

WELCOME!

CALIFORNIA SYSTEMS INTEGRATION and INTEROPERABILITY SYMPOSIUM
 May 21-23, 2013
 Sacramento, CA



It's **CRITICAL** that we are having the **SAME CONVERSATION!**

SHELL CULP
 CHIEF DEPUTY DIRECTOR,
 California Health and Human Services Agency,
 Office of Systems Integration

This is the **FIRST of TWO SYMPOSIA!**

WHAT WE WILL **DELIVER...**
 Systems Integration and Interoperability PLAN
 ROADMAP for implementation

(Grant inspired by the Affordable Care Act and administered by the Administration for Children and Families)

We want:
 • LOVING and TRUSTING ENVIRONMENTS
 • ACCESS TO HEALTH CARE
 • A SYSTEM THAT EFFICIENTLY TALKS TO EACH OTHER on kid's behalf.

WHAT IF THE STORY WAS ABOUT KIDS IN FOSTER CARE?

- They HAVE LOST THEIR PARENTS.
- They HAVE LOST ACCESS TO EACH OTHER.
- There isn't sufficient information about any of them in the system — and the parts of the system DON'T TALK TO EACH OTHER.

SHARE EVERYTHING!

LET'S CREATE OUR OWN STORY!

CHOOSE YOUR HEROES!

We are the **HEROES** but we can't do it **ALONE!**



1. THE SET UP...
2. TENSION/DRAMA
3. RESOLUTION...

Think: SCREENPLAY!
 Characters...
 Plot...

- POLICY
- STRUCTURE
- PRACTICE

WHAT KIND OF CONVERSATION ARE WE HAVING?

L2C

LEARNING must be GREATER THAN or EQUAL to CHANGE in order to KEEP PACE!

We all have different styles of learning!

LEARNING!

- READING
- WRITING
- LISTENING
- WATCHING
- DOING
- SHARING
- KINESTHETIC

WHO Can we LEARN from?

- California Counties
 - LA
 - Alameda
 - Fresno
 - San Diego
- Other States
- Each other!

INTEROPERABILITY!
 Integrate and Optimize.

MASSIVE change!

- Possibility for change!
- Co-CREATE **CHANGE.**
- Build **RELATIONSHIPS.**

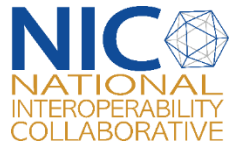
INTEROPERABILITY!

The ability of DIVERSE SYSTEMS and ORGANIZATIONS to WORK TOGETHER

RIGHT CLIENT

RIGHT SERVICES
RIGHT TIME

WHERE ARE YOU ON THE INTEROPERABILITY CONTINUUM?





Agenda

- Introductions & Some Background
- Key Topics:
 - Social Determinants of Health and Well-being Meets Medicine
 - Model Concepts and Tools
 - Applying Artificial Intelligence to Social Care settings
 - Case Study: Preventing/mitigating the Opioid Crisis
 - The National Interoperability Gallery & Murals

In the Beginning...(Circa 2004)



- SOC surveyed HHS leaders across the nation who were working in isolation to improve data sharing and interoperability.
- We convened thought leaders from multiple sectors to share ideas, successes and challenges; publish findings; and create models and tools.
- Synthesized learning, highlighted successes and failures, started documenting using graphic murals, and began building a learning community.

