Craig Vogel, FIDSA, FRSA
Associate Dean for the College of Design, Architecture, Art, and Planning (DAAP)
Co-founder of the Live Well Collaborative
University of Cincinnati

Linda A. Dunseath
Executive Director
Live Well Collaborative
1819 Innovation Hub
11th Anniversary & Grand Opening at 1819 Innovation Hub
The Live Well Collaborative is a nonprofit founded in 2007 by the University of Cincinnati and P&G.

It is a unique academic-industry innovation center that leverages the vitality and unbiased innovation capability of multi-disciplinary teams of UC faculty and students.

During 16-week semesters, LWC uses a validated design thinking process to translate user centered research into products and services that meet the needs of the end user.
Our Purpose

To specialize in **USER CENTERED RESEARCH** for the development of products and services for living well across the lifespan, with an expertise in the 50+ marketplace.
Why The Live Well?

Unique interdisciplinary capability of the University of Cincinnati
Multi-disciplinary Teams

Collaboration between multi-disciplinary faculty and student teams generate new knowledge faster and more efficiently.
Who Gets the Job Done

700+ students
125+ co-ops
70+ graduates
10 fellows
09 colleges
40+ faculty

We owe our success to the best and brightest of UC’s students and faculty. We form multidisciplinary teams to meet the specific project needs. We complement design-driven projects with interdisciplinary approaches and resources from 13 undergraduate colleges.
What differentiates our work?

- We are a design lead, faculty advised, student driven, multi-disciplinary innovation incubator.
- We take a Naïve approach thru an unjaded lens.
- Our qualitative research is grounded in viability.
- We have developed a diverse set of research tools that drive unique user insights.
- Concepts are co-developed and tested with all stakeholders.
Our Process Model
**How it works**

Each project follows our proven process model. Projects are a minimum of 15 weeks (University of Cincinnati semester) and divided into three phases: research, ideation, and refinement. During the process, the team incorporates experimentation of unique design strategies with cutting-edge technology to expose studio sponsors to new methods of problem-solving.

1. **Research**
   - The Collaborative takes a deep dive into the studio topic and gains insights on the current situation through consumer groups and secondary research. The teams synthesize insights and form themes to provide direction for future work.

2. **Ideation**
   - Teams draw on insights and key themes from the research phase to rapidly develop visualizations of product or service initial concepts while continuing to vet them with stakeholder groups.

3. **Refinement**
   - Final deliverables and actionable implementation strategies are developed through a process of stakeholder feedback and refinement.
WORKSHOPS

As a member, you have access to hands-on workshops which can be project specific or tailored for your organization.

Different types of workshops:

Design Thinking 101

These workshops use design thinking tools to clearly define and develop achievable opportunities within your organization.

Game Changers

Learn how to use gaming theory to understand consumers and identify actionable insights.

Health Simulations

Participate in hands-on simulations and build empathy for your consumer through experiential learning exercises.
Global Presence

Legally and financially separate, Live Well Singapore was founded in 2010 through a partnership between P&G and Singapore Polytechnic. Live Well Collaborative and Live Well Singapore share a process model and methodologies, as well as global partners including P&G, Boeing, Hill-Rom, and Mondelez.
OVER 18 CORPORATE AND INSTITUTIONAL PARTNERS

- Cincinnati Children’s
- P&G
- Boeing
- University of Cincinnati
- General Mills
- UC Health
- AARP
- LG
- Hill-Rom
- Citibank
- Kraft Foods
- Design Nursing
- Pfizer
- Panasonic
- Mitsubishi Heavy Industries, Ltd.
Centers of Excellence (foci)

- Healthcare
- Consumer Goods
- Transportation
Have you noticed that change itself is changing?
It’s as if reality is being hyper-realized.
Life is faster.
The globe is smaller.
Technology is smarter.
Inequality is greater.
Expectations are higher.
At every turn, these uber-changes demand more of us and from us.
The choice is subtle but significant: Lead by design or follow by default.
From the Agrarian and the Industrial to the Information Age

