

MITOCW | 2. What you do you find interesting about combinatorics?

PROFESSOR: You know, applications to technology-- a lot of the things-- a lot of the technology that we take for granted, these days, it depends very much on nothing more than algorithms, ideas about how things might work. Take your iPod-- you know, an iPod that could only hold 30 songs on it wouldn't be that useful, but you can fit a thousand songs on there. How is that possible? It should be impossible.

Whether you're talking about cell phones, the internet, how power Google search engine works, or communications technology-- you know, a 10 megabit internet connection is a lot more useful than 64 kilobit connection. All of these technologies are really enabled by combinatorial algorithms to a much greater extent than the hardware. You know, the software that in [? relies ?] these technologies is really built out of ideas that people come up with in their heads, and a lot of those ideas involve combinatorics. So that's one of the reasons that I got interested in and I think a lot of the students find it interesting for the same reason.