

Steven T. King
The University of North Carolina at Chapel Hill

UNC School of Media and Journalism

Assistant Professor of Emerging Technologies
Chief Innovation Officer of Reese News Lab

UNC Kenan-Flagler Business School

Faculty Lecturer and Director of Kenan-Flagler Next

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EDUCATION

University of Liverpool, United Kingdom
Master of Computer Science in Internet Communications, December 2013.

Western Kentucky University
Bachelor of Arts in Photojournalism, December 2003.

ACADEMIC EXPERIENCE

The University of North Carolina at Chapel Hill
Assistant Professor, UNC School of Media and Journalism, July 2013 - current.
Faculty Lecturer, UNC Kenan-Flagler Business School, January 2017 - current.
Instructor, UNC School of Media and Journalism, July 2011 - June 2013.

PROFESSIONAL EXPERIENCE

The Washington Post
Director of Video, July 2010 - July 2011.

The Washington Post
Editor of Innovations, September 2008 - July 2010.

International Mission Board
Overseas Correspondent, May 2006 - September 2008.

[Lexington Herald-Leader](#)

Freelance Multimedia Editor/Producer for the Kentucky Derby, May 2006, 2007, 2008 and 2009.

[Washingtonpost.Newsweek Interactive](#)

Multimedia Editor, January 2004 - May 2006.

[MSNBC.com, Olympics.com](#)

Multimedia Producer, January 2002 - April 2002.

HONORS, AWARDS AND RECOGNITION

[Edward Vick Prize for Innovation in Teaching, UNC School of Media and Journalism](#)

The Edward Vick Prize for Innovation in Teaching is awarded to a faculty member in the school whose creativity and innovation in teaching over the past academic year most meaningfully enhanced his or her students' learning experience. 2018.

[Online News Association Awards](#)

ONA is the world's largest association of online journalists with a mission to inspire innovation and excellence in media.

Excellence and Innovation in Visual Storytelling

Project: *Undercurrent360*

Summary: Science storytelling website that includes interactive graphics, VR content and narrative video.

Role: Co-Executive Producer, Design and Development Lead and Drone Pilot.

Publication Date: April 17, 2016.

Award Date: October 9, 2016.

[White House Correspondents' Association](#)

Presented an innovative 3D project live at the 2015 White House Correspondents' Dinner to media executives, high-ranking government officials, celebrities and journalists.

Project: "Intensive Care for a Damaged Dome"

Summary: A non-touch gesture interface for controlling 3D models and 360-degree video. Application provides additional information about the dome's renovation through motion tracking.

Role: Producer, Designer and Developer.

Publication Date: March 1, 2015.

Presentation Date: March 17, 2015.

Funding: \$20,000 from the Washington Post Innovation Fund.

Tony Blair's Commission on Africa

After working directly with the organization through the peak of the epidemic in 2014, the organization honored the project for "helpful and outstanding work in efforts to fight the Ebola outbreak."

Project: Ebola in Liberia

Summary: Data visualization site used for decision making at the request of the Minister of Information in Liberia during the Ebola crisis in 2014 - 2015.

Praised in multiple speeches by Chancellor Carol Folt, including University Day, as engaged research and was noted as "the top opportunity for students to make an impact in the world" at the December 2014 UNC graduation.

Horizon Interactive Awards

The Horizon Interactive Awards are some of the most prestigious awards in the field of interactive and creative media. The competition recognizes the best websites, interactive design, videos and mobile applications.

Gold in Interactive Presentation, *Living Galapagos*, 2012.

Gold in Interactive Presentation, *Andaman Rising*, 2009.

National Edward R. Murrow Award

The Murrow Awards are considered the most prestigious awards in broadcast news "honoring excellence in electronic journalism."

Award for Online News Video, "Congresswoman Shot," 2012.

Award for Online News Video, "Under Suspension: Voices about Muslims in America," 2012.

Regional Emmy Awards

The Regional Emmy Awards are considered the Oscars of local television and recognize excellence in broadcast and online reporting.

Award for Historic/Cultural Program or Feature, "Remembering the Shuttle Era," 2012.

Award for News, "Under Suspicion: Voices about Muslims in America," 2012.

Award for Political Show, *The Fix*, 2012.

National Press Photographers Association's Best of Photojournalism

One of the largest and most prestigious photojournalism contests in the world, receiving 20,000-30,000 entries annually.

3rd Place, Multimedia Package, *Reframing Mexico*, 2012.

2nd Place, News Video, "Able to Serve, Unable to Give," 2009.

Pictures of the Year International

International photojournalism and multimedia competition founded in 1944 that receives 30,000-40,000 entries annually.

3rd Place, Best Use of Multimedia, The Mountain Workshops website, Multimedia Coach and Producer, 2008.

1st Place, News Picture Story, "Afghan Election," Multimedia Editor, 2004.

1st Place, Issue Reporting Picture Story, "Monument to Failure," Multimedia Editor, 2004.

3rd Place, Best Use of Multimedia, Camera Works, washingtonpost.com/photo, Multimedia Producer, 2004.

