The Workforce Relevance of Liberal Arts Education

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Introduction

Liberal arts colleges and universities are currently facing substantial challenges. Small colleges are closing at unprecedented rates. Undergraduate and graduate school enrollment dropped by 2.5% from fall 2019 to fall 2021 (NPR, December 17, 2020). For many colleges, COVID-19 added severe disruption when they were already struggling with decreasing enrollment trends. Prospective students may now struggle to see liberal arts colleges—often viewed as steeped in tradition rather than in technology—as a worthy investment to help prepare them for careers upon graduation.

While technical skills are critical for many careers, employers are increasing their focus on human skills. These human skills, such as critical thinking, creativity, communication, collaboration, initiative, integrity, and comfort with ambiguity, complement technical skills and cannot be directly replicated by today's technology. Monster's *The Future of Work 2021: Global Hiring Outlook* reported that when employers were asked to name the top skills they want in employees,

LinkedIn 2019 Global Talent Trends Report:

Eighty-nine percent of recruiters say when a hire doesn't work out, it usually comes down to a lack of soft skills.

they cited soft skills such as dependability, teamwork/collaboration, flexibility and problem-solving. According to LinkedIn's *2019 Global Talent Trends report*, 89 percent of recruiters say when a hire doesn't work out, it usually comes down to a lack of soft skills. (SHRM – May 28, 2021)

Liberal arts institutions place strong emphasis on building these critical human skills. Their curricula encourage students to develop creative and inter-disciplinary thinking to tackle significant challenges. The goal of liberal arts education is not simply to advance learning for its own sake, in a vacuum, but in a larger community and global context. In an opinion piece in *The New Republic*, Lewis & Clark President Wim Wiewel says, "*We must change the all too prevalent but false narrative that academics value theory over practice, that ivy-covered walls separate us from real-world problems.*"   For many institutions, bridging the education / workforce gap – whether real or perceived - will require extensive transformation.

To understand the workforce relevance of liberal arts education, MIT J-WEL and Pragya Systems assembled a group of senior campus leaders for a series of roundtable discussions. Participants discussed the importance of learners having the right combination of technical and human skills, as well as access to personalized, data-driven, and holistic career, academic, and co-curricular advice.

This paper presents perspectives and case studies from the participating liberal arts institutions around four key areas: (1) **advising**: providing holistic advice to help students develop and articulate career-relevant skills; (2) **curriculum**: redesigning curriculum and linking learning experiences to career skills; (3) **credential models**: supporting a broader segment of learners with new types of credentials; and (4) **collaborations** among industry, alumni, and organizations.

The paper concludes by looking to the future and the ways that institutions, foundations, and others might make progress in these areas.

Advising

Liberal arts colleges have always offered advising to students for both academic and career topics. However, career advice typically comes toward the end of the student's degree, rather than earlier when it could help them construct an ongoing progression of growth in academic and career readiness. Many of the discussion participants discussed a need to rethink the ways that their institutions structure and manage processes such as academic advising and career services. Traditionally, academic advising is provided by faculty, while career advising is done by staff members. This separation of the two roles creates a noticeable disconnect between academics and career-relevant experiences and skills. The siloed nature of advising can present a significant obstacle to helping students integrate academics and career realities during their educational journeys.

> Traditionally, academic and career advising are separate roles—creating a noticeable disconnect between academic and career-relevant experiences and skills.

One important step is to re-engage faculty in the career advising process. Quinnipiac University's College of Arts and Sciences has shifted from its previous model of advising to one that incorporates faculty in a new way. While many students would ask faculty for career advice, the school's old model divided advisory duties among faculty academic advisors who assisted students with course selection and progress towards graduation, and a single career advisor who assisted the entire student body with the fundamentals of applying for jobs (resumes, interview skills, etc.). Many students had established relationships with particular faculty members but had not done so with career services. They often wouldn't engage with career services until they were nearly finished with their time at school.

The College of Arts and Sciences at Quinnipiac's new CAS360 advising model is an integrated academic and career advising structure driven by faculty academic advisors, who are full-time, tenure-track faculty in a student's major, and supported by professional career staff. With the faculty now in the lead role in the ongoing advising process, students can receive career advice from faculty who know them well. Current ratios allocate approximately 15 students to one faculty member. Career staff work individually with students on career issues—as referred by faculty—and also manage employer relationships, facilitate

employer / faculty interactions, and plan college-wide events. Students are also able to go to the career office for walk-in advising to answer more general questions. This new model of advising allows faculty to more directly connect academic activities to careers and work in-depth with students, while also providing plenty of support and resources for faculty.

