



CHRIS ANDERSON IN CONVERSATION WITH LAWRENCE LESSIG

The Rise and Fall of the Blockbuster

September 28, 2006

Celeste Bartos Forum

The New York Public Library

WWW.NYPL.ORG/LIVE

PAUL HOLDENGRÄBER: Oh, I like this, a religious silence, it's wonderful. Good evening to this congregation, then. My name is Paul Holdengräber and I'm the Director of Public Programs here at the New York Public Library, otherwise known as LIVE from the New York Public Library. I'm sorry I've repeated this so many times, but I simply cannot avoid saying one more time, my role at the Library is simply to make the lions roar. I was brought here by the President of this Library to oxygenate this building, and when we came into New York about five hundred days ago, the first sign I saw was "Ozone Alert," so I knew my services were needed.

It's a great pleasure to welcome you tonight to another *Wired* evening. Five *Wired* evenings, and I hope we'll do at least another ten. Back in Los Angeles, where I lived before, blissfully in Santa Monica, I had the pleasure of bringing David Byrne, who spoke about why he loved PowerPoint, and half of Silicon Valley came out to see David Byrne talk about why he loved PowerPoint, and maybe even believed that he did love PowerPoint, which was quite amusing. We had Jeff Tweedy and Lawrence Lessig, who's here tonight, with Steven Johnson, which was a wonderful evening called "Who Owns Culture?" and then we did a wonderfully, smack-down I think was the word used, contentious evening, much in the spirit of what I hope this evening will be, we'll talk about that in a minute, we did an event on Google, you know, the digitization of libraries and all the issues surrounding that, and some of the people who I think are now suing each other were on stage together, which I thought was particularly wonderful, especially the reception afterwards, where they didn't talk to each other. And then we had Cameron Sinclair last week here talking about sustainable architecture with John Hockenberry, and tonight we have an event with Chris Anderson talking about his ever-growing long tail.

(laughter)

And this evening, what Chris Anderson will do is he'll give you a presentation, a short presentation he tells me, which will be anywhere from twelve to forty-five—no, fifteen minutes long, he said, followed by a conversation with Lawrence Lessig, and then there will be a Q and A period. I ask you to, during *that* period, the Q and A period, to remember the word *question* rather than *statement*. In my experience of doing this for a

decade, I've made a study, a quite scientific study at that, and I realize that a question can be asked in this kind of a setting in about fifty-one seconds or so. So, if you're called upon to speak for three minutes, just try to make it shorter. There's, you know, an old saying from Pascal, who said, "If I had had more time, I would have made it shorter," so do try. **(laughter)**

I would also like to promote a free event that is going to happen tomorrow, unlike ours, which are you know, deadly expensive. I would like to promote this event that *Wired* Magazine and NextFest is putting on tomorrow morning, "Television in the Age of Web Video," and the featured speakers—I'm told they're very famous—is Billy Campbell, Jennifer Feikin, Larry Kramer, Judy McGrath, and Jeff Zucker, and one person I recognize on that list, Chris Anderson. So I highly recommend you go to that—it is at eight a.m.—my goodness, you won't sleep very much tonight. At eight a.m. and it's at the Javits Center, which is at Eleventh Avenue between West Thirty-Fourth and Thirty-Ninth street, so it must be a rather big building.

As you saw, tonight's event is called "The Rise and Fall of the Blockbuster," and I don't know how many of you know the origin of the word "blockbuster," but it's quite interesting, it comes from the Second World War, where one actually busted blocks. Obviously the meaning has changed slightly, and I'm always amused by the tension between the notion of blockbuster and something that bombs. **(laughter)**

I encourage you all to join our e-mail list so that you may find out the events we're doing in the near future and in the far future. For anybody who joins today the e-mail list, you will get two free tickets for the remaining part of our season, I think we have another thirty events coming up, we have four this week. Tomorrow I will be interviewing Frank Rich and the day after Robert Frank and Howard Norman will be here, and after that we will have Carl Bernstein, Adam Gopnick, who I also will be interviewing, John Rockwell—David Rockwell with John Hockenberry, and many, many more other people coming. I encourage you to come to these LIVE events. Jan Morris, Andy Borowitz, etcetera.

Tonight, the biggest challenge, I think, is really the challenge I have put forward to Chris Anderson and Lawrence Lessig. They know each other fairly well, and I've asked them to *goad* each other as much as possible and to really offer us a vigorous and rigorous and perhaps—why not—playful, but always sustained debate on issues pertaining to the ever-growing long tail. It's with pleasure now that I introduce to you Chris Anderson, who will then, I imagine, introduce Lawrence Lessig. Thank you very much.

(applause)

CHRIS ANDERSON: Good evening. I may wander. I appear to be overmiked here. Thank you, Paul, for the generous introduction, and for reminding us of the theme, The Rise and Fall of the Blockbuster. What I'd like to talk to you about is hits, and bestsellers, and blockbusters, and I'd like to suggest that we've seen it all wrong, that the world that

I've grown up in, the world that most of us have grown up in, the world of hits, the world of top-forty radio and Hollywood domination of culture is not just about to end, but was an anomaly, not the norm. Before the twentieth century, the nineteenth century and earlier, we didn't have this culture, we had a fragmented culture, it was a culture fragmented by geography. We had—one town would do one thing and another town would do another and culture moved at the pace of people, traveling troubadour groups, for instance. And what you found is that you had folk culture, of course, and we were a Balkanized culture, we were a fragmented culture, and it was entirely based on distance.

And then at the end of the nineteenth century and beyond, we had the rise of technologies that changed the game. First you had high-speed printing that went from sort of the potential for the printed word to get everywhere to national newspapers and beyond. We had the rise of photographic technology, that took this extraordinary thing, the image, and was able to reproduce it, so that many people could see it. You had recording technology, which turned music from a performance art into a product that could be bought and sold and copied, and distributed many, many times. And then in the 1930s, you had the rise of the most powerful of these technologies of all, radio and broadcast. And what radio did, the physics and economics of radio are powerful drivers of a very different form of distribution, which is the one to many, where a small number of things get broadcast out to many millions of people simultaneously. And in a moment, we suddenly snapped culture into cultural lockstep. We synchronized as a nation, as communities, and eventually as a world because of the power of broadcast to reach everybody simultaneously with a small number of cultural products. And in the 1950s, this became

true for the very powerful visual image, with television as well. And that is the world that we've grown up in, the world dominated by the physics and economics of broadcast distribution that preferentially get a small number of blockbusters, hits, primetime bestsellers to everybody simultaneously.

What I'd like to argue is that that era has peaked, and I believe that era peaked on this day. **(laughter)** March 21, 2000. It's the first day of spring of a new century. It was five days after the NASDAQ bust, and it was the release of *NSYNC's second album, *No Strings Attached*. Every year in the years leading up to this, some album would set a record as the bestseller. This album once again set a record. It sold one million copies in the first day and 2.41 million copies in the first week, and history would have remembered it only for a few months, until the next year's album once again set a new record, except for history will remember this album differently, because this record was never broken and may never be broken.

This is what's happened to hit albums in the years since then. The music industry as a whole, measured by revenues, has been largely flat in the last five years, CD sales are down, but digital sales, measured by things like iTunes, downloads, and even ringtones, has marginally made up the difference, but the hits, the bestsellers, the gold, platinum, multiplatinum, diamond albums have fallen by more than 50 percent. Something radically different is happening in music. Now what's interesting is that over this period, more music than ever was being made. There's 65,000 albums released every year, and more music than ever is being consumed, thanks to the extraordinary ability to take music

out of the living room and into every walk of life, thank you Apple, iPod, and the MP3, so there's more supply, there's more demand, there's more music culture, but the hits are losing share. The hits as a dominant voice of music, the hits as the way we see music culture, is diminishing radically as the audience fragments. Once again, the audience is huge, and they're listening to music, but they're not listening to the same things at the same time.

We have once again distributed, but now not this time by geography, but we're distributing by taste, we're going to find the music that *we* want to listen to, the niches, the minority tastes of music, and what's powerful about this is that what we're finding is that there is a lot of life outside the Top Forty, there is life beyond the blockbuster, and in a sense we've been seeing the world through the wrong end of the telescope. If you look at the wrong end of the telescope, you see a very, very tiny, concentrated image, and what you're finding, is you turn the telescope around and you see, actually I'm going to reverse my metaphor, you then switch to a fisheye lens. **(laughter)** Thank you, optics, and we're finally seeing there's a huge world out there, far beyond Top Forty radio, far beyond the shelf, and it's not just music.

