

Modeling Information Manufacturing Systems to Determine Information Product Quality

Donald Ballou • Richard Wang • Harold Pazer • Giri Kumar.Tayi

Management Science and Information Systems, State University of New York at Albany, Albany, New York 12222

Total Data Quality Management (TDQM) Research Program, Room E53-320, Sloan School of Management,

Massachusetts Institute of Technology, Cambridge, Massachusetts 02139

Management Science and Information Systems, State University of New York at Albany, Albany, New York 12222

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Many of the concepts and procedures of product quality control can be applied to the problem of producing better quality information outputs. From this perspective, information outputs can be viewed as information products, and many information systems can be modeled as information manufacturing systems. The use of information products is becoming increasingly prevalent both within and across organizational boundaries.

This paper presents a set of ideas, concepts, models, and procedures appropriate to information manufacturing systems that can be used to determine the quality of information products delivered, or transferred, to information customers. These systems produce information products on a regular or as-requested basis. The model systematically tracks relevant attributes of the information product such as timeliness, accuracy and cost. This is facilitated through an information manufacturing analysis matrix that relates data units and various system components. Measures of these attributes can then be used to analyze potential improvements to the information manufacturing system under consideration.

An illustrative example is given to demonstrate the various features of the information manufacturing system and show how it can be used to analyze and improve the system. Following that is an actual application, which, although not as involved as the illustrative example, does demonstrate the applicability of the model and its associated concepts and procedures.

(Data Quality; Timeliness of Information; Information Product; Information Systems; Critical Path)
