CSLS History 101: What Led Us to This Event

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Disclosure

I am the past chair, and a member, of the Interim Steering Committee of the Learning Health Community, a grassroots not-for-profit organization.
General Vision of CSLS: Cycles of Study and Improvement

A Problem of Interest

- Assemble Relevant Data
- Analyze Data
- Interpret Results
- Deliver Tailored Message
- Take Action to Change Practice
- Community Forms and Commits

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History: What Brought Kevin and Me Together

2006

Ultra-Large-Scale Systems: The Software Challenge of the Future

2009

Strategic Health IT Advanced Research Projects (SHARP) Program

2009

THE HITECH ACT

2011

Digital Infrastructure for the Learning Health System

20th Century

20th Century
And the Events That Followed...

Institute of Medicine 2011

NSF Workshop 2013

NSF Workshop at HICSS 2015

National LHS Summit 2012

CSLS Workshops 2016
NSF-Sponsored 2013 Workshop

- A national workshop to explore the *research challenges* inherent in realizing a high functioning LHS
- April, 2013 in Washington, DC
- 55 attendees: 45 invited participants plus federal liaisons
- Many disciplines represented: computer science to epidemiology to economics
Outcomes of the 2013 Workshop

Reflected in report and JAMIA article:

• A vision of a high-functioning system
• 106 research questions organized into 4 broad categories and 19 sub-categories
• A suggestion of a new area of basic and applied science, engineering, and design
LHS System Requirements from 2013 Workshop

1. A system that is trusted and valued by all stakeholders
2. An economically sustainable and governable system
3. An adaptable, self-improving, stable, certifiable, and responsive system
4. A system capable of engendering a virtuous cycle of improvement
Second NSF Workshop at HICSS ‘15

- 10 invited speakers, ~ 80 participants overall
- Deeper dive into the computer and information science of the LHS
- **Validation that there is a scientific agenda and community interested in addressing it**
- **Recognition that this transcends health**
Is This For Real?

*At least in health:*

- There are many believers
- Pinnacle goal of U.S. Health IT policy
- Several organizations have LHS initiatives
- Precision Medicine *is* a CSLS
- Growing international movement
- A journal and at least one academic department
- A significant literature (1740 in Google Scholar)
- A grassroots organization with ~1500 on its mailing list
The Believers
(99/105 Endorsers of the LHS Core Values)

(As of 3/21/2016)
Thanks
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