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Designing New York's Future

New York City graduates twice as many students in design and architecture as any other U.S. city, but the city's design schools are not only providing the talent pipeline for New York's creative industries—they have become critical catalysts for innovation, entrepreneurship and economic growth.

by David Giles

This is an excerpt. Click here to read the full report (PDF).

The genius of Mayor Bloomberg's plan to develop a new applied sciences campus in New York City is that it acknowledges the increasingly pivotal role of academic institutions as drivers of local economic growth. At a time when large corporations may not be the reliable job producers they were in the past and cities like New York badly need to generate new sources of job growth, universities are critical local anchors that employ thousands, spin out new businesses and train the workers needed by growing industries.

But it is not just scientific research institutions and engineering schools—like the one that Cornell and Technion are building on Roosevelt Island—that provide this kind of spark. In New York, design and architecture schools arguably have been as, or more, important to the city's success in the innovation economy.

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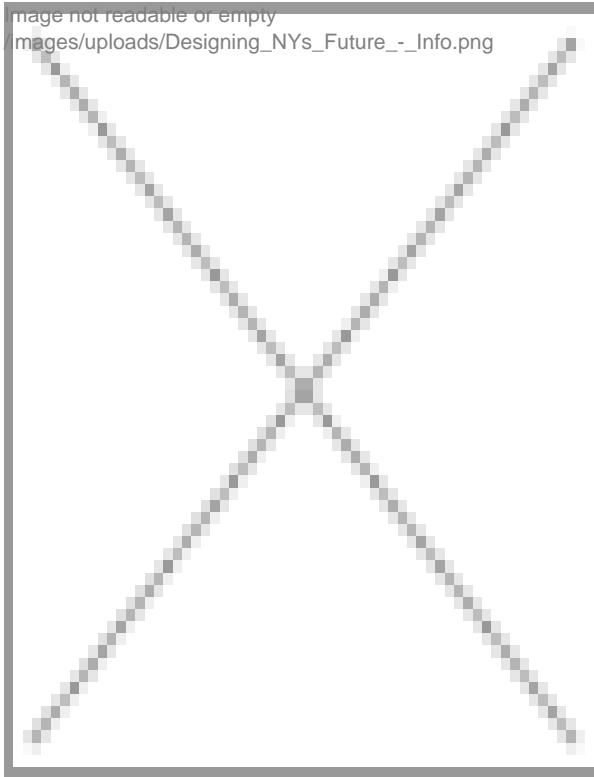
New York design universities such as Parsons The New School for Design, the Fashion Institute of Technology, Pratt Institute and the School of Visual Arts have been critical catalysts for innovation, entrepreneurship and economic growth. Their graduates have produced dozens of start-up companies that set up locally—something that has eluded most of the city's scientific research institutions. Graduates of the city's design and architecture schools founded many of New York's most visible and influential design firms, including Studio Daniel Liebeskind, Diller Scofidio Renfro, SHoP Architects, Smart Design, Ralph Applebaum Associates, Calvin Klein, Marc Jacobs and Donna Karan International.

They also provide the talent pipeline for New York City's creative industries—including the city's fast-growing design and architecture sectors. Indeed, New York City graduates twice as many students in design and architecture than any other city in the U.S. And enrollment at New York's design universities has been growing at a faster rate than other universities in the city.

Thus far, the "innovation economy" initiatives advanced by city and state officials have largely overlooked design universities. This is a missed opportunity in a city that is arguably more of a creative hub than a high-tech center. As this report demonstrates, New York's design universities are already a key piece of the city's innovation infrastructure. But at a time when designers are having a growing influence on everything from smart phones to the delivery of health care services, these institutions are poised to play an even more central role in New York's economic future.

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In 2009, the Center for an Urban Future published Building New York City's Innovation Economy, a major report that examined how to better harness the city's high-caliber scientific research institutions for local economic development. The report found that most of the city's research institutions, though successful in generating revenues from patents, had an underwhelming record of turning their research discoveries into local start-up enterprises.

Although important differences abound, this report tackles a similar subject from the perspective of design and architecture. Drawing from a wide range of institutional data, survey results, and extensive interviews with more than 50 academic leaders, educators, entrepreneurs and business executives in New York's design and architecture communities, the report documents

the contributions of design and architecture schools to the New York City economy. Funded by the Rockefeller Foundation, it assesses the breadth of programs and educational assets and evaluates trends with respect to enrollment, employment, spending and, like our science report, business creation.