National Thoroughbred Racing Association

Eclipse Award for Media, Kentucky Derby Interactive, *Lexington Herald-Leader*, 2007.

BIBLIOGRAPHY AND PRODUCTS OF SCHOLARSHIP

Products of Engaged Scholarship

Virtual Reality, 360 Video and Augmented Reality Innovations

Hospital AR: Augmented Reality Mobile Application to Mobilize Hospitalized Pediatric Patients

bit.ly/hospitalAR

Super Squad is an augmented reality app that leverages storytelling, gamification and augmented reality to engage pediatric patients at UNC Children's Hospital in physical activity. The app leads 8- to 13-year-old patients on a journey through the hospital floor to find clues and solve problems. Collaborating with UNC pediatrician and faculty member Dr. Richard Hobbs, M.D., we have designed the experience to improve patient outcomes and solve the problem of motivating long-term pediatric patients to exercise.

The initial prototype funding came through two awards: a \$10,000 gift from Bandz Boyz and a \$10,000 grant from UNC Hospitals' Innovation Fund. The project will be implemented in Fall 2018 with plans to expand to multiple children's hospitals across the state.

Quartz AR: Drone-Captured 3D Models of Landmark Buildings Presented in Augmented Reality for Quartz Publishing

The mobile AR experience in partnership with Quartz, one of the top 10 news apps in the Apple App Store with 20 million monthly users, combines videogrammetry, photogrammetry, pre-

programmed drone waypoint flying, open-source augmented reality code-bases and 3D Authoring to create a unique AR news experience for a large audience. Pending 2018.

VR Drone: Flying Camera Platform for Recording Live Virtual Reality Video

bit.ly/vrdrone

The custom-built large hexacopter captures smooth 360-degree aerial video content for news organizations and film productions using a custom gimbal commissioned for this purpose. *The New York Times* is a development partner and will use the drone in an upcoming international project. The VR drone was presented at the Journalism Interactive Conference in October 2017. The concepts and design was used by McClatchy Publishing and their innovation lab, Video Lab West, in 2017.

VR Robot: Human-Tracking Robot for Recording and Streaming Live 360 Video

bit.ly/vrrobot

Ducille is a semi-autonomous rover that captures smooth 360-degree video content. It can be controlled remotely or can follow an on-camera reporter. The prototype was presented during the opening keynote at the Journalism Interactive Conference in 2017 and presented at the Online News Association Conference in 2016. Journalism Interactive is the top academic media innovation conference and ONA the largest professional organization. Ducille is being tested by WRAL, a local news broadcaster, and was used by *The Washington Post* at the 2016 presidential political conventions. The project was funded by Reese News innovation funds and is currently in the commercialization process.

Faciem AR: Augmented Reality and Facial Recognition Experience for Field/Beat Journalists

bit.ly/sk-faciemAR

Faciem (Latin for Face) uses Microsoft's HoloLens and facial recognition algorithms to present the names, titles and publicly-available information about public figures to journalists via a heads-up display, allowing journalists to identify public figures at events in their community.

The project is in the commercialization phase and has also been modified for government security applications. Faciem AR was one of 20 companies invited to present and demo to the U.S. Army's Thunderstorm 18, an elite showcase of new technologies that solve existing problems facing the armed forces. Thunderstorm is a classified, invitation-only, three-day event presented by Southern Command Special Forces and Penn State University. Faciem AR was also invited to present to the Transportation Security Administration for potential use in securing airports.

360 LifeStream: Mobile Real-Time Stitching and Streaming Process for 360 Video Content

bit.ly/vrlifestream

VR LifeStream is an application developed to provide broadcast organizations and police vehicles real-time video streams of live situations. The Kentucky State Police tested the project but it was suspended due to lack of funding and competition from consumer cameras.

The project started as a collaboration with the Dr. Diane Pozefsky in the UNC Computer Science department and was initially funded with a gift of \$10,000 from a private donor. It has since been commercialized and licensed to Kampouris Security for deployment to local police departments.

Artificial Intelligence Applications

My Reporter: Artificially Intelligent Journalist Messaging Bot

bit.ly/myreporter

Leveraging IBM's Watson Cognitive Computing technology, the My Reporter bot trained on thousands of newspaper readers' questions and hundreds of journalists' responses and then indexed local and national media sites and information services to provide responsive answers about the local community to readers. The first implementation is with *The Star News* in Wilmington, N.C. It will launch in app stores as *The Pulse* in September 2018 and can be customized and deployed to other publications quickly.

Kenan.AI

bit.ly/kenanai

Kenan.AI is a series of artificially intelligent products, currently AiTA and Video Search, that maximize the knowledge of Kenan-Flagler's faculty in research and teaching. Each AI application will build on the previous work to create an ecosystem of AI offerings.

Kenan.AI TA (Teaching Assistant)

Kenan-Flagler Business School students enrolled in business courses interact with an AI teaching assistant via chat (FB Messenger, SMS, web, etc.) to get answers to content and logistics questions. The system allows professors to submit data including syllabi, content from video lectures, slides and pdfs and automatically indexes and uses them to answer students' questions.