The Case for Sharing Information is Profound

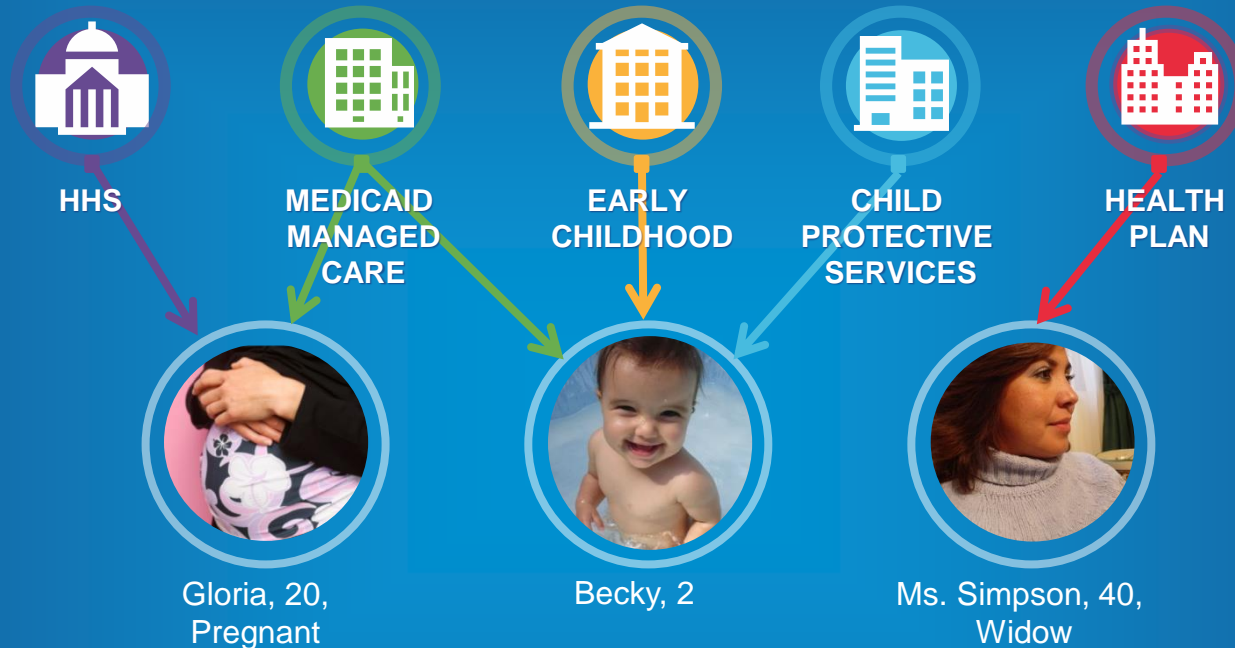


- Too many children have been injured or killed because known risks and threats are not readily shared. Lack of sharing inhibits timely, informed decision-making.
- Legacy technology, rigid policies, tunnel vision and high turnover inhibits solving complex problems.
- Organizations *still* don't focus enough on bridging silos, upstream or prevention.
- Interoperability wasn't (and generally isn't) anyone's job. So we made it ours.

The Garcia Family



Current System



Gloria, 20,
Pregnant

Becky, 2

Ms. Simpson, 40,
Widow

Needs:

- Health Insurance
- Prenatal Care
- Medical Home
- Medical Referral for substance abuse
- Transportation

