

Steven T. King  
The University of North Carolina at Chapel Hill  
School of Media and Journalism  
Kenan-Flagler Business School

Assistant Professor of Emerging Technology  
Chief Innovation Officer of Reese News Lab  
Faculty Lecturer and Director of KF-Next

77 Carroll Hall  
Campus Box 3365  
steven.king@unc.edu  
919-360-8907

## 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, School of Media and Journalism, January 2014-current.  
Faculty Lecturer, Kenan-Flagler Business School, January 2017- current.  
Instructor, School of Media and Journalism, July 2011-December 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 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

### 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: *Undercurrent 360*

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

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

Award Date: October 9, 2016.

Publication Date: April 17, 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: Development funded by \$20,000 Washington Post Innovation Fund.

### Tony Blair's Commission on Africa

After working directly with the organization through the peak of the epidemic, 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 2014-15 .

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 graduation.

### Horizon Interactive Awards

The Horizon Interactive Awards are one 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 for *Living Galapagos*, 2012

Gold in Interactive Presentation for *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 for *Congresswoman Shot*, 2012.

Award for Online News Video for *Under Suspension*, 2012.

### Regional Emmy Awards

The Regional Emmy Awards are considered the Oscars of local television and recognizes 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

### Pictures of the Year International

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

3rd Place, Best Use of Multimedia. The Mountain Workshops website, Role: Multimedia coach and producer, 2008.

1st Place, News Picture Story. *Afghan Election*, Role: 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, Role: Multimedia Producer, 2004.

### National Press Photographers Association's Best of Photojournalism

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

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

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

### National Thoroughbred Racing Association

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

## BIBLIOGRAPHY AND PRODUCTS OF SCHOLARSHIP

### Innovations and New Technologies

#### **Mr. Reese: Artificially intelligent journalist messaging bot**

Leveraging IBM's Watson Cognitive Computing technology, the Mr. Reese bot uses thousands of newspaper readers questions and hundreds of journalists' responses and indexes of 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. but is built for broader deployment.

#### **Faciem AR: Augmented Reality and Facial Recognition Experience for field/beat journalists**

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

#### **C-Note: Community Notification Tool for Local Media Publishers**

This three-pronged approach provides an administration tool, Android app and iOS app that enables small, family-owned publishers to deliver timely push notifications to their readers in an inexpensive way. This innovation solves economic and technology issues that face publishers like the Whitesville News Reporter that is the testing market for the technology.

#### **VR Drone: Flying camera platform for recording live Virtual Reality Video**

The custom-built large hexacopter captures smooth 360-degree video aerial content for news organizations and film productions using a custom gimbal commissioned for this solution. The New York Times is a partner and will be the first to use the drone in an upcoming international project to be published in Spring 2017. The VR Drone was presented at Journalism Interactive in October 2017.

#### **VR Robot: Human-tracking robot for recording and streaming live Virtual Reality Video (360 Video)**

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 Journalism Interactive and presented at Online News Association Conference in 2016. Journalism Interactive is the top academic media innovation conference and ONA the largest professional organization. Ducille is being used by WRAL, a local news broadcaster and was used by The Washington Post at the 2016 presidential political conventions. The robot is in the commercialization process for launch in Spring 2018.

#### **VR LifeStream: Mobile Real-time stitching and streaming process for 360 video content.**

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

### **FilmSync: Contextual information delivery system for asynchronous viewing of linear experiences**

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 in 2014.

This technology engages with the journalism industry 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.

### **Non-touch Gesture Interfaces for interacting with 3D models and 360 videos.**

This new experience was envisioned and developed as an interface for *The Washington Post* to display a 3D model of the U.S. Capital dome. The interface allows users to interact with the content without touching any computer device. The technology was presented at the 2015 White House Correspondents dinner as part of a future technology exhibit.

### **Non-touch Gesture Interfaces for Consuming News and Social Media**

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.

## Bibliography

**KF-Next Cameroon**, Virtual Reality business simulation that engages business students through immersive storytelling. Published by Kenan-Flagler Business School, Fall 2017.

**First Look VR**, 360-degree video application to engage middle and high school students in rural North Carolina about college opportunities. Created partnerships with UNC Visitor's Center, UNC General Administration and the Federal GearUP program, May 2017

**Out of the Blue: Galapagos in 360**, *The Washington Post*, May 27, 2016  
<https://www.washingtonpost.com/graphics/lifestyle/galapagos/>

### **Innovative Interactivity Editor and Contributor**

*Innovative Interactivity* is an online publication reaching more than 5,000 multimedia journalism professionals. Wrote and cultivate articles on current issues facing the visual storytelling industry. Editor from 2012-2014.

### **Contributor to Open Source Development Projects**

News Quiz: Interactive news quiz technology used by various media organizations. Contributor and provided responsive design upgrades and enhancements. Publication Date, 2014.

DepthJS: JavaScript engine for controlling web pages through non-touch gestures. Contributor and provided fixes and feature enhancements to the Massachusetts Institute of Technology Media Lab project. Publication Date, 2013-2014.

### **Photography Published in Online News Publications**

*Evolving in The Industry*, NPPA: The Visual Student, Publication Date, January 18, 2010.  
<http://blogs.nppa.org/visualstudent/2010/01/18/evolving-in-the-industry-steven-king/>

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

### **Photography Published in Books**

*America 24/7*, Alabama ed., Publication of seven images published in the Alabama state book. Publication date, 2004.

## Government and Industry Consulting and Service

### *WRAL*

Developed Virtual Reality strategy for local broadcaster in 2017 for deployment in 2017 and 2018.