The project is being tested with the first class in Fall 2018 with full deployment across the school in Spring 2019.

Kenan.AI Video Search: Artificial Intelligence Video Search Engine with Predictive Search

An internal and external video search tool for finding video clips about specific topics. All video assets from lectures and Kenan-Flagler partnerships are stored, indexed and searchable by students. The system allows students to quickly find answers from the world-class Kenan-Flagler faculty.

The system is built on an artificial intelligence platform that auto transcribes, tags and generates metadata for indexing, quickly delivering information to users. The project is being tested with the first class in Fall 2018 with full deployment across the school in Spring 2019.

Enhanced Human-Computer Interaction Applications

Non-touch Gesture Interfaces for Interacting with 3D Models and 360 Videos

bit.ly/gesture-news

This technology demonstrates an innovative approach to interacting with 3D content by using portable motion tracking. The interface allows users to interact with the content without touching any computer device.

The first implementation of this technology was for *The Washington Post's* "Intensive Care for a Damaged Dome" experience to provide users a unique way to learn about the dome's renovation through motion tracking. It was funded by a \$20,000 Washington Post Innovation Fund grant and first published March 1, 2015. I presented the technology at the 2015 White House Correspondents' Dinner to media executives, high-ranking government officials, celebrities and journalists as a "Future of News Technology" Exhibit.

FilmSync: Contextual Information Delivery System for Asynchronous Viewing of Linear Experiences

bit.ly/filmsync

The FilmSync app uses open-source digital watermarking technologies and pitch-detection processes in a unique way to provide delivery of server-based content in sync with linear presentations when viewing live events or when recorded or streamed later. The project was a recipient of Knight Prototype Grant for \$35,000 in 2014.

This technology helps the journalism industry engage their audiences through second-screen experience apps. News and documentary producers can provide additional, contextual information in sync with the video content for an informed viewing experience. It also has implications in online learning environments and distributed classrooms. It was commercialized and licensed to ASK-Media for distribution.

Gesture News: Non-touch Gesture Interfaces for Consuming News and Social Media

bit.ly/gesture-news

A technology using a consumer gaming gesture sensor (Microsoft Kinect) to consume and interact with news and social media. This was a collaboration with the Massachusetts Institute of Technology Media Lab team working on the open-source DepthJS library. The concepts, research and a version of the technology was implemented by *The New York Times* in 2013 as the first gesture-controlled news app after they hired my graduate assistant, Kathryn Faulkner.

Products of Creative Activity

Endurance VR: Virtual Reality Leadership Simulation, Kenan-Flagler Next, Pending August 2019.

bit.ly/endurance-vr

Endurance VR engages students in the immersive story of Ernest Shackleton's failed 1914 endeavor to cross Antarctica to teach leadership in stressful and changing situations. Using interactive 3D graphics, artificial intelligence and immersive storytelling, students experience stress in a virtual but realistic world with seemingly infinite outcomes.

The project is part of the Kenan-Flagler Next program and is being produced in collaboration with the North Carolina School for the Arts. Endurance VR will be the flagship experience for KF-Next as the school changes higher education and will launch in August 2019.

GEAR UP VR, UNC General Administration, July 2018.

gearupapp.org

Over three years (multiple awards), GEAR UP has awarded more than \$300,000 in sponsored research grants to create a virtual experience of North Carolina's college campuses (17) for rural North Carolinians. With Google Cardboard virtual reality goggles and the application GEAR UP VR, rural high school students who cannot physically visit the UNC system campuses are able to learn about and experience the campuses as if they were there. To date, there are no other VR apps in existence that present content from 17 different locations. In addition, this project is distributing 20,000 VR headsets to rural schools across North Carolina.

The project was produced in collaboration with Missy Julian-Fox's First Look program where she envisioned expanding the in-person program using technology. The First Look VR App launched in May 2017 and the GEAR UP VR App launched in July 2018.

News Reporter News App and Notification System, *The News Reporter*, January 2018.

nrcolumbus.com

As part of the Center for Innovation and Sustainability in Local Media, I helped develop a revenue and technology strategy, along with other faculty members, for the small, family-owned newspaper. I then produced the C-Note tool and built a new responsive website and mobile app to solve some of the identified problems.

Cameroon Business Simulation, Kenan-Flagler Next, October 17, 2017.

Through interactive 360 video using virtual reality headsets, business students are virtually transported to the streets of Cameroon to learn business and cultural skills. The simulation engages business students through immersive storytelling, enhancing the learning experience and providing feedback immediately after completing the simulations. This project is one of Kenan-Flagler Next's VR offerings and was released in Fall 2017.

First Look VR, UNC Visitors Center, May 2017.

first-look.org

First Look VR is a 360-degree video application to engage middle and high school students in rural North Carolina about college opportunities. This was the predecessor to the GEAR UP VR

app. Produced through partnerships with UNC Visitor's Center, the UNC General Administration and the federal GEAR UP program.