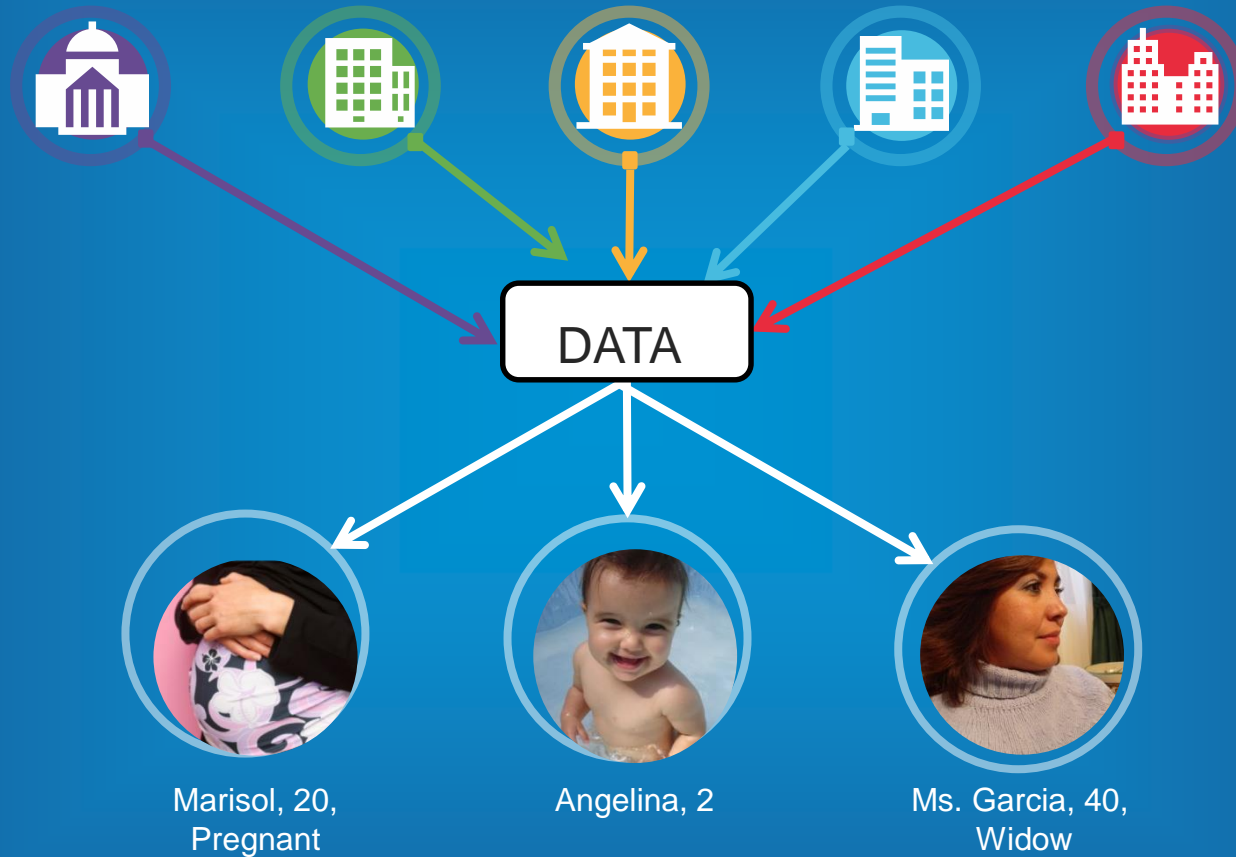
Needs:

- Immunization Screening
- Lead Screening
- Developmental Screening
- Parenting education
- Well child visits

Needs:

- Medical referral – Primary care
- Medical referral – Specialty care
- Medical referral – depression and counseling
- Transportation

Person-centered Care Coordination Through Interoperability



SDOH

*SOCIAL DETERMINANTS OF
HEALTH & WELLNESS*



Live



Learn



Work



Play

Growing Interest in SDOH in Clinical Settings

November 08, 2019:

Fourteen of the nation's leading hospitals and health systems will be investing a collective \$700 million to address community health needs and the social determinants of health in their respective regions, according to Democracy Collaborative.

Insurance Companies and Healthcare Providers Are Investing Millions in Social Determinants of Health Programs

Jul 24, 2019 | Laboratory Management and Operations, Laboratory News, Laboratory Operations, Laboratory Pathology
PHYSICIAN HEALTH

When patients' social needs are met, doctors feel less burnout

AUGUST 1, 2019



CVS-Aetna is partnering with a New York-based social care platform to bring social services to high-risk members

Zachary Hendrickson Jul 25, 2019, 10:42 AM



Medicaid Beneficiaries Do Much Better When Plans Address Their Social Determinants of Health

July 25, 2019



UnitedHealthcare Awarding \$1.1 Million to Northeast Ohio Nonprofits to Help Address Social Determinants of Health

John Jannarone
CorpGov.com July 30, 2019

Health plans voice support for bill to address SDOH efforts

Solera Health, Blue Cross Blue Shield Institute team up on social determinants of health initiative

The two companies will work together to tailor a platform that will connect patients to community-based providers and other resources.

AMA, UnitedHealthcare Develop ICD-10 Codes to Support Social Determinants of Health

Best Practices to Develop a Social Determinants of Health Strategy

A discussion with members of Humana's Bold Goal team identified best practices for building a successful social determinants of health strategy.

Can the silos actually be connected?



