

Editors' Introduction

If you are reading this “Editors’ Introduction” in the year 2040 (hey, it could happen), you should know that this 2022 volume of *Issues in Interdisciplinary Studies*, like the 2021 volume before it, has been produced as the world is suffering from the devastating global pandemic caused by COVID-19. Nearly every person on earth has been deeply affected. The World Health Organization estimates that the direct and indirect death toll has been 15 million persons in just the first two years. And those who have died have often died alone, quarantined at home or denied family visits in the hospitals. Even those not infected have been separated from one another for long periods of time, either by cautious choice or by regulation. Masking and other safety measures have helped. And, of course, vaccines and boosters have done the same. We’ve begun to hope for a return to “normalcy.” And we look forward to resuming in-person AIS conferences in November 2022 at Sonoma State University in California’s wine country, followed by a fall 2023 meeting at Texas Tech University in Lubbock, the home of our journal press. But here and now, in this interim before “normalcy” returns, we want to express our appreciation to the authors who’ve worked through the worst pandemic conditions to write the articles we have chosen for 2021 volume 39, this current volume 40(1) and its companion to appear later this year, volume 40(2). We also much appreciate the peer reviewers and press personnel who have worked with us through the same difficult period.

We have been especially gratified by the multiple articles submitted in response to our mid-pandemic call for articles on teaching with *Interdisciplinary Research: Process and Theory*, the textbook most in use by interdisciplinarians around the world, first published by Allen Repko in 2008, co-written by Rick Szostak since its second edition, and in its fourth edition now. In accordance with our frequent focus on material that advances the Scholarship of Interdisciplinary Teaching and Learning (or SOITL), we invited those who have taught with the text (at any level, in any sort of program) to report on their experiences in doing so, discussing ways it’s been especially useful, and/or ways it has failed to serve them well, and/or ways they’ve addressed any problems with its use. The first four articles in this volume represent responses to this call that we think readers who are themselves engaged in interdisciplinary teaching and learning will find especially illuminating. Although not written in direct response to the call, the final two articles actually channel the Repko and Szostak text implicitly (in the case of the fifth) or explicitly (in the case of the sixth) in valuable ways, as well.

The first author in our “Teaching with Repko and Szostak” collection is Benjamin Brooks, an Assistant Professor of Interdisciplinary Studies in the Leadership Studies program at Kennesaw State University in Georgia. The article begins with a well-done overview of the need for interdisciplinary

work in the world—and for instruction that will prepare students to do that work—and also offers a well-developed overview of the Repko and Szostak text that readers unfamiliar with it will find useful. Then Brooks focuses on the subject announced in his title, “Building Information Literacy Through *Interdisciplinary Research*.” As he argues, this kind of literacy has never been more important than it is now when the disinformation, misinformation, and “alternative facts” that bombard us in the media have increasingly found their way into supposedly objective scholarly literature, as well. Our students need to learn how to find, interrogate, and understand the material they discover doing interdisciplinary research—whether in disciplines with which they’re familiar (if any) or in those with which they are not. And, as Brooks demonstrates, the Repko and Szostak text is tremendously helpful in teaching them to do just that.

Most useful to other instructors may be his extended discussion of a “foundational assignment” in which his students do the research required to tackle a real-world problem of their choice. He details at length how class-wide work with the text guides them in that process. And he details, too, how he supplements material from the text with accounts of his own interdisciplinary research, modeling what he’s asking the students to do themselves. He concludes the article with an example of a student’s work on this assignment, quoting a well-developed long answer to one of its prompts that not only demonstrates the information literacy capacity of the student, but also the student’s development as an interdisciplinary thinker, further evidence that the Repko and Szostak text, well used, can be an invaluable tool for undergraduate students learning to function as solo interdisciplinarians (though capable of collaborating with others so trained, as well).

