



CS CS4740-001
Cloud Computing

Introduction

Welcome to CS4740-001: Cloud Computing!



Welcome!

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 - Cloud computing and datacenters, Big data, Cyber-physical systems, Distributed systems
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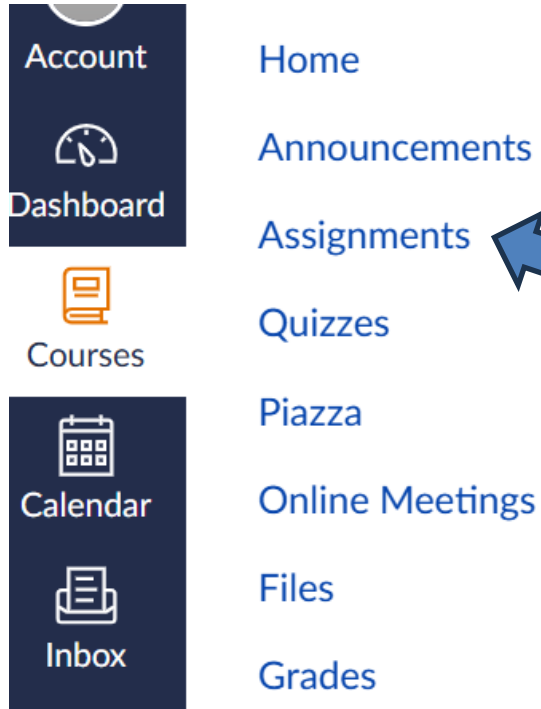
**The slides were originally provided by
Prof. Yehching Chung and have been
modified as needed.**

