

Cell: (847) 922-0655

Email: kerwin@id.iit.edu

### **EDUCATION**

MDes, Design Methods	IIT Institute of Design, Chicago	1991-1994
BA, Philosophy and Logic	Loyola University, Chicago	1984-1989

### **ACADEMIC APPOINTMENT HISTORY**

Associate Research Professor for Healthcare Design, IIT Institute of Design	2021- present
Founder and Co-Director, Institute for Healthcare Delivery Design, UIC	2017 - 2020
Associate Director, Population Health Sciences, UIC	2017 - 2020
Research Professor, UIC School of Design	2017 - 2020
Director + Founder, Center for Collaborative Healthcare Design	2016 - 2017
Associate Professor, IIT Institute of Design	2017 - 2017
Assistant Professor, IIT Institute of Design	2011 - 2017
Visiting Professor, IIT Institute of Design	2009 - 2011
Adjunct faculty, IIT Institute of Design	2006 - 2009

# **SUMMARY STATEMENT**

I have 30 years experience in applying design methods to complex systems and the development of novel solutions to help those systems better fit the needs of people. Specifically, I employ strategic planning, methods from the field of Human-Centered Design, and communication methods to build teams, identify opportunities, and tailor interventions to the real-world context of stakeholders. My published book on the topic has been available on Amazon since 2013: Communicating the New: Methods to Accelerate and Shape Innovation.

## **PERSONAL STATEMENT**

My research bridges the fields of design and healthcare delivery, specifically the application of human-centered design methods to healthcare systems and their futures. As health and healthcare are both fundamentally place-based, I target interventions, services and strategies that respond to specific the people and environments where these activities take place. This is also a strategy for equity and cultural inclusion. I have extensive experience tailoring medical information and processes to fit diverse cultures, patient populations and practice models. I lead efforts to pilot and implement those concepts, helping align interventions with human behavior in real-world settings and accelerating adoption by patients and clinical staff.

As co-founder and co-director of the Institute for Healthcare Delivery Design at UIC, I led multidisciplinary teams to improve care quality and care transitions for multiple conditions, including asthma, COPD, sickle cell, pregnancy and oral surgery. I have applied these methods in multiple clinical setting— Emergency Departments, inpatient units, and outpatient clinics. This work is stakeholder-intensive and revolves around engaging community members, patients,

families, clinicians, schools, administrators and payers to identify design requirements and produce solutions that are "fit for purpose." These explorations employ a combination of Implementation Science frameworks and design methods, such as co-design, contextual inquiry, and rapid iterative prototyping. As all healthcare is human-intensive, I also leverage my twenty years as a communication strategist to accelerate understanding and build conviction among healthcare leadership tasked with creating change. Through this work, I have built extensive experience with the "invisible hands" at work in health systems: performance measures, CMS reimbursement, payment models, Joint Commission standards, unionized workforces, and the unique needs of Medicaid patients for whom the system is not optimized. *I also bring fresh perspective and optimism that the field badly needs*.

On the research side, I have been a named investigator on multiple grants since 2013 (NIH, PCORI, Robert Wood Johnson Foundation, Arnold Foundation, Knight Foundation). With research teams, I apply design methods to tailor interventions to diverse patient populations, to inform clinical trial protocols, and to design recruitment and retention strategies for multisite trials. I have also received funding to develop new interventions that promote new care practices, such as integrating cost conversations into routine clinical care (twice funded by RWJF). I am currently the only designer who is a standing member the AHRQ Healthcare Systems and Value Research study section.

A cumulative benefit of this research focus is the ability develop new population-level methods and translate them to practicing professionals, helping them integrate design into their healthcare projects. As a professor and leader of several centers dedicated to merging the design and healthcare sciences, I have had the opportunity to create and deliver curricula tailored for health professionals, health services researchers, medical students and quality improvement teams across the country.

## **PUBLICATIONS**

Books + book chapters

Erwin, K. (2013) *Communicating the New: Methods to Shape and Accelerate Innovation.* John Wiley & Sons.

Whitney, P. & Erwin, K. (1994) "Is Theory of any use to Designers?" in R. Perlman & V. Margolin (Eds.) *Chicago Graphic Design: The Best of Contemporary Chicago Graphic Design, With Essays on Past and Future Trends*. Beverly, MA: Rockport Publishers

*Peer-reviewed publications (journals + conferences)* 

Gerald L\*, Erwin K, Kumar R, Krishnan J. (2021) Methods and Results of Engaging a Participant Advisory Committee for the PrecISE Trial. *The Journal of Allergy and Clinical Immunology* (in review 7/21).

Kim S, Klugman J, Norell S...Erwin, K. Improving VTE Prophylaxis Adherence Among Hospitalized Adolescents using Human-Centered Design. *Journal of Patient Safety and Risk Management* (in review 7/21).

Watson, D., Swartz, J., Robison-Taylor, L., Mackesy-Amiti, M., Erwin, K., Gastala, N.M., Jimenez, A., Staton, M.D., & Messmer, S. (2021). Syringe service program-based telemedicine linkage to opioid use disorder treatment: protocol for the STAMINA randomized control trial. *BMC Public Health* 21, 630 (2021). DOI:10.1186/s12889-021-10669-0

Sculley J, Cacheaux N, Chaudhary P, Elfessi Z, Kurzynski M, Erwin K (2019). High-Fidelity, Low-Burden Experience Prototypes. *Touchpoint*. 2019 Oct;11:26-31.