This is—forgive me, I've skipped a slide, we're finding that in television, as we get more and more choice, as we've gone from analog, four-channel, five-channel terrestrial broadcast to analog cable with forty channels, to digital cables with a hundred channels, to then even high-capacity digital cable with four hundred channels, that the market share of the networks and the hits has been shrinking, and last month an all-time record low for

network market share. Once again, people are watching as much television as ever, but they're watching different television at a different time. You can see it on the individual show level. Here it is, here is the number-one show in each year. In the 1950s, extraordinarily, 70 percent of American homes were watching the same show at the same time, *I Love Lucy*. This is the peak of the water-cooler era. You could come into work the next morning and be pretty sure that everyone in your office had done the same thing you had the previous night. Walter Cronkite, the news, *I Love Lucy*, and they had my arrows slightly off there, but you get the point. And then, over time, as there were more and more choices, as there were more and more shows, more and more channels, and then eventually as we learned to time-shift, first with the VCR and now with TiVo we're not watching the same thing at the same time, and today *CSI*, the number-one show, wouldn't have made the top ten just fifteen years ago. We're once again fragmenting, we're distributing across the spectrum of culture, because powerful distribution channels with more choice and variety allow us to do so.

Radio, as I mentioned, was the major driver of music culture for most of my childhood, and today we're finding that music radio is in apparently terminal decline. Last year one Top Forty radio station per week went out of business or changed format to talk or Latin or some other form of radio, because they cannot find a playlist so perfectly constructed by some awesome DJ that it can suit everybody all the time. We have iPods, we have CD players, we have satellite radio, and we have the cell phone. They're all now in competition with what was once the most powerful force in music culture, Top Forty radio.

Once again, this is newspaper, my slides are completely out of order, and you're finding this sort of secular decline over the last, now multi-decades, as you have more and more choice of media, you don't have to settle for one publication that does it all. And even Hollywood, you know, the last bastion of the blockbuster, is now appearing to go soft. Here you have movie tickets sold over the last, since 2002, and what you find is that—is that, you know, we heard a lot about *Pirates of the Caribbean 2*, which set an all-time box office record, but even with *Pirates of the Caribbean 2*, we're still down almost 10 percent from 2004, and were it not for *Pirates of the Caribbean 2*, we'd be down by more than 15 percent. So even Hollywood seems to be slightly losing its power to command the attention of everybody simultaneously.

So where are they all going? Where is everybody going? This is the long tail, and that shape is a shape that I'll be talking a little bit more about. I think it is the shape of the twenty-first century. It's called a power law. And a couple things to note about that shape, that curve, that sort of ski slope, that starts really high on the left and falls off into this long bunny slope off to the right. That is also known as Pareto's, you know, Pareto's Curve. It is the origins of the 80/20 rule. Vilfredo Pareto, the Italian economist, noted that wealth was unevenly distributed in Italy, that 20 percent of the people had 80 percent of the wealth. And the 80/20 rule we see all around us, and it is exactly the shape of the curve, which is to say that some things sell a lot and represent the lion's share of the attention, or the popularity or the money in any market and then there's everything else.

Now the red part on this curve represents what we do, what we've done for the last hundred years with the Pareto Curve.

What we've done is we've hacked it off. We've savagely truncated the curve because of what? Because of limits. We have limited shelf space. We have limited screens. We have limited channels, we have limited radio stations. We have scarcity. We have limits to distribution. Distribution costs money and if you only have so much shelf space, you're going to be very discriminating about what gets on it. You know, the rent on a half-inch of shelf space is something like two dollars per year, you need something that's going to make good use of that shelf space, you need something that's going to be popular, that is going to have high turns, so that it pays back that expense of distribution. That's why we are very discriminating about what gets on the airwaves, we're very discriminating about what gets to the theaters because distribution is expensive. So we've seen the world through just the red. That's just the blockbusters, that's where we cut the curve off.

But now we have the rise of these new markets. Over the last ten years we've seen, starting with Amazon, and then eBay, and iTunes and Netflix, and eventually Google and the blogosphere we have these new markets that have infinite shelf space, their cost of distribution is close to zero and they don't have to discriminate. And now, for the first time in history we can see the whole curve. We can switch from our telescope to our fisheye lens, and what we're finding is that it keeps going, it keeps going potentially forever, and that in aggregate, the long tail, onesies and twosies, these long-tailed niche products and minority tastes that aren't of mass-market appeal, there are so many of

them, that they can add up to a big new market. And this big new market is a very different dynamic.

I wanted to show you, just the last few slides, some actual data. This is Rhapsody, it's a music service, it's a subscription service, a little bit like iTunes. And you probably remember the music stores of ten years ago, or twenty years ago. These were stores that maybe had like a whole wall of import albums, that maybe there would be room in the back that was glassed in, that was the jazz or the classical section, had great speakers and perfect acoustics, and the staff would tell you, would be able to tell you what they were into. I don't know how many of you have been into a Wal-Mart recently, but Wal-Mart is today America's largest CD retailer. The music section in Wal-Mart is 4,200 albums on average. It's pop, it's r & b, and then easy listening. Classical is represented by six or eight albums under easy listening. Jazz is often under easy listening. All of world music is there, under easy listening. It is a soul-destroying experience. It is, however, the way America sees, the way most of America sees music. Give you another point of reference. 65,000 albums released every year in America. Seven hundred of them make it into Wal-Mart.

So if you look at another chart, so those 4,200 albums, if you convert them into individual tracks and measure the ones that actually sell, that works out to be about 25,000 tracks, so that's where the number-one retailer in America hacks off the curve. But of course, online, they're all available. Rhapsody today, I've cut this off for scale reasons at 900,000 tracks, but Rhapsody today offers 1.5 million. iTunes offers about 2

million. The peer-to-peer networks like Kazaa, the file-trading networks, offer about 9 million. If you talk to people about what's out there in vinyl, in live shows, in remixes, you know, in versions, there's probably about 25 million tracks, at least, out there, that *will* be coming online. And so when you contrast it, you see the long tail of music is so long.

So what does it add up to in total? Well, this somewhat complicated chart gives you an example of that. What I have over here in the scale is the difference in inventory. So the red part represents the inventory of the largest retailer in the land, and the yellow part represents the inventory in these new long-tail markets. And, of course, what you see is that there's orders of magnitude more variety and choice and diversity out there in these markets where the distribution costs are close to zero. Now, if you measure these in terms of total sales, you know, of course, remember that power-law curve, that Pareto curve, yes, some products sell much, much more than others. So even though the 25,000 tracks is a tiny fraction of the available music out there, it represents the lion's share of the total sales, even on a digital market like Rhapsody, so that 25,000 tracks represents about 60 percent of Rhapsody's sales. But what's interesting is that everything else represents 40 percent. That nearly half of the market is stuff—is music *not* available in the largest retailer in the land.

Now this is a really big deal, because we've assumed that what made it onto the shelf was what was *good* and what we wanted. We now realize just what a false assumption that is. That the vast majority of everything doesn't get out there through traditional retail

channels, and we assumed, that, of course, that it was de minimis, it was subeconomic, it wasn't worth considering, it just didn't pass the economic test for distribution. And what we're finding is that in aggregate, we're talking about half the market. So half the market. By the way, this is the fastest-growing part of the market. And within five years, it really will be half the market online. What we're finding is that we missed half the market. The fastest-growing, most dynamic, most exciting part of the market was the stuff that didn't make it out before and now it does.

The same is true for DVDs. Netflix is, as you probably know, a DVD rental service. Blockbuster has about 4,000 unique DVDs. Netflix has about 65,000. Blockbuster, as befits its name, has the blockbusters. But Netflix finds that about twenty, coming up on a quarter of the market, of their usage, of their traffic, of their business, is DVDs not available in Blockbuster, the largest retailer in the land. And even books. If you go into a Barnes and Noble or Borders they are superstores, they are a huge increase in variety over the smaller stores that preceded them. 100,000 books, and yet there's 3.7 million books in print, there's maybe 70 million books if you include those books that are out of print. Even 100,000 books represents a tiny, tiny fraction of the actual choice that's out there, if you could only distribute it efficiently. Obviously Amazon *is* such an efficient distributor and you find that Amazon's finding that about a quarter of its book sales are books beyond the top 100,000, are books not available in the largest retailer in the land. That's the long tail.

