International Standards for Information Development and Content Management

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Increase the Value of Your Information

• Since 1978, Comtech Services has provided education, support, and assistance to members of the information-development community worldwide:
  • Information development and process maturity
  • Structured information design
  • Customer and competitor research
  • Content management solutions
  • Education and training
JoAnn Hackos, PhD

• President and Founder, Comtech Services, Inc. – 1978 – a company that seeks to make your customers more successful using your products
• Director and Founder, The Center for Information-Development Management -- 1998
• Award-winning author -- nine books that are industry standard texts and college textbooks
• An original proponent of the OASIS DITA standard
• Fellow and former president, The Society for Technical Communication
A small sample of Comtech customers

- Oracle
- Vestas
- Nokia
- SAP
- Dell
- Cisco
- Microsoft
- International Monetary Fund
- HP
- Siemens
- Citrix
- General Electric
- American Red Cross
- ITT
- Lucent Technologies
- IBM
- Motorola
- ASME
- NREL
- Board of Governors of the Federal Reserve

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Comtech standards work

- OASIS Darwin Information Typing Architecture (DITA)
- ISO SC7/WG2 (co-author)
  - Content management ISO/IEC/IEEE 26531
  - Documentation management ISO/IEC/IEEE 26511
- OASIS DITA Adoption Technical Committee chair
- DITA Technical Communications sub-committee chair
- DITA Translation sub-committee chair
- OASIS Augmented Reality in Info Products member
- DITA Learning & Training committee member
Standards are as old as human societies

- Coins and weights
- Railroad track gauges
- Nuts and bolts
- Doors and windows
- Most of the product engineering in our organizations
- Standards are ubiquitous in your organization
Baltimore 1904

Firefighters from different communities had different size hose couplings and couldn’t connect their hoses to the Baltimore fire hydrants.

2,500 building destroyed
Hoverboards Christmas 2015

A lack of standards led to fires, destruction, and injuries
What is a standard?

• British Standards Institute
  o An agreed way of doing something
  o The distilled wisdom of people with expertise in their subject area
  o People who understand the needs of the organizations they represent

• International Organization for Standards (ISO)
  o A document that provides requirements, specifications, guidelines or characteristics that can be used consistently to ensure that materials, products, and processes and services are fit for their purpose
ISO – International Organization for Standards (in French)

• 250 technical committees with members from industry, government, non-government organizations, and others

• Writes standards on everything from screw threads to medical devices, food safety, Chinese traditional medicine, and information technology

• Publishes 19,000 individual standards
OASIS – Organization for the Advancement of Structured Information Standards

- 85 technical committees with members primarily from industry
- Writes standards on global information including cloud, security, smart grid, IoT, messaging, big data, and more
- Includes DITA, DocBook, XLIFF, Open Document, and more
What types of standards exist?

- Unit standards
  - Definition of a foot

- Similarity standards
  - Different railroad tracks gauge

- Compatibility standards
What about information development tools?

- Dominated by proprietary systems for 30-40 years
- Apple, Frame, Microsoft, Quark, Corel, Interleaf, and everyone developed proprietary desktop publishing systems
- IBM helped develop SGML (1991) to work with its own products
- DocBook (also 1991) became an OASIS standard
- PDF became an ISO standard in 2001
- DITA was released to OASIS in 2001
- DITA 1.0 was published in 2005
What about information development processes?

- STC invested in supporting ISO standards for information development with a funded (barely) standards council

  - ISO/IEC/IEEE 26511, Requirements for managers of user documentation
  - ISO/IEC/IEEE 26512, Requirements for acquirers and suppliers of user documentation
  - ISO/IEC/IEEE 26513, Requirements for testers and assessors of user documentation
  - ISO/IEC/IEEE 26514, Requirements for designers and developers of user documentation
  - ISO/IEC/IEEE 26515, Developing user documentation in an agile environment
  - ISO/IEC/IEEE 15289, Content of life cycle information items (documentation)
  - ISO/IEC/IEEE 15531, Content management for product life cycle, user and service documentation
  - ISO/IEE/IEEE 23026, Engineering and management of websites for systems, software, and services information
DITA 1.3: Troubleshooting

• Feedback from the industry – missing DITA information type makes troubleshooting information difficult to structure
• Feedback from research – Hans van der Meij at the University of Twente – troubleshooting research
• Design from the Technical Communication subcommittee
• Submitted to the DITA Technical Committee for approval and inclusion in the standard
Who develops these standards?

