## Bringing in the Emerging Realized Information Age 3.0

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Current "Business and Data Management practices on a project-by-project basis will continue to cause business processes and information systems to fail. The Emerging Realized Information Age 3.0 *demands* new rules and regulations for effective Business Management for competitive advantage in an era of Intelligent Learning Organizations.

In this presentation Mr. English describes how to implement *Enterprise-strength* Information Management as a Business Management tool. You learn how to implement sustainable Enterprise-wide Information Management. Addressed are the management and cultural issues required to implement EIM effectively, as well as how to acquire—and sustain—Executive management support. Potential pitfalls facing EIM are identified along with guidance for avoidance.

Special focus is placed on the role of EIM in the current economic environment. Quality Management Principles are applied to Information Resource Quality (Information Product Specification data).

#### BIOGRAPHY

## Larry P. English

President

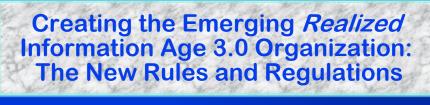
Information Impact International, Inc.

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<sup>®</sup> 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.



**MIT Information Quality Industry Symposium** Cambridge, MA

July 13-15, 2011





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## Larry P. English, President and Principal **INFORMATION IMPACT International, Inc.**

Mr. English is a Futurist and Foremost authority leading the revolution to bring in the emerging *Realized*Information Age 3.0. English has professional, management and consulting experience in many industries
from manufacturing to music, retail to religion, financial to forensics, healthcare to hospitality, and groceries to
government. This has enabled him to see patterns in business practices that can lead to enterprise success
or failure in the *Realized* Information Age 3.0. English graduated magna cum laude with a Bachelor's
degree in Psychology and a Master's Degree in Divinity, which keep him grounded in the human factors of
interaction of personnel, confirming that employees are the most important resource to the enterprise.



English is comfortable providing consulting, executive coaching and education in the new rules for success in the Realized Information

Age 3.0. Mr. English developed The TIQM® Quality System for Total Information Quality Management from the proven quality systems of

Deming, Kaizen®, Juran, Ishikawa, Crosby, Baldrige and Six Sigma. TIQM has been implemented in market-leading organizations
worldwide since 1992. English has helped more than 400 leaders in more than 40 countries on six continents.

English is not shy about confronting bad practices paraded as "best" practices that hinder organizations rather than help.

English can help your organization to be more effective as the emerging Realized Information Age 3.0 unfolds.

\* The Data Management Association (DAMA) awarded Mr. English the "Individual Achievement Award" for his contributions to Information

- Management in 1998.
  English was featured as one of the "21 Voices for the 21st Century" in the January 2000 issue of *Quality Progress*, the journal of the
- American Society for Quality. He was awarded the "Heartbeat of America" Award in July, 2009 for his entrepreneurial work to advance Information Quality in US
- Industry and government. The award was broadcast by Heartbeat of America on a national news magazine TV show hosted by William Shatner, Admiral Delaney and Doug Llewelyn. See the video of the award presentation at <a href="https://www.mloimpact.com">www.mloimpact.com</a>. Wr. English was recognized in July 2009 for Two Decades of Outstanding Contributions to Information Quality Management by the MIT Information Quality Program.
- Mr. English authored Improving Data Warehouse and Business Information Quality: Methods for Reducing Costs and Increasing Profits, called "the Information Quality Bible for the Information Age," by Masaaki Imai, the creator of the Kaizen® Quality System of Continuous
- English's new book, Information Quality Applied: Best Practices for Business Information Processes and Systems, has received rave
- English's new book, *Information Quality Applied. best Practices of Desires Minimator Processes and Systems*, has received rave reviews from readers. He describes Business Value Circles as a way to manage the enterprise as a single system (a Deming Pillar of his System of Profound Knowledge). English helps you identify and prevent IQ issues in core Business Value Circles. A highly rated keynote speaker, Mr. English has traveled the world giving more than 500 presentations on the impact of the Information Age to groups ranging from Fortune 500 Executives to academic groups such as MIT's IQ Industry Symposium and Fordham University's Deming MBA Scholars Program, directed by Dr. Joyce Orsini, also the President of the Board of Directors of the Deming Institute.

  Dr. Orsini calls English the most authoritative interpreter of Deming's Management Theory to Information Quality.

