

DESIGN ENTREPRENEURSHIP AS TEACHING METHODOLOGY

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ABSTRACT

As more design students plan for non-traditional jobs in the gig economy, it seems prudent to accommodate their educational needs within traditional models of design education. While most forms of design education are focused on producing designers that join traditional design firms, we should also accommodate those students who wish to work on task-based projects or open their own firms. Having found this additional content difficult to fit into the current curriculum, we have begun a student-centered design incubator and consultancy that allows our students to learn by doing—by becoming design entrepreneurs while remaining sheltered by the resources of the university. Louisiana Design Works provides educational and physical resources to students who wish to establish their own design-centered enterprises. These enterprises can take many forms; freelance opportunities, consultancies, graphic design firms, photography studios, and small-scale design and fabrication shops.

It is through Louisiana Design Works that we teach our students skills beyond those typical to an undergraduate design education. They learn, in a very hands-on way, to research, design, market and manage their businesses, and manufacture and/or provide the services specific to their individual goals and aspirations. In creating this opportunity, we are able to promote, and retain, local designers and the products and services that they produce. In this way, we contribute to educational practices, economic growth, and community prosperity. While we do not yet have sufficient data to make substantial claims, we hold that this methodology is worth further exploration and would encourage others to adopt such a model of education.

Keywords: *education, entrepreneurship, “gig” economy, incubator*

1.0 INTRODUCTION

Reflecting on personal experience of being involved in design education for the past thirty-five years, few changes can be seen – in structural and methodological. Those changes, until recently, have been gradual and subtle attempts aimed at maintenance; at the preservation of traditional methods of education responding to traditional methods of practice. The evolution of educational practices has not been particularly dynamic in nature. In design education, it would take some serious research to locate and define any substantive changes beyond those of aesthetic prioritization or philosophical positioning. While the elements and principles of design might hold some unassailable territory, there are certainly many more considerations that should influence how we think about design education and how we teach design.

Our basic assumptions about design and design practice and how those assumptions influence our teaching methodologies, in many instances, have received very little consideration. Resultantly, our foundational teaching methodologies have changed very little. We continue to prepare students with the basic knowledge necessary to join traditional design firms. We expect that these students will continue to evolve as capable and competent designers while employed in these firms. We expect that they will be nurtured and mentored for years in the relative safety of an established design practice that will allow them to gain valuable experiences—experiences both in design practice and in the business of design. In short, we assume that the structured education of our students will continue long after they matriculate from our programs. In attempting to maintain traditional educational practices, we have been unmindful of external factors that might impact our students over the long-term. Two of the most significant of those external factors are the influence exerted by changing cultural practices and by advances in technology. In ignoring the changing world around us, design education has seemingly failed to remain abreast of, and respond to, contemporary cultural and technological practices—lived experiences—that are impacting emerging design professionals.

As educators, we have remained within our academic silos and failed to notice the world changing around us. There has been much criticism concerning this disenfranchisement with lived experience; however, there has been very little movement to reunify educational practices with the demands of those experiences that impact the daily lives of our students. Our cultural practices and technologies have far outpaced our efforts toward educating the next generation of designers; designers whose practices—in order to survive—will have to be accommodating to dramatic shifts in cultural, technical, and economic realities. In light of ever more visible cultural, technical, and economic shifts, design education—and perhaps education viewed more generally—must adapt if we are to prepare our students for their roles in both their particular professional practices and in the continued evolution of design in relation to technological and economic realities.



Image 1: Design ideas generated by Industrial Design student, Victoria Roux, in response to a prompt supporting the mission of Louisiana Design Works. Development is underway to market this product line via social media.

In the last twenty years, there have been dramatic shifts in the realities associated with the professional practices that delineate the disciplines of design—shifts that have simultaneously affected how we engage in work and with broader cultural discourse. With the rise of social media and the evolution of the gig economy, our students are matriculating into a more connected and a more uncertain future than that of previous generations. The abundance of design images, and opinions of those images, that have proliferated with the rise of social media has significantly impacted how we understand both design and design practices. Likewise, the stability and predictability of spending most of one’s professional career working for one firm and in one geographic area is less probable—and less possible—in contemporary social and economic environments. If we are to provide the best opportunities for our students to succeed, then educational practices must recognize and adapt to these changes. We must re-evaluate our practices in order to ensure that design education remains relevant to the needs of an ever-changing future.