An excellent companion piece to Brooks’ article is the second in this special SOITL collection, “Mapping as a Way of Understanding Complexity” by Rhonda Davis, a faculty member in the Integrative Studies program at Northern Kentucky University. The focus remains on teaching interdisciplinarity to undergraduates, though this time the students in question are students in a more advanced course. Like the introductory Brooks’ course, this one has “learning outcomes [that] include integrative thinking, critical thinking, communication, and information literacy.” It also “focuses on developing skills for research and literacy across disciplinary fields”—and students also demonstrate those skills via a research project involving a real-world problem of their choice. And like Brooks, Davis discusses how she (and her colleagues) use various chapters in the Repko and Szostak text to guide students through this research project (from its earliest stages to its culmination). But, as her article’s title suggests, she concentrates on teaching students to make the best use of the text’s recommendations about mapping—and, in particular, the system map, the research map, the concept or principle map, and the theory map.

As Davis explains, the mapping strategies help students identify relevant disciplines and other areas in which they need to do research (developing their skills in information literacy). And the strategies also help them deal with the multifarious results of their research. Davis describes how students practice the various kinds of mapping as a class before they apply them in doing their own projects—using mapping related to ocean pollution as an example of such class-wide work. She includes examples of maps produced by the class as a whole and also offers an extended example of a student applying lessons thus learned in the individual project everyone undertakes on their own, and not in collaboration with others. Like Brooks, she emphasizes how instruction of the sort provided by the course and the textbook prepares students to apply the interdisciplinary attitude that so badly needs to be present in their future lives and careers. She ends with an apt quote from AAC&U that Brooks would surely agree with (as which of us would not): “Developing students’ capacities for integrative and applied learning is central to personal success, social responsibility, and civic engagement in today’s global society. Students face a rapidly changing and increasingly connected world where integrative and applied learning becomes not just a benefit but a necessity (para. 2).”

The third article in our special collection on “Teaching with Repko and Szostak” is authored by Rafi Rashid, a Lecturer in the Integrative Sciences and Engineering Programme at the National University of Singapore. Like Brooks and Davis, he begins by discussing the complexity of real-world problems and the need for interdisciplinarians to deal with them. But he focuses on courses that will prepare postgraduate students rather than undergraduate students to do so—and do so by working not individually (however enlightened by “interdisciplinary thinking” and enabled by “interdisciplinary skills”) but in collaboration with others. He allies himself with other advocates for “doctoral educational reform [who] believe that PhD programs should be training students to be critical thinkers rather than [uncritical specialists] by giving them opportunities to challenge assumptions and engage in creative problem-solving and meaning-making within active learning contexts.” As he explains, “to meet these various challenges in doctoral education, I have been experimenting with curricular and instructional strategies for cultivating the understanding of and capacity for practicing interdisciplinarity at the doctoral level.” And he does emphasize practicing and not merely studying interdisciplinarity, via active learning that is so much more effective than passive listening.

As he explains, one such strategy has involved combining Repko and Szostak’s “Broad Model” of the Interdisciplinary Research Process with “blended learning” and Eigenbrode et al.’s (2009) Toolbox Project, “to promote collaboration amongst students from a variety of STEM disciplines” such as those he teaches in Singapore. Like Brooks and Davis, Rashid illustrates the successful coursework he’s discussing with specific examples of assignments

made and projects undertaken, in his case both in a module of the Programme's curriculum devoted to "Microbiomes and Sustainability"—a module integrating online work with in-person work—and a MOOC, a Massive Open Online Course dealing with the same topic. He also reports great success offering interdisciplinary instruction (and inspiring interdisciplinary practice) via the Journal Club he has founded to help students "appreciate the role of interdisciplinarity in contemporary research," a co-curricular means to the same ends as those of the Programme itself. It is no wonder his efforts have led to major reforms at the university, reforms that have furthermore helped, as he had hoped, to "put the 'Philosophy' . . . back into 'Doctor of Philosophy'" by teaching students to "consider the ethical and social ramifications" of practical proposals that might issue from interdisciplinary work.

