Both Klein and Weingart take up the question of the nature of disciplines and their relation to interdisciplinarity, as does Turner in the reading I added for the third week. There are a variety of different conceptions of disciplinarity on offer, and we saw another one the other night from Frodeman. The discipline is an important category in the knowledge business—it serves to classify ways of generating knowledge that cut across institutions and borders; it provides a helpful proxy for sets of research problems, methods, and standards; it also aids in the organizations of communication mechanisms, such as conferences and journals. Disciplines are dynamic categories with vague and permeable boundaries that can be difficult to individuate in any sort of objective fashion—people who take themselves to belong to the same discipline (due to similarity of training, research, and publication) may disagree on how they classify their discipline. This disagreement is partially explained by the fact that disciplines are themselves organized in hierarchies, e.g., philosophical semantics ∈ philosophy of language ∈ philosophy, which leaves room for people to locate themselves at different levels in asserting their own disciplinary identity. In short, discipline is a useful category for carving up the map of knowledge.

Perhaps the most obvious way to think about disciplines is in terms of departments or majors. We are typically introduced to disciplines for the first time in college, which makes sense if Frodeman is correct about the modern university being the source and home of contemporary disciplines. It is in college that we find departments and select majors, making decisions in our own case about what specific units in the institution we want to be part of. Turner supports this institutional way of thinking about disciplines, although he sees them as being at bottom self-perpetuating, autonomously controlled markets that often (but not always) manifest as departments and majors. Frodeman last night also argued for an institutional, vaguely economic view of disciplines as social entities constructed around either natural kinds (i.e., a common ontology) or methodologies that determine peers and constrain communication among those peers. Here again, it makes sense to see disciplines as fundamentally connected to institutional entities like departments and majors, since those exist primarily to keep the focused information economies as bullish as possible. Weingart also recognizes disciplines as institutional entities that are socially constructed around communication objectives. He argues that they function internally as guilds, structuring an exclusive society of peers through mechanisms such as training and reputation, and externally as lobbying groups, celebrating to all who will listen the virtues of their particular perspective on the world. His discussion, though, notes the importance of disciplinary societies that don’t have their location within any particular university, distancing his view somewhat from the more academic interpretation of Frodeman.
These are all *extrinsic* conceptions of disciplinarity, since they locate the determining conditions for the concept in exogenous features, viz., the features of the contexts within which disciplines function. From the outside, disciplines manifest as socially constructed, institutional entities that are associated with societies, conferences, and journals, as well as university units that deliver learning opportunities to those who could be future members. But one can also think of disciplines *intrinsically*, emphasizing the endogenous features that are part of the experience of being a member of the discipline. These include social features and epistemic features. When we make decisions about which part of the institution we want to belong to, we typically make that decision not because our chosen group throws the best parties and contains the coolest people, but rather because the people in that part do what we want to do. Further, this decision about what we want to do has implications for what we want to know and how we want to know it, even if we don’t recognize that.

Three intrinsic conceptions of disciplinarity stand out. First, there is the idea that an academic discipline like molecular biology or biogeochemistry or sustainability science is associated with a certain knowledge culture. When you take classes in these disciplines, you learn what members of those disciplines take to be facts, and you also acquire facility with the methods utilized to establish those facts; together, these help reveal the discipline’s problem space and locate the knowledge frontier, enabling new initiates to begin seeing new issues and asking new research questions. This way of thinking privileges the objects and methods that condition what is known by experts in that discipline. A second way of thinking about disciplines de-emphasizes the ontology and methodology in favor of the specific form of life in which the disciplinary members participate. This can be understood as a set of lived practices commonly performed by a group of people who share a history, a language, and a worldview; these practices depend on tacit knowledge, habits, and other subconscious determinants of behavior. These are what one acquires when one becomes encultured in a discipline, through the training programs, conferences, and coffee shop interactions that effect the transition from student of the discipline to disciplinarian. Third, one might interpret ‘discipline’ less sociologically and more psychologically, taking it to refer to the focused practice one masters as one transitions from student to teacher. One becomes disciplined in a particular way, learning how to concentrate on a certain range of problems and exhibit a form of focused self-control that enables one to grapple efficiently with a certain class of problems. These conceptions can be classified as highlighting the perspective of the individual in the third case, the perspective of the disciplinary group in the first case, and a combined individual/social perspective in the second case.