Mr. English can be reached at

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# Creating the Emerging Realized Information Age 3.0: NEW RULES AND REGULATIONS Agenda

Agenda Agenda
The new emerging <i>Realized</i> Information-Age 3.0 Paradigm
The Executive Leadership Team's Role in Leading in the Information Age 3.0 Paradigm Shift**
Putting <i>Management</i> back into Information Management
Get Information Governance / Stewardship Accountability Right
Implementing Information Accountability across Core Business Value Circles
Proactive, Value-Centric Information and Systems Engineering
Getting Information Quality Right: Continuous Process Improvement—NOT DATA PROFILING AND CLEANSING
Key Take-Aways to Bring in the emerging <i>Realized</i> Information Age 3.0: Business Excellence through Information Excellence $^{\text{TM}}$

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# COURSE FOOTNOTE & ABBREVIATION LEGEND Mapping Course Information to Books *IQA* and *IDW&BIQ*

#### = Master Slide Number for a seminar page (Primary Key)

[####] = Slide Number related to the Master Slide: 0945 [3885]

IQA = Information Quality Applied book, 2009

IDW&BIQ = Improving Data Warehouse & Business Information Quality, 1999

IDW = Improving DW & Business Information Quality, 1999

Ch = Book Chapter in which a Section of Seminar information is found

p = Page Number in book. Ex: 0945 /QAp60 (TIQM Process)

= Figure Number in book. Ex: 0945 /QAp60F3-1 (TIQM Process)

Txt = Text in seminar is found in Text in book: *IQA*p

BLst = Bullets or Text in Seminar is found in Bullets in book

#Lst = Text in Seminar is found in a Numbered List

Tbl = Table in Seminar is found as a Table in a book

SB = Text in Seminar is found as a Side Bar in book

U01/01/11 = Last update date: month/day/year (US format)

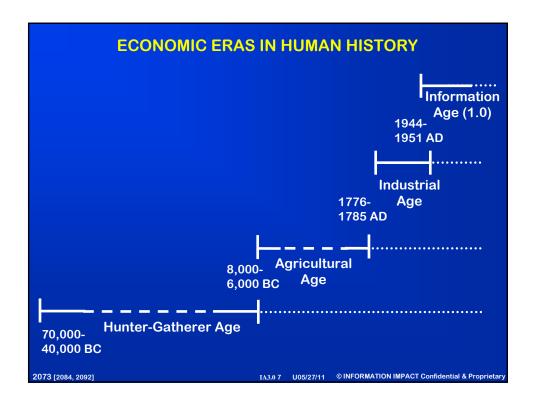
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What the Information-Age 3.0
Paradigm Means to the Enterprise
and its Stakeholders:
A Transformation of *Everything!!!* 

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#### THE NEW INFORMATION ECONOMY

"In this new economy, successful companies must acknowledge that their primary resource is *Information* and their primary assets are their *Employees and Knowledge Workers*."

John Naisbett, Re-Inventing the Corporation

"The central human resources are not manual workers—skilled or unskilled—but *Knowledge Workers*"

P. Drucker, Management: Tasks, Responsibilities, Practices

"Knowledge now has become the real capital of a developed economy"

Peter Drucker, The New Realities

4763 [27053, 5149, 4765]

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# INFORMATION MANAGEMENT IN THE EMERGING *REALIZED* INFORMATION AGE 3.0

- ☐ Decentralized operations with centralized policy control

  Alfred P. Sloan
- ☐ Top management...establishes the vision and acts as the conductor of a "symphony orchestra," empowering its employees to achieve that vision by providing training, information and other resources to accomplish it

Peter Drucker

- ☐ "In this new economy, successful companies must acknowledge that their primary *resource* is information and their primary *assets* are their employees."
  - People
  - Information

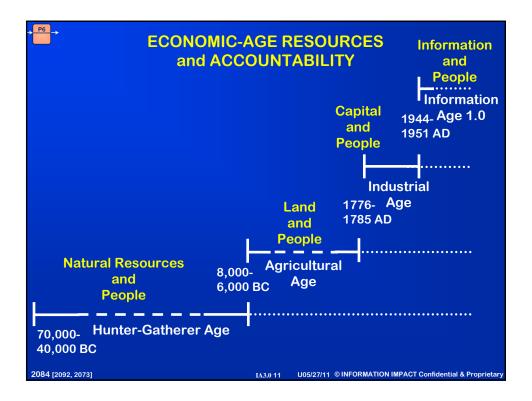
**John Naisbett** 

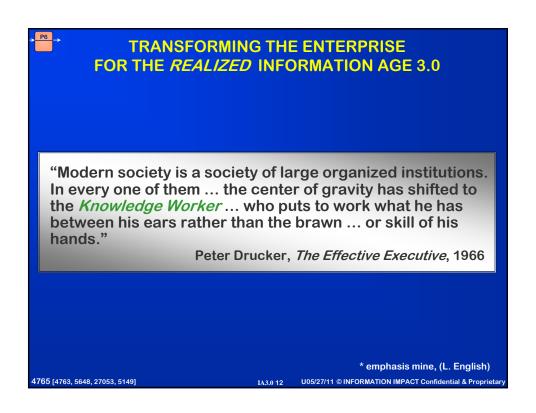
- Operating units are given:
  - Maximum collaboration (inter dependent)
  - Must assume maximum responsibility (accountability)

