Diffusing Knowledge in Complex Networks

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About Life

- A postdoc working in the Computer Laboratory (N4D Lab).
- Before that, a journey of 100°C difference...
About Research - Core Components

Information

Network

System
About Theory - Previous Work

Information System
How to build a system to effectively manage and analyse information to facilitate knowledge discovery?

Information-Centric Networking
How to build a communication protocol to efficiently distribute information in a network?

Network Operating System
How to build an operating system to adaptively manage networked resources under various dynamics?
About Theory - Current Challenge

Knowledge Formation

Information Diffusion

Information

System

Network

Media Construction
About Vision - A Cool System

So, we have a system …
which can make sense of data → information → knowledge,
which can adapt itself under various network dynamics,
which can deliver knowledge safely and efficiently to
wherever and whenever they are needed …
About Vision - A Utopia

Diffusing knowledge, as far as possible ...
About Practice

- Pro-Diluvian: apply graph theory and statistics in network science to study information dissemination. We got the Best Paper Award in ACM ICN 2015.

- Kvasir: apply machine learning technology to build an intelligent system for knowledge discovery. We entered into semi-final in the Cambridge EPOC Competition.

- SCANDEX: apply information-centric networking technology to dynamic migrate services to edge networks. We received support from Avanti Communications and Guifi.Net.
About Future

● continue to research on intelligent and adaptive systems;

● continue to develop systems for Kvasir and SCANDEX;

● continue to supervise some courses;

● continue to enjoy the life ...
Thank you. Questions?