"Out of the Blue: Galapagos in 360," *The Washington Post*, May 27, 2016.

washingtonpost.com/graphics/lifestyle/galapagos

To help *The Washington Post* learn how to create content in 360-degree video, I led a team of journalists, photographers and videographers on a 360 video interactive documentary project shoot in the Galapagos Islands. The coverage was published May 27, 2016, on *The Washington Post* website, print edition and mobile app. It included a behind-the-scenes article about how the project was created. The endeavor was funded with a \$25,000 gift from the Washington Post Innovation Fund.

Ebola in Liberia, UNC School of Media and Journalism, August 2014.

ebolainliberia.org

During the peak of the Ebola crisis in West Africa in 2014, there was a request from the Ministry of Information in Liberia to help analyze and visualize the data they were collecting. Working with Tony Blair's Commission on Africa, Professor Ken Harper at Syracuse University and 10 UNC students, I led the team to create a data dashboard used to brief the country's top leaders and to help the crisis team make important decisions.

The application provided an Application Programming Interface (API) that enabled the visualization dashboard to be updated in real-time. It also allowed for developers across the world to use the data for prediction modeling. The application was built in less than two weeks and used from August through October 2014 when other systems from the Center for Disease Control became available.

***Innovative Interactivity*, Editor and Contributor**

Innovative Interactivity is an online publication reaching more than 5,000 multimedia journalism professionals. I wrote and cultivated articles on current issues facing the visual storytelling industry. 2012 - 2014.

Open Source Development Projects, Contributor, 2014

github.com/steven-king/depthjs

News Quiz: Interactive news quiz technology used by various media organizations. I was a contributor and provided responsive design upgrades and enhancements.

DepthJS: JavaScript engine for controlling web pages through non-touch gestures. I was a contributor and provided fixes and feature enhancements to the Massachusetts Institute of Technology Media Lab project.

Photography Published in Online News Publications

"Evolving in The Industry," *NPPA: The Visual Student*, Publication Date: January 18, 2010.

blogs.nppa.org/visualstudent/2010/01/18/evolving-in-the-industry-steven-king

“Inside TimeSpace,” *The Washington Post*, Publication Date: February 27, 2009.
washingtonpost.com/wp-dyn/content/article/2009/02/27/AR2009022702008.html

Photography Published in Books

America 24/7, Alabama ed., Seven images published in the Alabama state book, Publication date: 2004.

TEACHING ACTIVITIES

International

European Union Faculty Exchange Program

Presented lectures and worked directly with faculty at the Complutense University of Madrid on leveraging emerging technologies such as virtual reality and augmented reality for narrative storytelling. Summer 2017.

Communications University of China, Beijing

MC600 Multimedia Workshop, 3 Credits. Students learned to find, document and present stories using photos, video and text and publish them online. Summer 2013.

Institute for Defense and Business

Media Engagement Workshop National Broadcasting and Telecommunications Commission of Thailand

A one-week course implementing community engagement and human-centered design techniques to work with broadcast and social media to solve difficult issues concerning an Islamic insurgency in southern Thailand. Summer 2015 and 2017.

Cooperation on Stability Operations

A one-week course using case studies to teach problem solving and media relations in crisis situations. Fall 2014, 2015 and 2016.

The University of North Carolina at Chapel Hill

ABC11 Interactive Media Workshop, Three, two-day workshops to train the ABC11 newsroom in storytelling on the web. Summer 2015.

UNC Interactive Media Design Workshop, One-week course. A project-based workshop where professionals learned how to design, develop and create interactive data applications using HTML, CSS and JavaScript. Summer 2013, 2014 and 2015.

Center for Student Media Association’s Journalism Teaching Fellowship Program, 3 Credits.

This summer school course teaches high school journalism teachers about photojournalism and

how to teach it in their classrooms. Summer 2014 and 2015.

MEJO 187 Introduction to Multimedia Storytelling, 3 Credits. An introductory course in interactive development techniques and content presentation. Students learn to design, develop and publish storytelling work, including an interactive magazine. 2011 - current.

MEJO 491.003/390.001 Mobile App Design and Development, 3 Credits. An intermediate course in mobile application design and development techniques. Students learn to conceive, design, develop and deploy mobile applications. Fall 2014.

MEJO 586 Intermediate Multimedia Journalism, 3 Credits. An advanced course in interactive development techniques and data visualization. Students learn to present interactive interfaces and how to create data visualizations. 2011 - current.

MEJO 583 Advanced Multimedia Programing, 3 Credits. An advanced course for journalists to develop database-driven applications that provide services to readers. Students learn to think logically, finding and presenting data in visual ways while developing a robust database application. Spring 2012, 2013 and 2017.

MEJO 584 International Documentary Projects, Co-taught with Patrick Davison, 3 Credits. Students learn to find, document and present stories in other countries for a final documentary website. andamanrising.org (Summer 2008), reframingmexico.org (Spring 2010), livinggalapagos.org (Spring 2012), raisingthescore.com (Spring 2015) and undercurrent360.org (Spring 2016).

MEJO 588 Emerging Technologies, 3 Credits. Students learn how to tell stories in virtual reality and augmented reality and how to implement those technologies. Fall 2017, Spring 2017 and 2018.