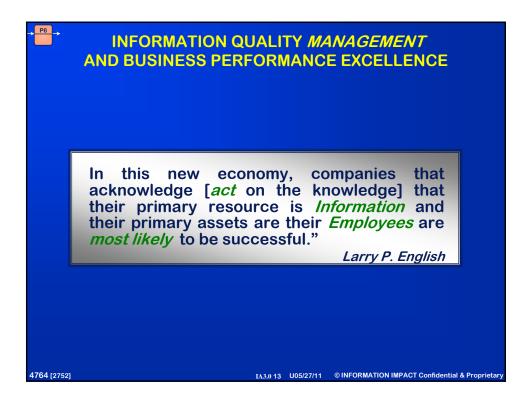
Larry P. English

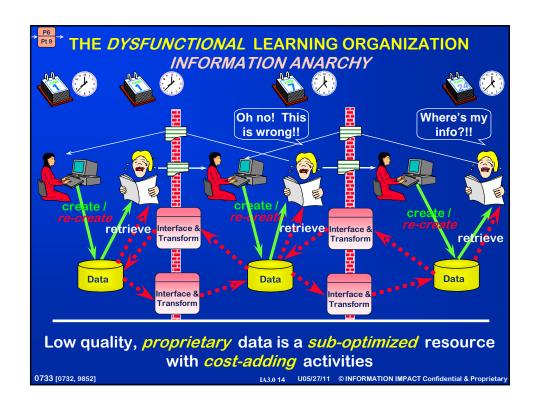
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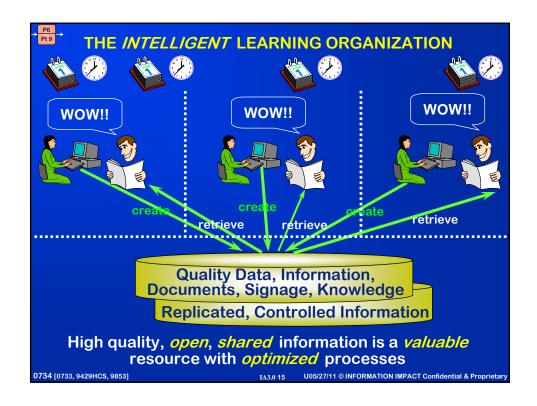
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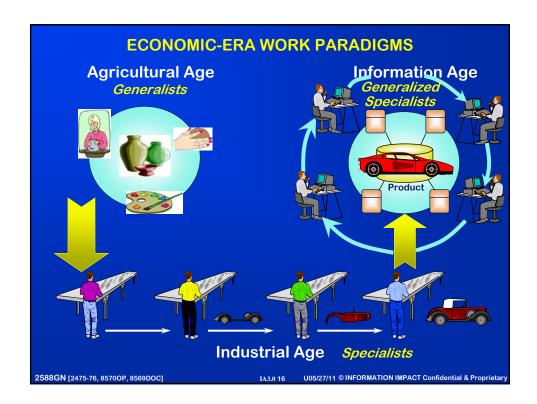












## THE DISCIPLINE OF INFORMATION MANAGEMENT IN THE EMERGING REALIZED INFORMATION AGE 3.0

**Enterprise Information Management is:** "the application of *proven Resource Management* **Principles.** Processes and Practices to Information & Knowledge as Strategic Enterprise Resources" Larry P. English

## ☐ Management Functions:

- Strategic Planning for Information Resources
- Organizing / Staffing to Manage Information
- Leading and Directing (Policy)
- Controlling Information in Production
- Exploiting Information as a Strategic Resource

5236M [5237KM, 5240MQ, 5233Q]

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## THE DISCIPLINE OF INFORMATION AND KNOWLEDGE MANAGEMENT

Information and Knowledge Management is: "the application of sound Management principles, processes and practices to information and intellectual capital as strategic resources of the enterprise" Larry P. English

