"Low-Tech Studies in a High-Tech World: Teaching the Great Books in Silicon Valley"

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When we were conceptualizing how our paper might fit into a panel on the relationship between the sciences and the liberal arts, Lisa and I realized that there are two opposing sets of assumptions each argument could take. On the one hand, papers could assume an audience of humanists who are perhaps disinclined to include the sciences under the heading "liberal arts" (this was/appeared to be the basic assumption of the first paper). On the other, papers could begin from the opposite point of view: speaking to a culture that emphasizes the STEM fields, how do we, as humanists, justify the pursuit of non-instrumental, non-vocational, non-goal-oriented learning? How do we create a space in which humanistic inquiry can be valued as highly as those fields that have more immediately apparent and measurable outcomes: correct answers, material products, financial gains?

Our paper comes from this latter perspective. Lisa and I teach in a voluntary, residential Great Books program for freshmen at Stanford University, along the model of something like Directed Studies at Yale. The major difference between a Directed Studies and our program, called Structured Liberal Education or SLE, is the broader culture in which each program is embedded, and from which the program distinguishes itself. In what follows, we will describe in broad strokes Stanford's "techie"-dominant culture (I borrow the undergraduates' term here, "techie" being the opposite of what they call "fuzzy," in other words, anything tending toward the humanities fields. And I should take a second to point out that "fuzzy" is almost exclusively a pejorative term, as in "I would take that class, but I don't want them to think that I am a *fuzzy* or something!"). Second, we will discuss the ways our program sets itself apart from the culture at large, and in doing so, we will present SLE's answer to the conference question: "What is Liberal Education for?"

I'll begin with an anecdote. Most often, conversations on the first day of class end with students exchanging email addresses or phone numbers, "friending" one another on Facebook, or making plans to meet in the dining hall or over coffee. But I had a peculiar experience on the first day of an interdisciplinary freshman course I taught at Stanford University in 2013 called "Networks: Ecological, Revolutionary, Digital." The course had attracted many students from the STEM fields, particularly Computer Science, and on the first day of class I noticed them checking out each other's profiles not on Facebook, but on LinkedIn. They swapped information about their summer research projects and internships, which were already carefully lined up in March. Over the course of the quarter, their in-class presentations (designed as "lightning talks" on any aspect of network theory that interested them) became elevator pitches for their various start-ups, which dealt with green energy, BitCoin, and big data analysis.

The course satisfied the brand new freshman requirement in "Thinking Matters," inaugurated in the 2012-2013 school year. The "Thinking Matters" courses are designed to encourage free exploration and interdisciplinary experimentation. They replaced the older Introduction to the Humanities (IHUM) requirement, which had built such a bad reputation among Stanford undergraduates that first-year students would begin complaining about them during New Student Orientation, before classes had even begun. "I hate my IHUM" became such a refrain that one senior described it to me as a bonding experience for freshmen. Thinking Matters means to quell some of the vitriol that had built up around freshmen requirements, providing students with options like "Networks" which may be closer to their interests but still serve to introduce breadth to the freshman experience. These courses mean to provide a space for free play, in the spirit of the liberal education.

Although it is one of the most fascinating courses I have ever been a part of, "Networks" was despised by the students. What we had conceived as a theoretical exploration of network theory from the perspective of a variety of disciplines, students saw as a waste of their time, as we "forced" them to pursue two projects, a biological experiment on ant societies and a historical analysis of social

networks in the Enlightenment. The students were frustrated by the lectures, which were effectively essays that sought to illuminate the connections between three very different disciplinary approaches to network theory: in history, computer science, and biology. Instead, the students wished to focus on satisfying requirements in their majors, developing their research grants, and marketing their startups. The disconnect between our push toward breadth and their desire for depth produced clashes that the section leaders had to mitigate in our small seminars.

I use this anecdote as an illustration of the rampant entrepreneurialism that characterizes

Stanford undergraduate culture. One of the most striking features of the first-year student at Stanford is her entrepreneurial spirit. This is true of nearly all entering students, pervasive as it is in campus culture, and it continues in certain sectors of the university throughout the students' college experience. Engendering the entrepreneurial spirit begins with New Student Orientation, where incoming freshmen quickly learn that if they do not sign up for the engineering prerequisites their first quarter, they will effectively be unable to complete the major in four years. Nearly a quarter of Stanford students also pursue a co-terminal degree, which is a combined bachelor's-master's degree begun in the student's senior year. The co-term program also requires a great deal of early specialization and curricular organization, so that students can complete their major requirements (one, two, or even three majors), prerequisites for the co-term, and their general education courses in a timely fashion. Curricular exploration – even if such courses fulfill general education requirements – is seen as at best a luxury and at worst an imposition.