As part of Wheaton College's new curriculum design, which is described in more detail in the next section, the advising process has become more integrated into the curriculum. Students receive consistent advising around a structured agenda of questions. The primary advisor is a faculty member who advises students in cohorts of approximately eight people. Faculty are able to get to know students and their goals, gauge the career-relevant skills students need, and infuse their academic courses with experiential learning opportunities. The integrated advising role of faculty helps bridge the divide between what students are learning in classroom and what they need to learn to prepare for their careers.

Curriculum

As with advising, many liberal arts colleges are revisiting the overall curriculum design to determine if there might be ways to improve students' career readiness. Participants from the liberal arts institutions discussed the challenges of identifying gaps and shortcomings in current curricula and improving academic offerings for students to be better prepared for work. Colleges are also looking into effective ways to incorporate more experiential learning opportunities to ensure that technical and human skills are integrated into the curriculum.

> Curricular gaps and short-comings in building career readiness need to be identified and addressed, and opportunities for experiential learning need to be expanded.

Davidson College has recently re-evaluated ways it might create more pathways to careers for liberal arts students, designing pedagogy around measurable skills in "adjacent academies" of liberal arts and technical skills. For example, it piloted digital bootcamps to better prepare liberal arts graduates for jobs in the tech industry, focused on teaching core digital skills and building tech literacy. These bootcamps were designed to be complementary to traditional degree pathways. Yet, these experiences went beyond teaching technical skills. In surveys, students identified the opportunity to develop human skills such as

"growth mindset," "learning how to learn," and "expanding social capital" as the greatest benefits of the program.

Similarly, Dean College identified a need for technical skills and human skills to become better integrated. The college created a first-year experience program to help students understand the skill sets they need and be able to better articulate their skills to future employers.

Wheaton College has recently undertaken a curriculum transformation process. teams of faculty, students, and staff are working to design and implement an updated curriculum that better prepares students for their careers. The college had not deeply examined its curriculum model in 15 years, and its once-innovative "connections" curriculum was being imitated by many institutions. During the redesign, team members actively sought out alumni feedback, and found that mid-career alumni felt very prepared for the working environment—but it had taken them ten years after receiving their degree to feel prepared. Clearly, the new curriculum needed to do more to prepare students for work during their time at Wheaton, so they could be more career-ready upon graduation.

The Wheaton team designed a flexible curriculum, called Compass, with many pathways. Requirements for Compass include an interdisciplinary first-year experience, experiential learning for sophomores, a major plus 16 courses outside of the major, and the Mentored Academic Pathway (MAP) program. There are also optional elements, including the Liberal Education and Professional Success (LEAPS) program and honors and scholars programs. These programs are intended to provide targeted interdisciplinary pathways of courses, experiential opportunities that map to careers, and professional mentors who supplement academic advisors. The new curriculum is also designed to adapt over time. Currently, staff and faculty are examining measures of equity—observing who is taking advantage of the new opportunities and who is not—to ensure the new programs are easily accessible and available to all students.

Credential Models

Beyond challenges in advising and curriculum, colleges are also considering how the credentials they provide may be falling short of labor market needs. For example, the current model of majors and diplomas (i.e., the bachelor's degree for a typical four-year liberal arts college) can be limiting in that it doesn't necessarily show all the experiential learning and work-relevant skills that a student has acquired. There is a need to recognize learning that may be happening outside of a specific major or set of courses. With the traditional model, a liberal arts institution can become more of a "sorting" mechanism— sorting students into colleges, majors, and degree programs—rather than a "service" mechanism that provides students with the experiences and skills they need to be career-ready and employable.

Lehigh University has started a new credentialing initiative to acknowledge student learning that is residential and experiential—and beyond typical classroom learning. Blockchain technology was selected to provide students with more autonomy over their co-curricular and experiential learning credentials. (Traditional transcripts, in contrast, are owned and controlled by institutions.) Students who participate in Lehigh's Mountaintop Summer Experience or Iacocca International Internships, or who participate in the school's Division I athletics, receive a blockchain-anchored credential highlighting the proficiency they gained outside of the classroom. Proficiencies typically gained from these experiences are in areas such as critical thinking and problem solving, global intercultural fluency, and teamwork collaboration. Students in the Athletics program even receive different types of certificates based on their levels of participation.

In addition to helping students to more clearly articulate their skills to potential employers, the certificate program also allows Lehigh to re-engage with students and alumni post-graduation and remain anchored to them throughout their careers. Students can work with the university to build and maintain a

> The current model of majors and degrees is insufficient to capture the experiential learning and work-relevant skills students acquire.

digital wallet that documents their skills and experiences for a lifetime. This, in effect, shifts the model of the university from a finite process to more of an ongoing platform.