So I wanted to end with just a couple of lessons and then a little video, but, as I say, we've grown up in the era of hit-driven culture, and we've assumed that's what we want. What we're finding is that there's certain fallacies, there's certain *assumptions* you make about culture, that are based on this experience, and they may not be right. So Barry Diller is perhaps the greatest genius in our traditional entertainment industry today. He's a guy who has his finger on the pulse of what we want. And this was a quote he gave at a conference he was at last year. "People with talent won't be displaced by eighteen million people producing stuff they think will have appeal." This is very much mainstream blockbuster thinking. Nods throughout the audience as he said that.

This is YouTube. This is the most popular videos on YouTube. As you know, YouTube is user-generated, user-created, user-submitted videos, ranging from, you know, Grandma got hit with a brick to cat videos to fantastic animations, and today YouTube is streaming a hundred million videos per day, 65,000 videos being uploaded to YouTube every day. YouTube now has an audience around the size of one of the big four television networks and it's all created by individuals, by people like you, by amateurs. Has there ever been a better example of exactly what Barry Diller said couldn't happen? "Eighteen million people producing stuff they think will have appeal," and go back, it's not just YouTube, MySpace is the same thing happening in music, Flickr is the same thing happening in photography, the blogosphere is the same thing happening in media, and Wikipedia is the same thing happening in encyclopedias. This is exactly what the blockbuster mainstream hit machine thought couldn't happen, and it's exactly what's happening right now.

So there's five fallacies that we should unlearn. The first is that we've confused limited distribution with shared tastes. We thought *we* wanted hits. What we're finding is that distribution channels want hits. Blockbusters make the best, most efficient use of limited distribution. What *we* want is choice. We want variety, we want more, and now we can have it. We assumed that we were mainstream, or most of us were mainstream. What we're finding is that each one of us deviates from the mainstream in some part of our life. You can be mainstream in music, books, DVDs, and if you're into parachuting, you will find that your interests are not well represented on the shelves of Wal-Mart, but they are now represented online, and that niche is available and you want to go as deep as it can go. I was just learning about the parachuting industry. There's 35,000 members of the American Parachuting Association. There are hundreds of books targeted for them. That every niche goes as deep as is humanly possible and it's all now available to you.

We've of course assumed that "one size fits all" was a safe assumption. You know, let's go for the product that touches on our shared interests. And now we're realizing we don't have to do that, that in fact "one size fits one" makes people happier. You do not have to treat people in lumps, and not have to clump them together into sort of grossly aggregated, you know, amalgamations of shared interests, and instead reflect minority interests, reflect individual interests, treat people as individuals rather than big coarse, granular markets, or nongranular markets. This now is possible.

One of the biggest fallacies is the assumption that the good stuff was the stuff that was out there and that everything else is crap. What we're finding, of course, is, is the long

tail full of crap? Absolutely. It's also full of extraordinary works of genius and inspiration. What you're finding out is that the stuff at the head is of broad interest and the stuff that's the tail is of narrow interest. And sometimes the most refined, brilliant works in any area are the stuff of narrow interest. If you're into Greek history, the most scholarly, authoritative book, three volumes, eight hundred pages, whatever, of Greek history, will not be a bestseller. But it is perhaps the best book on Greek history, and you can now reach it. Now, the worst book on Greek history is also down there in the tail. Which means that it's very important to have fantastic filters, Google, recommendations, etcetera, to find the diamonds in the rough, to pick the—to find those gems that suit your interest. But what's interesting about it is that there's no one definition of quality. It's not like we can sort of find the good bits and suppress the bad. Your good bits are not my good bits. Each one of us has different tastes, and we define quality our own way. Increasingly, with filters that are driven, like Google, by individual tastes, we can find the bits that are just right for us. This was never possible before. And finally, we're recognizing that the mass market is becoming a mass of niches. So small is the new big, and many is the new few, and this is a video that my friend Peter Hirschberg made to make it all seem clear.

“No one would have been believed in the closing years of the twentieth century that our most popular media were being watched, in a new way, by a force that was quietly gathering strength. With blind confidence, we considered them our own, our audience, our subscribers, our cuddly couch potatoes. We learned to shape their habits. And yet, from their side of the screen, with envious eyes, they studied us, and bit by bit, they

learned and linked and drew their plans against us, wielding weapons we ourselves provided. And then, early in the twenty-first century, came the great unraveling. We offered ‘free choice,’ but all they heard was ‘free.’ We devised more powerful, more complete, more feature-rich software, but they preferred to grow their own. They pounced, and they blogged, and they blew the house down. The world we knew was forever disintermediated, whatever that means. They have tasted power, and there are a lot more of them than there are of us. High inside our glass towers, our greatest minds prepared to respond. ‘Well, uh, can’t we just start blogging back at them?’ ‘Well, yeah, but where’s the money in that?’

(laughter)

CHRIS ANDERSON: Thank you. **(applause)** Now I’d like to welcome Larry Lessig, a Stanford professor. **(applause)** Also *Wired* columnist and founder and leader of the Creative Commons project.

LAWRENCE LESSIG: Right, so, the important thing not to focus on is that Chris is my boss. **(laughter)** The real reason I’m here is. So, Chris, this is your first book, right?

CHRIS ANDERSON: My first book.

LAWRENCE LESSIG: And bestseller.

CHRIS ANDERSON: As it happens.

LAWRENCE LESSIG: Right, so. I write books for a living, but my books actually live in the long tail, Chris, unlike yours. **(laughter)** So I know something about this long tail.

CHRIS ANDERSON: I can live with the irony that my book on niches has become a bestseller.

(laughter)

LAWRENCE LESSIG: Yeah, well, let that curse fall on all of us. So, let's start with some boring things and then we can make it more interesting. And boring, talk a little bit about the numbers. So there have been a lot of people—and I don't think this is a significant criticism—but a lot of people who say, whoa, whoa, the numbers are not quite as exciting as you've set them out. And there are two ways to think about why the numbers might not be as exciting. One is that the hits are not really taking a hit as much as you say, and the other is that the long tail is not really as big as you want to say. So, David Pakman at eMusic says iTunes is a bad example; 90 percent of their revenue comes from 10 percent of their stuff. The *Wall Street Journal*, Lee Gomes's point about the extent to which the new numbers suggest that 90/10 is the new rule, not 98 percent. You seem to want to fight that argument a lot, and I don't get why you do. I mean, why not just—why isn't the real point that there's this huge new market, not that hits are not so important anymore?

CHRIS ANDERSON: Actually, it's a fair point. I've never argued that hits were dead, or that hits weren't important. As a matter of fact, you know, the long tail is the very same, you know, Pareto curve of radical inequality that, you know, we've had all along. My point is, is that the long tail is—reflects the same hit dominance. However, the big difference is that the monopoly of the hit is over. The difference between the old market, which was that, you know, some things sold a lot better than others and only those things made it to market, is that now *everything* makes it to market, and the hits now have to compete with a million niches. So, hits are not dead, as a matter of fact it's even more than that. What you're finding is that there will probably be more hits than ever.

The old model of hits was that hits had to come through the hit-making machine. So, you know, I needed to get signed by a big publisher, you needed to get your, signed to a label, you needed to get your foot in the door in Hollywood, the television industry, to even get out into the marketplace. And so the hits were identified by the tastemakers in power, were then crafted by the tastemakers in power, and then promoted with these extraordinary marketing machines. And some of these hits were *fantastic* products that deserved every bit of celebrity, and some of them were what I call synthetic hits, which are basically hits created by a machine that requires hits. *Garfield 2* comes to mind.

(laughter) And that was the only way to get to market. The new way is that anybody can get to market, so the tools of production and distribution are entirely democratized, and so now you see, rather than the top-down commercial hits, you see the rise of the bottoms-up, grassroots hits. So these YouTube viral videos that have, you know, the OK

Go music video, which you may have seen. These are the new hits, they are every bit as popular as the old hits, but they are coming to market in an entirely different way. They are being identified by the sort of meritocracy of public opinion, rather than the, you know, guesswork and taste of a few select tastemakers.

LAWRENCE LESSIG: So it's that they lose control in the ability to create the hits, so the InSync example that you gave here, which was the last, as you describe it in the book, crafted hit and the artists actually had nothing to do with creating the underlying composition that was the art. Something like thirty-four—

CHRIS ANDERSON: No, there were fifty-seven. There were fifty-seven contributors to that album.

