

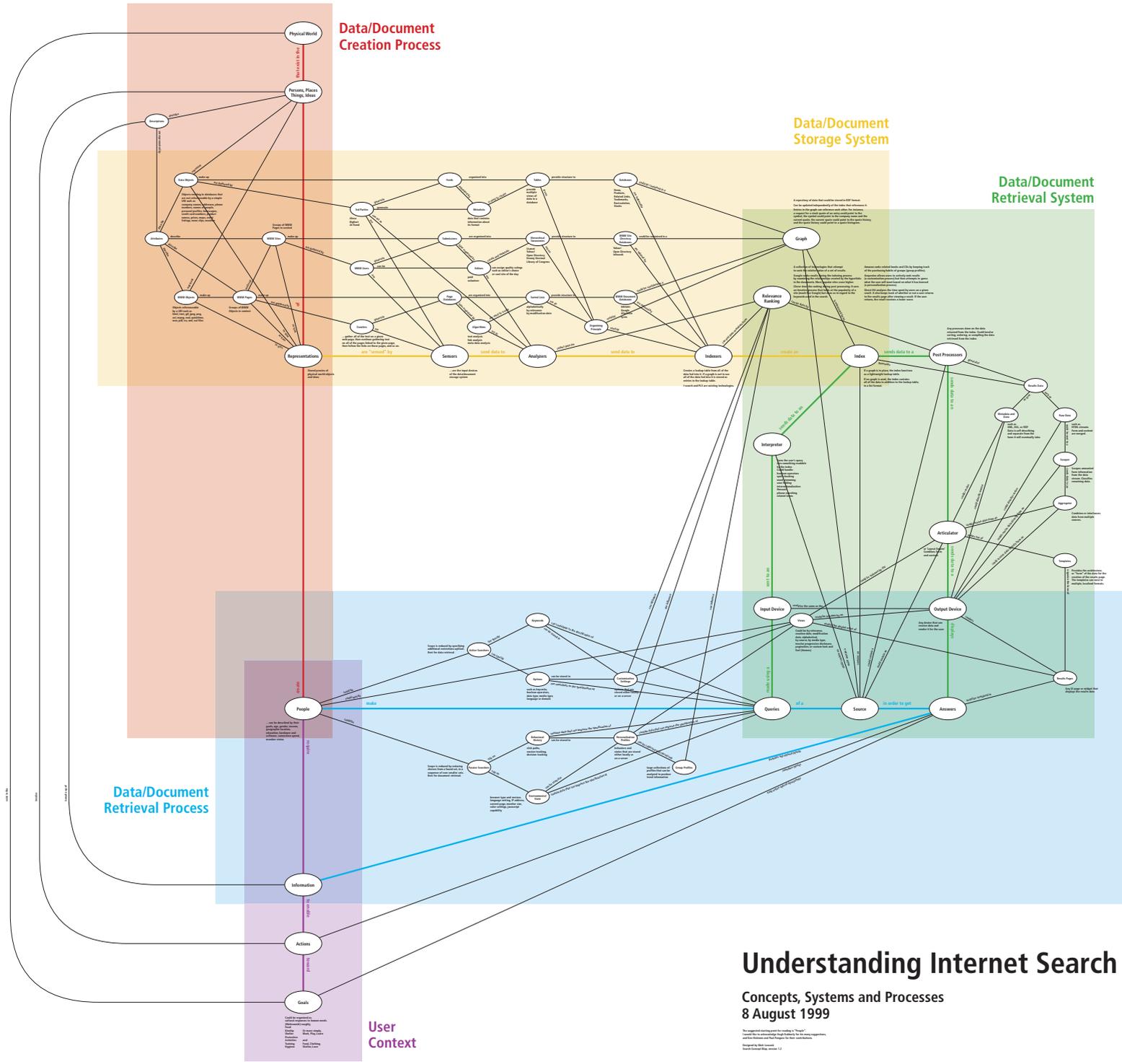
University of Washington Seattle, WA

Division of Design, School of Art + Art History + Design February 8, 2019

Concept Maps

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Presentation posted at
presentations.dubberly.com/concept_maps.pdf