In the NIC of Time: Six Domains of Primary Focus for the National Interoperability Collaborative



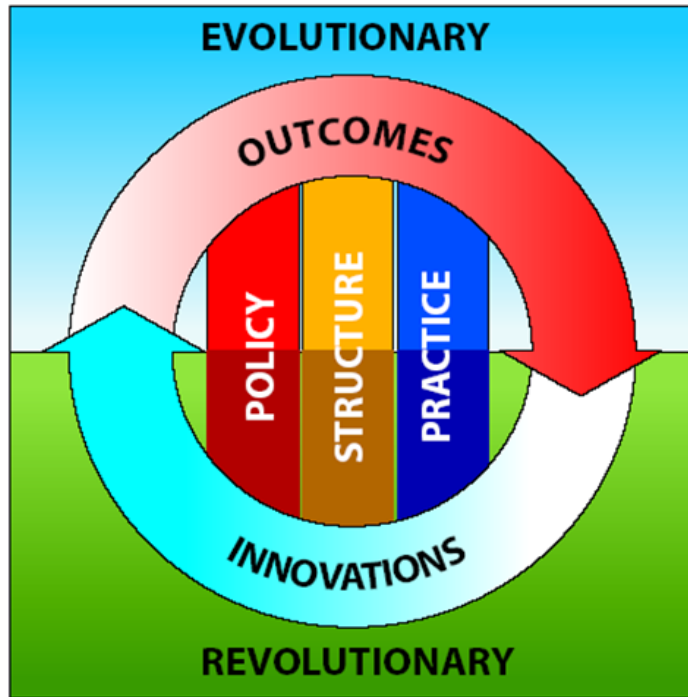
Stewards of Change Institute
Healthcare Information and Management Systems Society
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"By failing to prepare, you are preparing to fail."

— Benjamin Franklin

ISTOCK.COM/JENAGLATTI

Implementing SOC's Generative Theory of Change

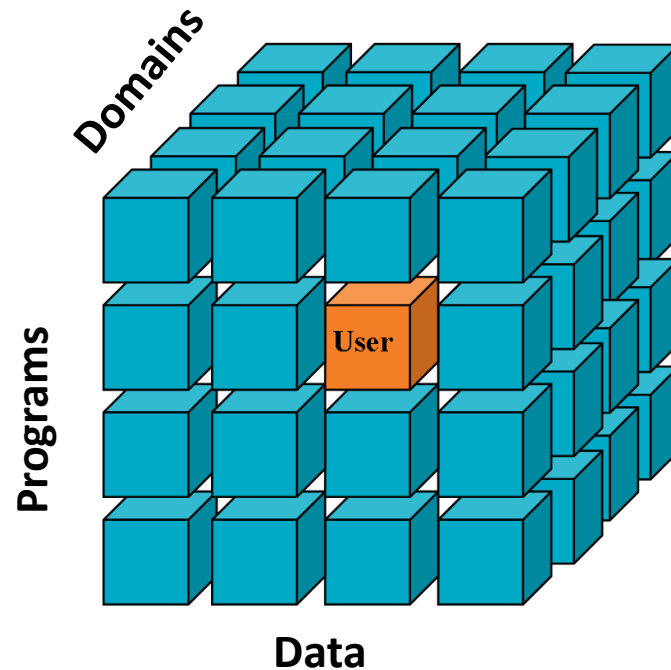


Policy – The principles or rules that guide decisions by which human services organizations define how they will achieve desired outcomes across the range of programs, activities and disciplines.

Structure – The way public and private human services systems design, organize and implement work processes to achieve policy and practice goals.

Practice – The way public and private human services organizations deliver services and care, monitor and report results, and achieve intended outcomes

Precision Targeting Across The Spectrum of Care Demands New Models & Tools (InterOptimability Cube)



Implementing A Generative Solution



Initial Artificial Intelligence: *Activating and Enabling InterOptimability*

Within Our Reach
A National Strategy to Eliminate
Child Abuse and Neglect Fatalities



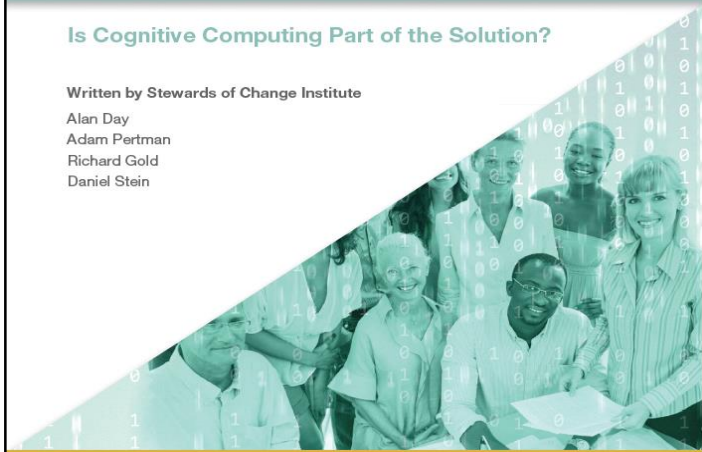
COMMISSION TO ELIMINATE
CHILD ABUSE AND NEGLECT FATALITIES
Final Report, 2016

Improving Processes & Practices in Child Welfare:

Is Cognitive Computing Part of the Solution?

