Update: IQ Certification Program – UALR/IAIDQ

BIOGRAPHY

John R. Talburt
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Dr. John R. Talburt is Professor of Information Science and Acxiom
Chair of Information Quality at the University of Arkansas at Little
Rock (UALR) where he serves as the Coordinator for the Information
Quality Graduate Program. He also holds appointments as Executive
Director of the UALR Center for Advanced Research in Entity
Resolution and Information Quality (ERIQ) and Associate Director of the Acxiom Laboratory for
Applied Research (ALAR). He also serves an Advisor to the Board of Directors of the
International Association for Information and Data Quality (IAIDQ).

Prior to his appointment at UALR he was the leader for research and development and product
innovation at Acxiom Corporation, a global leader in information management and customer data
integration. Professor Talburt is an inventor for several patents related to customer data
integration and the author of numerous articles on information quality and entity resolution. He is
a co-editor of *Data Engineering: Mining, Information and Intelligence* (Springer, 2010), and
author of *Entity Resolution and Information Quality* (Morgan Kaufmann, 2011).

His current research interests are at the intersection of information quality and information
integration, particularly the areas of entity and identity resolution. Dr. Talburt is the winner of
the 2008 DAMA International Academic Award. He has also earned the designation of Certified
Data Management Professional (CDMP) from the Institute for Certification of Computing
Professionals at the mastery-level with specialties in data and information quality and information
technology, and is a certified Master Data Quality Manager and trainer for the ISO 8000-
110:2009 Data Quality Standard.

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The Skills of the Information / Data Quality Professional

C. Lwanga Yonke, Christian Walenta, John Talburt
IAIDQ

Information Quality Industry Symposium – MIT – July, 2011

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Agenda

- About the IAIDQ – International Association for Information and Data Quality
- Context Setting – IQCP Program Overview
- IQCP Framework
- IQ/DQ Knowledge and Skills Groups
- Summary

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IAIDQ Overview

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Chartered in January 2004, IAIDQ is a non-profit 501c(6) professional society focusing on advancing the information and data quality profession and its body of knowledge

Vision

By cultivating information excellence throughout the data and information lifecycle, the IAIDQ will help transform organizations and society, improving the quality of life everywhere

Mission

IAIDQ is advancing the quality of information and data around the world by building a community, supporting learning and sharing knowledge for the benefit of all information consumers

IAIDQ Attributes
- Guided by recognized data quality experts
- Member-driven & led by volunteers
- Value-focused, vendor-neutral
- Global reach

Current Membership
- Members in 30+ countries, on 5 continents
- Direct access to 5,000+ IQ/DQ Professionals through mailing list and LinkedIn group

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What is the IQCP?

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"The Information Quality Certified Professional"
Professional certification credential for IDQ practitioners

IQCP confirms that the Information and Data Quality professional

- Mastered core information quality competencies
- Qualified to provide information and data quality services
- Meets a minimum of professional experience and education
- Demonstrated level of knowledge and skills as validated per exam
  - Practical knowledge of information quality principles, concepts and methods
  - Covering broad range of topics within six areas, i.e. performance domains
- Commits to ongoing professional development and learning

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Why did IAIDQ develop the IQCP? iaidq

- Expectation on us as Professional Association for Information and Data Quality Practitioners
  - Our members asked for it, confirmed through multiple member surveys
- Certification is one of "cornerstones" of the IDQ discipline so it was "the right thing to do" to …..
  - Advance the IDQ profession by setting direction for:
    - training and skills development programs
    - career ladders plan
    - university curricula, etc
  - Elevate the stature of the IDQ discipline and profession
  - Enhance the quality of services provided by IDQ professionals
  - Drive the maturity of IDQ discipline and industry

Certification

IDQ Role Delineation

Education & Training

Body of Knowledge

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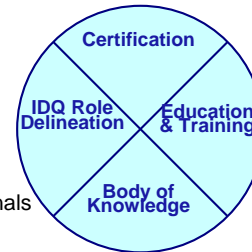
For whom is IQCP? iaidq

