JOHN PALFREY: So we're on time here at 1:00 PM, starting with a faculty panel that I'm just as excited to introduce as I was to introduce Dr. Boyd. I'm going to switch the lineup slightly in one respect, you have four names here, I'm going to put Harry Lewis last to bat cleanup. But otherwise we'll go in that order. And I'll introduce briefly the panel and hopefully, they will each speak some and we'll reserve some time for questions. Please do raise your hand at any point. I think we should just keep this interactive if you guys are OK with that.

First up is Nancy Kane, the James E. Robeson Professor of Business Administration at the Harvard Business School. She has a wonderful topic that I'm going to let her describe in greater detail, though it's written in your program. I've gotten to know somewhat the work of Nancy and her colleagues at the Business School in the context of knowledge management. I actually think that the place in which so much of the most interesting work, thinking about how information is changing, and how we think about knowledge is happening in the context of the Harvard Business School. And you can follow Nancy as you can see at @NancyKane on Twitter. She's doing it herself. So she speaks from great experience.

Next to her is Professor Gregory Mankiw, Professor in Economics. He also has the best known, if not best selling, textbook in economics I think, and a blog that is equally important as we'll hear to his teaching as that textbook is. Going down to the end, Professor Michael Sandel, the Anne T. And Robert M. Bass, Professor of Government at Harvard University. I got to know Professor Sandel from a seat very distant from the stage of Sanders Theater in Justice in the early 1990s, and have admired his work ever since that. His current students in Justice have many other ways to interact with Professor Sandel than from the nosebleed seats in Sanders. And those students now include a much broader audience around the world, by virtue of some really ambitious and interesting work that combines social media and, frankly, traditional media like television in ways that is totally fascinating and much to the credit both the professors and on the university in terms of what has happened.

And batting cleanup is Harry Lewis, the Gordon McKay Professor of Computer Science in the School of Engineering and Applied Sciences, also the Former Dean of Harvard College. I think maybe safe to say that without Dean Lewis, there might not have been a Facebook even. There are some interesting stories there. But because of any number of things, he gets the last word on this particular panel.

So, Nancy, over to you.

NANCY KANE: So thank you, John. It's a pleasure to be here. Interesting moment, interesting topic. In Business School way, I'm actually a historian. My PhD is an 18th century European history from this side of the river. But I knew still in the spirit of the Business School, I needed to start with some numbers. So there are 600 million registered users of Facebook. There will be a billion in less than six months. This year, Facebook's ad revenue is pretty projected to be about $4 billion. In the first quarter of 2011, 31% of all online ad display ads appeared on Facebook at operating margins of about 50% for that company. That's pushed insider speculation about the market valuation of that company up to close to $100 billion.

Just to give you a few more little tapas, bar-like dishes in the same spirit, Dr. Pepper which is a very popular corporate Facebook page has about 8 and 1/2 registered users. Starbucks, another very popular Facebook page, has about 12 million registered fans. Coca-Cola is in the same ballpark.

Folks, let's start with something really important. This is big, big business. This is big business with big money behind it. And we just need to keep that in our D drives or in our NSF space or out in the cloud somewhere as we talk about this. This is big business. And there's more business models and more ways to turn this into kuching kuching coming at us and our students and our good selves every day. That's the first musing.

Second musing is we know much less than we think about this. Or what we don't know perhaps a better way of saying it is much, much greater than what we do. And so I need to offer, as the historian in the group, a couple of just analogous moments. When the railroad first appeared as a possible mode of transportation back in the 1840s in this country, the early pictures of what a railroad car would look like were stagecoach cars on tracks. So that's what we thought the future was in 1840. And by the way, many, many, many railroads went bankrupt before we figured out how to create economies of scale and scope and what became really the infrastructure of the mass market and modern industrialization. So that's the first flash.

The second flash is that when the telephone was patented and then commercialized, it was done so primarily as an office intercom. Thirdly, I'm reading just all the gossipy, snarky bits in Paul Allen's new book. And he talks a lot about the Altair, the first computer Ed Roberts and others in Albuquerque put together. That was going to be a hobbyist device, and it was going

to be a big business as a hobbyist device.

Fourth, in 1995, a guy named John Seabrooke who's really active in social media writes for *The New Yorker* published a fascinating article called "E-mail from Bill." It was a series of e-mail exchanges, 1995, with Bill Gates in which John and Bill exalted the opportunities for learning and human development and effective time use and energy use through e-mail. Fourth, in 2000 we thought that you could make a lot of money shipping furniture and large bags of dog food over the internet.

So we don't really know how to use this. And we don't just know how to use it as a business. We don't really know how to use it as a communication device. We don't know how to use it in keeping with the better angels of our nature. We don't even know how to use it efficiently yet. And there is no doubt that we don't know that. That's the second musing.

The third musing is that it's from the bishop of London. So I drank too much coffee on Thursday night, so I'm up at 5:00 and like I turn on the television. I don't even do the royals anymore. And there are many fascinating things about that wedding, including that huge juncture between the cheerful and ebullient young people in the audience and the more dour but well hatted VIPs along the transept.

But one of the most interesting things was something the Bishop of London said in the middle of the service. And he began by saying, the 21st century has great promise and has great perils, perhaps greater than any that we can log in the last 300 or 400 years. But what will be needed to deal with the promise and particularly the perils is actually not more information, and it's not even more connectivity, it will be the translation of that information and connectivity into loving wisdom, into understanding and into wisdom.

