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Original Research

Leveraging University Networks in University Powered Accelerators: Best Practices and Lessons Learned

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Abstract

Co-location tools of urban economic development, such as accelerators and incubators, can facilitate entrepreneurship. Of these tools, accelerators have proliferated in number and variety over the past couple of decades. However, growing evidence suggests that these programs are not equally effective, varying in form and function with disparate outcomes. Initial evidence indicates that the effectiveness of accelerators varies by entrepreneurial ecosystem features, such as density and university involvement. Current scholarship is limited, however, in that it doesn't provide an adequate explanation for why that is the case. This paper uses creative class theory to explain the distinct advantages of an accelerator powered by an urban, metropolitan research university. Among these advantages are the dense and diverse networks comprising urban research universities and the value each network participant contributes. In addition, we posit that amplifying these collective contributions is critical to startup success and the overall vitality of the entrepreneurial ecosystem within the region. We support our logic by profiling the best practices, design features, and lessons learned of an accelerator powered by a public, metropolitan research university serving as an anchor institution for the St. Louis region.

Keywords: accelerators, anchor institution, creative class theory, entrepreneurship

Introduction

It is widely recognized that entrepreneurship is essential to local economic development, often serving as an engine of wealth creation (Audretsch, Belitski, & Desai, 2015; Blakely & Bradshaw, 2002; Bruton, Ketchen, & Ireland, 2013). As such, promoting entrepreneurship has become increasingly attractive to university administrators and leaders of all kinds, and several entrepreneurship programs have been established at universities around the world to better capitalize on the potential of entrepreneurship as a lever for promoting local economic vitality (Garcia & Ustymchuck, 2020; Tekula & Jhamb, 2015; Valerio, Parton, & Robb, 2014).

Of the ways to spark entrepreneurship, co-location programs, such as business accelerators, incubators, and science parks, have become key tools (Madaleno et al., 2022). Governments, corporations, foundations, private investors, and universities have all participated in their formation, hoping to serve as catalysts in promoting local and/or regional economic growth. Of these tools, accelerators and programs of limited duration that aid select cohorts of startups, have grown significantly in number and variety over the past couple of decades (see Crișan et al., 2021 for a recent review). They are more structured, denser, and selective than the other co-location programs (Madaleno et al., 2022) and provide early-stage ventures with resources, contacts, and entrepreneurial guidance. However, a recent study suggests that these programs are not equally effective, varying in form and function with disparate outcomes (Chan et al., 2020).

Initial evidence indicates that the effectiveness of accelerators may vary based on entrepreneurial ecosystem features, such as density and university involvement (Madaleno et al., 2022). Current scholarship is limited, however, in that it doesn't provide an adequate explanation for why that's the case. Given the potentially instrumental role these economic development tools play in facilitating new entrepreneurial activity in urban and other regions, this is an important gap in our knowledge. The more knowledge we have of accelerators' contextually dependent functioning and performance, the better we can design such programs for optimal effectiveness and impact.

This article advances scholarship along this line of inquiry by addressing the following research question: What are the distinct advantages of an accelerator powered by a metropolitan research university? To address this question, we use creative class theory (Florida, 2014) to profile a first-of-its-kind, university-powered accelerator that has successfully implemented three different accelerator programs. Our guiding theory is that among the advantages is the diverse set of interconnected actors comprising urban research universities and the value that each network participant contributes. In addition, we posit that amplifying these collective contributions is critical to startup success and the overall vitality of the entrepreneurial ecosystem within the

region. In doing so, we contribute to the urban economic development literature more broadly and the business accelerator literature more specifically by highlighting a novel form of organizing to foster entrepreneurship and innovation in a university-based, metropolitan setting.

Theoretical Background

Creative Class Theory

A basic tenet of the creative class theory is the notion of creativity, "an underlying construct or skill that links what were thought of as separate and distinct fields of science and technology, business management and the professions, and art, design, and entertainment" (Florida, 2014, p. 197). The assumption is that it is not the technology we build or the knowledge we gain that are our key economic resources but our shared creativity—a collective resource that, unlike land, capital, and labor, is constantly renewed and improved by education, on-the-job experience, and the stimulation that accompanies human interaction. This renewable resource cuts across all social categories and is a unifying theme tied to social and commercial achievement across all fields (Florida, 2014).