2.0 THE GIG ECONOMY

In recognizing that there are social and economic forces that impact how we think about and teach design it is necessary to engage those forces as a means of discovering how our educational practices might

remain relevant to the needs of our students. One of the most significant changes that has occurred since I began my career as a design educator has been the shift away from traditional employment models to models that are, seemingly, antithetical to traditional practices. Our students are entering job markets that appear further and further removed from the models of professional practice that existed just ten years ago. New graduates are certainly not entering the workforce that their parents entered—they are entering a workforce predicated on impermanence, on uncertainty, and on change. The contemporary workforce is not one established upon lifetime employment but, rather, exists in the contingent. This new model of work is often referred to as a “gig market”; a model predicated on the temporary employment of “gig workers.” This “gig market” has transform traditional economic models—traditional economies have seemingly given way to the gig economy. As the gig economy exerts its influence upon the employment opportunities available to our students, it is necessary to come to some understanding of this new economic model and, further, to address ways that our teaching might evolve as a result.

2.1 Shifting Economic Models

Changes in both cultural practices and technological innovations have always affected the way we do work. In pre-history, the rise of communities shifted the burden of survival from one of independent making to a reliance upon the skills of others. We began to trade—to evolve economies—in order to acquire those things we needed to survive. As those early communities developed, particular individuals became more and more skilled at very particular forms of making. Instead of making our own bowls, clothes, shovels, or any other number of artefacts that we needed, we engaged in forms of trade that allowed us to have these things while simultaneously engaging other pursuits (Sennett 2009). This model of economic practice, and the practices of craftsmanship that facilitated it, remained the standard model of practice until a significant technological innovation required change.

With the rise of industrialization, the traditional model of craft manufacture shifted to a highly structured and more efficient model of manufacture. With that shift came a concurrent economic shift and, resultantly, a cultural shift. The abundance of inexpensive goods available and the advanced efficiencies of production allowed for the rise of the middle class and, in some instances, precipitated significant changes in political and social systems. The rise of robotics and advanced automation in manufacture has, likewise, changed our industrial practices. Automation has reduced the number of workers necessary to produce the goods that consumers acquire. This reduction in the workforce has left us in economically precarious positions—with less need for those workers who have traditionally been employed in manufacturing jobs and very few opportunities for those thus displaced.

While the age of industrialization—industrial manufacture—may continue to influence our general cultural and economic practices, the economic model that it is founded upon is shifting. More and more people are moving to the ever-increasing number of task-based or freelance jobs that have replaced the permanent jobs associated with traditional economic practices. These task-based jobs, by their very nature, have not customarily had the same longevity—there has been no expectation that freelance workers would remain in the same job for their entire careers. Resultantly, there has been no expectation that these workers would have the same long-term benefits as those employees engaged in a traditional manufacturing economy. This shift from manufacturing economies to task-based economies—coupled with technological advancements—has led us to what has been referred to as the gig economy. While the gig economy has not replaced our traditional manufacturing economy, it has had a significant impact.

In 2018, the United States Bureau of Labor Statistics reported that more than 55 million people in the United States are “gig workers” (Swaniker 2019). This number represents more than 35% of the workforce. Further, the number of “gig workers” is expected to increase to 43% of the workforce by the year 2020. According to John Frazer, there are two primary types of workers that make up the gig economy—workers employed in knowledge-based gigs and those who work in service-based gigs (Frazer 2019). In the next year, it is expected that more than 67 million U.S. workers will be “gig workers;” they will not hold the traditional jobs for which we continue to educate them. Further, it has been reported that approximately 150 million workers in North America and Western Europe are engaged as independent contractors; as “gig workers” (Frazer 2019). These numbers should be shocking—a very large percentage of people will be entering a job market that will no longer continue to support their training; that will no

longer mentor them in the skills and aptitudes necessary to adequately understand and perform their jobs. In a gig economy the educational expectations of the past no longer apply.

