

GREETINGS FROM NORTHWESTERN ENGINEERING

Artificial intelligence (AI) and data science might be the current buzzwords in technology news, but for those of us in engineering academia, these fields have been at the core of many of our education and research efforts for years.

On the research side, Northwestern Engineering faculty have used these tools to improve next-generation robotics, develop state-ofthe-art materials, foster transportation innovation, support urban ecology, and create new diagnostic tests and predictive models for use in medicine. On the education side, our school has developed several master's degree programs to educate future leaders in AI and data science, including a partnership with the Kellogg School of Management to deliver our first blended degree, MBAi. These programs teach students to not only understand the technology, but to also use it to guide new innovations across many disciplines.

Both approaches, which you can read about in this issue, are essential to shaping a future where the power of AI and data science can be harnessed to tackle complex challenges across disciplines.

Also on the research front, last fall Northwestern was awarded \$50 million from the US National Science Foundation and the Simons Foundation to establish the National Institute for Theory

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and Mathematics in Biology. With the University of Chicago, the institute will create a nationwide collaborative research community to uncover the "rules of life" through theories, mathematical models, and computational and statistical tools. These insights could have wide-ranging implications on some of our most pressing problems.

Finally, you can also read how students study these global challenges through our many international experiential learning programs. We encourage our students to step out of their comfort zones to understand the world through a new lens, and many find that these programs teach them more than they could have imagined.

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CHRISTOPHER A. SCHUH Dean, McCormick School of Engineering and Applied Science

On the Cover

Graduate-level programs in artificial intelligence and data science equip leaders for the new world of AI while researchers push the technology's boundaries across multiple fields. See the story on page 12. Northwestern Engineering is published by the Robert R. McCormick School of Engineering and Applied Science, Northwestern University, for its alumni and friends.

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