

A Philosophy of Institutional Clinical Informatics

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CORE THESIS Healthcare technology requires three complementary forms of intelligence: technical expertise, clinical-informatics expertise, and distributed clinical-domain expertise. Governance is the mechanism that brings them together at the right level of decision-making.

The model

- **IT:** Owns the technical enterprise - infrastructure, applications, architecture, cybersecurity, integration, reliability, technical standards, implementation capacity, and sustainable operations.
- **Clinical informatics:** Owns the clinical use of information and technology - workflow, usability, decision support, implementation, evaluation, and the clinical consequences of digital design.
- **Clinical domains:** Supply the subject-matter expertise that no central team can possess across every specialty, profession, and workflow.
- **Hub and spokes:** A central informatics hub provides enterprise strategy, standards, coordination, prioritization, and stewardship; distributed domain informatics leaders connect that hub to frontline clinical expertise. Information and accountability flow in both directions.

Governance as an operating system

Good governance creates a predictable path from clinical need to institutional action: identify the issue, bring the right expertise together, establish decision rights, prioritize the work, implement deliberately, and measure what happened. It also surfaces rather than suppresses disagreement. A friction point that cannot be resolved should still receive a credible hearing, an accountable disposition, and a transparent explanation of the constraint.

Five aims

- **Increase signal while reducing noise.** Expand useful and sophisticated CDS while decreasing unnecessary clinician-facing interruption through better targeting, context, workflow integration, and lifecycle management.
- **Surface and navigate friction.** Systematically identify clinical-technology problems and conflicts, route them to the right level, and provide accountable resolution or explanation.
- **Shorten the distance from clinical need to institutional action.** Make it easier for legitimate frontline needs to reach people with the expertise and authority to evaluate and act on them.
- **Measure after implementation.** Treat deployment as the beginning of evaluation: measure adoption, workflow effects, intended outcomes, unintended consequences, and continuing value.
- **Measure value, not merely activity.** Tickets closed, builds completed, and alerts created measure work. Informatics should increasingly measure what that work accomplished for patients, clinicians, safety, quality, operations, and organizational capability.

The destination

The desired institution has a strong technical core, a strong clinical-informatics function, and meaningful distributed clinical expertise. Authority is clear, but expertise can travel. Local problems can reach enterprise leadership; enterprise standards can reach local practice. The mature endpoint is a learning health system in which clinical experience, data, evidence, technology, and governance form a continuous improvement loop.

FOUNDATIONS Sittig & Singh sociotechnical model • AMIA Clinical Informatics Core Content and CCIO Task Force • CDS Five Rights • McCoy et al., University of Utah CDS governance case study • ONC SAFER Guides • National Academy of Medicine Learning Health System