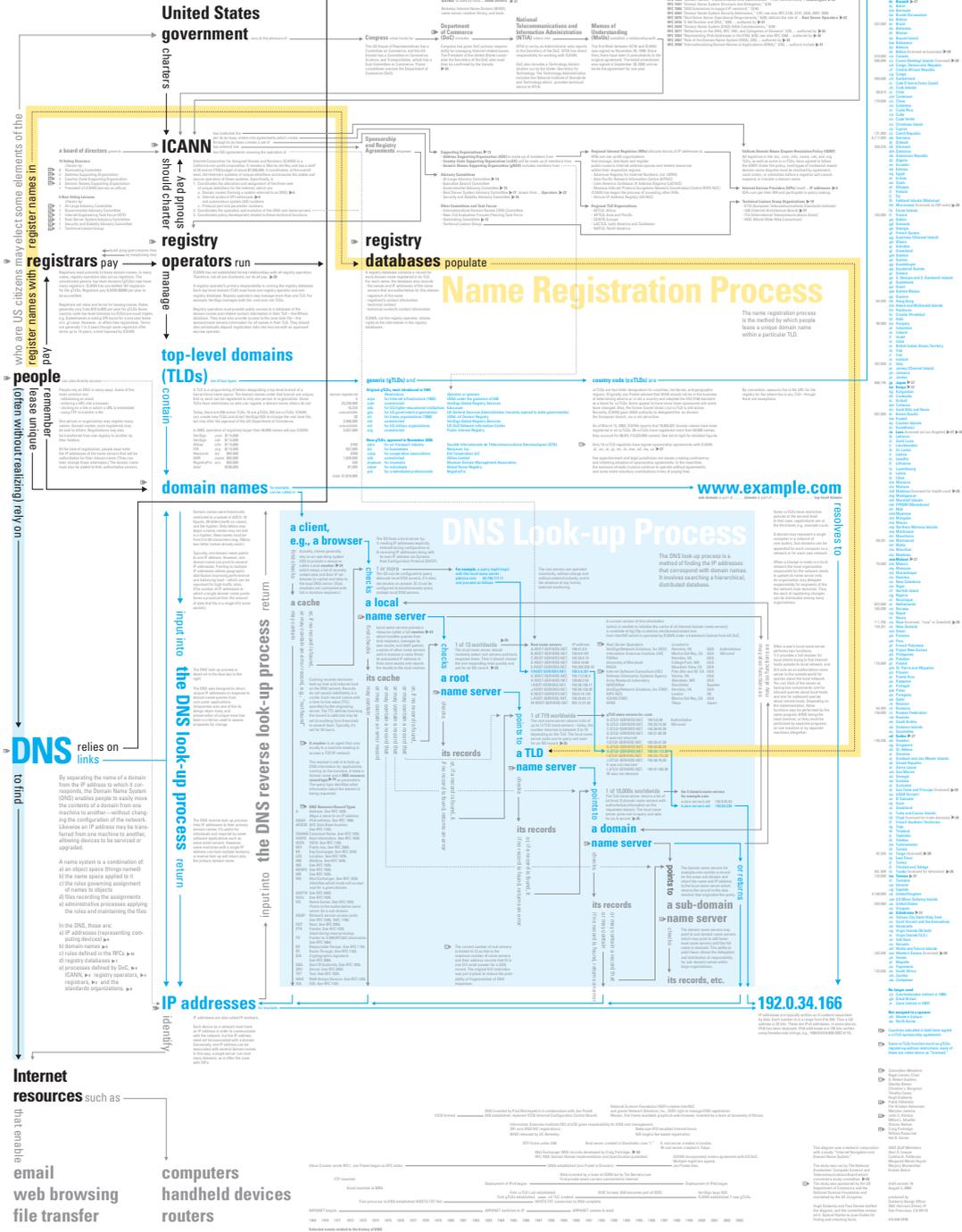
Understanding Internet Search

Concepts, Systems and Processes
8 August 1999

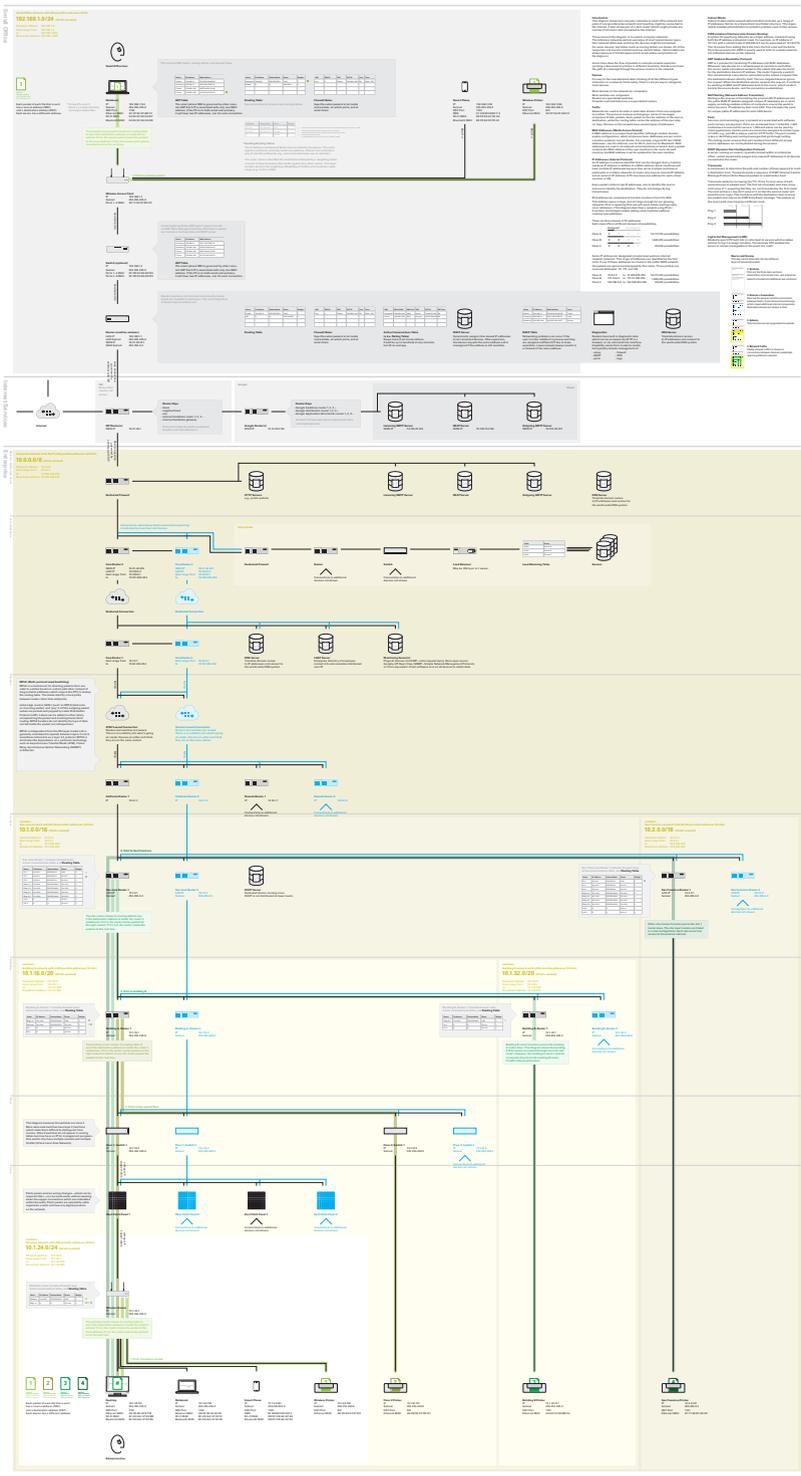
The original motivation for writing "U.S." was to provide a comprehensive overview of the concepts, systems and processes of internet search. It is intended as a reference work for researchers, students, and practitioners in the field of internet search.