So I think one of the interesting questions here is how do we, as an Academy, think about the creation, not just of knowledge, but of understanding and the important buttresses that have existed through many technological revolutions around the cathedral of higher education. Which is not just to prepare young people and all of us for the next way to get and spend, as important as that is, getting and spending, getting and spending. It is also to help prepare our hearts and minds for a life of right action and astute judgment and a sense of the context and of our obligations and loyalty that play to our higher selves as well as the rest of us.

So that means leads me to my fourth musing, which is that I think in all this Schumpetarian creative destruction-- because a lot of what Dana is talking about is about destruction,

hierarchies and old walls and barriers and models of learning and business models and social networks and et cetera, et cetera, et cetera, as Yul Brenner said in "The King and I" --a lot of this creative destruction I think is forcing us in the Academy back to some kind of relooking, rethinking, maybe reconfirmation, revalidation of our fundamental purpose and our fundamental mission.

Fifth, and I'll say this in the spirit in which John introduced me, and I have only one more amusing. Fifth, the technology, and you can see this really with glaring, just glaring clarity at the business school, is outstripping our learning models. So we have this model of the business school. And like the Beatles, we write all our own stuff. It's these black and white cases that have all these exhibits.

And we bring our students in, we ask them to read them in advance so we do with interesting things with social media around them but we still fundamentally bring them into the classroom. And then we ask them questions. We don't lecture. And so we're depending on a whole bunch of things around your comment around listening and judgment and filtering and sifting and editing on the part of our students to generate a whole that is greater than the sum of the parts in the classroom, and that we believe or we once believed, we still do, has a big overhang into their lives, and not just we hope into their next Wall Street job.

So you know we're getting outstripped real fast on this. And the Harvard Business School is, we are really trying to pick up this gauntlet and deal with it. But we don't know exactly how to do that, because we've got a model that's worked really well for 80 years, 80 or 90 years. So I think we're outpaced here. And I'm not surprised by that as a historian. But it only ups the ante, dials the volume up, on the kind of conversations and then the kind of action we have to take.

The last musing is, in that spirit, I think just like effective leadership in ongoing turbulence we're going to need a lot of smart experimentation, rapid fire experimentation. We're going to need a whole lot of suppleness around how we try and use this with our students, but with what we bring to the table as faculty members and serious seekers, and serious seekers. We're going to have to be engaged in rapid fire experimentation and suppleness of how we use that, and yet consistency of purpose, consistency of why we're doing what we're doing and some real faith in on our ongoing ability, technology aside, to help students translate knowledge into understanding and understanding into knowledge.

JOHN PALFREY: Nancy, that's totally wonderful. Please join us.

[APPLAUSE]

Before I turn it over to Professor Mankiw, just one comment on your fourth and fifth points. The Schumpeter points and so forth, I think one of the interesting things to reflect on about our business is the extent to which we are an information or a knowledge business, however you want to define it. If you look at other information and knowledge businesses like the telephone monopoly that AT&T had, if you look at the recording industry's business, if you look at the movies' business, if you look at the newspaper, most recently, increasingly, these are businesses that have had some serious business model issues hit them in the last decade or two.

We have been remarkably untouched to date, at least at the sort of high level where we sit. I don't think that's particularly for long, whether it's at an individual level in the classroom or institutionally. And I think some of the things that I know Clayton Spencer and others are working on around strategic direction for the university are looking at this. How do we stay ahead of the curve?

But I do think that it's going to come from individual faculty and individual classrooms and individual experimenters where we will come up with the percolating set of data from which we will derive those strategies. And I think it's really important we not get too comfy as the world's greatest university type laurels that we--

NANCY KANE: I mean the University of Phoenix, just to take one example we're very familiar with. The business school is just gunning, right, gunning for a lot of what we do and very successfully, I might add. So just from a business model,

JOHN PALFREY: All right, from a business model to an economist. Gregory Mankiw, please let us know whether or not blogging, along with writing popular textbooks and teaching Ec 10, which might occasionally be in Sanders is a good thing too.

GREGORY MANKIW: Thank you. It's a delight to be here. To be honest, I'm a little surprised at finding myself here talking about the new technologies, because while I'm not quite a Luddite, I am usually a late adopter of technology. As I remember back in 2003, still writing my books in Word Perfect for DOS. I think I was the last person on earth still doing that.

JOHN PALFREY: No there are many lawyers who are still persisting.

GREGORY MANKIW: I think if I could get it back in on my machine, I'd be delighted. And my experiment with Facebook has not been all that successful. I don't have a Facebook account now but I did briefly. I set up a Facebook account and I really didn't know what to do with it. But a lot of students around the world who are using my textbook kept wanting to friend me. And I said, sure, you want to be my friend, why not?

So I just kept adding friends, I had these thousands of friends that I never met, until I finally reached 5,000. I did not know this, but 5,000 was the limit of how many friends you could have. And then Facebook told me, I'm sorry, you can't have any more friends. So I announced on my blog, which I'll turn to in a minute that I'm going to say goodbye to Facebook. I can't add any more-- the only thing I was doing with my Facebook account is adding friends, and now I can't do that, so what's the point? So I shut down my Facebook account.

And within 24 hours, I got an email from the chief operating officer of Facebook, who said, Professor Mankiw, I read your blog recently. You may not remember me, but I'm taking you to a faculty dinner some years ago. And she explained to me how I couldn't have a-- well, she explained to me technologically, why they couldn't have more than 5,000 friends. But there's another thing, I could have a fan page that I could set up. Which I actually never bothered doing, but--

JOHN PALFREY: We'll do that for you right now.