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#### **ENTERPRISE INFORMATION MANAGEMENT PRODUCTS**

- ☐ Information System *End Products:* 
  - Transformed work to *Increase Value-Adding* Activities and Decrease Waste
  - "Informated \*" Knowledge Workers
- ☐ Information System *Service* "Products":
  - Managed (controlled) Processes
  - Managed (controlled) Information
- All other Information System "Products" are simply interim "Enabling Products" or Tools
  - Information technology infrastructure
  - Information models, databases, data warehouses, object bases, Web bases and knowledge bases, repository infrastructure
  - Value-Centric Information System Components

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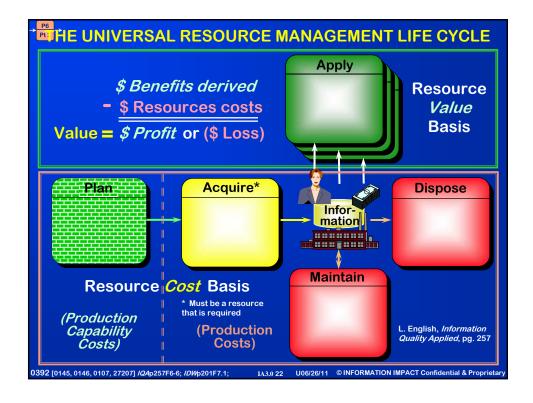
\* Shoshana Zuboff, In the Age of the Smart Machine
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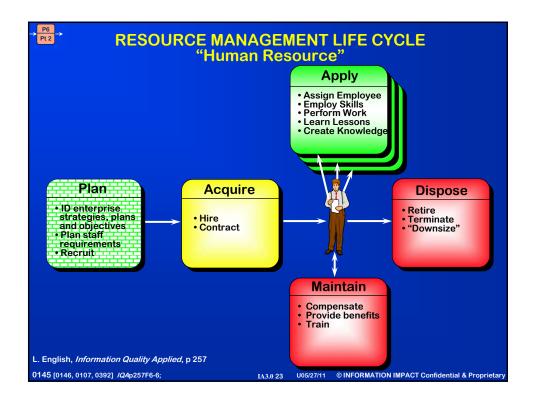
Putting Management Back into
Enterprise Information and Knowledge Management:
The Universal Resource Management Life Cycle

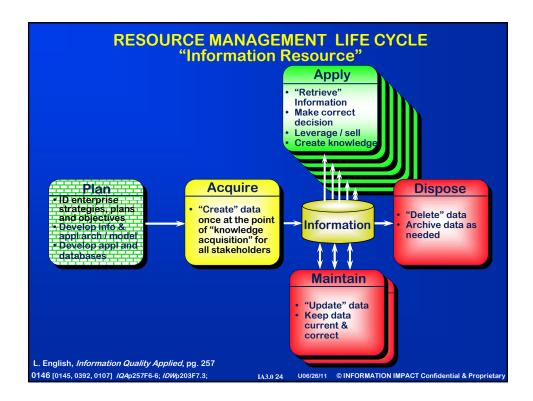
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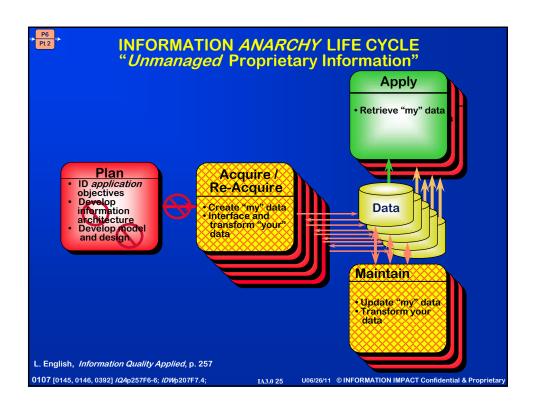
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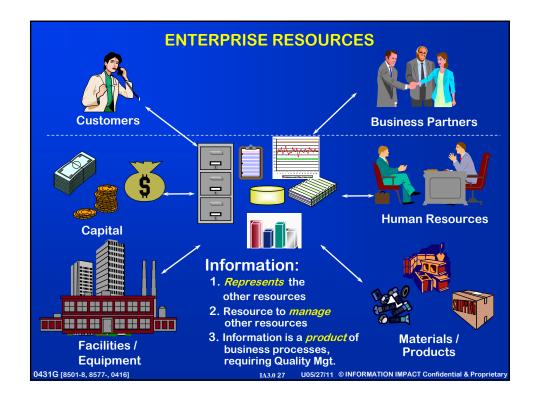


