Shifting Paradigms in Information Flow

Gaetano R. Lotrecchiano, EdD, PhD
Clinical Research and Leadership
School of Medicine and Health Sciences

Megan Potterbusch, MLIS
Acting Data Sciences Librarian
GW Libraries

GW

University Seminar Exploring Team Science

Creating a Culture of Collaboration at George Washington University (C³@GWU): University Seminar Think Tanks and Aims

Lotrecchiano, GR[1,3]; Cleary[2], S; McDonald, PL[1]; Misra, S[4]; Storberg-Walker, J[5]; Watkins, R[5]

[1]George Washington University, Department of Clinical Research and Leadership, School of Medicine and Health Sciences, Washington, DC, USA; [2]George Washington University, Department of Statistics and Epidemiology, Milken Institute School of Public Health, Washington, DC; [3]George Washington University, Center for Health Innovation and Policy Research, School of Medicine and Health Sciences, Washington, DC; [4]Virginia Tech University, Urban Affairs and Planning at the School of Public and International Affairs, Blacksburg, VA; [5]George Washington University, Graduate School of Education and Human Development, Washington, DC

*Corresponding Author: Gaetano R. Lotrecchiano, EdD, PhD, Glotrecc@gwu.edu, 202-994-9855

Being a Cross-Disciplinary Scientist

- To explore and understand what being a cross-disciplinary scientist means and entails.
- To develop a framework for conceptual skills and

Collaborative Technologies and Informetrics

- To engage in scholarly discourse on technologies for project management, sensemaking, data analysis, and knowledge sharing.
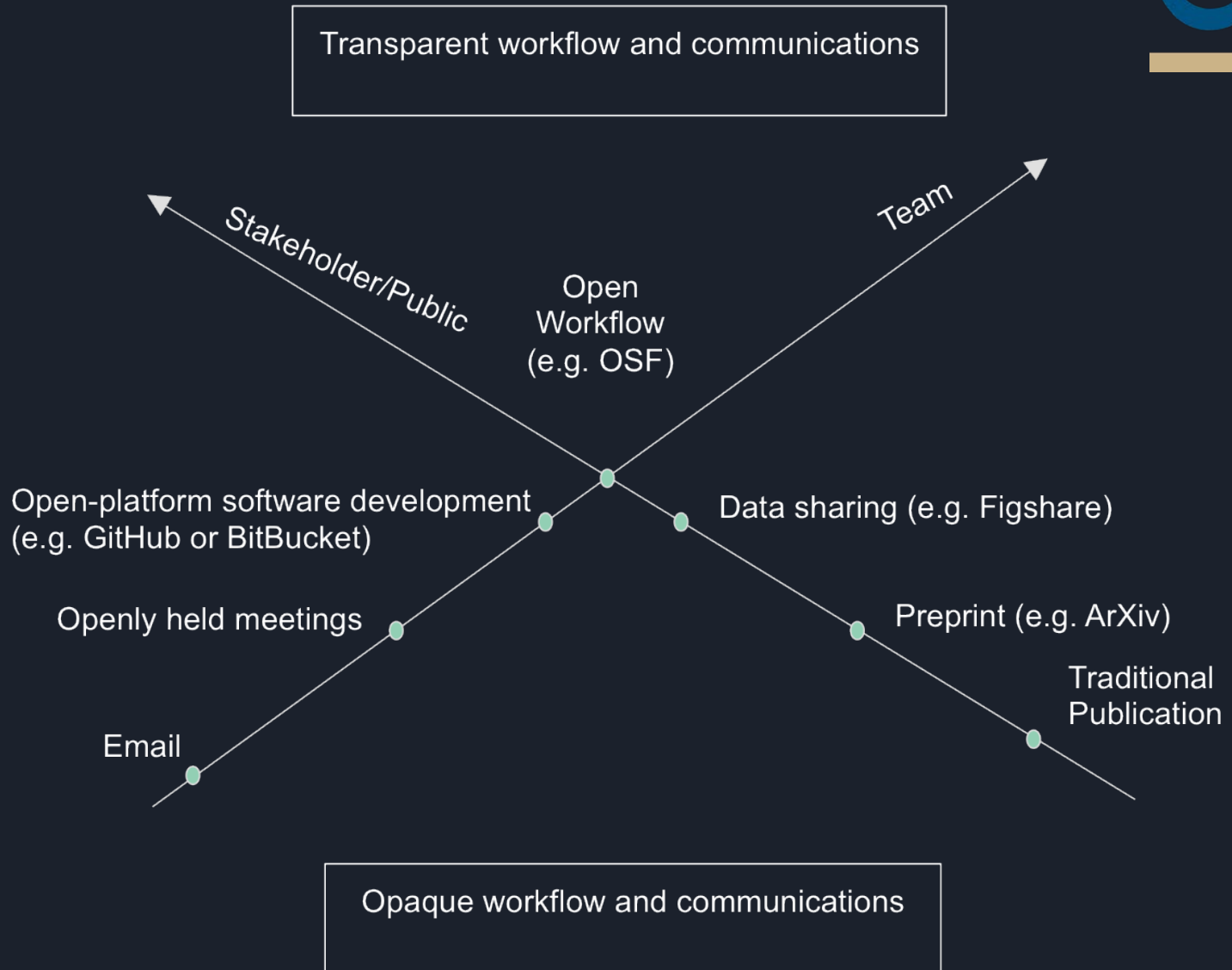
Aspects of Open Science Theory

- **Infrastructure**
  - Openly available platforms, tools and services for scientists
- **Public**
  - Accessible for citizens
- **Measurement**
  - Alternative metric system for scientific impact
- **Democratic**
  - Knowledge freely available for everyone
- **Pragmatic**
  - Process of knowledge creation more efficient and goal oriented

Fecher, B, & Friesike, S. (2014). Open Science: One Term, Five Schools of Thought. DOI:10.1007/978-3-319-00026-8_2

Figure to enhance understanding of tools

Transparent workflow and communications

Stakeholder/Public

Team

Open Workflow (e.g. OSF)

Open-platform software development (e.g. GitHub or BitBucket)

Data sharing (e.g. Figshare)

Openly held meetings

Preprint (e.g. ArXiv)

Traditional Publication

Email

Opaque workflow and communications

Paradigm Shifts

- Workflow culture

  - Pairing the need for success with teaming procedures
  - Practicing the sharing of knowledge as a common team and stakeholder activity
  - Linking knowledge to identified and deeply shared values
  - Constantly underscoring that information networks are human networks
  - Recruiting scientific team members and stakeholders that already understand the value of openness and sharing

McDermott, R., & O'Dell, C. (2001). Overcoming cultural barriers to sharing knowledge. *Journal of Knowledge Management, 5*(5), 76–85.

Paradigm Shifts, cont.

- Ownership of knowledge
  - Attitudes
  - Individual Ownership <> Group Ownership
- Readiness to share openly
  - Collaborative
  - Technological
- Functionality and organizing structures
  - Group-driven to User-driven
- Trust