In contrast to engineering and scientific research institutions, design and architecture schools have not traditionally been thought of as important contributors to innovation and competitiveness. But, as we show in this report, that is a mistake.

New York City is home to ten prominent design and architecture schools, as well as a half-dozen other organizations that offer rigorous programs in design or the business of design. These schools attract creative talent from across the country and around the world to New York, provide the city's many design and architecture firms with a pipeline of talented workers, supply jobs to professionals who teach part-time and act as important anchors for the circulation and exchange of ideas. Importantly, they also produce a steady stream of locally-based start-up companies. An astounding one third of the 386 members of the Council of Fashion Designers of America, a national association with members around the country, attended FIT, Parsons or Pratt. Overall, nearly 20 percent of all Pratt, Parsons and SVA graduates went on to start their own businesses. In contrast, the city's leading scientific research institutions—including Columbia, NYU, Mt. Sinai School of Medicine, the Albert Einstein College of Medicine at Yeshiva University and Memorial Sloan-Kettering Cancer Institute—generated 21 technology startups in 2007.

"Design schools are incredibly important to New York City," says Tom Vecchione, a principal in the New York office of Gensler, one of the city's largest design and architecture firms. "They're a big part of making New York the premier design-focused city in the world."

"We have about 1,200 employees at Parsons, and that's just faculty; another 400 or so employees work at the school," adds Joel Towers, executive dean of Parson The New School for Design. "We also benefit the city from the creative activity from our students and faculty. And about 88 percent of our graduates remain in the New York City area."

New York graduates more students with degrees in design and architecture than any other city in the U.S. by a large margin. In 2010, New York graduated 4,278 students in these two disciplines, while the city with the second most, Los Angeles, graduated less than half as many (1,769). New York has four design schools in the country's top ten by the number of degrees awarded every year: the Fashion Institute of Technology (FIT) (#1), Parsons The New School for Design (#4), the Pratt Institute (#6) and the School of Visual Arts (SVA) (#8). And it has two architecture schools in the top ten by the number of degrees awarded: Columbia's Graduate School of Architecture Planning and Preservation (GSAPP) (#5) and Pratt (#8).

In addition, the number of design and architecture graduates in the city has been increasing rapidly over the last five years: Between 2005 and 2010, architecture and design degrees increased by more than 40 percent citywide. By comparison, the total number of degrees in all majors rose by only 20 percent, while degrees in many other traditional disciplines such as fine and studio arts (16 percent) and economics (18 percent) rose even more slowly.

In terms of educational quality and prestige, quite a few New York-based schools stand out from the pack. Parsons and FIT are among the top five fashion schools in the world, according to Fashionista.com; no other American school was in the top 12. According to U.S. News and World Report, Pratt has the nation's top-ranked interior design program, while the New York School of Interior Design (NYSID) is ranked fourth. Three New York schools—SVA (#6), Pratt (#9) and Parsons (#12)—have highly regarded graphic design programs. Similarly, among multimedia and visual communications programs, SVA and NYU's Tisch School of the Arts are both national leaders. Pratt and Cooper Union are among the country's most prestigious undergraduate architecture schools and U.S. News and World Report ranks Columbia's GSAPP as the country's fourth best graduate architecture program.

Meanwhile, NYU's Interactive Telecommunications Program, Pratt, Parsons and SVA have all been featured in rankings by Bloomberg Business Week of the top schools around the world that teach "design thinking," an emerging practice and

educational philosophy that links design with broader business and innovation strategies. (The rankings, which were published in 2007 and 2009, include business and engineering schools, but no business or engineering schools in New York City made the list either year.)

Top schools like Columbia's GSAPP, Cooper Union, FIT, Parsons, Pratt, and SVA attract talented students from all over the country and globe. In 2010, 4,945 foreign students were enrolled at the city's seven largest design and architecture schools—a 42 percent increase over 2001. Although Cooper Union and FIT enroll a high number of in-state students too, a majority of students at Columbia, Parsons, Pratt and SVA come from out of state, while 19 percent or more come from abroad. Furthermore, institutional survey data made available to the Center for an Urban Future suggest that a vast majority of students at these schools end up staying in New York City after graduation; many intern at prominent design firms before securing a permanent position or going on to work for themselves.