Agrarian

Production

Information

Service

%  1800  1850  1900  1950  2000
Evolution of art from 1806 to 1919
Thank You for Being Late

An Optimist’s Guide to Thriving in the Age of Accelerations

Thomas L. Friedman

#1 New York Times Bestseller

Version 2.0, with a new afterword

Author of The World is Flat
Rate of Change

Time

Technology

Human Adaptability

2007

We are here.
Industrial Revolution
1750-1970

iPhone 2008
Information Revolution
1970-2000
Industrial Revolution
1750-1970

iPhone 2008
Information Revolution
1970-2000

The Service and Wiki Economy
2009-?
SERVICE | NOUN
the action of helping someone or doing work for someone
The “Big Bang” of Design
The “Big Bang” of Design
The Age of the Global Digital Service Economy

2016

The Fourth Industrial Revolution

Klaus Schwab

Founder and Executive Chairman, World Economic Forum
124 Themes - Countries and Topics
Healthcare Delivery

Co-curated with: University of Southern California (USC)

Summary
Global healthcare delivery systems are being developed in a fast-changing environment that is spawning both technological advances and ethical challenges; while developments like precision medicine create exciting opportunities, uncertainty and risk remain. Inequality, in terms of healthcare access and utilization, remains a global concern. Policy-makers have the difficult task of formulating evidence-based rules that can move the needle on related issues, including a

Publications
Showing "All Articles"

Videos

Vaccination rates rise in Italy and France after law change
Tue, July 16, 2019, 9:54 AM
Nature

Data

Automated microscope gives a look inside live cell populations
Tue, July 16, 2019, 1:00 AM
Ecole Polytechnique Fédérale de Lausanne

The New Plot Against Obamacare
Thu, July 11, 2019, 7:15 PM
Access to Care

Despite some improvement in facilitating global access to health care, serious gaps remain. At least half of the world’s population cannot obtain essential health services, and large numbers of households are pushed into poverty every year because they have to pay for health care out of their own pockets, according to a report published in late 2017 by the World Bank and the World Health Organization. About 800 million people spend at least 10% of their household budgets on health expenses, according to the report, and for nearly one in eight of those people the

Read more
Global imbalances between available skills and market needs are affecting healthcare delivery.

In the US, about 2.3 million new healthcare workers will be needed by 2025 in order to adequately take care of the country’s ageing population, according to a report published in 2018 by staffing consultancy Mercer. While in the United Kingdom, the National Health Service is suffering from a severe shortage of nurses - with one part of England able to recruit just one nurse per every 400 vacancies, according to statistics published in 2018. While a lack of funding...
Human centered empathic healthcare
Promoting Patient Safety

The Empowered Patient Coalition is a 501(c)(3) charitable organization created by patient advocates devoted to helping the public improve the quality and the safety of their healthcare. The coalition feels strongly that the first crucial steps in both patient empowerment and patient safety efforts are information and education. The public is increasingly aware that they must assume a greater role in health care issues but they need tools, strategies and support to assist them in becoming informed and engaged medical consumers who are able to make a positive impact on health care safety.

Patient Safety Resources

Support For Patient Advocates
Design 101 — Awareness
Moving from the existing solution to a preferred one

1. Merging qualitative and quantitative research
2. Visualizing for future alternative solutions
3. Minimizing unintended consequences
4. Helping institutions evolve
5. Maximizing capabilities
Design Generating Appropriate Innovation

Moving from the existing solution to a preferred one

1. Integrate design from the beginning
2. Put design at the center for all stakeholders
3. Explore options early before deciding on the best solution
4. Use healthcare criteria to analyze options and create implementable solutions
5. Measurable results
6. Ability to move with qualitative results
7. Incorporate contemporary and cultural trends into visualized solutions

© Live Well Collaborative
# LWC’s Healthcare Expertise

<table>
<thead>
<tr>
<th>implementation of design process</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 — awareness</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SERVICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SPATIAL INTERIOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRODUCT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DIGITAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GRAPHIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FASHION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
</tr>
</tbody>
</table>
# LWC’s Healthcare Expertise