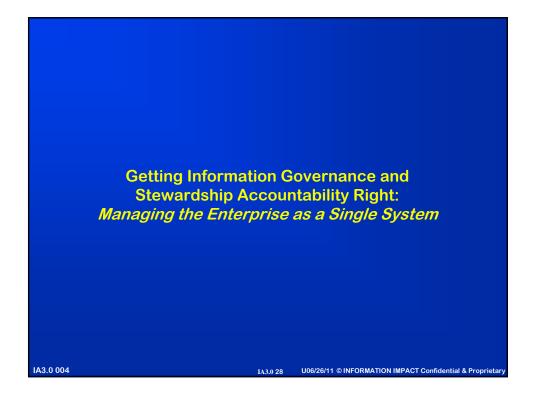


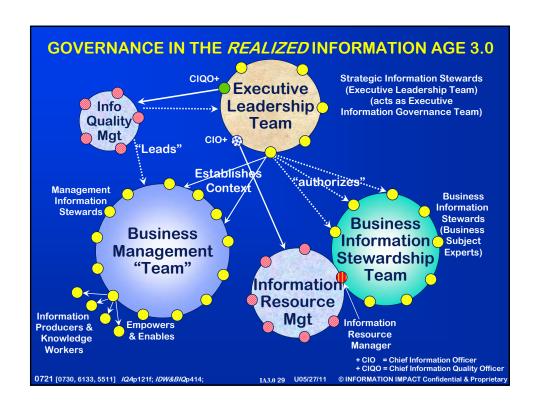




Management Characteristics	Financial Resource	Human Resource	Information Resource
Planning (Vision)	Strategic Financial Plan, Budget	Strategic HR Plan Tactical Staff Plan	Strategic Information Plan & Architecture; Value-Centric Info & Sys Engineering Plan
Organizing	Centralized financial planning, Distributed management, Decentralized budget deployment	Centralized HR planning, Distributed management, Decentralized employee deployment	Centralized information planning and Shared Information Management Centralized Business Process (Value Circle) Management and Shared Information Access and Use
Directing Policy (Leadership)	Financial Policy:  • Acquisition method  • Spending authority Financial mgt education	HR Policy: • Hiring, Promoting • Development HR mgt education	Information policy:  • Data named & defined in a std way  • No unjustified, uncontrolled redundancy  • Captured at original source once  • Shared directly by all stakeholders  • All employees update corrections Information Mgt and IQ education
"Control" (Accountability)	Within budget Produce ROI Mgt accountability	Meet objectives Satisfy customers Mgt accountability	Continuous Info Quality Improvement Meet Knowledge Worker requirements Mgt accountability for information
Structure (Model)	Std chart of accounts and std definitions	Org chart and std job descriptions	Std Information model and standard definitions ("Std Chart of Facts")
Current Position (Inventory)	Financial Statements Profitability	Head count Emp productivity Customer satisfaction	Data "inventory" and Data reuse Business and systems productivity Information Customer Satisfaction
Resource Differences	Consumable, Required to "acquire" other resources	Assignable, Required to "apply" other resources	Non-consumable, fully reusable Required to "manage" other resources







## STEWARDSHIP DEFINED

Stewardship is . . . the *willingness* to be accountable for the well-being of the larger organization by operating *in service*, rather than in control, of those around us. Stated simply, it is *accountability without control or compliance*.

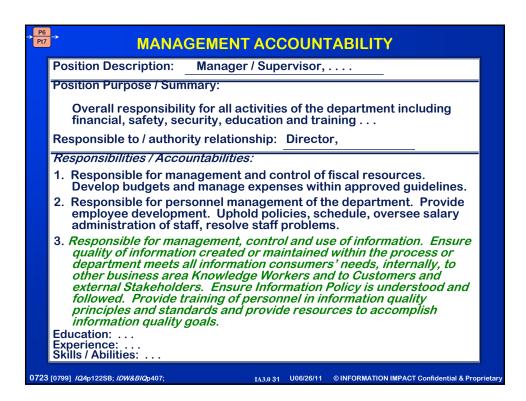
Peter Block, Stewardship: Choosing Service Over Self Interest

"Information Stewardship is the willingness to be accountable for a set of business information for the well-being of the larger organization by operating in service, rather than in control of those around us."

