2001 attacks was failure to "connect the dots" of the various pieces of intelligence information that could have prevented them (Joint Inquiry, 2002). With relevant information available to it prior to September 11, 2001, the intelligence community

> *too often failed to focus on that information and … appreciate its collective significance in terms of a probable terrorist attack. … Some significant pieces of information in the vast stream of data being collected were overlooked, some were not recognized as potentially significant at the time and therefore not disseminated, and some required additional action on the part of foreign governments before a direct connection to the hijackers could have been established. For all those reasons, the intelligence community failed to fully capitalize on available, and potentially important, information.* (Joint Inquiry, 2004, pp. 10-11)

The losses and costs of the single incident of September 11, 2001 in loss of life, cost of recovery and disruption to the economy may never be calculated.

The ultimate objective of national security is to prevent hostile actions that create death, destruction, chaos and disruption of the economy in ways that could ultimately cause the nation's downfall.

The ultimate objective of information quality management, like quality management in general, is to assure the health of an organization by assuring customer satisfaction in the goods and services it provides and by eliminating the waste and costs of recovery caused by poor quality. W. Edwards Deming states in his First Point of Quality that an organization must "Create constancy of purpose toward improvement of product and service, with the aim to become competitive and to stay in business and to provide jobs." (Deming, 1986, p. 23) Paraphrased: A government must create constancy of purpose toward improvement of service and security, with the aim to remain viable and "to stay in existence" for its citizens.

DEFINING INFORMATION QUALITY IN THE CONTEXT OF NATIONAL SECURITY

Defining Information Quality

Information quality is "Consistently meeting knowledge worker and end-customer expectations" to enable internal knowledge workers to accomplish their objectives effectively and to enable end-customers to accomplish their personal objectives with the use of information (English, 1999, p. 24). Those who perform processes to assure national security are knowledge workers; information "consumers" require critical intelligence information. "End-customers" are citizens and other stakeholders that national security processes seek to protect.

Quality characteristics that citizens as "customers" require include a sense of safety and