LAWRENCE LESSIG: Right, so this sort of molded hit is what we're losing, and they'll be new hits that won't be—

CHRIS ANDERSON: Well, they'll continue to try but they're going to lose power, and we've done some interesting work. We're measuring the power of word of mouth. So word of mouth can create a new hit by sort of this viral video is exactly word of mouth. Word of mouth can also quickly kill a synthetic hit that doesn't deserve hit status. So the way we measure this is in terms of the second-weekend falloff of Hollywood. So the old model is that, you know, you go for a big opening weekend and then, you know, the reviews come in, you try to get six weeks, eight weeks, of sort of gradual decline. What

you're finding is that—is that because word of mouth spreads so quickly, that if it doesn't deserve its hit status, that people will find out about it instantaneously. And we're now seeing the second-week decline in Hollywood has gone from 35 percent to 46 percent in just the last ten years. So, you know, they're just plummeting. The ones that don't deserve celebrity status are now plummeting out of the box office much more quickly because we now have the capacity to measure popularity not based on what certain reviewers say or what marketing and advertising messages say, but what *we* think.

LAWRENCE LESSIG: So let's think about the other side, the tail. So in this little exchange about how significant the tail was, I think Nick Carr made a nice point, which is the real issue that we've got to think about is how much has the Internet actually increased the market there and complemented what used to be old markets? But you don't really have a lot of data to sort of get a good sense of what's *caused* by this new long tail. One data point you put forward is in publication, you talk about at the time Amazon was born, there was about 1.5 million books in print and now it's 3.7, that they are able to carry in their title. Do you think that the growth from 1.5 to 3.7 is because of this phenomenon?

CHRIS ANDERSON: You know, it's interesting. Every year, there's, last year there were 175,000 new books published. The year before, as it happens, there were 190,000 new books. You know, it's now, the power to publish a book is now in everybody's hands. Self-publishing, which used to be considered a sort of undignified way of vanity publishing is now quite a good—it's sort of the blogging of books, as it were, Lulu and

other services allows you to do this. So, you know, there are more books out there because it's easier and easier to get a book out there. I want to talk a little bit about the size of the tail, because you brought that up. It's actually a statistical mistake. The problem is, is that we're used to looking, thinking in terms of percentages. The 80/20 rule is in fact percentages. And the problem is that when the marketplace is finite, that's perfectly reasonable. If you have a hundred products, 80/20 is a good thing. The marketplace is infinite, you end up with a denominator blowing up to going to infinity and the percentages don't work anymore. So what I do, I try to be quite careful about my definitions. That the head, as I define it, is measured by the products available in the largest bricks-and-mortar retailer in that space, and the tail is everything else. So this is an absolute number. In the case of music it was 25,000 tracks, it was—in videos it was 4,000, in books it was 100,000. It's an absolute number, and the tail is everything else. The problem is to do it in percentage terms. So let's say that the top 100, you know, albums—

LAWRENCE LESSIG: Remember, I'm a lawyer, so you've got to be slow on these things. **(laughter)**

CHRIS ANDERSON: So let's say—

LAWRENCE LESSIG: I'm willing to take this structure, so all we're talking about is absolute numbers.

CHRIS ANDERSON: In real percentage terms, basically because the denominator goes up to infinite, what you find is that statistically makes the head look smaller, so now 1 percent of the market represents 90 percent of those sales, but if that 1 percent now represents the top 10,000 rather than the top 100, it's actually a much more distributed market; the percentages don't tell the story.

LAWRENCE LESSIG: But what Nick Carr was saying didn't quibble with you about this way of thinking about it. He was saying, you take, for example, in the context of books, the largest distributor has 100,000 books, and then everything else is the long tail, and that's Amazon's 3.7 million. So, 2.7 is in the head, the percentage in the head, but with your absolute number, everything else is in the tail. The question he asks is, how much has that market grown because of the phenomenon of the tail as opposed to other distributions that existed before? Because of course not everybody bought books at Barnes and Noble, there were specialty bookstores, there were all sorts of different ways of distributing books, so has there been a real change because of the phenomenon of digital distribution?

CHRIS ANDERSON: So what you're saying is that as we can now access the tail, and as we can now measure in the increased demand for minority-taste products, is that increasing the production of minority-taste products?

LAWRENCE LESSIG: Yes.

CHRIS ANDERSON: I think the answer is, the blogosphere is probably a pretty good example of that. You know, the blogosphere is the long tail of media, right? So I'm a magazine editor and I used to compete with other magazine editors and newspapers. I now compete with 27 million blogs. Those blogs exist partly because people have something to say and partly because they're being read. This is a rivalrous medium. If they're reading a blog, they're not reading me, or at least at the particular moment, so I think the fact that the audience has shifted down the tail is definitely creating more blogs in the tail.

LAWRENCE LESSIG: Okay, so blogs is an easy one, because we know in 1992 there were no blogs and now there are lots of them. But a bunch of books, you're saying, a significant chunk of the difference between 1.5 and 3.7 is because of this new ability easily to get access to the tail.

CHRIS ANDERSON: You know, I don't know. It's a good question. I mean, you know, book writing is a weird business. So the average book sells 500 copies a year. So we think people write books to make money, we think they write books to become bestselling authors. They clearly don't, since 99.999 percent of them will fail, by that standard. They won't become bestsellers, and they won't make money. So why do they write books? And *you* know, I mean, people write books because—

LAWRENCE LESSIG: Yeah, *I* know.

(laughter)

CHRIS ANDERSON: As an academic— **(laughter)**

People write books because they have something to say. They write books to attempt to get tenure, they write books because they want to sell their consultancy. **(laughter)** Some of them write books because they want to want to have a cultural exchange. People write books for largely non-economic reasons. And the question is if they write books to be read, then I would have thought that, absolutely, yes. That those books now because they're available are getting a bigger readership. Maybe it's gone from an author and his immediate family to an author and his extended family, but it still is a growing audience.

LAWRENCE LESSIG: Okay, so this book has a lot in it, beyond just the stuff that you've just given us here. Some of the most interesting parts are the discussion of this new cultural phenomenon of cooperative, sharing production. So you're obsessed with, rightfully so, Wikipedia, which is the latest version. Five years ago we would have been obsessed with free software or open-source software. But I have a feel, sometimes when I'm reading it, that this is a phenomenon of if you've only got a hammer, then the hammer is the tool you use to understand everything, and I have a little bit of skepticism whether the long tail really helps us understand all of this, so, I want to introduce a distinction, and I need a movie to do it, so I'm going to do a little movie show here, and then I want to talk about the long tail as it relates to that distinction. So let's see if we can do this little show.

Okay, so the distinction I want to talk about is the distinction between read-only and read-write culture. So read-only culture is this new massively efficient technology to enable people at any time and anywhere to buy and consume culture produced elsewhere. So the poster child of this vision in your discussion is Apple, right, their wonderful iTunes music store, 99 cents to buy any song you want, download it to your iPod, and *only* to your iPod— very important thing—**(laughter)** but you're guaranteed that if you do that in our culture that you'll be called cool. And it's not just music that they do this with, videos, and not just Apple, you talk about all of these companies in the business of making it really easy to increasingly perfect this market for getting access to our culture, right? That's read-only.

A very different new phenomenon out there I want to call read-write, and that's being driven by companies like these, companies that are not so much interested in people consuming, or not just consuming, they're also interested in people creating and sharing their creativity. Right? So, some examples to liven this up a bit. Right, so anime music videos. Everybody knows these anime from Japan that have been sweeping American or at least youth culture. Anime music videos—people take these anime and they re-edit them and set them to music. Let me give you two quick clips of this. The sound should be up here. **(videos not transcribed)** Okay, so these, these are creators, or re-creators, literally tens of thousands of these kids spread across the network in these communities of noncommercial recreativity. Right, and this is what we could call a kind of remix. And not just AMVs, this is this fantastic group of kids, Chocolate Cake City, remixing trailers,

let me give you a few seconds of this. **(trailers not transcribed)** Um, okay, and then maybe most important, in the context of politics, so maybe two quick clips. **(clips not transcribed)** This is my favorite. Okay, and one last example. People get really touchy about this one. So, you know, brace yourself. The thing to remember is the theme song is *I Will Survive* and he does survive, so don't worry about it. But he survives, there's a sequel and he actually survives, so don't worry about that.

