"It was a far different America in 1932 when Aldous Huxley published his utopian vision of a Brave New World. Huxley's picture of a future world in which human life is mass produced by precise engineering standards in accordance with strict utilitarian values struck an emotional chord for Americans wrestling with the promises and heralds of modernity. The book both excited and frightened its readers. Its portrait of the nature of future beings --- biological automatons whose spiritual essence has been severed by science --- served as a prescient warning of what might lie ahead on the track of modernity. Still, for many in the intellectual community and the public at large, The Brave New World was created more as a metaphor, a compelling parody of the modern condition than as a very real possibility.

Today, Huxley's vision is fast becoming commonplace. Engineering principles and mass production techniques are rushing headlong into the interior regions of the biological kingdom. They and the once sacred texts of life, the genetic code, has been broken and scientists have rearranged the very blueprints of life. There are now more than a dozen new ways to make a baby, all of which involve sophisticated technological intervention into the reproductive process. But, once these technological possibilities spark off and a sense of trepidation, they now elicit a mere curiosity. The question, "How could we?" has been replaced with, "How soon?" and "At what cost?" It is now up to us to free ourselves from the grip of this fast approaching brave new world."

So reads the preface of a recent book in biomedical ethics. If we need any further confirmation of the influence of Brave New World, we need only go back a week when researchers in Atlanta announced they had frozen, thawed, and fertilized human eggs leading to a twin pregnancy. This led some public commentators to declare that we are now one step closer to the brave new world. Or perhaps, you recall seven months ago how similar pronouncements greeted the research reports that a sheep had been cloned in Scotland. "They cloned a sheep. How could you tell the difference?" was the joke back then.

Brave New World, a work of imaginative vision, has in turn shaped how many people see or visualize developments in biomedicine and in our society generally. Good
literature I think should help us in our capacity to see, to set problems in context, to enhance our vision of the world. But, Huxley's book has exerted its influence not because of its literary qualities, nor, to the extent to which the present biomedical world may mimic Huxley's fictional world. Rather, its the presentation of a set of ideas in Brave New World that enables Huxley's book to provide such a challenging, compelling vision. In this presentation today I want to focus on three central themes highlighted in my title as the set of ideas Huxley was interested to probe in the modern context. The first is the role of technology as presented in the symbol of soma in the Brave New World. Soma for those of you who haven't read or aren't familiar with the book is a pill that individuals take to basically relieve them of their cares and anxieties; if life gets too difficult, they take a soma holiday. The second theme is the role of humanities as symbolized in Brave New World by the use of Shakespeare. And the third question, is given the clash between the humanities and technology and to some extent science for the sake of scientific knowledge or the application of science or technology. Given this clash between technology and the humanities, the third kind of question that we need to come to grips with is symbolized by the conclusion of Brave New World where the main character commits suicide. So, those are the overarching themes I'm going to be working with in the next little while. "Soma" as a symbol of technology, "Shakespeare" as a symbol of humanistic vision rather than a technological vision of life. And then, societal alternatives to "suicide" as presented in the role of the Savage.

First, before I launch directly into that a couple of background comments. Brave New World is authored in 1932, and one can imagine the kind of world ethos at the time. It's a moment of very significant, substantial, world crisis obviously. Economic depression in capitalist societies, the emergence of fascism in Europe and Asia and this makes its way inevitably into Brave New World. Into the very first paragraph, where the slogan of the French Revolution, the Tripartite slogan of the French Revolution --- liberty, equality, fraternity --- is replaced with community, identity, and stability. Within the brave new world or utopia it's really social stability that's the governing principle of those three principles of community, identity, stability. What one has to keep in mind is the background context of the economic depression in the capitalist world and non-capitalist world and the emergence of fascism as some of the kinds of currents that make their way, seep their way into Brave New World.

A couple of words about the title. The title, Brave New World comes from Shakespeare's, Tempest. As voiced by the character Miranda, "Oh wonder, how many goodly creatures are there here, how beauteous mankind is, oh Brave New World that has such people in it." Now that particular phrase in the Tempest is repeated by the main character, the Savage or John, three times throughout the book. It has three different meanings. The first time that it is invoked, which is about half way through
the narrative, the "brave new world" is invoked as a basis for hope. John has been invited to return to utopia basically as a specimen, that's really all he is to Bernard Marx, for Marx's research. "Look at what I've found on the reservation"; you can imagine some of the similarities to Columbus and others taking back Native Americans to display them for the European courts in the sixteenth century. Any case, at that point, John indicates for him the words "brave new world" are ringing in his mind and they really form a basis for hope. A young man with an invitation to return. "The savage drew a deep breath, 'To think that it should be coming true what I dreamt of all my life.' Do you remember what Miranda says?" And then, he goes into the iteration of what exactly Miranda says, "Oh wonder, how many goodly creatures are there here, how beautious mankind is . . ." Mankind is for John, at that point, embodied by Lenina, a voluptuous young woman, pearl white teeth and skin benevolently smiling. At least at that point, "brave new world" is seen as a basis for hope.

