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CULTIVATING SPHERES: AGRICULTURE, TECHNICAL COMMUNICATION, AND THE PUBLICS

From Big Ag to Campus Cafeterias: Intersections of Food-Supply Networks as Technical Communication Pedagogy

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This article presents a pedagogical approach to teaching technical and professional writing with an eye toward cultivating awareness and generating informed research among undergraduate students about food production and its various, intricate networks between Big Ag and campus cafeterias. Our pedagogy, influenced by interdisciplinary content, is designed to teach students to differentiate between food processes-such as production versus distribution and consumption-by viewing these networks as communicative practices rather than as inevitable chains or simple functions of one another. Our approach encourages students to locate and analyze differences between interdependent, but seemingly disparate pathways and to make visible communicative intersections that are often rendered invisible and inevitable when not given conscious attention. We base our approach on best teaching practices in technical communication and current literature about food sourcing, sustainability, and ethical food production practices. By focusing on food pathways as a means of teaching technical communications, we are helping students become more adept writers while also educating them about the processes that contribute to what they put into their bodies and how those choices resonate throughout the public sphere. A chief contribution of this article is a description of how students populate a Food Pathways Matrix, which informs their writing and research as they revisit it throughout the semester.

Introduction

In 1978, a group of Russian geologists discovered the Lykov family, six people who had been completely isolated deep in the Taiga for 40 years. Mike Dash (2013) writes in *Smithsonian Magazine* of how the family survived in a severe climate vacillating between extreme scarcity and near starvation: 'By the time the Lykovs were discovered, their staple diet was potato patties mixed with ground rye and hemp seeds' (n.p.). The landscape was filled with berries, pine nuts, and game; however, as Dash writes:

More often than not [...] there was no meat, and their diet gradually became more monotonous. Wild animals destroyed their crop of carrots, and [the daughter] recalled the late 1950s as 'the hungry years.' 'We ate the rowanberry leaf,' she said, 'roots, grass, mushrooms, potato tops, and bark. We were hungry all the time. Every year we held a council to decide whether to eat everything up or leave some for seed.' Famine was an ever-present danger in these circumstances, and in 1961 it snowed in June. The hard frost killed everything growing in their garden, and by spring the family had been reduced to eating shoes and bark. Akulina [the mother] chose to see her children fed, and that year she died of starvation (n.p.).

Although the Lykov family is an extreme example, it dramatizes the life and death importance of discovering ethical, communal, sustainable ways to feed ourselves. This example resonates for this article's project because it is a story about human connection to other humans and to land; clearly, we humans do better when we work together toward informed eating solutions.

Unlike the media's focus on terrorism after September 11 2001, in response to the attacks, Wendell Berry (2005) wrote about material scarcity as a probable cause of the attacks. Berry has now scrutinized North American farming practices for 50 years. Indeed, as one of America's most consistent cultural critics, Berry has tried to alert us to the dangers of our unsustainable lifestyle since the early 1970s (*A Continuous Harmony* (1972), *Recollected Essays* (1981), *The Idea of a Local Economy* (2005)). Like Berry, numerous scholars and journalists including (among others) Eric Schlosser (2005), Barbara Kingsolver (2007), and Michael Pollan (2013, 2008, 2006), have responded

to his work in writing about food security.¹ Indeed, it is difficult to imagine the work of Schlosser, Kingsolver, and Pollan, or the work of Steven Rinella (2012, 2007), Lily Raff McCaulou (2012), or Hank Shaw (2011), without a reminder of Berry's persistent arguments about our reckless management of soil, water, air, and diet.

Of all these authors, perhaps Pollan best describes Berry's call for a national reexamination of U.S. food production practices. In an interview he gave *The Atlantic*, Pollan explains that 'Berry's argument for active, humane stewardship of land struck me as a value system I could use' (Fassler, 2013). Pollan recalls, 'It was in reading Berry that I came across a particular line that formed a template for much of my work: 'eating is an agricultural act.'' It's a line that urges you to connect the dots between two realms—the farm, and the plate—that can seem very far apart' (Fassler, 2013). Beyond Pollan's apt explanation of the relationship between eating and agricultural practice, Berry's influence has surely extended beyond traditional print media into other genres including podcasts and any of the recent bio-films such as Robert Kenner's (2008) *Food, Inc.*; Lee Fulkerson's (2011) *Forks Over Knives*; and Aaron Woolf's (2007) *King Corn.*