Okay, so this is digital creativity, this is what we could think of as the read-write culture that the internet is producing. The critical thing here is not the technique, I think, as you describe. The critical thing is the technique has been democratized. Because now anybody with access to digital technologies can use these technologies to speak differently in ways that the hitmakers would never have done. So the tools of creativity here now become tools of speech, new potential to speak, it's a new potential to learn, it's a kind of literacy in the twenty-first century. So that's read-write culture. Now, the question that I want to use this very nice slide now to frame as we go forward, is what's the relationship between the long tail to each of these two?

So let's start with read-only. That seems pure long-tail story. It's all about new ways to perfect this market for distributing all sorts of culture, right?

CHRIS ANDERSON: So, that's the new consumer. Right? The new consumer is still a consumer, it's a kind of one-way street as it were, but they're pulling from a much larger menu. Their minority interests can be satisfied, because they can **(inaudible)** anything,

they don't have to settle for the one-size-fits-all culture. So most of the examples are very much within the read-only world, which, by the way, is still an incredibly liberated, much richer, more diverse culture thanks to the long tail, but you're right, that's the—that's only one side of the equation.

LAWRENCE LESSIG: So, read-only is a plain long-tail story. Then what I'm puzzled about is the relation to read-write. Because you spent a lot of time talking about, for example, Wikipedia, and YouTube is innately, some part of YouTube is about this type of creativity, but in what sense is the long tail helping this read-write? Now, YouTube's the one good example here, because it's a bigger market, so there's more people to play with it, but what is the long tail's relationship to Wikipedia?

CHRIS ANDERSON: Well, you have an audience, so, you know, having the tools of production in your hands is theoretically interesting, that you can express yourself, but fundamentally, we're all here to be appreciated, right, so, you know, to go from the theoretical ability to create music and videos and written materials to one where you can actually attract an audience as well, and that is due to the democratization of distribution and those filters that I described, Google and everything else, to drive demand down the tail, I think turns it from a sort of a potential read-write culture into a truly viable one because the audience has shifted, along with the tools of production.

LAWRENCE LESSIG: Okay, but the communities that are producing stuff in the read-write side, again, think about Wikipedia, I think they'd feel they weren't quite understood

if it made it sound like they were just doing the same sort of stuff that was happening at the head, but just at the tail. Or that they were doing, a couple times you describe the relationship between the head and the tail by saying the head is people who are doing it for commercial purposes and the tail are people doing it not for commercial purposes. But these are just radically different economies, right? The head, the commercial economy, that typically drove the head, and drives lots of the read-only culture, is a traditional commercial economy but a lot of the stuff in the read-write space is what many people call a sharing economy or an amateur economy, but that has a different logic to it, or a different architecture to it, right?

CHRIS ANDERSON: It does. You know, I—in the book I talk about the sort of reputation economy. Some people talk about the attention economy. So there's clearly a currency out there that's motivating people to create that isn't money. So, you know, as I said, all those authors who write for five hundred readers are not doing it for money, but also bloggers are not doing it for money, most of them. So we're realizing that people can be motivated by something other than cold, hard cash. And those motivations include expression, reputation, fun, you know, things like that. I use the word "economy" quite loosely because quite obviously economics is not a theory of everything, it's a theory of choice under scarcity. And do we have scarce reputation? Do we have scarce attention? It's not quite clear. I mean, obviously, there are some scarcity factors. So I think it's a really interesting subject to say, Can you think of attention and reputation as an economic phenomenon? And can you in a sense think of these sort of parallel economies, where we now have two ways to stimulate production and not just one?

LAWRENCE LESSIG: That's right. So I think it's useful to think of it as an economy. There are so many words for it, I'll just call it the second economy, this economy that's producing huge value not for commercial purposes. Wikipedia's one. You talk about the amateur astronomers who actually are now maybe the most significant force in astronomy because of the work they do to collect data about this. There's a wonderful Mars click-mapping program where they had to map the craters on Mars. This is a wonderful story told by Yochai Benkler in his book, and they had professionals doing it, and it was very expensive and slow, so then they created this website where people could download images and had a little bit of a training and then amateurs would map the craters, and the amateur mapping process was more accurate than the professionals who had mapped this, and it was, of course, something produced voluntarily by people all across the world. So this becomes a huge resource for society and then it becomes a really important question. How do we call it into life? What do we do to make it happen? What can we do to inspire it to occur? And the first important point is, whatever we do, it's probably different from the logic of traditional commercial marketplace.

CHRIS ANDERSON: Well, you know, it's interesting. One of the artifacts, or one of the consequences of hit-driven culture, is that it is only commercial culture. And that was the *only* way that things got out there was via these commercial vehicles that owned this or had monopoly access to the channels of distribution. What we're finding is that—is that now of course you have amateurs have equal access to the channels of distribution. Clearly the first thing you need to do is give them the tools. So the democratization of

tools. Start with the PC, obviously democratized maybe desktop publishing initially. You know, today every laptop has virtually the entire music industry in it. You can record, mix, distribute, and market music on a laptop. You're close to being able to do the same thing with video. You've long been able to do the same things with text.

So, you know, putting the tools in the hands of individuals, you suddenly realize that we'd assumed that we'd identified all the talents, we'd assumed we'd made a pretty good guess of what people wanted. We were all, we were totally wrong. The vast majority of the talent was not identified by the traditional machine. The vast majority of kinds of genres of content. This kind of stuff would have never been released by—I'm not sure what industry would have never released it, but none of them—all of them would have never released it. And yet, and yet, this is exactly what Barry Diller's talking about, eighteen million people creating things that they think will have appeal. The emphasis being on "they." We didn't get a chance to decide what got out there before, they—now, I realize that I'm in an awkward position because I sit in both seats, I am a Condé Nast editor, I'm a classic Barry Diller hitmaker, I try, I guess at what's going to be appeal, I try to make blockbusters and I limit access to my channel. I'm also a blogger, and I'm out there in the tail, much farther below you in the tail, and competing with a zillion other bloggers out there. As a consumer of media, I didn't get to decide what got out there. Now, as a producer of media, I do get to decide what gets out there, because I can do it myself.

LAWRENCE LESSIG: So then, if you think about the businesses, on the one side, and the amateur or second economy on the other side, then the really challenging project is to figure businesses that mix the two, and there are. So if you think about Red Hat, for example, which is a business that commercializes Linux software and commercializes it in a way that, obviously, they want to make tons of money for their stockholders, but they have to make sure that in the process of doing that, they don't poison the well of developers who are actually working very hard to make the software, the Linux system, better, right? The same thing is happening obviously in lots of these contexts that you're talking about. Think about YouTube. YouTube is facing lots of really difficult decisions about how it will develop, because it doesn't want to turn off its user base. MySpace hit this issue, YouTube had averted it, but when they try to claim ownership of the creativity for themselves, the user base says "the hell with you," we're not going to be sharecroppers for these big companies. So they have to figure out how to be hybrid in their economy, encourage this new economy while also being able to be commercial, and that turns out, I think, to be the hardest problem here.

CHRIS ANDERSON: Exactly. I mean, YouTube's a fascinating example. So this, in my book I use Google Video as an example, because I wrote the book in the middle of last year, and YouTube just hadn't emerged. And over the last twelve months to see a network-sized user-generated viral-video phenomenon just pop out of nowhere is just amazing. What's interesting about YouTube is they are currently valuing themselves at more than a billion dollars. So all this free stuff aggregated creates this huge bit of value. The problem is that if they actually try to extract the value from that, they're going to

have to do something like putting ads on YouTube. And you know, once upon a time, it was like, “we control the vertical, we control the horizontal, we’ll put ads where we want.” That would be the television model. The new model is that they are terrified of what would happen if they put one ad out there, because the power has inverted. The power used to be with the sort of big companies and the power’s now entirely with the mob, with the army of amateurs out there, and if YouTube screws it up, if YouTube gets that balance slightly wrong, there are dozens of other video sites and they will just scatter. So YouTube doesn’t control the audience. The audience controls the content, and they will take it where the environment is most fertile.