### PUBLICATIONS, CONT'D

Erwin K, Fitzpatrick V, Norell S, Gilliam M. (2019) Development of a Framework and Tool to Facilitate Cost-of-Care Conversations With Patients During Prenatal Care. *Ann Intern Med.* 2019 May 7;170(9\_Supplement):S62-S69. doi: 10.7326/M18-2207

LaBedz S et al. (2019) "Feasibility of Screening Electronic Health Records to Identify Participants for a Multi-Center Clinical Effectiveness Trial in COPD." *American Thoracic Society International Journal Conference Abstracts* (2019). https://doi.org/10.1164/ajrccm-conference.2019.199.1\_ MeetingAbstracts.A3289

Harford S, Darabi H, Del Rios M, Majumdar S, Karim F, Vanden Hoek T, Erwin K, Watson DP. (2019) A machine learning based model for Out of Hospital cardiac arrest outcome classification and sensitivity analysis. *Resuscitation*. 2019 Mar 15;138:134-140.

Naman J, Press V, Vaughn D, Hull A, Erwin K, Volerman A. (2018) Student perspectives on asthma management in schools: a mixed-methods study examining experiences, facilitators, and barriers to care. *Journal of Asthma* (2018): 1-12.

Erwin K, Krishnan JA. (2018) Welcome to the Beginning: Delivery Science as a context for Engaging Design. *Information Design Journal* 23.3 (2018): 357-359.

Erwin K, Norell S, Martin MA, Paik SM, Press VG, Thompson TM, & Krishnan JA. (2018) Applying design methods to care delivery science: Improving the care of minority children with uncontrolled asthma and their caregivers who present to six Emergency Departments in Chicago through a stakeholder-optimized discharge tool. *Information Design Journal*, 2018;23(3), 248-267.

Martin MA, Kapheim MG, Erwin K, Ignoffo S, McMahon K, O'Rourke A, Gerald L, Barrett M, Press V, Darabi H, Krishnan J. (2018) Childhood Asthma Disparities in Chicago: Developing Approaches to Health Inequities. *Fam Community Health*. 2018;41(3):135-145.

Martin, M. A., Press, V. G., Erwin, K., Margellos-Anast, H., Ignoffo, S., McMahon, K. S., ... & CHICAGO Plan Investigators. (2017). Engaging end-users in intervention research study design. *Journal of Asthma*, 1-9.

Krishnan, J. A., Martin, M. A., Lohff, C., Mosnaim, G. S., Margellos-Anast, H., DeLisa, J. A., ... & McDermott, M. (2017). Design of a pragmatic trial in minority children presenting to the emergency department with uncontrolled asthma: The CHICAGO Plan. *Contemporary Clinical Trials*, 57, 10-22.

Martin, MA et al. (2016) Care transition interventions for children with asthma in the emergency department. *Journal of Allergy and Clinical Immunology* 138.6: 1518-1525.

Erwin, K. & Krishnan, J. (2016) Re-designing healthcare to fit with people: Design expertise can improve delivery of care. *BMJ* 2016; 354:i4536.

Erwin, K., Martin, M. A., Flippin, T., Norell, S., Shadlyn, A., Yang, J., ... Krishnan, J. A. (2016) Engaging stakeholders to design a comparative effectiveness trial in children with uncontrolled asthma. *Journal of Comparative Effectiveness Research*, 5(1), 17-30. DOI: 10.2217/cer.15.52

Erwin, K., & Krishnan, J. A. (2016) Using design methods to provide the care that people want and need. *Journal of Comparative Effectiveness Research*, 5(1), 13-15.

Erwin, K., Bond, M., & Jain, A. (2015) Discovering the Language of Data: Personal Pattern Languages and the Social Construction of Meaning from Big Data. *Interdisciplinary Science Reviews*, 40(1), 44-60.

## **PUBLICATIONS, CONT'D**

## Publications (not peer-reviewed)

Erwin, K. (2018) Bridging the Gap between Evidence and Care: Using Human Centered Design to improve pediatric asthma care in high-risk communities. Case Study. Academic Health Center Best Practices. Washington, D.C. Web. aahcdc.org.

Erwin, K., Fitzpatrick, V. et al (2017) Considerations for Facilitating Cost-of-Care Conversations with Vulnerable Patients. Cost-of-Care Conversations Practice Brief #6. America's Essential Hospital Institute website, accessed 9/2020: https://essentialhospitals.org/cost-care/practice-briefs/

Erwin, K., Fitzpatrick, V. et al (2017) What Your Patients Aren't Telling You: How To Partner with Patients To Help Manage the Hidden Costs of Healthcare. Cost-of-Care Conversations Practice Brief #2. *America's Essential Hospital Institute* website, accessed 9/2020: https://essentialhospitals.org/cost-care/practice-briefs/

Mathew, A. & Erwin, K. (2013) Step away from the projector: storytelling through experiences *Design Management Review*, Vol. 24, No. 3

Erwin, K. & Pollari, T. (2013) Small packages for Big (qualitative) Data. In *Ethnographic Praxis in Industry Conference Proceedings*. Vol. 2013, No. 1, pp. 44-61.

