

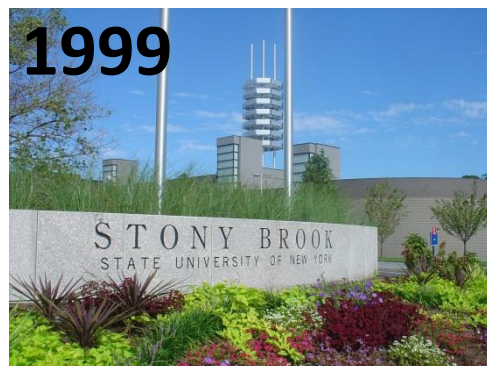
HOT Topics in Computer Science (HOT-T-CS)

Mobile Cloud Computing

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Brief Background



Mobile Computing
Network Protocols

SuperComputing Systems
Distributed Systems
Cloud Computing
Data Center Management
Enterprise Mobility Management



Mobile Systems

Excerpts from an interview in 2012

Dr. Roy Want, Google Research, and ACM Sigmobility Chair (2009 – 2013)

Can you profile the visions of Mobile Computing?

*"...Let me pick a couple of visions which have been very powerful. One of them was Mark Weiser's (Xerox PARC) vision. He wrote a famous article in September, 1991 for Scientific American, "The Computer for the 21st Century". In that he described what has become known as the **vision of Ubiquitous Computing**....Another area which has a lot of press and something that has not seen its day yet is the **Vision of the Internet of Things**...."*

What are the current challenges for mobile and for 2012?

*"...One of the things with mobile phones and mobile apps is that you've opened up the security hole....Another of the **big challenges is power consumption**...."*

Can you make predictions for the future in a more general sense, their implications, and how we can best prepare?

*"...There's one area of technology I think is going to be very important and that's the ability to **move computation around as a single unit**. This is something that we really haven't seen yet...."*

Source: <http://blogs.technet.com/b/cdnitmanagers/archive/2012/01/09/dr-roy-want-international-much-awarded-top-researcher-in-mobile-and-ubiquitous-computing-chair-acm-sigmobility-and-chair-acm-mobility-tech-pack-committee.aspx>

Where are we now ?

amazon



Sitting between you and web pages ...



<http://www.geek.com/news/amazon-silk-brings-super-fast-cloud-powered-web-browsing-to-kindle-fire-1425031/>

MIT
Technology
Review

NEWS & ANALYSIS • FEATURES VIEWS MULTIMEDIA DISCUSSIONS TOPICS POPULAR: SHARE YOUR SMARTPHONE SECRETS

COMMUNICATIONS NEWS

12 COMMENTS

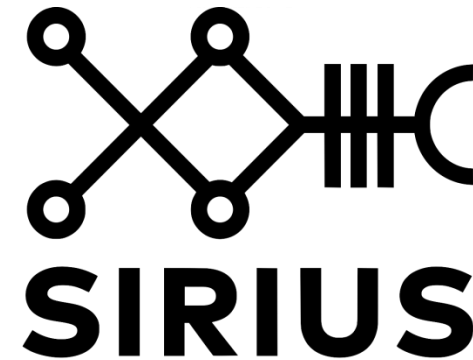
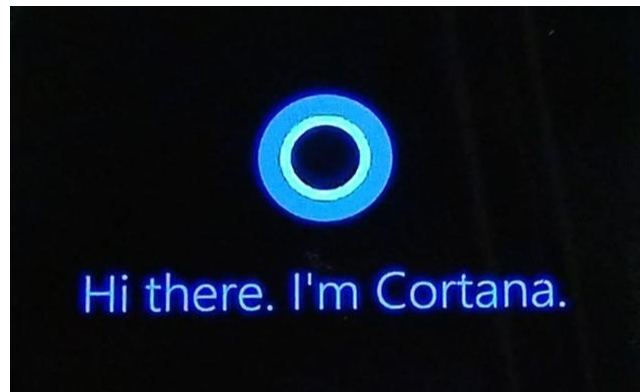
Cloud-Powered GPS Chip Slashes Smartphone Power Consumption

A Microsoft Research project offloads data and calculations to save battery life.

By Kate Greene on December 24, 2012

<http://www.technologyreview.com/news/509176/cloud-powered-gps-chip-slashes-smartphone-power-consumption/>

Where are we now ?

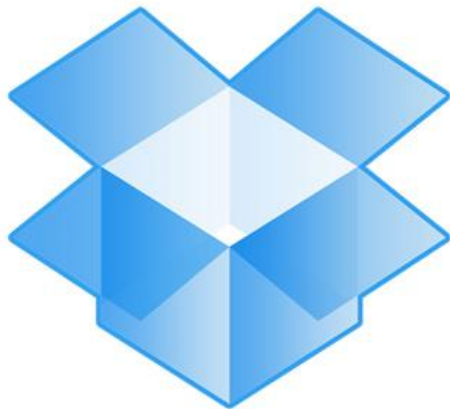


Source: <http://sirius.clarity-lab.org/>

Then there are ...



iCloud



Dropbox

**We are using the cloud from our
mobile devices everyday**

More and more we expect our smartphones and tabs to replace our laptops and desktop PCs ...

Where are we in terms of today's technology?

Mobile Cloud Computing

Mobile Cloud Computing (MCC) is the combination of **cloud computing**, **mobile computing** and wireless networks to bring rich computational resources to **mobile** users, network operators, as well as **cloud computing** providers.