IDQ Professionals hold a **wide range of positions** in their organizations

- anybody who performs, leads, directs or champions information quality
- individual contributors, managers or executives
- in any Business function or Information Technology departments
- as a part-time role or full-time within a broader organizational role

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What makes IQCP unique? iaidq

- Focus on Information and Data Quality
- Comprehensive and Independent
- *"For IDQ professional from IDQ professionals"*
- Based on rigorous development process, following standards and regulations such as …
  - ISO/IEC 17024 for Personnel Certification Bodies
  - Standards for Educational and Psychological Testing
  - Standards for the Accreditation of Certification Programs
- Continuous professional development
- Worldwide acceptance and recognition

"IQCP – setting a high standard for the IDQ Profession"

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Who is the IQCP Global Community? iaidq

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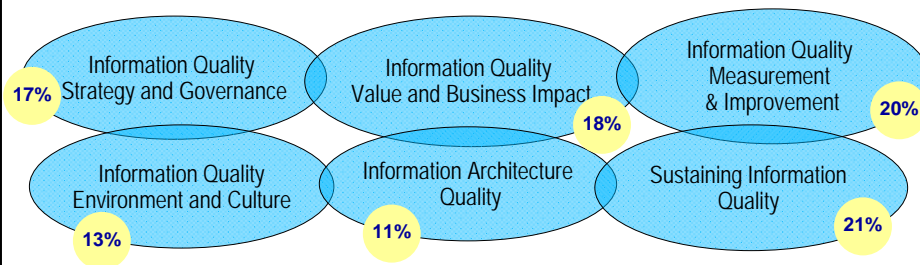## How do you attain the IQCP Credential? iaidq

IDQ Work Experience
- 5 Years
- 3 Years w/ Bachelor

IAIDQ Code of Ethics and Professional Conduct

IQCP Exam
- 150 multiple Choice Questions
- 3 Hours

17% Information Quality Strategy and Governance

Information Quality Value and Business Impact **18%**

Information Quality Measurement & Improvement **20%**

Information Quality Environment and Culture **13%**

Information Architecture Quality **11%**

Sustaining Information Quality **21%**

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Prior Work iaidq

English, L.P., (2008), "Information Quality Management: Job Position Roles", *IDQ Newsletter Vol 4 Issue 2*, IAIDQ

Redman, T.C., (2007), "The Body Has a Heart and Soul: Roles and Responsibilities of the Chief Data Officer" *IDQ Newsletter Vol 3 Issue 1*, IAIDQ

Pierce, E.M. (2003), "Pursuing a Career in Information Quality: The Job of the Data Quality Analyst", *Proceedings of the Eight International Conference on Information Quality*. MIT. Cambridge, MA

Chung, W.Y., Fisher, C.W. and Wang, R. (2002), "What Skills Matter in Data Quality?", Proceedings *of the Seventh International Conference on Information Quality*. MIT. Cambridge, MA

Fisher, C.W. (2001), "A College Course: Data Quality in Information Systems." *Proceedings of the Sixth International Conference on Information Quality*. MIT. Cambridge, MA.

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IQCP Framework

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Structure

- 6 Domains

- 29 Tasks

- 443 Knowledge and Skills entries (207 distincts)

The Job of the Information/Data
Quality Professional

Edited By
C. Lwanga Yonke, Christian Walenta, John R. Talburt
International Association for Information and Data Quality (IAIDQ)

Adapted from the Job Analysis Study report developed by Scott T. Bublitz of
Castle Worldwide, Inc., for IAIDQ's Information Quality Certified Professional
(IQCP™) Credential

January 2011

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Domain and Tasks Example:
IQ Strategy and Governance

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- Develop information quality strategy and roadmap to manage information as an asset

- Define information quality principles, policies and standards to guide decision making and organizational behaviors

- Define and implement a data governance model to establish a management system for information assets

- Enforce conformance to information quality principles, policies and standards to optimize the value of information assets

- Define a communication strategy to gain support for the established strategy and governance