With an increased interest in the social, cultural, and environmental implications of how we eat, it is even more important in our classrooms and research to think about how to best help students conduct useful inquiry into food production and consumption in the context of their own personal investments and consciousness about food. We see this work as part of an intervention against a general apathy about food, labor, and consumption. In the technical communication classroom, according to scholarship of Killingsworth (2005), Narhwold & Herndl (2000), Johnson-Sheehan & Morgan (2009), and Glassner (2007), the task of teaching students to conduct informed research on food and supply networks remains a fundamental challenge because current American food production elides so many of the real costs of food production; in order to save at the cash register, producers and consumers turn a blind eye to unseen tolls on human health and the environment, tolls we see as the necessary cost of planting, preserving, and producing food.

¹ See 'Writing the Food Studies Movement' (Nestle & McIntosh, 2010) for a list of prescient writing on food security-related issues.

Meanwhile, an emerging area of technical communication studies and the analysis of power relationships between Big Ag and colleges encourages students to think about intersections of food pathway networks as communicative practices that can be leveraged to promote food advocacy. For instance, according to the U.S. Department of Agriculture's (USDA) 2012 Census Report, over the past 30 years, the average age of U.S. farmers has risen to 58 years old (Vilsack and Clark, 2012). Adrienne Lamberti (2015) argues that while many factors contribute to this trend of declining professional interest in farming (urbanization, environmental regulations, rising land, and equipment prices), the resurging interest in food production, distribution, consumption, and increased student awareness about the aging population of U.S. farmers may lead to questions about who will accept responsibility for future food production.

Design applications like service learning and creative, hands-on projects that engage personal values and cultural practices related to eating help students discover complex political acts that they might otherwise take for granted. Informed by theories about food sustainability and production,² communication network theories,³ and discourse analysis,⁴ we provide concrete methods for re-imagining our pedagogical imperatives as we encourage college students to think critically about how their personal food choices reverberate in public spheres. The pedagogical methodology for the course⁵ we describe is grounded in an approach to technical communication that emphasizes the networked complexity that relates food systems to food production while also encouraging students to act on their research. We have done this by developing three interrelated teaching units in a course outline, discussed in the following sections.

² Frye & Bruner, 2012; Galt, Parr & Jagannath, 2012.

³ Lin, 1999; Latour, 2005, 2011; Tesdell, 2016.

⁴ Berkenkotter & Huckin, 1995; Fairclough, 1995, 2003; Fairclough & Fairclough, 2012; Gee, 1999, 2001; Johnstone, 2009; and Wodak & Myers, 2009.

⁵ We have used this pedagogical approach at both a large public university and at a small liberal arts college. We employ this approach in the required writing, general education component for the both types of institutions. The clientele for these two types of institutions is quite varied, however. At the large research university, students range from traditional age—just graduating high school—to adult learners who are returning to school to get their degree. At the liberal arts college, most students are traditional, college-age students.

Technical Communication Pedagogy: A Model

Our pedagogical model layers what Cargile Cook (2002) calls 'multiple literacies' into the classroom experience to encourage 'learning communities in which literacies are not isolated but integrated and situated through a complex of classroom goals and activities' (5). Cargile Cook argues that technical communication courses might better serve student writers in a pedagogical framework that includes six layered literacies: 'basic, rhetorical, social, technological, ethical, and critical' (5). A 'layered literacies' pedagogical approach is similar to embracing what Chris Mays (2017) terms 'writing complexity' (559). That is, our method seeks out and values the inherent complexities involved in food pathway networks.

This focus does come with pedagogical constraints; as Mays (2017) writes:

That a system is impressively complex and thoroughly interconnected means that it is also dauntingly complex and unpredictably interconnected. One of the implications of complexity in the world around us is that we can't account for the unexpected, the random, and the unseen contextual forces always lurking in the background (560).

