Editors' Introduction

These are exciting times to be an interdisciplinarian. Whereas mere decades ago it was common to hear complaints from disciplinarians that interdisciplinary research and teaching were inevitably superficial, it is now widely accepted not only that interdisciplinarity is feasible but that it is essential in order to address complex problems or questions that transcend disciplinary boundaries. Yet dangers still loom. With everyone claiming to be interdisciplinary—at least when writing grant applications to granting agencies that increasingly encourage interdisciplinarity—it is crucial that the academy actively reflects on the nature of quality interdisciplinary work.

The Association for Integrative Studies (AIS) has long sought both to provide a theoretical underpinning for interdisciplinary teaching and research and to identify interdisciplinary best practices. Our website lists several new publications that pursue one or both of these goals. Moreover, AIS is interacting increasingly with other likeminded organizations internationally in order to further the goals of shared scholarly understandings of the nature of quality interdisciplinary research and teaching.

In its journal, as in its conferences and other publications, AIS encourages both very theoretical and very practical explorations of interdisciplinarity. Our primary concern is that articles published here contain general lessons about the nature and performance of interdisciplinarity. As co-editors we were very pleased by both the range and quality of submissions received this year, and we would like to thank our authors and referees for their hard work. Our acceptance rate for this volume was 42%. While the journal pursues very high academic standards, we are conscious that all of our submissions had much that was meritorious in them. Last but not least, we extend our immense gratitude to Phyllis Cox for copyediting and typesetting.

We begin this volume with a paper by James Welch IV who has undertaken the formidable task of showing how the idea of interdisciplinarity has arisen from, and is a response to, the key epistemological strategies of the Western philosophical canon. His goal is to situate interdisciplinarity in the History of Ideas and begin to lay the foundation for a philosophically grounded theory of interdisciplinarity that addresses complexity, integration, and disciplinary negotiation. In a previous paper (2009) published in this journal, Welch traced Western epistemological thought through a lineage of canonical thinkers from Plato to Hegel who developed "a pervasive epistemological framework resting upon three essential principles—determinism, duality, and absolute truth" (p. 35). In this paper, Welch continues this lineage from Nietzsche to

the development of phenomenology, pluralism, and post-structuralism, and argues that the interdisciplinary approach to knowledge with its suspicion of disciplinarity hegemony connotes a conceptual transformation of epistemology from its roots in absolutism and reductionism toward a new realm of relativism and complexity. Interdisciplinarity, he says, in both its critical and instrumental incarnations arises from a profound turn in Western thought that examines and is a response to the breakdown of traditional epistemological structures. Thus interdisciplinarity simultaneously utilizes, disrupts, and transcends epistemological structures in order to progressively form new holistic understandings of complexity.

Jennifer Manthei and Jonathan Isler explore the challenges of teaching a methods course that spans anthropology and sociology. They thus confront one of the key interdisciplinary challenges: how best to conceive (and communicate to students) the relative advantages and disadvantages of different methods. Manthei and Isler encourage self-conscious interdisciplinarity: They and their students need to learn to think like anthropologists *and* like sociologists in order to appreciate why these disciplines perform different types of research, and to be able to place published work from either discipline in context. Students and teachers both need to appreciate that interdisciplinarity is an ongoing process of discovery. Moreover, students only learn this methodological material by applying it. By having the students apply both qualitative and quantitative methods, the students learned much about individual methods and also about being interdisciplinary.

Simeon Dreyfuss discusses the importance for interdisciplinary analysis of "holding in relationship different ways of knowing." The paper illustrates this point by discussing how he uses a particular poem in interdisciplinary teaching, how students respond to it, and the useful lessons that emerge from that conversation. The paper is thus both a commentary on the nature of interdisciplinarity and a window into an effective way of engaging students in interdisciplinary thinking. Though the editors are both much more optimistic than the author regarding the ability of interdisciplinarity analysis to yield advances in human understanding, both editors very much appreciated the way the reader is carried along through this conversation.

Though AIS had its early roots in undergraduate education, in recent years it has become very actively interested in graduate education. It has published online directories of interdisciplinary MA and PhD programs. It encourages presentations by graduate students at its conferences, and now boasts a lively online community of graduate students (who publish short

pieces in each issue of our newsletter). It is thus entirely fitting that this volume contains two papers regarding graduate education. It is also fitting that one of these looks at institutional issues at the program level, while the other focuses on the challenges of a team-taught interdisciplinary graduate course.

Susan K. Gardner reports the results of a series of interviews with students enrolled in an interdisciplinary PhD program and with their faculty supervisors. Such programs are increasingly common, but they differ greatly in how they are institutionalized. Gardner urges such programs to establish some sort of course or seminar focused on the nature of interdisciplinarity and how to perform interdisciplinary research. Such courses would not only impart valuable information but would provide a much-needed sense of cohesion to the students and professors in the program. Students have much to learn from each other but may not appreciate this unless provided with some basic shared ideas and a shared learning experience. Last but not least, Gardner addresses a set of practical concerns: Both professors and students are not clear regarding program expectations. While the freedom inherent in such programs is attractive, this enhances rather than obviates the need to provide guidelines on what will be expected of students.

The Cosens et al. paper is co-authored by several professors from quite different disciplines who have cooperated over four years in developing a graduate-level course at the University of Idaho on interdisciplinary methods as part of their program on water resource issues. The course problem is how to promote a sustainable water future and is designed to prepare students for team-based interdisciplinary research. The team's particular focus is on how to overcome the barriers to integration such as different disciplinary languages, methodologies, values, and goals, and the misperceptions of these in the relevant disciplines. Since students taking the course are generally unfamiliar with interdisciplinary research, the team has developed a simplified toolkit to help students understand linkages between disciplines, ways to explore these linkages, and strategies to achieve integration. Keys to their success include applying the strategy of developing adequacy in relevant disciplines, developing "integrating questions," conceptual modeling, systems modeling, and participatory Global Information Systems (GIS) technology.

Rick Szostak and Allen Repko