2.2 Benefits of the Gig Economy

While these numbers might appear dire, there are some benefits to the changing models of employment brought about by the rise of the gig economy. In giving up the stability implied by a 9-to-5 corporate model of employment, many “gig workers” are finding that they have improved control over their work-life balance. For the first time, young people are entering a task-based workforce that gives them the ability to set their own schedules, to spend more time with friends and family, to create and support the lifestyles that they want rather than any form of lifestyle forced upon them by prevailing corporate standards. Older workers, both those still in traditional jobs and those displaced by technological innovation, have found that freelance work allows them to remain economically viable in uncertain times. Further, many traditionally-employed workers choose to pursue freelance work as a means of supplementing their existing incomes without the time commitments of traditional part-time work. Others find that freelance work allows them to pursue things that they are truly passionate about rather than maintaining unfulfilling jobs in an effort to ensure financial stability.

As a “gig worker” you are not limited by corporate culture. There is no expectation that you will have to be fully accommodating to a company’s existent culture. In “gig work” you are not required to work in an environment that is uncomfortable; in environments that may conflict with your beliefs and values. You are not required to work in an environment that causes you stress. You can make your own decisions about the type of work that you want to do, when you do it, where you do it, and, ultimately, with whom you work. As a “gig worker,” you have the ability to do the things that you are passionate about. Likewise, you can choose your own schedule—when and how much you will work, when you will relax, when you will run errands, when you will spend time with friends and family, when you will vacation, and when you will sleep. As a “gig worker” you will have the ability to make choices that respond to your needs and that align with your chosen lifestyle, your beliefs, and your personality.

2.3 Implications of the New Model

While the benefits of being a “gig worker” might be tempting, there are also risks that must be considered. Frazer, writing for Forbes, noted that “gigs move the risk away from organizations and on to the individual. This is in stark contrast to the secure 9-to-5 corporate arrangement that workers demanded and received in the mid-20th century” (Frazer 2019). While being a “gig worker” does give workers the ability to make choices that respond to their personalities, their values, their ambitions, and their needs, there are implications in making these choices. One of the principle implications to choosing the life of a “gig worker” is accepting the level of discipline necessary to survive a freelance life. As a task-based worker, you are not beholden to the discipline established in traditional employment models; your discipline is self-discipline. It is your responsibility to actually do the work at hand; you must be disciplined enough to be on-task—there is no immediate supervisor to schedule your time or to check your progress. Similarly, you must be your own motivator; working outside a corporate structure can make it difficult to remain steadily working toward task completion. Additionally, you must be disciplined in prioritizing work while maintaining your work-life balance. Being late for meetings or missing deadlines are your responsibility alone; there is no support structure that can intervene on your behalf if you spend too much time engaged in activities that do not support your work.

Another significant implication of working in the gig economy is the lack of on-the-job training. With gig employment, there is no expectation that the people you are working for will invest in your future. It is a significant cost of doing business for employers to train their employees. If you are not full-time then there is no incentive for your temporary employer to invest in your future. In the gig economy there will likely be no structured mentoring; there will be no long-time employees to guide you as you encounter new environments, new challenges, or increasing difficulties. Additionally, the temporary nature of gig employment will be unable to shield you from failure. In traditional employment models, there is an expectation that workers will continually be learning and improving their particular skills. There is a corollary expectation that workers will occasionally fail to achieve the standards set for them. In most jobs,

workers are protected from catastrophic failure—they are afforded a second chance. This ability to experience failure while remaining protected under the corporate umbrella is not an expectation of freelance work. Your failures, like your discipline, are your responsibility; they are yours alone and you must be willing to accept the consequences of that responsibility.