Written by Stewards of Change Institute

Alan Day
Adam Pertman
Richard Gold
Daniel Stein

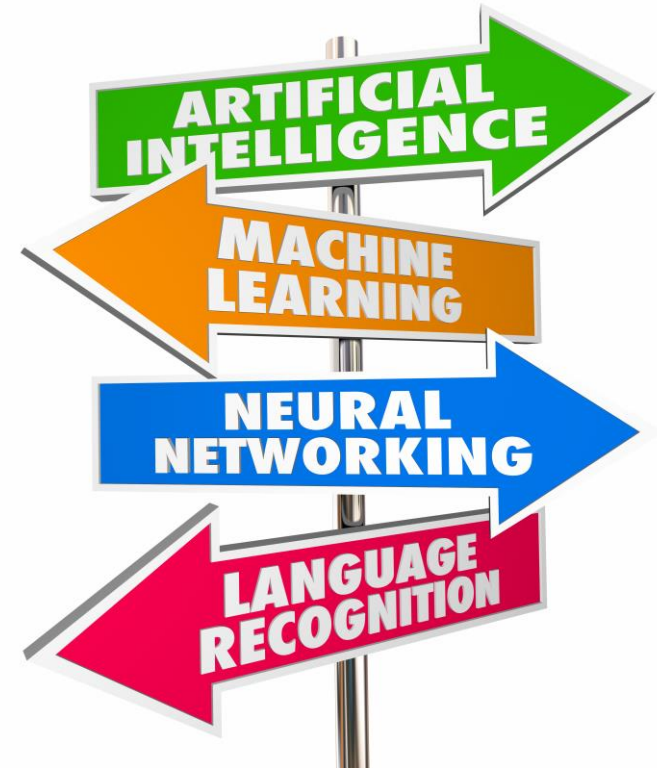
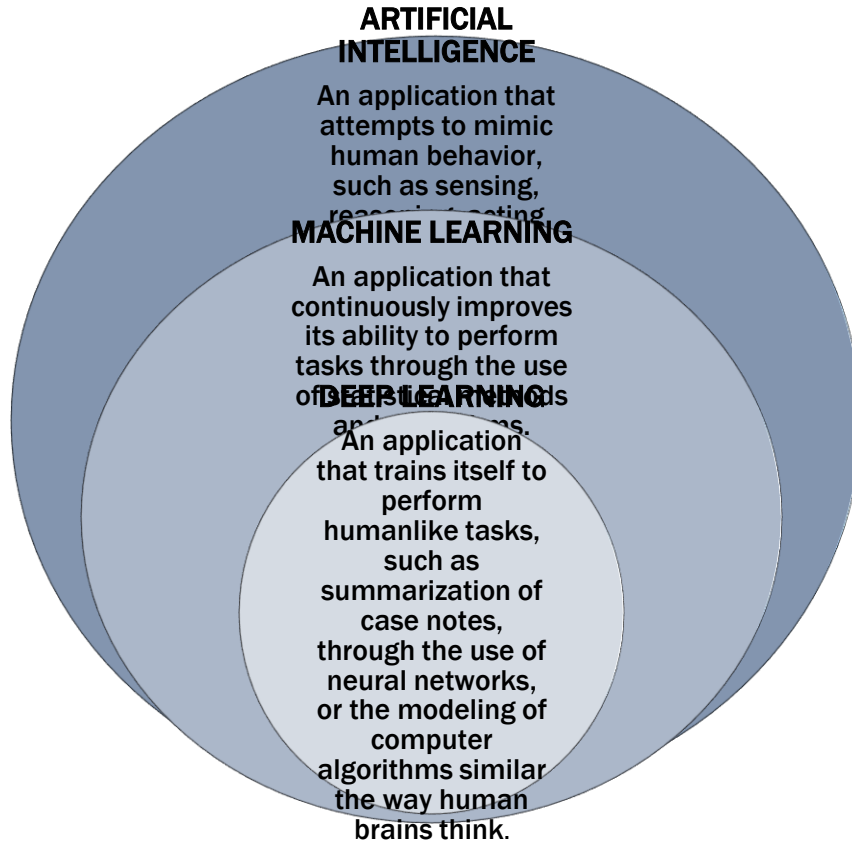