The academic mission of the university is explicitly concerned with "usefulness." This has been true of Stanford since its founding in 1891. Stanford was, in fact, among the first institutions of higher learning in the US to introduce the major system as opposed to a standardized liberal arts curriculum, a move which the first university president David Starr Jordan saw as coming from the university's commitment to practicality, the fixed curriculum being an "affront" to the student, productive "dim-eyed monk[s]" and "stoop-shouldered grammarian[s]" instead of "leader[s] of

enterprise" (SUES Report, p. 18). Nicholas Thompson, editor of newyorker.com, founder of the Silicon Valley-backed startup The Atavist, and a Stanford alum, raised a series of questions about Stanford's affiliation with Silicon Valley in three blogposts on the New Yorker's website in 2013. Provocatively asking where the Valley ends and the University begins, Thompson cited the case of a dozen students who dropped out of school to work on Clinkle, a start-up supported by investments from, among others, their own professors. Two of my students in "Networks" had shared with our class that they were also being encouraged – by one of their professors – to drop out of the university to work on their BitCoin start-up. In September 2013, Stanford announced a new university initiative called StartX, a start-up incubator that will advise current students on their startup projects. The university itself will invest in the most successful of this elite group of startups. The university has a strict policy for dealing with professors entering romantic relationships with their graduate students, but we could probably stand to lay down some policies for investment relationships as well. On a less ethically fraught front, Stanford has opened an office under the supervision of the Vice Provost for Undergraduate Education for Undergraduate Advising and Research, which boasts that the university invests between \$4-5 million annually in undergraduate research projects, overseen by faculty across all departments of the university (SUES Report, p. 56).

The obvious ethical issues of professors investing in their students' start-ups aside, I don't mean to suggest that an entrepreneurial spirit is somehow bad for the university or for the individual student. On the contrary, it drives Stanford students in all fields to pursue exceptional projects, and to prepare themselves for careers both inside and outside the academy. There are clear benefits to students specializing early, pursuing independent and original research, and cultivating close advising relationships with supervising faculty. But I would like to suggest that this kind of hyperspecialization is antithetical to the goals of the liberal education, which is explorative and meandering, rather than directional. The entrepreneurial drive of Stanford students compels them to acquire a dizzying degree of depth within their majors, but it simultaneously convinces them that

breadth is a distraction, a requirement thrust upon them by the powers-that-be, that may well derail them from the primary projects that will guarantee their success at Stanford and beyond: their start-ups, their independent research grants, their archival work.

One of the primary antidotes to this entrepreneurial thinking at Stanford is the Structured Liberal Education program, of which Lisa and I are here as representatives. As I have already mentioned, Structured Liberal Education (or SLE) is a Great Books program available only to incoming freshmen, who apply to the program after accepting their offers of admission to Stanford. Each year, we consistently receive between 140-150 applications for the 90 spots of the program (this is about 5% of the total incoming freshmen class). The 90 students live in a single residence, and we hold both plenary lectures and discussion sections in the common spaces of their dorm. We use a flexible but fairly consistent curriculum that varies only slightly from year to year. At breakneck speed, students cover the great works of (primarily) Western culture, listening to lectures given by experts from around the university, and then working through the texts in small seminars led by the SLE teaching staff. In the meantime, the students submit papers that are written in multiple drafts, that they discuss extensively in one-on-one meetings with their seminar leaders and a dedicated staff of writing tutors, all of whom are alumni of the program. In the time that remains, Lisa will speak about the ways in which SLE works to disrupt the entrepreneurial paradigm that Stanford has cultivated, and the challenges and rewards faced by the students in our program as a result.

Beth has just presented a picture of the overall Stanford undergraduate culture as instrumentalist, entrepreneurial, and more focused on depth than on breadth. But the culture of SLE is different, and the differences sometimes push directly against the dominant trends of the overall culture.

In part, SLE pushes against instrumentalism simply by being Great-Books-based humanities program: reading *The Republic* and *The Inferno* are not obvious and necessary steps in most career paths. And, unlike students from the much-hated IHUM classes, SLE students do not seem to want the SLE program to be anything other than what it is. The move from IHUM to Thinking Matters was driven, in part, by students' desires for general education requirements that felt, to use one of the contemporary education buzzwords, "relevant." Students who signed up for the "Networks" class that Beth worked in thought that they were signing up for a general education class that was closely related to their career interests, and the elements of the class that they disliked were the elements that didn't address those career interests. But SLE students sign up for SLE in part because they don't want a narrowly focused, career-based general education class. Some of our SLE students plan to major in Engineering and Computer Science and other STEM fields, and, when we ask them why they chose SLE, they are nearly unanimous in saying that they wanted something different from their general ed experience: they want the breadth; they want big ideas that have nothing to do with computers; they want serious engagement with texts that lets them develop skills that do not directly link up with their career paths. In short, they want a humanities education that is separate from their career-related studies. And they say that they want this non-career-focused experience at the beginning of their studies. They say things like, "I want to read these books while I still have the chance, before I get overwhelmed with Engineering requirements." They see their SLE reading as both separate and foundational, as an experience that will shape and change the way that they engage with the rest of their education.