Creativity is central to creative class theory because it is the modus operandi through which some places obtain better economic development gains than others. Rather than focusing strictly on firms and industry, creative class theory shifts attention to the *people* that make the *place*, the locus of innovation. Its core hypothesis is that place itself is supplanting firms as our time's primary social and economic organizing unit and that occupations provide an alternative and more precise measure of human capital or talent (Florida, 2014; Mathur, 1999). The logic is that by better understanding the occupational composition of a local economy, we can gain greater insights into its workings, developmental trajectory, and various economic outcomes. Moreover, the extent to which the occupational composition of a local economy consists of the *creative class*—jobs in knowledge-intensive industries that involve the production of new ideas and products or that engage in creative problem-solving—is likely to be a key predictor of local economic phenomena. As a statistical testament to its importance, the creative class makes up around one third of the U.S. workforce but accounts for about half of all U.S. wages and salaries (Florida, 2014).

In promoting economic development, an implication of the creative class theory is that regions should compete to attract and retain more individuals working in creative occupations. According to this lens, a citizenry's collective creativity is the paramount and enduring wellspring of economic growth instead of competing for companies or securing raw materials.

Indeed, to be successful in our creative age, regions must develop, attract and retain talented and creative people to generate innovations and develop technology-intensive industries that power economic growth (Gertler et al., 2002).

In his analysis of the drivers of creativity within regions, Florida (2003, p. 10) writes:

> The key to understanding the new economic geography of creativity and its effects on economic outcomes lies in what I call the 3Ts of economic development: technology, talent, and tolerance. Creativity and members of the creative class take root in places that possess all three of these critical factors. Each is a necessary but by itself insufficient condition. To attract creative people, generate innovation, and stimulate economic development, a place must have all three. I define tolerance as openness, inclusiveness, and diversity to all ethnicities, races, and walks of life. Talent is defined as those with a bachelor's degree and above. And technology is a function of both innovation and high-technology concentrations in a region.

Thus, in analyzing a city's capacity for economic growth, it is imperative to consider the 3Ts of technology, talent, and tolerance, which synergistically create the conditions for a vibrant and productive creative class. Closely related, and perhaps implicit, to this theory (and the 3Ts) is the idea of *collision density*, defined as the potential frequency of interdisciplinary interactions (Nylund & Cohen, 2017). The term originates in physics to capture the rate of interactions among atoms in a physical system. Applied to the study of local economies, it helps explain the urban advantage in promoting innovation and entrepreneurship. Urban regions have denser and more diverse sets of economic actors to spark new ideas and commercialization efforts (Cohen, 2016).

We theorize in this paper that collision density, tied to a creative class theory, may be a key mechanism linking the programmatic features of co-location programs with their functioning and performance. It may help explain why such programs are more effective in urban settings and with university involvement (Madaleno et al., 2022). They increase the likelihood of "creative collisions," productive interactions between diverse creative actors that can lead to innovation and value creation.

Co-location Tools

Creative class theory, and the notion of collision density, provide a useful framework for understanding the functioning and performance of co-location tools, such as industrial estates, science parks, coworking spaces, serviced offices, incubators, and accelerators. Figure 1 below, adapted from Madaleno et al. (2022), presents a typology for thinking about these tools based on

three strategic dimensions: the density of tenants, the level of program curation, and the number of actors involved.

