

COLLOQUIUM

The Usefulness of Useless Knowledge

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November 1, 2017

4:00 p.m. - Wilson Hall, One West

In his classic essay, “The Usefulness of Useless Knowledge,” Abraham Flexner, the founding director of the Institute for Advanced Study in Princeton and the man who helped bring Albert Einstein to the United States, describes a great paradox of scientific research. The search for answers to deep questions, motivated solely by curiosity and without concern for applications, often leads not only to the greatest scientific discoveries but also the most revolutionary technological breakthroughs. In short, no quantum mechanics, no computer chips. Robbert Dijkgraaf, the Institute’s current director, explains how Flexner’s defense of the value of “the unobstructed pursuit of useless knowledge” may be even more relevant today than it was in the early twentieth century. Dijkgraaf describes how basic research has led to major transformations in the past century and explains why it is an essential precondition of innovation and the first step in social and cultural change.