6/3/2016

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ARTIFICIAL INTELLIGENCE OVERVIEW



Natural Language Processing = Statistics + Linguistics + AI

AUGMENTING INTELLIGENCE (AI) IN SOCIAL, BEHAVIORAL AND HEALTH CARE

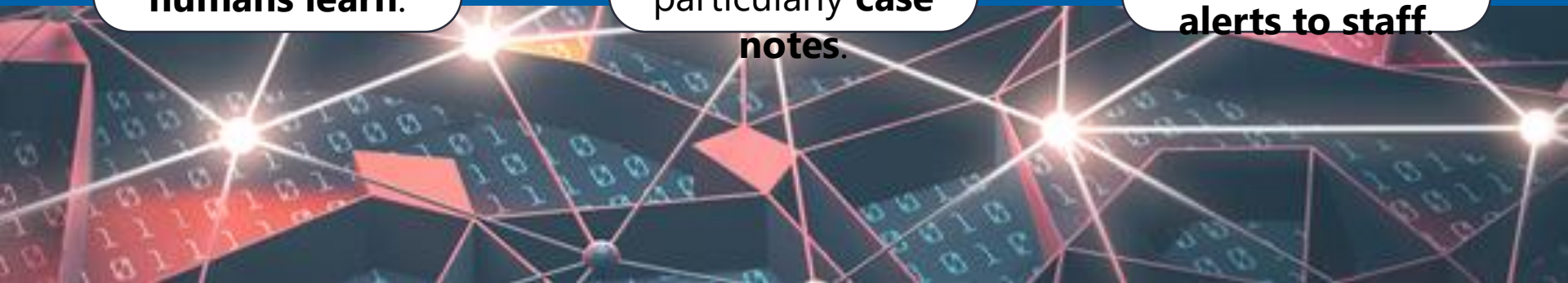
AI can be used to **comb through vast amounts of data** to understand context, **similar to how humans learn.**



Natural language processing (**NLP**) is a type of AI that **mimics a human's ability to understand free-form text – particularly case notes.**



AI-NLP applications process vast amounts of case notes then **provide real-time information, insights and alerts to staff.**



AI Case Study Animation



WHY IT'S NEEDED

1

Case prep is arduous – caseworkers must review **100's of pages of case notes** across multiple data systems, **limiting time caring for families**