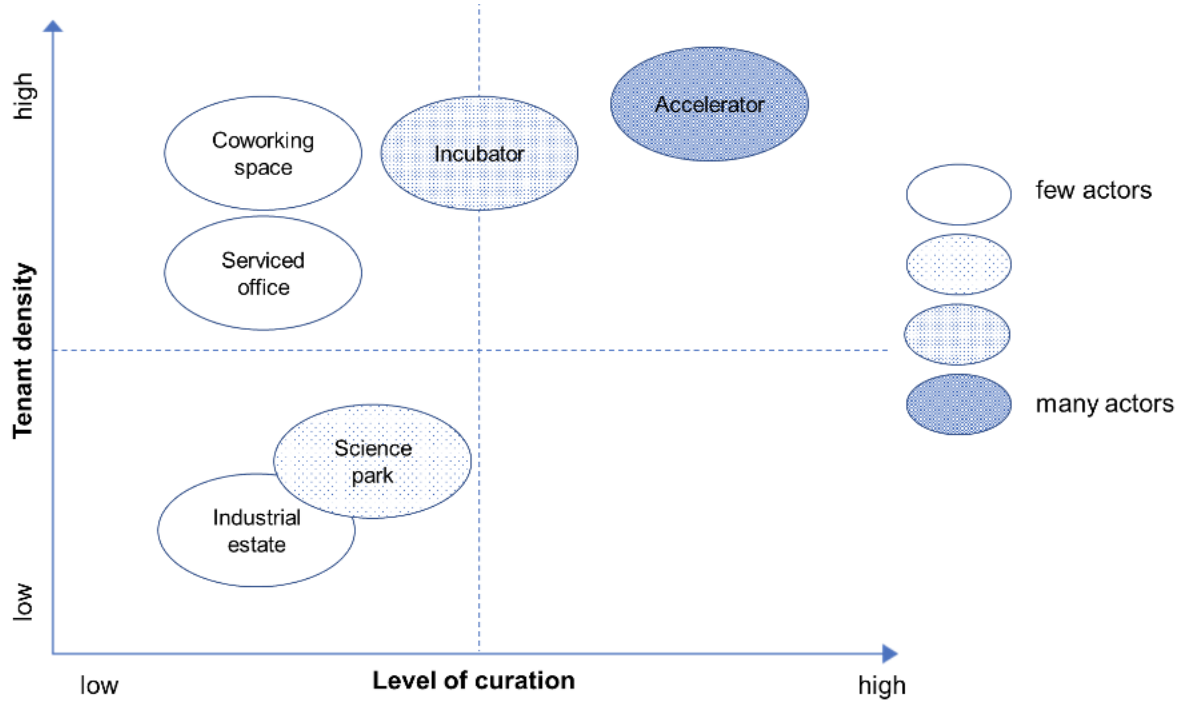

FIGURE 1. A typology of co-location tools (adapted from Madaleno et al., 2022).

As seen in Figure 1, accelerators are distinct from the other forms in that they are more structured, have a higher level of curation, and have a greater number of actors involved (i.e., denser). These programs are aptly described by Madaleno et al. (2022):

> Accelerators use competitive entry and intensive support for early-stage firms, typically over 3-6 months. While increasingly funded by governments, universities or philanthropy, the best known are operated by venture capitalists or big corporates who take equity stakes in participating companies (Beauhurst, 2018; Bone et al., 2019). Participants are usually provided with an on-site workplace, business skills training, and intensive mentoring and networking activity, culminating in a demo day where companies pitch to investors, program alumni and other industry figures. Entry is typically highly competitive (p. 285).

They aim to "accelerate" the entrepreneurial process by reducing trial and error and speeding up discovery (Hallen et al., 2020).

Madaleno et al. (2022) also argue that two connected forces help explain the growth of accelerators, especially in urban areas. First, the number of entrepreneurs has increased due to

lower company formation and running costs (Ewens et al., 2018). This has increased the demand for information, advice, and entrepreneurial support. Second, there has been increased competition for space, especially residential versus commercial uses in large cities. Coworking spaces, since they increase the tenant density of a given building, help lessen such competition and provide shared access to central city neighborhoods. In addition, long-term shifts from manufacturing to services have increased employment in activities for which co-sharing spaces are relevant (Madaleno et al., 2022; Moretti, 2012).

From the lens of creative class theory, these accelerators bring diverse and creative individuals (i.e., talent) together in social and physical space, are often technology-centric (i.e., technology), and foster dense, spontaneous collisions among the diverse accelerator cohort and entrepreneurial ecosystem members (i.e., tolerance). These dense interactions build social capital, promote knowledge spillovers, provide diverse inputs for creative recombination, and foster an entrepreneurial culture that all contribute to overall levels of entrepreneurship within a given region. However, research indicates that the effectiveness of these programs may vary based on ecosystem features, such as entrepreneurial ecosystem density and university involvement (Madaleno et al., 2022).

So, returning to the guiding research question of this paper, what are the distinct advantages of an accelerator powered by a metropolitan research university? Using the lens of creative class theory and the mechanism of collision density, we now explain the unique network advantages of a first-of-its-kind accelerator powered by a public, metropolitan research university that serves as an anchor institution for the St. Louis region.

Illustrative Case

St. Louis Metro Area

St. Louis, the 20th largest U.S. metro by population with more than 2.8 million residents, has a complex economic history with a range of factors shaping its structure and development over time. Racial segregation and discrimination have profoundly impacted its economic development, creating barriers to employment, education, and housing among African American residents for many years and limiting their economic opportunities. However, the metro area is working to address those disparities. The metro's economic development collaborative, Greater St. Louis, Inc., is implementing its 2030 Jobs Plan, which is rooted in inclusive growth and racial equity. The metro's economic development strategy aims to boost economic growth, increase the volume of high-quality, well-paying jobs, and create broadly shared prosperity that substantially

reduces the racial and spatial disparities in income, health, and wealth. The plan calls for five actionable strategies: 1) Steward an inclusive economy, 2) restore the core as the vibrant jobs and cultural center of the metro, 3) build a world-class ecosystem for small businesses and entrepreneurs, 4) become a talent engine and magnet, and 5) make the St. Louis Metro a hub for next-generation industries and technologies. Thus, leveraging the metro's core strengths, attracting and developing diverse talent, and promoting entrepreneurship are critical elements of the metro's approach to economic development (Jobs Plan, 2022).

