Prof. Anderson Discusses Physics, Imagination, and the Future of Information Technology
On March 27, Professor Neal Anderson presented the Pizza & Prof lecture “Physics, Imagination, and the Future of Information Technology.”

Anderson is a professor of electrical and computer engineering, as well as a Terrance Murray Commonwealth Honors College Professor. As part of his Terrance Murray Professorship, Anderson is working on new ways to deliver the Honors Thesis to students studying the STEM disciplines.

While presenting a discussion on information technology that was accessible to students of all majors, Anderson joked that "there are zero equations" during his lecture. He went on to discuss the history and progression of computer technology, the challenges that threaten its progress today, and possible approaches for the future.

Anderson provided a brief historical outline of modern computing, including the vacuum tube computers of the 1940s and 1950s, as well as the introductions of the first transistors, first microprocessors, and first personal computers later in the 20th century. For years, computer technology was becoming smaller, cheaper, faster, and more energy efficient as it evolved. But today, that progress is beginning to reach its physical limits.

So what might the future look like?

“I don’t know,” Anderson said. “But that’s part of the point—it’s unknowable.”

It can be said that the future will look much different than the present. Anderson presented a few unconventional and alternative approaches in the information technology field, but stressed that at this point in time, there is no clear pathway. Among other things, future solutions will require the un-learning of the old ways, and plenty of imagination going forward.