Erwin, K. & Matthew, A. P. (2012) What's after the transfer model? Constructed story environments as a new method for communication design. In: J. BRASSETT, P. H., G. LUDDEN, M. MALPASS & J. MCDONNELL, ed. 8th International Design and Emotion Conference - Out of Control, 11-14 September 2012 2012 Central Saint Martins College of Arts & Design, London

Erwin, K. (2011) The Visual Coding Of (Big) Qualitative Data: New Analytic Methods And Tools For Emerging Online Research. Conference proceedings of the IASDR 2011: 4th Conference on Design Research; Delft, The Netherlands.

Erwin, K. (2011) Consumer Maps: The Map As Story Platform In The Design Process. *Parsons Journal of Information Mapping*, 3(1). Retrieved from http://piim.newschool.edu/journal/issues/2011/01/

# Peer-reviewed poster sessions

DiMartino LD, Calhoun C, Telfair J, Rojas-Smith L, Erwin K, Gibson R, Hankins J, Hirschtick J, Hessler D, Jackson GL, James A, Kanter J, King A, Lawrence R, Norell S, Phillips S, Richardson L, Simon J, Smetlzer M, Tanabe P, Treadwell M. Oral/Poster Presentation: Implementation of guideline-based care for sickle cell disease: findings from a mixed methods needs assessment. Presented at the AcademyHealth 11th Annual Conference on the Science of Dissemination and Implementation. Washington, DC. December 2018.

Krishnan, J., Walsh, R., Gussin, H., ...Wise, R., (2016) "Asking Patients, Caregivers, and Clinicians for Input When Designing the Roflumilast or Azithromycin to Prevent COPD Exacerbations (RELIANCE) Trial," presented at 2016 ATS annual conference and published in meeting abstracts as *Highlights In Patient-Centered Research: Methods And Outcomes*: pp. A2671-A2671. First published online May 02, 2016 as doi:10.1164/ajrccm-conference.2016.193.1\_MeetingAbstracts.A2671

## **Published interviews**

Erwin, K. (July 2020) The Check Out podcast #10: Kim Erwin on Communication in Healthcare and the Innovaton process. https://www.epl.org/thecheckout/

Erwin, K. (Sept 2019) AIGA Design Futures Now podcast: Kim Erwin on Healthcare Delivery Design: https://podcasts.nu/avsnitt/design-future-now/kim-erwin-healthcare-delivery-designer-and-researcher

## **PUBLICATIONS, CONT'D**

Erwin, K., Krishnan J. (May 2019) "Designing Healthcare Solutions for the Real World" interview podcast (S. Starner, interviewer). Steelcase Health. https://www.steelcase.com/research/podcasts/topics/medical-exam-room/designing-healthcare-solutions-real-world/

Erwin, K. (Feb 2017) Good Health by Design (M. Faye, interviewer). IIT Magazine. Spring 2017 (pg 14).

Erwin, K. (2016, July 8) Why More Women Should Tackle Technology's Design Problems (D. Lorenzo, interviewer). *FastCo Design*. Retrieved from http://www.fastcodesign.com/3061634/designing-women/why-more-women-should-tackle-technologys-design-problems

Miller, C. Z. (2016) Towards Transdisciplinarity: Liminality and the Transitions Inherent in Pluridisciplinary Collaborative Work. *Journal of Business Anthropology*, 1(1), 35-57.

MacTavish, T., Mathew, A., Erwin, K., & Euchner, J. (2014) The Art and Science of Design: Interviews with Tom MacTavish, Anijo Mathew and Kim Erwin. *Research-Technology Management*, 57(3), 10-19.

Holston, D. (2011) Interview with Kim Erwin. In "Metaphor & Analogy in Product Development" in *The Strategic Designer: Tools and Techniques for Managing the Design Process* (pgs 195-197). Blue Ash, OH: F+W Media.

# PRESENTATIONS, PANELS + WORKSHOPS

# Research community

Erwin, K. (Oct 2020) "Using Human-centered design to help medicine fit vulnerable communities" presentation at College of Public Health, Arizona University, Phoenix, AZ.

Erwin, K., Musick, H., Sculley, J. (June 2019) "Tailoring interventions to fit people using Human-Centered Design" 23 person workshop for COIN Health Service Researchers at the Veteran's Administration, Seattle, WA.

Erwin, K., Norell, S. (June 2019) "Conversations on cost of care" presentation to Robert Wood Johnson Foundation staff at bi-annual Foundation Forum meeting. Princeton, NJ.

Erwin, K. (May 2019) "Bridging Evidence to Care" presentation to UIC Pulmonary group. Chicago, IL.

Erwin, K. (Nov 2018) "Improving trial design with Human-Centered Design" for NHLBI PrecISE Program Officer and staff. Bethesda, MD.

Erwin, K. (June 2018) Panelist for "Who Will Benefit from Advances in Health Care" panel and presenting "Designing care for at-risk populations: Pediatric asthma in the ED" at AcademyHealth's *Annual Research Meeting*, Seattle, WA.

Erwin, K. (April 2018) "Using design methods to bridge the gap between evidence and care" at AAHC Global Issues Forum: Driving Change and Achieving Sustainability. Toronto, Canada.

