Some nine years ago Malcolm Gladwell wrote a book called *The Tipping Point: How Little Things Can Make a Big Difference*. Gladwell has since become well known, both for this book and for other books combining economics, statistical analysis and social commentary, including *Blink* and *Outliers*.

Gladwell begins by talking about how apparently small factors of location or policy can change a disease into an epidemic, a timely subject now as we use all the power of modern science and medicine to follow on a day-to-day basis the evolution of swine flu from country to country. But his concept of “epidemic” goes well beyond disease, and focuses on issues from fashion (How does a particular shoe style catch on?) to crime (Can cracking down on panhandling help lead to a reduction of serious crime?) to education (Can a television show, Sesame Street, spread a “virus” of literacy enough to change outcomes for children from disadvantaged homes?). Gladwell defines a “tipping point” to be the crossing of a boundary where a small change has not a small effect but an exponentially amplified consequence.

Tipping points have been much on my mind in the last year, and not just because of the recent flu concerns. There is first of all the dramatic downturn of the world’s financial system in which certain apparently localized events, such a failures of particular banks, led to a loss of confidence in the entire system, a freezing of credit, and a liquidity crisis for many institutions. Now I don’t mean to minimize the speculative buildup that led to the fall in the markets, nor to suggest that if things had gone slightly differently we could have avoided all this. But it is still striking to see how the interconnected and nonlinear nature of the financial markets led to an acceleration of the crisis once the first cracks appeared.

A second tipping point that is very much in the news this year involves climate change. Here again, the concern is that a series of relatively small decisions made over time, involving many particular choices (buying larger cars, planning highway networks for cities, clearing forest for agriculture) add up to create the specter of potential irreversible climate change. The earth system is not linear, but has feedback loops built into it in essential ways. For example, an article in the Los Angeles Times earlier this year described how the gradual warming of arctic regions causes the melting of permafrost, which releases stored methane, which in turn accelerates warming because each methane molecule is twenty times more powerful a greenhouse gas than carbon dioxide. Can we change our life styles and our policies before we reach this tipping point? The answer is not clear, but experts are more pessimistic on this issue now than they were one year ago.

The tipping points I have described so far involve downward spirals associated with nonlinear response: disease epidemics, financial collapse, or massive climate change. But tipping points can move things in the other direction as well: apparently small actions can have a large positive effect.
Regardless of your political outlook, it is hard not to see the election season of 2008 in this light. A relatively small number of committed people, many of them young, began to talk about and, more importantly, to work for an unknown candidate with an unusual name and a non-traditional background. The “epidemic” then spread from Iowa to the rest of the country over 10 intense months. The campaign slogan “Yes, We Can” represents the confidence that change is possible even in the face of apparently insuperable odds. Granted, the country was ready for change, but often in the past such potential for change has not led to anything beyond the status quo.

Tipping points involve a certain degree of chance. But they also involve being prepared to respond to a situation with potential, as well as being ready to think strategically and to use social networks to build momentum for a cause. I hope and trust that your Pomona College education has prepared you for just this purpose.

Gladwell concludes his slim volume with these hopeful words: “Tipping Points are a reaffirmation of the potential for change and the power of intelligent action. Look at the world around you. It may seem like an immovable, implacable place. It is not. With the slightest push--in just the right place--it can be tipped.”

As you graduate from Pomona College and move out into a world filled with uncertainty, take with you the confidence that each of you can make a difference. Look for opportunities with the potential for change, think strategically about how to influence situations, and build communities that will work with you to accomplish transformations. May you all find tipping points where you can use your education to help change the world.