Cargile Cook's (2002) layered literacies framework, when combined with Mays's (2017) notion of writing complexity, creates a useful heuristic for students to explore food pathways' networked 'complexities' as 'layered literacies'—that is, as interconnected, moving pieces of a matrix that appear stable in isolation, but are always negotiated by intersecting stakeholders as part of an intricate system of agents, risks, and impacts. It is these overlapping, networked, intellectual literacies that this course aims for in its pedagogical approach. With each assignment covered in a semester, students are presented with opportunities to cultivate literacies through embracing complexity at each stage and at different levels. They learn 'social literacies' through collaborative projects that encourage a variety of researched and experiential viewpoints; they also learn 'ethical', 'technological', and 'critical' literacies while addressing the intersections of food supply networks and stakeholders. Cargile Cook (2002) characterizes each of the literacies in her article, and she stresses they are

best used as an 'integrative frame' for pushing technical communication students to communicate with 'diverse audiences who look, speak, and think differently than they do' (8). Cargile Cook is explicit about her social and critical goals—she claims her proposed framework of layered literacies will help students develop strategies to 'critique the workplace and work within it for positive change' (8).

The *Food Pathways Matrix* (see **Figure 1**), a living document that students use to explore and map intersections and impacts—the first step in developing layered literacies—helps us identify stable points within a food network for the sake of discussing and writing about these intersections. We adapted the *Food Pathways Matrix* from risk assessment paradigms in a technical communication genre called 'risk communication'.⁶ Grabill and Simmons (1998) show that as part of risk

| Impacts on Stakeholders | Stakeholders | <u>Community</u> | <u>Farm</u> <u>Labor</u> | Produce_ | Livestock | <u>Campus</u> <u>Cafeterias</u> | Environment_ | <u>Human</u> <u>Health</u> |
|----------------------------------|--------------|--|--|---|---|---|--|--|
| Distribution Sites | | | | | | | | |
| Industrial Farms | | Global import/exports | Fossil fuel consumption, loss of community, safer work conditions | Migrant labor, pesticides, fertilizers, better equipment | Poorer animal rights, poorer quality, | G lobal climate change, affordable food, lower quality | Antibiotic- resistant bacteria, phosph orus and nitrates in water way | Diabetes, obesity, GMOs, hormones, pesticide exposure |
| Local/Small/ Organic Farms | | Within 120 mile radius | More labor intensive, higher financial risk, improved human ties | Lack quantity, poorer shelf life | More expensive, more humane treatment of animals | Younger, smaller scale | Organic certification vs practice, costly requirements to maintain | |
| Farmers' Markets | | Gathering space, local economy, arts, food origin knowledge, no food stamps, fickle buyers | Relation with producer, economic independence, table space rental, timely | Higher quality, organic, expensive, seasonal | Humane treatment, more expensive | Clear conscience, social interaction, entertaining | Lower fuel costs and food miles, weather exposure | Psychological health & well - being, exposure to contamination |
| Chain Grocery Stores | | Abundance, low cost choices, social sites | High volume, high turnover employees, worker safety | | | | High food miles, lacks psychological connection | Food stamps, SNAP program, social class |
| Restaurants | | Quality vs quantity, dining experiences | Farm to table, Fast food, pricing, | | Gras s fed vs grass finished, meats | Volume, Freshman 15, new food exposure | | |

Figure 1: Food Pathways Matrix: An example a sample student team matrix.

⁶ For more information on risk assessment and risk communication, a description of which is outside the scope of this article, see *Handbook of Risk and Crisis Communication* (Heath & O'Hair, 2010); *Risk Communication and Public Health* (Bennett, 2010); and 'Best practices in crisis communication: An expert panel process' (Seeger, 2006).

communication, practitioners can use a matrix-style heuristic to identify and assess potential hazards of an impact on various stakeholders. Historically, risk assessment and communication has used scientific and technical 'experts' to relay (communicate) information to the public for consumption. However, Grabill and Simmons argue that this paradigm neglects an examination of how differentials of power affect the assessment process. The authors conclude that removing public discourse and input from the processes obfuscates power dynamics and blurs ethical considerations:

[R]isk is socially constructed, and the failure to see risk as socially constructed leads to an artificial separation of risk assessment and risk communication. This separation can lead to unethical and oppressive risk communication practices because the public is separated from the fundamental risk decision making process (1998: 417).

Thus, the contribution this pedagogical model makes to technical communication and humanities disciplines is the combination of Grabill and Simmon's (1998) work with Cargile Cook's (2002) layered literacies model, to include a variety of humanistic intersections other risk assessment paradigms might overlook. For instance, students will explore philosophy and ethics when certain intersections of the matrix reveal an unexpected impact on laborers and labor practices.

