

Information, Data, Security in a Networked Future

The digital information revolution begins as giants such as Alan Turing, Claude Shannon and John von Neumann, among many others, recognize the power of digital representations and programmable computers. Although rooted in the technology of his time, Vannevar Bush's portrait of the information revolution has emerged and flourished especially in the form of the World Wide Web resting atop the global Internet. The panelists will explore some specifics of the digital information revolution, notably theory and practice in securing, authenticating and maintaining the integrity of information (Cerf); and roots of modern cryptography and current topics in this area (Rivest and Shamir). They will also gain insight into the long-term problem of identifying, finding, and assuring the integrity of digital objects in the most general sense of that term (Kahn). Finally, they look at how our understanding of computer science is changing (Hopcroft) and how that evolution will affect the digital world in which are we spending an increasing fraction of our daily lives.