NI ST
Health Care Standards Landscape Project

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Health Care Standards Landscape (HCSL)

Background
- The Health Care Standards Landscape was developed as part of the NIST Information Technology Laboratory's Health Information Technology (HIT) project, which pursues measurements, standards, and technology to improve the quality, safety and cost-effectiveness of healthcare delivery systems and processes.
- The HCSL or “Landscape” is prototype capability jointly funded by NIST and AHRQ.
Health Care Standards Landscape

Motivation

- Standards are key to open, interoperable healthcare systems and the deployment of the NHIN.
- Knowledge of the healthcare standards’ landscape is essential to informed adoption, deployment, and use.
- But, we have issues...
  - Multiple standards – which standards exist or are being developed? What do they do? Where are they used?
  - Who’s on first? Who’s developing standards? Who’s using them? What profiles or portfolios of compatible standards are being used and by whom?
  - Monitoring the evolving standards’ landscape is an arduous and labor-intensive effort. How can this be facilitated?
- The HCSL or Landscape is intended to address these issues.
Purpose

- Provide a Web-based capability for publishing and discovering information on healthcare standards, organizations, applications, and related information that enable developers and stakeholders to share information that can improve awareness, development, coordination, adoption and use of compatible standards and tools.

**Note:** the Landscape does not contain actual standards, but provides information about healthcare standards, and other related information, and links to where standards can be obtained.
Health Care Standards Landscape Features

- Users may publish, search, and manage information related to healthcare standards.
- **All users can browse and query DB as ‘Guests.’**
  - Boolean Query using Indexed Data Fields
  - Search String-based Query on Name or Keyword
- Users may register to use a login name and password, and may change their password.
- Registered users with administrative permissions can add, update and delete content and manage associations between content.
- Landscape content can link to other Web resources.
Health Care Standards Landscape
Features - continued

- User Guide can be downloaded (PDF)
- Detailed Landscape FAQ
- Extensive list of healthcare-related acronyms and links.
- Data content may be entered or updated through screen-forms or imported using XML files.
- Data content may be formatted using HTML tags (HTML Editor included).
Health Care Standards Landscape
Database Content

- The Landscape DB contains content about:
  - Documents: e.g. standards, reports, position papers, policy, terminology, rules, etc.
  - Organizations: e.g. SDOs, consortia, government agencies, companies, non-profits, etc.
  - Portfolios (Standards Profile): e.g. CHI, C-f-H, HL7, NCVHS...

- And about ‘Associations’ (relationships) that exist among these entities:
  - Document - Document
  - Document - Organization
  - Document - Portfolio
  - Organization - Organization
  - Organization - Portfolio
  - Portfolio - Portfolio
Health Care Standards Landscape
Content Types and Sample Associations

Organization

Documents
Develops
Managed by
Used by

Portfolio
Developed by
Managed by
Used by

Is Member of
Has Member
Has
Develops
Manages
Uses

Developed by
Managed by
Used by

Has Member
Is Member of

Developed by
Managed by
Used by

Has
Develops
Manages
Uses
Health Care Standards Landscape

Document Model

This is the root element.
Health Care Standards Landscape
Portfolio Model

This is the root element.
This demonstration website was built by the Standards and Conformance Testing Group of the Information Technology Laboratory at NIST under their Health Information Technology e-Health Program, which is developing standards, measurements, tools, and prototypes to advance the use of information technologies in healthcare systems and achieve an interconnected electronic health information infrastructure. Funding for the HCSL project was provided by NIST and the Agency for Healthcare and Research Quality (AHRQ).

Please click on the logo to enter the HCSL website.

DECLARER NOTICE: PRIVACY SECURITY NOTICE
NIST is an agency of the U.S. Commerce Department's Technology Administration.

Last Modified: July 20, 2006 by the HCSL Webmaster
Welcome to the Health Care Standards Landscape (HCSL) where you can search for information on healthcare standards and on organizations developing, promoting, or using these standards. All users are "guests" and may search HCSL information without needing to "Login" to the HCSL. However, information may not be added, updated, or deleted in the HCSL by "guest" users. Users wanting to add, update, or delete HCSL content must first register and have administrative permissions assigned. To register with the Health Care Standards Landscape, click here.

This Healthcare Standards Landscape is developed as part of the NIST Information Technology Laboratory's Health Information Technology (HIT) project (www.nist.gov/health). As part of this project, NIST is pursuing critical measurements, standards, and technology to improve the quality, safety and cost-effectiveness of healthcare delivery systems and processes.

Since the Healthcare Standards Landscape prototype is still in development, we welcome your comments and suggestions on how we can improve the Landscape capability further. Please send your feedback to the HCSL's webmaster.

How it works

**Searching**
You can search for information on healthcare standards' documents, organizations or portfolios (a set of healthcare standards developed or adopted by an organization) in the Repository Search section.

**Entering new data**
You can add new information on healthcare standards' documents, organizations or portfolios in the Administration section [Administrative privilege required].