As John becomes a specimen but also the person that's engaging in a little bit of anthropological study himself of the goings on in the brave new world, a different image or signification is given to the utterance, "a brave new world". As John watches various classes --- the Alphas, Betas, Gammas, Epsilons --- engage in the process of technological reproduction, and observes how homogenous it is, he reacts in a kind of violent or physiological way to it. "Oh Brave New World. By some malice of his memory, the Savage found himself repeating Miranda's words, "Oh Brave New World that has such people in it." The Savage had suddenly broken away from his companions and was violently retching behind a clump of laurels as though the salt earth had met a helicopter in an air pocket." So, when confronted not by how beautious mankind is but rather the mechanized control and class similarity, --- or put another way the loss of creativity and innovation and intolerance towards diversity and difference with in the brave new world, --- that utterance becomes no longer a basis for hope but a haunting memory of what might have happened or might have occurred.

And then, there's a third time in which the "brave new world" language is invoked by John. That's really in some sense one of the conclusions, a dramatic conclusion it comes to, when John's mother dies. A death with dignity just doesn't happen in the brave new world. So John goes outside and observes the daily distribution of soma to the individual workers, the deltas. "Fiendishly laughing, the words, 'brave new world' had insisted on the low squalor, the nauseous ugliness of the nightmare that he experienced. Now, suddenly they trumpeted a call to arms, Oh brave new world . . ." Miranda was proclaiming the possibility of loveliness, the possibility of transforming even the nightmare into something fine and noble. Oh brave new world . . ." was a challenge, a command. So, in the context of this distribution of soma moved to a third
sense in which the language of brave new world is invoked and that is the command or imperative to rebel, to resist the status quo, even to transform the nightmare into loveliness. It is significant the three ways in which the language of brave new world is not only in the title but in the text --- as a basis for hope, a haunting memory, and a command or imperative --- because I think in that triad Huxley nicely brings together three basic strands of utopian thought in general. Namely, a hope for a better future; memory, the sense of what's been lost - a paradise lost, if you will and then, the possibility in the hope for a transformation, that in John's case or the Savage's case really takes on a form of messianism. In any case, hope, memory, and transformation I think tend to underlie much of what we find in utopian or dystopian thought. Huxley has nicely put these together these three different invocations of the language of brave new world.

Soma: Let me say a few words about the dystopian aspect of technology that is symbolized in the pill soma. Contrary to what Marx said about religion being the opium of the people, in the brave new world soma is the religion of the people. Soma is really the fundamental image of social and behavioral control but it is social and behavioral control that comes through this technological means. Here again, I think that we are broaching one of the great themes in utopian literature: technology has the prospect of being liberating to us in many ways --- if no other way it expands our realm of choices --- but we can also become slaves or technology can become our master. Within the context of the Brave New World, technology has really overrun its bounds, and lost its human purposes. It is used as a means to restrict human choice, to restrict human conduct quite significantly.

Brave New World is set roughly in the year AF 632 with the key figure being Ford or Freud (the brave new world inhabitants aren't quite sure why he changed his name). And Freud we're told by the World Controller, Mustapha the Mond, is very important because he shifted the concern of humanity from truth and beauty to comfort and happiness. Thus, we can date the beginning of Brave New World or at least the time counter when their calendar begins and it's when Ford creates the Model T. Aside from the temporal issue the main point here is that Ford and mass production and so forth, shift humanity's concern away from truth and beauty toward comfort and happiness. We might think that that's a good shift in a lot of ways. Our culture has certainly accepted that in a lot of ways and I'll come back to this shift. The concern the Savage has, of course, is that this shift toward comfort and happiness has really been bought at a high price, a price that's too much to pay, because with mechanization comes increasing depersonalization so utopia, the Brave New World, we're confronted with depersonalization, dehumanization, at it's profoundest level.

I don't think that one has to look at a book like Brave New World to see examples of this. This past weekend I was at a medical school in North Carolina, East Carolina
University School of Medicine and one of the physicians commented that under the influence of managed care and its competitive economic environment --- where the point is to get patients in and out of the system or work them through the system as quickly as possible --- that, physicians were now referring to patients as "IPBUs", which stands for Income Producing Biological Units. The emphasis on competition, on profit, has so overwhelmed so many in the health care field that they have become very cynical about this, and what you really want is to cultivate RIPBUs which stands for Repeat Income Producing Biological Units.

Well, perhaps that's North Carolina and is not all that relevant to us. I sometimes wonder though or get very worried that this university has began to look at students as potential revenue sources --- as income producing biological units --- to the point that we're now told budgets and so forth will depend on how many students we can recruit into our classes. So, to that extent the worries about depersonalization that come from bureaucratization and from mechanization are not really all that far from our mentality in a lot of areas.