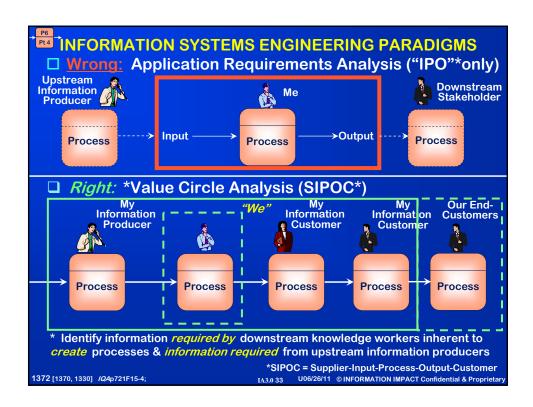
Larry P. English

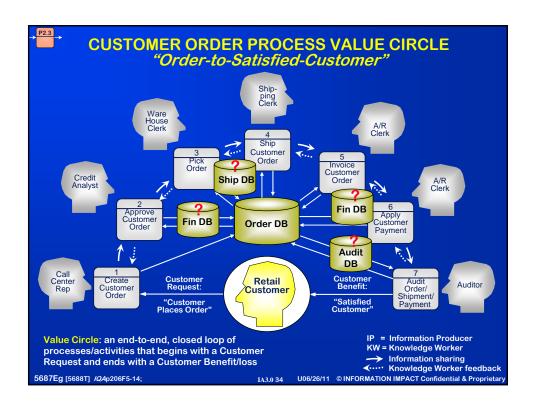
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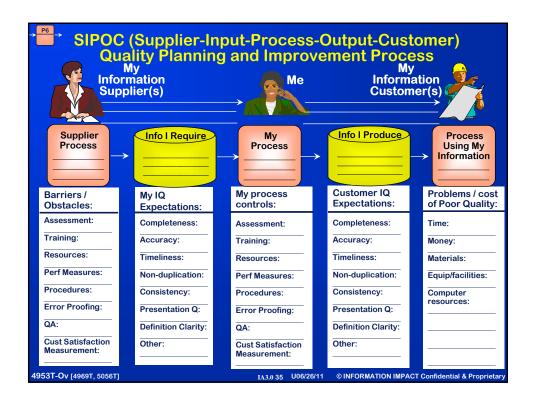
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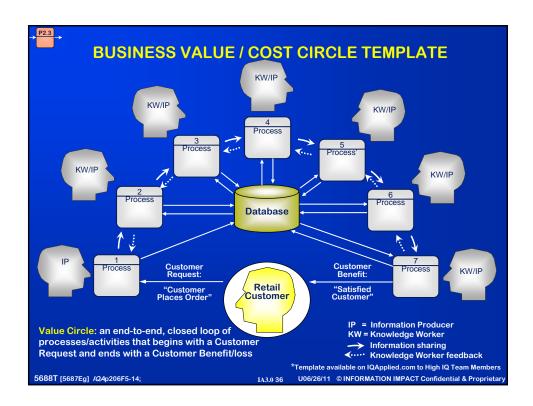


Implementing *Accountability* Across Business Value Circles: Ensuring Quality Information Production









**Getting Information Quality Right: Continuous Process Improvement—** NOT DATA PROFILING AND CLEANSING!!!

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## **INFORMATION QUALITY DEFINED (CONCEPT)** "Consistently

meeting\*

all Knowledge Workers' and end-Customers' Expectations"

through Information and Information Services so:

- Knowledge Workers accomplish Enterprise objectives
- Customers and Stakeholders are satisfied\*

Larry P. English, TIQM®

## **Components** of Information Quality:

- Information *Product Specifications* (Definition, **Business Rules and Information Architecture)**
- Information Content

• Information Presentation

\*World-class organizations do not stop here—
they strive to "delight" their customers they strive to "delight" their customers

3851 [3891Gov] /QAp32SB; /DW&B/Qp24-27;

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## THE DISCIPLINE OF TOTAL INFORMATION QUALITY MGT IN THE EMERGING REALIZED INFORMATION AGE 3.0

The application of proven Quality Management processes and practices principles, Information as a *Product* of the enterprise processes (business, manufacturing & service) to exceed Information Consumers' meet or expectations Larry P. English

- ☐ Quality Management Interdependent Components:
  - Understanding Information Consumer Requirements
  - Analyzing Root Causes of defective processes
  - Designing Quality In to Information Processes
  - Statistical Quality Control of Information Processes
  - Ensuring Information Consumer Satisfaction
  - Establishing the Information Quality Culture

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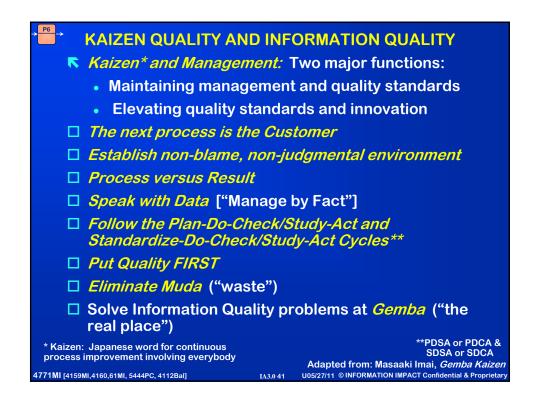
## PHILIP CROSBY'S QUALITY "ABSOLUTES" OF QUALITY MANAGEMENT