Domain Name System

This diagram is a model of the Domain Name System (DNS), a system used to smooth operation of the Internet. The goal of the diagram is to register vital facts about DNS in hopes of presenting a comprehensive picture of the system and the context in which it operates.



Enterprise Reference Network **Print**





Introducing the Election Technology Framework— Because We All Deserve a Better Voting Experience

The TrustTheVote Project is a digital public works project to develop critical democracy infrastructure. We are designing and developing open standards based election technology in collaboration with local election officials from around the country.

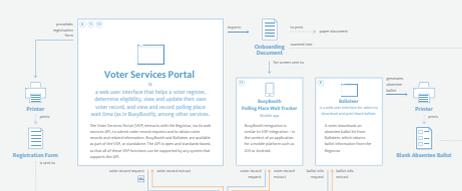
The Election Technology Framework is a nearly available for any jurisdiction (e.g., a county) to adopt, adapt, and deploy for public elections. Specifically, each jurisdiction would have one copy of each component, though some voting components are developed as open projects. Open source, open standards, and open data are key aspects of the Election Technology Framework, intended to assist election officials in conducting election administration and election operations in a manner that is accurate, secure, transparent, and verifiable.

Six Main Building Blocks:
Engineering
Voting
Reporting
Data Standards
Guiding Principles



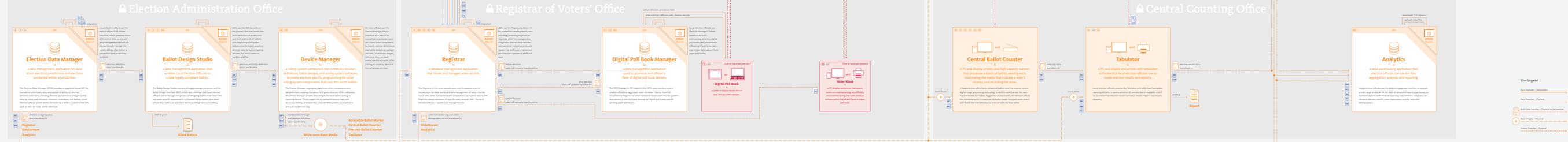
Registering

Registering includes all the people, technology and activities involved in voter registration, voter records management, voter information and services, and voter list management.



Managing

Managing includes all the technology based activities of election officials for election administration and preparation for a specific election.



Data Layer

The data layer includes a set of open standards for election data, defined with the help of local election officials and formalized through open standards organizations.



Guiding Principles

Elections technology must be...

Accurate

List all voters and only eligible voters on voter rolls. Count votes without errors, as they were cast.

Secure

Ensure voter privacy, data integrity, system reliability, and proper authentication and authorization for access.

Transparent

Allow verification of required accuracy. Log all changes to guarantee accountability.

Verifiable

Enable everything that matters about an election to be independently verified, including accuracy and security.



Introducing the Election Technology Framework— Because We All Deserve a Better Voting Experience

Registering

Registering voters is a critical component of the election process. It ensures that all eligible voters are included in the voter roll and that the roll is accurate and up-to-date.

Managing

Managing the election process involves overseeing the flow of information and resources between various stakeholders, including election officials, voters, and the public.

Data Layer

The data layer is the foundation of the election technology framework, providing a secure and reliable environment for storing and processing election data.

Citizens > Voters

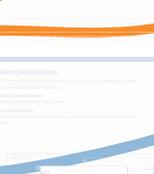
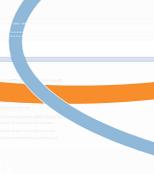
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Six Main Building Blocks:
Election Reporting
Voter Reporting
Data Standards
Guiding Principles



LEOs & State Legislature



Guiding Principles

Elections technology must be...

