

**RESEARCH** *Significance of grants and awards*

During my time at Herron, I have been awarded **\$204,613** in individual or collaborative funding. This funding supports the design and development of creative work, student involvement, or travel. Grant funding is a critical part of my research as it facilitates an ongoing design practice.

**InterACT™ INTERVENTION DEVELOPMENT FUNDS**

FUNDING AGENCY	ROLE	FUNDING	DATES
IU School of Nursing (Center for Enhancing Quality of Life in Chronic Illness and Beverly Flynn Award) and Sigma Theta Tau International Honor Society of Nursing	Co-PI (20%)	\$107,500	Sept 2016–present

**SUMMARY** These grants represent a promising area of future work. As part of a research team involving IUPUI collaborators from Nursing, Computer Science, and Electrical Engineering, I will assist in the development of a new 'smart' medication system (a connected pillbox and mobile app) that will help people improve their medicine-taking behavior and overall health. Specifically, I am contributing my expertise in user interface design, experience design, and co-design research methodologies to design a mobile app that facilitates the experience.

**IMPACT** This grant is foundational funding that will enable our team to prove that our system is viable and effective. With our findings, we will be competitive in applying for NIH grants. In the initial phase of work, we will develop both hardware and software that can be used by healthcare researchers nationwide.



*The InterACT™ Health research team with a prototype of our pillbox system. From left to right: Dr. James Hill, Aaron Ganci, Dr. Rebecca Bartlett Ellis, Omar Nezamuddin (PhD student), Dr. Euzeli Dos Santos Jr.*

## ***Significance of grants and awards (continued)***

---

### **FRANK C. SPRINGER FAMILY INNOVATIVE FACULTY AWARD**

---

FUNDING AGENCY	ROLE	FUNDING	DATES
Herron School of Art and Design	PI	\$5,518	2015-2016

---

**SUMMARY** I was granted this award by the Herron faculty through a refereed process. The Springer award is the highest recognition of research that is awarded by the school. It funds a project that will help advance a new line of inquiry. In my case, I used it to investigate the role of design with advanced digital environments such as embodied interaction (using physical movement to interact with computers) and ubiquitous computing (the integration of miniature computer sensors into everyday objects, enabling them to observe their surrounding, connect to the network, and talk to one another or us—the Nest thermostat is an early example of this technology).

**IMPACT** This work enabled me to understand future design environments more deeply. Ultimately, this work informed two presentations (*Designing Digital Experiences in 2020* [\[Link\]](#) (CV p.7) and *Designing Digital Experiences in 2021* (CV p.9)) both of which inform designers on what competencies will be necessary in the future.

### **IAHI TRAVEL AND RESOURCE SUPPORT GRANT**

---

FUNDING AGENCY	ROLE	FUNDING	DATES
IUPUI Arts & Humanities Institute	PI	\$4,995	2014-2015

---

**SUMMARY** Funding to support an investigation on contemporary practices in digital design. Supported travel to San Francisco, New York City, and Chicago to interview designers in their work environments.

**IMPACT** The insights I learned about contemporary practice (including processes, skills, and trends) from this research have informed presentations (*Designing Digital Experiences in 2020* [\[Link\]](#) (CV p.7)) and publications (*On Web Brutalism and contemporary web design* [\[Link\]](#) (CV p.10)). The scholarship from this research is openly available online. In 2016, I partnered with a colleague, Professor Michael Lahey (Kennesaw State University), who was doing similar research and began to build on my early findings from this study. We have co-authored a journal article titled "Uncovering the importance of soft skills in user interface design" that is currently under review with *Communication Design* (CV p.10). My observations from this research have also influenced my teaching as they provide me with a more complete view of current practice.

**Significance of grants and awards (continued)**

**IU SCHOOL OF MEDICINE WORK/LIFE PORTAL PROJECT FUNDING**

FUNDING AGENCY	INVOLVEMENT	FUNDING	DATES
IUSM, American Council on Education & Alfred P. Sloan Foundation	Consultant	\$7,500	2013-2014

**SUMMARY** Funding to support the development of a web portal that enables IU School of Medicine faculty and staff to learn about and utilize their work-life benefits. The project was aimed at improving the work-life balance of IUSM faculty and staff by enabling them to access their benefits more easily.

