Meta
• How do we build discourse around the promise of open science – particularly at a time when global support for research itself is under attack in many settings?
• How do we build discourse that encourages investment in the development and maintenance of research infrastructure?

Macro
• How do we ensure that data sharing practices work within the parameters of existing laws – such as copyright and requirements for human subjects research?
• How do we ensure that appropriate financial structures are in place to support and sustain the development and implementation of data infrastructure?

Meso
• How do we ensure that appropriate incentives are in place to encourage researchers to participate in data sharing and infrastructure development?
• What governance structures best support collaborative research projects?
• What sorts of support systems and organizations are needed to both enable and encourage collaborative work?
• How do we network diverse national and interdisciplinary efforts to build data infrastructure with each other and local data sharing communities?

Micro
• How does data sharing change the research workflow?
• How do we build data workflows that align with diverse research methods and practices?
• How do we prepare researchers to work with data infrastructure – to integrate data best practice into their day-to-day work?

Techno
• How do we select which standards and technologies get enlisted in shared data infrastructure, or in other words, which become “best practice”?
• How do we network these technologies in ways that work for interdisciplinary communities?
• How do we factor the time to build technologies into research projects?
• How do we ensure there are (affordable) places to put new technologies and data?
• How do we ensure that the infrastructure (Internet access, bandwidth, and processing power) needed to support data sharing technologies are accessible to humanists?

Data
• How do we design data architecture to protect the diversity of analytic modes and thought styles across research traditions?
• How do we design and structure data architecture and configurations to fairly represent information?

Nano
• How do we convince humanists that data-sharing is a worthwhile endeavor, particularly in fields that are technology-averse or tend to work in isolation?
• What educational programs would orient the next generation of DH researchers towards seeing data sharing as, not only a valuable endeavor, but also an imperative one?
• How can researchers best deal with the paradoxical need for research data infrastructure customized in keeping with their own research tradition, yet with enough standardization to allow research data sharing among different communities?
**Meta** - Meta-level analysis is concerned with discourse about data sharing and open science. At a time when many humanities communities do not see it as priority to invest in data infrastructure, we are challenged with developing language to communicate the value and imperative of data sharing and collaboration. Such a global culture shift will be necessary to gain support at the macro level (where funding is secured and legal support gained).

**Macro** - Macro-level analysis focuses attention on the financial and legal structures needed to support the continued work of data sharing communities and organizations. Enabling the work described in each of the other levels will require that funding be made available to support infrastructure development and collaborative research. It also will require legal support in a landscape where what it means to own, manipulate, and distribute content is rapidly change.

**Meso** - Meso-level analysis focuses attention on organizations, and the way I see it there are organizational challenges for opening the empirical humanities at multiple scales. In one sense, building and leveraging data sharing infrastructure often requires new forms of both disciplinary and interdisciplinary collaboration. These new collaborations will require that data sharing communities evaluate how different researchers with different skill sets will work together and hold each other accountable, particularly when such work is often unpaid. To enable such collaborations, there also need to be organizational structures in place that incentivize both data sharing and participation in collaborative work. This requires much broader organizational evolution in what counts as “scholarly work.” Finally, recognizing that building and maintaining the infrastructure for global and interdisciplinary data sharing will require many different organizations and research communities working together, we need organizational structures that can network the appropriate expertise, support, and outputs.

**Micro** - Micro-level analysis focuses attention on practice – both data practice and research practice. Work in Science and Technology Studies has shown that attempts to create standards for data sharing inevitably creates “friction” between interdisciplinary communities. This is often because different communities follow different research workflows. Thus, in order to build infrastructure for data sharing, different research communities need to make tacit workflows explicit. This is particularly challenging for humanists, who have often never thought through their research workflows in computational terms.

**Techno** - Techno-level analysis focuses attention on technology design, functionality, skill, and sustainability. Many different types of technologies are needed to support data sharing – both material technologies (servers, databases, platforms) and non-material technologies (standards, classifications). Further, to make data sharing work, all these technologies need to be appropriately networked. This requires time, skill, funding, and space to store material infrastructures.

**Data** - Data-level analysis focuses attention on data architecture and configuration – how information is organized (highlighting some things and sidelining others). As Kim Fortun noted, “At least two kinds of humanities work needs to be done at this level. Given the way data architecture and configurability implicates how meaning and value is produced, humanities scholars need to analyze data architectures and configurations as they have long studied texts and performance. Further, to enroll humanities scholars in the use of digital research infrastructure, such infrastructure will need to render embedded epistemological assumptions explicit so that researchers can select infrastructure in keeping with their theoretical commitments.”

**Nano** - Nano-level analysis focuses attention on the frames, paradigms, and thought styles through which researchers carry out their work. The cultures of different disciplinary communities, the language ideologies that guide their work, and assumptions that they bring to their work all implicate the nano level.