UMSL Accelerate

Anchor institutions are long-lasting and ensure organizations and institutions are rooted in their localities (Hodges & Dubb, 2012). As natural anchor institutions in communities, universities may be ideal for organizing and operating entrepreneurship and accelerator programs (Palazzolo & Devasagayam, 2023). The University of Missouri – St. Louis (UMSL) is an anchor institution in the St. Louis region that has a critical role to play in the city's economic development. This paper focuses on UMSL Accelerate, an initiative to foster entrepreneurship and innovation in the UMSL community and the broader St. Louis entrepreneurial ecosystem. UMSL Accelerate was founded in 2016 by a 1983 business graduate of UMSL. The Founding Director was an experienced and successful entrepreneur and a champion of promoting entrepreneurship in the university setting. He was motivated to start UMSL Accelerate after reaching out to the then-dean of the College of Business Administration, a fellow UMSL alumnus, to inquire about what they were doing in technology transfer. The conversation evolved into a broader discussion about entrepreneurship, which they both agreed had to be interdisciplinary to be successful. Taking a multidisciplinary approach was based on recognizing that innovation can come from anywhere, whether it be a new surgical device from a nursing student, a new pipe design from an engineering student, or a new creative work from an art student. So, they began consulting with deans across the university and established the Dean's Network, where they met regularly and discussed opportunities to advance entrepreneurship with an interdisciplinary lens. They observed that while there were already great initiatives around entrepreneurship, they were siloed without a centralized mechanism for coordination. Furthermore, the existing efforts were not optimally branded or focused.

Seeing an opportunity, the Founding Director, as a distinguished alumnus, volunteered, with the dean's encouragement, to help build something new around entrepreneurship on campus. But they both realized they needed a doer, someone to spend six months to see about implementation. They identified a previous corporate gift not being utilized as a possible funding source for a new position to support their efforts. UMSL's leadership team then approached the corporate donor to use it for a new entrepreneurship program, and the company loved it. This

enabled UMSL to hire the Founding Director part-time as a consultant to spearhead the entrepreneurship initiative.

He had a whiteboard to work from, allowing for a brand-new model that did not have to compete with old programs or mindsets. As a seasoned entrepreneur, the Founding Director knew he would take a pragmatic approach to build an entrepreneurship and innovation center that would help cultivate a safe place to learn (e.g., fail fast and learn fast) by de-risking endeavors using entrepreneurial tools and knowledge. A few principles guided Dan's design of the new initiative. First, it had to accelerate student success. As a student-centered educational institution, the initiative had to prioritize the student journey. Second, it had to differentiate from the STL ecosystem, which was already robust and mature. It had to offer a unique value proposition and not duplicate and/or cannibalize other entrepreneurial efforts within the ecosystem. Third, it should be led by the goal of UMSL becoming the first choice for entrepreneurially minded students in the region or the country within five years, a big goal to motivate and steer action. Fourth, and in alignment with UMSL's mission to "transform lives," it had to aim to disrupt higher education. It would do so by positioning the university as a thought leader in entrepreneurship. These values and design features, coupled with the support of UMSL's leadership, led to the creation of UMSL Accelerate, which has become a central node in the university's efforts around entrepreneurship.

This relatively new organization is built around three interlocking pillars: educate, innovate, and collaborate. Figure 2 below is the logo that illustrates these reinforcing elements. Together, these three pillars and the systems and structures built around them naturally fit with creative class theory and the 3Ts. They engender inclusion and diversity, advance technological innovation, and build and mobilize entrepreneurial talent. We consider them "best practices" and a model for peer institutions to consider when strategizing to promote entrepreneurship better. Through the mechanism of fostering increased collision density, they bring diverse people and resources together in novel ways to spur innovation and entrepreneurship. Indeed, the mission of UMSL Accelerate is to "foster a community of thought leaders by providing a vibrant ecosystem to Educate, Innovate, and Collaborate."

FIGURE 2. UMSL accelerate logo.

The Educate Pillar is rooted in the university's mission to transform lives. Through the advanced curriculum, expertise, mentorship, and experiences, its evolving curriculum focuses on design thinking and innovation systems to develop insightful leaders with skills to bring ideas to market, start and grow new endeavors and solve problems creatively. The courses are designed to help students overcome the barriers to entrepreneurship (e.g., money, time, mindset, and process) by providing resources (e.g., role models, entrepreneurial knowledge, opportunities to practice entrepreneurship, potential collaborators, and startup funding and scholarships for entrepreneurial study) to build and scale market-centric ideas.

The curriculum is also designed to be interdisciplinary. In developing the curriculum, UMSL Accelerate brought together individuals from across campus, including scholars from the College of Business Administration, the College of Education, the College of Arts and Sciences, and UMSL Global. An important objective of this interdisciplinary entrepreneurship curriculum committee was to develop interactivity among the three pillars to cultivate a "culture of entrepreneurship" at UMSL. Aside from class experiences and interactions, UMSL Accelerate would serve as the centerpiece of this culture.