**Updating**
HCSL data that has been selected and retrieved via the 'Repository Search' function may also be updated or deleted [Administrative privileges required].
Document Search

This page allows searching the repository for Documents using the search fields below. Two different methods are available to search for Documents:

**Method 1** - Search using data elements and values below. Using the default value of ALL for each data element results in all Document titles being displayed. Selecting specific values from each data element list, results in only those Documents containing those data values being displayed. By holding the <control> key down, multiple values form each data element list can be used for the search criteria.

**Method 2** - Search using a search string. A user specified search string is used to find all Documents whose Name or Keywords include the pattern of characters in the search string (search is case insensitive).
Documents

ADA Spec 1004 - Computer Software Performance for Dental Practice Software
ADA TR 1016 - Electronic Signature Applications in Dentistry
ADA TR 1019 - Technical Security Services and Application to Dentistry
AHRO - Current Activities of Selected Healthcare Informatics Standards Organizations (aka "The Yellow Book")
ANSI/ISO 23850 - Digital Imaging and Communications in Medicine
ATA Position Statement: Teleophthalmology - Technology Utilization and Specifications
ATA Position Statement: Standards and Guidelines in Telehealth for Diabetic Retinopathy - Clinical Guidelines
CCHI Steering Group, "Key Themes and Guiding Principles"
CMS Internet Security Policy
CPT Current Procedural Terminology
Conformance testing of the government smart card
DICOM - Digital Imaging and Communications in Medicine
DICOM Message Exchange
DITSCAP - DoD Information Technology Security Certification and Accreditation Process - DoD Instruction 5200.40
Government Paperwork Elimination Act (GPEA)
HIPAA - Electronic Transactions and Code Sets - Final Rule
HIPAA - Health Insurance Portability and Accountability Act of 1996 (Public Law 104-191)
HIPAA - National Health Plan Identifier
HIPAA National Employer Identifier (NEI) - Final Rule
HIPAA National Provider Identifier (NPI) - Final Rule
HIPAA Privacy Rule 45 CFR Parts 160 and 164 - Standards for Privacy of Individually Identifiable Health Information - Final Rule
HIPAA Security Rule 45 CFR Parts 160, 162, and 164 - Final Rule
HL7 CDA - Clinical Document Architecture
Transforming Health Care: The President’s Health Information Technology Plan

As part of President Bush’s Technology Agenda on Promoting Innovation and Competitiveness, he has outlined a Health Information Technology Plan to ensure that most Americans have electronic health records within the next 10 years, and to address longstanding problems of preventable errors, uneven quality, and rising costs in the Nation's health care system. The Plan calls for:

1. The completion and adoption of standards that will allow medical information to be stored and shared electronically while assuring privacy and security.
2. Doubling Funding to $1.00 Million for Demonstration Projects on Health Care Information Technology.
3. Using the Federal Government to Foster the Adoption of Health Information Technology.
4. Creating a New, Sub-Cabinet Level Position of National Health Information Technology Coordinator to provide national leadership and coordination necessary to achieve his 10-year goal.

Keywords: health care information technology, healthcare standards, health informatics, electronic health record, national health

Available at: http://www.whitehouse.gov/infocus/technology/economic_policy/200404/chap3.html

Document Type: Policy

Health Care Domain:
- Patient Care
- Research Programs
- Specifications/Standards

Authors/Editors: President George W. Bush, The White House

Issue Date: April 2004
Registration date: 12/22/2004 11:39:41
Update: Update this Document
Health Care Standards Landscape

System Configuration

HCSL Architecture

Registry-Repository
(Currently Oracle RDBMS)

Server
(Apache + Cocoon)

Administrator

Response

Query

Response

End-user

XML/SQL

Register/Update/Delete

XML/XSLT/HTML
Health Care Standards Landscape Status

- Landscape implemented and populated with sample data on standards, organizations, & standards portfolios.
- Available for use on public NIST Web Server.
- NIST currently maintaining Landscape and developing enhancements.
Health Care Standards Landscape

Planned Enhancements

- Capability for named groups and sub-groups with their own administrators to manage group or subgroup membership and content.
- Capability for administrators and group members to control content use by other users.
- Capability for users to join multiple groups/subgroups.
- Capability for users to view groups/subgroups and switch between those of which they are members.
- Enhanced association-based searching
- New Help menus for Landscape features.
Health Care Standards Landscape Plans

- Work with partners to:
  - Identify new requirements and capabilities, e.g. features, data content, data structure, vocabularies, value-sets, etc...
  - Enhance Landscape schema, software, interface, and database capabilities as required.
  - Invite organizations to use and evaluate Landscape, and to add and manage their own content.
  - Maintain prototype Landscape operations and provide user support.
  - Explore future Landscape transition from NIST to external management and operation.
Health Care Standards Landscape

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- **Project Information:**
  - [http://www.nist.gov/ehealth](http://www.nist.gov/ehealth)

- **HCSL Web Page:** [http://hcsl.sdct.nist.gov](http://hcsl.sdct.nist.gov)
Finale

- Demonstration
- Questions & Discussions