<table>
<thead>
<tr>
<th></th>
<th>1 — awareness</th>
<th>2 — connection</th>
<th>3 — integration</th>
<th>4 — evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SERVICE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SPATIAL INTERIOR</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td>Design Thinking 101 Workshops</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PRODUCT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DIGITAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GRAPHIC</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FASHION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*implementation of design process*
LWC’s Healthcare Expertise

<table>
<thead>
<tr>
<th></th>
<th>1 — awareness</th>
<th>2 — connection</th>
<th>3 — integration</th>
<th>4 — evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SERVICE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Design Thinking 101 Workshops</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SPATIAL INTERIOR</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PRODUCT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DIGITAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GRAPHIC</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FASHION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**implementation of design process**

© Live Well Collaborative
LWC’s Healthcare Expertise

implementation of design process

<table>
<thead>
<tr>
<th></th>
<th>1 — awareness</th>
<th>2 — connection</th>
<th>3 — integration</th>
<th>4 — evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SERVICE</td>
<td>Design</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design Thinking 101 Workshops</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPATIAL INTERIOR</td>
<td>Design</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRODUCT</td>
<td>Design</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIGITAL</td>
<td>Design</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRAPHIC</td>
<td>Design</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FASHION</td>
<td>Design</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dr. James Heubi Design Thinking Research Awards
Sickle Cell — iTransition
## LWC’s Healthcare Expertise

<table>
<thead>
<tr>
<th>Service</th>
<th>1 — awareness</th>
<th>2 — connection</th>
<th>3 — integration</th>
<th>4 — evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>Design Thinking 101 Workshops</td>
<td>Dr. James Heubi Design Thinking Research Awards</td>
<td>Cancer Journey: Scheduling Interface</td>
<td>PPC Clinic Liberty</td>
</tr>
<tr>
<td>Spatial Interior</td>
<td>Design</td>
<td></td>
<td>BMT Clinic</td>
<td>Medical Device</td>
</tr>
<tr>
<td>Product</td>
<td>Design</td>
<td></td>
<td></td>
<td>Leukemia</td>
</tr>
<tr>
<td>Digital</td>
<td>Design</td>
<td></td>
<td></td>
<td>Foster Care</td>
</tr>
<tr>
<td>Graphic</td>
<td>Design</td>
<td></td>
<td></td>
<td>Sickle Cell Trait</td>
</tr>
<tr>
<td>Fashion</td>
<td>Design</td>
<td></td>
<td></td>
<td>UC Health Scrubs</td>
</tr>
</tbody>
</table>
# Foster Care

<table>
<thead>
<tr>
<th>Implementation of design process</th>
<th>1 — awareness</th>
<th>2 — connection</th>
<th>3 — integration</th>
<th>4 — evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service</strong></td>
<td>Design</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Spatial Interior</strong></td>
<td>Design</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Product</strong></td>
<td>Design</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Digital</strong></td>
<td>Design</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Graphic</strong></td>
<td>Design</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fashion</strong></td>
<td>Design</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Improving healthcare utilization and health status of youth aging out of foster care

The Healthcare Guide

Sponsors: Dr. Mary Greiner & Dr. Sarah Beal
Research Methods - Interviews

Medical and Government Agencies
- Hamilton County Job and Family Services
- CCHMC Trauma Therapists
- CHECK Clinic
  Total Interview Time - 6 hrs, 30 min

Foster Care Agencies
- BAIR Foundation
- Lighthouse Youth Services
- Lighthouse Community School
- Choices, Inc.
- Changing Lives
  Total Interview Time - 7 hrs, 30 min

Mentorship Programs
- Big Brothers Big Sisters
- ProKids
- HEMI Program
  Total Interview Time - 4 hrs

Youths in Foster Care/Emancipated
- LeXavie
- Tyrone
- Tatiana
- Darnicia
- Tevin
  Total Interview Time - 3 hrs

Observations
- Lighthouse Community School
- Choices Inc. ILS Group
-Changing Lives Walkthrough
  Total Interview Time - 4 hrs

