

## **UCGIS Research Committee Report, July 2020 – June 2021 @UCGIS Annual Symposium 2020**

This report covers the activities of the Research Committee for the period from July 2020 to the 2021 UCGIS Symposium (online).

UCGIS Research Committee Members, July 2020 – June 2021:

- Yongmei Lu, Texas State University - San Marcos (Chair)
- Wenwen Li, Arizona State University (Vice Chair)
- Marc Armstrong, University of Iowa
- Jennifer Bernstein, University of Southern California
- Ling Bian, University at Buffalo
- Yingjie Hu, University at Buffalo
- Wenwen Li, Arizona State University
- Shih-Lung Shaw, University of Tennessee
- Daoqin Tong, Arizona State University
- Ming-Hsiang Tsou, San Diego State University
- Lynn Usery, U.S. Geological Survey
- Jelena Vukomanovic, North Carolina State University
- Chen Xu, University of Wyoming
- Enki Yoo, University at Buffalo
- Ahoura Zandiatashbar, San José State University
- Zhe Zhang, Texas A&M University
- Lei Zou, Texas A&M University

Major activities during this reporting period include the following:

### **1. 2020 UCGIS Research Award**

The UCGIS Research Award Review Committee for 2021 was comprised of the committee chair, Michael Leitner (Louisiana State University), and committee members Kate Beard-Tisdale (University of Maine), Yingjie Hu (University at Buffalo, SUNY), and André Skupin (San Diego State University). The Committee selected Dr. Brian Berry, the Lloyd Viel Berkner Regental Professor in the School of Economic, Political and Policy Sciences at the University of Texas at Dallas, to receive 2021 UCGIS Research Award. This award recognizes Berry's groundbreaking spatial analysis work in methodological and theoretical GIScience developments over many decades, epitomized by his fundamental and innovative contribution of the geographic matrix to GIS. Berry's achievements in spatial analysis, with an early emphasis on the regional sciences, have been transformative to our discipline.

### **2. Four research initiatives and activities**

(more details can be found at <https://www.ucgis.org/committees>)

- 1) Cyber GIS and Decision Support Systems (Leader: Zhe Sarina Hang)
  - i. A conference session at the Symposium on Human Dynamics Research during 2021 AAG Meeting;

- ii. Special Journal Issue with *Transactions in GIS*; to be published in August 2021.
- 2) Developing Open and Reusable Geo AI Tools for GIScience Research and Education (Leader: Yingjie Hu)
- i. Special journal issue with *GeoInformatica*; Call-for-submission at <https://www.springer.com/journal/10707/updates/17573556>; delayed due to the pandemic; new deadline as November 30, 2021.
  - ii. Workshop on "Integrating Machine Learning into Geographic Research" as part of the "AAG Learning Series for Graduate Students: Geography Methods during a Pandemic".
- 3) Convergence Research of GIScience, Humanities, and Social Sciences (Leaders: Shih-Lung Shaw & Chen Xu)
- i. Multiple conference sessions as part of the Symposium on Human Dynamics Research at 2021 AAG Meeting;
  - ii. Member participating in UCGIS Symposium 2021 session, "GIScience-Informed Evaluations of COVID-19 Policy Responses";
  - iii. Book project: Shaw, S. and D. Sui (editors), 2021. *Mapping COVID-19 in Space and Time: Understanding the Spatial and Temporal Dynamics of a Global Pandemic*. Springer.
- 4) Synergistic Integration of GIS and Public Health (Enki Yoo & Yongmei Lu)
- i. A new research initiative launched in November of 2020;
  - ii. A Panel session at UCGIS Symposium 2021, 'GIS & Community Health';
  - iii. Preparation for organizing a Forum with the Annals of the AAG.

### 3. Research Committee Meeting

UCGIS Research Committee held a committee meeting on June 9, 2021 (an online meeting through zoom). Many Committee members and delegates from member institutions attended the meeting. After a brief greeting and introduction by the chair of the Research Committee, the leaders of the four Research Initiatives gave their respective reports on the related activities and plans. Meeting attendees shared their suggestions for future UCGIS Research Committee activities and approach strategies in order to continue promoting UCGIS in coordinating and leading GIScience research. Discussions were held to reflect on the selection process of UCGIS Research Award. The Research Committee decided to form a sub-committee to lead the needed review and revision of UCGIS Guidelines for UCGIS Research Award.

Respectfully submitted,  
 Yongmei Lu  
 Chair, UCGIS Research Committee  
 July 8, 2021