Erwin, K. (April 2018) Panelist, Healthcare Industry Panel, at the *Illinois Health Data Analytics Summit*, University of Illinois Urbana Champaign. Urbana, IL.

Erwin, K. (March 2018) "Designing Medicine to Fit People" at the *Design Research for Health Care* Panel at University of Illinois Urbana Champaign . Urbana, IL.

Erwin, K. (Mar 2017) "Creating stakeholder pull: how to activate stakeholders for research" at PCORI's *Evidence-to-Asthma Network* annual conference. Arlington, VA.

Erwin, K. (Feb 2017) "Helping medicine fit people" presentation at the *Designing for Health: A People-Centered Approach to Transforming Care Symposium* at Harvard University, Cambridge, MA.

Erwin, K. (April 2016). "When talk isn't cheap: Structured Conversations as Asthma Intervention in the ER" presentation at the *Workshop on Motivational Mechanisms in eHealth* at IIT Institute of Design, Chicago, IL.

Erwin, K. (Nov 2015) "Art, Communication, and Consumerism" panel discussion for *Idol Structures*, Matt Siber's art installation at DePaul Art Museum, Chicago, IL.

Erwin, K. (Oct 2015) "Bridgers, not bringers — educating leaders of design" presentation and panel discussion at *Envisioning Diverse Futures for Graduate Education in Visual Communication Design*, 2015 AIGA national conference, New Orleans, LA.

Martin, M., Erwin, K., ... Krishnan, J. (Oct 2015) "Importance of Engaging End-Users in Intervention Research Study Design: Lessons Learned from the CHICAGO Trial." Paper presented at the 2015 APHA Annual Meeting & Exposition. Chicago, IL.

Ramsay, J., Martin, M., ... Krishnan, J. (Oct 2015) "Hiring and training CHWs across multiple health systems." Paper presented at the 2015 APHA Annual Meeting & Exposition. Chicago, IL.

Erwin, K. (June 2015) "Can paper be a persuasive technology? Pediatric asthma discharge documents as tools for care conversations." Presentation at the 2015 Persuasive Technology conference, Chicago, IL.

Erwin, K. (Jan 2015) "Design's at the Strategy Table: Now what? Communication as engagement" presentation for Millersville University design faculty and students, Millersville, PA.

Erwin, K. (Sept 2014) "Reading Big Data: Batman and the Future of Pattern Language" presentation at *Experimental Interfaces for Reading 2.0*, the 2014 INKE conference. IIT Institute of Design, Chicago, IL.

Ichikawa, T., Erwin, K., & Ruecker. S. (May 2014) "Confusing, Misleading, and What Now?: Critiquing Visualizations." Paper presented at the panel *Thinking Critically About Information Visualization* at the 2014 Congress of the Social Sciences and Humanities Canadian Society for Digital Humanities/ Société canadienne des humanités numériques (CSDH/SCHN) conference. Brock University, St. Catharines, Canada.

Erwin, K., Ruecker, S., Ichikawa, T., Windsor, J. (May 2014) "Task-Relevant Visualization in the Humanities." Paper presented at the panel *Thinking Critically About Information Visualization* at the 2014 Congress of the Social Sciences and Humanities Canadian Society for Digital Humanities/ Société canadienne des humanités numériques (CSDH/SCHN) conference. Brock University, St. Catharines, Canada.

Erwin, K. (Oct 2013) "Wicked problems of big personal data" Presentation and panel discussion with Terry Winograd, and Bjorn Hartmann. On the *Nature of Wicked Problems* symposium. UC Berkeley, Berkeley, CA.

Chakravarti, A., Erwin, K. Goldhar, J. (April 2013) "The Fit-Feedback Framework: Using BOPS and Human-centered Design Tools for Decision-making in Complex Organizations" presentation at the 24th Annual Production and Operations Management Society Conference. Denver, CO.

Erwin, K. (Nov 2012) "Thinking with our Eyes: Making sense of Data" invited presentation at Huntington University to faculty and students, Huntington, IN.

# **Professional community**

Erwin, K., Fitzpatrick, V., Integrating cost-of-care conversations into the clinical workflow, Continuing Medical Education (CME) course at Advocate Aurora Healthcare (2020);

Erwin, K., Sculley, J. People-centered Health Communications workshop for UMed students at the University of Illinois at Chicago (2020, 2019);

Erwin, K. (June 2019) "Cost of Care: Emerging policies and tools for patient conversations" Panelist and presenter for 2019 VITAL conference. Miami, FL.

Erwin, K. (May 2019) "Putting the Human back into Healthcare" for the National Healthcare Executive Forum regional conference. Austin, TX.

Erwin, K. (Nov 2018) Panelist for 2018 NPAF Policy Consortium, National Patient Advocacy Foundation, Washington D.C.

Erwin, K. (Oct 2018). "Designing for Patient-Provider Partnership" at 2018 Family Medicine Annual Symposium, Louisana State University, LA.

Erwin, K. (Sept 2018) "Human-Centered Healthcare" at Leadership Illinois conference: Power of the Marketplace, Chicago, IL.

Erwin, K. (June 2018) "Cost of Care Conversations: Design as Problem Framing" at Cleveland Clinic's Patient Experience Summit 2018. Cleveland, OH.