Another consequence of freelance work, and one directly related to the lack of on-the-job training, is that it takes more time to build a body of experience. Because there is no expectation for the long-term employment of task-based workers, there is no corporate investment in their training. Resultantly, those workers are responsible for acquiring and maintaining knowledge of their industries and for constantly upgrading their skills. With constantly evolving practices and technologies, the workforce today will not be like the workforce of yesterday. In order to survive, “gig workers” will have to adapt; they will be responsible for honing their skills and using those skills to increase their levels of experience. Peter Swaniker, founder and CEO of Ximble, has noted that the volume of overqualified candidates entering the job market every year requires freelancers to “keep learning and keep up with industry trends to maintain a competitive edge” (Swaniker 2019). As more and more people turn to employment as “gig workers,” there will be more and more competition for the available jobs. While this is true for all workers, those in traditional corporate jobs are generally supported by their employers—the investments already made in these workers must be maintained to ensure the corporate competitive edge. In contrast, it is the sole responsibility of “gig workers” in ensuring that they continually update their skills and knowledge in order to meet the evolving requirements of the workforce. The “gig worker” must not only be continually striving to learn, but must also maintain enough knowledge of industry trends to ensure that they can anticipate change and prepare for it. As the gig economy rapidly continues to change the face of the global workforce, our students preparing to enter that workforce must be equipped to adapt just as rapidly.

As educators, it is our job to prepare students for the opportunities and challenges presented by the gig economy; to make them aware of and prepared for the risks that await them. While many of the jobs being created in the gig economy are service-based—Uber, Lyft, Waitr, and others—a recent report found that “knowledge-intensive industries and creative occupations are the largest and fastest-growing segments of the freelance economy” (Kleinhouse 2018). This is a significant development for design education. As noted, traditional models of design education rely upon the continued education of our students once they enter the workforce. In a gig economy, this reliance must be scrutinized. We cannot expect that our graduates will have the same opportunities that existed previously—opportunities that we continue to accept in an effort to prepare them for employment. Because our students have to reinvent themselves to meet the challenges of the changing economy, we as educators must also reinvent the ways we prepare those students.

3.0 THE IMPACT OF SOCIAL MEDIA

Concurrent to—and in many cases supporting—the gig economy has been a rapidly evolving cultural climate responding to recent technological advances. With the advent of, and advances in, smartphone technology our lives have changed drastically. The ways that people live, the ways that they work, the ways that they interact with others, even the ways that they spend money have changed. In an age of hyper-connectivity, we are constantly bombarded with images, with ideas, and with opinions that act to influence our perceptions of lived experience. One of the most pronounced of these influencers has been our ever-growing dependence on social media. This dependence on social media has had a significant influence on how our students have come to understand design and design practices. Traditionally, students had to depend on magazines and other print media, on public exhibitions, and on history and theory classes in order to see developments in the design fields. Developments, and the ideas and theories that supported them, were slow to evolve due to the time required to disseminate information and for the critical responses to that information.

With the traditional dissemination of ideas, our educational practices relied heavily on exposing our students to canonical works and ideas in order to give them the ability to make judgments and to respond critically to the objects and ideas that they encountered. Technological advancements—the almost ubiquitous presence of smartphones and the apps that support them—have radically changed the way our students see and respond to developments and innovations in the design world. While many social media

platforms have contributed to the broad dissemination of design, it can be argued that visually-dominant platforms like Bēhance, Dribbble, Instagram, and others have been the most impactful. The ability to curate and share images has been both a blessing and a curse for designers and design students. While there has been a proliferation of images that spark our engagement, there has been a simultaneous dearth of critical judgment in relation to those images. We can “like” instantly, often without thoughtful consideration. The speed at which we scroll through images does not generally afford the time for, or expectation of, critical deliberation. Further, the sheer volume of likes and comments create a form of anonymity that seems to conflict with—to devalue—traditional systems of authority.

