The TIQM[®] Quality System for Total Information Quality Management: Business Excellence through Information Excellence

ABSTRACT-----

Mr. English describes the essentials of the six processes required for sustainable information quality management as a way out of the information quagmire. W. Edwards Deming, Joseph Juran, Philip Crosby and Masaaki Imai taught the world how to apply sound quality management principles to manufacturing. Mr. English describes how you can apply the same quality management principles to information quality.

Mr. English describes the processes to measure IQ and to improve information processes to prevent defects. He describes how to implement a *sustainable* information quality *environment*. He illustrates case studies of how successful organizations have implemented information quality processes that result in business and information system process effectiveness.

- The emerging "Realized" Information Age: Coming soon!!!
- What Information Quality Management is and why it is *essential* to enterprise effectiveness
- Information Value Circles: Managing the horizontal enterprise
- Core competencies for sustainable "Total Information Quality Management"
- How to establish a culture for *sustainable* Information Quality

BIOGRAPHY-----

Larry P. English

President and Principal Information Impact International, Inc.

Larry P. English, president and principal of INFORMATION IMPACT International, Inc., is an internationally recognized speaker, teacher, consultant, and author in information and knowledge management and information quality improvement. He has provided consulting and education in ~ 40 countries on five continents. Mr. English was featured as one of the "21 Voices for the 21st Century" in *Quality*



Progress. DAMA awarded him the 1998 "Individual Achievement Award" for his contributions to the field of information resource management. He has chaired Information Quality Conferences in the US and Europe and is a co-founder of the International Association for Information and Data Quality (IAIDQ).

Mr. English's TIQM[®] Quality System for information quality improvement has been implemented in several organizations worldwide. Mr. English's widely acclaimed book, *Improving Data Warehouse and Business Information Quality*, has been translated into Japanese by the first information services organization to win the Deming Prize for Quality. His new book, *Information Quality Applied: Best Practices for Improving Business Information, Processes and Systems*, is available in mid 2009.



Larry P. English **President and Principal**

Mr. English is an internationally recognized speaker, educator, author and consultant in information and knowledge management and information quality improvement. He also information and knowledge management and information quality improvement. He also provides consulting and education in information stewardship, strategic information visioning, information technology evaluation, information resource management and data administration, data modeling and facilitation, and value-centric application development methods. Mr. English has developed the TIQM® Quality System applying Kaizen® quality principles to information quality management. He chairs Information Quality Conferences around the world and he is a co-founder of the International Association of Information and Deve Ore 10.0000 (1990). Data Quality (IAIDQ).



Prior to founding INFORMATION IMPACT International, Inc. (www.infoimpact.com), Brentwood, TN, over twenty Prior to rounding INFORMATION IMPACT International, Inc. (www.infoimpact.com), Brentwood, IN, over twenty years ago, Mr. English was Vice President of an international IRM consulting firm. Before that, he was manager of systems development and then for information management with a large publishing firm. Before positions as Senior Instructor for a computer manufacturer and Information Systems Training Coordinator for a major insurance firm, Mr. English began his career with Sears, Roebuck, and Co., as a programmer and systems analyst. He was featured as one of the "21 Voices for the 21st Century" in the January, 2000 issue of *Quality Progress*. DAMA awarded him the 1998 "Individual Achievement Award" for his contributions to the field of information resource management. Mr. English has served as an Adjunct Associate Professor in computer science. He is a member of the American Society for Quality and is a former only for A. Ho has also have no entitive member of the

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(American locate y for Quality and is a former advisor for Dame. The has also been advisor for DM Review. A magna cum laude graduate of Hardin-Simmons University, Mr. English holds a Masters Degree from the Southern Baptist Theological Seminary where he was a Luther Rice Scholar and a Garrett Fellow. He is listed in Outstanding Young Men in America and Who's Who Worldwide. He has provided consulting and educational services in more than Young Men in America and Who's Who Worldwide. He has provided consulting and educational services in more than 30 countries on five continents to such organizations as Aera Energy, Air Canada, American Express, Belgacom, Boeing, British Telecom, Coca-Cola Foods, Dow Chemical, Eastman Kodak, Eli Lilly, the FDIC, Hewlett-Packard, The Hartford, IBM, L. L. Bean, NTT DATA, Optical Fibres, Sprint, Telenor, Toyota Motor Sales, UNUM Life Insurance Co., the U.S. Navy, Western Health Alliance and Weyerhaeuser. A frequent keynote speaker, Mr. English writes the monthly "Plain English about Information Quality" column for *DM Review*, and is the author of the highly acclaimed *Improving Data Warehouse and Business Information Quality*, also available in Japanese.

also available in Japanese, and numerous articles for publications in the US and Europe.