GREGORY MANKIW: I wasn't sure why I needed it. So I'm still not on Facebook in any capacity. What I am is a blogger, which I think is why I got invited to this thing, despite my somewhat Luddite tendencies. Now, I'm sort of an accidental blogger. It actually came about as a side effect of my teaching Ec 10, a large introductory course in economics at the college and we have about 700 students and I'm the lecturer. And so, as you might guess, I don't get to know the students one on one very much. I seem a few of them on office hours, but certainly not the vast majority.

And so for the first year I did this, I tried to do it via email and interact with them via email. So when I would read an article in the newspaper that I thought was kind of interested or related to something we were covering in class, I'd send them all an email, saying, this is kind of an interesting article. This is kind of related to what we're doing. And I'd add three or four sentences and a link to the article.

And I quickly learned two things. One is a lot of students of you to me is the most notorious spammer in their lives. They thought it was information overload. But then in addition, I learned that some people who weren't in the class wanted to get the emails. I was getting students who were in upper level class, said, I heard about your emails, Professor Mankiew, can I get on your email list? I had professors at other schools who are teaching out of one of my textbooks, saying, oh, we've heard about your emails. Can we get on your email distribution list?

And so rather than doing it via email, I decided to switch the whole thing over to a blog format so that students who are interested in this could access that and other people who weren't at Harvard could as well. And those who wanted to ignore it could as well. So I think that's actually worked out fairly well for me.

When it started it was basically my students and a few students at other schools and teachers at other schools, once the blog became known and the readership expanded beyond that. I think I've roughly plateaued now. I get roughly 10,000 visitors a day, stopping by the blog, depends a little bit on how much I'm posting, and if I post something particularly controversial, it gets noticed on other blogs, it'll spike up. But 10,000 a day seems about the average.

From the emails I get, I have some sense of what the readers are. There's lots of students from around the country. I do have these two textbooks, a particular introductory textbook that has a fair number of students every semester. Also teachers who teach out of the books will often use it as a resource for getting ideas for their classroom or just sort of staying in touch with the author of the textbook. And also get a lot of economics junkies more broadly and that includes journalists, a Washington policy wonks. I even noticed that in his last book, Mitt Romney has a nice mention of my blog. So I do have a sort of a wide, eclectic readership.

Now the question is, what do I post to there? Well, there's sort of several things. And it's really a wide variety of things. I very cleverly called it "Greg Mankiw's Blog" because I couldn't think of anything else to call it. But the subtitle is "Random Observations for Students of Economics." And if you look what I post there, they really are very random and sort of eclectic.

I think by far the most common kind of post I include are links to things I've seen and like. So in an article I've seen, a cartoon I've seen that I think is kind of funny if it's related to economics. I read every three newspapers every morning, and if I see something that I think a student of economics might want to read, I sort of, if it's available on the web, I will post a link

to it. In fact, *The New York Times* is now hiding behind a shield. It's actually very sad for me. But that sort of cuts down sort of where I can farm for links. But there's a lot of interesting stuff out there that a few times a week I'll find something that a diligent economics student might want to read.

Sometimes I will actually do some work, besides just sort of posting a link, I'll actually include some of my own commentary on recent events or recent research, some article I've read, I'll sort of summarize it or just post the abstract. And here's a kind of cool finding. Sometimes I'll include information about my own life for my very small number of fans out there. So if I have a new paper that I've published, I'll sort of post a link to that. Or if I am giving a talk somewhere. A couple weeks ago I was at the University of Cincinnati and I know the University of Cincinnati was going to web broadcast. So I said, if you're in Cincinnati, you can come. If you are not in Cincinnati you can sort of watch it live via the web. But I'll post a link to that.

I'll post information about other economists, and in particular, my Harvard colleagues. So if students or other people are interested in what's going on in Harvard Economics Department, which is really one of the world's great economics departments, so if there's an article about them, about one of my colleagues, I'll post that link. And indeed, I'm often alerted to these links by my colleagues. I won't mention any names, but occasionally Professor X in the Economics Department will say, hey, Greg, this magazine just wrote a profile about me. Here's the link. Post it on your blog. And I always oblige without actually mentioning Professor X was actually the source of this piece of information.

The thing that's actually most popular, I try not to do a lot of, but it's one of those popular features I include is advice for students. So I've had several students email me saying, you know, Professor Mankiw, what math courses should I take if I want to consider grad school in economics. Or I'm an undergraduate major in engineering, but I'm thinking about switching to economics. Can I do that or can't I? Or I'm a freshman. I really want to be a great economist. What shall I do in my summers? Sort of all sorts of random questions a student might ask.

And so I will answer those questions on the blog, always take the student's name off. So I never include any student names. And on the right side the blog, there sort of permanent links, sort of advice for students. So those are sort of timeless in some sense. And there are not that many of them but I think there one of the most popular things.

And I know that because I get a lot of emails from students who read those things and they

then have very personal questions. So I'd say two or three times a week, I get an email from some student around the world, not at Harvard, who wants to give me their life story and tell me what they should do next. It becomes a little bit of the Dear Abby of the economics profession. And of course, it's very hard to do because these questions are very personal and I sort give them some broad things to think about. But I try to avoid getting very personal, pointed advice, because I don't really feel capable of doing that.

I also sometimes get questions from some more popular figures. And then I will include their names, if they give me permission. So David Brooks once asked me a question, *The New York Times* columnist. And so I asked David if he'd mind including his name when I answered his question. He said, no, that's fine. So I answered his question. He was asking about why it is that economists and economics departments seem different from economists in business schools when he talked to them as a journalist. So that was an interesting question. So that was something I answered on the blog.