According to David Rhodes, the longtime president of SVA, the prospect of studying design in New York is extremely attractive to students. "The schools are competitive," Rhodes says, "but they also have a symbiotic relationship. New York's dynamic creative community is what all the schools share, and a lot of the prospective students will choose another New York school if they don't get into their top choice."

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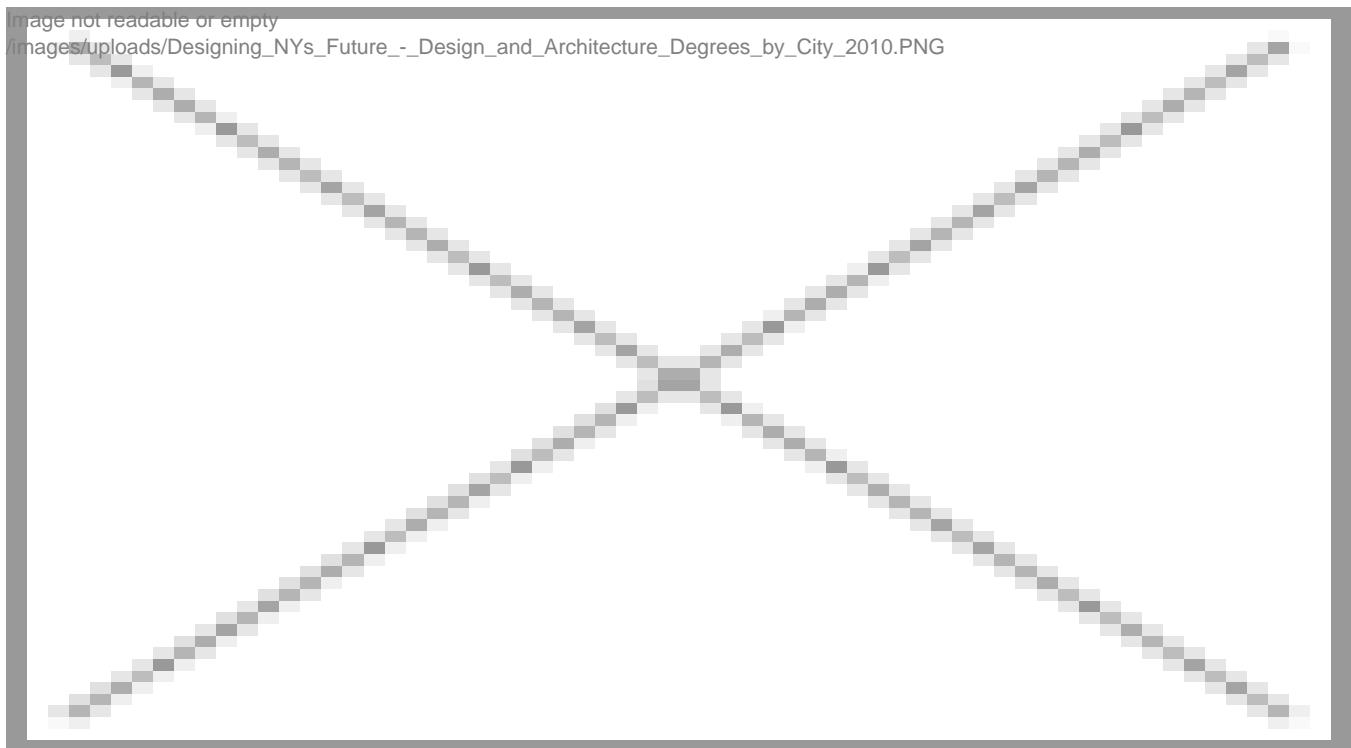
Professional designers clearly see New York's design schools as critical to New York's status as a leading design center. This was reflected in the results of a month-long survey we conducted in late 2011 of more than 300 designers, all professional members of trade associations. Among the results of our survey:

- Of those respondents who indicated that they were a principal or executive of a local firm or business—a group that made up 23 percent of all respondents—80 percent said New York's design schools were either 'extremely important' or 'important' to the local economy and 82 percent said they were important local resources for their businesses.

- 81 percent of the principals and executives said they had hired at least one New York City design school graduate in the last five years.