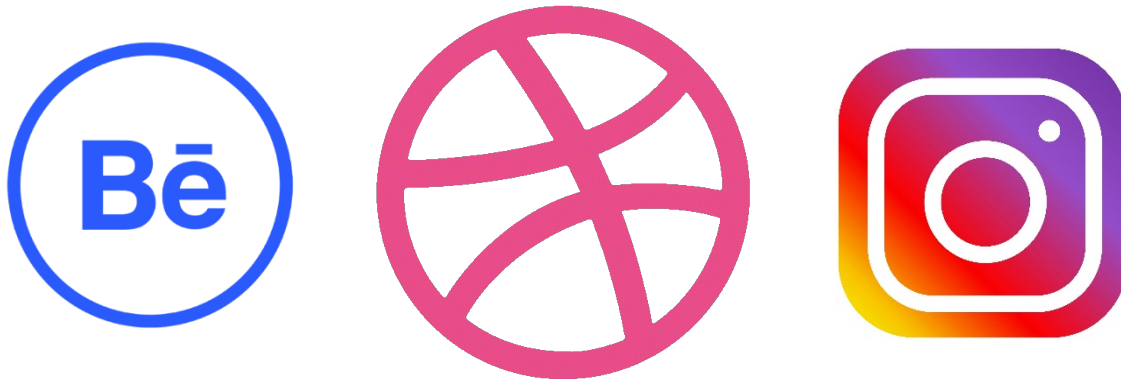


Image 2: The logos of Bēhance, Dribbble, and Instagram; three visually-dominant social media platforms that have changed the way design is disseminated.

The accepted canon of design appears to have little relevance in the continuous onslaught of images and ideas, in the non-critical acceptance of those images and ideas, and in the anonymity of our judgments of those images and ideas. While the proliferation of social media, and its impact on the canon of design, can be argued to represent positive change, it simultaneously contributes to the uncertainty that design students face as they attempt to acquire the skills and aptitudes necessary to their professions.

3.1 The Proliferation of Opportunities

Social media, despite these criticisms, also provides significant opportunities for emerging design professionals. While these opportunities impact all forms of our lived experience, the image-heavy presence of social media platforms gives designers the opportunity to quickly share their work with others. This exposure, while still beholden to criticisms of the speed and anonymity of judgment, offers designers the ability to construct and maintain individual brand identities—identities that are important to those engaged in the gig economy. With the ability to show work outside the traditional constraints of galleries, exhibitions, and juried shows, many more designers are attaining recognition for their ideas and for their work. This exposure can be beneficial in several ways. It can further conversations about belief systems and theoretical positions that exist in future-forward spaces. It can allow for peer-to-peer mentoring and access to guidance not available in the task-based employment of the gig economy. And, most importantly for those task-based workers, it can be lucrative; it can lead to both the direct sale of produced goods and services and to networking and employment opportunities.

3.2 The App Economy

The potential of social media platforms to provide direct sales, networking potentials, and/or task-based employment opportunities for design professionals should be considered one of the defining characteristics of the gig economy. Just as the apps developed by ride-sharing service Uber and delivery service Waitr have provided employment for many in the gig economy, platforms like Upwork, Bēhance, Instagram, Dribbble, Twitter, and Facebook have provided task-based networking and employment opportunities and virtual gallery spaces for artists and designers to market themselves and their work. For many young designers—designers that are graduating from our design programs—participation in this new “app economy” may be the first professional experiences that they have. With low overheads, small inventories, quick turnarounds, and an almost unlimited market, the business model promoted by the “app

economy” is a natural extension of the gig economy.