So that's the kind of things I post. And it varies how much I post. Ideally, from the standpoint of readers, they'd love to see something every day. But I have a day job. So I probably don't get to do something every day. But I probably do three, four, five times a week. Now there's one thing about an attitude. I thought a lot the attitude of bloggers. I happened to pick up recently a copy of Dale Carnegie's famous book, *How to Win Friends and Influence People,* which is actually quite a good book actually.

NANCY KANE: It's very good book.

GREGORY MANKIW: It's amazing.

NANCY KANE: And very relevant today.

GREGORY MANKIW: It is. And his first principle, the first thing he teaches in chapter one, is don't criticize, condemn, or complain. And he wrote this well before bloggers. But I kept thinking, so many bloggers exist to criticize, condemn, and complain. And I've tried to avoid that. I've tried to keep a positive attitude. And I know another blogger by the way, another academic blogger, not here at Harvard, whose whole blog is pretty much criticizing a variety people, journalists, telling *The New York Times* which journalist they should fire, or giving an award out for what he calls the stupidest man alive for something he's read in the newspaper that he thinks is particularly idiotic. And he does this sort of regularly.

And I don't think they'll Carnegie would appreciate that. So I really try-- and I'm sure I'm not perfect in this, but I try to keep the blog relatively upbeat. I try to post things I think are kind of interesting, whether I agree with them or not if they're interesting. If I think they're really stupid, I just ignore them. I don't post them. I don't have to point out-- there's enough stupid stuff in the world that I don't need to sort of collect it.

So I

JOHN PALFREY: Much less share it with anyone else.

GREGORY MANKIW: So I try to sort of just avoid that. One interesting thing if you actually think about a blog, is comments. When I started my blog, I let people post comments. Originally it was a small readership. It was Harvard students, a few faculty, it was a relatively elite group and the comments were really very good. Over time as I got 10,000 readers and it became broader, the comments became much more heterogeneous, much harder to sort through.

Some of them were insulting to other commenters or to the world at large or to Harvard or even me, God forbid. Some of them were spam commenters who were advertising some product and give the link and the software wasn't very good at keeping those out. And so I eventually just shut down the comments feature of the blog, which is easy to do. Some people objected to that. Some people suggested that I hire a student to edit or moderate the comments. You can easily moderate these things.

I didn't want to spend the time moderating. And I didn't take the blog so seriously to bother hiring a student to moderate it. It just didn't seem didn't seem worth it. At this point, I don't have comments on the blog. And I noticed when I shut down the comments, readership do not fall off very much, or at all, really that I could detect. So that was a positive surprise.

So the last thing I'll just ask, is it worth it? And to be honest, I'm not sure. There's good things and bad things about blogging. One good thing is that my publishers love it. I have these two textbooks, and both publishers really think it's terrific for helping to sell textbooks. They view it as a long, online infomercial for my textbooks.

Now, the best thing about being a professor, especially a tenured professor, is that you basically don't have a boss. You basically do whatever you want. With a few exceptions, nobody's going to tell you how much time to spend doing research and spend time teaching,

advising political candidates, writing op eds, writing textbooks, blogging. You have complete freedom to do whatever you want. But the worst part of being a professor is you have complete freedom to do whatever you want. And you've got to figure out how to allocate that time and nobody really gives you advice on it.

So I'm not really sure if it is a good use of time. I don't spend that much time doing it. But it does take some time. I view it as a way of participating in the broader public discussion of economic policy and economics education. And in that sense, it's sort of complementary with the op eds I write month on a monthly basis for *The New York Times* or the textbook writing I do. But it has an opportunity cost like other things and I think it's a tough call to know at the end of the day whether it's worth the opportunity cost.

JOHN PALFREY: Wonderful. Thank you, Greg.

[APPLAUSE]

Just two brief words by way of segue to Michael Sandel. The first is one thing I heard you describe, which just might be a concrete suggestion for others is that you do a lot of work in the blog that you either don't have room or time for in the classroom, the kinds of things that you can do that would be useful to students and to the public but just isn't sort of part of the main curriculum. It's an extension in that way.

But then secondly, which is something I think is a good segue to Professor Sandel is, it's one way that you're dealing with the scale of your audience. Your audience is larger than many other teachers, frankly. And you have to figure out how to manage that conversation. In a way it seems like you are bridging that both in the public and private through the space, which is really interesting.

GREGORY MANKIW: [INAUDIBLE] scale. I also use it as a way to reach out to journalists. If there's some piece of information in the news where I'm going to have 20 journalists call me and ask me the same question, I might say in the blog, some journalist has asked me this question and answer it right there. And then so all the journalists can read it on the blog rather than having to answer it 20 times.

JOHN PALFREY: Very helpful. All right, Michael Sandel.

MICHAEL SANDEL: Well thanks, thanks, John. I remember you when you were sitting way back there. I do. I do. You think I didn't notice. With the Justice Course, we've done an experiment in two parts. The

first part of the experiment, which took us several years to work out was to make the entire course, including the videos of the classroom experience, me lecturing but also the students responding, freely available online and on public television.

And the goal of that part of the experiment was to open access to the classroom, to make it available as an educational resource to teachers, to professors, to interested viewers here and around the world, and to see how closely we could replicate online the experience of actually being there. I don't think it will ever be possible to replicate the experience of teachers and students sitting together and learning online. But we wanted to see how close we could come. And the underlying idea was to treat education, what we do here in the classroom as a public good, to make it freely available and let people make whatever use of it they wanted to.