MEJO 717 Information Visualization M.A.T.C., 3 Credits. Explores the overlap between several disciplines: cognitive science, graphic design and information visualization. Students learn the basics of graphic design and how to present data visually. Summer 2013 and 2014.

ONA and NPPA Internship and Job Workshop. Students learn from an editor's perspective how to best present themselves for employment through a portfolio, resume and cover letter workshop. 2013, 2014 and 2015.

UNC Multimedia Bootcamp, One week course. A project-based workshop where students and professionals learn how to shoot, edit and publish video stories. Summer 2011 and 2012.

MASTER'S THESIS COMMITTEE CHAIR

Roush, Natalie, M.A. *Migration into Thailand*. Thesis committee chair, Spring 2018.

Lau, Adam, M.A. *Environmental Issues with an Oil Pipeline in North Carolina*. Thesis committee chair, Spring 2018. (Note: This is a joint thesis with Conway.)

Conway, Veasey, M.A. *Southern Politics Role with an Oil Pipeline in North Carolina*. Thesis committee chair, Spring 2018. (Note: This is a joint thesis with Lau.)

Hammond, Elizabeth, M.A.T.C. *Usability Study of Augmented Reality Application*. Thesis committee chair, Fall 2017.

Ritter, Tyler, M.A.T.C. *Study of Online Video Learning Technology*. Thesis committee chair, Fall 2017.

Geier, Scott Christopher, M.A. *Millennium Memory Project*. Thesis committee chair, Fall 2016.

Whitehouse, Ray, M.A. *Believers: Inside the Iowa Caucus*. Thesis committee chair, Spring 2016.

White, Ashlie, M.A.T.C. *Reporting Policy: Examines Insurance Company Policies and Promotes Awareness of Prosthetics Issues*. Thesis committee chair, Fall 2015.

Roberts, John, M.A.T.C. *Computer and Human-Assisted Curating of Storytelling*. Thesis committee chair, Fall 2015.

Whitley, Jason, M.A.T.C. *Diagnosing your Doppelganger*. Thesis committee chair, 2015.

Mac, Jagmeet, M.A. *Walter's Walk: Documentary on Homeless Life in North Carolina*. Thesis committee chair, 2014.

MASTER'S THESES COMMITTEES

Nelson, Amy, M.A. *Muslim Religious Pilgrimage*. Thesis committee member, Spring 2018.

Robbs, Maureen, M.A.T.C. *Eye Tracking Usability Tasks on a Cisco Webpage*. Thesis committee member, Fall 2017.

Schmidt, Kiersten, M.A. *No News Is Bad News*. Thesis committee member, Fall 2016.

Mendenhall, Grayson, M.A. *10,000 a Day*. Thesis committee member, 2015.

Comfort, Ryan, M.A. *Protecting the Boundary*. Thesis committee member, 2014.

Faulkner, Kathryn, M.A. *Mobile First as a Practical Design Theory*. Thesis committee member, 2012.

Patchett, Vanessa, M.A. *PTSD Veterans: Tracking the Issues Facing Soldiers Suffering from Post-Traumatic Stress Disorder*. Thesis committee member, 2012.

GRANTS AND FUNDING

Knight Foundation

The Center for Innovation and Sustainability in Local Media was awarded a \$3 million grant from the Knight Foundation with a matching \$1 million grant from the UNC Provost's Office. The program provides funds to four principal faculty members. My role is to create sustainable tools and innovations for local media. Awarded in 2015 - current.

Role: Faculty Innovator

Financial Responsibility: 10%

Total Raised: \$4 million

Responsible Portion: \$400,000

Average Yearly Budget: \$100,000

Knight Foundation Prototype Grant awarded \$35,000 for innovation in public service to create FilmSync. February 2014.

Role: Producer, Creator

Financial Responsibility: 100%

Responsible Portion: \$35,000

UNC Kenan-Flagler Business School

Role: Director and Creator of Kenan-Flagler Next

Financial Responsibility: 100%

\$250,000 from the Dean's Innovation Fund for content creation and innovation in virtual reality development. 2018 - 2019.

\$10 million endowment from John and Marree Townsend for innovation in business education announced October 2017. The endowment provides a \$500,000 budget each year starting in 2018.

\$200,000 from the Dean's Innovation Fund for content creation and innovation in virtual reality development. 2017 - 2018.

Total Raised: \$10,450,000

Average Yearly Budget: \$575,000

KFBS to MEJO for Projects: \$250,000

GEAR UP, UNC General Administration

Sponsored Research Grant for innovation in 360 videos to reach middle and high school students for college access.

Role: Principal Investigator, Creator

Financial Responsibility: 100%

\$110,000, 2018 - 2019

\$110,000, 2017 - 2018

\$79,000, 2016 - 2017

Total Raised: \$299,000 over three years

Average Yearly Budget: \$100,000

UNC Hospital

Prototype funding for Hospital AR was awarded a \$10,000 gift from Bandz Boyz and a \$10,000 grant from the UNC Hospitals' Innovation Fund in Summer 2018.