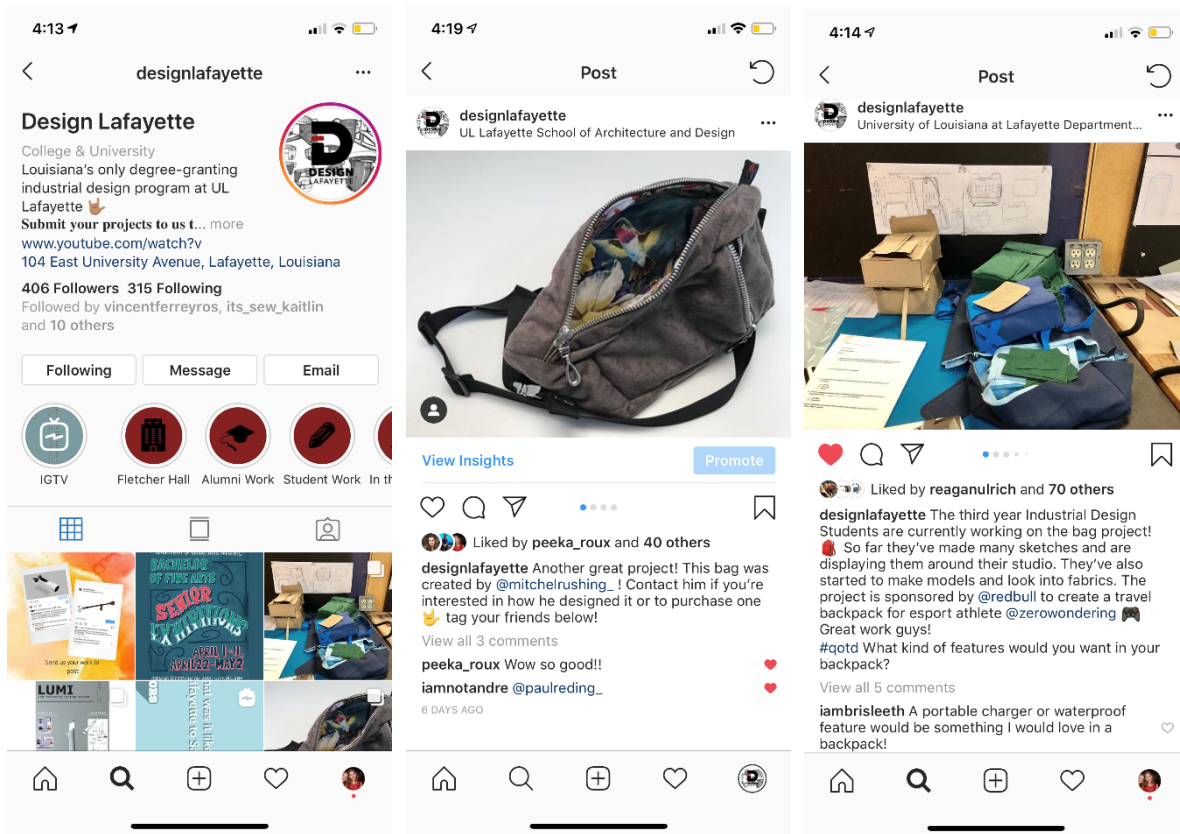


Image 3: Screen captures of Design Lafayette’s Instagram presence. Design Lafayette is the official online presence for the University of Louisiana at Lafayette’s program in Industrial Design.

For designers, the “app economy” provides them with the opportunities to make choices that cohere to their beliefs about work, about recreation, and about individual freedoms; choices that are difficult to find in the traditional business models of a manufacturing economy. Relatedly, those professionals that choose to work in the “app economy” must rely upon themselves to be disciplined, to be productive, and to ensure that they continue to succeed. As Pierre Kleinhouse noted in regard to the gig economy, they have to have “the discipline to regularly generate products or services that find a market” and to have “the courage to stay fully invested in the process and output of that labor” (Kleinhouse 2018).

3.3 A Digital Lifestyle

While the discipline and the courage required to work in a gig economy might seem antithetical to those of us who were trained for—and have worked in—traditional professional environments, it is almost second nature to the students that we teach today. Many of my students grew up in a fully digital world. Their educations—especially those informal educations that exist outside of schooling—have been driven by advancing digital technologies. Because our students are digitally native, they do not see the boundaries that have limited previous generations; they are unaware of the different models and practises that those of us who educate them have experienced. They are unbounded by our biases and our expectations for them. It is because of our differing expectations that we, as educators, are unaware of their easy acceptance of the gig economy. While we might perceive of the gig economy as something fearful because it is new to us, my students see it as normal; as just the way things are. As educators, we must be willing to acknowledge these changes—cultural and professional—as representing a new reality. In doing so, we must be willing to understand this new reality and adjust our teaching methodologies to accommodate it. We must be willing to create learning environments that will prepare our students to participate in a multitude of different economic and professional practices.

4.0 A CALCULATED RESPONSE

As more design students plan for non-traditional jobs in the gig economy, it seems prudent to accommodate their educational needs within those traditional models of design education that we currently engage. While most forms of design education are focused on producing designers that join traditional design firms, we should also accommodate those students whose aspirations are aimed squarely at the gig economy, at independence, and at making life choices that support their beliefs, their needs, and their goals. Having found this additional content difficult to fit into the current curriculum, we have begun an extracurricular, student-centered, design incubator and consultancy that allows our students to learn by doing—by becoming design entrepreneurs while remaining sheltered by the resources of the university.