The interdisciplinary entrepreneurship curriculum committee created a "Be-Do" framework to guide subsequent curriculum development. Figure 3 below emphasizes helping students *be* entrepreneurial by cultivating an entrepreneurial mindset that is other-focused, problem-centric, purpose-oriented, and resilient. It also emphasizes assisting students to *do* the work of entrepreneurship by practicing the skills of collaboration, disruption, value creation, and overcoming obstacles. The Be-Do framework is undergirded with a *bias toward action,* where students are encouraged not to let fear or self-doubt constrain the actualization of their professional potential.

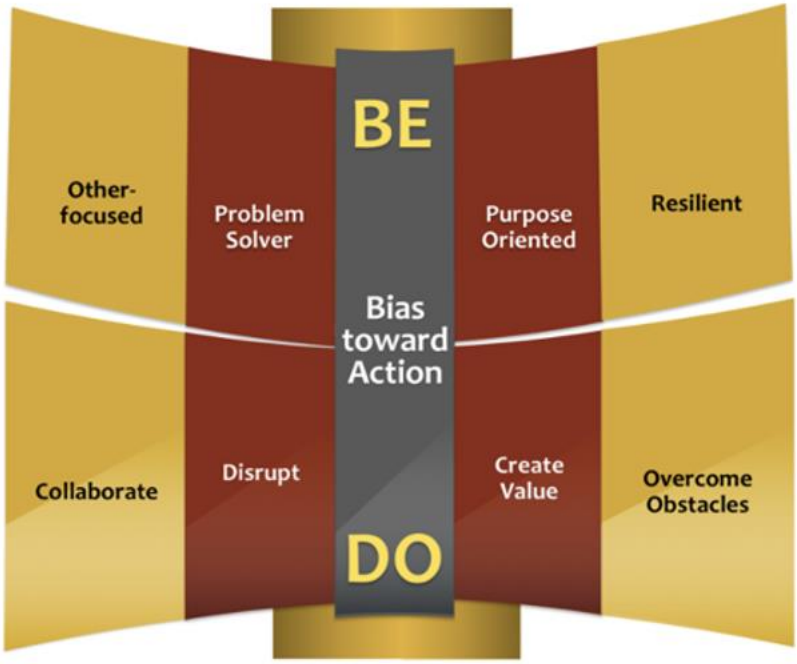

FIGURE 3. Be/do framework.

The curriculum also emphasizes customer discovery as the starting point of the entrepreneurial process, as opposed to starting with a business plan (i.e., a grassroots approach versus a traditional top-down approach). It is heavily experiential, with a focus on learning by doing. It includes substantial hands-on and collaborative experiences in courses and ample opportunities to work directly with mentors and practicing entrepreneurs. For example, students can develop a venture idea and then implement and scale it across multiple courses in the curriculum (e.g., the capstone course is an actual 8-week business accelerator), continually engage in co-curricular activities, work directly with UMSL Accelerate as interns for accelerator cohort companies, and compete in venture pitch competitions sponsored by UMSL Accelerate and University of Missouri System. Through these "Educate" experiences, UMSL plays a key role in creating entrepreneurial talent for the St. Louis entrepreneurial ecosystem. In addition, its differentiated "hands-on" model serves as a recruiting tool for attracting entrepreneurially-minded students within and beyond the region.

The Innovate Pillar is rooted in the desire to inspire a culture of innovation and support groundbreaking research through various co-curricular activities. It includes a physical entrepreneurship and innovation center, an entrepreneur in residence, a legal clinic, an accounting clinic, an entrepreneurship club, and a student accelerator. They are designed to encourage student, faculty, and community engagement with the region's growing ecosystem of

entrepreneurial resources, with a focus on real-world applications, training, and opportunities. In accordance with the mission of this pillar, UMSL Accelerate also initiated, with the financial support of another UMSL business alumnus and entrepreneur, "Entrepreneur of the Year" awards to recognize and encourage entrepreneurial efforts. Together, these elements of the Innovate Pillar reinforce those of the Educate Pillar by creating an ecosystem of resources and opportunities that enhance the classroom experience.