Role: Principal Investigator, Creator

Financial Responsibility: 100%

Total Raised: \$20,000

Quartz Publishing

Augmented reality research through the UNC Emerging Technologies Lab was fully funded by Quartz for \$7,500 in Summer 2018.

Role: Principal Investigator

Financial Responsibility: 100%

Total Raised: \$7,500

Individual Donors

360 LifeStream was funded with an initial \$10,000 prototype investment by Emmanuel Kampouris in June 2016.

Role: Creator

Financial Responsibility: 100%

Total Raised: \$10,000

Fred Hutchinson provided a \$12,000 gift to equip the new Virtual Reality Lab space in 2014.

Role: Creator

Financial Responsibility: 100%

Total Raised: \$12,000

Washington Post Innovation Fund

\$25,000 for development of "Galapagos in 360" video project. January - April 2016.

\$20,000 for development of non-touch gesture interfaces of 3D models. January - April 2015.

Role: Producer, Creator

Financial Responsibility: 100%

Responsible Portion: \$45,000

Average Yearly Budget: \$22,500

CARE USA

Sponsored Research Grant of \$80,000 for content creation and interactive development for the non-profit aid organization working in Malawi. May 2015.

Role: Co-director

Financial Responsibility: 50%

Responsible Portion: \$40,000

***Total responsible portion of funds raised for UNC is \$11,318,500.**

PROFESSIONAL SERVICE | UNC SCHOOL OF MEDIA AND JOURNALISM

Reese News Lab, Chief Innovation Officer, 2017 - current.

ONA: Online News Association Student Chapter, Faculty advisor, Fall 2012 - current.

Reese News Lab, Interim Executive Director, July 2016 - August 2017.

Reese News Lab, Consultant and speaker, Fall 2011 - 2016.

UNC School of Media and Journalism, Faculty Compensation Committee member, 2015 - 2017.

UNC School of Media and Journalism, VisCom Curriculum Coordinator and Curriculum Committee member, 2014 - 2016.

UNC Interactive Workshop, Director, Chapel Hill, N.C., May 2013, 2014 and 2015.

UNC School of Media and Journalism, Faculty Search Committee for M.A.T.C. and VisCom design professor, 2014.

Pearl Hacks, Faculty champion, Spring 2014 and 2015.

Journalism Interactive Conference, Board member, University of Florida (2012), University of Maryland (2013 and 2017) and University of Missouri (2014).

Resound Magazine, Technical advisor and developer/consultant for student-driven and grant-

funded entrepreneurial project, November 2012 - 2014.

VII Master Class and Forum, Moderator and host presenting with world-renowned photojournalists and documentary film makers from Agency VII, 2013.

Breaking News Coverage, Director. Led students to cover Superstorm Sandy on the Virginia and Maryland coast for *The Washington Post*. Students presented their work on the homepage of washingtonpost.com for 20 hours and became the most-viewed video on the site for two days. October 2012.

Korean Producers and Directors Educational Institute, Invited speaker, "Future of Interactive Television," Chapel Hill, N.C., July 2012.

UNC Multimedia Bootcamp, Invited speaker, "Future of Online Journalism," Chapel Hill, N.C., May 2012.

Korean News Editors Association, Invited speaker, "Journalists and Interactive Tools You Can Use," Chapel Hill, N.C., Fall 2011 and 2012.

Student Chapter of the National Press Photographers' Association, Faculty consultant, Fall 2011 - 2012.

Korean Broadcast Journalists Association, Invited speaker, "Covering and Election in a New Media World. Case Study of The Washington Post" Chapel Hill, N.C., Fall 2011.

PROFESSIONAL SERVICE | UNIVERSITY

UNC Officer of the Chancellor, Capital Campaign 2017, Faculty ambassador. Engage with senior university leadership and high-level donors throughout the campaign, 2017 - current.

Center for Innovation and Sustainability in Local Media

Through UNC's Center for Innovation and Sustainability in Local Media, I work to support existing and start-up news organizations through the development of digital tools and custom solutions with an emphasis in creating new, sustainable revenue products, 2016 - current.

Curriculum Committee for Capstone School of Arts and Sciences

The UNC School of Arts and Sciences sought to create a school-wide capstone. I served on the committee as an outside member and helped write the recommendation and requirements that are currently being considered, 2018.

onField inField, Creator and evangelist. Worked with UNC Athletic Director Bubba Cunningham to start reforms to NCAA academic rules that help student-athletes become more successful on the field and in their field of study, 2014 - 2015.

Scientist with Stories Workshop and Festival, Invited speaker and panel moderator, "Scientists with Cameras," 2012.

LiNK: Liberty in North Korea at UNC, Invited speaker, "Inside View of North Korea," Chapel Hill, N.C., November 2011.

PROFESSIONAL SERVICE | COMMUNITY AND INDUSTRY

#USA3 North Korea Release. At the request of the family of Tony Kim, an American held without trial in North Korea, I worked to create a media and technology strategy with the ultimate goal of getting him released and returned to the United States. After four months, the campaign was successful in mobilizing the administration in bringing all three Americans home in May 2018.