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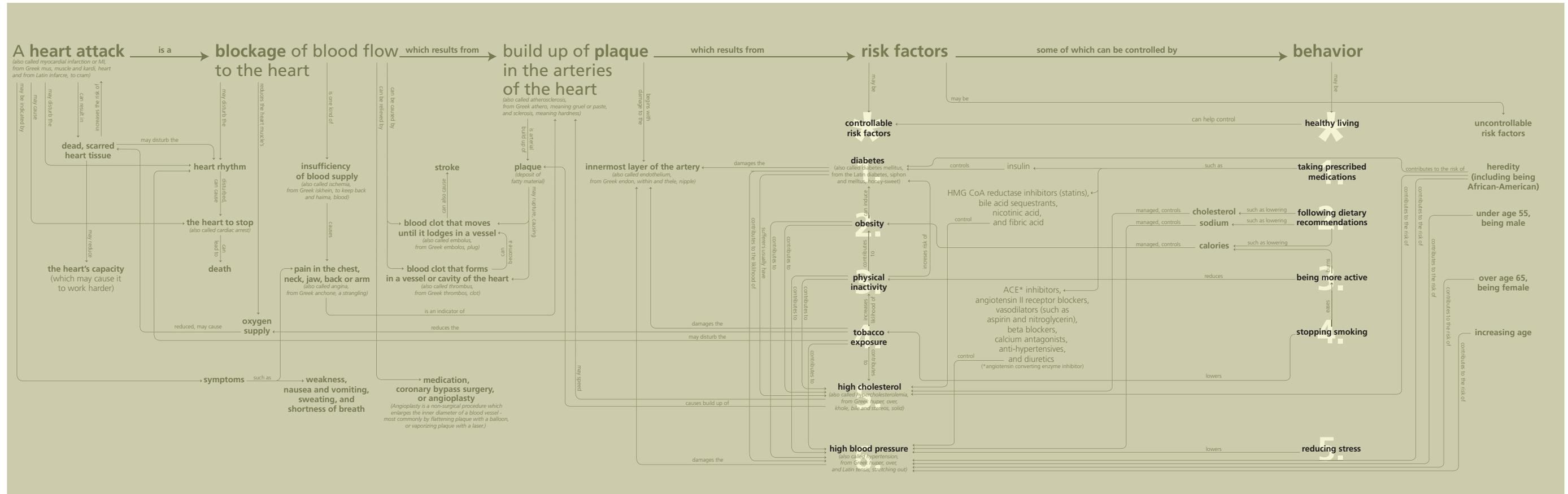
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