**IMPACT** The website that was created<sup>1</sup> with this funding was the culmination of a much larger research project at the School of Medicine. It enables IUSM employees to access and act on useful information about the benefits that can improve their lives in meaningful ways. I was also able to impact students as I involved three Herron honors students in the project. This was an ideal interaction with students because I was able to help them navigate a real-world development experience to better prepare them for their future work environments.

<sup>1</sup> See visuals in *Research Appendix/Additional Evidence/Evidence of Creative and Professional Activity*, p.12 [\[Link\]](#)

**HISTORY OF WESTERN MEDICINE IN CHINA WEB PORTAL**

FUNDING AGENCY	INVOLVEMENT	FUNDING	DATES
Luce Foundation, IUPUI Dept. of History	Consultant	\$3,850	2013-2014

**SUMMARY** Funding to support the development of a web portal<sup>2</sup> that provides medical humanities researchers with access to historical documents. My design activity was the culmination of a large project that had the goal to "promote the study of the history of Western medicine in China...by sponsoring research as well as making historical resources more readily available...in libraries... [and] on the web."

**IMPACT** The website that I designed for this project has been used by more than 10,000 researchers in both the U.S. and China. It enables researchers to quickly search thousands of historical documents to aid their research. It is also available in both American English and Chinese. The site is a critical piece of the overall research project let by IUPUI Department of History Professor William Schneider, Ph.D.

<sup>2</sup> See visuals in *Research Appendix/Additional Evidence/Evidence of Creative and Professional Activity*, p.11 [\[Link\]](#)

**Significance of grants and awards (continued)**

<sup>3</sup> For more detail, see [Research Appendix/ Additional Evidence/ Product Usage Statistics \[Link\]](#)

**OVERVIEW OF FUNDED DESIGN PROJECTS – IMPACT & SCOPE**

The funded projects I have worked on are wide-ranging and fall across a variety of sectors. The table below provides a breakdown of each of the projects. For each one, I have described funding information, identified what actionable content is available for these users, and demonstrated significance via user engagement statistics<sup>3</sup>. This data illustrates that my designs are actively used by people all over the world.

SECTOR	PRODUCT	FUNDING ORGANIZATION	ACTIONABLE CONTENT	FUNDING	YEARS	USERS*	SESSIONS*
<b>Education and Library</b>	WorldCat Discovery	Online Computer Library Center	Library holdings	<b>\$45,000</b>	2012-15	~3,000,000	†
	QuestionPoint	Online Computer Library Center	Library patron queries	-		~3,000,000	†
	History of Western Medicine in China Portal	IUPUI Dept. of History	Historical documents	<b>\$3,850</b>	2014	10,296	14,232
	Work/Life Benefits Portal	IU School of Medicine	Benefits information	<b>\$7,500</b>	2013	479	1261
<b>Public</b>	Plan 2020 Implementation Dashboard	Greater Indianapolis Progress Committee	Service projects	<b>\$20,000</b>	2015-16	26,837	51,296
<b>Nonprofit</b>	Checkout experience redesign	Brackets for Good	Charitable donations	<b>\$0</b>	2016	7,482	†
	Organization Website	YouthMove Indiana	LGBTQ support	<b>\$1,700</b>	2013	†	†
<b>Healthcare</b>	Smart Inhaler	Indiana CTSI	Health data	<b>\$4,500</b>	2017	‡	‡
	All IN Website	Indiana CTSI	Public health initiatives	<b>\$7,000</b>	2017	‡	‡
	InterACT Pillbox	InterACT Health	Health data	<b>\$107,500</b>	2015-17	‡	‡
	Brain Care Notes	IU Foundation (PI: Dr. Malaz Boutani, IUsoM)	Health data	<b>\$3,000</b>	2016-17	‡	‡
<b>IT and Security</b>	Simeio IO (Corporate Identity Management)	Simeio Solutions	Digital identity details	<b>\$5,750</b>	2016-17	~100,000,000 ◇	†
	Static Code Analysis Tool	S2ERC (Northrop Grumman, DHS) (PI: Dr. James Hill, IUPUI)	Error reports	<b>\$9,000</b>	2016-17	‡	‡

\* Statistics as of July 2017 (Session=individual site visit by any user) † Statistics unavailable ‡ Product still in development  
◇ Simeio is an IT security company. Their quoted statistics are abstracted as a security measure for their clients.