Now I was going to show the website that now contains the videos and the discussion blogs and the polling devices that invite further discussion, that present challenge questions after the viewer offers his or her opinion on whether it would have been right for the sailors stuck at sea to kill the cabin boy in order to survive, but I'm sure if I try to show that now I'll disrupt what we've just put up there. So I'll save that for later and if this works and if time remains, I'll show you a little bit of what we've created online. The new version, the new and improved version is available, about to be launched at JusticeHarvard.org/preview. And we'll take a quick look at it and some of its features if time permits.

But I want to speak about the second part of the experiment, which is beyond Harvard providing a public service by filming in high definition, broadcast quality, an entire course with student discussion and providing discussion guides and polling questions and all of that, beyond dispensing stuff to the world, this seems to me a great opportunity to see what we, in turn, can learn and how the education we provide to our students can be improved in virtue of the engagement that we're able to generate and inspire by people who take up this material elsewhere. So what we can learn collectively is the second part of the experiment. And the time is now ripe for this, because a few couple of years now since we've launched it it's been taken up in various parts of the world.

In China they block YouTube, which is one way they would have had access to it. JusticeHarvard.org, they say they don't have the bandwidth or it would be very expensive to download it. But they made the videos embeddable so anyone can embed them freely on any website and we've learned, we found that a number of Chinese versions of YouTube have embedded the videos. We were thinking of a translation project, but before we could even

muster that, the lectures appeared with Chinese subtitles and millions of viewers have been watching the class in China.

So this is an opportunity, not just as I say to dispense stuff to the rest of the world as a public service though we wanted to do that, but also to create, going back to Dana's phrase about the internet, to really see what we could do with this new kind of public space, and to conceive this new kind of public space not just as a recreational or a social space, but as a civic space, a place for public discourse and civic education. That's the goal of the second phase, the second ambition, which intrigues me a lot, to see whether we can encourage discussion about the topics.

And since The Justice Course is about political philosophy it's of special interest to see what different views and arguments and perspectives arise when people in very different societies and cultures take up these questions. All the more interesting if we can connect and bring together for live conversation, students at Harvard with students and others who encounter this material in these readings in these videos elsewhere in the world. So what I would like to show you is a very early experiment that we've just been able to do along these lines to create a video link to global classroom.

We took a small group of students at Harvard, in Tokyo, and in Shanghai, and thanks to NHK, the Japanese public television network, we did the first of what will be initially a series of six live video link global classroom discussions on questions of ethics and political philosophy. We had planned it some time ago, but then the earthquake and tsunami came. And so we changed the topic for the first one to be the focus on the ethical and global implications of the disaster in Japan. We discussed the future of nuclear power. We discussed questions of universal and particular identities, given the outpouring of sympathy from around the world for the people of Japan.

Will this have some staying power or will it begin to rewrite the boundaries of human sympathy and concern across nations, or is it a one time disaster inspired thing? So it's in, the most part Japanese, but there are some subtitles and the Chinese students interestingly enough spoke English in this. But everyone had earpieces, so there was simultaneous translation. So if we can take a look at this, you'll get at least us a sample of this experiment.

[VIDEO PLAYBACK]

[SPEAKING JAPANESE]

-In Boston--

-Because in Japan, I think there was much more of a sense of the people could rely on each other and everyone was willing to make a sacrifice and to help and you know you're still seeing it at the nuclear power plants, that people are willing to go out there and to help their fellow citizens and do what they need to do.

[SPEAKING JAPANESE]

-It's similar to flying an airplane. Airplanes are dangerous. There are inherent risks in flying. But just because certain times airplanes break down and there are terrible disasters as a result, that doesn't mean we stop using them. Sometimes they are the only means to the end. Nuclear energy is the same.

-I think what distinguishes the problem of nuclear power is that the scope and the scale of the crisis is different from like airplane or other technologies. From this crisis, we know these nuclear leaks actually affect China and also America. So I think it needs world's attention and world's effort.

-The philosopher, Rousseau, Jean Jacques Rousseau, Rousseau wrote, it seems that the sentiment of humanity evaporates and weakens in being extended over the entire world. He was suggesting that human sympathy and concern can't be global, can't be universal.

[SPEAKING JAPANESE]

-In this age, where communication is at the heart of the matter, I think that it is possible to sympathize with countries a half a world away. And I think that it's important to note that in the case where there is a natural disaster, I think that sort of brings us together as a community.

-I am a little bit skeptical about whether we can really move towards a identity of universal or global citizen as we call.

-I felt a lot of pride in the humans that weren't looting, that weren't hoarding, and in kind of finding out information like this, of things going on in Japan, of actions of the Japanese people, of you know the people that were acting as heroes, things like this. I felt a human pride.

[SPEAKING JAPANESE]

MICHAEL SANDEL: So apart from shocking you about my recent acquisition of Japanese, which I wish I had, it's just, I should have mentioned there were in addition to the students, they added in the Japanese studios, some well-known Japanese celebrities because this was not-- this was also as a television program. And they had to keep the ratings up and so on. But for future ones we're are going to put the celebrities to one side and let them comment after the fact, after the discussion among the students plays itself out. This was an exception, partly because it was the first time, but also because right in the aftermath of the disaster, this they wanted the celebrities to offer their views about the disaster and so on.

So it's not quite representative, but it is a first step in what I think could be a fascinating project, an experiment, to build on the open access that we've created largely through the website and the internet to do more than just open access to the classroom as a public service, but to open up new forms of understanding and of deliberation and of civic discourse that reaches across universities, and for that matter across cultures.

[APPLAUSE]

JOHN PALFREY: Congratulations to you and also to Harvard for doing this. I think if we could figure out how to scale this kind of thing, obviously it seems like it's plainly good for society and it's amazing to have you leading the way. Thank you.

