

RELATIONSHIP-BUILDING: A KEY SOCIAL CONVENTION FOR RESEARCHERS



Event

Researchers working on GE³LS – the ethical, environmental, economic, legal and social issues associated with genomics research – are a highly diverse group. They are also fragmented and dispersed, often working in isolation from one another according to their institutional, geographical and disciplinary setting. Tracking GE³LS researchers' networks and knowledge exchanges within them is consequently difficult. Social network analysis (SNA) provides a useful way of identifying and characterizing the complex and dynamic interactions and exchanges that occur among researchers.

Significance

Social network analysis is a powerful tool for explaining variances in social behavior, institutional dynamics and resources and can also be used to evaluate the socio-economic outcomes of GE³LS and scientific research.

Analysis

Where academic disciplines, public and private sectors and geopolitical boundaries overlap, traditional approaches for evaluating performance and outcomes of research networks may no longer be effective. GE³LS research on agriculture and agro-industrial products is located in the 'fuzzy' territory of academic inter-disciplinarily and is often a collaboration and exchange with the public and private sectors. How GE³LS researchers construct their research community through networking and knowledge exchange remains an important research question in its own right, one with implications for knowledge mobilisation of GE³LS and science and technology research.

In this respect, GE³LS research represents a newly organized research paradigm immune to analyses focused on input-output models viewed as mere sums of parts. Linear models of GE³LS research and knowledge mobilisation are unhelpful because they conceal the complex and typically unpredictable nature of relationships and patterns of network development and knowledge creation and mobilisation. The knowledge-intensive, multi-disciplinary, multi-institutional and geographically dispersed network that comprises GE³LS research is better interpreted as a loosely organised system. The GE³LS research network operates more as an ecosystem with a structure and function affected by a complex blend of externalities and driven by human behavior and choice.

GE³LS can be construed as a social network where, as Kauffman (1993) suggests, knowledge outputs are necessary inputs for network expansion. Various types of knowledge are brought together to create new (and new types of) knowledge, thus sustaining or expanding the network and its output. SNA identifies patterns of interaction of individuals, actors or institutions, as well as knowledge flows within a network. It shows how knowledge intensive work is done or can illustrate complex communication channels within a network. As a tool for analysis, SNA views actors and actions as interdependent units. It acknowledges that relational ties between agents provide channels for transfer or flow of resources and can also create opportunities for or constraints on individual action. SNA can help to identify boundary spanners, gatekeepers, knowledge bottlenecks and, most importantly, can identify under and over-utilised individuals, organizations or resources. SNA is a tool that will enable VALGEN to:

- ❖ Understand how science and social science is governed in a complex, multi-disciplinary environment;
- ❖ Identify gaps and opportunities for linkages in and amongst actors within the network, and;
- ❖ Launch longitudinal studies of VALGEN's impact on science/social science research communities.

Conclusion

Social network analysis is an indispensable method by which networks of researchers and their knowledge mobilisation efforts can be characterized. SNA allows VALGEN to fine-tune its three-theme research portfolio and enables the calibration of value-adding activities to maximize impact on GE³LS and scientific research communities.

Kauffman, S.A. 1993. *The Origins of Order: Self Organization and Selection in Evolution*. Oxford: OUP.