"Pluralism in Teaching Interdisciplinary Research: The Amsterdam Institute for Interdisciplinary Studies Textbook" is the fourth article in this special collection. Three faculty members who have taught in the Institute, Machiel Keestra and Anne Uilhoorn, still at the University of Amsterdam, and Jelle Zandveld, now at Utrecht University, discuss the Institute faculty experience using the *Interdisciplinary Research* textbook from the time it first became available in 2008. Though they (like so many of us) were delighted to finally have any such text available, and though they adopted it in both their undergraduate and graduate courses, they soon realized it wasn't as well suited to their students as it might have been. The concern was its focus on teaching students to do interdisciplinary work individually rather than in collaboration with others. Like Rashid and his colleagues in Singapore, also determined to teach students how to do collaborative work, and specifically students who have already achieved some level of disciplinary expertise, Institute faculty set about adjusting their use of the text so as to better serve their own purposes, supplementing it with other materials. They finally decided to develop their own textbook, *Introduction to Interdisciplinary Research: Theory and Practice*, which was published in 2016 (Menken & Keestra, 2016) with an extensively revised version, authored by Keestra, Uilhoorn, and Zandveld, due to appear in 2022.

The article describes the differences between the model for interdisciplinary research presented in the Repko and Szostak textbook and that presented in theirs, focusing on the "pluralisms" that characterize collaborative work by teams of disciplinary experts and on "the multiple forms of interdisciplinary integration" that may be required in a research project, involving "not just conceptual or theoretical integration but also methodological integration." In the article as in their textbook, they emphasize that the integrative work necessary in a project will usually need to be done at every stage of the research process—not just in its culminating stage—and that it may well need to be done more than once, given the iteration that they also see as necessary to the process if best results are to ensue. Of course, they acknowledge that

collaboration of the sort they're describing (and teaching their students to do) is decidedly challenging, not least when interdisciplinary endeavor becomes transdisciplinary, with external stakeholders represented on the interdisciplinary team. And as they explain, in the newest edition of their textbook, they have expanded their discussion of ways teams may meet the challenges teamwork entails, supplementing their own "Interdisciplinary integration toolbox" by including (and adapting) suggestions from the *Toolbox Dialogue Initiative* developed by Hobbs, O'Rourke, and Hecht Orzack (2020). They end their article on their development of a textbook that can serve as an alternative to *Interdisciplinary Research* by thanking Repko (and all those who have helped in the development and presentation of "the Repko model" of interdisciplinary research) for the inspiration that has prompted them to develop and present a model modified to help those teaching in programs primarily intended to prepare students to do team-based research.

And as we now move on from this collection of articles on "Teaching with Repko and Szostak," it is worth noting that the faculty of the Amsterdam Institute are not the only ones who have been inspired by interactions with colleagues in AIS (and beyond) to produce textbooks of their own that are now in use by many, as, for example, Tanya Augsburg, whose *Becoming Interdisciplinary: An Introduction to Interdisciplinary Studies* is now in its third edition, and Marcus Tanner, whose *Introduction to Integrative Studies* is now in its third edition. Repko and Szostak, working with Michelle Buchberger, have themselves published *Introduction to Interdisciplinary Studies*, also in its third edition, a text aimed at teaching just the first half or so of the "Broad Model" for interdisciplinary research. As Kestra, Uilhoorn, and Zandveld point out at the start of their article: "The availability of more than just a single textbook demonstrates the maturation" of a field. And our field would seem to be maturing, fast . . .

The fifth of the articles in this volume of *Issues*—"Suggestions for Co-Curricular Enhancement of Interdisciplinary Programs"—was not submitted in response to our call for articles on "Teaching with Repko and Szostak." And in fact, although three of its authors, Candace Bloomquist, Lee Ebersole, and Lydia Holtz, do teach in the EdD Interdisciplinary Leadership Program at Creighton University, and fellow author Jacquelyn Dudasko is an alum, it is not an article about teaching in the usual sense of the term at all. It is rather about the learning that can occur outside the (actual or virtual) classroom, as faculty use co-curricular elements to "supplement the instruction . . . that is central to the formal curriculum of [a] program." Among the co-curricular elements that enhance the programming at Creighton, the authors focus on the opportunities accorded students (and faculty, staff, and alumni) by their newly created chapter of Alpha Iota Sigma, the honor society of the Association for Interdisciplinary Studies. They describe how activities sponsored by the honor society help develop both the students' sense of "mission," an

all-important goal at this Jesuit institution, and the capacities necessary in those who would be effective practitioners of the interdisciplinary work with which they might most effectively pursue their “missions” and do good in the world. By its conclusion, the article has certainly shown that the Creighton chapter of Alpha Iota Sigma has already had considerable success in advancing the purposes of the honor society as stated in its Constitution:

