Scenario

As a land-grant institution, Northern Midwest University has a rich tradition of advancing economic development and the quality of life in its region, including through agricultural extension outreach and ideas that helped local manufacturers improve factory output. In the 21st century, a similar commitment is sparking NMU to help establish local small- and medium-sized businesses. The university’s provost recognized that pockets of entrepreneurial activity were spawning independently in schools and departments across campus and that there was considerable interest among students in starting businesses. He charged the head of tech transfer with overseeing the creation of an umbrella institute, dubbed NMU UpStart, to support and nurture those efforts. NMU studied approaches to this opportunity at a dozen universities nationwide and found that each had essentially tailored a unique solution. NMU’s leader cherry-picked some of the best ideas in developing NMU UpStart.

With financial help from a successful entrepreneur and NMU alum, the university found space for NMU UpStart in a new biotech building. The physical space included formal and informal spaces for meetings. The facility was open to all students, faculty, alumni, and community members who wanted to commercialize an idea or develop a business. An onsite manager was hired to recruit successful entrepreneurs who could serve as mentors. Her role was also to help budding entrepreneurs get advice about funding, legal issues, and intellectual property development. The university matched funding from venture capitalists to support business development competitions, with winners eligible for significant contributions from investors.

After three years, NMU UpStart was credited with having started some 20 local businesses, creating more than 200 jobs. The facility also became a learning laboratory for students from courses in different disciplines and led faculty to create several discipline-specific courses in business development and idea commercialization. Students discovered that NMU UpStart provided internships with local companies and was a good place to learn skills that would give them an edge in finding a job. Taking note of the impact on the regional economy, local business leaders and politicians spearheaded efforts to establish an NMU UpStart satellite operation in a downtown shopping mall. NMU’s president found that UpStart’s success raised the institution’s profile in the state and helped NMU leverage state funds that were earmarked for entrepreneurial activities.

What is it?

Colleges and universities increasingly provide central convening spaces where innovation, learning, ideation, and business creation all converge. These spaces vary in approach and scope, adopting labels including accelerator, incubator, and others. While the structure of these initiatives tends to be idiosyncratic to the host institution, in general they provide an environment where students, faculty, community members, businesspeople, and others can share ideas with peers and experts, receive mentoring, use common office and lab space, and access other resources to develop ideas and make contacts that help bring those ideas to fruition.

How does it work?

These centers typically include physical environments for co-working, often providing offices, makerspaces, and lab facilities. Services might include access to conference facilities as well as free Wi-Fi and printing. Apart from peer support and faculty expertise, the center typically offers advice, mentoring, and coaching from successful entrepreneurs, who are often alumni of the institution. Access to legal, accounting, and fundraising expertise and help with intellectual property development and tech transfer might also be offered. These centers often serve as spaces for practical learning and student workshops with experts, and many provide opportunities for student internships or full-time employment. Some centers are open to participants beyond the host university, without requiring institutional affiliation. Many partner with entities inside and outside the university. Institutions might provide modest startup funding, which can offer entrée to investors who might then fund ideas, products, and businesses that the center helps nurture. Some institutions invest in new products and may take equity in them. Some campus programs work on a cohort basis, while others accept new ideas on a rolling schedule.

Who’s doing it?

By one count, there are more than 1,000 of these centers. Examples include Arizona State University’s Mentor Network, an umbrella for a wide range of services and spaces that support student, faculty, and community entrepreneurs; the Arthur M. Blank Center for Entrepreneurship, which anchors a range of entrepreneurial activity at Babson College; the Rollins Center for Entrepreneurship and Technology at Brigham Young University,
which nurtures student interest in entrepreneurship and innovation; Happy Valley LaunchBox, a “no-cost business pre-accelerator” at Pennsylvania State University that helps entrepreneurs commercialize their ideas; the Simone Center for Student Innovation and Entrepreneurship at the Rochester Institute of Technology; the Rowan University Center for Innovation and Entrepreneurship; the University of California, Merced’s Venture Lab, which links UC students with entrepreneurial resources; the Blast Furnace at the University of Pittsburgh, which provides student entrepreneurs with access to a mentor network, co-working space, and a hands-on, experiential curriculum; the University of Washington’s CoMotion, which delivers tools and connects UW researchers and students to accelerate their innovations; the Apex Systems Center for Innovation and Entrepreneurship (CIE) at Virginia Tech; the Innovation & Entrepreneurship Center at Wheeling Jesuit University; and the University of Miami’s LaunchPad.

4 Why is it significant?
These centers provide a fertile environment where many of higher education’s interests converge, including developing and mentoring students’ entrepreneurial and maker skills, innovating and generating new knowledge, contributing to regional economic development, developing and commercializing new applications of technology and other intellectual property, and providing points of entry to a university for business and industry. They often spur the development of small- and medium-sized companies, and they provide rich learning opportunities for students and abundant curricular development opportunities for faculty. Centers like these can help universities develop closer ties to business and industry, which may lead to funding opportunities while keeping alumni engaged in university life. They can also help universities recruit talented faculty and motivated students. Products, services, jobs, and businesses emanating from these initiatives can contribute financially to the university as well as to local economies and regional economic development.

5 What are the downsides?
These kinds of centers can be expensive to launch and operate. Given today’s fiscal challenges in higher education, many institutions may not be in a position to create an adequately resourced program or sustain it over time, particularly given competition from similar initiatives in the private sector. Businesses involved in these centers might find the decision-making culture in higher education too protracted, and those who emphasize the role of liberal learning in higher education are often skeptical of the academic value of these centers. Questions around ownership of intellectual property have sometimes developed. Tensions can exist at some institutions between these initiatives and more traditional offices of technology transfer. Some contend that these centers can threaten funding for existing programs and can negatively impact university research, innovation, and patent revenue.

6 Where is it going?
Several related factors make it likely that these centers will continue to proliferate. A growing number of students seem inclined to pursue entrepreneurial careers, which are supported by economic and workforce trends. As institutions seek to bolster revenue streams, they have continued interest in opportunities for commercializing intellectual property. As university-based entrepreneurial centers expand, institutions should evaluate their role in supporting such work, including funding, governance, operations, intellectual property, and equity ownership. Alternative structures for such initiatives—based on open or commons models—may become more commonplace. Beyond simply counting the number of companies created or patents awarded, more sophisticated metrics may be needed to assess these initiatives, including ways to measure their effect on learning and pedagogy.

7 What are the implications for teaching and learning?
For learners, entrepreneurship centers can serve as both classroom and laboratory for the development of business and workplace skills. They provide a space where lessons in different disciplines—from business and engineering to the sciences and the arts—can be applied in practice. These centers can serve as testbeds for faculty ideas, including those that could inform curriculum development and the creation of new courses as well as improvements in pedagogy. More research is needed to determine the influence of these initiatives on pedagogical innovation and whether such innovations can be generalized beyond disciplines such as business. There may be more to do to learn how best to help students inculcate skills in these centers that can help them succeed in their careers.