2

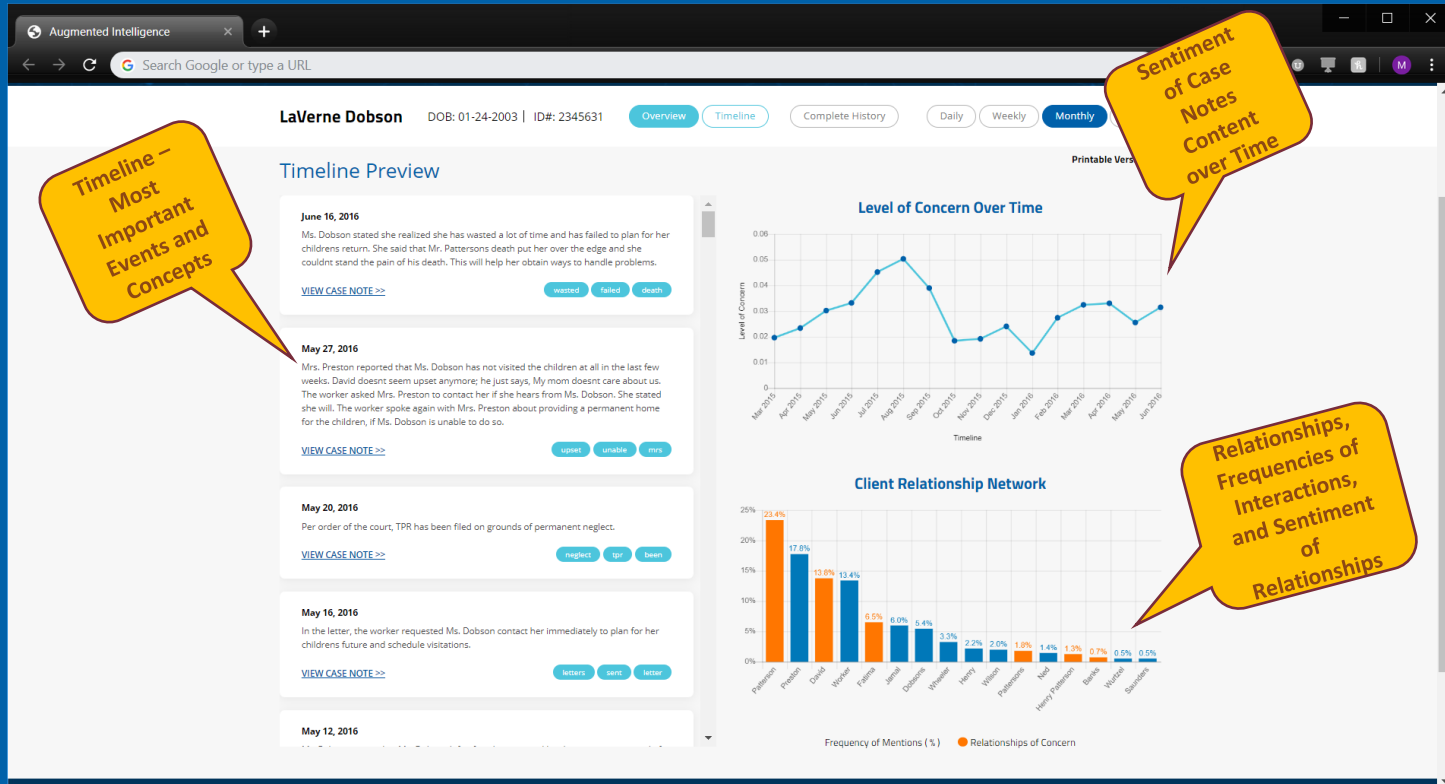
Case supervision and quality control is **essentially random** – supervisors spend **40% of their time reading through staff's notes to identify issues**

3

Preparation, supervision and decision support tools are limited – **80% of data is “unstructured”** case notes, but **today's tools are limited to 20% of remaining “structured” data**



AI APPLICATIONS IN SOCIAL SERVICES



HOW TO START AN AI INITIATIVE

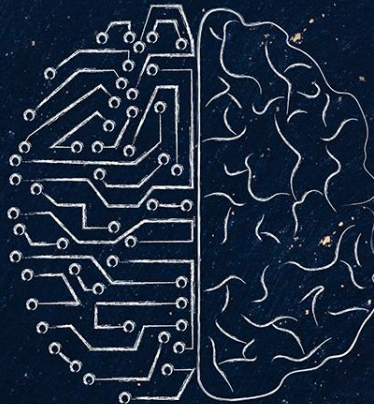
Identify AI Use
Cases and Data
Sources



Partner With
Technology
Community to
Design, Build
and Pilot
Applications



Measure
Impact, Assess
and Control for
Bias, then
Deploy





Noteworthy Interoperability Initiatives

- Interoperability Action Plan – the Administration for Children and Families
- Implementing Social Determinants & Code Standardization
 - The Gravity Project by Social Interventions Research & Evaluation Network (SIREN)
- Trusted Exchange Framework and Common Agreement (TEFCA)
- Sequoia Project just selected by ONC as the Recognized Coordinating Entity (RCE) to support sharing electronic health information
- DaVinci Project is develop FHIR Implementation Guides and sample codes to enhance providers-payers exchanges to support **value-based care** requirements



Compelling and Promising Interoperability Examples

- “Chapter 55” - Massachusetts Interoperability Opioid Response
- Michigan Health Information Network (MiHIN)
- LiveWell & ConnectWell San Diego (DHHS, Health Connect and 211)
- Allegheny County, PA - DHHS
- Montgomery County, MD - DHHS
- Boulder Colorado, CO – Housing and Human Services
- Delaware - HHS
- New Hampshire - DHHS