There are two reasons why Harry Lewis is going last. The first one is, I didn't have any idea what he was going to say, so I thought he could go last and do clean up. But mainly it's because I couldn't think of anyone who could follow this list of speakers and actually clean it up well.

HARRY LEWIS: Thank you. Thank you, John. And I'm not sure why I'm here either except maybe I've been around a long time. I think I'm the senior member of the panel. I'm so senior in this business that my e-mail address is Lewis@Harvard, because I was a second year graduate student on the day when they gave out the first six e-mail addresses. And it was so cool because I could send an e-mail and the guy on the other side of the room who was also one of the other six would say, yeah, I got it. You know this is like, isn't this neat?

JOHN PALFREY: So when did Scott Bradner get--

HARRY LEWIS: Yeah. We were the same cohort. Yeah Scott Bradner was a SOB at Harvard. And I for some reason picked Lewis@Harvard. And I've been around long enough that I helped start Microsoft because Bill Gates, after taking my course said, I'm out of here. I got better things to do. And then as incredible as that feat was, I then repeated it, because Mark Zuckerberg did exactly the same thing. He took my course and then and then dropped out.

And I do have to take a moment. I want to say, my section, if I'd given it a title would be, The Ambivalent Blogger. So I'm going to have some remarks about the ambivalent blogger. But I want to say a couple of things about social networking before we get there. And, you know, one of them is the fact which John was referring to, that the original prototype of Facebook was in fact called Six Degrees to Harry Lewis, he actually wrote me in January of 2004 before the company was incorporated and asked if he could display a little social network where the links were between people who were mentioned in the same crimson story. And because I had been Dean, I had more links than anybody else did.

And I had a very interesting reaction. I've saved the e-mail. I wrote back to him and I said, Mark-- I had had him in class the year earlier. And I said, Mark you know. It's all public information. So I suppose it's OK but that somehow there is a point at which an accumulation of that many pieces, little pieces of public information begins to feel like an invasion of privacy. That was my first reaction when Mark showed me this idea.

And then he showed it to me and then I wrote back, and said, oh sure, what the hell, seems harmless. That was my--

JOHN PALFREY: Right on both scores.

HARRY LEWIS: Right on both scores. By the way I have all the Altair code there that those guys wrote. So I actually can count up lines and tell you how many were written by Paul Allen and how many were written by Bill Gates and settle this once and for all because they left the listing. I want to say on the social-- the one thing I want to say on the social networking thing. It was such a privilege to have Dana here giving that startup address. She is so good and she always has ways of putting language around things about which I have these vague inchoate feelings.

And the single scariest thing that I've heard today, and Dana is exactly right, that we may suddenly have a generation, thanks to my student, Mr. Zuckerberg, we may fight we may actually have the first generation where going to college actually, you take your social network with you, and you don't start over. You My vision of college has always been that it's where

you go to change.

That it's about freedom, that it's about social mobility. It's about intellectual mobility. It's about learning from the world of ideas how to be a new human being. And you know recreating yourself. And you know, how's that all going to play out if we take our whole social nexus with us and carry it with us forward? I suppose we're going to create new ones also. But I just think the identity formation thing, which I like to think of happening in college, maybe indeed be drastically changed.

OK so let me quickly, so we'll leave some time for comments. I want to make two points about why I'm the ambivalent blogger. I've had two blogs. One I started, which was associated with a course and a book, which were closely associated with each other. I'd been teaching a course called Bits, which is kind about some social and legal issues in technology, information technology, and some of the technological underpinnings that's actually taught in the quantitative part of the curriculum in there. And I wrote a book along with two co-authors, Hal Ableson and Ken Ledeen called *Blown to Bits: Your Life, Liberty, and Happiness After the Digital Explosion* and started a blog associated with that.

And that sort of became, I would, as Greg does, stuff associated with what I was teaching, I would dump out there and I would raise questions and link to *New York Times* stories, which you can't do effectively anymore and so on. And then at some point I got restless from the confines of that subject matter, because I liked also to comment on higher education, unlike Greg and Dale Carnegie, I have no trouble complaining about other people on my blog.

And so I've broken off and started a new blog, "Bits and Pieces," which unfortunately hasn't really found an identity yet. And I've been trying to struggle with why I'm not as motivated to keep these blogs going as I was for a while, because it is work. And I think there's two points I would make about it. One is that this blogosphere world and the act of blogging is kind of-- I'm having a hard time with the degree of bakedness of my ideas and my words.

So I kind of like to control my ideas, not I don't like to share them. That's not what I mean. But I like to actually get them right before I show people. And I certainly like to get my words right before I show people. So if I publish something and it's got bad grammar or an inept choice of words or something that one of my members of my family who are good language critics will complain about, I'm embarrassed. I mean, I'm like, I'm a Harvard professor. I should write well. And I hate putting dreck out there for the whole world to see, even if it's in a kind of

experimental thing.

Now this may be an age thing. I mean there are other people. You know, David Weinberger has written an entire book as a public act. It's an astonishing thing. Oh, here's chapter two. Dah, dah, dah, a week later, oh, I've just torn up chapter two. And people are helping him tear it up and start over. And so I don't know. I'm finding it a hard time working that. I don't know whether it's my personal pride, which I should get over or what it is. But there is an issue there about control of words and ideas and perfection of words and ideas, which the public nature of blogging challenges. I guess that would be one thing.

And then the other thing is really related to the comment that you talked about, about the classroom. So one of the wonderful things about blogging is that it expands your audience to beyond your academic blogging. I'm talking about to beyond your Harvard College classroom. And in particular, I have been teaching this course simultaneously as a distance education course through the Extension School to an audience that is around the world, which has really been wonderful.

