

5 Years After the 1st ACM ICN Workshop: What we've learned, What remain to be done

Lixia Zhang

UCLA

September 27, 2016

Marching Order

- ◇ The desired emphasis is on *what we have learned* and *where the big problems remain*, to encourage the community to look beyond least publishable increment type of work but also understand where progress has been made.
- ◇ we are looking for *engaging, provocative, high-level thoughts* that are technically sound and put the program of the conference in context.

What We Have Learned a few things on top of my head

- ◇ Application-driven architecture development works
- ◇ Named, secured data can do wonders
- ◇ Namespace design remains a top priority/challenge
- ◇ Security is hard, but not that hard
- ◇ What's harder: *short-term vs long-term design tradeoffs*

engaging

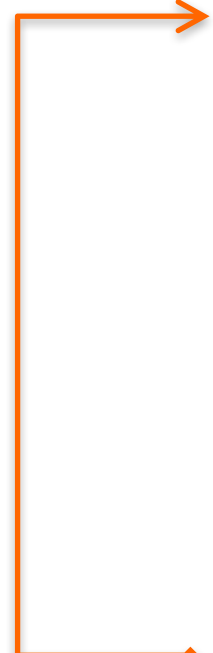
The Internet was born in 1983. At least that is when it adopted TCP/IP, the communications protocol that conceptually separates the Internet from its predecessors and continues to define it, technically, to this day. It was originally designed in an academic environment, funded by the kinds of deep public research funds on which basic science depends. *The direction and shape of research was left largely in the hands of researchers, and they built a system only a researcher could love: general, abstract, optimized for nothing, and open to exploration of more or less anything imaginable using connected computers.*

Where the big problems remain

- ◇ Mobilizing the community to dive into *real experimentation* with the new architecture

provocative

Architecture Design = Scientific Research

- 
1. Make a hypothesis
 2. Run experiments
 3. Analyze data
 4. Draw conclusions

high-level thought