**Thank Prof. Yeh-Ching Chung
for sharing the slides!**

Everything will be in Canvas

- <https://canvas.its.virginia.edu/courses/132916>
- Syllabus
- Schedule

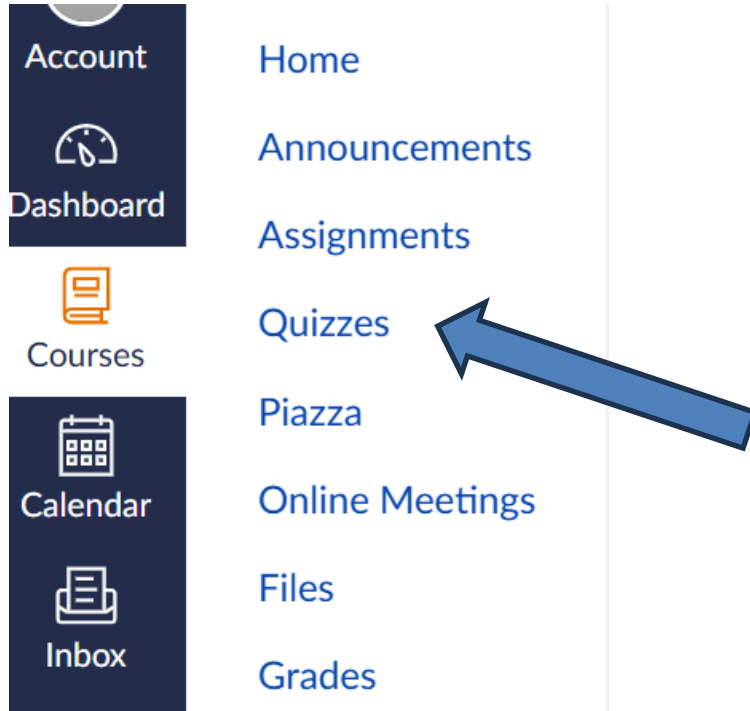
Everything will be in Canvas



Homeworks

- Multiple choices and Q&As

Everything will be in Canvas

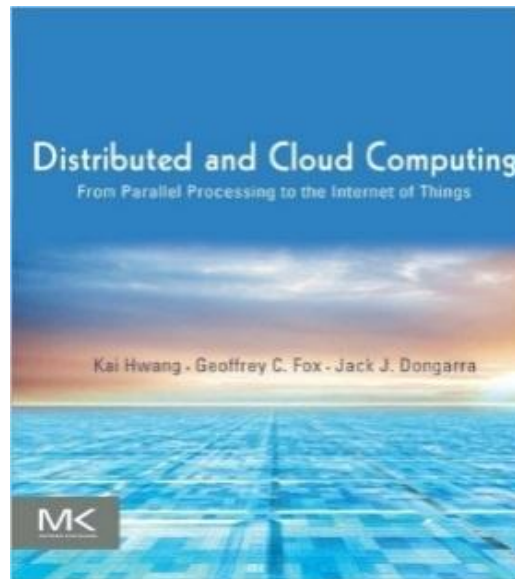


In-Class Quiz

- 10 minutes
- Around 2 multiple choices

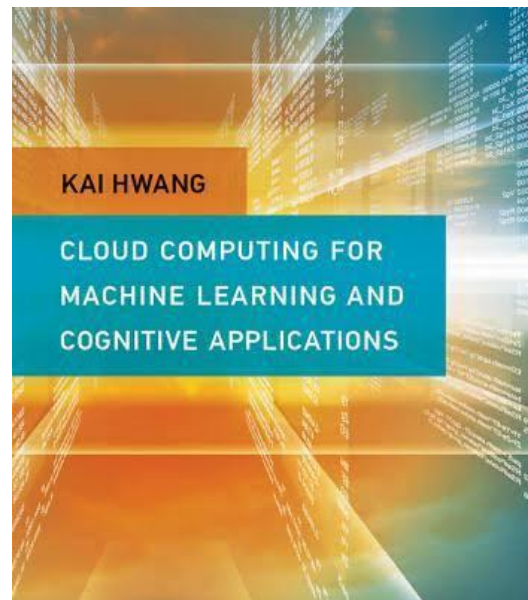
Reference books

- K. Hwang, G. Fox and J. Dongarra,
Distributed and Cloud Computing: From
Parallel Processing to the Internet of Things



Reference books

- K. Hwang, Cloud Computing for Machine Learning and Cognitive Applications, The MIT Press, 2017. (ASIN: B073RX8B2Y)



What is Cloud Computing?

- Cloud computing: large groups of remote servers networked to allow centralized data storage and online access to computer services or resources



- Why cloud computing?
 - Classical computing
 - Buy & Own, Install, Manage
 - High capital expenditure
 - Cloud computing
 - Subscribe & Use
 - Pay as you go



What is Cloud Computing?



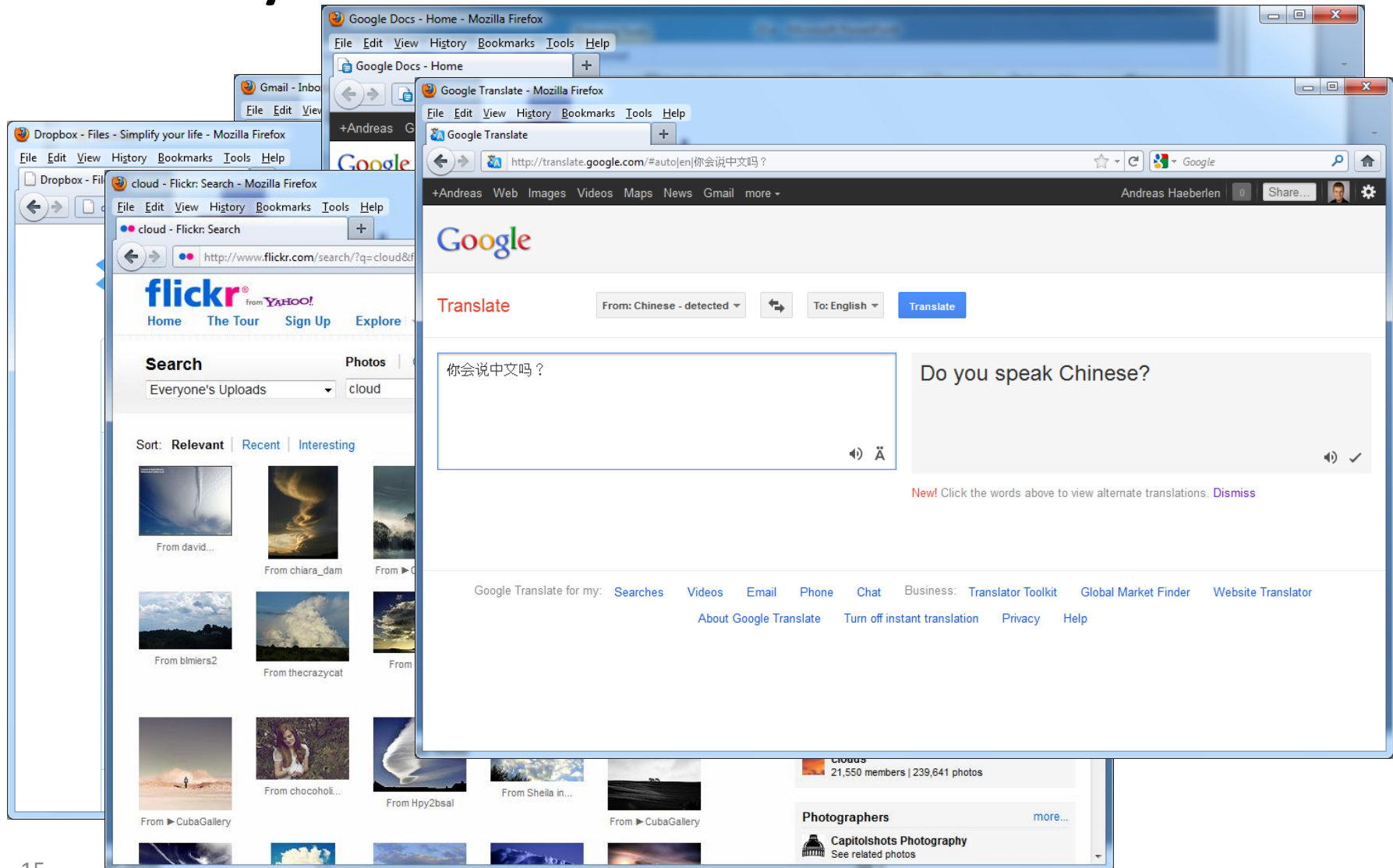
Do You Use Cloud?