• ISO Subcommittee SC7 on systems, software, and services

• Working Group WG2 on documentation are all volunteers
  
  o Convener is Sandy Bartell, Boeing

  o Members represent their countries: United States, Australia, Canada, Japan, Germany, and India are the primary working groups members

  o Members include managers, academics, industry association representatives, software developers, and consultants – all with experience in managing information development
What is the process for developing a standard?

• At ISO
  o Proposal for a new or revised standard – vote
  o Development of the standard or revision by a team of co-editors – Committee Draft review and comment and vote
  o Resolve the comments (lots of work) from ISO members throughout the world
  o Send a second or third draft for review, comments, and vote

• At OASIS
  o Accept proposals from technical committee members
  o Draft the new specification (lots of work)
  o Develop the technical support (DTDs and more)
  o Review from the community with lots of comments
  o Resolve the comments
  o Send the specification to the OASIS community for a vote
  o If unsuccessful, revise and vote again
What does a standard look like?

[excerpt ISO 26511 draft] Measuring content delivery and customer satisfaction

- The manager shall develop a process and set of metrics to assess the quality of the content delivered, including defect identification as well as indicators of customer satisfaction.

- The manager may, however, delegate the data collection, measurement tracking and analysis, or other related tasks to senior members of the staff, such as a team leader or lead writer.

- To facilitate comparative analysis, a base set of metrics should be used across an organization for all projects. The documentation plan should include the metrics to be used and the data to be collected, at the outset of any given project.
Who benefits from a standard?

• You don’t have to “go it alone”

• You benefit from a community of experts who are thinking seriously and deeply about the methods you might use to produce high quality information for users.

• You get tools that have passed a rigorous process to incorporate a standard correctly.

• You ensure interoperability, allowing you to make changes in your tools without losing information.
How do you benefit from DITA?

- DITA represents an enormous advantage to the information-development community.
- It provides us with an information-architecture standard around topic-based authoring that is unique to technical information.
- It takes us out of the world as defined by book publishers.
- It gives us a unique identity by pushing us toward semantic markup that enhances the quality of our information.
- It help information developers acquire a unique opportunity for recognition and increased credibility in our otherwise product-oriented world.
Use standards to manage content development

• Follow ISO/IEC/IEEE 26511 now under revision (expected in 2017-18)
  o Recommendations for creating a robust content strategy and a strong organization
  o Best practices for planning and managing an information-development project
  o Methods for measuring quality and productivity
  o Methods for managing the translation and localization process
Use standards to acquire services for information development

• Follow ISO/IEC/IEEE 26512
  o Require that suppliers of writing, editing, and publishing services follow standard practices
  o Use the standard to help select the best suppliers for your organization
Use standards to review and test information for users

• Follow ISO/IEC/IEEE 26513 (now in voting)
  o Develop a sound and effective review process
  o Ensure that procedures are tested for accuracy and usability
  o Understand the user requirements
Use standards to manage agile information development

- Follow ISO/IEC/IEEE 26515 (now in final revision)
  - Outlines the documents produced during an agile development process
    - user stories
    - use cases
    - persona descriptions,
    - task lists
    - scrum reports
  - Emphasizes user feedback
    - “The information development lead should work with the project manager and user representative to seek opportunities to acquire feedback from customers through methods such as review comments, beta programs, and usability testing.”
Use standards to manage documentation development through the product life cycle

- Follow ISO/IEC/IEEE 15289
  - A traditional approach to documentation developed during the life cycle of software and systems typically developed for the government and the military
  - Details information such as
    - Database design descriptions
    - “Descriptions of the process and activities for authorizing, developing, reviewing, storing, communicating, and maintaining knowledge or information in electronic and printed media”
Use standards to select and implement a content management system

• Follow ISO/IEC/IEEE 26531
  o Planning required for a content management implementation project
  o Selection and implementation of a content management system
  o Process and procedures necessary for a sound content management process
  o Requirements for a component-based content management system that could be used in a requirements document
Hire and train information developers in standards

- Advise educational institutions that you prefer to hire technical communication graduates who understand the standards
- Train your information development staff in the requirements outlined by the ISO, OASIS, and other standards
- Introduce information-development standards to your engineering counterparts and your management
- Prefer products that support standards
Q&A

• Follow up at info@comtech-serv.com
• Attend the Winter IDEAS online conference, Understanding User Needs (January 24-25, 2017)
• Join me at Content Management Strategies/DITA North America in 2017 (April 24-26, Hyatt Regency Mission Bay) in San Diego, CA
• Join our ISO standards working group in the US by joining IEEE Computer Society and the IEEE Standards group – contact me for detailed instructions
• Join our ISO working group from additional countries through your country standards body
• Visit www.infomanagementcenter.com for a wealth of information about content strategies