These categories can be mapped, as exhibited below. The intrinsic/extrinsic distinction is intended to capture important differences among definitions of ‘discipline’, but it is important to recognize that the elements highlighted by those approaches are not incompatible; indeed, a more adequate characterization of disciplines as a category is a hybrid one that combines intrinsic and extrinsic elements. The set of specific definitions canvassed above is intended to be representative but not exhaustive.
In keeping with the idea that a “both/and” approach to defining ‘discipline’ is preferable to an “either/or” approach, I suggest the following definition: a discipline is an intrinsically constituted set of knowledge-relevant practices that is sufficiently widespread and stable to receive institutional support. This accommodates the intrinsic ideas of knowledge culture and professional practice while acknowledging that institutional recognition is typically required for something to qualify as a discipline for political purposes (e.g., association with funding programs). This definition comprises the five key purposes that Gabriele Bammer (2013) has identified as crucial to disciplinary function: serve as an organized knowledge repository, provide research identity, supply a community of peers, determine quality control standards, and serve as a source of political power.

While I believe that this conception of discipline adequately captures many of the aspects of disciplinary organization in knowledge enterprises, I am not completely sold on its utility for making sense out of what happens when one engages in interdisciplinary activity. Perhaps this is surprising—after all, interdisciplinary activity is explicitly interdisciplinary, so must it not have to do with the combination of disciplines? Isn’t there an important sense in which interdisciplinary activity unfolds according to the logic of disciplines? Yes and no. It is natural to think of academic institutions in disciplinary terms, breaking disciplines down typically in departments or programs, so projects that draw academic researchers from multiple departments are naturally described as interdisciplinary. Likewise, individual researchers often express their professional identity in terms of their discipline, making it natural to describe a collaborative project comprising individuals who self-identify in different ways as interdisciplinary. But in fact, disciplinary identity does not entail cognitive similarity—two philosophers of language may differ dramatically in their way of conceiving a common problem; further, disciplinary difference does not entail cognitive difference—a post-positivist sociologist might find a cognitive soulmate in a wildlife ecologist. Thus, sameness of discipline is neither sufficient nor necessary for sameness of cognitive perspective.
The reality of interdisciplinary activity is that you will bring your intellectual perspective—conditioned by your training, your reading, and your methodological expertise, but also by your upbringing, your values, and your lived experience—to every project in which you participate, and it will differ from those supplied by your collaborators. How important these differences are will depend on a number of factors, e.g., the degree to which you must integrate your perspectives, the nature of the problem you are addressing, and it may not be the case that the differences make a difference for a particular project. But the more you are expected to speak in a single voice with your collaborators, the more these differences will manifest and obstruct. Admittedly, if two collaborators self-identify as belonging to the same discipline, they will typically be able to rely on a shared background, which can make it easier for them to reconcile their perspectives (although think about a postmodern continental philosopher and a positivist analytic philosopher); however, that is not a given, and common intellectual history—perhaps even identical intellectual history—can be overridden by other influential aspects of life experience.

This leads to a suggestion that I will attempt to pursue and develop as the semester unfolds: just as Chomsky has argued that e-languages (e.g., English, Farsi) should be replaced as a unit of linguistic analysis by i-languages (i.e., the idiolect spoken by an individual), so too e-disciplines (e.g., philosophy, developmental psychobiology) should be replaced by i-disciplines as the preferred unit of analysis of difference in the context of collaborative interdisciplinary activity. Disciplines still have their utility, but they obfuscate and confound when used to tease out differences among collaborators in specific projects. This position is related (I believe) to the argument advanced by Krohn, and it is also related to work on meaning by Agustin Rayo.