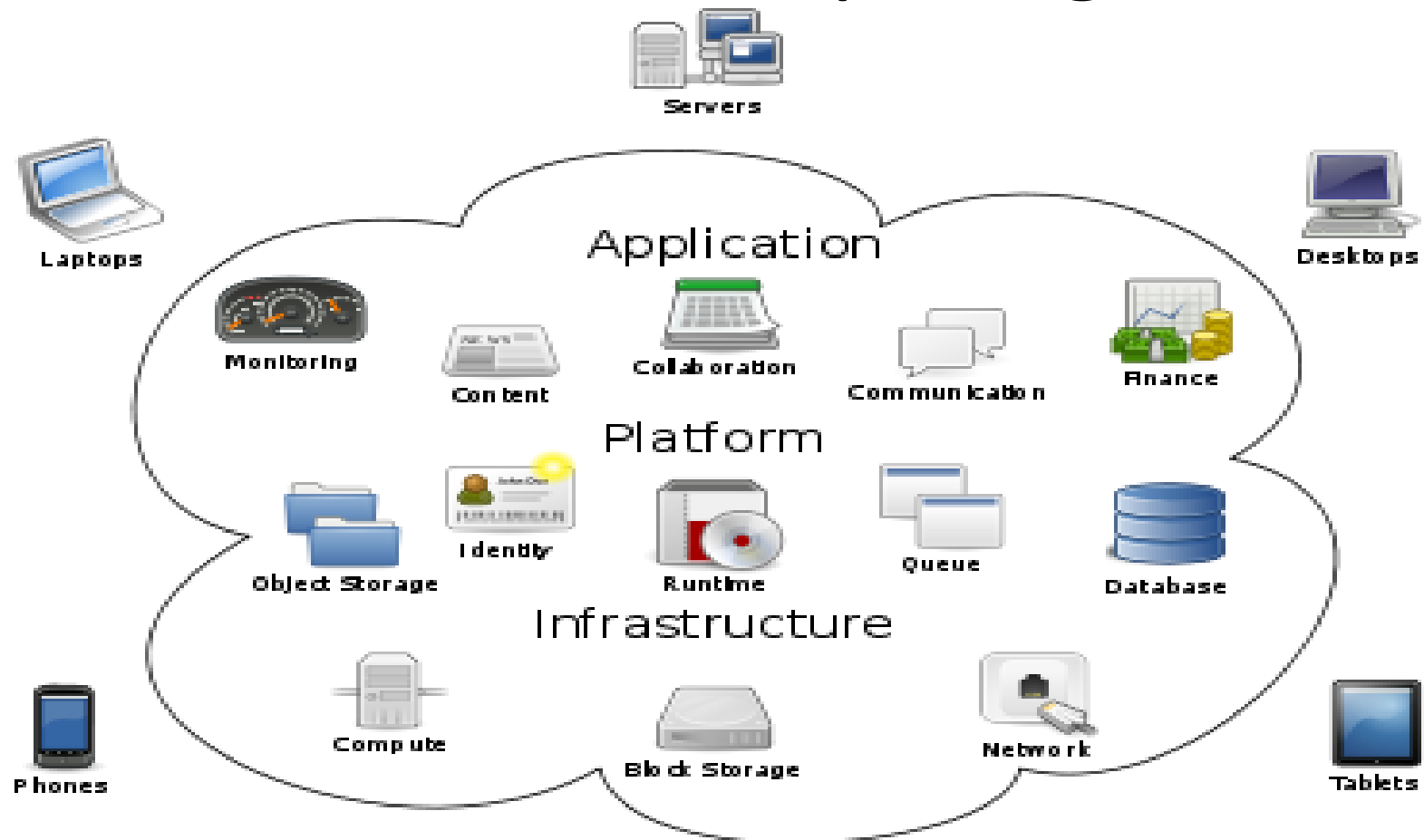
Cloud computing

- Definition:
 - Cloud computing is the delivery of computing as a service rather than a product, whereby shared resources, software, and information are provided to computers and other devices as a metered service over a network (typically the Internet).
- Architecture:
 - **The intercloud:** an interconnected global "cloud of clouds"
 - **Cloud engineering:** the application of [engineering](#) disciplines to cloud computing

Have you used 'the cloud' before?