LAWRENCE LESSIG: Okay, so I’m going to talk about one more thing, and then we’re going to have time for some questions. Of course, one issue that you touch on a bunch of times and it made me very happy that you did, was the relationship between all of this and IP rights, intellectual property rights, and so we can again think about the difference between read-only and read-write in this context. So we have fairly rigorous, to be generous—I think of it as extreme—we have a rigorous system of IP. Which creates opportunities and problems. It creates opportunities in the read-only space because it gives the companies all the legal power they need to control the perfect distribution of the content, which they’re now able to market because of these new technologies. But you also describe the way in which the current IP regime hurts a lot of stuff in the read-only context, so moving stuff to DVD, for example, becomes almost impossible because it’s impossible to go back and clear rights. Your great story of *WKRP in Cincinnati*.

CHRIS ANDERSON: *WRKP in Cincinnati*. This is the sort of the hardest television show on the planet to put on a DVD. Because it was a sitcom set in a radio station in the seventies, I believe. And in the background there are all these pop songs from the time playing. So to release it on DVD would require clearing dozens and dozens of songs for each show and the costs and bureaucracy of doing that is impossible. So until we can find a way to batch-clear the rights to old content, a lot of it's going to get locked up in the archives.

LAWRENCE LESSIG: Right, and also in the context of film. You say six thousand films are shown at Sundance every year. A couple dozen might get distribution, a dozen might get distribution. And one of the biggest reasons for the fact you can't get access to the rest of them is the high cost of clearing rights for the music in the films.

CHRIS ANDERSON: There's a famous story. There's a movie called *Tarnation*, which is a documentary a guy did about his mother. And it was famously made for \$218.00. What you never hear about it is what cost to actually clear those rights and distribute it. It was more than \$250,000—

LAWRENCE LESSIG: It was \$400,000.

CHRIS ANDERSON: It was \$400,000, which is technically more than \$250,000.

(laughter) \$400,000 to clear the rights to the music he had on his home-generated video. Now most—*he* cleared that hurdle, but most people can't.

LAWRENCE LESSIG: Right, okay. So that's the way in which the IP kind of might make the read-only part not work as well, but still it's supporting the read-only part. But then let's think about the IP on the read-write side. So here you have all these millions of creators who want to take a Lionel Richie song and use it very powerfully to criticize the president and Tony Blair or want to take "I Will Survive" and use it to, you know, make some funny point about religion. In that context, the IP system is really just holding back this kind of creativity.

CHRIS ANDERSON: It's really messy. I refer to rights as being sort of the elephant in the room of the long tail. It is the single biggest barrier to unlocking both the commercial value and the cultural value in getting access to these kind of things. There's a paradox, actually, where you and I probably end up in a little tension. Which is that—so we've been talking about the long tail of variety, so you have broad appeal at one end and narrow appeal at the other. There's another long tail, there's the long tail of time, there's the new stuff and the old stuff. And not only do some things not get on the shelf in the first place, but things fall off the shelf as the sales decline over time. And then they fall into the archives and then they're gone. They're just not available. Television is an extraordinary example, where almost all television is not available for you to see. Because it was broadcast in that brief window of commercial viability and then for all intents and purposes vaporized. So what I'm saying is that we are now measuring in music in particular, in places where you can get archives out, that the demand for old stuff is much larger than we thought. And so we're now realizing that this stuff, our

cultural history locked up in archives, has huge commercial value. Now, the IP consequence of that would be hey, maybe Disney's not wrong, maybe we *should* extend copyright further and further into time because maybe, maybe this assumption—one of the cases you make—

LAWRENCE LESSIG: Paul, you wanted a fight, so we're about to have it right now.

(laughter)

CHRIS ANDERSON: This is the point where he lunges—you know, one of Larry's arguments, and by the way, I'm on his side on this one, I'm just pointing out sort of a logical problem in this. One of Larry's arguments is that most commercial value of content is realized in a very short period of time, months and years, something like that, and that we lock it up and withhold it from the rest of culture for marginal additional costs. The long-tail time says that in fact that it might not be marginal additional value, that in fact, maybe that content does have commercial value for decades.

LAWRENCE LESSIG: Yeah, well, your book was published by Disney **(laughter)** but you're not using—**(laughter)**

CHRIS ANDERSON: True.

LAWRENCE LESSIG: But you're not using long-tail logic to analyze this problem sufficiently. Because you're right, it might turn out that it's more valuable, but the percentage of this old stuff that has real commercial value is tiny, maybe 2 percent of the stuff in the copyright term extension had any commercial value. The rest of it has no commercial value, but if you're an archive, and you want to make it accessible, and you've to clear all these rights, then it's impossible to get access to this material. So the last debate we had here about Google Books, Google wants to scan eighteen million books; of those eighteen million books, 16 percent are in the public domain, 9 percent are in print and under copyright. 75 percent are out of print but still under copyright. If the law says Google has to get permission from 75 percent of the 18 million in order to scan them, which is the position of the publishers, then those 75 percent will just simply not be in the archive because there's no way to identify the copyright holders to get permission for it. So the point is that if you really think about the long tail of *use* for all of this old material, then having all those rights really makes it impossible to make it accessible.

CHRIS ANDERSON: I think there's a way to reconcile those two positions. And at this point, I'm going to steal your ideas and claim them as my own. Here's my two ideas.

(laughter) The first is that you have to opt in. You know, the sort of one-cent renewal.

LAWRENCE LESSIG: Brilliant, brilliant.

CHRIS ANDERSON: Thank you. **(laughter)** That your copyright does not automatically extend forever, but you have to ask for it to be extended, and of course if

there is commercial value, all someone has to do is pay their penny and they get it extended, but most people probably won't, either because they don't care or because there is no commercial value. So that would help the older stuff, the much older stuff, the other bit would be to make it easier to clear rights. The problem with clearing rights is partly that it's expensive and more that it's incredibly complicated. I mean, sometimes there are holders of these rights, they're dead, and you have to deal with their estates, and sometimes you can't find them, who owns the rights? And if there is a way to sort of batch clear, a rights clearinghouse as it were, that sort of says, all self-service, can I have these rights? Yes. Here's the price, five dollars, done. That, I think, would lower the barriers to entry and you would see more of this stuff coming out.

LAWRENCE LESSIG: But then again, in a read-write space, for those kids, if there's ever going to be somebody who gets to make the judgment whether you get the right to use it or not, it's going to be very hard for the kind of diversity that you celebrate—

CHRIS ANDERSON: Do we really have a problem here? YouTube is full of exactly what you describe. It's happening. We are not seeing the owners of "I Will Survive" going out and suing these kids—

LAWRENCE LESSIG: Whoa, whoa, whoa, wait.

CHRIS ANDERSON: There are occasional examples.

LAWRENCE LESSIG: I used that example for a very particular purpose. I showed that video at a Hollywood event. The very next day Universal sent a notice of takedown to the author for that.

CHRIS ANDERSON: Stop showing the videos.

(laughter)

LAWRENCE LESSIG: And Universal has been famously saying that, you know, “We know what we do with companies like this,” and you know, so. So you’re right, right at this moment, it looks like it’s all going to be great, but there was a moment during the Napster history, too, where it looked like it was all going to be great, and that fell pretty quickly.

CHRIS ANDERSON: I think you’re right, and first of all, two things. We’re talking here of what’s called synchronization rights. This is where you put music behind something else. We all do it on our home videos, we put music behind it, and technically it’s illegal. Every time we sing “Happy Birthday,” technically we should be paying rights, we don’t. **(laughter)** I think we’ll probably continue getting away with the synchronization stuff, there’s so much of it out there it’s just not worth suing. The other one might be on the video itself. YouTube again is also full of videos TiVoed and ripped and distributed. And the television industry, as we’ll talk about tomorrow, at that panel with MTV and NBC, etcetera, the television industry is completely conflicted about this.

The marketers say, ten minutes from *The Colbert Report* is fantastic marketing for *The Colbert Report*, let it go, and the other half of the business that has to do with the business side, with the affiliates, with the contracts, with the Screen Actors Guild, saying, you know, this is the slippery slope, if we let it go out there, we're not only in contractual violation, but we're going to get sued. You know, you're risking the company. And I don't know how that's going to sort out. What do you think?

LAWRENCE LESSIG: Yeah, I think the business side, the first side, ought to win and the lawyers ought to be locked in a room and just not permitted to control the future of culture. That's my view, but I'm a lawyer. We're going to now take questions, and I think there are mikes on both sides of the auditorium, so you should go and line up behind the mikes and we'll take them. So first on my left, right here.