As educators, we are responding to the things we have observed: through our efforts we are attempting to provide new opportunities for students to pursue business models influenced by the gig economy and by the proliferation of opportunities generated in the app economy. We have come to recognize that our students just are the entrepreneurs that fuel these future economies. As such, we are obligated to create learning opportunities for these new design entrepreneurs. We need to encourage—through exposure, through teaching—independence and innovative practices. We need to envision an economy built on nimble and responsive small businesses that are task-forward rather than on creating businesses that are only capable of responding to an economy built upon out-dated models that represent corporate power, corporate stability, and traditional forms of marketing and advertising. As Frazer put it, if we do this then “the ‘gig economy’ will just be ‘the economy’” (Frazer 2019).

4.1 Models of Practice

Our ideas, our responses to the changing world around us, are not particularly unique. There are a multitude of other institutions that have begun to shift their teaching methodologies in an effort to provide a broader set of opportunities for their students. In 2006, Neil Gershenfeld, the founder and director of MIT’s Center for Bits and Atoms, launched the Fab Lab. The Fab Lab was a means of exploring and reconciling changes in manufacturing processes and how individuals might take full advantage of those processes. As a result of this exploration, Gershenfeld innovated curricular changes and resource allocations at MIT as a means of incorporating his observations regarding shifts in technologies and the impact these shifts were having on economic practices. The Fab Lab, and the changing models that it predicted, have proliferated in the emergence of Maker Spaces, Hacker Spaces, Innovation Labs, and Entrepreneurship Programs. These spaces and programs have emerged both within the academy and without; many universities sponsor open innovation spaces and have begun to teach classes that allow for further student engagement.

Recently, James Madison University in Harrisburg, Virginia, launched its JMU X-Labs. The X-Labs support a curricular shift focused upon “interdisciplinary collaboration, project-based learning, and unscripted, open-ended research” (McMurtrie 2019). The X-Labs were a response to changes demanded by the social and economic climates influencing the futures of JMU students and graduates. The nimbleness of our economy appears to require a nimbleness in our students that traditional teaching methods have not fostered. College is perceived of as the sort of place where graduates receive a solid knowledge foundation in their chosen fields; students are trained to think within simplified frameworks that do not express the complexities of lived experience. Such a foundation is not enough; McMurtrie argues that colleges are falling short “in preparing students to wrestle with intractable problems and unending disruption” (McMurtrie 2019). In other words, our students are not being prepared for the challenges they will face in the gig economy. For JMU, this awareness facilitated curricular change—it facilitated the creation of multidisciplinary X-Labs where “faculty members must climb out of their disciplinary silos and engage in open-ended exploration alongside their students” (McMurtrie 2019). In this way, educators can teach their students by working with them to demonstrate how to solve difficult, and often undefined, problems in the messy complexity of the real world.

While there are many examples of ways that educators are responding to changing social and economic models of practice, it is necessary to adjust for the specific realities of particular programs in

particular environments. Many programs in engineering, in business, and in the social sciences have begun to shift toward methods that will allow students to succeed in the new economy and with ever-shifting technologies. Design programs have traditionally been responsive to these changes; responsive to the demands of lived experience. Through research, ideation, and innovation, designers both respond to and influence how people use spaces, environments, and artefacts. However, we, like many others, have been slow to address the realities of the gig economy and the advances precipitated by the app economy. In recognition of the changes that have been taking place around us, and in response to our curricular needs, the faculty of the Industrial Design Program at the University of Louisiana at Lafayette have begun to implement an extracurricular program aimed at addressing the evolving needs of our students.

Louisiana Design Works was created to provide educational and physical resources for students who wish to establish design-centered enterprises on their own terms while allowing the faculty to slowly modify our core curriculum so that we continue educating our students for traditional, and still necessary, market needs and, simultaneously, begin to adjust our curriculum to address changes necessitated by the gig economy. The educational opportunities and the enterprises fostered by Louisiana Design Works have taken many forms; freelance opportunities, design consultancies, graphic design firms, photography studios, and small-scale design and fabrication shops. We envision Louisiana Design Works as a means of preparing our students for new models of practice in a new economic reality; as a means of preparing them for the realities associated with the rise of the gig economy and the rising influence of the app economy.

