

Editorial

THOMAS W. VALENTE

Editor for Public Health and Medicine
University of Southern California Los Angeles, CA, USA
(e-mail: tvalente@usc.edu)

The first two research articles in this issue of *Network Science* have a common theme—they use workplace contact patterns, in addition to other data, to model infectious disease spread.

Potter et al. (2015) use contact diaries, architectural distance, and institutional affiliations to define the network and model epidemic spread on this network. Their results show that incorporating architectural and institutional information substantively improves epidemic forecasting models.

In contrast, Génois et al. (2015) use data derived from spatial sensors worn by the office staff and build the network from spatial proximity data. Their epidemic simulations show that the size of the epidemic depends in part on the transmission rate. Interestingly, GVFPBB also find that department affiliation matters.

Thus, both articles affirm that this attribute affects network structure and the dynamics of potential epidemic spread within workplace settings. Both studies account for temporal contact dynamics and use sophisticated epidemic modeling approaches. Both studies discuss important containment/intervention strategies necessary to slow epidemic spread. These studies are exceptional in that they use simulations to understand disease spread and potential containment strategies; but base those simulations on combinations of empirical and unobtrusive data collected within real-world settings. We are very pleased to be able to publish both of them.

The PSS paper was initially submitted to the journal approximately nine months prior to the Génois, GVFPBB paper and hence appears first. We regret that online publication of PSS was stalled due to editorial delays, so its first online appearance unfortunately was later than GVFPBB.

References

- Génois, M., Vestergaard, C. L., Fournet, J., Panisson, A., Bonmarin, I., & Barrat, A. (2015). Data on face-to-face contacts in an office building suggest a low-cost vaccination strategy based on community linkers. *Network Science*, 3.
- Potter, G. E., Smieszek, T., & Sailer, K., (2015). Modelling workplace contact networks: The effects of organizational structure, architecture, and reporting errors on epidemic predictions. *Network Science*, 3.