Q: Great. I have a question. If you could discuss, in this new world of accessibility of content and in consideration of social networking and peer-to-peer marketing, what the role of tastemakers and media, is it going to be diminished or increased, are people are going to want a DJ, or are they just going to figure it out from their friends.

CHRIS ANDERSON: Well, you know, we tastemakers have a lot of competition now, is the answer. You know, the tastemakers—what we are seeing is an extraordinary shift of attention from institutions to individuals. So the old tastemakers are, you know, we who decide what gets out there, the professional studio bosses, the editors, the critics, etcetera. The new tastemakers are people just like you. They are the powerful blogs, they

are the Amazon reviewers, they are individuals. And I think it's really quite a challenge for all of us in the sort of traditional hit-driven industries that we are now watching people trust us as institutions less and trust those other individuals like them, the peers, more, and so we have a challenge to start to engage in that conversation and speak in more authentic voices. We have to maybe give them, we have to let them blog on our sites, we have to enable peer production wherever we can. I mean, it's very tricky, we haven't figured it out yet, but that is the world we're entering.

Q: Hi. Ed Whitaker of AT&T wants to take a big fat toll of any video going to any AT&T DSL customer and Time-Warner just said the same thing. Inspired by the N to N principle, but really about the long tail, what do you think will happen to the long tail on minority culture if that fee is part of the cost of distributing video?

CHRIS ANDERSON: Did you set him up?

LAWRENCE LESSIG: I should have.

Q: This was inspired obviously by N to N and by half a dozen books by Larry.

LAWRENCE LESSIG: This is where we really have an argument.

CHRIS ANDERSON: Yeah, this is where Larry and I disagree a little bit. So I have a very unpopular—you're talking about Net Neutrality, this whole notion that sort of, the Man—

Q: Don't use a word like "net neutrality" that the lobbyists make up. Say whether Ed Whittaker at AT&T controls something in your Internet.

CHRIS ANDERSON: We're talking about the hypothetical possibility that the least competent companies in America might control this extraordinarily diverse and heterogeneous network called the Internet. If that were to happen, that would totally suck, and we should definitely do something about it. But I think it won't happen. I think that it is a very robust network. I think that heterogeneity wins. And I think we should wait for markets to fail before we create legislation that could create a much worse problem by mistake. So. Larry disagrees.

LAWRENCE LESSIG: So, Chris is wrong about that. **(laughter)** And the reason he's wrong is that—it's again, a kind of a long-tail point—the reason he's wrong is that people look forward to the network, and if the Ed Whitakers of the world are right, that network will be a network where a relatively small number of companies are the gatekeepers. So your whole point about the long tail was how the gatekeepers were broken open and at least on the margin, the cost of access is a function of the gatekeepers, and in that world right now there are innovators who are thinking, does it make sense for me to innovate in a world where there will be those gatekeepers versus not, and on the margin, fewer will

be innovating in that world. So I would think the question ought to be, What good reason is there for us to give up this network that inspired the long tail to take off and go to a network where there will be people who have the power to, say, shut down these people who are not aligned with us?

CHRIS ANDERSON: I agree, if this were to happen that would suck. You are speculating that there are companies that are not investing because they think it might happen, and that may or may not be true. I know of no examples. I — I—Okay, cards on the table, I’m a little bit of a libertarian, I think we should have the Hippocratic Oath of legislation, which is “first do no harm.” And I’m so worried about the unintended consequences of getting this legislation wrong that I’m willing to take the chance that, you know, the tiny chance that they might in fact screw things up.

LAWRENCE LESSIG: Yeah, well, if the networks had the same principle, do no harm, then I’d be on your side, but I don’t think that’s their principle. On this side.

Q: I’ve noticed that you’ve used a lot the words “democratizing” and “grassroots.” Does the idea of the long tail versus the head translate into politics, where the gatekeepers are Democrats and Republicans and the grassroots? Do you think that it will have an effect on the two-party system in America, or . . .

CHRIS ANDERSON: Yeah. Fantastic question. Great question. I wish I had a better answer for it. Clearly, so clearly two parties does not represent the fullness of diversity of

political opinion in America or in any country. We are obviously much more diverse than our political system recognizes. It is a reflection of scarcity, it's a distortion, it's a bottleneck in measuring opinion and measuring votes. And because we have an inefficient way of both informing the populace and engaging their opinion, we end up with this representative system, which leads to this sort of, you know, shrinking of choice down to two parties. I think that we have some help coming. I think it's clearly more easy to educate populations about political issues. And, you know, I'm not sure that Diebold is our friend on this side, but technically it could be more, easier to measure votes, to take votes in ways that don't require people to line up in a garage or the fire station. This—what I'm talking about is direct democracy. You know, voting not necessarily for political parties, but voting on individual issues. Californians, you know, we've tried this, and we continue to try this. Voting on individual ballot initiatives. One of those ballot initiatives brought Arnold Schwarzenegger into power.

LAWRENCE LESSIG: And you're for all this, right now, you're saying.

CHRIS ANDERSON: Well, I think it's a great experiment. If it works—I mean, you can have mob rule. I mean, democracy, the three most powerful forces in our world today, democracy, capitalism, and evolution, are freakish. They are totally counterintuitive. We are still fighting about all three of those. I think, on balance, democracy is good and more democracy is better. I realize there are parts of this world right now that are proving a very strong counterexample to that, and I'm, you know, I'd like it to be true, but I can't prove that it is.

LAWRENCE LESSIG: But it is plainly the case that the long tail is changing who can control the message, so the parties, even though they're still just two parties, have lost the ability to really control the way the message develops the way they did thirty years ago.

CHRIS ANDERSON: I agree entirely. I think you're going to see the rise of independents. I think that Bloomberg and Schwarzenegger represent independents who sort of nominally joined one party or the other but they're really independent. Perot did what, 16 percent, you know, before the internet? What would a really powerful independent candidate for president, what could they do today? I think we will actually find out.

Q: You mentioned that YouTube has no business model and if they picked one they might pick the wrong one and then get diluted. So it seems like the other elephant in the room with talking about the long tail is maybe it's time for micropayments and that would be, like, the solution, you've had distributed payments and distributed benefactors with literally no middlemen.

CHRIS ANDERSON: The standing policy of my career is: it's never time for micropayments. **(laughter)** My entire career has been sort of example after example, effort after effort to make this work, and people hate being nicked and dimed.

Q: You think the attention economy will just, like, always be there?

CHRIS ANDERSON: Well, we do have a currency right now that's micropayment. It is attention. It is reputation. We pay with our clicks. I think people hate paying with real money. I think they hate the meter ticking. I could be wrong. What do you think?

LAWRENCE LESSIG: I think you're exactly right, but it's really important to recognize that in some of the most vibrant of these communities, it's not just that micropayments wouldn't work, they would poison the community. If you went into Wikipedia, "Oh, I have a great new idea, what we'll do is give people micropayments whenever they edit work." That would change what it means to be a member of Wikipedia. You would no longer be doing this as a great kind of act of volunteerism, you would be doing it because you're trying to rack up micropayments, right, so the point is, that this assumption that the model of commerce is a model we ought to be imposing on every one of these communities is, I think, what we're learning is wrong. We're learning that there are very powerful, valuable communities that don't fit that model, and we ought to respect them and encourage them.

Q: *The Long Tail* had an earlier name called Zipf's Law, and it's a remarkable pattern, as you indicate in your book and your blogs. It appears in the most amazing range of phenomena. Zipf was a linguist, a Harvard linguist, and he claimed that the pattern that you see is a result of people basically trying to minimize effort. That is, the principle of least effort, he called it. I'd like to ask you what you think, if he is correct? How, if people do take the easy route whenever it's offered, how this will affect whether or not

people in reality go down the long tail if it involves more effort than basically the easy route which is following the crowd.

CHRIS ANDERSON: Interesting. But let me explain a little bit more for those of you who may not be familiar with Zipf's law. Zipf's law found that—I think he actually used James Joyce's *Ulysses*—found the word frequency of James Joyce's *Ulysses* distributed as a power law. So “the” was the most popular word, then “and,” etcetera, right down to some obscure word. It was weird, the power law, and the theory they come up with was actually two: the short words obviously get used the most and also that words are combined in pairs, and that there's a linkage between them, it was a form of network effects. It sort of prioritized, it sort of gave a premium to certain words and not to others, so paired words were more frequently found than non-paired words. It turns out that Zipf may have been wrong about that, and, you know, if you go to my blog, you'll see a lot of talk about this.

