# 3 Questions: Why Richard Feynman's lectures still mesmerize

April 20 2011, by Anne Trafton

A screenshot from one of the Feynman films. Image: Microsoft

In 1964, physicist Richard Feynman delivered a series of lectures titled "On the Nature of Physical Law." Feynman delivered these seven one-hour lectures at Cornell in 1964, and the BBC taped them. Microsoft, which owns the rights to the films, has now mounted the videos on a website that is open to the world.

The company asked MIT physics professor Robert Jaffe to prepare an online commentary on the lectures. His contribution went live recently and is available at research.microsoft.com/apps/tools/tuva/ (download may be required). In an interview with MIT News, Jaffe talked about the Feynman lectures and why they are still important, so many years later.

*Q. Nearly 50 years after Richard Feynman gave these lectures, why are they still relevant today?*

A. Feynman brought a level of insight, enthusiasm and trenchant wit to the exposition of the fundamental laws of physics that is unsurpassed. These lectures come from the height of his "pedagogical period," shortly after he finished his "Feynman Lectures" books. As for why they are still relevant, I addressed that in one of my commentaries. Here is a quote from my commentary on the last lecture:"The laws of physics that Feynman has been describing are just as fresh and powerful as they were in 1964, or indeed decades earlier, when they were first discovered. In contrast a 50-year-old lecture series in biology, chemistry, computer science or the social sciences would be of historical interest only. For better or worse, the laws of physics don't change (no matter how much we may sometimes wish they would). Now, as in Feynman's day, they form the basis of all the other sciences, and Feynman's explanations are as fresh as any lectures in a classroom today. From time to time, I've added some modern perspective, occasionally correcting one of Feynman's remarks that proved incorrect in later years."

*Q. MIT's physics department shows these lectures every year during Independent Activities Period (IAP). How do students respond to them?*

A. I haven't been to the IAP showing for many years — although I watched each one several times as I prepared the commentary. I know that MIT has always had a lively contingent of Feynman admirers, and the Feynman films shown every IAP usually attract dozens of devotees. MIT is very fortunate to have a copy of the films, which I believe are not widely available. This is one reason why I became interested in Bill Gates' efforts to make the films accessible to a broad audience using modern web tools.

*Q. What was this experience like for you? In preparing your commentary,*

*did you glean anything new from the lectures that you hadn't before?*

A. I wanted the chance to watch Feynman, the teacher, closely, and to see how he achieved his remarkable success. I came away more impressed than ever with his showmanship, his comedic timing, his clever arguments, but above all with his ability to enlist the listener as a co-conspirator in his attempt to crack the safe where nature's secrets are stored.

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Provided by Massachusetts Institute of Technology