The Collaborate Pillar reinforces and ties all the pillars together. It focuses on inclusive partnering with existing organizations to bring technologies and founding companies to market through collaboration, capital formation, and mentorship. This pillar aims to provide UMSL students with immersion into the business world through experiential learning, robust and diverse networking opportunities within the region's entrepreneurial ecosystem, and hands-on experience through active engagement with a variety of new ventures and stakeholders of their success. More specifically, the collaborate pillar offers students a "real world" experience by offering a paid internship opportunity as part of one of the corporate or purpose-driven accelerators. This completes the loop of the EDUCATE pillar with its in-class experiences, the INNOVATE pillar with its peer-led and peer-learning out-of-classroom experiences, and the COLLABORATE pillar with its opportunities for students to get paid to learn. Interning for a startup allows students to apply what has been learned and explore if they have an entrepreneurial future. This third pillar, focused on experientially engaging students with the startup community, is the guiding principle and impetus of the three accelerator programs that UMSL Accelerate has successfully implemented: A Student Accelerator, a Diversity Equity and Inclusion (DEI) Accelerator, and the Ameren Accelerator (based on a corporate "powered by" model).

So, what sets UMSL Accelerate apart, as a university-led accelerator, in administering acceleration programs? We believe the diverse and dense network of actors supports the programs and the cohorts. The network is organized around a shared mission to help the selected founders. It's facilitated by the 3-pillar structure that promotes "creative collisions" among the network participants, who operate in a dense, metropolitan region that increases the frequency of such collisions. As shown in Figure 4 below, participants include the cohort of founders (i.e., entrepreneurs) selected for the accelerators; students and student interns; faculty experts and faculty-led research; the vast network of alumni who serve as mentors, investors, consultants, and subject matter experts; and established relationships with university- and community-engaged corporate partners. As a public university in a diverse metropolitan region, UMSL has a diverse mixture of talented individuals from all backgrounds giving the institution a unique competitive advantage. "Creative collisions" can be maximized in this type of environment. It is a differentiator.

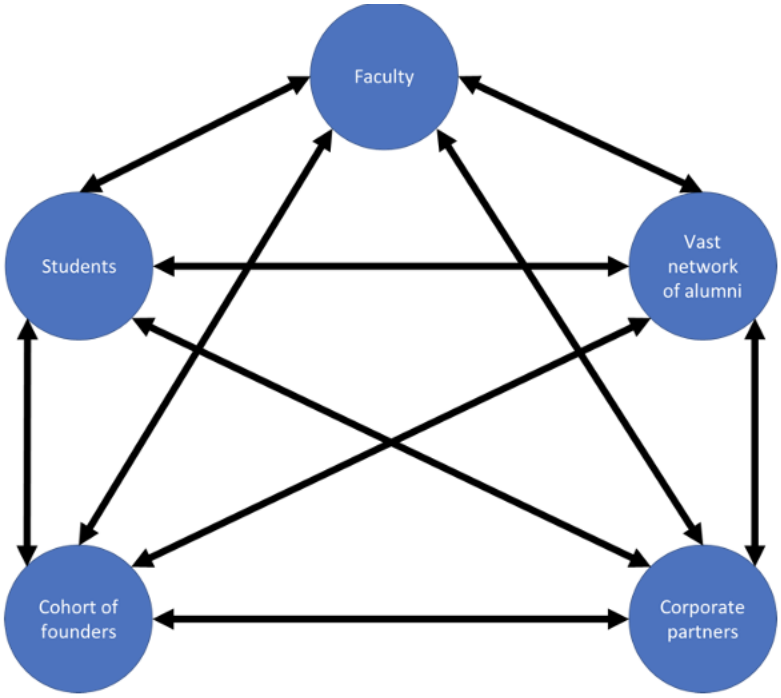

FIGURE 4. Network of participants.

overall vitality of the entrepreneurial ecosystem within the region. Our thesis is simple: metropolitan universities that house accelerator programs can "amplify" collision density through the systems, structures, and initiatives they put in place. They have potentially denser and richer networks of complementary resources, synergistic ideas, and market opportunities that can all be capitalized on through "creative collisions" that bring them together. The theory guides the 3Ts and the 3 Pillars of UMSL Accelerate that cultivating inclusivity, technology, and talent are key local economic development tools. They enable creative people to come together to create. Programmatic design features that increase the number of "creative collisions," therefore, should be considered best practice. We see UMSL Accelerate as one promising example.

Early evidence of success for the participating startup companies and students abounds. For example, several of St. Louis' most notable startups have participated in a UMSL Accelerate program. *The Fattened Caf,* a Filipino restaurant and packaged foods line, started as a pop-up concept with prepared meals in nine Schnucks Markets stores. Thanks to the accelerator, they have introduced regular hours at their restaurant and packaged four flavors of their now-famous Longganisa and four signature sauces, which are available in several local retailers, including most Schnuck Markets in the St. Louis region, Fresh Thyme City Foundry, and Old North Provisions. They were also named to Ian Froeb's iconic Top 100 List in the St Louis Post-

Dispatch and cited as one reason St. Louis is a top food city by Food & Wine. *Flipstik*, another inaugural founder, went from direct-selling their product at kiosks in area malls to lining the shelves of over 600 Target stores nationwide. Founder Akeem Shannon raised more than $1.2M in 2022, hired five employees, and moved the production of promotional items to St. Louis County. *DEMIblue Natural Nail Polish* hit $1 million in sales allowing Founder Michelle Robinson to expand her retail footprint significantly. *Nebula Media Group*, a startup focused on increasing digital accessibility, is on a waitlist for new clients, positioning the agency on the cusp of significant scaling. *Pop Pop Hurray's* Tony Davis landed two new locations – a retail shop in St. Charles and inside Busch Stadium. All these founders credit UMSL Accelerate for helping grow their companies through tailored mentorship, funding, and network access.