- Build relationships with senior leaders to champion and enforce the information quality mandate

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Domain and Tasks Example:
IQ Measurement & Improvement

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- Gather additional business and data quality rules to complete the understanding of business requirements
- Determine data quality targets by reviewing business objectives to prioritize improvement efforts
- Measure actual data quality levels to identify data and process improvement opportunities
- Determine root causes of issues to identify most effective way to fix and prevent the problem
- Coordinate implementation of improvement efforts to eliminate data errors and resolve data issues
- Improve processes and establish controls to permanently eliminate the root causes of problems

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IQ/DQ Knowledge & Skills Groups

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- Challenge: how to classify 207 distinct Knowledge and Skills
- Approach: 5 groups
    - IQ/DQ Core
    - Quality Foundation
    - Leading the IQ/DQ Effort
    - IT and IM Processes
    - People & Interpersonal Effectiveness

See Appendix A in the *Job of the Information/Data Quality Professional* report, for the full list of skills.

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IQ/DQ Core

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- Data, its properties, its characteristics/dimensions, and implications on managing data as an asset
- Value, cost and business impact
- Accountabilities through governance and stewardship
- DQ measurement
- Data improvement
- DQ requirements analysis
- Information chain and lifecycle management
- IQ/DQ pioneers, principles and best practices
- Categories of DQ tools
- DQ standards, laws and regulations

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Quality Foundation

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- Quality pioneers, principles and best practices
- Structured, root-cause problem-solving
- Continuous process improvement
- Statistical techniques
- Team processes

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Leading the IQ/DQ Effort

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- Business acumen
- IQ/DQ strategic and business planning
- Project management
- Assessing and assuring effectiveness

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IT and IM Processes

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- Information/data architecture
- Database concepts
- Metadata
- Data migration
- System development concepts

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People, Interpersonal Effectiveness

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- IAIDQ Code of Ethics and Professional Conduct
- Communication skills
- Employee engagement and recognition
- Training
- Leading Change

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Summary

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- IQ/DQ is broad and multi-disciplinary
- IQCP Framework consists of
  - 6 Performance Domains
  - 29 Tasks
  - 443 Knowledge and Skills entries
    - 207 distinct Knowledge and Skills, in 5 major groups

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For more information visit: iqcp.org

Thank You – Questions?

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Appendix – IQCP Tasks

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IQ Strategy and Governance iaidq

- Develop information quality strategy and roadmap to manage information as an asset

- Define information quality principles, policies and standards to guide decision making and organizational behaviors

- Define and implement a data governance model to establish a management system for information assets

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IQ Environment and Culture   iaidq

- Develop people at all levels in information quality to create organizational knowledge, skills and capabilities

- Establish recognition practices to sustain the information quality environment and culture

- Embed information quality values and methods into business operations to achieve desirable behaviors

- Establish information quality accountabilities and roles to enable effective decision making and process execution

- Educate stakeholders in information quality to raise awareness and drive cultural adoption

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IQ Value and Business Impact   iaidq

- Evaluate data and business issues to increase the value of information assets

- Define and prioritize information quality initiatives and projects to provide the basis for investment decisions

- Obtain decisions to sponsor and execute information quality initiatives and projects

- Provide stakeholders with results of these quality initiatives and projects to demonstrate the value to the business

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Information Architecture Quality **iaidq**

- Participate in establishing data standards and rules for information architecture to achieve understanding and usage of information throughout the enterprise

- Assess the quality of information architecture components to identify defects

- Lead improvement processes to drive quality, stability and reuse of the information architecture

- Coordinate ongoing maintenance of business meta data to assure consistent data usage and meaning

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IQ Measurement and Improvement **iaidq**

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Sustaining Information Quality **iaidq**

- Answer questions about data content to increase business customers' knowledge and understanding of the data

- Continuously monitor and report data quality levels to assure continued health of the data

- Participate in the system development lifecycle to ensure incorporation of information quality practices in IT and business processes

- Participate on data conversion and migration projects to ensure implementation of information quality best practices

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