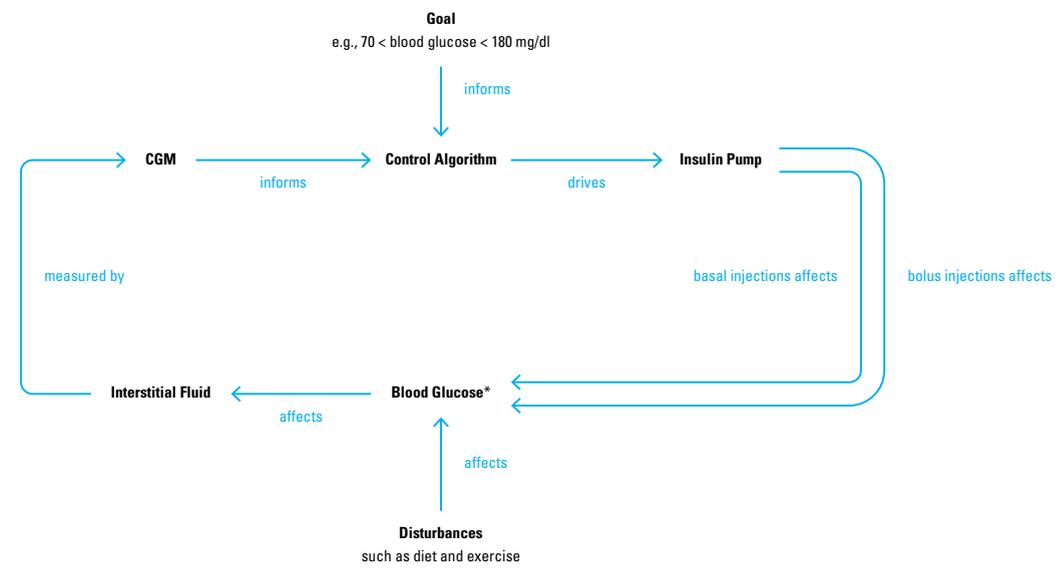
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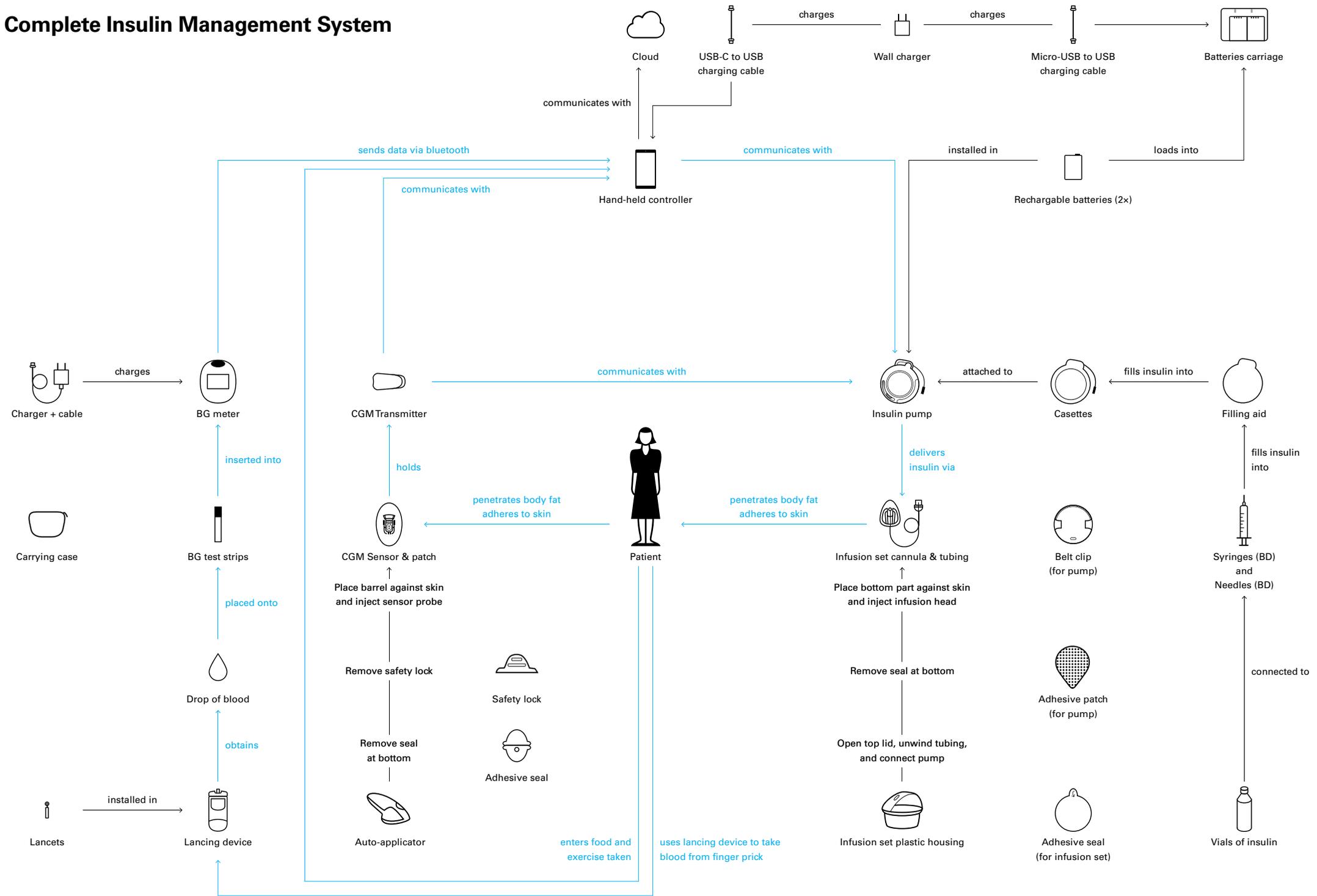