- 43 percent of the principals and executives said they had taught at a local design school and 39 percent said they had themselves attended one of the schools.

Ed Schlossberg, founder of a prominent New York design firm called ESI Design, says that the local schools are an extremely important asset for professional designers, because, among other things, the students they attract make it possible for firms to rapidly evolve with the latest technologies and tools. "If I get a project and it needs three user experience designers or three interface designers," says Schlossberg, "I have no worry that I'll be able to find them here. That means I can take the work and expand the business. The schools make that possible."

Out of 45 full-time designers at Schlossberg's firm, 14—or 31 percent—graduated from New York City schools, with 8 designers coming out of NYU's Interactive Telecommunications Program (ITP) alone. Many of the city's most prestigious fashion and architecture firms also draw heavily from local schools. The figure is even higher at Rockwell Group, a large architecture and design firm. According to company founder David Rockwell, 50 percent of the firm's professional employees went to New York City design schools. Meanwhile, 30 percent of the designers in Gensler's New York office studied at local design schools, while 29 percent of the designers at Nanette Lepore, the fashion house, studied locally.

New York's design schools have also been quietly achieving something that has eluded the city's applied sciences universities: Year after year, they have been producing graduates who are not only inclined to stay in the city and contribute to one of the world's most competitive design economies, but risk serious financial and opportunity costs to start their own businesses. To be sure, data on alumni who start their own businesses are extremely hard to come by, since so many of them do so only years after graduating, but several surveys and a wealth of anecdotal information suggest the number for New York is fairly high. For example, a 2009 survey from the Strategic National Arts Alumni Project (SNAAP) found that 19 percent of all Pratt, Parsons and SVA graduates, including non-design graduates like performing arts majors, went on to start their own businesses; the average for all the art schools surveyed by SNAAP was 14 percent. Meanwhile, of the respondents in our own survey who founded their own businesses, 39 percent indicated they were graduates of New York City schools.

Fashion seems to be an especially fertile terrain for these businesses. Our analysis shows that 129 of the 386 members of the CFDA attended either FIT, Parsons or Pratt, and nearly all of them run their own fashion brands and employ other designers. In fact, prominent alums like Calvin Klein, Donna Karan, Marc Jacobs, and Michael Kors all run fashion companies with hundreds of millions, if not billions, in annual sales.

Of course the vast majority of new businesses will never grow that large. But, in design, small firms—even sole-proprietorships—are often major sources of innovation and dynamism. They not only create jobs and encourage innovation by developing new products and services, they are more likely to challenge established business practices and break down industry silos. Pamela Ellsworth, director of FIT's Global Management Program, believes that New York has been able to reposition itself as one of the leading fashion centers in the world in no small part because it is relatively easy to start a business here. Although it isn't common, even young designers right out of school have been able to launch their own brands and businesses. For example, in 2002, two young Parsons graduates were able to turn their senior thesis project into a high-end fashion brand—Proenza Schouler—that is now widely considered to be among the most innovative in the business.

Another good example is Situ Studio, a Brooklyn-based architecture firm specializing in high-tech modeling and fabrication services. In 2005, the firm's four principals, all graduates of Cooper Union's architecture program, decided against

apprenticeships at major New York offices so that they could continue their research into highly technical, computer-controlled fabrication technologies. Whizzes on computers, the four young designers were able to parlay their skills into important consulting contracts with major firms like Kohn Pederson Fox and are now in high demand among not only architects but interaction designers and anyone else looking to bridge the gap between digital modeling and digital fabrication. "Recently, we've been asked to work on digital fossil reconstruction for an archeologist at Princeton," says co-founder Brad Samuels.

Designers and architects have long been willing to forgo traditional career paths in order to start their own ventures, but as the whole industry grows and more small firms get work on major projects, often in collaboration with other small firms, there has been an undeniable trend toward even more entrepreneurialism. Instead of joining established organizations, young designers are increasingly opening their own studios and competing for their own contracts. A number of them have been able to raise hundreds of thousands of dollars on Kickstarter in order to develop products they dreamed up in grad school—hanging window gardens, for example, which recently raised over $250,000 on Kickstarter, or an iPad stylus, which raised $134,000. One of Kickstarter's founders recently told the New York Times that over half of the site's blockbuster projects—those attracting $100,000 or more in investments—are design related.

