Greetings from McCormick.

A few weeks ago, I was in Copenhagen to speak at a large event to commemorate the seminal 1913 papers of Niels Bohr. Many of Denmark’s leaders, including the queen, congregated during parallel events to celebrate work that, though written when Bohr was just 28, gave birth to atomic theory and quantum mechanics. Bohr went on to win a Nobel Prize in physics, but what followed was even more amazing: 38 people mentored by Bohr also won Nobel Prizes. What was the secret of Bohr’s success? What led to such an explosion of talent? Is it possible to recreate that magic?

Bohr’s success is one of many clusters of amazing intellectual output throughout history. Some of these were planned and structured: Florence in the Renaissance had L’Accademia delle Arti del Disegno, the Bauhaus was organized in Germany in the early 20th century, and Bell Labs, birthplace of an explosion of a wide range of revolutionary technologies, existed within a company. (This famously led to seven Nobel Prizes and two Turing Awards.)

However, other hotbeds of innovation occurred without a structure: Vienna in the 19th century emerged without a master plan; the Lunar Society of Birmingham—among the first places to connect engineers, scientists, and industrialists, which emerged in the context of the Industrial Revolution—had a very loose structure. In modern times, Silicon Valley has developed an entirely new high-tech sector that affects every part of our lives, but it relies on an overall network, not a planned structure, to drive innovation.

Despite their differences, one pattern is evident in all of these examples: mentorship, intellectual power, and collaboration across disciplines can lead to explosions in innovation.

At McCormick, we combine those same elements to spur innovation by building an environment that brings together the best of Northwestern and Chicago. Take, for example, our recent partnership with the School of the Art Institute of Chicago (page 20). This summer we offered a joint course, Data as Art. Faculty from both institutions (nine in all) taught, and students were grouped in interdisciplinary teams to analyze large data sets to create visual representations that would both educate and provoke. The results were incredible.

In this issue you will find other outputs from our network, including stories from our interdisciplinary NUvention courses and updates from Design for America. These areas are already exploding with results—student teams and recent graduates have swept many high-level competitions, including the Rice Business Plan Competition, the Wall Street Journal Startup of the Year (page 4), and the pitch competition at the Fortune Most Powerful Women Summit (page 7).

While we find new ways to teach creative, right-brain skills to McCormick students, we also find that other Northwestern students are increasingly seeing the value in learning the solid and time-tested technical left-brain skills of an engineer. Enrollment in our undergraduate computer science courses has tripled over the last five years. While the number of computer science majors has nearly doubled, many students enrolled in the courses are nonmajors looking to enhance their skill sets.

You will also read about the basic research that will drive future innovation, such as our pioneering work with graphene (page 34). Basic research is what sets a university apart—the most daring research may not have a clear application in mind. I am certain that the young Niels Bohr did not anticipate that his research would lead to the transistor, the iPhone, and the atomic age.

This is the beauty of a place like McCormick. We are surrounded by amazing people and ideas, providing a sort of glimpse into the future. Some of our work is in response to needs that we clearly see around us, while other work anticipates or creates future needs and provides the toolset to deal with future challenges that we cannot predict.

McCormick is an inspiring place to be, and we are happy to have you as a part of our community.

Julio M. Ottino, Dean | November 2013