



The Center for
Nanotechnology in Society
ARIZONA STATE UNIVERSITY

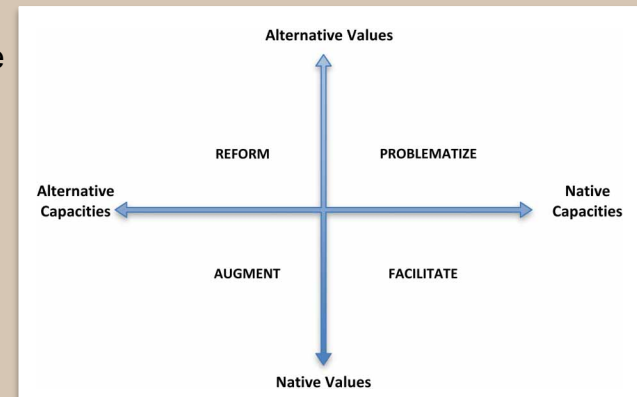
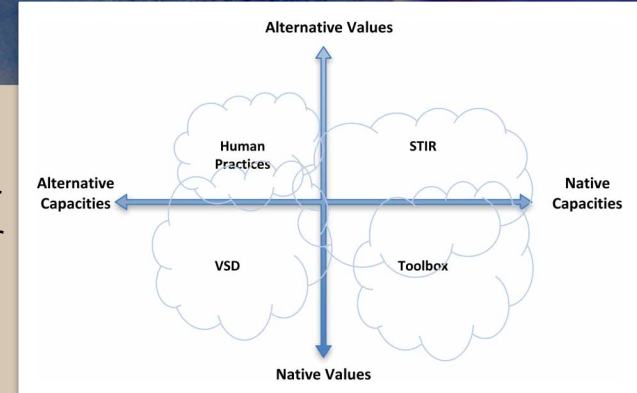
For the past five years, RTTA 4 leader Erik Fisher has led the Socio-Technical Integration Research (STIR) Project (NSF #0849101), which, in an effort to encourage technical experts to address the societal implications of their work, has embedded humanists into 28 nanotechnology and other laboratories worldwide.

But how do socio-technical integration methods differ, and why choose one integration approach over another? To help answer these questions, Fisher helped form the Communities of Integration Network (COIN), which held its second workshop at the University of Waterloo in June 2014.

One of the outputs of the workshops is a *JRI* article that establishes a framework to compare integration methods with respect to desired outcomes. While integration generally seeks to address limitations of technical expertise, choosing an integration method depends on the specific nature of that limitation and its potential remedy.

To What End? Characterizing Socio-Technical Integration Practices

All integration methods seek to alter or disrupt scientific practices, but different methods result in varying levels of either introducing new values and expertise, or reinforcing existing ones. Which integration approach is appropriate for a given situation depends on whether the desired outcome is to problematize, reform, augment, or facilitate existing practices. The new framework can serve as a guide when choosing integration methods or evaluating integration outcomes.



In addition to leading the STIR Project, **Dr. Erik Fisher** leads the CNS-ASU Real-Time Technology Assessment (RTTA 4) thrust, which aims to understand the dynamics of nanoscale science and engineering (NSE) laboratories through ethnographic and other methods.

Fisher, E. et al. (2015) **Mapping the Integrative Field: Taking Stock of Socio-Technical Collaborations.** *Journal of Responsible Innovation* 2(1), 39-61.



Research, education and outreach activities at CNS-ASU are supported by the National Science Foundation under cooperative agreement #0937591