Collaborations

Recredentialing initiatives—and all efforts to prepare students for the workforce—also require strong relationships with outside institutions, including nearby community colleges as well as employers and alumni. These different players offer diverse perspectives and capabilities; in collaboration, they can provide a diverse range of help to prepare students for their careers. When designing its new curriculum, the team at Davidson College looked specifically at how the institution's strengths align with the needs of employers. In speaking directly with employers, they found that employers sought workers with specialized and human skills, and also felt they would benefit from more career exploration pathways, leadership development opportunities, and fast upskilling and reskilling programs. The employer demands and learner demands highlighted the value of a short-form (2-6 month) certificate program emphasizing "soft skills" within a specific industry context. Davidson, located near Charlotte, NC, is also becoming increasingly intentional about ways it can leverage educational programs and resources to contribute towards solutions for the nearby city's economic inequity challenges.

> Efforts to prepare students for the workforce require strong relationships among institutions, including liberal arts schools, local community colleges, employers, and alumni.

At [Trinity College](#) in Hartford, CT, a small group of undergraduate students have an opportunity to work with employees at InfoSys, a global technology company and a major local employer, in an 8- to 10-week project-based experience. This partnership is designed to provide Trinity students and alumni with opportunities to build technological skills and other career-relevant skills. Trinity alumni are among the new Infosys employees who have gone through the Business Analysis for Digital Transformation Program, which is part of the [Trinity-Infosys Applied Learning Initiative](#). The program takes place on Trinity's campus and many of the training courses are taught by Trinity faculty and staff.

[Pima Community College](#) (located in Tucson, Arizona), while not a traditional

liberal arts college, highlights value of human skills to career readiness—including for middle-skill career pathways. Pima has created two important pilot programs, working in close collaboration with partners who provide funding toward helping students to discover more about what human skills are and how to apply them. The Community College Growth Engine Fund supports "micropathways" at the school, including advanced manufacturing, automotive tech, IT/cybersecurity, construction (HVAC, electrical, plumbing, carpentry), and public safety. Each micro-pathways incorporates "21st-century skills" related to employability, human skills, or professional skills that are relevant to those specific jobs. In addition, the Bank of America Jobs Initiative supports students of color in gaining work-essential skills in a general / liberal arts education pilot program. Pima also works with Caterpillar and the University of Arizona to reskill and upskill engineers. The college is now considering how it might create a short-term open-enrollment online course to provide micro-credentials.

Liberal arts leaders also emphasized the importance of maintaining relationships with alumni as a means of connecting students to career opportunities. At Wellesley College, students have mentored opportunities to do "real-world" work with alumni in a "bite-sized" two-week experience. During a four-week period, each student completes two internships.

Looking to the Future

Liberal arts institutions are a vibrant and essential element of the US educational ecosystem. However, many face an existential threat from an increasing focus on cost-effectiveness of post-secondary education. To many prospective students, parents, and employers, liberal arts colleges can be seen as poor investments to prepare for an economically viable career trajectory. Yet other people see liberal arts graduates advancing more rapidly than other graduates, even if they start lower in their initial jobs. The challenge for liberal arts educators is to how to bridge that gap in terms of both student skills and broader societal perceptions.

Our series of rich discussions among liberal arts leaders at eleven institutions point to a clear direction forward. Liberal arts colleges need to help their students become more ready for their first jobs, without sacrificing the rich

educational experience that makes them well prepared for mid-career growth. They need to build on the richness of their curriculum while adding new experiences, and new signaling mechanisms, of greater workforce relevance.

This transformation is a substantial undertaking—and may, in some cases, require resources not available to each institution. We can, however, start to form a research agenda that aims to better understand the lessons learned so far, and looks in-depth at areas that still need to be explored.

In particular, our discussions surfaced the following imperatives for liberal arts institutions:

1. **Change the mindset of the institutions.**
   Liberal arts leaders have a formidable challenge to help their institutions see workforce readiness to be just as important as knowledge itself. There is a history in these institutions (and others) for faculty to reject the need for career readiness. *"Our goal is not to train you for a job. It's to teach you how to think."* Liberal arts institutions need to transform this contrast into a complementarity – creating great thinkers who are ready for careers immediately upon graduation.

2. **Highlight workforce relevance of skills imparted by existing curriculum.**
   Employers are increasingly demanding the human skills that liberal arts institutions teach exceedingly well. Critical thinking, problem solving, creativity, comfort with ambiguity, and systems thinking are core components of a liberal arts education. But these can be very difficult to document in a resume or demonstrate in an interview. Colleges should do much more to help students identify and describe the skills they have gained, and to help employers see the value of these skills.