Overall, our *Food Pathways Matrix* that runs throughout the course helps students track, manage, analyze, and critique how food enters a pathway network and how that movement is related to other practices with real-world implications (for instance, migration, nationality, insurance, undocumented status, etc.). Ultimately, students will make persuasive arguments about farming practices by considering how environmental impacts relate to labor practices, which sets off a chain reaction of effects on consumer costs, farming expenses, cost/benefit ratios, etc. The point of the course, and the innovation of this model, is to see intersections that are impacted within a food-pathway, demonstrating that even the food we put on our tables is a complicated byproduct of a linked set of communicative practices. As a communicative practice itself, filling out the *Food Pathways Matrix* opens up writing topics that encourage and require critical thinking and persuasive writing.

Scalability and Scope

Each author in this article has experience teaching and researching in technical communication and/or the digital humanities. Thus, our approach, and the development of the course itself, is grounded within our professional teaching experience as well as our personal research interests around food. Collectively, we have experience in teaching about food networks in technical communication courses within engineering and business departments, in first-year writing courses within English departments, and ecocriticism courses in an environmental humanities program.

While the theory of this technical communication course is centered around and within discourses of technical communication and digital humanities, the implementation and production of our pedagogical approach are scalable across these disciplines because they encourage research and discussion among the disciplines. Furthermore, we have found our approach and topics can be scaled according to student level, scope of project, and basic topic interests. The writing projects that can grow out of this approach represent the cross-disciplinarity that occurs when students make humanistic arguments about technical topics, collapsing the positivist, artificial distinction between what Carolyn Miller (1979) calls 'the material things of reality' (science and technical communication) and the 'untrustworthy imperfections of words and minds' (the humanities) (610). What this course can do, then, is provide a way for students to think about 'technical' topics as human issues. Not unlike courses and scholarship that discuss the rhetoric of science or medicine, or courses that address human communication in engineering fields,⁷ this pedagogical model presents the technical aspects of food production as 'communication occur[ing] within communities' (Miller, 1979: 617).

Principally, we organize the course around three main units: 1) a favorite meal assignment; 2) analysis of discourse on farming labor (for example, farm bureau websites, farming blogs, migrant worker/immigration pamphlets); and 3) qualitative interviews within food pathway networks. As we describe in the section on course

⁷ A history of viewing scientific/technical practices through a rhetorical lens within the humanities can be found in the works of Kuhn, 1963; Miller, 1979, 2004; and Ceccarelli, 2001, 2003, to name only a few.

development, these three units coalesce around the *Food Pathways Matrix*. One way these assignments can be scaled, for example, is for instructors to limit students' research to local issues within their communities (as opposed to national or international issues) while acknowledging that food networks are always already connected whether they occur locally or nationally. Students analyze local restaurants, farmers' markets, state legislation, county regulations, and digital communications. Broadened for a more comprehensive scope, student research might include both local and national issues, investigating intersections between Secretary of Agriculture appointees, federal farm subsidies, trade partnerships, water supply, and transportation concerns, for example. Naturally, length of course deliverables can be scaled according to an instructor's desired scope and students' familiarity with the topics and comfort level with writing and research.

The course's interdisciplinary nature makes it an effective intervention on the topic of agriculture since it is integrated easily into a variety of programs. Students in a first-year writing class, for instance, are better able to connect issues outside their own experience once they have first connected personally with the course topic. Engineering and business students are often attracted to the more technical aspects of the course–completing the *Food Pathways Matrix*, while analyzing how theories of supply and demand collide with realities of sustainability and ethics, and/or how infrastructure intersects along each plot-point within a food pathway network.