One big factor contributing to this entrepreneurial impulse in design are the students themselves and the entrepreneurial values that they're beginning to pick up from professionals. For example, Vishaan Chakrabarti, an architect and professor of real estate development at GSAPP, says that "it is no longer a badge of honor among students to be stupid about money." Students want to learn everything there is to know about realizing a project, Chakrabarti says, and not just the traditional "design" elements such as a project's look and functionality. However, undoubtedly, design schools are playing an important role in this cultural transformation as well, especially in New York where there is so much professional involvement in the pedagogical process.

For example, while still in school, students are learning to turn their attention to a much wider array of subjects than is traditional in a design education, so not just products, books or buildings, though all of those are still important, but customer service and supply chain systems, food delivery infrastructure, and zoning practices. Furthermore, at all the major schools, design students are learning how to identify problems along the entire development process, from the inception of an idea to its reception as a physical, marketable object—and then they learn how to do rapid prototyping and testing. "They're encouraged to actually build things," says Red Burns of her students in NYU's ITP program, "and to not be afraid or embarrassed if they fail." One grad student in the Designer as Author program at SVA developed an entirely new prescription drug bottle and labeling system—designed to reduce confusion among older, same-household users—and the market research the student did was so convincing the whole product line was subsequently picked up by Target.

Many of those we interviewed believe that design—and the city's design schools—will play an even more important role in New York's economic future. One reason for this is that design clearly plays to New York's strength as a creative center. Additionally, major companies in technology, manufacturing, health care and other leading industries are increasingly looking to designers to help them solve challenges and come up with innovative solutions. As one example, New York-based Internet companies such as Foursquare, Tumblr, Gilt Groupe and Kickstarter have relied on innovative designs to turn already established technologies into entirely new tools and services.

However, while the city's design and architecture schools are clearly succeeding on a number of fronts, there are still plenty of opportunities to evolve and improve. Most of the schools have not yet fully explored opportunities to integrate programs that teach students basic business and entrepreneurial skills, for example, including drawing up basic business plans and other financial documents. In our survey of New York design professionals, only 12 percent of respondents said that the schools provided significant opportunities to develop these sorts of business and entrepreneurial skills; 43 percent said the schools provide some opportunities; and 44 percent said it was not a major focus.

In addition, the schools have not yet managed to build the kind of interdisciplinary programs that can be found in a handful of top programs in other places. For example, Stanford's d.school, a post-graduate, one-year certificate program, attracts a large number of business school students to its classes and studios; in fact, according to Ryan Jacoby, a d.school graduate and director of the New York office for IDEO, a large and innovative design firm based in Palo Alto, prospective business school students will oftentimes pick Stanford over other top schools just so they can participate in the d.school. Similarly, a four year-old, post-graduate program in London called Design London draws on the resources of three schools, at two major universities, to build interdisciplinary teams around projects with the potential to launch new businesses. Nothing quite like either of these programs exists in New York yet. Rather, many of the academic leaders we spoke to for this report say that building even modest bridges across different disciplines and schools has been a major challenge.

Now that Cornell and Technion Universities have been given the go ahead to build a 2,000-student applied sciences campus on Roosevelt Island, the school should consider developing a design component to one or more of their research programs. The Carnegie Mellon proposal for the Brooklyn Navy Yard was designed to capitalize on New York City's creative community, particularly with respect to the film and digital media sectors. The Cornell/Technion partnership—or for that matter, Columbia and NYU—might consider doing something similar, or else they could build off of other local strengths like New York's vaunted medical research institutions in Midtown. At a time when the returns on geographic proximity appear to be larger than ever, particularly in the knowledge and innovation economies, it seems like a big lost opportunity that so many new design contracts on medical products—a big and growing industry in its own right—go to firms in New England and California.