Erwin, K. (March 2018) "When talk isn't cheap: Designing cost conversations for high-risk pregnant women and their doctors on Chicago's South Side" at the Midwest IDSA meeting, Chicago, II.

Erwin, K., Musick, H. (Nov 2017) "Designing for Care Delivery" workshop at National Center for Healthcare Leadership's Human Capital Investment Conference. Chicago, IL.

Erwin, K., (June 2017) "Fitting Medicine to People: Designs for Good Health" Keynote presentation at NorthShore Health System's Bragdon Society Dinner. Northbrook, IL.

Erwin, K., (June 2017) "Bridging the Conviction Gap — when powerful ideas fail to engage the people who matter most" invited presentation at Stryker's Connect & Collaborate annual symposium. Kalamazoo, MI.

Erwin, K., (Feb 2017) "Step away from the Projector: The unique power of experiences to accelerate understanding and build conviction in your organization" workshop for Kellogg School of Business. Evanston, IL.

Erwin, K., Musick, H., (Nov 2016) "Fit to Purpose Design" invited presentation and "Design Methods for Healthcare" 1 day workshop at semi-annual meeting of WNC Healthcare Network. Charlotte, NC.

Erwin, K., (Nov 2016) "People-centered research methods for innovation" invited presentation at the *Human Centered Design Convention*. Leuven, Belgium.

Erwin, K., Norman, D. (Oct 2016) "Human-centered design and human-system integration in the treatment of cancer." Workshop for Behavioral Research group. NIH (National Institute of Health), Bethesda, MD.

Erwin, K., Multach, M., Homan, S....(Oct 2016) "Setting up a 90-day Experiment with a Hospital Partner" workshop at MATTER, Chicago, IL.

Erwin, K. (Oct 2016) "Step away from the Projector: The unique power of experiences to accelerate understanding and build conviction in your organization" workshop for Chicago Ideas Week.

Erwin, K., Krishnan, J. (Sept 2016) "Engaging stakeholders to redesign healthcare" invited presentation to IMPACT (Integrated Michigan Patient-Centered Alliance for Care Transitions), Livonia, MI.

Erwin, K. (Sept 2016) "Design-driven healthcare delivery" invited presentation at *ForeChange 2016* conference. The Broadmoor, Colorado Springs, CO.

Erwin, K. (July 2010 – 2016) "Communication methods for innovation" workshop for ID Design Camp, IIT Institute of Design, Chicago, IL.

Erwin, K. (June 2016) "Design Methods in Healthcare" invited presentation to staff of Sinai Urban Health Institute. Chicago, IL.

Erwin, K. (June 2016) "Design Methods for Healthcare" invited presentation at *Discovery by Design* conference, OSF Health System, Peoria, IL.

Erwin, K. (May 2016) "Using Design Methods to Fit Medicine to people" presentation at the *Culture of Health: Learning in Collaborative Communities workshop*, funded by the Robert Wood Johnson Foundation at the American Hospital Association, Chicago, IL.

Erwin, K. (June 2016) "Service Design for Health Systems" panel discussion with Tom MacTavish, Will Collie at SDN Chicago (Service Design Network). WeWork, Chicago, IL.

Erwin, K. (Feb 2016) "Communication methods for Innovation" 3 day workshop at Godrej Innovation Center, Godrej Industries, Mumbai, India.

Erwin, K. (Oct 2015) "Designing Improved Access to Healthcare" Panel discussion with Dr. Jerry Krishnan, IIT Institute of Design student conference, IIT Institute of Design, Chicago, IL.

Erwin, K. (Sept 2015) "Step away from the Projector: storytelling through experience" invited presentation at *DreamForce 2015*, San Francisco, CA.

Erwin, K. (Sept 2015) "Fitting medicine to people: Pediatric asthma education in the ER" invited presentation at ForeChange 2015 conference. The Broadmoor, Colorado Springs, CO.

Erwin, K. (July 2015) "Communicating The New: methods to shape and accelerate innovation" invited presentation at Mindshare, Chicago, IL.

Erwin, K. (May 2015) "Experiencing the New" invited presentation at *Steelcase Epic* (global strategy, research and business innovation meeting). Steelcase, Grand Rapids, MI.

Erwin, K. (April 2015) "Experiencing the New: the unique power of experiences to accelerate understanding and build conviction" invited presentation at *MX2015 —Managing Experience* conference, San Francisco, CA.

Erwin, K. (March 2015) "Framing the New: language for building and sharing innovation" Presentation at U of Chicago Booth School, the D4 lecture series, Chicago, IL.

Erwin, K. (Jan 2015) "Experiencing the New: The unique power of experiences to accelerate understanding and build conviction" invited presentation at the AIGA/Boston speaker series. Microsoft Nerd Center, Cambridge, MA.

Erwin, K. (Dec 2014) "Communication methods for Innovation" 3 day workshop at Godrej Innovation Center, Godrej Industries, Mumbai, India.

Erwin, K. (Nov 2014) "Communicating the New" 1 day workshop at Target for innovation leadership and staff. Target, Minneapolis, MN

Erwin, K. (Sept 2014) "Communicating the New" invited presentation at Transform 2014. Mayo Center for Innovation, Rochester, MN.

Erwin, K. (Aug 2014) "How might self-tracking change the conversation between patients and providers?" invited presentation at *ForeChange 2014* conference. The Broadmoor, Colorado Springs, CO.

