

BRIDGING THE BASIC-APPLIED DICHOTOMY AND THE CYCLES OF INVENTION AND DISCOVERY

Venkatesh Narayanamurti

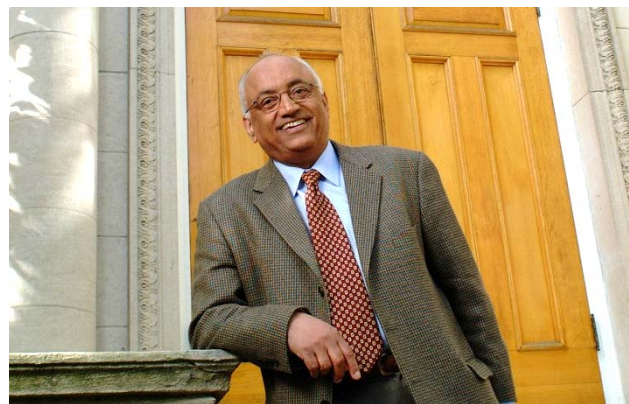
Benjamin Peirce Research Professor of
Technology and Public Policy at Harvard.

Tuesday, April 24, 2018

1:30 p.m.,

Burton D. Morgan Center, Room 121

In this talk Venkatesh (Venky) Narayanamurti will reflect on the genesis of the Information and Communications revolution and through an analysis of the hard case of Nobel Prizes in Physics to show that the causal direction of scientific discovery and radical invention are often reversed. They often arose in a culture of so called “applications oriented research” in industrial laboratories and he will use those examples to enumerate the key ingredients of highly successful R&D institutions. His views have been shaped by his own personal experiences in industrial research, U.S National Laboratories and research intensive universities. By exploring the daily micro-practices of research, he will show how distinctions between the search for knowledge and creative-problem solving break down when one pays attention to how path breaking research actually happens. He will highlight the importance of designing institutions which transcend the ‘basic-applied’ dichotomy and contrasting them with models of the classic but still influential report *Science, The Endless Frontier*. The need for new integrative institutions to address global challenges such as climate change and alternative energy sources will be discussed.



Venkatesh Narayanamurti is the Benjamin Peirce Research Professor of Technology and Public Policy at Harvard. He has served on numerous advisory boards of the federal government, research universities and industry. He was formerly the John L. Armstrong Professor and Founding Dean of the School of Engineering and Applied Sciences, Professor of Physics and Dean of Physical Sciences at Harvard. From 2009 to 2015 he served as the Director of the Science, Technology and Public Policy Program at the Harvard Kennedy School. He served as Dean of the UCSB College of Engineering from 1992 to 1998. He is the author of more than 240 scientific papers in different areas of condensed matter and applied physics. He lectures widely on solid state, computer, and communication, and energy technologies, and on the management of science, technology and public policy. He is a fellow of the American Academy of Arts and Sciences, Indian Academy of Science, Indian National Academy of Engineering, IEEE, AAAS and an elected member of the U.S National Academy of Engineering, of the Royal Swedish Academy of Engineering Sciences and of the World Academy of Sciences.

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