Course Outcomes

At the completion of the course, students should be able to identify interrelationships among consumers, producers, farm laborers, and delivery systems of the food they eat. Students are asked to brainstorm hypothetical situations and potential impacts of arguing one position over another on a specific topic. For example, if a student makes the claim that 'genetically modified food must be labeled to reveal the modifications' or that 'poultry farms should be required to demonstrate higher levels of transparency and environmental regulation' or that 'farm owners should sponsor visas for their immigrant workers', then students must also be able point to the veracity of such claims. These outcomes are expressed in two ways:

- 1. In the act of populating the *Food Pathway Matrix*, students should explain consequences of different available choices and actions as well as the impacts of their choices and actions. This outcome engages individual contexts a student is researching (i.e., whether the assignment occurs in an engineering, business, or first-year writing course), and pertains to a student's ability to rank and evaluate potential consequences of a given argument, and
- 2. Recommend alternative options for consumers and producers while also articulating the pros and cons of each food decision.⁸

Students receive a *Food Pathways Matrix* template with only the rows and column headings filled in (rows and columns can be rewritten as needed to suit the aims of the course, instructors, and students). The instructor then leads students through a scenario in which different elements of the matrix draw attention toward a collective understanding of an issue. Students populate the matrix individually at the beginning of the semester; then they populate a second matrix with their team members later in the semester.

In both iterations, students are encouraged to think as broadly as possible when imagining different impacts in a given scenario. For example, the sample matrix provided (**Figure 1**) begins by asking a research question such as, 'Is factory-farmed meat better or worse than locally raised or hunted meat?' Students are asked to populate the matrix based on their understanding of the question within each category. Often, students begin this process by inserting stereotypes and ill-informed hunches about a given scenario and its stakeholders. It is the instructor's task to guide students throughout the research process—both in identifying appropriate literature and offering counter claims against their initial impressions—whereby the matrix will become more useful and nuanced as students are challenged to obtain a greater mastery of their topic over the course of the semester.

⁸ These outcomes are adapted, in part, on a lesson on 'Assessing Risk and Community Resilience' (Thompson et al., 2015) from the Center for Infrastructure Transformation and Education (CIT-E) community of practice.

Course Assignments

After leading them through the matrix, students self-select a research topic and the instructor leads them through the favorite meal assignment, farm labor discourse analysis assignment, and conducting of qualitative interviews. In each assignment, students are encouraged to research heuristically, identifying and making sense of the sinuous connections among issues and topics, rather than researching a singular topic or food issue.

Favorite meal assignment

One way to get students to think about all the complex issues involving food and food supply is to ask them to examine what is on their plate. For this assignment, students identify their favorite meal—something their mother or father makes, a holiday tradition, or an entré from a favorite restaurant—and then explore the web of issues that must connect in the act of cooking and eating that particular meal. This assignment begins by asking: Is this meal good? Good for their bodies? Their community? The environment? Superficially, the questions are simple. But the answers to such questions encourage students to think deeply about a variety of integrated systems they commonly take for granted, not to mention the far-reaching impact of their conscious and not-so-conscious participation in these systems.

After the initial questions, the assignment has three stages. In the first, which engages various print and digital sources, the class explores topics surrounding eating and cooking. They are asked to read essays like Wendell Berry's (2005, 2009) 'Idea of a Local Economy' and 'Bringing It to the Table' as well as excerpts from Michael Pollan's (2006) *Omnivore's Dilemma*, Dan Barber's (2015) *The Third Plate: Field Notes on the Future of Food*, and from Barbara Kingsolver's (2007) *Animal, Vegetable, Miracle*. They are also asked to watch a series of Ted Talks on healthy food awareness like Ron Finley's (2013) 'A Guerilla Gardener in South Central LA', Roger Doiron's (2011) 'My Subversive (Garden) Plot', and Jamie Oliver's (2010) 'Teach Every Child About Food', in which Oliver summarizes his talk by arguing that '[w]e have to start teaching our kids about food in school, period'. Our students also watch excerpts from movies like *Super Size Me, Food, Inc.,* and *Forks Over Knives*, all of which

are highly critical of current agribusiness food production methods. The materials are designed to help students explore issues surrounding GMOs, meat production, transportation, organics, sugar intake, population demands, and other similar topics.

