

Current Issues & Future Directions for Standards Development Organizations

The Art of the Possible

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IMIA
Copenhagen
21 August 2013



“How much easier it is to
be critical than to be
correct.”
- Benjamin Disraeli

Elements of the (r)evolution

- Change & change management
- Collaboration
- Innovation
- Trust

“If you’re doing something the same way for ten years, the chances are you are doing it wrong.”

- Charles Kettering

Healthcare Responds to Change

- Political & social upheaval
- Dependence on technology
- Role of social media
- Innovations in Biology & Medicine
- Fundamental financial realignment
- Aging populations & deepening disparities

The inevitable response of Standards Development Organizations

- Environmental change
- Collaboration
- Innovation

HL7 Responds

HL7 licenses in standards & other standards artifacts free of charge.

The Ripple felt around the world

Inevitably, the scope of HL7
changed, and with it came changes
in its
products & services.

“There is nothing so useless as doing efficiently that which should not be done at all.”

- Peter Drucker

The Globalization Effect

- HL7 Affiliates responded and grew.
HL7 Europe and HL7 Asia emerged as more committed leaders.
- Low & middle income countries began to grasp the possibilities.
- Health ministries found new ways to engage and leverage opportunities.

Finagle's Law of Medical Information

The Information you *have*
is not what you want.

The information you *want*
is not what you need.

The information you *need*
is not available.

Growth Impact on Organizational Scope

- Mobile health
- Quality measures
- Vocabulary
- Authority
- Public Health
- Genomics
- Clinical Decision Support
- Healthcare literacy
- Education resources
- Conformance Testing
- Help Desk
- Policy initiatives

“Knowledge is knowing that a
tomato is a fruit.
Wisdom is not putting tomatoes
in a fruit salad.”

Miles Kington
British Journalist

Collaboration: SDO Partnerships

- IHE
- IHTSDO & Regenstrief
- CDISC
- Continua Alliance
- IEEE
- OMG
- GS1 Healthcare
- IOS
- CEN
- Joint Initiative Council

“All you need in this life is
ignorance and confidence, and
then success is sure.”

- Mark Twain

Partnerships

- EFMI
- AMIA
- EU-US Cooperation Partnership

Partnerships

- Rockefeller Foundation
- RW Johnson Foundation
- Gates Foundation
- World Bank

Collaboration: Program Partnerships

- Semantic Health Net

you hit the target.”

Ashleigh Brilliant
English Author

Innovation

- CDA (Trifolia & others)
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- CIMI¹
- FHIR²

1. Clinical Information Modeling Initiative

2. Existing and future interoperability resources

3. Sustainable Advanced Interoperability Resources

Quo Vadis?

- Educational expansion
- Capacity development
- Global collaboration
- Technology integration

“There are two kinds of
they start and so on.”

- Robert Byrne

Thanks



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Standards

What's Changed & Why

John Quinn

HL7 CTO

Medinfo 2013—August 21

HIT Interoperability & Standards

- HL7 (and other Standards Development Organizations) have been defining Interoperability Standards for longer than HL7's 26+ years.
- In 1987, the problem was largely defined (for HL7) as a standard that specified how separate computer systems communicated with each other within a provider organization.
- The problem was understated, but this was the “stated” scope of the basic problem.

HIT Interoperability & Standards

■ Two other factors:

1. The scope of functionality and external ability to interoperate with “foreign” HIT systems was dramatically different among all users.
2. The clinical and administrative **PROCESSES** also widely varied among provider organizations and even between facilities and departments within the provider organizations.

HIT Interoperability & Standards

- A “standard” way to interconnect systems was not the solution. However a standard approach to facilitating interoperability was the requirement.
- Most vendors created then (and still use today) a combination of:
 1. A foundational (i.e. HL7 “aligned” interoperability specification) and
 2. A proprietary methodology and a set of largely proprietary tools to support processes (i.e. use cases) that varied widely.

Please Note:

- For purposes of this presentation an “Interoperability Specification” is a set of instructions that you would give to a software developer so that a repeatable defined outcome occurs for each an every permissible set of available information and given event.

HIT Interoperability & Standards

■ The result was:

1. Indeed lower implementation costs because of significant intra-vendor reuse of products, tools and testing methodologies
2. Very unique interoperability architectures within all vendor's customers that wasn't a concern because the provider organization only had to interoperate within their **Own IT Environments.**

HIT Interoperability & Standards

- **As a consequence it never made sense to “upgrade the version or even the underlying technologies of an organization’s intra-provider interfaces.**
 - **Why: there was no business reason to touch and fix that which wasn’t broken with the real risk of significant monetary costs and disruptive shake outs of new “bugs”.**
 - **To this day I still come across organizations with “hundreds of HL7 interfaces circa HL7 V2.1 and 2.2) between IT systems that would have been shut down if they were not acting as nothing more than connections between two other still viable and “in use” IT systems.**

HIT Interoperability & Standards

■ Now:

- Governments are looking for ***standards-based interoperability specifications*** so that all participating organizations will use the same:
 - ***Standard messages and documents that are***
 - ***Used to facilitate the exchange of standard coded information that is supporting***
 - ***Well defined standard Administrative and Clinical Processes.***

HIT Interoperability & Standards

- The scope and context of the information being exchanged is expanding as have the sophistication of the IT systems that are producing and accepting the information.
- A Standard such as HL7 provides an almost limitless number of different ways of exchanging information that is growing in scope almost daily.
- At the same time the underlying IT technology is also changing—another dimension of change.

New HIT Interoperability Needs

1. Detailed interoperability specifications based on HIT interoperability and terminology standards
2. Testing tools to verify that for each specification the IT applications and the interoperability architectures are behaving as planned
3. Certifications that reliably identify vendor's products and components that have succeeded in correctly implementing these requirements.

What's Changed?

Answer:

The problem that we have been asked to solve.

