Bringing the Cloud to the Classroom Using the Microsoft Imagine Cup

James Parrish
Patricia Day
University of Arkansas at Little Rock

Bradley Jensen
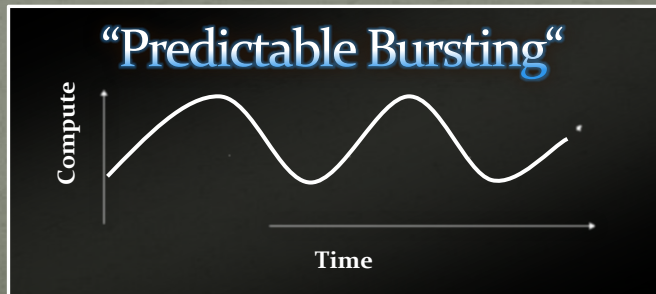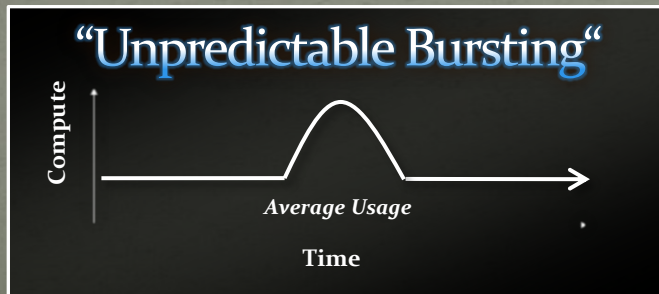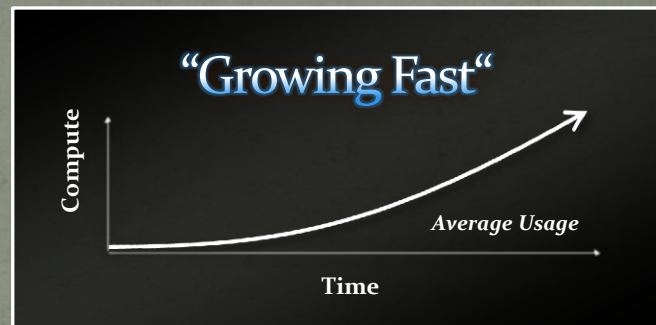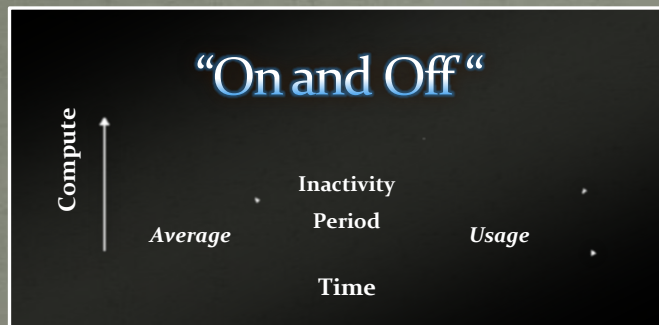Microsoft Corp.

Cloud in the Classroom

- Just now being introduced into curriculum.
- In MIS, the approach is generally the same.
- We describe the different types of cloud computing.
  - SaaS
  - PaaS
  - IaaS

Cloud in the Classroom

- We also discuss when it makes sense to utilize the cloud.

"On and Off"

Compute

Average   Inactivity
           Period   Usage

Time

"Growing Fast"

Compute

Average Usage

Time

"Unpredictable Bursting"

Compute

Average Usage

Time

"Predictable Bursting"

Compute

Time

Source: Azurebootcamp.com

So, What's Wrong With What We're Doing?

- Merely presenting the cloud in this manner is limiting.
- We need for students to think of innovative uses for cloud computing outside of the basic use cases.
- In order for this to happen, we need to take a different approach to teaching cloud computing to students.

The Imagine Cup

- A framework for bringing cloud into the classroom.
- "The World's Premier Technology Competition."
- Solve the worlds toughest problems with innovative technological solutions.
- Software Design

Software Design

- Two submission periods.
- Two rounds per period.
  - Round 1 Requirements
    - Initial project plan.
  - Round 2 Requirements
    - Final project plan.
    - Alpha prototype of solution.
    - Video demo of solution.

Benefits of the Approach

- The format of the competition makes it easy to incorporate into a course.

- Students get practice providing innovative solutions to real-world problems.

- Students get feedback on their solutions from industry experts.

Challenges with the Approach

- Can be very time intensive for students.
- May require faculty to "gear-up" on unfamiliar technologies.

Example Solutions that Utilized the Cloud

- TTHV
- H-2-O
- MedRX

Lessons Learned (So Far)

- Students are able to think of innovative uses for the cloud.
- However, they primarily use it for data storage and accessibility and not for processing.
- Students take their solutions seriously.

Questions?

Thank You