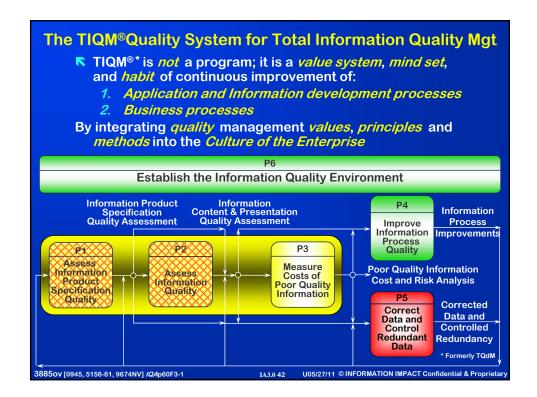
- 1. Quality has to be defined as Conformance to [Customer] Requirements, NOT as goodness
- 2. The system for causing quality is *Prevention*, **NOT** appraisal
- 3. The performance standard must be *Zero* Defects, NOT "that's close enough"
- 4. The measurement of quality is the *Price of Nonconformance*, NOT indexes [scorecards]

Crosby, Quality Without Tears

5444PC [4771MI, 4159MI, 4112Bal, 4124Bal]

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# TOTAL INFORMATION QUALITY MANAGEMENT TIQM®'s 14 Points of Information Quality

- 1. Create Constancy of Purpose for Improvement of *Information* Product and Service
- 2. Adopt the New Philosophy: Quality Shared Information *Reduces Costs*
- 3. Cease Reliance on Information Model & Information Content Inspections alone to achieve Information Quality: Instead, Design Quality into the Process
- 4. End the practice of developing projects on the basis of "On-time," "Within Budget" measures alone
- 5. Improve Constantly and Forever the processes of application, Information Development, Service and Information Production
- 6. Institute Training for Information Quality
- 7. Institute Leadership for Information Quality

Adapted from Deming's 14 Points of Quality

0819 [0812, 0813, 0820] IQAp61-71#Lst; IDWp337+Ch11;

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# TOTAL INFORMATION QUALITY MANAGEMENT TIQM®'s 14 Points of Information Quality (Cont.)

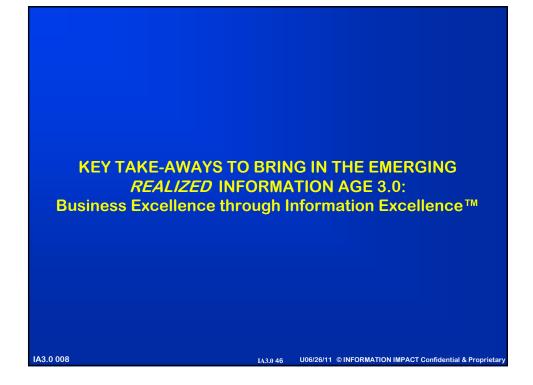
- 8. Drive Out Fear of Data uncertainty or correction
- 9. Break down barriers between Information Resource Management & Application Development areas & between Business Areas
- 10. Eliminate Slogans and Exhortations, & replace with *Actions* for Information Quality Improvement
- 11. Eliminate Quotas of "Productivity" with Measures of Variation for Quality Control
- 12. Remove Barriers to Pride of Workmanship; allow Information Producers to fix the Causes of <u>Problems</u> in the Processes
- 13. Encourage Education and Self-improvement for all people in the Enterprise
- 14. Take Action to Accomplish the Transformation for Information Quality Management

0820 [0812, 0813, 0819] /QAp61-71Ch3; /DWp337+Ch11;

Adapted from Deming's 14 Points of Quality IA3.0 44 U05/27/11 © INFORMATION IMPACT Confidential & Proprietary

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#### IQ 14. TAKE ACTION TO ACCOMPLISH THE TRANSFORMATION FOR QUALITY Management must put everyone to work to transform org. Must organize itself to administer the other 13 points Executive Management must feel the pain of status quo Executive Management must communicate to a critical mass of people why change is necessary for all Every activity is a process that can be improved ☐ Use the Shewhart Cycle 4. Roll the process 1. Study a defective out and study the process to identify results- what did root cause(s) and we learn? define improvement(s) ACT **PLAN** Shewhart 3 Cycle 2 3. Study the 2. Implement the CHECK/ improvement in a effects of the "improvement" controlled way $0879 \; \hbox{\tt [5144,4832-45,4714-16,4979-93,0899,5562]} \; \textit{IQA} \\ \hbox{\tt p59-124}$ U05/27/11 © INFORMATION IMPACT Confidential & Proprietary



