

THE CHINESE UNIVERSITY OF HONG KONG

Department of Information Engineering

Seminar

Distributed Trust: Do we need Blockchain? by Dr Radia Perlman Adjunct Professor, Department of Information Engineering The Chinese University of Hong Kong

Date	:	15 th April, 2019 (Monday)
Time	:	11:00am – 12:00pm
Venue	:	Room 801, Ho Sin Hang Engineering Building
		The Chinese University of Hong Kong

<u>Abstract</u>

There is a lot of hype about "blockchain". There are articles about how it is the most profound innovation since the Internet, and how it will solve most of the world's problems. But these articles do not explain what the design actually is, and what its properties are. Therefore, most people don't understand what "blockchain" is, but assume, because of the volume of enthusiastic claims, that it must be an important trend. Furthermore, as people modify the original concept (the engine behind Bitcoin), it becomes less and less clear exactly what "blockchain" is. This talk will explain the goals of the original blockchain, the resulting design, and its functional properties. Then we will talk about the problems people think blockchain would be useful for, and talk about alternative solutions, and compare them.

<u>Biography</u>

Radia's work has had a profound impact on computer networks today. Her work has enabled huge networks, such as the Internet, to be robust, scalable, and largely self-managing. Her spanning tree algorithm transformed Ethernet from a technology that could support only a few hundred nodes within a building, into a technology that could support networks of hundreds of thousands of nodes over a wide area. She has also made important contributions in network security, including robustness despite malicious trusted participants, assured delete, key management for data at rest encryption, DDOS defense, and user authentication.

She has taught as an adjunct faculty at MIT, Harvard, and University of Washington. She wrote the textbook "Interconnections", and co-authored the textbook "Network Security". She holds over 100 USA issued patents. Radia has received numerous recognitions for her achievements, including induction into the Inventor Hall of Fame, lifetime achievement awards from ACM's SIGCOMM and Usenix, election to National Academy of Engineering, induction into the Internet Hall of Fame, and an honorary doctorate from KTH Royal Institute of Technology in Stockholm. She has a PhD in Computer Science from Massachusetts Institute of Technology.

**** ALL ARE WELCOME ****

Host: Professor CHIU Dah-Ming, Winston (Tel: 3943-8357, Email: <u>dmchiu@ie.cuhk.edu.hk</u>) Enquiries: Information Engineering Dept., CUHK (Tel.: 3943-8385)