Erwin, K. (July 2014) "Communicating the New" (not book promotion) 1 day workshop at Nestle for innovation leaders and staff. Nestle Corporate Campus, Cleveland, OH.

Erwin, K. (May 2014) "How do we know? The Human Factors of Big Data" presentation at *StratCon 2014*, Spertus Museum, Chicago, IL.

Erwin, K. (May 2014) "Communication as design method" 1-day workshop for Brazil's Center for Strategic Studies and Management Science, Technology and Innovation. IIT Institute of Design, Chicago, IL.

Erwin, K. (March 2014) "Communicating the New" invited presentation at UX Book Group (Chicago branch), Chicago, IL.

Erwin, K. (Feb 2014) "From Chaos to Order to Action: Communication as Design Method" invited presentation and workshop for employees of SC Johnson, Racine, WI.

Erwin, K. (Feb 2014) "The Innovator's New Dilemma," invited presentation at CNN for staff, CNN Atlanta, GA.

Erwin, K. (Feb 2014) "Communicating the New" Book tour, Atlanta, GA.

Erwin, K. (Dec 2013) "Communicating the New" Book tour, Seattle, WA.

Erwin, K. (Nov 2013) "Communicating the New" Book tour, Boston, MA.

Erwin, K. (Oct 2013) "Communicating the New" Book tour, Minneapolis, MN.

Erwin, K. (Oct 2013) "Communicating the New" 1-day workshop at bSwing, Minneapolis, MN.

Erwin, K. (Oct 2013) "Communicating the New" Book tour, San Francisco, CA.

Erwin, K. (Oct 2013) "Communication methods for innovation" invited presentation at Toyota Innovation Hub, San Francisco, CA.

Erwin, K. (Oct 2013) "Communicating the New" invited presentation at Gensler (California) for staff and leadership, San Francisco, CA.

Erwin, K. (Oct 2013) "The Human Factors of Big Data" invited presentation at 2013 annual symposium of the American Managers of Innovation, Chicago, IL.

Erwin, K. (Sept 2013) "Communicating the New" Book tour, London.

Erwin, K. (Sept 2013) "Communicating the New" Book tour, New York, NY.

Erwin, K. (July 2013) "How do we know? Communication methods for building design knowledge" workshop at IA Collaborative for staff and leadership, Chicago, IL.

Erwin, K., Ichikawa, T. (July 2013) "Representing Complex Data," a 1-day workshop with IIT Physics department. IIT Institute of Design, Chicago, IL.

Erwin, K., Bond, M. (June 2013) "Why self-track? 4 modes of self-tracking" invited presentation at monthly meetup of the Quantified Self (Chicago chapter). 1871, Chicago, IL.

Erwin, K. (May 2013) "Communicating the New: methods for innovation" invited presentation at *StratCon 2013*, Spertus Museum, Chicago, IL.

Erwin, K. (Feb 2013) "Making sense of Big Personal Data: the QS movement" invited presentation to staff of Yahoo, Palo Alto, CA.

Erwin, K. (Feb 2013) "Communicating the New" (not book promotion). Presentation at U of Chicago Booth School, the D4 lecture series, Chicago, IL.

Erwin, K. (Feb 2013) "Communicating the New" (not book promotion). Presentation and workshop with Leo Burnett at 1871, Chicago, IL.

Erwin, K. (Feb 2013) "Communicating the New" (not book promotion). 1 day workshop with Purina innovation staff. IIT Institute of Design, Chicago, IL.

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Erwin, K., Fraley, D. (Oct 2010) "Our world is flat, too: the paradigm shift to online research" presentation at the 2010 DRC (Design Research Conference) IIT Institute of Design student conference. Spertus Museum, Chicago, IL.

Erwin, K. (Sept 2010) "Communication methods for innovation" workshop for Steelcase Human Resources worldwide at IIT Institute of Design, Chicago, IL.

Erwin, K., Ichikawa, T., Mulhern, T., (2004) "Design in the Innovation Process." Workshop for 2004 Innovation Convergence conference, Minneapolis, MN.

### **GRANTS**

Open

# 1. Reducing Respiratory Emergent Visits using Implementation Science Interventions Tailored to Setting (REVISITS)

NHLBI R01HL146644 \$2,499,473 Press (contact), Damschroder, Erwin, Goldstein, Lindenauer, 7/2020 - 6/2025 Konetzka, Wan, White

Using methods from Implementation Science, identify real-world solutions to decreasing COPD acute care revisits by concurrently studying care transition program intervention delivery methods (virtual versus in-person) and mentored implementation approaches (virtual or in-person).

Role: Co-investigator

# 2. Cost Conversations in Routine Prenatal Care (CONTINUE)

**Robert Wood Johnson Foundation** \$399,000 Fitzpatrick (contact), Erwin 4/2020 - 3/2022

The CONTINUE study will tailor and pilot a tool developed with prior RWJF funding to promote and facilitate cost conversations with low-income women during prenatal care. This study engages patients and providers from three Chicago-based clinics with diverse patient populations to identify preferred measures and to acceptably place and integrate cost conversations at the most effective point in the clinical workflow.

