

Looking at Software with Both Eyes

Or

Should a Computer Scientist be Allowed to be a University President?

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Universities and Software

- ♦ Supporting the Business of the University
 - ♦ Teaching and Learning
 - ♦ Research
 - ♦ Administration
 - Students
 - Personnel
 - Financial
 - Contracts and Grants
 - Sponsored Research
 - Alumni and Development

Universities and Software

- ◆ The Software Dimension of the Business of the University (Teaching and Learning, Research)
 - ◆ Computer Science
 - ◆ Information Systems
 - ◆ Information Technology
 - ◆ Software Engineering
 - ◆ Enterprise Engineering

What Keeps Me Sleeping Like a Baby

- ◆ The Business of the University
 1. Do we have the right faculty? Are they keeping current?
 2. Given the short product life cycles, do our faculty and students have the right software and hardware?
- ◆ Supporting the Business of the University
 1. Increasing Dependency
 2. Security, privacy, reliability

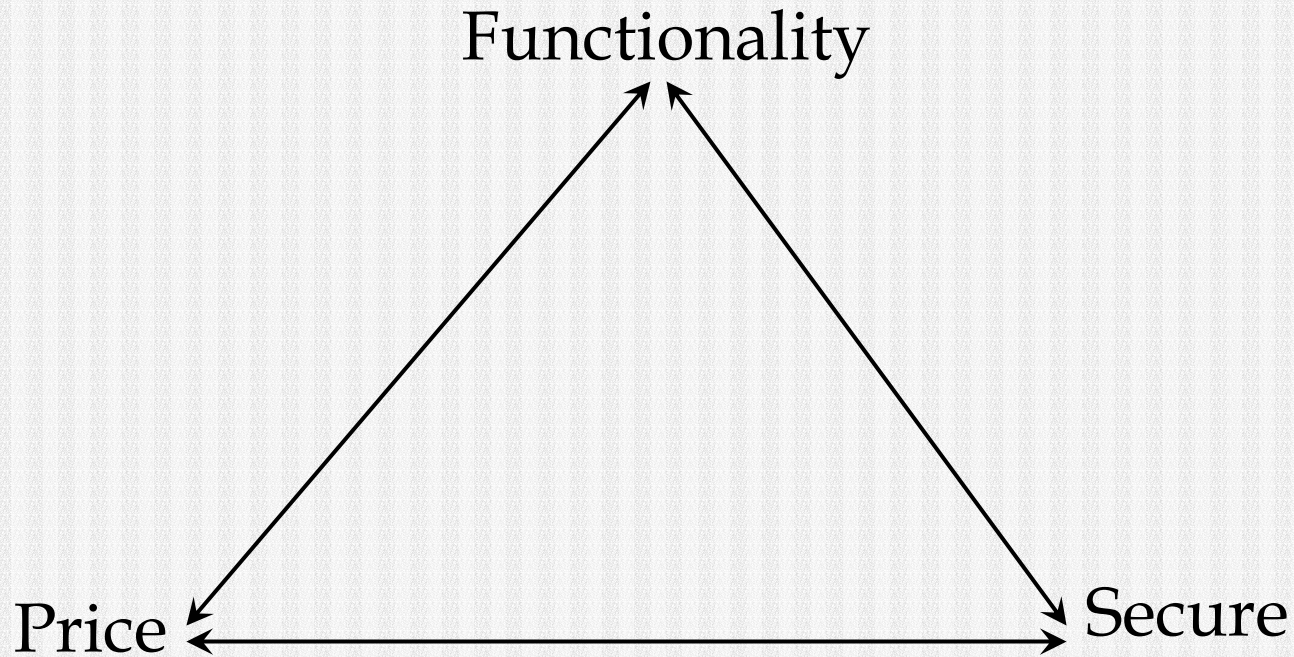
One Worm Can Cause Severe Damage

- ◆ University Environment
 - ◆ Thousands of students (new and old) arrive and plug in within a few days with heterogeneous machines
 - ◆ Faculty are individuals
 - ◆ Open environment for faculty and students
- ◆ Vendor Software
 - ◆ Security Problems
 - ◆ Poorly tested, poor documentation
 - ◆ No product liability

Blaster Worm

- ◆ Cost to George Mason University = \$250,000
- ◆ Number of college/universities = 3,000
in the United States
- ◆ “We fixed that!”

What Universities Need from Software Vendors



The Widening Gaps Surrounding Software

1. Increasing dependency vs. lack of understanding/knowledge.
2. Increasing desire for availability and functionality vs. lack of concern for security and privacy.
3. Lack of sustained interest in careers in software design, etc. vs. time and cost to train and educate needed human resources.
4. Shift in responsibility for paying for a college education from society to the individual vs. relative high cost of academic programs in software design, etc.

Universities and Software

In many respects, the past is a good predictor of the future.

- We will provide the human resource and some of the intellectual property.
- We will be a major consumer of software and will be increasingly dependent on software.