After becoming grounded in the subject, students then identify their favorite meal and write a short piece on why it is their favorite-it tastes good, or their grandfather makes it, or it reminds them of home, or it is important to their community. In the planning process, since this is a writing class, we show students what it means to research viable sources. We invite them to look into Granddad's salt pork recipe in order to understand its origin farm to table.9 But we emphasize and highlight the way that looking into an eating practice is not unlike other kinds of academic research that will introduce often ordinary contexts from which extraordinary ideas grow. Next, they create a list of ingredients and identify the ones that they would like to research. A student may focus on Big Ag versus organic, animal welfare, or GMOs, for example. Another may focus on farmed versus wild fish, labor practices in tomato fields, or corn production. The assignment allows them also to explore some of the more indirect consequences of eating. Eating meat, for example, raises a variety of indirect issues. Cooking the meat may require vegetable oil. Where does the oil come from? How was it farmed, manufactured, produced, transported? What is the source of the Styrofoam tray and the plastic wrap that the meat came in? How was that packaging manufactured, from what raw materials, and from what sources? How is the packaging disposed of?

Another indirect issue of eating is farm policy. Many consumers are unaware of government subsidies that prop up the practices of factory farming and therefore provide artificially low prices. One way to help students to think about various subsidies and how they affect consumer behavior is to ask them to create a meal that they source as locally as possible while tracking and comparing their costs with prices in their local

⁹ We do not want students to stop once they locate the farm from whence came their particular pork; instead, we want them to begin to figure out what the hogs on that farm ate, the conditions in which they were raised, and the ethical situation that contributed to the process of growth between the birth and slaughter of a particular animal. We hope this process adds value to students' understandings of the research process bringing implications of their own eating practices into sharper focus.

grocery store. Most students are surprised by the comparison—especially if it involves meat—which brings to the fore how food policy creates distinct winners and losers, and it allows them to discuss the many issues raised by current policies—economic, environmental, ethical—and how they think such policies should change.

Meat is a particularly good way to illustrate the above food policy claims. For example, most students don't notice the causal connection of the government subsidizing corn growers in the Midwest and the price of meat sourced from a large producer. A steak from the grocery store is likely to have been finished on subsidized corn and, therefore, benefit from these subsidies, resulting in a lower price. A steak coming from a local farmer who raises her or his cows on unsubsidized grass pasture, butchers these cows onsite with a local butcher, and then sells this steak at a farmers' market is much less likely to benefit from subsidized corn as cow feed, leading to higher prices out of economic necessity. The local farmer must bear the entire cost of the steak, where the grocery store shares the cost with taxpayers.

Finally, all students are asked to conclude the assignment with a discussion of how their view of their meal has changed, and whether their new knowledge will affect how they prepare and consume it in the future. They are then asked to present their findings in a digital story-telling format. With creative use of links, video, images, presentation software, and other resources, students often produce intellectually sophisticated, analytically deep, and digitally rich arguments.¹⁰ The power of this assignment lies in the fact that it takes issues that seem abstract, grounds them in the concrete, and then connects this new understanding to personal decisions. Gauging long-term effects is difficult, but in the conclusion of their above presentation, students are asked to address how the assignment has affected their relationship to their meal. Many report a desire to source the meal differently, eat it less often, or to find some alternative so

¹⁰ We usually devote the last third of the semester to the 'Favorite Meal' project. Additionally, because students bring different levels of skills to the digital story-telling portion, the quality of the presentations can vary, and the grading of such presentations can be difficult. To assist, we have teamed with teaching librarians to help students create the presentations. We have also established a grading rubric that assesses the main learning objectives of the project and we require that they are all addressed both in the oral presentation and final technical report. As this is an evolving project, we are learning new execution and assessment protocols with each new attempt.

that they feel better about consuming it. We recommend that students think about posting this assignment publicly, sharing it in a city council meeting, or in another public forum. At the end of this article, we discuss additional ways for students to apply their knowledge and create assignments that resonate in the public sphere.

Discourse analysis and farm labor

The next unit in the course invites students to analyze various genres of discourse about farm labor. For example, organizations like Legal Aid often distribute pamphlets to migrant laborers in the field, while farm bureaus offer a variety of loan programs, extension services, and crop projections via websites. In an emerging sector, urban farmers are using blogs and podcasts as a means of sharing information and developing virtual farming communities. Blogs and podcasts are a unique example of discourse within the food pathway networks, because of the positioning of their authors (whether rural, itinerant, or urban farmers).