Indeed, as Akeem Shannon, Founder of Flipstick, once shared: "The UMSL DEI Accelerator opened doors that I could not have opened on my own. $50,000 is nice, but opening doors that lead to millions is even better: That's what UMSL DEI is all about!" His UMSL student intern also found value from experience: "I can safely say that my experience working for Flipstik through the UMSL DEI Accelerator was the most enriching professional experience of my life thus far. The skills, tools, strategies, and advice that I have learned from Akeem and everyone else on the Flipstik team will be something that I carry with me into all of my future endeavors." Similar testimonials have been shared across the accelerator programs. In addition, over 1,000 entrepreneurs have applied to participate in the DEI Accelerator since it started. This results from a broad and inclusive marketing strategy to recruit and engage with the broader entrepreneurial community to ensure diverse representation among program participants.

Lessons Learned

We draw some lessons from our experiences as observers and builders of UMSL Accelerate. First, we see a tremendous opportunity for CUMU members to engage their entrepreneurial ecosystems with a university-powered accelerator. The dense and diverse set of creative actors associated with urban, metropolitan research universities gives them a potential competitive advantage in the accelerator space. Anchor institutions have the reputational resources and network capabilities to instill a shared mission among diverse creative actors that support the startup cohorts. They can foster an innovation ecosystem by bringing diverse and creative actors to exchange ideas, resources, and strategies for new venture growth. Relatedly, and as depicted through UMSL Accelerate's 3-pillar structure, these accelerators can enrich the classroom experience by immersing students in the programs and helping establish a campus culture that prizes entrepreneurship.

Second, the Diversity, Equity, and Inclusion (DEI) accelerator seems especially promising in addressing economic inequality. Providing access to mentorship, networks, and capital for underrepresented founders, can help reduce the systemic barriers that often hinder the entrepreneurial efforts of women, people with disabilities, and people of color. These DEI accelerators have been recognized in national and regional news media (CNBC and the St. Louis Business Journal (Horch, 2022; Meinzer, 2022). The first two DEI accelerators (held in 2020 and 2021) have given a non-dilutive capital injection of $50,000, funded through corporate and foundation gifts, to 11 founders, all of which are still in business and thriving. This DEI accelerator model creates a win-win scenario since the underrepresented founders get critical resources, expertise, and entrepreneurial guidance for their businesses; investors get notoriety for promoting corporate social responsibility; and the university gets to leverage its faculty, staff, students, and vast network of alumni (Lauer et al., 2022).

Third, the corporate model seems especially promising in advancing technological innovation within established companies. The first run of this was with Ameren Corporation, an American energy company interested in new ways to innovate. Powered by UMSL Accelerate, the University of Missouri System, and Capital Innovators (i.e., an accomplished private accelerator ranked consistently among the top 10 U.S. accelerators), this program leveraged university resources to better match the entrepreneurial needs of promising new ventures in ways that support the corporate investor's long-term strategic interests. This is a valuable model that also creates a win-win scenario: the corporate investor gets a window into emerging technology, along with an equity stake; the founders get access to the resources and capabilities of a large firm *and* a university; and, once again, the university gets to creatively leverage its faculty, staff, students, and vast network of alumni to foster entrepreneurship and innovation. This corporate model, too, has attracted significant news coverage (Bell, 2017; Nicklaus, 2018).

Fourth, the alumni network was critical in building, funding, and administering the accelerator programs. UMSL has the largest alumni network in the St. Louis region and regularly hosts engagements that draw alumni back to campus. Many alumni also sit on academic program boards and thus have direct input into academic programs and curricula. A distinguished alumnus founded UMSL Accelerate itself, and the dean who helped him was also a distinguished alumnus. In addition, the alumni network included corporate partners and subject matter experts eager to help with various aspects of the accelerators. Thus, alumni networks can be a wonderful source of leadership and talent for university-led entrepreneurial efforts, and metropolitan universities have a great opportunity to leverage them to pursue their missions. This requires intentionality in forging, maintaining, and leveraging those university ties (Haarman & Green, 2023).