3. **Improve the ability to teach relevant technical skills.**
   Many great liberal arts institutions already have strong programs in lab sciences, economics or computer science. Yet these sometimes yield a BA degree instead of a BS. These colleges can build on their strengths in pure science to make the students more attractive to employers who

readily hire engineering students. Examples include extending economics or computer science courses with deeper training in data science or software engineering.

4. **Help students think about workforce relevance from the beginning.**
    Liberal arts students are creative explorers. They may not be thinking about careers when they start school, and the richness of liberal arts education can lead them in many different directions. However, by senior year, when they need to think about their next steps, they may have already missed important opportunities to gain workforce-relevant experiences. When high percentages of liberal arts college graduates move directly to graduate school, should school leaders consider this a signal of success or failure? The school leaders in our roundtable are all working to help students think about their career trajectories as they start their educational journeys, not just as they prepare to finish.

5. **Embed experiential learning opportunities into the curriculum.**
    Students' work experience should not be limited to the few lucky individuals who land great summer jobs. Educators should work to build experiential opportunities directly into the curriculum. Just as many liberal arts programs include a semester abroad, educators should consider how to bring the world into the classroom through labs, collaborative projects, guest speakers, or field studies. Then they should take a step further, to ensure that every student gets a taste of real-world work through internships or apprenticeships built directly into the four-year educational journey.

6. **Establish collaborative arrangements between institutions.**
    The walls of the ivory tower are rapidly falling, revealing the ecosystems within which colleges and their stakeholders operate. Institutions such as Davidson and Georgetown increasingly work with employers, government agencies, non-profits, and other educational institutions to address societal challenges at the local or global level. Tackling these challenges can provide fruitful opportunities for

students to "get their hands dirty" and produce tangible results that they can talk about, while also introducing those students to people who are well-positioned to hire them or recommend them for jobs.

Next steps for the conversations

The imperatives discussed above, though essential, but will be difficult to accomplish. Each liberal arts institution will need to chart its own course toward these goals, based on its own unique capabilities and context. However, we believe that, by continuing to build on the rich and fruitful discussion among our roundtable members, we can together find solutions. In particular, we have identified a set of specific questions that, if answered, can help every institution on its journey to being more clearly workforce-relevant:

1. **How might we develop new ways of measuring effectiveness of advising?**
   Advising is obviously a core piece in increasing the career-readiness of students. How can we make sure the new methods are working, and that students are benefitting? And how can we can ensure they are working for faculty and career staff—effectively leveraging the strengths of each?

2. **How can we build programs that are available to, and can be tailored to, learners with different needs?**
   Learners with different needs, abilities, preparedness, and capacity (including diverse socioeconomic status, academic background, or career aspiration, as well as single parents and working learners) will respond differently to different types of programs. How can we ensure that programs can be accessible to learners with different needs and goals? Colleges designing a new curriculum noted that their programs will likely need to evolve over time. How can we make sure programs are created with the flexibility to adapt? What mechanisms do institutions have in place to ensure they remain in sync with the changing goals and challenges of their students?

3. **How can we build on existing practices to codify and certify the skills learners develop in both academic and experiential learning settings?**

   The long-standing model of using an undergraduate diploma to certify the knowledge and experience gained from a liberal arts institution has become outdated. It is no longer useful in a practical sense. How can institutions empower students to understand the human and technical skills they are gaining from their experiences both inside and outside the classroom—and communicate those effectively to potential employers? For experiential learning, in particular, which skills are the most critical for students to demonstrate?

4. **What kinds of institutional collaborations are best-suited to bridge the career relevance gap?**

   How can institutions form connections with industry that will best serve their students? And how can they also ensure they form connections that might serve their larger community, such as with community colleges, local school systems, or non-profits? There is still a lot of potential for liberal arts institutions to engage with organizations in nearby cities and towns, benefiting students, industry, and the local community.

5. **How can we engage with alumni to create career-readiness opportunities for current students?**

   This is an important, and perhaps especially challenging, question since there can often be a disconnect between alumni and current students. While alumni have much to offer to students, such as advice, internships or job leads, colleges may inadvertently make it difficult to link the two groups, leading alumni to become disengaged. The institutions involved in our roundtable did not provide many examples of alumni engagement toward career-readiness programs and initiatives. Lehigh University's efforts to reframe the traditional four-year program into a life-long educational platform may be a useful model for a process that engages engaging students with employers, and graduates with current students, at broad scale. How might colleges add more value for alumni in continuing relationships with them?