Total Interview Time - 25 hrs
Initial Design Solutions

if i need a doctor
who? Dr. John
call 513-000-1200
bring

what do you need?
doctor
dentist
eye doctor
emergency

if i need a doctor
who? Dr. John
call 513-000-1200
say Hello, I'd like to make an appointment with Dr. John. When is the available appointment you have available?
bring

when you get to the doctor's office, they will give you forms to fill out.

at the doctor's office
get your current forms addr here.

livewell + Cincinnati Children's Hospital Medical Center
Prototyping

Final Variations

Small Index Card Size
3” x 5”

Flip Book Size
4” x 7”

Binder Size
6” x 8”

livewell
Cincinnati Children’s Hospital Medical Center
Data Collection - Foster Youth

- **Binding**
  - 47%
  - 15%
  - 38%

- **Size**
  - 50%
  - 16%
  - 34%

- **Tabs**
  - 50%
  - 25%
  - 25%

- **Overall Favorite**
  - 50%
  - 25%
  - 25%
Final Product
Content Additions

Caregiver Pages

Pages in the caregiver section were refined and reduced to focus on helping the caregiver communicate with their foster youth.
http://icare2check.org
Background

IDENTITY
IDENTITY is a web-based portal that shares placement and medical information of youth in protected custody. This portal will give easy access of respective information to selective staff at Hamilton County Job and Family Services (HCJFS) and Cincinnati Children's Hospital Medical Center (CCHMC). Currently obtaining a comprehensive picture of a foster youth is a laborious task. IDENTIFY will act as a bypass to information, allowing stakeholders to efficiently take care of youth in protected custody.
Background

Data Sharing
The project has been in the works for several years. A data sharing agreement was signed between CCHMC and HCJFS creating agreed upon content for the web portal. That content includes:

Demographic  Case Information  Custody & Placement  Neglect History  Epic Information
The LWC Process

Design Thinking
Design thinking expresses the value of approaching problem solving from a person-focused perspective, also known as human centered design. Human centered design is defined by three objectives: 1) enhance human ability; 2) help overcome human limitations; and 3) foster human acceptance.

Week 1
- Research Phase
  - Benchmarking
  - Interviews
- Ideation Phase
  - Wireframe Activity
  - Iterations
- Refinement Phase
  - Prototyping

Week 12
- User Testing
- Final Concepts
IDENTITY Key Components

Primary contacts
The primary contacts screen is split into three contact categories. The HCJFS section contains contact information about the foster youth’s caseworker and other HCJFS employees that directly deal with that foster youth’s case. The placement and court section holds contact information regarding the current living situation of the foster youth. The healthcare section includes the primary care provider’s number and the general number to Children’s Hospital.

01 Primary contacts
Hamilton County Job and Family Services
Placement and court
Health care
By logging into IDENTITY, I confirm that I understand that the information contained in IDENTITY may be incomplete, out-of-date, or incorrect, and I should not rely exclusively on the information contained therein. I understand CCHMC does not make any representations or warranties regarding the information, and I agree not to hold CCHMC or their directors, employees, and agents responsible for any loss, injury, or claims of any kind resulting from use or disclosure of the information.

HOSPITAL or SUID E-MAIL

PASSWORD

LOG-IN

FORGOT PASSWORD?
NEED HELP?
# Cancer Journey I, II, III, & IV

<table>
<thead>
<tr>
<th>Stage</th>
<th>Phase 1: Awareness</th>
<th>Phase 2: Connection</th>
<th>Phase 3: Integration</th>
<th>Phase 4: Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SERVICE</td>
<td></td>
<td></td>
<td>Scheduling Interface</td>
<td>Liberty</td>
</tr>
<tr>
<td></td>
<td>Design</td>
<td></td>
<td>Summer 2015</td>
<td>Spring 2016</td>
</tr>
<tr>
<td>SPATIAL INTERIOR</td>
<td></td>
<td></td>
<td></td>
<td>Virtual Reality</td>
</tr>
<tr>
<td></td>
<td>Design</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRODUCT</td>
<td></td>
<td></td>
<td></td>
<td>Leukemia</td>
</tr>
<tr>
<td></td>
<td>Design</td>
<td></td>
<td></td>
<td>Summer 2015</td>
</tr>
<tr>
<td>DIGITAL</td>
<td></td>
<td></td>
<td></td>
<td>Fertility &amp; Nutrition</td>
</tr>
<tr>
<td></td>
<td>Design</td>
<td></td>
<td></td>
<td>Fall 2015</td>
</tr>
<tr>
<td>GRAPHIC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FASHION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Implementation of Design Process**
INNOVATION TO IMPROVE THE CANCER PATIENT JOURNEY