4.2 Louisiana Design Works

Louisiana Design Works is the first student-centered design incubator and design consultancy in the state of Louisiana. We are housed within the School of Architecture and Design in the College of the Arts at the University of Louisiana at Lafayette. As such, we strive to provide a diverse student body with a variety of professional opportunities that supplement and enhance their educational goals. These opportunities include fostering student-led design-based startups by assisting students in developing their own products, ideas, and businesses; acting as design consultants for other student entrepreneurs; and serving as consultants to local, national, and international industry partners in need of design services. Louisiana Design Works has also begun the process of designing, developing, manufacturing, and selling its own product lines. In total, we are working to create a variety of opportunities based upon the goals and needs of our team members, our students, and the design community.

The mission of Louisiana Design Works is to foster creative product development leading to the fabrication of viable and market-ready products and to nurture the development of new design-centric companies. There are several different ways that we are working to accomplish this mission. Within the boundaries of our current curriculum we have partnered with industry sponsors to provide experiences and opportunities for our students and, concurrently, providing an influx of much-needed design ideas for the partner firms. Recently we have worked with Tchoup Industries—a New Orleans-based maker of bags, backpacks, and accessories—and Red Bull in creating working prototypes of both BMX bike bags and backpacks for video game streamers. Due to the success of these endeavors, we are currently negotiating future projects with several other large design firms. In addition to these sponsored projects, we have begun a series of speculative projects in order to develop both branding and products for Louisiana Design Works. Through school-wide charettes and in-class development, we have begun to prototype both personal and home accessories that we hope to distribute through traditional brick-and-mortar retail establishments and through online venues made available in the app economy. Further, through partnerships with University administrators and with our partner firms, we are providing direct employment and internship opportunities for our students; opportunities that partner them with faculty members and industry professionals who direct their work and foster their emergence as student entrepreneurs.

As an integrated part of the existing program in Industrial Design at the University of Louisiana at Lafayette, Louisiana Design Works offers a unique set of opportunities and resources for student designers and industry partners. Our office provides access to computers, secondary monitors, and software resources including Rhinoceros, Autodesk Inventor, Fusion 360, Solidworks, Photoshop, InDesign, Illustrator, and the Microsoft Office Suite. The office also houses three vinyl cutters, several sewing

machines, a small 3D printer, and photo and video equipment and lighting. In addition to these resources, we also have access to both wood and metal prototyping labs that include standard shop equipment, a CNC mill, a CNC router, and a CNC plasma cutter. Our Digital Fabrication lab includes two laser cutters and four additional 3D printers. Further, each student entrepreneur has access to a reference library, a materials library, conference and meeting rooms, and standard office equipment.

With our partners, Louisiana Design Works is stimulating local interest in the design industry and an awareness of global design trends. Local business owners, designers, and community leaders offer access to programs, training, presentations, mentoring, marketing, and retail opportunities to the students in our incubator. The public is invited to lectures, to workshops, and to pop-up sales that highlight both local and national designers. It is with these resources, available both curricular and extracurricular, that we can facilitate the evolving needs of our economies, our communities, our professional practices, and the education of our students.

5.0 CONCLUSION

It is through Louisiana Design Works that we have begun to teach our students skills beyond those typical to an undergraduate design education. They learn, in a very hands-on way, to research, design, market and manage their businesses, and manufacture and/or provide the services specific to their individual goals and aspirations. They are also made aware of the risks and responsibilities that come with non-traditional careers and practices. The opportunities that we provide our students give them the skills and aptitudes necessary to succeed in the gig economy and in the rapidly evolving app economy. In facilitating these opportunities, we are able to promote, and retain, local designers and the products and services that they produce. In this way, we contribute to educational practices, economic growth, and community prosperity. While we do not yet have sufficient data to make substantial claims, we hold that this methodology is worth further exploration and would encourage others to adopt such a model of education.

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