Feedback loops provide a framework for modeling insulin management



* In reality, CGMs measure interstitial fluid, a proxy for blood glucose.

Complete Insulin Management System



the creative process

a model of

The creative process is classically described (Wallas, 1926) as preparation — incubation — illumination — verification.

But more often than this, the process is messy — it is *developmental* — and evolves.

These models suggest a life, linear structure beginning with a goal.

Simple experiences sound straightforward, even predictable. They promise that we can understand and predict. That makes them appealing to people who are impatient and weary about uncertainty and ambiguity. But the creative process rarely plans. It is a messy, messy, messy process.

Prepared as a response, it's a plan for achieving a goal. It's a plan for achieving a goal.

But if the goal doesn't change, it's not the target. Achieving a goal may require a new view. It may require iteration. Iteration is a learning process, going back and forth between what we know and what we don't know. It's a process of learning, not of knowing.

The creative process is less like a line and more like a loop. It's a loop that evolves.

The process itself is messy with learning in real time. Each activity produces feedback that informs the next activity. It's a process of learning, not of knowing.

If the goal is clear — if we have agreed on how we define a problem, we can work together — then iteration is helpful. And we know when to stop. If the goal is less clear, deciding when to stop is important.

But some problems are "wicked" (Rittel, 1980). Their definition depends on what we know and how we know it. They're problems that challenge our understanding and require that we learn. For such problems, learning and adapting are necessary and ongoing. It's a process of learning, not of knowing.

Sometimes the goals are clear. Participants don't always agree on how to define the problem. Such cases require a new form, or a new perspective (Gibson, 1977), or a new orientation to the problem (Gibson, 1977).

Agreeing on goals may require iteration — may require a different view. Several weeks of meetings may be needed to agree on the goal. It's a process of learning, not of knowing.

This "hard-wiring" process (Epstein, 1985) is a sign of learning systems and organizations (Epstein, 1985).