Sponsor: Dr. John Perentesis
Oncology Handbook

This handbook outlines key information you will need during your child’s journey in the Cancer and Blood Diseases Institute.

There are many types of cancer, each with its own treatment, and individual patients differ widely in their response to treatment. No handbook can replace discussion with your child’s doctor and care team members. Ask them any questions you have.

Sincerely,
The Cancer & Blood Diseases Team at Cincinnati Children’s

Multidisciplinary Care Team

When to Call

How to Take a Temperature

Understanding Blood Counts
Currently 30 devices of version 1.0 are being evaluated in a research study by Dr. Christopher Dandoy.
Rounds Notification System
Pilot Goals

Overview

We completed two rounds of pilot with the liquids and yellow team. Each lasted about a week and a half and were supported at various levels by the Live Well team.

1 Introduce the digital scheduling system to work flows
   - Identify primary and secondary ownership of each step
   - Adapt and test with different roles
   - Train as many clinicians as possible

2 Gain buy-in from clinicians
   - Explain the greater vision for the project
   - Encourage feedback
   - Demonstrate the value of scheduled rounds
CASE STUDY: Anesthesia: Induction Project

PI Abby Hess, APRN, DNP, nurse practitioner, researcher and inventor in the department of Anesthesiology at Cincinnati Children’s.
Anesthesia: Overview

Problem Statement:
Anesthesia and surgery can produce high levels of anxiety for patients and their families.

Anxiety and poor compliances during anesthesia inductions have been associated with many negative outcomes like - emergence delirium, increased reports of post-op pain, maladaptive behaviors at home, and chronic hospital-related anxiety/phobias.

Deliverable:
The goal of the project is to create a fun, interactive and sustainable method for providing distraction to children during a time of high fear and anxiety.

Milestone 1:
To understand the current induction experiences.

Milestone 2:
To ideate actionable opportunities.

Milestone 3:
To create sustainable and implementable solutions.
Anesthesia: Overview

Problem Statement:
Anesthesia and surgery can produce high levels of anxiety for patients and their families.

Anxiety and poor compliances during anesthesia inductions have been associated with many negative outcomes like - emergence delirium, increased reports of post-op pain, maladaptive behaviors at home, and chronic hospital-related anxiety/phobias.

Deliverable:
The goal of the project is to create a fun, interactive and sustainable method for providing distraction to children during a time of high fear and anxiety.

Activators
- Clinical Staff
- Families
- Base & Liberty Campus
- Induction Nurses
- Anna Device
- Time Limit

Inhibitors
- Time Constraints
- Limited Funding
- IRB Restrictions
- Family Schedules
- Technology Restrictions
- Infectious Disease Control Standards

Skill Sets
- Qualitative Research Methods
- Benchmarking and Trend Analysis
- Rapid Prototyping
- Awareness of Technology
- Data Visualization
- Empathic Understanding

Super Power
- Mind Reading
- Time Travel
- Unlimited Wealth
Anesthesia Phase 1: Research

Research Questions:
Who are all the stakeholders involved in the process?
What interventions are currently being used for children during the process?
What are the primary moments of stress throughout the induction process?
What does the macro induction journey look like?

Milestone 1:
To understand the current induction experiences.

Scenario Mapping Returning Patient

Based on a child having a poor prior induction experience.
Anesthesia Phase 2: Ideation

Ideation Questions:
What are the micro processes of the induction journey?
How do we change distraction to engagement?
What design opportunities are most engaging and interactive for children, parents, and staff?

