



Disrupting the System: Innovation in Translation and Research

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Chief Provocation Officer in Academia

And Everywhere :)



MHI & PhD in Nursing and
Healthcare Innovation (ASU)



Co-Created Masters in Healthcare
Innovation Curriculum



Founding Interprofessional
Faculty at Kaiser Permanente
School of Medicine

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The Sharing Economy



The world's largest taxi company owns no vehicles,



The world's most popular media owner creates no content,



The most valuable retailer has no inventory



The world's largest accommodation provider owns no real estate.



Future
?

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Imagine Care Anywhere



- Everyday life is the new context of care
- Integrated care teams linked to people, not to places
- Personalized health experiences enabled with technology

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Video

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Consumer Needs are Changing



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Nurses Needs are Changing



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Education is Changing



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Reasons Given for Curricular Stagnation



Boards of Nursing

"Pass rates driving success metrics"



Accreditation Bodies

"Do not allow for innovation"



Faculty Traditions

"Faculty hate changing curriculum"

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Is Education Lacking in Innovation?

Old Models are Augmented by Technology



SLOED



PASSIVE



INCONSISTENT



ANTIQUATED CONTENT DELIVERY

Supported by Electronic Medical Records (EMR) and Technology



CUSTOMIZED



CONNECTED



COORDINATED



PERSONALIZED

DIGITIZING THE OLD WAYS



VIDEO LECTURE



ONLINE CLASS DISCUSSION



EASED OLD ASSESSMENTS



INCREASED CLASS SIZE

Healthcare Education is 20 years behind in technology.

Educators and Students want to better experiences.

Existing solutions enhance our traditions.

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Academia and Practice are Clashing



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Our Health Systems Need Doctorally Prepared Nurses!

	Old Approach	New Approach
Care	Episodic visits	Continuous relationship
Management	Clinician	Clinical team
Decision-making	Training and experience	Evidence
Control	Care system	Patient
Variability	Clinician autonomy	Patient needs, preferences
Information flow	Restricted	Encouraged
Process visibility	Secrecy	Transparency
Safety	Responsibility of clinician	Responsibility of system
Needs	System reacts	System anticipates
Financial goal	Reduce cost	Reduce waste

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“I can’t wait to graduate nursing school so I can create workarounds to poorly designed processes”

Every Nursing Student Ever

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We need a new model for connecting research to practice

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Integrate Intimately Research + Implementation Curriculum Across Organizations

**Evidence and Innovation
Connected to Health Systems**

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Needs in Doctoral Education



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How Might We Make Leadership as Important as Research Methods?



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Problem: Students Run into the Reality Wall



- **Organizational Culture**
Operations drive everything
- **Demand for Value Equations**
Outcomes + Cost + Adoption Curve
- **Misinformed Management**
Nurse Managers and Chief Nurse Executives
(Melnyk, 2018)
- **Complex Systems with Many Stakeholders**
Competing priorities, agendas, politics, processes

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Leadership is Directly Linked to Implementation of Innovation

Results from an evidence review



Burnout



Turnover



Failed Implementation



Workarounds



Increased Cost



Wasted Time



Organizational Stress



Toxic Teams

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Leadership Skills for Doctoral Students

Academic Leadership and Health System Leadership



Positive Deviance

"Thrives in systems that are failing"

-Changes within a culture-



Systems Thinking

"Sees and makes connections across complex relationships"

-Navigates organizations with ease-



Network Engineering

"Master of information sharing"

-Builds a Co-Conspiracy network to overcome resistance to change-



Business Mindset

"Return on Investment"

Uses operations to catalyze the next step in innovation-

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How Might Teams Partner to Improve Translation and Research?