News Reporter, Whitesville, N.C. Helped develop revenue and technology strategy with other UNC faculty members for the small, family-owned newspaper and then produced a C-Note tool to solve some of the identified problems. 2017 - 2018.

U.S. Army: Using Media in Cooperation on Stability Operations. Taught and later directed a strategic and crisis communications workshop with UNC Professor Valerie Fields for the U.S. Army. The one-week, hands-on course uses case studies and in-person situations to teach military officers problem solving and media relations in crisis situations. The workshop is hosted by the UNC School of Media and Journalism. Fall 2014, 2015, 2016, 2017 and 2018.

South by Southwest Interactive Conference, Panel member, "Future of AR in News," March 2018.

Chapel Hill Bible Church, Consultant and communications team member for community outreach, November 2012 - current.

Pentagon Simulation, Office of the Joint Chiefs, United States Military. Through the Institute of Defense and Business, I serve the Office of the Joint Chiefs of the United States military as a storytelling and data visualization technology consultant, assisting the office as they conduct multi-branch, multi-agency preparedness simulations including implementing and utilizing new media technologies during extreme emergency situations. 2016 - 2017.

The Washington Post. Consulted on new and emerging technologies such as non-touch gesture sensors, virtual reality, augmented reality and mobile app development, 2014 - 2017.

Journalism Interactive Conference, Invited speaker, "Future of Virtual Reality and Augmented Reality," October 2017.

WTVD ABC11. Developed social and technology strategy and interactive media workshop for local broadcaster in 2015.

Central Intelligence Agency, United States government. Trained subject matter experts and intelligence analysts to use narrative data visualizations and emerging technologies to better communicate with internal stakeholders, April 2015.

The New Republic. Consulted on interactive media and digital newsroom workflow. Spring 2015.

Interactive Journalism Conference, Invited speaker, "Teaching and Creating Data Journalism," April 2015.

Journalism Interactive, National board member, January 2012 - 2015.

Online News Association, Invited speaker, "Future of Virtual Reality Journalism," October 2014.

Interactive Journalism Conference, Invited speaker, "Tools for Interactive Journalism," April 2014.

Interactive Journalism Conference, Panel moderator, "Current State and Future of Data Journalism with Hannah Fairfield of NYTimes and Jeremy Bowers of NPR," April 2014.

Online News Association, Invited speaker, "Future of Non-Touch Gesture-Based Storytelling," October 2013.

PhotoGenX, International Injustice Storytelling Track, Professor of multimedia storytelling in Jakarta, Indonesia, June 2013.

Interactive Journalism Conference, Guest speaker, "Future of Non-Touch Gesture-Based Storytelling," February 2013.

North Carolina Virtual Public School, Curriculum Advisory Panel for photography and videography courses, July 2012.

The Mountain Workshops. The leading national photojournalism and multimedia journalism workshop. Invited speaker and story concept consultant, "Video Journalism at The Washington Post," Somerset, K.Y., October 2012.

North Carolina Museum of Art, Art of Videography Think Tank, panelist, curriculum advisor and editor, July 2012.

North Carolina Museum of Art, Power of the Image Symposium, Invited speaker, "Behind the Camera of History Changing Moments," presented to North Carolina educators and high school students at NCMA, Raleigh, N.C., April 12, 2012.

PhotoNight at UNC Chapel Hill, Invited speaker, "From Overseas Correspondent to Newsroom Editor to Professor," Chapel Hill, N.C., September 2011.

Temple University, School of Computer Science, Guest lecturer, "Visual Development for Innovation," April 2010.

News Innovations Conference, Guest speaker, "How to Innovate in a Print Newsroom," February 2010.

Judging

National Emmy Awards, Juror, May 2013, 2014 and 2015.

Society of Travel Writers, Interactive website competition juror, May 2012, 2013 and 2014.

Society of Travel Writers, Mobile application competition juror, May 2012, 2013 and 2014.

Southeastern Journalism Conference Contest, Interactive news website competition juror, January 2012.

Training

North Carolina Scholastic Press workshops. Taught various workshops for North Carolina Scholastic Press for high school journalism advisors and students. Topics mainly include new publishing technologies and videojournalism. 2012 - current.

UNC Interactive Design and Development Workshop, Director and faculty, Chapel Hill, N.C., May 2013, 2014 and 2015.

Interactive Journalism Workshop. Developed and taught "Intro to Programming for Journalists" as workshop instructor, College Park, M.D., April 2013.

UNC Multimedia Bootcamp, Interactive journalism instructor, Chapel Hill, N.C., May 2012.

Eddie Adams Workshop, Multimedia instructor and producer, Jeffersonville, N.Y., October 2010.

Media Appearances

Featured in, Spears, D. (2018, August 9). StarNews, UNC artificial intelligence project nets \$35,000 grant. [online] <http://www.starnewsonline.com/news/20180809/starnews-unc-artificial-intelligence-project-nets-35000-grant> [Accessed 25 August. 2018].

Quoted in, Bulman, M. (2018). The Future of News Integrity: – Virtual Reality Pop. [online] Virtual Reality Pop. Available at: <https://virtualrealitypop.com/the-future-of-news-integrity-85f859969109> [Accessed 25 Jul. 2018].