Along with our instruction on food awareness, we want students to think about issues like genre and audience. Blogs and podcasts represent relatively new discursive forums that link readers and listeners to emerging personalities and famous indivduals. Often, these new discursive spaces represent an expansion of democratizing food-related content that began in news, radio, and other print media, but which now has a vast new reach. Discourses about farm labor complicate the matrix in other ways by encouraging students to explore discourses that are not filtered through centralized, dominant food narratives. While the content of a blog is often vastly different than how a farm bureau might address a rancher, both genres reveal the ways in which a community frames the labor of farming. As Carolyn Miller and Dawn Shepard (2009: 1450-73) argue, blogs are unique discursive spaces because the discourse 'is understood as fitting and timely' and because of 'the way in which [they] can seize on the unique opportunity of a fleeting moment to create new rhetorical possibilities'. It is with this rationale in mind that students are asked to research a blog on, for example, urban farming, as a way to explore the rhetorical dimensions of the work that bloggers and blogging contribute to food production critiques. Such an exercise also helps make visible the practices that impact and constrain existing food networks.

Norman Fairclough and Isabella Fairclough (2012) extend Miller and Shepard's (2009) thinking by suggesting a version of discourse analysis that combines tenets of Fairclough's earlier work (1995: 2003) with 'a focus upon the generic features of whole texts rather than isolated features of the text, and primarily on action, not representation' (2012: 241). Fairclough and Fairclough continue, 'One of our main insights here is that discourses provide agents with reasons for action, i.e. provide premises in agents' practical arguments' (241). When students begin to better understand food pathways as interconnected, communicative practices, they also begin to account for how political power is authorized through such forms of public action. For the purposes of an undergraduate writing class on food, it is not necessary to require a lengthy survey of discourse analysis theory or terminology; instead, simply introducing students to concepts like discourse communities, genres, textual silences, and metaphor go a long way in providing students a framework for analyzing discourses about farm labor.

Examining the linguistic features of any discourse is a germane first step to understanding how food networks are identified and understood in particular texts, contexts, and historical moments. As Joshua Lenart (2013) reasons, hard copy pamphlets, websites, blog posts, podcasts, and even comment sections of online news articles offer a rich site for this type of discourse analysis because of the way that these genres represent discursive events, actions, and opinions (64–72). Discourse analysis concepts such as genre,¹¹ discourse,¹² metaphor,¹³ and textual silences¹⁴ have received extensive treatment elsewhere; thus, it is not within the scope of this article to review them again here. Instead, students are asked to read selections from John Swales' (2004) *Research Genre*, Berkenkotter and Huckin's (1995) *Genre Knowledge in Disciplinary Communication*, George Lakoff's (2011) 'Why it Matters How We Frame the Environment', Bawarshi and Reiff's (2010) 'Genre Research in Workplace and Professional Contexts', and James Paul Gee's (2010)

¹¹ Swales, 1990, 2004; Bawarshi, 2001; Bawarshi & Reiff, 2010.

¹² Johnstone, 2009; Foucault, 1972.

¹³ Lakoff & Johnson, 1980.

¹⁴ Huckin 2002, 2010.

How To Do Discourse Analysis: A Toolkit to familiarize them with a broad overview of the field. Bawarshi's (2001) 'The Ecology of Genre' is especially useful here as well since this essay lays out so well the interconnections between genre and environmental discourses. Bawarshi (2001: 69–80) argues:

Rather, genres are more like rhetorical ecosystems in which communicants reproduce the very conditions that in turn call for certain typified responses, that is, genres help reproduce sociorhetorical environments by providing communicants with the rhetorical conventions for enacting them.

The idea of rhetorical ecosystem, where each component of a genre is intimately interconnected to its other parts, is a particularly apt way to describe a learning objective of our course.¹⁵

Next, students are shown several examples of farm labor discourses, chosen by an instructor, and are asked to conduct a keyword search. (Actually counting words is helpful to many of the more technically-inclined students in the class.) Students then conduct a second screening to identify metaphors employed in the discourse as well as other generic features such as textual silences unique to different discourses. The goal of this unit, ultimately, is to expose students to a systematic method for analyzing digital medias not simply to access information, but to more comprehensively create an accurate and authentic depiction of the real human lived experiences of farming and its labor.

Qualitative interviews (moving to team matrix)

At this point in the course, students will have investigated multiple ways in which they see food pathways intersecting, first through their own personal experiences with food, then through analysis of digital work about food and farming. Now, students move into teams to further populate their *Food Pathways Matrix* through personal interviews with the human actors involved in food decisions and production.