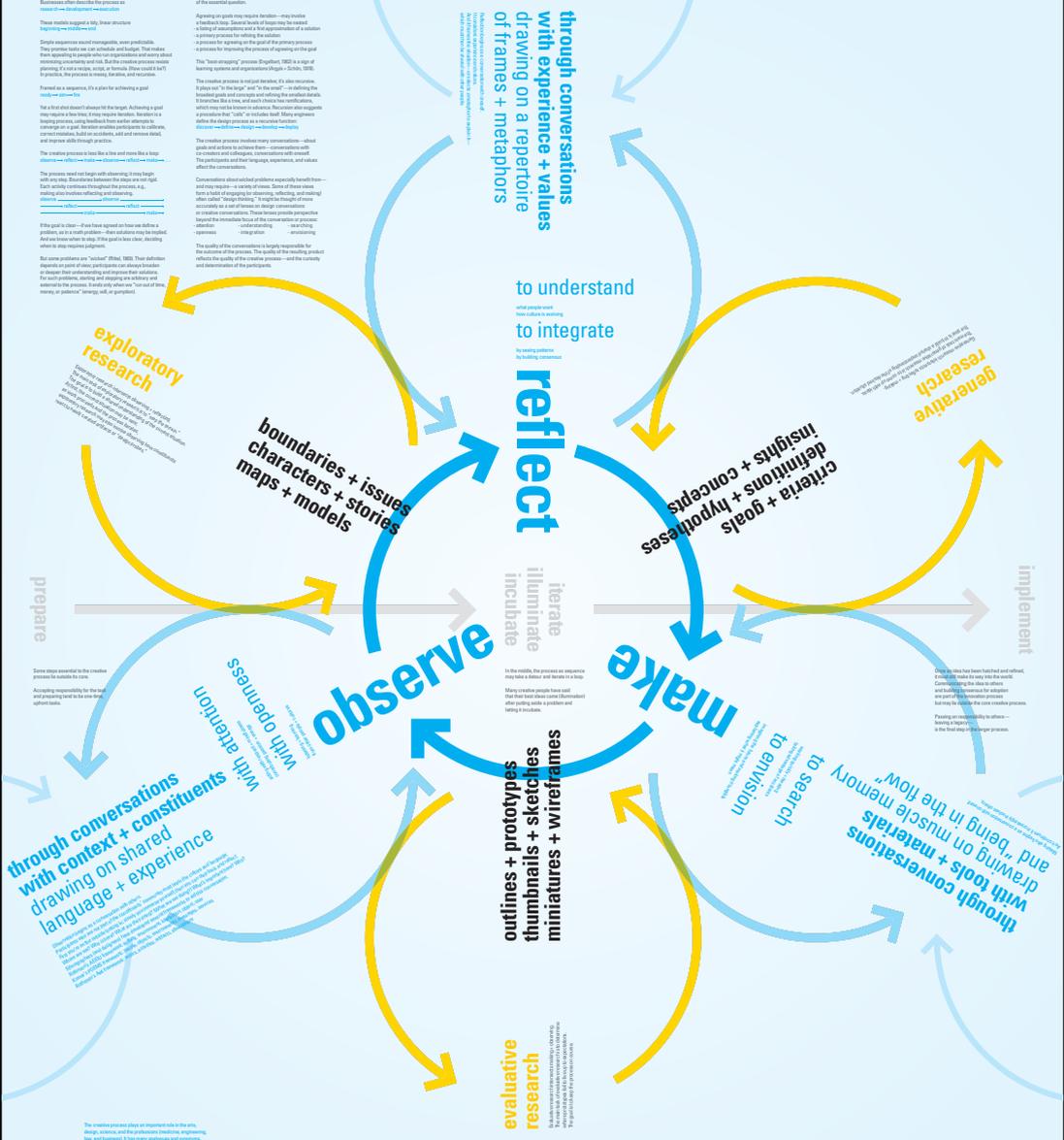
The creative process is a goal-oriented process. It's a process that plays out "in the loop" and "in the mind" — in defining the learning goal and in defining the learning process. It's a process of learning, not of knowing.

The creative process involves many conversations — about goals and actions to achieve them — conversations with co-workers and colleagues. Conversations with oneself affect the conversation.

Conversations about wicked problems especially benefit from — and may require — a variety of views. Some of these views are a kind of engaging in observing, reflecting, and acting (Kolb, 1984). It's a process of learning, not of knowing.

Conversations about wicked problems especially benefit from — and may require — a variety of views. Some of these views are a kind of engaging in observing, reflecting, and acting (Kolb, 1984). It's a process of learning, not of knowing.

The quality of the conversation is largely responsible for the quality of the process. The quality of the learning product reflects the quality of the creative process — and the quality and responsiveness of the participants.



quality cycle
The creative process is a quality cycle in the quality cycle (Deming, 1986) process of continuous improvement for the quality management movement (Deming, 1986).

check and is

self-regulating system
Like a self-regulating system, the creative process is a dynamic, self-regulating system. It's a process of learning, not of knowing.

measure and

scientific method
Forming hypotheses is a key aspect of science and forming the creative process is "scientific" when the goal is to learn about the world of science.

observation and hypothesis

clinical process
When physicians meet patients, they begin by taking a history and examining the patient. They may then conduct, which is a form of diagnosis, which includes therapy.

test and evaluate

design process
The design process is a process of learning, not of knowing. It's a process of learning, not of knowing.

evaluate and improve

interaction loop
Interaction with others is a key aspect of the creative process. It's a process of learning, not of knowing.

listen and respond

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Dubberly Design Office

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