

BU to Build Data Sciences Center

Charles River Campus building would put math, statistics, computer science under one roof



DATA SCIENTIST IS THE HOTTEST occupation in the country, and in early October President Robert A. Brown announced that the University plans to be a leader in educating the next generation in the field by building a dramatic 17-floor tower on Commonwealth Avenue to house the new BU Data Sciences Center.

“This is the science that’s going to change the way we behave, driving our behavior for the next 50 or 100 years,” Brown says.

With the proposed project, BU would build the first major teaching center on the Charles River Campus in a half century, and the tallest building on campus. By bringing the mathematics and

Looking west on Comm Ave from Kenmore Square, this rendering shows how the proposed Data Sciences Center would immediately become the most recognizable and visible building on the Charles River Campus.

statistics and computer science departments under one roof, BU will also further its efforts to become one of the leading urban interdisciplinary research institutions in the country.

“What field today is not reliant on data?” says Azer Bestavros, a William Fairfield Warren Distinguished Professor and CAS professor of computer science and founding director of the Rafik B. Hariri Institute for Computing and Computational Science & Engineering. “Students across every major want to take these courses. It’s becoming the bread and butter for every student’s education. Data science is now a unifier across disciplines.”

For good reason.

Google handles 40,000 searches every second, or 3.5 billion per day. Every minute, 4.1 million videos are watched on YouTube, nearly a million Tinder swipes are made, 456,000 tweets are sent

on Twitter, and Instagram users share nearly 50,000 photos. Roughly 11 million Apple Pay transactions are made every day.

All of those actions generate unfathomable amounts of data that companies gobble up, analyze, and use to grow their business. All that data has also opened up a minefield of ethical and moral questions around privacy that the government and the private sector are both wrestling with how to contain or exploit.

Jean Morrison, provost and chief academic officer, says that sheer numbers support BU's major investment in data science. She says the University saw a 23 percent increase in teaching credit hours for math and statistics from the 2006–2007 to the 2016–2017 academic year. And computer science saw a 266 percent increase.

A major factor driving the growth is not just the increase in students who want to major in the computational science fields. It's the rise in interest from nonmajors, who now recognize that no matter what their passion—public relations, engineering, business, nutrition, the arts—chances are high that data will play a role in it. And the more they understand the basics of computational science, the better

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position they will be in as they apply for jobs.

“So there’s just explosive demand for these disciplines by both undergraduates and graduate students at BU and nationally,” Morrison says. “This is a national-level trend.”

Greater Boston is overflowing with companies that live and breathe on data—Wayfair, General Electric, Amazon, Google, Fidelity, TripAdvisor, Athenahealth, DraftKings, HubSpot,



One element of the proposed Data Sciences Center that BU officials are especially excited about are the numerous collaboration spaces designed to encourage both spontaneous and planned conversations between people from the worlds of mathematics, statistics, and computer science.

Partners HealthCare, Blue Cross Blue Shield—creating an intense demand for workers who understand how to decipher it.

“This is a defining moment, with what’s going on in Boston,” says Eric Kolaczyk, a College of Arts & Sciences professor of mathematics and statistics, director of the Program in Statistics, and cochair of a group convened by the National Academies of Sciences, Engineering and Medicine to study data-science education. “The opportunities for synergy are incredible, not just for internships, but for work, and that’s one of the biggest selling points for students,” he says.

In a report this year from the job search website Glassdoor .com, which used tens of millions of its own data points to determine the fastest-growing job categories, data scientist came out on top for the third straight year. Glassdoor cited high demand, good pay, and strong job satisfaction as the reasons.

“Not only are tech companies scrambling to hire data scientists, but industries across the board, from healthcare to nonprofits to retail, are also searching for this talent,” says Andrew Chamberlain, Glassdoor chief economist.

BU expects that its evolving computational science curriculum, renowned faculty and staff, and especially the proposed new building, at Commonwealth Avenue and Granby Street (where

a parking lot now sits), will all be essential drivers of that changing workforce.

Designed by the Toronto architectural firm KPMB Architects, the proposed plans for the center start with a 4-story base, or “podium,” topped by 13 floors, each floor slightly off center from the one below it, so that it resembles a stack of books.

“They asked us for something—they used the word ‘iconic,’” says Marianne McKenna, a KPMB Architects founding partner.

The building would be the tallest on campus, at 297 feet. By contrast, nearby Warren Towers is 174 feet tall and the Prudential Center is 750 feet.

Following an approval process with the city of Boston, the project could begin site preparation in spring 2019. Full construction is anticipated to be underway in fall 2019, and McKenna estimates that it would take 24 to 28 months to construct from the groundbreaking.

“We wanted architecture that would signal to everyone that this was a special place, the center of campus,” Brown says. “Because it’s data science, we wanted it to mirror the century we’re in now, not centuries past. We weren’t looking to build a building that would have looked novel in 1900 or 1850. We wanted a building that in 2100 would stand up and mark the dynamic change in the University and talk about the century we’re in.” **DOUG MOST**