Featured in, Chapel Hill Economic Development. (2018, April 2). [online] <https://chapelboro.com/town-square/stories-town-chapel-hill-economic-development> [Accessed 25 Jul. 2018].

Featured in, NexUX (2017). EMERGING TECHNOLOGIES FOR PUBLIC STORYTELLING. [podcast] NexUX. Available at: <http://nexux.ncsu.edu/blog/technologies-for-storytelling> [Accessed 25 Jul. 2018].

Featured in, Seelinger, P. (2017). 360 Degrees of Storytelling. [online] Endeavors.unc.edu. Available at: https://endeavors.unc.edu/360_degrees_of_storytelling/ [Accessed 25 Jul. 2018].

Featured in, Pagunuran, G. (2017). UNC professor builds robot with 360 video capabilities that can follow reporters. [online] The Daily Tar Heel. Available at: <http://www.dailytarheel.com/article/2017/11/steven-king-robots-1127> [Accessed 25 Jul. 2018].

Featured in, Rhodes, D. (2017). Storytelling Leads to Innovation in Chapel Hill: Steven King - Chapel Hill Economic Development. [online] Opentobusiness.biz. Available at: <https://opentobusiness.biz/news/storytelling-leads-to-innovation-in-chapel-hill> [Accessed 25 Jul. 2018].

Quoted in, Robertson, J. (2017). Fight fire with fire: Takeaways from the 2017 Journalism Interactive conference - Storybench. [online] Storybench. Available at: <http://www.storybench.org/fight-fire-fire-takeaways-2017-journalism-interactive-conference/> [Accessed 25 Jul. 2018].

Featured in, Sachs, A. (2016, May 27). A behind-the-scenes look at 360-degree video. [online] https://www.washingtonpost.com/lifestyle/travel/a-behind-the-scenes-look-at-360-degree-video/2016/05/26/ae255caa-1d43-11e6-b6e0-c53b7ef63b45_story.html [Accessed 25 Jul. 2018].

Featured in, Doll, M. (2014). How North Carolina, Syracuse Students Teamed Up on Ebola Mapping Project - MediaShift. [online] MediaShift. Available at: <http://mediashift.org/2014/12/how-north-carolina-syracuse-students-teamed-up-on-ebola-mapping-project/> [Accessed 25 Jul. 2018].

Featured in, Owens, A. (2014). UNC-built website helps Liberian officials track Ebola :: WRAL.com. [online] WRAL.com. Available at: <https://www.wral.com/unc-built-website-helps-liberian-officials-track-ebola/13985597/> [Accessed 25 Jul. 2018].

Featured in, Blanford, A. (2014). UNC professor tries to stop Ebola from spreading in Africa. [online] ABC11 WTVD. Available at: <http://abc11.com/health/unc-professor-tries-to-stop-ebola-from-spreading-in-africa/355334/> [Accessed 25 Jul. 2018].

Featured in, Mennel, E. (2014). Liberia Asks Chapel Hill For Help With Ebola Outbreak. [online] WUNC.org. Available at: <http://wunc.org/post/liberia-asks-chapel-hill-help-ebola-outbreak> [Accessed 25 Jul. 2018].

Featured in, Gergen, h. and Martin, S. (2014). Doing Better: UNC students develop online tool for tracking Ebola outbreak. The News and Observer. [online] Available at: <https://www.newsobserver.com/news/business/biz-columns-blogs/article10106678.html> [Accessed 25 Jul. 2018].

Featured in, Namkoong, H. (2014). The Ebola Outbreak's Cyber Connections to North Carolina - North Carolina Health News. [online] North Carolina Health News. Available at: <https://www.northcarolinahealthnews.org/2014/10/03/the-ebola-outbreaks-cyber-connections-to-north-carolina/> [Accessed 25 Jul. 2018].

Quoted in, Media Shift At ONA14, A Showcase of When Digital Journalism Becomes Physical Journalism. (2014, October 1). [online] <http://mediashift.org/2014/10/at-ona14-a-showcase-of-when-digital-journalism-becomes-physical-journalism/> [Accessed 25 Jul. 2018].

Featured in, Spinner, J. (2014, October 24). The Big Conundrum: Should Journalists Learn Code? [online] <http://ajr.org/2014/09/24/should-journalists-learn-code/> [Accessed 25 Jul. 2018].

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Quoted in, Landgraf, G. (2014, October 8). Tracking Ebola in Liberia. [online] <https://americanlibrariesmagazine.org/2014/10/03/tracking-ebola-in-liberia/> [Accessed 25 Jul. 2018].

Featured in, Clark, J. (2014, September 14). UNC app helps track Ebola growth. Available at: <https://carolinaconnection.org/2014/09/13/app-helps-track-ebola-growth/> [Accessed 25 Jul. 2018].

Featured in, Ali, T. (2014, September 11). Visualizing the Ebola outbreak. [online] https://archives.cjr.org/data_points/visualizing_the_ebola_outbreak.php [Accessed 25 Jul. 2018].