Fifth, our experience has revealed the importance of having a champion to lead the entrepreneurial effort, a supportive administration, committed interdisciplinary faculty involvement, and ongoing input and support from external constituents (e.g., mentors, alumni, members of the broader entrepreneurial ecosystem, etc.). Being a highly successful entrepreneur in the region for over 25 years, the Founding Director had the requisite skills and experience to launch Accelerate successfully. From the beginning, he enlisted the support of the university administration, alumni, and business constituents. He also garnered the support of faculty members from across campus to aid in developing the educate pillar and to serve as subject matter experts to entrepreneurs in Accelerate cohorts.

Sixth, we have encountered several challenges. For example, emerging and increased competition in the accelerator market means we face greater competition from other accelerators for the most promising startup companies. We also face challenges in securing sustained funding since we rely on the generous support of our corporate partners and donors. Other challenges include the following: the university not having the best physical location within the ecosystem; competing staff resource and facility needs; declining enrollments and budgets; hiring faculty experts; achieving buy-in across the university and region; and developing outcome measures for students, faculty, and entrepreneur success. The COVID-19 pandemic period was particularly challenging. However, UMSL Accelerate quickly transitioned to virtual and maintained continual operations throughout this period.

Finally, we agree with the work of Byrd et al. (2017, p. 360-362), who offer five nuggets of wisdom for universities seeking to start their accelerator programs:

1) Use other programs as templates and customize where needed to reduce startup time and cost. Universities aiming to create an accelerator program do not need to recreate the wheel and can use other models, such as the program profiled in this article, to shorten the timeline for launch. In addition, those models can and should be adapted to meet the university-specific needs, opportunities, and overall objectives.
2) Results will not be immediately or objectively measurable; team testimonials can help. The timeline for accurately measuring the success of entrepreneurial ventures is long. This makes it more difficult to demonstrate near-term economic development as the result of accelerator programming. Many important results are intangibles, such as learning and reputational benefits, that are not easily quantifiable. However, team testimonials, post-participation surveys, and openly soliciting feedback from the team can help pinpoint the key sources of the accelerator's value and provide useful feedback on what the accelerator is doing well and what areas it could improve on. In addition, data on student perception

and demographic breakdowns would help demonstrate that the program is providing an equitable, inclusive, and valuable experience for all change agents involved.

3) Project funding is often largely a carrot, while the real value lies in the education and other resources provided. Funding is an incentive for teams to apply but not the only or main source of the accelerator's value. Low-cost education programs, the creation of mentor networks, and connections to existing local resources all benefit the cohort companies. The accelerator can also help them fail fast and fine-tine their business models in order make critical, market-centric pivots.
4) A supportive ecosystem for startups is equally important as launching the startups. As mentioned throughout this article, urban universities have access to vast networks of institutional and community stakeholders. The benefit a university-powered accelerator can bring to startups, therefore, is a function of the supportiveness of those networks, which should be strategically cultivated and leveraged in ways that foster a more vibrant entrepreneurial ecosystem. Accelerator programs can bring together previously unconnected resources from those networks to offer tailored resource provisions to advance the startups' interests.
5) Challenges always emerge. Look to other programs to exchange solutions and discuss how to collectively be more effective. We agree that transparency in sharing problems and solutions pertaining to various aspects of university-powered accelerator functioning will help all urban universities better accomplish their accelerator goals. We encourage CUMU members to join forces and collaborate to advance university-powered accelerator best practice. Doing so will help each university more deliberately foster entrepreneurship, innovation, and economic development in their metropolitan communities.

Conclusion

Universities fuel the economy by being magnets for talent and are an essential element of the creative economy (Florida, 2005). This article presents creative class theory as a useful lens to understand the urban and university-based advantages associated with accelerator functioning and performance. We theorize that accelerators that operate in such contexts benefit from a higher collision density, defined as the potential frequency of interdisciplinary interactions. In these settings, the diverse and dense network of creative actors is more likely to facilitate "creative collisions," network participants purposefully and/or serendipitously interact to make new connections, spark new ideas, and/or grow new ventures. Furthermore, we posit that amplifying these collective contributions and interactions is critical to startup success and the

overall vitality of the entrepreneurial ecosystem within the region. The higher frequency of "creative collisions" that characterizes a denser, metropolitan, and university-led network broadens the idea pool and elevates shared creativity, the wellspring of enduring economic growth. By profiling UMSL Accelerate, a first-of-its-kind accelerator powered by a public, metropolitan research university, we translate the 3Ts of creative class theory into actionable design features that foster innovation and entrepreneurship. Our key takeaway is that this novel form of organizing (i.e., the university "powered by" model) represents a huge opportunity for urban, metropolitan universities to contribute to and play a leadership role in their respective cities' inclusive, local economic development.

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