I mean to be teaching about censorship and you know I have students in China and Russia and other places. The first set of lectures, people in Saudi Arabia couldn't get them, and you know it was really kind of cool. So there was this great thing. And fourthly it turned out that there was no effective way to get the distance-- this was a local temporary question of Harvard technology. But you know the Harvard blog site didn't want outside people in it. And the Extension School students were outside or something like that. So we moved the whole thing outside Harvard to run the discussion group.

And then of course, once I started running it on this my Bits book blog, we started getting other people who were not students either in the college or in the Extension School who were also participating in the conversation. And it was good, but it wasn't all good. OK. It wasn't all good. You lost your sense of intimacy somehow, the intimacy of your relationship with your students as you were dealing with them on a day-to-day basis. So the question of walls and inside and outside the permeability of these communities is again, it's something that I've struggled with, and I think is sort of holding me up to figure out exactly in what form I'm going to reinvent this.

The whole thing eventually came crashing down actually because I woke up one morning to discover that the Google Alerts on my new blog entries were laced with Viagra ads. And this actually turned into a very interesting computer science research project, which I found some

colleagues at another university who were really interested in taking on. But the blogging process can be undercut by external forces. I guess that would be the only thing I would say by way of conclusion. I think that's about all I have to say. I think we should really use the rest of the time for questions.

[APPLAUSE]

JOHN PALFREY: Just to insure the right number of links, I'm going to stand over here during the questions. And as you gather your thoughts, I wanted to throw one question open to the panel. One thing as I was listening to this discussion is it reminded me a lot of conversation I'm having with people like Goetia and other colleagues in the library community. We're in the midst of re-imagining the Harvard Library. And one of the things we're trying to do is figure out how to align very closely the way we restructure it with the teaching and learning and kind of outreach mission of the university.

I wondered-- so many of the themes are the same ones we're talking about in this process. I wondered if you had any thoughts about things that you might say to the library community, 1,100 people, $180 million that we spend on libraries that might help meet some of the challenges or issues that you've raised as we go along. And then you can all be thinking about a few questions after that.

GREGORY MANKIW: It is a hard question. Let me say something about my field. Most economics these days is communicated via journals. So as an economist, I find myself going to libraries far less than I did when I was a grad student. Because basically all journals are online. And if you guys give me access, as long as you pay the right fees, so I can get all the journals through the Harvard Library website, I never need to go into a physical library anymore. And I suspect that's true of a lot of people in my field.

My guess is it's less true of historians who are looking for dusty old volumes. But Google will probably solve that problem.

HARRY LEWIS: But the comments you made about *The New York Times* is just the leading edge of what's going to be-- I mean, how do you blog about article you can only get through JSTORE, which we're privileged enough to get, but not everybody is. But as an educational issue also, it's a really interesting problem. I'll give you a little bit of a spin on this. I'm teaching a freshman seminar where students are writing historical papers and using materials, a lot of which they can find online but not all of it, and many of them are using Harvard archives because they're

writing paper-- it's a seminar about sports history. Actually is the sort of social history of sports in America.

And there's wonderful archival materials that they can get to, except for the fact that the archives, because of the library's contracting budget open only late in the morning now. And my students all have sports practice in the afternoon. And therefore, they were very unbelievably nice. They started opening early just for my students. But there is a tension here.

HARRY LEWIS: User centricity is one of our new principals.

MICHAEL SANDEL: Well, I would to give one overriding piece of advice or ask for a suggestion, aspiration, which is in the wake of the Google settlement being rejected by the court, to take the opportunity to create the Harvard Library as a National Treasure. Let it be a universal public good along with the other major research libraries. Google had a good impulse to scan and make available all of this, except that it wanted it to be proprietary. So let's see if we can't do the same thing, maybe with Google's help. They've scanned an awful lot of stuff. They could get a lot of credit.

JOHN PALFREY: 150,000 volumes of which are ours.

HARRY LEWIS: We should have scanned and just put up on the web ourselves rather than having Google come in and do it.

MICHAEL SANDEL: Let's make all of that, see if we can join with other major libraries around the world and with foundation help if necessary, and enlisting Google if we can, to make it a universally accessible public resource.

HARRY LEWIS: The good news is the Sloan Foundation has given us a grant to do precisely that. We have a bunch of other universities and in fact the Library of Congress and many others joining us, and Google's at the table. So we'll enlist your help in precisely this. But thank you for the encouragement.

GREGORY MANKIW: One economics journal, *The Brookings Papers on Economic Activity* has just announced that they're going to be open access. So basically their whole archives are now free to anyone without any password or anything. Now which I think is a great thing. It's unusual because it's a journal that's published by a nonprofit. I mean a lot of the journals in economics and I think other fields as well, are published by Elsevier and they don't seem to have same motives as the nonprofit organizations do.

MICHAEL SANDEL: Well, that's my second advice is just that to break the hold that these journals have on library budgets and break their monopoly by having all of us put our articles and make them freely available.

JOHN PALFREY: Thank you. It's great encouragement. Please

AUDIENCE: [INAUDIBLE] does create a different space for you to interact with your students. And what I'd really like to hear is lessons learned. Over the course of time has there been a time when it's been uncomfortable for any of you online with your students? And time management also becomes a huge portion of this. Because someone said that you are expected to be 24/7 online and there are real elements of truth to that. So how do you-- there are many fuzzy, changing boundaries. And I'd just like to hear about people's experiences of that.