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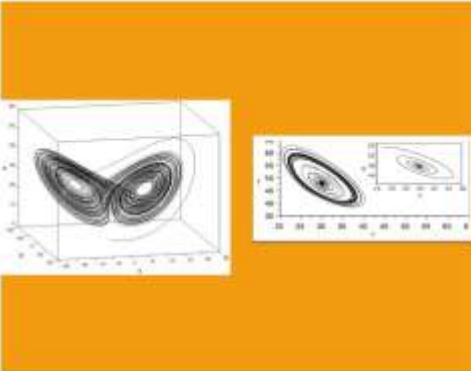
There is a Disconnect in Evidence



- Practice struggles with implementing evidence
- Academia struggles with business rationale
- Teams focus inward
- Do not have all the right players

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High Performing Systems



- Explore and exploit
- Have diverse members focused on conflict and outcomes
- Leverage systems resources over local resources

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Different Team Members Needed



Computer Science/Information Technology

Technology enabled research, Data, Design Mindset



End Users

Patients, Clinicians, Families, Care Team



Operational Leaders

Improve feasibility and translation



Informatics

Link evidence to decision support

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How Might Technology Enable Research and Translation in the Future?



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Technology Disruptions to Research & Translation



New Sources of Data

Wearables, Location, IOT, Consumer Devices
FDA Approved



Digital Health Interventions

There is an App for that



Massive Longitudinal Data Sets

Continuous monitoring devices, Consumer
Devices, EHR Data Sets



Miniaturized Medical Devices

FDA Approved Clinical Devices connected to
your phone



Machine Learning/AI

Computerized insights into data relationships
never seen before



Mobilized Clinicians

Instructions in the palm of your hand—just in
time

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Story: A Super Alert but no Trust



- 100s of data points
- Passed through machine learning algorithm
- Provided statistically significant improvement
- Nurses did not trust it

Learning: Inter-Professional Teams + Tech + End Users Needed from Beginning

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How Might We Update Education to Improve Doctoral Student Readiness?



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Attempting to Disrupt Education with Evidence

Going Beyond the Classroom

- Learning embedded in practice
- Linking experts to students
- Non-traditional partnerships

Customized Interleaved Learning

- Slow drip content
- Relevant, repeated and customized information
- Continuous assessment

Challenging Professional Norms

- Impact metrics
- Time variable education
- NO lecture
- Longitudinal Integration

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Curricular Change: Challenging Age Old Rules



- Content anywhere at any time beyond our 4 walls
- Students must access and assess information
- Beg, borrow, and steal foundational content
- Ex: Simulation as clinical hours

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Example: The Kaiser Permanente School of Medicine



- No Tenure
- No Up and Out
- No Cadavers
- No 2+2
- No Lecture
- Integrated Assessments
- Only 3 Departments
- BOD includes Tech and Academia
- Faculty from Practice
- IPE and Wellness as Core
- Integrated Curriculum

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How Might Nurses Disrupt the Discovery to Translation Pipeline?



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Leadership 601: Don't Worry About the Laggards



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Embed Graduates into the System you are Changing

Research and Doctoral Preparation Beyond Academia



Leadership Positions



Research
Collaborations



Informatics Roles



Education Departments

How might we create an evidence pipeline through our students?
Academia + Practice + Industry

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**\$14 Billion in 2018 spent on
healthcare startup companies**

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Demand Seats at a Different Table--Translation through Industry



- Apple is hiring Informatics physicians
- Amazon wants to change population health
- Universities have philanthropic investment funds
- Google is processing massive longitudinal data sets
- Nurses are invisible here

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We Need to Shift Our Paradigm



Measure impact

Organize with system in mind



Collaborate differently



Prepare for our disrupted future

Innovation Process

Evidence-Based Innovation

Evidence & Evidence-Based Practice

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Lets Build and Evidence Based Innovation Future through Doctoral Education



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Our Textbook for Leading into the Future



- **Leadership for Evidence Based Innovation in Nursing and Health Professions**

Jones and Bartlett Publishing

- **Second Edition publishing late 2019**

- Toxic Leadership
- Performance Improvement vs Innovation Leadership
- Disruptions in Healthcare Systems

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