Cloud computing



Cloud Computing

Cloud computing

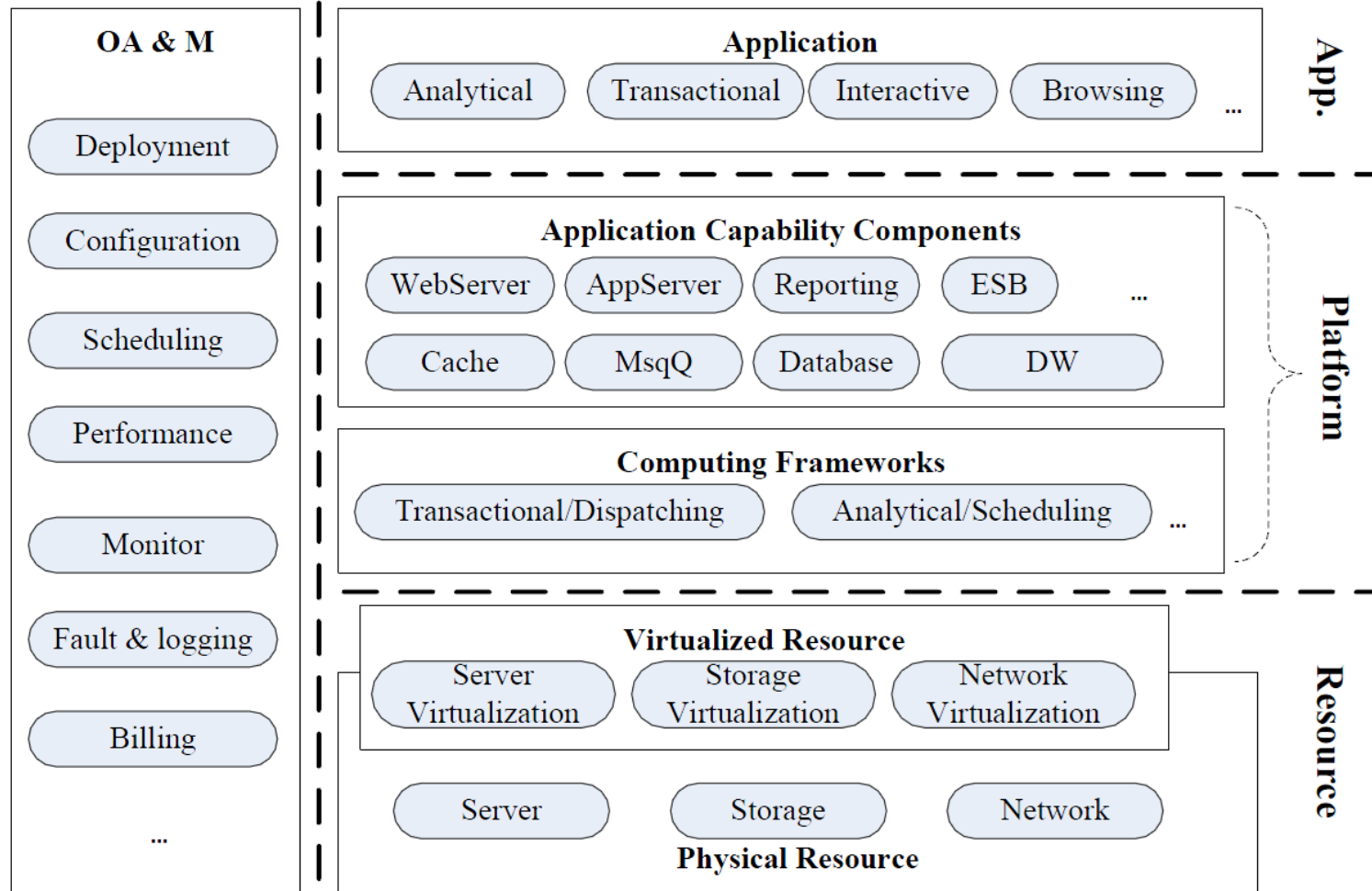


Figure 2: Reference cloud computing architecture



Questions?