

Driving Integration of Emerging Technologies into Healthcare: Fresh Approaches to Innovation

Sara Chokshi, DrPH Research Director, HITLAB Independent Consultant, Digital Health sak141@columbia.edu

Special Track @ HealthInfo 2022





About me

- Medical sociologist/DrPH [Columbia University, USA]
 - Qualitative research & measurement
- Formerly faculty w/ NYU Langone Health Center for Healthcare Innovation & Delivery Science
- Currently
 - Research Director @ HITLAB
 - Independent consulting & collaboration

Healthcare delivery | digital health | innovation

Sara Chokshi | sak141@columbia.edu

HEALTHINFO 2022

Sara Chokshi, DrPH Research Director | HITLAB Track Chair & Moderator

IARIA

- Digital healthcare delivery research & evaluation
- Applied social & behavioral science for public health
- Relationship-centered solution design
- The practice of innovation + gathering

SPECIAL INTERESTS:

- Digital health implementation
- Remote patient monitoring
- Provider/Patient Burnout





Inspiration for this track

How do we make implementation easier and more systematic?

How can we better address social, ethical, regulatory and other issues that come with putting into practice emerging tech that utilizes ML and AI?

How can we design tools that HCPs and patients really want to use?

How might we innovate more effectively and efficiently?

How can we account for the myriad of complexities that seem to pop up with each new innovation/design endeavor?

"NewInnov" Track Overview

Tutorial: Honing New Tools for Innovation Farming: Introduction to Consequence Mapping

Panel 1: Cooperative Farming: Perspectives of Patients, Providers & Others on Innovation

Panel 2: Supporting Emerging Tech Integration into Healthcare Delivery + Fresh Approaches to Innovation

Session 6: Introducing the NewInnov Track + Foundational concepts + Case studies

Session 8: Useful Tools+ Big Picture SO WHAT

Session 6: Foundational ideas + Case studies

 Improving Healthcare Innovation for Emerging Technologies: New Approaches to Designing for Current Core Challenges

Sara Chokshi

• The Innovation Farm: A Modern Replacement for the Innovation Funnel

Gen Gurczenski and Jay Erickson

• Making Artificial Cornea Real with Artificial Intelligence: Case Study: Artificial Cornea + RPM

Theo Fleck and Thomas Schmiedel

Session 8: Useful tools + Big Picture Possibilities

- Engagement Centered Innovation: A GoodLife Media Case Study
 Sara Chokshi
- Monitoring Activities for Maintaining Independent Living in Dementia

Dympna O'Sullivan

• NODE.Health UX Measures: A Tool for Measuring + Improving User Experience for Patients & Clinicians

Jay Erickson

• Opportunities Created by Healthcare's Adoption of AI & ML

Shahid Shah

• NewInnov Track Open Discussion & Closing Remarks

Moderator: Sara Chokshi

Improving healthcare Innovation for emerging technologies:

New approaches to designing for current challenges

Why do we need new approaches to innovation?

See slide 5!

Where can we find these "fresh" ideas?

- 1. Tap into design best practices: Circular Design
- 2. Design for relationships
- 3. Take an expansive "farm's eye" view of innovation projects
- 4. Solve for "core" challenges with every solution
 - o Equity
 - o Burnout





Source: The Circular Design Guide.

2. Design for RELATIONSHIPS

Emerging technologies require **RELATIONSHIP-CENTERED DESIGN** -a shift from user-centered/ human-centered design practices to a central focus on facilitating relationships.

3. Take an "Farm's Eye" View



4. Solve for Core Challenges with Every Solution

Burnout

"... Three years later I've come to feel that a system that promised to increase my mastery over my work has, instead, increased my work's mastery over me. I'm not the only one. A 2016 study found that physicians spent about two hours doing computer work for every hour spent face to face with a patient—whatever the brand of medical software." -Atul Gawande, *Why doctors hate their computers*, The New Yorker, 11/12/2018

Inequity

"Digital back doors are technological processes and tools used in health care, such as racially biased_algorithms, infrastructural limitations, and dirty data. These unwittingly exacerbate existing health inequities, which the World Health Organization defines as "systematic differences in the health status of different population groups."-Kim Gallon, *Digital back doors can lead down the path to health inequity*, STAT, 6/24/2022

Thanks in advance!

The goal of these presentations is to provide useful tools and inspiration for you to bring back to your own projects and teams.

Please reach out to any of us at any point in the conference to share ideas, challenges, etc.