# KEY TAKE-AWAYS FOR THE EMERGING REALIZED INFORMATION AGE 3.0 Business Excellence through Information Excellence™ □ Information is the only NON-CONSUMABLE resource you have. You can retrieve a single record a million times a day and the record is not consumed or used up, unless the process breaks □ Information is the resource you use to manage every other resource of the enterprise: facilities and equipment, raw materials and products, financials, employees □ Information must be managed across all core business value circles to manage the enterprise as a Single System □ Understand the Information Consumer Information Requirements before developing databases and applications

Follow the Universal Resource Management Life-Cycle for information development

☐ Understand how Information affects your external Customers

➤ Create Business Excellence through Information Excellence™

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and end-Consumers

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# The EMERGING REALIZED INFORMATION AGE 3.0: KEY TAKE-AWAYS

- ☐ Information Management is a *BUSINESS function*-NOT a TECHNOLOGY function. Managers are accountable for:
  - Planning, Organizing, Leading, Controlling, Exploiting
- ☐ Use the *Universal Resource Management Lifecycle*:
  - Plan-Acquire-Apply-Maintain-Dispose Lifecycle
- □ Executive Leadership Team must change the <u>Vertical Silo</u> paradigm to a collaborative Single System *Orchestra Model* paradigm
- ☐ *Hold Managers accountable* to their downstream Information Consumer peer Managers
- ☐ Implement Continuous Process Improvement Lifecycle:
  - Plan-Do-Check/Study-Act Lifecycle for Improvement
- ☐ Systems and Information Professionals must view their roles as *Knowledge enablers*-NOT Product (Application) Developers

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## The EMERGING REALIZED INFORMATION AGE 3.0: **KEY TAKE-AWAYS** □ Remember. No Information Management or Application Development "deliverables" provide Value to the Business until Knowledge Workers use them to Create, Maintain, Retrieve and Apply Information to perform the REAL VALUE WORK for all Customers and Stakeholders Larry P. English ☐ Information Management\* Application development work is *enabling* work ("production capability") ☐ Knowledge Workers perform *value* work ("production") when they apply Information to delight your Customers & Stakeholders Msg: you may spend 10-20+ months to develop an application & DB\*\*—BUT your Knowledge Workers must live with it for 10-20+ years!!! \*IM = Information Management 8012 [9253] U05/19/11 © INFORMATION IMPACT Confidential & Proprietar

# THE TRUTH ABOUT INFORMATION QUALITY SOFTWARE

- Data Profiling Software Capability
  - Data Profiling is a form of assessment that describes values and formats in data elements assessed
  - Limits: Data Profiling does not help you identify the root causes of defective information, nor how to improve the process to prevent future defects. This tool is very expensive with minimal benefits.

#### **Data Cleansing Software Capability**

- Data Cleansing seeks to identify invalid, missing or duplicate information to correct data.
- Limits: Data cleansing often has false positives & negatives
- Limits: Expensive Scrap-and-Rework draining money from the bottom line without solving the root cause of defects.
- □ Recommendation:
- ☐ IQ Point 3. Cease dependence on mass data profiling and cleansing. Instead eliminate need for inspection by designing quality into the Information Processes in the first place.

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# THE TRUTH ABOUT INFORMATION QUALITY SOFTWARE

- □ Data profiling, data cleansing and other scrap and rework software is Costly, Reactive, and not necessary if you apply proven Information Process Improvement methods (Plan-Do-Check/Study-Act)
- ☐ Do not buy Information Quality Software without having written, certified *MONEY-BACK GUARANTEES* on all software and services for at least two years
- ☐ Do not buy Information Quality Software without having at least a two-year warranty period with full moneyback guarantees. *DO NOT ACCEPT DISCLAIMERS*
- □ Never pay MAINTENANCE FEES for software that is defective or produces flaws and defects. This is the software providers' accountability. Do not back down on this clause.

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# PHILIP CROSBY'S QUALITY "ABSOLUTES" OF QUALITY MANAGEMENT

- 1. Quality has to be defined as *Conformance to* [Customer] Requirements, NOT as goodness
- 2. The system for *causing* quality is *Prevention*, NOT appraisal
- 3. The performance standard must be *Zero Defects*, <u>NOT "that's close enough"</u>
- 4. The measurement of quality is the *Price of Nonconformance*, NOT indexes [scorecards]

Crosby, Quality Without Tears

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