Role: Co-Principal Investigator

# 3. A community asthma program on the Navajo Nation

NIH 1U01HL138689-01 \$8,504,073 Bender (contact), Gerald, King, Kobernick, Liu, Morgan, 8/17 - 7/23 Solomon

In collaboration with the Navajo Nation, implement a community asthma program comprised of evidence-based interventions that integrate the medical care, family, home and community to improve the care of Navajo children with asthma. My role as consultant is to tailor a pediatric asthma action plan to reflect the language, medical infrastructure and social human factors of the Navajo people.

Role: consultant

# 4. Syringe Service Treatment Access for Medication-Assisted Intervention through NAvigation (STAMINA)

Arnold Foundation 095176-00001 \$1,373,383 Watson (contact), Erwin, Gastala, Jimenez, Mackesy-Amiti, 6/2019 - 5/2022

Messmer, Swartz

To assess implementation and test effectiveness of a model for linking people who use opioids to evidence-based medication assisted treatment (MAT) for opioid use disorder through a syringe service program-based intervention combining health navigation with immediate linkage to care.

Role: Co-Investigator

# 5. Improving Sickle Cell Care in Adolescents & Adults in Chicago (ISAAC)

NIH/NHLBI U01HL134042 \$212,660 Gordeuk (contact), Hsu, Wandersman, Gutierrez 9/2016 – 8/2022

To improve outcomes of adolescents and adults with SCD by systematically developing, testing, and implementing multi-level, multi-modal interventions that address barriers to evidence-based care and take into account the specific needs and resources in the Chicago area. The design team is responsible for site-level foundational research and development of interventions for use in the ED, routine clinical care setting and with unaffiliated patients. Role: Co-Investigator

# 6. RofLumilast or Azithromycin to preveNt COPD Exacerbations (RELIANCE)

PCORI PCS-1504-30430 \$14,000,000 Krishnan (contact), Albert, Erwin, Holbrook, Malanga, 1/2019 - 12/2023

Mannino, Mularski, Rennard, Rommes, Wise

A nationwide and multi-site head-to-head comparative study of long-term roflumilast vs. azithromycin usage in high-risk patients with COPD. I serve as lead of the Communication Center, charged with developing and launching user-centered recruitment and retention strategies across 32 recruitment sites.

Role: Co-Investigator

# 7. Data, Modeling, and Coordination Center for the PrecISE network

NIH/NHLBI 5U24HL138998-02 \$45,651

Erwin (contact), Gerald 07/2018 - 6/2019

To lead nation-wide patient engagement workshops to improve the PrecISE study design for patients and families and aid recruitment and retention efforts.

Role: Principle Investigator

# 8. Integrating a User-Centered Tool to Facilitate Cost-of-Care Conversations in an OB/GYN Clinic on the Southside of Chicago

Robert Wood Johnson Foundation Proposal I.D.: 49135 \$250,000 Erwin, Fitzpatrick (Sinai Urban Health Institute), Gilliam (U of Chicago)

To develop a tool to facilitate cost-of-care understanding for both the clinician and patient in an underinsured, high risk OB/GYN clinic population on the south side of Chicago using a

## **GRANTS, CONT'D**

design-based, interdisciplinary process.

Role: Co-Investigator

# Coordinated Healthcare Interventions for Childhood Asthma Gaps in Outcomes (CHICAGO) Plan

PCORI R-1307-05420 \$25,000

Krishnan (contact) Berbaum, Erwin, Ignoffo, Kumar, 03/14 – 03/17

Lohff, MacTavish, Margellos-Anast, Martin, Nyenhuis,

Press, Sheridan, Soyemi

To compare three ED-level interventions for pediatric asthma exacerbations in high-risk minority children in Chicago. This multi-site, multi-arm trial includes 6 Chicago EDs in Chicago's south and west side neighborhoods. ID planned and executed the foundational research, designed the ED intervention known as CAPE (a paper-based tool to enhance discharge conversations between clinicians and caregivers; took 1st place in the Core77 service design category for students), and designed the patient education tools for community health workers for in-home use.

Role: Co-Investigator

# 10. Coordinated Healthcare Interventions for Childhood Asthma Gaps in Outcomes (CHICAGO) Collaboration II

NIH/NHLBI U34-HL130787 \$12,500

McMahon (contact), Gutierrez, Ignoffo, Krishnan, Martin 9/2015 – 8/2016

To develop, test, and implement a sustainable model of care that successfully reduces asthma disparities in high-risk minority children in Chicago. By the end of the U34 project period, the CHICAGO Collaboration II team will be prepared to apply for the companion U01 application (HL-17-001) to support the clinical trial, assess sustainability, and define the best practices for implementation. The Institute of Design planned and executed the foundational research in schools, homes and EDs in Chicago's south and west sides. Role: Co-Investigator

# 11. Visualizing Thick Data

Knight Foundation GR-2015-51257 \$35,000 Erwin (contact) \$09/15 – 02/16

To support development of a web-based application for researchers to help explore qualitative data quickly and efficiently through the visual coding of qualitative data. Role: Principle Investigator

# 12. Agent-Based Models as a Platform for Interdisciplinary Research of Complex Social and Business Systems

IIT ERIF \$0

Chakravati (Contact), Ashton, Erwin, Wagman 01/12 – 12/12

IIT ERIF grant in collaboration with Stuart School of Business professor and Co-PI, Dr. Arjun Chakravati and Dr. Weslyn Ashton. The focus of the grant was to integrate behavioral and economic theory-building, contextual inquiry/qualitative methodology, and agent-

based model-building technology and apply to the task of examining complex behavioral systems.