Milestone 2:
To ideate actionable opportunities.

1 Key Points of Stress
There are specific touch points that consistently bring about stress and anxiety for the patients.

2 Understanding the Process
Breaking down the macro journey into micro processes helped the LWC team understand how an intervention would fit into the clinical induction routine.

3 Opportunities for Innovation
The micro processes of the journey created opportunities for innovation to occur across the induction process.

Key Touchpoints

<table>
<thead>
<tr>
<th>At Home</th>
<th>SDS Room</th>
<th>Induction</th>
<th>O.R.</th>
<th>P.A.C.U.</th>
<th>Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrive at Hospital</td>
<td>Check Vitals</td>
<td>Flavor Choice</td>
<td>Patient Wakes Up</td>
<td>Check Out</td>
<td></td>
</tr>
<tr>
<td>Waiting Room</td>
<td>Patient Prep</td>
<td>Mask Placement</td>
<td>Parents Arrive</td>
<td>Transport to Car</td>
<td></td>
</tr>
<tr>
<td>Check-In Desk</td>
<td>Normalization</td>
<td>Family Interaction</td>
<td>Recovery Time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Height &amp; Weight</td>
<td>Family Questions</td>
<td>Distraction</td>
<td>Family Questions</td>
<td>Leave Hospital</td>
<td></td>
</tr>
<tr>
<td>Arrive at Room</td>
<td>Transport</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

© Live Well Collaborative
Anesthesia Phase 3: Refinement

Refinement Questions:
How can solutions be implemented?
Who should we partner with to create solutions?
Who maintains the solutions?
How will the solutions be sustained from a process and economic perspective?

Milestone 3:
To create sustainable and implementable solutions.
Anesthesia: Final Deliverable

Problem Statement:
Anesthesia and surgery can produce high levels of anxiety for patients and their families.

Anxiety and poor compliances during anesthesia inductions have been associated with many negative outcomes like - emergence delirium, increased reports of post-op pain, maladaptive behaviors at home, and chronic hospital-related anxiety/phobias.

Deliverable:
The goal of the project is to create a fun, interactive and sustainable method for providing distraction to children during a time of high fear and anxiety.
Abby Hess, APRN, DNP, nurse practitioner, researcher and inventor in the department of Anesthesiology at Cincinnati Children’s. She is winner of the Nurse Innovate Quick Fire Challenge in Perioperative Care.
Next Steps

How can we move from presentations to conversations?

1. Informational meetings at Live Well

2. Design Thinking 101 Workshops
   • September 6th, 8 am- 11:30 am
   • Flyer available for more information

3. Form core groups of Children’s thought leaders interested in applying design methodologies for appropriate innovation.
Build your own journey map

Your Successful Journey
For additional information

Craig Vogel, MID
President Live Well
Associate Dean Research College of DAAP, UC
craig.vogel@uc.edu

Linda Dunseath
LWC Executive Director
ldunseath@livewellcollaborative.org

James Heubi, MD
Director, Center for Clinical & Translational Science & Training
Associate Dean, Clinical & Translational Research
Professor, UC Department of Pediatrics
james.heubi@cchmc.org

Lori Crosby, PsyD
Co-Director, Innovations in Community Research
Director, Training, CCTST Community Engagement Core
lori.crosby@cchmc.org

John Perentesis, MD, FAAP
Director, Division of Oncology & Cancer Programs
Executive Co-Director, CBDI
john.perentesis@cchmc.org

James Heubi, MD
Director, Center for Clinical & Translational Science & Training
Associate Dean, Clinical & Translational Research
Professor, UC Department of Pediatrics
james.heubi@cchmc.org

Lori Crosby, PsyD
Co-Director, Innovations in Community Research
Director, Training, CCTST Community Engagement Core
lori.crosby@cchmc.org

John Perentesis, MD, FAAP
Director, Division of Oncology & Cancer Programs
Executive Co-Director, CBDI
john.perentesis@cchmc.org