Computer scientists have a penchant for one-liners. We love expressive programming languages that enable us to accomplish in a single instruction what might otherwise take hundreds of lines of code. Our cryptic, mathematical inclinations show up in book titles (Algorithms + Data Structures = Programs), and how we describe paradigm shifts (Biology = Chemistry + Information). “Equation-proverbs” like these clear a space for us to think about connections and deeper issues.

Simplify. Simplify. If an idea saves time, makes sense, and fits on a post-it, then it’s OK by me! A while ago the faculty in Engineering was reconsidering college requirements and the discussion turned into a debate about discrete versus continuous mathematics. I pointed out that a computer scientist might use number theory and logic to tighten the security of a database in the same way that a materials engineer might use differential equations and deformation theory to harden a physical lock. With ridiculous over-confidence I thought that this analogy would nail the argument for increased flexibility in the core math requirements. But then a colleague from another department chimed in with a great one-liner, “How can you be against calculus—it’s all about change?” The double meaning of this good-humored observation pushed the debate to a higher plane and away from the drone of yet another low-level syllabus discussion. We quickly reached consensus; the requirements were relaxed in a way that preserved the great traditions of Cornell Engineering and accommodated fields like CS.

While on the topic of one-liners, here are a couple of no-brainers. Nothing brightens the landscape as much as a well-deserved promotion. Johannes Gehrke and Andrew Myers are now associate professors with tenure. Jon Kleinberg and Bart Selman have become full professors. Nothing changes the landscape as much as a faculty departure or arrival. Tom Coleman has moved to Waterloo but has left behind a legacy of great research and blue print for continued innovation through the Theory Center. Bobby Kleinberg arrives (after his post-doc) with a research agenda that will multiply our strengths in a host of important areas. Nothing depicts the landscape as well as a successful research proposal. There were many, but the systems group kicked it up a notch with the landing of an NSF Science and Technology Center that will focus on ubiquitous secure technologies. This is a joint effort involving colleagues in ECE and several other universities. Fred Schneider will serve as Chief Scientist. Nothing way marks the landscape as well as a cogent textbook. Released this year are Reliable Systems by Ken Birman and Algorithm Design by Jon Kleinberg and Eva Tardos. These volumes will be guiding students and colleagues over the research terrain well into the future.

So what’s up for 2005-6? For sure we’ll be thinking about ex-president Lehman and the challenging questions that he left behind on campus, especially, “What do we mean by wisdom in the age of digital information?” The four-rung step ladder data-information-knowledge-wisdom is relevant to the query and provides a context for computer science. Researchers in data mining and artificial intelligence have a lot to say about stepping up from data to information and from information to knowledge. Logic, statistics, databases, and machine learning are involved. However, different supporting technologies are required to make “top rung” at our Miramar. Rapid access to a terabyte database does not equate to wisdom and computer simulations do not automatically resonate with the truth. Checks and balances are needed. For CS, the step to wisdom in the information age requires a pledge of allegiance to the scientific method and a teaching agenda that connects us to colleagues and students who think differently. A one-liner sums up our responsibilities: Knowledge + Liberal Education = Wisdom. And by “wisdom” I mean “collective wisdom”, my favorite kind.