Within the brave new world there are several very different types of control. Technology is used as a way to enslave many types of experiences of human beings but I want to focus on five in particular. The first two are really combined together. There is control over genetics and reproduction, which has the benefit of avoiding uncertainty or what biomedical ethicists refer to as sexual roulette. Not knowing what will happen when one engages in intercourse nor, what kind of child one might have as a result of that act. Genetic and reproductive controls enable us to avoid that uncertainty, to avoid the outcomes, sometimes good, sometimes not so good, of the natural and genetic lottery. But, that's bought at the price of the interchangeability of for the attempt in the brave new world is to try to minimize imperfection and individuality. That comes with a price of being very intolerant towards diversity and difference. Those of you that have read the book recall that if a person has an eyelash that looks a little out of place they are the objects of a great deal of stigma and social approbrium in the brave new world. This past Sunday, there was an announcement about cloning headless frogs, the possible uses of the research method to breed headless humans, in which case we really have an interesting mind-body problem for philosophers. While I don't agree that the brave new world is already here, one can see why some people might be a little bit concerned that we're not that far away.

Secondly, there is mind and behavior control in addition to genetic and reproductive control. Some interpreters have really suggested that if either of the two dystopias, Brave New World or 1984 were to become a reality, Brave New World is more likely because it relies on conditioning and education rather than coercion. Morality is taught through sleep teaching or hypnopedia, which is "words without reason". What would be examples of words without reason - I know - "Just do it". Words without
reason. What's that? MTV. In any case this mind or behavior control works to erase any kinds of emotions, feelings, the sense of communality that occurs through sexual relations and the like.

In his very interesting book, *The Protestant Ethic and the Spirit of Capitalism*, the German sociologist Max Weber wrote about his concern about the increasing way in which the capitalist corporate ethic was taking over our ideology, our values and so forth. Once, it had been severed from its religious roots it would culminate in, Weber wrote, "specialists without spirit, sensualists without heart; this nullity imagines it has attained a level of civilization never before achieved." And, I really think that that's a very apt description of what is going on with the kinds of persons, if one can call them that, in the brave new world: specialists without spirit --- very technically oriented but, they've lost the sense of heart and sense of what's truly valuable in life.

We also have death conditioning. In the brave new world death conditioning or death itself has a very utilitarian sense. Death is of interest in what the corpse can do for society, not really what the society can do for the corpse. There's no loss upon death, no grief, and no feeling.

All those are the ways in which technology as represented in the symbol soma places human beings under social controls with diminished choice and diminished humanity. As I read Huxley, he's not a person who's completely opposed to technology but, he's asking a set of questions that I take to be germane to our discussions and our society. The question for Huxley is not is technology evil or *per se* bad. The first question is who controls technology. And it's quite a different thing if technology is in the hands of very few people like the nine world controllers of Brave New World or, whether there's some kind of decentralized control. In some sense that's a procedural question, "Who controls technology?" And then, there's the substantive question, which is where Ford/Freud makes the big shift, for what ends is technology used. In the Brave New World again the focus is again on the ends of human existence. The great good is confirmed in comfort and happiness. The quest of truth and beauty is dropped by the wayside. What Huxley is reacting against I think is not technology in and of itself but rather technology that is centralized and that really gratifies certain human desires for the purposes of achieving social stability and social order. So it's important to distinguish criticism of technology in general and criticism of the means by which technology is disseminated throughout a society.

The second theme that I want to turn to now is what I call the dilemma of the humanities and the role that Shakespeare plays in the brave new world. Shakespeare is the form of normative criticism, the voice of normative criticism, that finds its way through John into the Brave New World and causes all sorts of problems. Shakespeare is for John for the Savage his canon, his "Bible" that offers a different way of seeing
the world than what he's been exposed to on the reservation. It provides for him a way of envisioning the world a way of interpretation of the brave new world. Just as literature for many people becomes a way upon which they look upon involvements in medical technology and for John, Shakespeare becomes the way, the lenses, through which he understands the activities of the brave new world. And it's subject to the same kinds of criticisms that one might have a biblical canon. The World Controller Mustapha Mond dismisses Shakespeare just simply because it's old, it's irrelevant, times have changed. We don't have the type of social situations that makes "Othello", for example, meaningful to the brave new world.

As representative of all the humanities Shakespeare is also for John a source of power; a form of magic. It provides a way of controlling what otherwise cannot be controlled. So, Shakespeare is a way for him to tap into powers he otherwise wouldn't have access to and it becomes a prescriptive kind of canon, or sets some norms for him to follow. Thus, in various guises John understands himself playing himself as role playing out MacBeth, Othello, Romeo, and Miranda. That is, Shakespeare describes the brave new world, and also prescribes how one should act in that world by giving orders or becoming a source of moral norms. In those two aspects, the descriptive or interpretive function of Shakespeare as well as the normative use of Shakespeare, or Shakespeare becomes a threat and why John, who embodies normative Shakespeare, is perceived as a threat in the context of the brave new world.