Role: Co-investigator

### **PROTOTYPES + AWARDS**

1st Place Service Design/student category, Core77 design awards, 2015: Bridging the communication gap: A new touchpoint for pediatric asthma education in Emergency Departments for development of ED discharge tool.

Notable mention Strategy & Research category, Core77 design awards, 2015: Bridging the communication gap: A new touchpoint for pediatric asthma education in Emergency Departments for development of ED discharge tool.

Notable Mention in Strategy and Research/student category, Core77 design awards, 2014 Tinker.IT web-based platform for quantified self users—the "experimenters" segment of self-trackers (student project);

Semi-Finalist, Design for Experience Awards, 2014 Nineteen for qualitative data analysis;

## **MEDIA + PROMOTION**

Media coverage of Kim Erwin

2015 They just don't get it AIGA Blog entry for Erwin's Make/Model/Show/Share presentation at AIGA/Boston: http://boston.aiga.org/they-just-dont-get-it/

2015 Conversation // MX 2015 video of panel (Kim Erwin, Russ Unger & Gretchen Anderson)

2013 Communicating the New video by bSwing https://vimeo.com/76983260

2013 Amway Innovation Stories: Communicating the New produced video of communication theory. https://vimeo.com/channels/innovationstories/78100848

2013 interview excerpt for Forbes online about American Airlines logo redesign http://www.forbes.com/sites/andrewbender/2013/01/21/american-airlines-makeover-design-prosweigh-in/

2013 Crain's Chicago Business (print and online) interview excerpt for online shopping article http://www.chicagobusiness.com/article/20130119/ISSUE01/301199976/3-d-web-shopping-crate-barrel-style

Media coverage of Nineteen, qualitative software tool

2016 Data Storytelling & Analysis for the Arts presentation by Professor Rahul Bhargava at MIT Center for Civic Media cites Nineteen as an example of tools to help tell stories about data. https://prezi.com/otbsxilfab2c/youtharts/

2016 *How to make a good data-driven app* blog entry reviewing a presentation of Nineteen in Chicago. http://www.datascopeanalytics.com/blog/knight-foundation-meetup/

Listed on The Qualitative Report's website as a tool for qualitative data analysis; http://tqr. nova.edu/apps/

Currently listed on the Quantified Self website under Analysis Tools (1 of 5 visualization tools cited); http://experimentable.com/qs-guide/#tools-analysis

Pinned by Gail Zuniga, who is collecting tools for qualitative research; https://www.pinterest.com/gail6089/qualitative-visualization/,

## PROTOTYPES + AWARDS, CONT'D

2015 Make Data Meaningful presentation by Amanda Makulec, JSI Center for Health Information, Monitoring, and Evaluation, as an example of tools to help visualize qualitative data; http://www.slideshare.net/jsi/making-data-meaningful-47885958

2014 blog entry about Nineteen by Tom Liam Lynch, professor of education at the School of Education, Pace University, specializing in the role of technology in policy and practice.

http://tomliamlynch.com/qualitative-data-visualization-tool/

#### **TEACHING**

Executive education classes on design methods for healthcare delivery; executive education classes on communication strategies for engaging organizational stakeholders in complex problems; graduate classes on the application of communication methods to investigate complex design problems; applying visual modeling to interrogate qualitative data; the application of cognitive metaphor theory to help conceptualize and communicate design work.

### Classes created

Visual models for analysis
Communication in the Planning Process
Communication Strategies for Design (MDM)
Coding & Analysis of Qualitative Data
Online Research Methods
Writing for Designers

## Other classes taught

Theories of communication Metaphor & analogy in design Communication workshops

## **SERVICE**

Grant reviewer: Scientific Review Panels

May 2019 - present: AHRQ Healthcare Systems and Values Research study section.

May 2018: AHRQ Patient Safety Learning Laboratories: Pursuing Safety in Diagnosis and Treatment at the Intersection of Design, Systems Engineering, and Health Services Research (R18)

## Journal service

Assistant Editor, International Journal of Design 2013 - present

Advisory board: Dialectic: A Scholarly Journal of Thought Leadership, Education and Practice in the Discipline of Visual Communication Design 2016 - present

Reviewer for Dialetic: 2016, 2018

Reviewer International Journal of Design 2011, 2012, 2013, 2016, 2019, 2020

Reviewer, EPIC 2014

Reviewer D&E 2010, 2012, 2014

Reviewer, IASDR 2011

Academic field: conferences

Discussant, Infrastructures of Creativity conference, 2014 Moderator, DRC 2011 Conf. Committee, Design & Emotion 2010 Session chair, Design & Emotion 2010

Professional

Juror – Gensler research and strategy category; 2017 Juror – Core77 research and strategy category; 2014

University Faculty Counsel unit representative, 2011 – 2014 (2013 Recording secretary)

Dean review committee, 2012

# **MEMBERSHIPS**

Health Design Network, International Institute for Information Design Research & Education

EPIC (Ethnographic Praxis in Industry Community)

ACM (Association for Computing Machinery) Client Number: 1901786

The Institute for General Semantics