Further, this widespread interest in humanistic enquiry as something other than a means to a career-focused end creates different social pressures for SLE students. A lot of Stanford undergraduates who do not take SLE describe the overall student culture as "anti-intellectual." When Stanford was considering the move from IHUM to Thinking Matters, a committee of faculty and staff conducted interviews and surveys with many Stanford students who had gone through the

IHUM program, and one story that they heard over and over was the "IHUM kid" story. Students would say, "If I tried to talk bring up ideas or concepts from my IHUM class in a group of friends, people would tell me to be quiet and call me 'IHUM kid." Students were quickly acclimated into a culture in which IHUM ideas were only to be discussed in IHUM class.

But SLE students expect their peers to discuss texts and ideas outside of class, and the social dynamics in the SLE dorm tend to reward engagement with texts and ideas. SLE's class spaces are in the dorm, including several dorm lounges, and, when I hold office hours in a lounge, the conversations that I overhear are often about this week's texts, or about ways that a key theme from this week's readings relates to other texts from the course or to books or themes from students' other courses. (I also hear enough random conversations about movies and roommates and weekend plans to know that these class-related conversations aren't being performed for the benefit of the teacher in the corner; a lot of the time, the students who are talking about this week's text haven't noticed that I'm there.)

Further, the student who draws connections between the themes of a SLE text and ideas from other courses tends to draw those connections in a non-instrumentalist way. They tend to frame the connection as, "Here is a cool thing that I noticed, and I'm mentioning it because it's interesting" rather than as, "Here is a cool thing that I noticed, and it's interesting because it shows me that this book that I'm reading is relevant to my career interests." I'm thinking in particular of some students who were taking a political science course during the Spring term, which is when we read Marx in SLE. Whenever those students drew parallels between Marx's analysis of labor power relations and their PolySci professor's analysis of the history of power relations in Israel, I always got a sense that they were bringing in the outside material because they thought it was interesting and illuminating in its own right and not because that information made Marx *useful* to their prospective careers as lawyers or international business executives. I think our students would see talking and thinking about SLE texts in a careerist or instrumentalist way as wrong, as breaking the rules; it wouldn't fit

with their sense of how SLE is supposed to work. And students who acculturate to this sense of how SLE is supposed to work will not buy into an instrumentalist model that claims that every text and every idea and every class is meant to forward their career goals.

The ways that SLE students push against an instrumentalist educational model is closely related to the ways that they do not fit the entrepreneurial mold of the dominant Stanford culture. When Beth and I were working on this paper, we talked a lot about what "entrepreneurial" means, and we figured out that, for us, the difference between "entrepreneurial" and "enterprising" has to do with motivation. You're entrepreneurial for the sake of the external end that you're aiming at: if you're founding a start-up out of an entrepreneurial spirit, then your main concern is the startup. The success of the external end is what motivates you. But if you're doing something out of an enterprising spirit, maybe your main concern is your own development; you're more concerned about what the success or failure of the venture says about you and the kind of person you are and the kind of capacities that you have. And the SLE students tend to be much more enterprising than entrepreneurial. They might not frame it in these terms, but they tend to be concerned with selffashioning, with mastering a text or a skill in order to become the sort of person who knows that text or possesses that skill, with becoming multi-faceted. They tend to have a sense that the kind of person that they become is more important than the particular ends that they choose to pursue--and, in particular, more important than the career that they choose. By providing students with a space that emphasizes the process of learning rather than a particular end or product of that learning, SLE gives its students permission to be enterprising rather than entrepreneurial--permission that, for the students, may push against the entrepreneurialist strain in the larger Stanford culture.

SLE's emphasis on the process rather than the product of learning also ties into its focus on breadth--a focus that runs counter to an overall culture that privileges depth and narrow specialization. SLE operates at an exceptionally fast pace, which is one of the perennial complaints of our students. We devote no more than two days to any text, and most texts only get one day, so

we cover no text in depth. The first three weeks of the winter term last year, for example, had students read and discuss Augustine's Confessions, Aquinas's Summa, al-Ghazali's Path to Sufism, and Dante's *Inferno*, which they read in its entirety in Week 3. Students often see this as a detriment to real engagement with the text at hand, but we console them by reminding them that SLE's focus is not depth (which they will enjoy as they pursue their individual majors), but breadth. The benefits of this kind of breadth – while probably obvious to the audience here today – are worth being articulated, not only because they may be obscure to other students who do not opt-in to this sort of program, but because they answer the stated question of this conference: What is Liberal Education For? SLE's short answer to this question would be breadth. Breadth of material allows the students to focus on skills development over content management. We do not test them on what they retain of their material, but on how they process it, what connections they draw, what debates they foresee. It matters less to programs like SLE that the students can recall information readily available at a tap of their fingers; rather, we would give them as many instances to choose from as they could, and ask them to synthesize a few of those instances to address one of the Great Questions. The depth model, by contrast, asks students to narrow in a question until it is answerable by a single algorithm, by changing a single variable, or by some other means of reducing the problem to its smallest constituent parts. When students disregard breadth, as many Stanford undergraduates do, broad questions are swallowed by narrow ones, or set aside as unanswerable or meaningless, because they appear too big to handle. When students embrace the breadth model, they find that freedom to attempt answers at these questions, the freedom that gives the liberal education its name (and, for that matter, the freedom that gave Stanford University its motto: "The wind of freedom blows"!).