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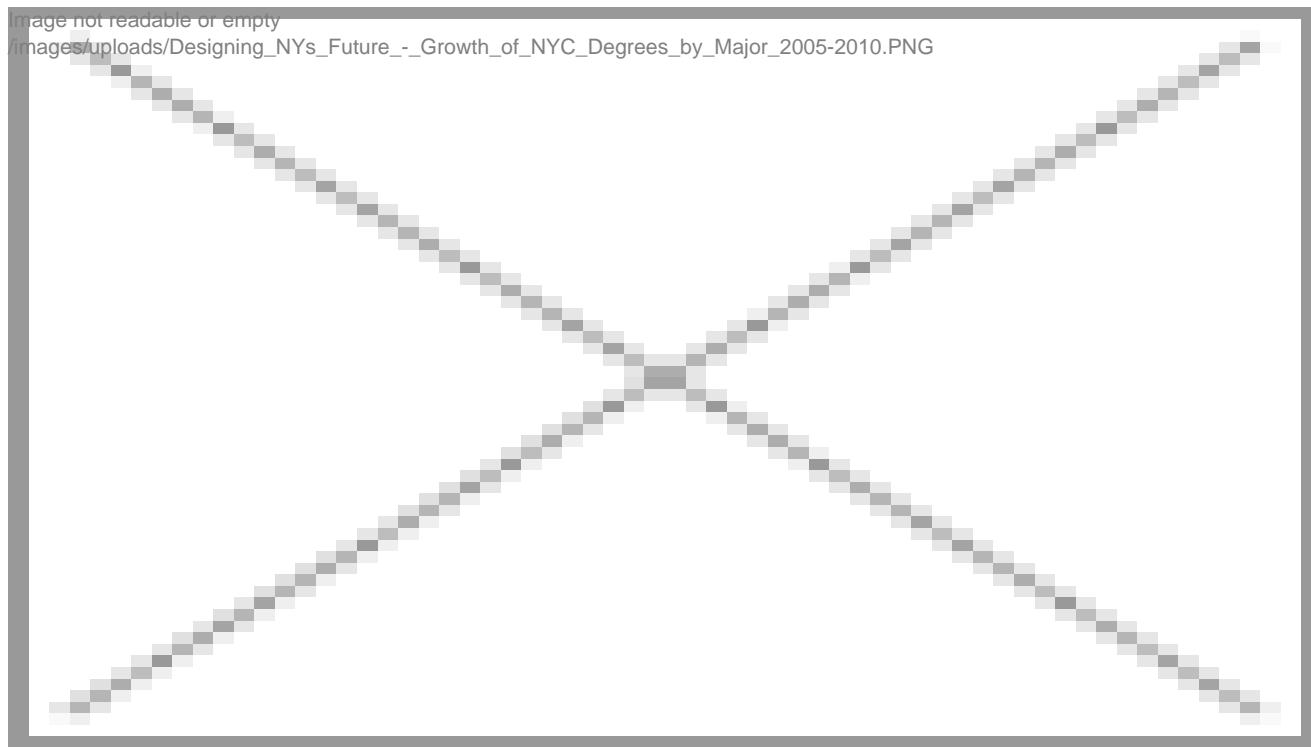
Over the last two years, economic development officials in the Bloomberg administration have pursued a number of important entrepreneurship initiatives. Besides the contest for a new applied sciences campus, they've supported a number of different incubators and work-share spaces, sponsored a high-profile competition for locally-based food manufacturers, and established several new programs to provide immigrant entrepreneurs with the linguistic help and training they need to get to the next level. However, with a few notable exceptions, they have not yet tapped into the entrepreneurial energy of the city's design and architecture sectors or thought about how to leverage the more than half-dozen schools that supply those sectors with new talent.

But there's a lot the city could be doing to capitalize on these strengths. For example, the city's Economic Development

Corporation (EDC) could take a leading role in bringing the different schools, museums and trade-show organizers together for a citywide and cross-disciplinary promotional event, something like London's Design Festival, which links together hundreds of small venues and events in communities all over the city. The EDC could expand efforts to create work-share and incubator spaces: The agency has supported a number of these spaces in the high-tech and digital media sectors, but with the exception of a new fashion design incubator at the CFDA, it has not yet offered architects and designers the same support.

Creative businesses in the design and architecture sectors play a crucial role in the city's economy, even when they don't turn into multi-billion dollar corporations. In fact, even the smallest firms are capable of generating goods and services with a large number of applications. They keep older, larger firms honest by innovating new organizational structures and business practices and by breaking down industry silos. With a strategic plan centered on the city's growing design and architecture schools, New York could encourage even more of this innovation and lay the groundwork for keeping the city's whole creative economy among the largest and most dynamic in the world.

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