JOHN PALFREY: Thank you. And in the spirit of time management, I'm going to suggest that we stack up a few questions and you guys answer them. And we'll move over to Perry. Dana had her hand up over here I think.

AUDIENCE: I was just going to ask why-- I love all the experimentations and to your point about the open access issues, why should Harvard faculty full professors even publish or review or otherwise engage with closed access publications at this point? You have the ability to set the stage, especially the folks who are post tenure. So what advice would you give to--

JOHN PALFREY: You saved this provocation for 1:58, Dana. Paul Bergen, and then we'll do one in the back.

AUDIENCE: Thank you. My question is similar to John's except from the perspective of a university IT. How have all these emerging tools changed what you expect from IT and what you think IT should provide to help professors use these tools in teaching, learning, research scholarship?

JOHN PALFREY: This is from the director of I Comments, importantly.

AUDIENCE: So that's why I should preface my question, tactfully speaking.

JOHN PALFREY: OK last question is just by the door in green and then you guys can take whichever ones you'd like.

AUDIENCE: This is mostly for Professor Sandel, but I'm interested in how you tracked the use of your project, how you found out who was using it around the world and then connected with them.

JOHN PALFREY: Thank you. So maybe we'll start with Professor Sandel and then end with Professor Cain if

that's OK.

MICHAEL SANDEL: Real quick answers. I don't know. But Anne Cushing, if she's here knows what's the answer?

ANNE CUSHING: [INAUDIBLE].

JOHN PALFREY: Great, so you were not on the microphone for people, the answer is Google Analytics, Perry Hewitt, and iTunes YouTube data.

MICHAEL SANDEL: And just a quick answer to Dana. My answer would be, yes. I agree. We shouldn't. I mean, we should just publish and we should break the monopoly of the proprietary journals. There's no reason why not now.

JOHN PALFREY: Professor Lewis, you're on. We're going down the line.

HARRY LEWIS: No, that's all right. I'll pass.

JOHN PALFREY: All right.

GREGORY MANKIW: OK. On the open access thing, the reason is basically that when choosing which journal to submit to, one's looking for your private self interest and not the social interest. And the professor wants to get his paper published in the most prominent journal, which is historically determined. And whether that journal happens to be private or from a nonprofit doesn't really into the professor's calculation.

Now, one hopes that over time, the open access journals will become better known because they are easier to read and they're open access, and therefore they'll get a higher market share. But I don't think we're going to count on the lack of self interest of the professors.

MICHAEL SANDEL: One way to bridge these two answers is that increasing the citation counts maybe going for open access.

GREGORY MANKIW: There is some evidence for that.

MICHAEL SANDEL: There is early evidence, exactly.

GREGORY MANKIW: On student privacy question, I think that's an interesting thing. To the extent we use these media in the classroom, we have to be very mindful of that. When I started my blog, students used to post comments back when I still had a comments section. And one student put his first and last name on the comment. And then six months later he said, oh gosh, I'm sorry I had all those comments in the public domain with my name associated with it. Now if some employer wants to look at my comments I wrote. He said some of them were stupid. So he asked me to take them down.

Actually, now I've taken all the comments down. So he's been saved. But I think if we are going to use these things, we actually sort of do have to protect student privacy. I love the comment earlier where they said the classroom is supposed to be a protected place where people feel safe to say stupid stuff. And to the extent we open these things up, we don't want to compromise that.

JOHN PALFREY: It's a wonderful point. Nancy Kane, you get the last word.

NANCY KANE: OK a couple of comments. I think we're going to have to do a lot more teaching and modeling around these issues of the blurring of public and private. I mean we have business school students that have come up through Facebook now, right? And they don't understand that you might not want employers to read about this on your Facebook page. So even at 26, we need to be thinking about the P's and Q's and rules of the road just for your own dignity and solid reputation. So we're going to have to take that on.

I've forgotten your name, Mr. IT.

JOHN PALFREY: Bob Bergen.

NANCY KANE: Mr. IT. I think honestly, I have watched from being a research assistant when we were like programming mainframes in the first floor of Baker Library, I have watched your empire grow and expand and become central to what we do. And I watch our senior faculty, particular, influential silverback gorillas struggling with the mechanics of IT, and yet wanting very much to, especially in a very pragmatic place, like the Harvard Business School to be in the traffic with their students. So I think you're going to have to become even more of a teaching institution as opposed to an emergency response center. I really do. I really, really do. And you're very important in the latter, but the former is becoming very important.

One last word on silverback gorillas and private source journals. So there's another piece of

this, which is about citations and prestige, that's very, very important. Even though you have this anachronistic but eminently desirable tool of human resource management called tenure, there's another piece. And that is that, at least an HBS, we have an enormous number of senior faculty that are working with junior faculty. And those citations, for junior people climbing the ladder, are critically important.

And until to Greg's point, you know the academic journals, prestigious academic journals with great influence, become open source our promotions model, our influence model is outdated, is not keeping tabs with the possibilities and the noble potential of open access. So we got a rub there that we don't quite know how to iron out. I just got appointed to the Library Committee, John, so we're going to-- I don't have any answers, but I'll be there in spirit and earnestness.

MICHAEL SANDEL: But all the people who cite us are also members of the same guild.

HARRY LEWIS: The they is us.

NANCY KANE: This guild is breaking down but it's still not broken. Nor is the promotion system for the young.

JOHN PALFREY: But I think Professor Singer, you see that there is much more here. There are many hands that I'm ignoring, tactfully or tactlessly at this moment. But I hope you will join us in thanking this truly wonderful panel.

[APPLAUSE]