### *News Reporter*, Whitesville, N.C.

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

### Office of the Joint Chiefs, United States Military

Worked with multiple officers from the Pentagon and government contractors to help in a multi-branch, multi-agency preparedness simulation that included implementing and teaching with new media technologies during intense situations in Summer 2017.

### *Time Magazine*

Consulted on Virtual Reality and Augmented Realty concepts and designed a 360-video player used in 2016 publications.

### 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 Washington Post*

Consulted on new and emerging technologies such as non-touch gesture sensors, Virtual Reality, Augmented Reality and mobile app development. 2014 – current.

*The New Republic*

Consulted on interactive media and digital newsroom workflow, Spring 2015.

## TEACHING RECORD

### **European Union Faculty Exchange Program**

Presented lectures and worked directly with faculty on leveraging emerging technologies such as Virtual Reality and Augmented Reality for narrative storytelling. Summer 2017.

### **Institute for Defense and Business**

#### **Media Engagement Workshop for Thailand National Broadcasting and Telecommunications Commission**

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, 2016.

### **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.

### **The University of North Carolina at Chapel Hill**

**ABC 11 Interactive Media Workshop**, Three, two-day workshops to train 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, 2015.

**JOMC 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. Fall and Spring 2011 to current.

**JOMC 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.

**JOMC 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. Fall and Spring 2011 to current.

**JOMC 583 Advanced Multimedia Programing.** 3 Credits. An advanced course for journalist to developer 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 and 2013.

**JOMC 584 International Documentary Projects,** co-teaching with Patrick Davison. 3 Credits. Students learn to find, document and present stories in other countries for a final documentary website. AndamanRising.org, ReframingMexico.org, LivingGalapagos.org Summer 2008, Spring 2010 and Spring 2012.

**JOMC 660 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.

**JOMC 717 Information Visualization MATC** 3 Credits. Explores the overlap between several disciplines: cognitive science, graphic design and information visualization. Student learn the basics of graphic design and how to present data visually. Summer 2013 and 2014.

**ONA and NPPA Internship and Job Workshop.** Student 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 THESES COMMITTEE CHAIR

Roush, Natalie, M.A. Migration into Thailand. Thesis committee chair, Pending Spring 2017



Lau, Adam, M.A. Environmental Issues with an oil pipeline in North Carolina. Thesis committee chair, Pending Spring 2017 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, Pending Spring 2017 Note: this is a joint thesis with Lau.

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

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

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

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

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

Roberts, John, M.A.T.C. Computer and Human-assisted Curating of storytelling. Thesis Committee Chair, Pending 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, Pending Spring 2017

Robbs, Maureen, M.A.T.C. Eye Tracking Usability Tasks on a Cisco Webpage Thesis Committee member. Pending 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

GearUP and UNC General Administration, Sponsored Research Grant. \$110,000 for innovation in 360 videos for middle and high school students. July 2017-2018.

Kenan-Flagler Business School. \$100,000 for content creation and innovation in virtual reality development. 2017-2018.

UNC General Administration, FirstLook VR, Sponsored Research Grant. \$79,000 for innovation in 360 videos for middle and high school students. July 2016-2017.

Knight Foundation, \$3 million grant to four faculty members to create the Center for Innovation and Sustainably in Local Media. 2015 to current.

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

*The Washington Post* Innovation Fund. \$20,000 for development of non-touch gesture interfaces of 3D models. January-April 2015.

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

## 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 to current.

Thailand Media Engagement Seminar. Faculty leader, instructor and advisor on Thai Media and human-centered policy writing. Bangkok, Thailand. Taught and helped create curriculum on a strategic communication plan for Thai National Broadcasting and Telecommunications Commission (equivalent to United States Federal Communications Commission) dealing with Islamic insurgents in the Deep South of Thailand, Summer, 2015.

Ebolainliberia.org. Co-creator, developer and data visualizer. At the request of the Ministry of Information in Liberia, worked with colleagues and students to create a data dashboard that was used by the government in Liberia to make important healthcare decisions in fighting Ebola and was used to brief the president of Liberia daily. August 2014 through March 2015.

onField inField. Role: 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.

## SERVICE | SCHOOL OF MEDIA AND JOURNALISM

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

Reese News Lab. Interim Director, July 2016 – August 2017.

UNC School of Media and Journalism. Faculty Compensation Committee member, 2015 – 2016.

UNC School of Media and Journalism. VisCom curriculum coordinator and Curriculum Committee member, 2015 – 2016.

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

UNC School of Media and Journalism. Faculty Search Committee for MATC and VisCom Design Professor, 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. Led students to cover Super Storm Sandy on the Virginia and Maryland coast for *The Washington Post*. Student work was presented on homepage of washingtonpost.com for 20 hours and became the most-viewed video on the site for two days. October 2012.

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

Reese News Lab. Consultant and Speaker, Fall 2011-current.

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

Korean News Editors Association. Invited speaker, "Journalist 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.

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

Invited and organized the presentations of the technology and journalism professionals of *The Washington Post* Research and Design team, Spring 2012.

Invited and organized presentations with professional game designers working for the Scriptsfunded FiveNineOne Games, October 2012.

## **SERVICE | COMMUNITY AND INDUSTRY**

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

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

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.

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

North Carolina Virtual Public School, Curriculum Advisory Panel for Photography and Videography courses, July 2012 - current.

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.

The Mountain Workshops, The leading national photojournalism and multimedia journalism workshop. Invited speaker and Story concept consultant, "Video Journalism at *The Washington Post*," Somerset, KY., October 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 Lecture, "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 and May 2014.

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**

Mobile Journalism Tools and Technology Workshop. Developed and taught for the WTVD newsroom over three, two-day courses, Summer 2016.

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

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

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

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