Alpha Iota Sigma: promotes the benefits of interdisciplinary work; provides a forum to encourage interdisciplinary collaboration among students, faculty, and community members; investigates and encourages methods of interdisciplinary learning; enhances understanding and application of interdisciplinary knowledge among the general public; [and] creates a sense of community among interdisciplinary students and graduates of interdisciplinary programs.

We quote the Constitution here—as the authors do in their article—because we, too, hope that the Creighton story of how this co-curricular addition to their formal curriculum has strengthened their programming will inspire others to add a chapter of the honor society to their various combos of formal and informal curricula, if they haven’t done so already. Information on how to do so is (of course) available on the Association for Interdisciplinary Studies website.

And now for something completely different, or almost: “Toward Integrating Conflicting Views of Capitalism in Economics and English.” This article’s author, Kyle Garton-Gundling, teaches at Christopher Newport University, an institution he describes as busy “boosting its support of interdisciplinary studies.” But his university does not have a program designated as “interdisciplinary studies.” And though its faculty may offer courses that are in some sense interdisciplinary and its students may design majors that can be so characterized, the faculty are in fact disciplinarians, like Garton-Gundling, who is an Assistant Professor of English. Unsurprisingly, then, the article isn’t offering advice to those teaching in interdisciplinary programs (or in co-curricular activities associated with such programs), that is, those instructing students in how to do properly interdisciplinary work. It is rather addressing instructors whose own training has been disciplinary and advising them on doing properly interdisciplinary work themselves. And (what do you know!), that advice involves integrative techniques drawn from Repko and Szostak’s text, *Interdisciplinary Research: Process and Theory*.

As revealed in its title, the article’s discussion of issues that arise when disciplinarians attempt to be interdisciplinarians focuses on disciplinary scholars in English and economics. As Garton-Gundling notes (and explains in provocative detail), some of those in each field “have recently shown an apparent increased interest in the other, but without seriously challenging their own dominant views.” Their interest in one another’s “concepts or methods remains superficial, falling short of [the] deep engagement” that is necessary

for truly interdisciplinary work such as might yield fruitful integration of insights drawn from the two disciplines. Garton-Gundling writes at length about the very different views of capitalism that dominate among those in the two disciplines—views that might be characterized as “anti-capitalist” in the case of English and “pro-capitalist” in the case of economics. And he adduces lots of evidence of the all-too-proverbial “failure to communicate” across disciplinary boundaries, even among those supposedly trying to do so. He’s got some ideas on how scholars in the two fields might handle interdisciplinary communication better, though. He shows how different combinations of tools for creating common ground such as the “redefinition transformation, organization, and extension” that Repko and Szostak recommend could get those who “harbor conflicting assumptions about capitalism” past the “internal consensus” of those in their own discipline into better understanding, if not acceptance, of others’ views. Having concluded his critique of the inadequate attempts at interdisciplinarity that those in English and economics have made thus far, and completed his suggestions for improving those attempts so they might yield better results, Garton-Gundling closes his article with advice that *is* teaching-related, ideas that might be helpful for English professors offering a course on economic themes as reflected in literature or economics professors doing the same. And he also points out that, as Candace Bloomquist and her co-authors know, the sphere of campus life affords co-curricular opportunities for some interdisciplinary teaching and learning, too.

In closing, we will simply say how happy we are to share this volume of articles with you, packed as it is with insights into innumerable issues in interdisciplinary studies. (See what we did there?) There could be no better evidence that the worldwide pandemic we hope we are saying goodbye to has not vanquished our authors’ dedication to the teaching and research that make them such model interdisciplinarians. We as co-editors are uplifted by their example—as we think you will be, too. And we thank them.

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