Case Example: Opioid Use Disorder Treatment and Prevention

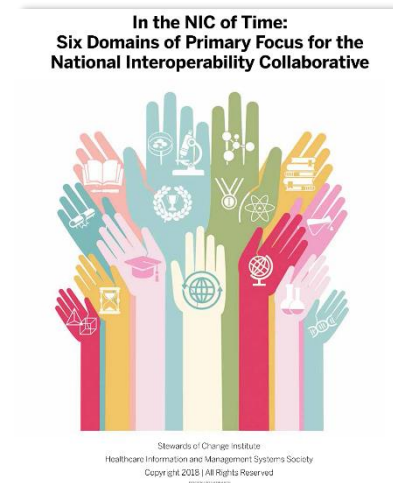


What is the National Interoperability Collaborative (NIC)?

NIC is a “**Community of Networks**” designed to increase collaboration within and **across multiple domains** to improve health, safety, well-being and operations.

The Six Domains:

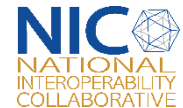
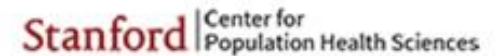
**Human Services, Public Health, Education, Public Safety,
Emergency Medical Response, Health Care & IT**



"NIC is an idea whose time has come!"

David Fukazawa, Managing Director of Kresge Foundation's Health Program

Organizational Members





The Hub in Numbers

Launch day: September 14, 2018

871+ members

8 groups

1,350+ resources

87%+ engagement rate

15k+ visitits

99k+ page views

How You Can Get Involved

- Join NIC as a Member, Partner or Sponsor
- Engage in discussions, webinars, proof of concept, co-create projects, etc.
- Participate and/or lead a NIC Group:
 - Let's Get Technical (Friday's from 12:00 – 1:30)
 - Opioid Prevention, SDOH, Confidentiality and Privacy, HIMSS
- Curate / facilitator one of the 6 domains or groups

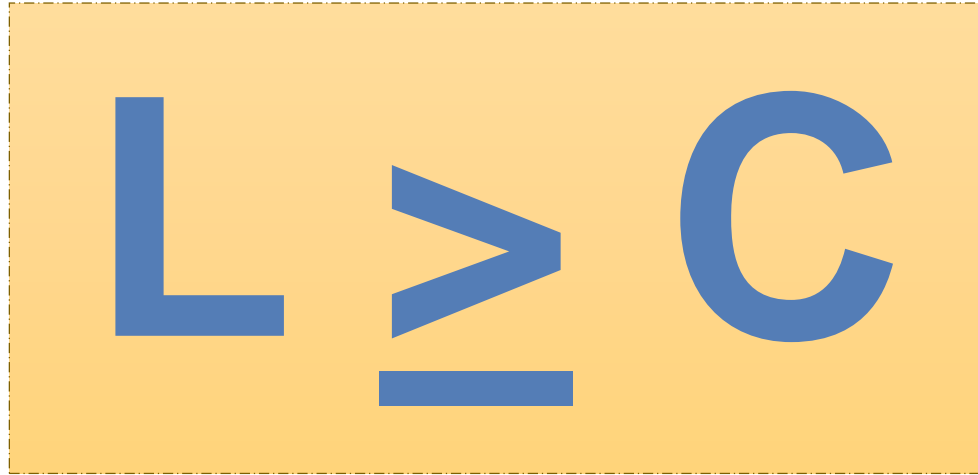
<https://hub.nic-us.org/>

The Interoperability Mural Gallery



<https://stewardsofchange.org/graphic-murals/murals-showcase/>

- A showcase for a body of knowledge focused on a decade of cross-domain information-sharing and interoperability
- A way to “*make thinking visual*” and to activate whole-brain thinking, teaching and learning
- A means for engaging people from multiple domains to accelerate scaling and spreading ideas for whole person care
- A tool for building for the National Interoperability Collaborative – which is a *Community of Networks*



*For any organism to survive,
its rate of learning must be equal to
or greater than the rate of change in it's ecosystem.*

Reg Revan