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	MATION		ANAGEMI		
Measurement Categories	Stage 1: Uncertainty (Ad hoc)	Stage 2: Awakening (Repeatable)	Stage 3: Enlightenment (Defined)	Stage 4: Wisdom (Managed)	Stage 5: Certainty (Optimizing)
1. Management understanding and attitude	No comprehension of information quality as a management tool. Tend to blame Data Management or I/S org for "information quality problems" or vice versa.	Recognizing that information quality management may be of value but not willing to provide money or time to make it all happen.	While going through information quality improvement program learn more about quality management; becoming supportive and helpful.	Participating. Understand absolutes of information quality management. Recognize their personal role in continuing emphasis.	Consider information quality management an essential part of company system.
2. Information quality organization status	"Data" quality is hidden in application development departments. Data audits probably not part of organization. Emphasis on correcting bad data.	A stronger information quality role is "appointed" but main emphasis is still on correcting bad data.	Information quality organization exists, all assessment is incorporated and manager has role in development of applications.	Information quality manager reports to CIO; effective status reporting and preventive action. Involved with business areas.	Information quality manager is part of management team. Prevention is main focus. Information quality is a thought leader.
3. Information quality problem handling	Problems are fought as they occur; no resolution; inadequate definition; lots of yelling and accusations.	Teams are set up to attack major problems. Long- range solutions are not solicited.	Corrective action communication established. Problems are faced openly and resolved in orderly way.	Problems are identified early in their development. All functions are open to suggestion & improvement.	Except in the most unusual cases, information quality problems are prevented.
4. Cost of information quality as % of revenue	Reported: unknown Actual: 20%	Reported: 5% Actual: 18%	Reported: 10% Actual: 15%	Reported: 8% Actual: 10%	Reported: 5% Actual: 5%
5. Information quality improvement actions	No organized activities. No understanding of such activities.	Trying obvious "motivational" short-range efforts.	Implementation of the 14 point program with thorough understanding and establishment of each step.	Continuing the 14 point program and starting to optimize.	Information quality improvement is a normal and continued activity.
Summation of company information quality posture	"We don't know why we have problems with information quality."	"Is it absolutely necessary to always have problems with information quality?"	"Through management commitment and information quality improvement we are identifying and resolving our problems."	"Information quality problem prevention is a routine part of our operation." Adap Quality Manag	"We know why we do not have problems with information quality." Ited from P. B. Crosby ement Maturity Model
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TIQM®* QUALITY SYSTEM FOR INFORMATION P1: Assess Info Product Specification & Architecture Quality





DATA DEFINITION						
Examples						
Service Poor: CUSTOMER:						
 A person who has a record in the customer table 						
Better: CUSTOMER:						
A person who has purchased, or expressed active interest in purchasing ACME's products and / or services. This includes prospects, current customers and previous but now inactive customers						
Tolls when to reorder an item						
automatically triggers a reorder of stock when the Item-Inventory-On-Hand-Qty falls below that quantity Example: If the Item-Reorder-Point-Qty for "Blue widgets" is 150 and its Item-Inventory-On-Hand-Oty falls from 175 to 148 a						
stock reorder is generated						
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INFORMATION QUALITY CHARACTERISTICS*

P2.2

3833 [3831, 5148-B]

- Definition Conformance: value consistent w. definition
- *Completeness:* 1) values, 2) occurrences & 3) fact type
- Jalidity: 1) values set, 2) business rules & 3) derivation
- Accuracy as compared to the real world object / event
- Precision of data values to meet all purpose(s)
- Non-duplication of one record = one real world object
- Equivalence of distributed or redundant data
- *Timeliness* of access for all knowledge workers' uses
- Surrency of the data for each knowledge worker use
- Objectivity of presentation: format clarity, no bias
- Relevance to knowledge workers' purpose(s)

* Measure what is important to information customers







TIQM®* QUALITY SYSTEM FOR INFORMATION P3: Measure Poor Quality Information Costs & Risks





P5 DATA CORRECTION PRINCIPLES Treat data correction as a: • Conduct a *process improvement* initiative(s) prior to correction to prevent continuance of defects Correct data as a One-time event for a data set Implement processes to update data subject to decay □ If information quality issues are significant, take immediate stop gap actions and improve the process first to eliminate the cause Do not correct errors produced upstream—*send defective data back* to process manager (ultimate goal) □ Always correct data in the *source* database if still used Only exception is legal or *real* business requirement, then maintain original and corrected data Create policy / procedure to correct & communicate correction to source process managers © INFORMATION IMPACT Confidential & Proprietary 5032 IQ 30

Thank you for your valuable time.Please share yourfeedback and comments as you apply your new knowledge(Larry.English@infoimpact.com)Larry P. English

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