This discussion series is intended to be just the beginning, inspiring more
discussions with other contributors who have a stake in the future of liberal arts
education. The recommendations, questions, and examples in this report
outline what could be the beginning of a vital program of research that includes
collaborations, workshops, and experiments in our roundtable and beyond.

Acknowledgements

This white paper synthesizes discussions from a set of meetings among leaders at 11 institutions (see below). We thank these leaders for their willingness to share their practices and challenges. By engaging thoughtfully in the discussions, they helped their fellow roundtable members to understand and articulate a new vision for the future. And, by generously allowing the authors to participate, they are helping to share their experiences with a wide range of educational institutions and leaders.

Workforce Relevance of Liberal Arts Education Roundtable Series - Participating Institutions *

- Babson College - Ian Lapp (Dean of Undergrad Education), Donna Sosnowski (Director, Career Development)
- Davidson College – Kristen Eshelman (Director of innovation initiatives)
- Dean College – Brian Hastings (Dean, School of Liberal Arts)
- Lehigh University - Cameron McCoy (VP & Vice Provost Strategic Initiatives)
- MIT Sloan School of Management - Susan Brennan (Assistant Dean, Career Development Office)
- Pima Community College - Lee Lambert (Chancellor), Ian Roark (VP Workforce Development and Strategic Partnerships)
- Quinnipiac University - Rick Delvecchio (Director of Career Development, College of Arts & Sciences)
- Simmons University - Russell Pinizotti (Interim Provost)
- Trinity College - Joe Catrino (Director, Career Development)
- Wellesley College - Jennifer Pollard (Director, Operations and Analytics)
- Wheaton College (MA) – Steven Vivieros (Dean of Advising and Academic Success), Lisa Gavigan (Director, Career Services), Karen McCormack (Assoc. Provost for Academic Administration and Faculty Affairs)

* We have listed participants in the positions they held during the roundtable series. Several have moved to other roles or institutions since that time.

Dr. M. S. Vijay Kumar is Executive Director of J-WEL and Associate Dean for Open Learning at MIT. Vijay has been providing leadership for technology-enabled educational innovation at MIT for the past 22 years, previously as MIT's Senior Associate Dean of Undergraduate Education, Assistant Provost, and Director of Academic Computing.

Ramji Raghavan is the Founder & CEO of Pragya Systems. Pragya's mission is to drive educational relevance by helping higher-ed students align their learning and experiences to careers. Its unique AI powered architecture taps into institutional silos and off-campus labor market intelligence sources to unlock holistic advising.

Dr. George Westerman is Principal Research Scientist for Workforce Learning in the MIT Jameel World Education Laboratory, and a Senior Lecturer in the MIT Sloan School of Management. His research examines the transformative impact of digital innovation on companies and workers. He and his team recently launched the Global Opportunity Initiative, which is building a community of organizations that create and use innovative methods to help individuals to take charge of their career development.

Susan Young is Director of Strategic Initiatives of the Stanford Digital Economy Lab. She previously served as Assistant Director of Workforce Learning at J-WEL, where she managed member engagement and the Workforce Learning research grant program, and supported program development and research activities.

Fostering Global Educational Transformation

J-WEL is an initiative of MIT and Community Jameel, the social enterprise organization founded by MIT alumnus Mohammed Jameel '78. Community Jameel was established in 2003 to continue the Jameel family's tradition of supporting the community, a tradition started in the 1940s by the late Abdul Latif Jameel, founder of the Abdul Latif Jameel business, who throughout his life helped tens of thousands of disadvantaged people in the fields of healthcare, education, and improving livelihoods. Today, Community Jameel is dedicated to supporting social and economic sustainability across the Middle East and beyond through a range of initiatives including J-WEL, as well as three other labs at MIT: the Abdul Latif Jameel Poverty Action Lab (J-PAL), the Abdul Latif Jameel Water & Food Systems Lab (J-WAFS), and the Abdul Latif Jameel Clinic for Machine Learning in Health (J-Clinic).

Pragya System's mission is to help students and working learners align their learning choices to careers and jobs. Pragya's AI powered solution links learning pathways to labor market intelligence, skills and career outcomes to drive higher-ed enrollment, retention and workforce skilling. Pragya has partnered with several leading higher ed institutions to showcase ROI of their programs, provide holistic advising and deliver competency-based education. It is led by industry veterans and backed by top EdTech investors and advisors. Pragya is a winner of an NSF SBIR grant, and a global semifinalist of the XPRIZE Rapid Re-skilling initiative.

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