¹⁵ See also Devitt, Reiff, and Bawarshi's (2004) *Scenes of Writing: Strategies for Composing with Genres*, wherein the authors use the term 'scene' to help students contextualize genre within a particular discourse or content area.

This unit encourages students to talk face-to-face with people who are situated along various intersections of the food pathways network. For instance, students might interview a local restaurant owner about where she procures meat and how she makes that buying decision. Or students might interview the director of the on-campus cafeteria about buying choices such as storage, cost, and quality. Other interviewing options include local farmers, produce managers at a chain grocery store, chefs at a restaurant (national chain or local), and/or other people involved in the network.

Interviewing skills are an important part of technical communication, particularly within the genre of risk communication, as described by Grabill and Simmons (1998). As a method, qualitative interviews are a valuable addition to technical communication because such work often engages subject matter experts (SMEs) to learn about and communicate a topic (Cargile Cook, 2002: 5).¹⁶ Students may compose a list of questions they want to ask; however, interviewees may talk openly without needing a framework of questions or with disregard for the questions.

When students engage in interviews within their local food economies, they encounter another literacy insofar as the interviews take place in layers: the first layer includes a broad, open-ended question that encourages narrative answers (Cargile Cook, 2002: 5). For example, an interviewer's question might be, 'Tell me about your restaurant'. The purpose here is to solicit lengthier, narrative answers to give an interviewee control over their narrative and put them at ease. During the second layer, an interviewer asks questions related to the previous narrative answer given by the interviewee. As Suhi Choi (2011) suggests, waiting to ask specific questions after an initial broad narrative question works well because interviewees have memory anchor points to which they can tie new questions (24). Additionally, as Jessie Lynn Richards (2015) argues, interview questions can be layered upon one another when

¹⁶ A full discussion of qualitative interviews as theory, method, and practice is outside the scope of this chapter. It is advisable for instructors new to this method to familiarize themselves with these theories to teach students to effectively engage in this work. For information about qualitative interviewing methods, see Conquergood, 1991; Denzin & Lincoln, 2003; Fine, 1992; Rosaldo, 1993; Smith & Watson, 2001.

an interviewer asks the interviewee to evaluate the answers he or she has given in order to encourage reflection on their previous answers (78). The larger purpose of this unit encourages students to engage with the human elements of food networks, making visible earlier assumptions about access to food and their practices as consumers, as they populate the *Matrix*. Students are encouraged to see food pathways as communicative practices with human decisions and impacts—'communication occur[ing] within communities' (Miller, 1979: 617). In the next section, we describe different ways students can apply what they have learned from filling out the *Food Pathways Matrix* and how this knowledge might resonate within the public sphere through different projects.

Discussion

Bythe end of the course, students will have an enhanced awareness of 1) the complicated networks which converge to provide us with the variety, quality (or lack thereof), and quantity of food that U.S. residents have (or do not have) available to them, and 2) a better understanding of how to conduct research on a multifaceted, sociopolitical food-related issue. This course also encourages students to act on their research through a heightened comprehension that, ideally, resonates within the public sphere, as students make decisions about their food choices and explain those decisions to family and peers. While the student is responsible for composing a technical report of their findings at the conclusion of the semester for assessment purposes, they are also encouraged to keep an ongoing record of their findings by locating, constructing, and/or posting to various blogs and social media as their work progresses throughout the semester. In this manner, the *Food Pathways Matrix* provides students with an analytical tool for managing their research as well as providing them a way to think more deeply about intersecting research on other topics.

No matter the theoretical or topical architecture of our courses, instructors always hope that students will use the new tools they acquire, integrate new perspectives, maybe even change behavior toward more responsible citizenship. Our research project focuses on how eating relates to every student and we believe our students can use their food consciousness in their own lives to promote basic awareness, and, more significantly, to become politically involved in food issues. Students may also expand on what they have learned in this project in their other coursework or social interventions with the community. It is our hope in describing some of our pedagogical successes that other technical and professional communication instructors will implement and experiment with similar strategies in their courses. It is also our intention to form a community of practice wherein instructors and researchers engaged in similar projects can share teaching strategies, collaborate on future research projects, and become active community members in the effort to educate students on the importance of food health and wellbeing.

Competing Interests

The authors have no competing interests to declare.

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