

Michael Connolly

Extra Credit--*Code*

In Lawrence Lessig's *Code*, the overall argument is that the nature of cyberspace is merely a reflection of its code. This code defines this space of the Internet, but it is readily subject to change. Lessig delineates a number of areas where questions of law will be answered in code--notions of intellectual property, privacy, and free speech have all evolved thus far through a combination of Constitutional decisions and natural conditions, but now, these concepts must be implemented in code. cyberSpace extends naturalSpace, and so it is up to us to decide which functions to overwrite, and how. In his book, Lessig argues that we must (as coders and as citizens) decide what values we want to implement in the environment of the future. In this paper, I argue that we as computer scientists ought to consider the moral implications of our work, but that this alone will prove of little consequence given the state of our nation.

As a computer science major, I am engaged in the study and application of code. I was attracted to the field because I appreciate the timeless beauty of clean design. In my brief time as a programmer, I have enjoyed a number of truly special moments--being overcome with emotion at the sight of a compilation and a successful test script, or feeling the adrenaline of tightening the noose around a bug like some modern bounty hunter. In many ways, this emotion is not unlike what must have been felt by those scientists who worked to develop the atomic bomb during the middle of the first half of the last Century. It is easy to get, as Professor Astrachan states, "caught up in the frenzy of solving problems, solving equations, and advancing the technology of the time."

The Manhattan Project example can be extended to include another interesting parallel--that is, most Americans and many of the actual people involved in the development of the big bomb didn't have any idea what was really going on. For

strategic and security reasons, many of the scientists who were engaged in the atomic bomb's development were not fully aware of the implications of their work, and neither was the general public. Clearly, unless a choice is made transparent, then an individual or a society cannot make a conscious decision. Lessig's text helped make the choices more transparent to me, but I am afraid that many of the issues and concerns that *Code* examines are well below the national radar screen.

In order to examine the potential for conscious decision involving the future of code, it is impossible to ignore the general public. A programmer may or may not view an architecture in terms of the policy issues Lessig writes about, but unless an overwhelming majority of programmers all agree to uphold the same values *in the same way*, then a moral awareness amongst the technologists will prove inconsequential. That is, many programmers might oppose a particular scheme--I could never see myself working to curtail free speech, for example--but, so long as there are some coders, somewhere in the world, who are either ignorant or indifferent to the ethical implications of a project, then the project will move forward. This is not to say that there isn't a place for moral awareness, or that such an awareness is incapable of making a difference; it's just that, in my estimation, the collective will of the public transcends the moral conscience of technologists simply because there exist established means for exercising the people's choices within our government. Therefore, before I continue with my analysis of the need for morality amongst coders, I must consider where we are at as a people and a country.

As a concerned citizen of this country, I must admit that I have no faith that we as a people are in a position to answer the questions that Lawrence Lessig's book brings to

light. In our country, government officials do not seem to grasp that leadership is about defining the issues, not about following the polls. In this time of so-called war, our so-called leaders maintain their popularity and justify their actions by making effective appeals for the need to defend our democracy. Few stop to consider that our "democracy" would be labeled a failure in a number of other countries since two-thirds of those eligible to vote routinely abstain from our ballot boxes. In order to deal with Lessig's questions, we need to be capable of moving forward. But we were unable to move forward in the 1990's, when we all enjoyed unprecedented peace, and many of us enjoyed unprecedented prosperity. Our response was to sit around and talk about Monica Lewinsky. Today, under the cloud of terrorist threats, the prospects for galvanizing the sort of widespread understanding that would be necessary to address the issues in *Code* are bleak. Not only is there no room on the evening news for these issues, but even if there were, people are too busy working longer hours than ever before to notice.

Therefore, in a world where it is unlikely that the unorganized population of coders can collectively and directly force change and it is even more unlikely that the weary, misinformed American public will demand action, should the coder even bother forming moral judgements? And should he or she then proceed act upon them? My answer is yes, on both counts. First, of all, I firmly believe that an individual needs to operate from a single set of values. You cannot achieve piece of mind and spirit by going to work and checking your values at the door. It can be hard enough to find meaning in this life in the first place; if you can't even make it through the day with a single set of a values, then I doubt your life will feel very rewarding. Furthermore, there is a second, politically more important reason why we as coders should adopt a moral stance and act upon it--we are

the only hope for bringing the questions raised by Lessig to the attention of the rest of society. If we do nothing, these questions will never be raised in public. As Lessig points out, it is in the interest of commerce to make the Internet more regulable, and unless we do everything we can to illicit and frame a national debate, chances are Constitutional values will continue to be quietly eroded. In conclusion, the coder is not likely to change the direction of the world just by writing (or refusing to write) lines of code. Furthermore, the general population appears to be in no position to answer, or even contemplate, the critical questions raised by Lessig. Therefore, as a society and as coders in particular, our best hope at preserving the protections and integrity of our Constitution is to promote a popular understanding that makes these complex questions more readily transparent.