But one of the most interesting fields of research right now is understanding power laws. Why do power laws occur? It's this notion—as you say, they're completely ubiquitous. They show up in earthquakes, earthquakes are a series of power laws. A small number of big earthquakes, a large number of small ones. Cities, a small number of New Yorks, a large number of smaller cities. Biological species, scientific papers. They all appear to distribute these weird power laws. It's weirdly ubiquitous. The theory is that it's to do with network effects, which is that network effects are basically things like word of mouth, where you get this snowball effect—popularity begets more popularity, the rich

get richer, and this leads to this sort of acceleration, where some things get all of the benefits and then everything else gets very little. As I say, it's a really thriving area of research, it goes into complexity theory. I'm doing my best to try to understand it and blog about it. The reason I have a blog is so I can stop talking and you guys can go read it.

LAWRENCE LESSIG: Over here.

Q: George Santayana once said that it doesn't matter what college students read as long as they all read the same thing. And in fact in the nineteenth century they did read the same thing much more than in the twentieth century. You use the word Balkanization as if it was good and in fact the Balkans were a relatively unpleasant place to live both when that word was coined and in the 1990s. Do you think that a certain amount of head of the tail is needed for social cohesion?

CHRIS ANDERSON: That's a great question. So this is actually a question I address in a chapter in the book. This is the notion that common culture defines us, and that mass culture, the fact that we are in cultural lockstep, and we were all watching *I Love Lucy* at the same time, was in a sense the linkage that sort of that, you know, kept us together as a nation, as a people. And clearly we're losing that, we're not all watching the same things, and those cultural linkages are fraying. The question is, are we going to be sort of less well defined as Americans as, you know, as people of our generation, because of this? I think there is going to be some loss of common culture, some loss of collective national

culture. But the point I make in the book, and you can tell me whether you're persuaded, is that those mass-culture, one-size-fits-all, you know, pop linkages are relatively *superficial* connections, and the fact that you and I watched *CSI* last night is maybe the start of a conversation, but doesn't go very far, and what we're moving to is tribal culture, these are tribes of affinity. The fact that you and I are skydivers—I'm not, you may be—but if we were, that would be a very deep connection, that is a *real* relationship. And so in a sense what we're losing in loose connections with everybody, we're gaining in very tight connections with smaller groups of people, and fortunately there's lots of them. You have lots of interests, I have lots of interests, and all of these parallel tribes, or what I call massively parallel culture, I think is where we're going, and I suspect that we will be tighter for it, but not in the same way we were through broadcast television.

Q: A quick comment for you, Mr. Lessig, is that I saw a keynote of yours a couple of years ago and it changed my life, so thanks for that.

LAWRENCE LESSIG: For the better, I hope?

Q: Oh, much, much better. I want to be a lawyer now.

CHRIS ANDERSON: Oooh, wrong lesson, wrong lesson. **(laughter)**

Q: My question is, with the rise of DMR, or rather, DRM, rather, do you see read-only culture becoming less available for writing and remixing, and how do you think that will

affect read-write culture—will it take away from legitimacy and how can open-source DRM maybe combat this?

LAWRENCE LESSIG: Well, right, so Digital Rights Management are the sort of software equivalent of the laws of copyright and they are and will be—I've been a doomsayer about this for a long time now—will be much more effective at controlling what people do with content than laws ever are. Right, so people remix stuff on YouTube all the time without worrying about the laws, but when DRM is in there, you know, only the hackers will be able to remix it because they'll have to crack the code to be able to do it. And so I do think that the wide spread of DRM will fundamentally weaken the opportunity of the read-write to take off. This is why business models that figure out how to encourage people to make content available and allow this kind of noncommercial remixing are really important—the hybrid economy stuff.

So, we've talked about YouTube. Another great example, I think, is a company called Revver, and this kind of goes against my micropayments point, but what Revver does is add a little ad bug at the end of the video and that ad bug gets played and the person who made the video then gets paid. And unlike YouTube, Revver wants people to distribute videos all across the net, virally. They don't want to control it in one space. That's more consistent with the values of the original internet. Authors get paid lots because of this. The one very famous example is—I wonder if you've seen the Diet Coke and Mentos video—they got \$25,000 in one week for those video producers because of this particular model. The point is, this model is hybrid, there's a commercial side and there's also a

kind of people are just creating stuff and putting it out there. It also encourages people to be more open about the content that will be available, because there's actually some kind of market opportunity here and I think if we see more ideas like that, it'll put pressure on what I think of as the dark story about how DRM kills off the read-write culture.

Q: Building on that man's question about the Balkanization—can you envision a kind of backlash against this and we realize some kind of fundamental social desire for the blockbuster and we no longer have this kind of passive style of blockbuster, which is a kind of top-down model, but a more grassroots blockbuster, if that's not an oxymoron. But, you know. So something that builds enough, gets the kind of percentages but in a different way.

CHRIS ANDERSON: Sure, absolutely. Sure I think I described the sort of the rise of the viral videos as the grassroots, bottoms-up hits. I think you're absolutely—in culture, you're going to see more hits than ever, but they're going to be sort of successes from the meritocracy, sort of the marketplace of opinion, rather than the top-down ones. You asked about a backlash, and I think there is one possible backlash, which is very much in politics. Right now—we used to have a political discourse mediated by the *New York Times*, which was an evenhanded, relatively balanced place that tried to have all the news fit to print, whether it achieved that or not. We now have a political discourse moving online. We have extraordinarily polarized, angry—the left is further left, the right is further right, never the twain shall meet. You know, you could argue that this moment in political discourse is degraded because of the diversity of voices. Now, I actually don't

think that's true, but you could argue that. I suspect that this very angry political discourse happening out there in the blogosphere is a kind of a first-day phenomenon. Right now, we're just—we're drawn to fresh voices, we're drawn to new voices and we now can get them. And I think we're going out there and we're sort of celebrating these passionate voices on either side. Over time we may become tired or may realize that that's not the whole picture, and we may read lots more blogs and try to achieve balance not with any single source but by sort of picking the multiple points of view that together combine to a more balanced view. That's my hope that's what going to happen to the political blogosphere. Larry, do you think that's going to happen?

LAWRENCE LESSIG: I think that the really important difference is not that the quality of political discourse is better or that criticism is not, that it's worse. The really important difference is that now there are fifty million people engaging in the process of arguing in a public way about political issues and twenty-five years ago, they weren't. They were sitting there consuming political messages fed to them by somebody else. That's the shift from read-only to read-write in this context. The first part of the question, though, this drive for some kind of hits—I really do agree with what Chris's analysis of this is. We will still have this very strong drive for hits, but we want to be cool enough to get the cues of the hit no longer from what NBC executives think, but from the twenty cool people we know really know something about what we should be thinking of as the hits. So we have this innate desire to, you know, come together in some sense about certain issues. It's just who's signaling those hits that is the really important change.

CHRIS ANDERSON: Exactly. Measure popularity rather than trying to predict it through guesswork.

Q: If that's the case, then what's going to happen to the established media industry—the music industry, the movie industry? Are they going to play a role in this, or do you see both of those industries as just crashing down?

CHRIS ANDERSON: Well, that's the challenge. Do we have time for one more? We'll take one more question after this. So we actually have a long track record. So if you look at it in terms of which industries fall first, it goes on file size. So text is a very small file size. Dial-up modems and the web were the first to sort of challenge us in the mainstream print media. So we've been dealing with long-tail competition for over a decade now. Music is the next smallest file size. And it was sort of around 2000, with the combination of broadband and the MP3 and the file-trading services and the music industry then had to deal with that, and we now see what they're doing. And I'll talk about that in a second. And right now with YouTube it's television's turn. That three-minute video is now at the size and the networks are of the power that we can now actually see real competition for the first time.

I think the music industry is a perfect example of how you deal with this. I mean, they basically imploded for a while, I mean, sales were down, they just didn't know what they were doing. And now they're realizing that they're going to have to change. You know, sort of the denial phase is over and they're in the now sort of adaptation phase. And what

you're seeing is that rather than signing ten artists and giving them all ten million dollars each, they're developing digital-only labels, where they can sign maybe a hundred artists, give them very little money, because they don't need very much money and distribute them not just in Wal-Mart, try to kind of buy their way onto the shelf—and that is, by the way, how you get onto the shelf—buy their way onto the shelf at Wal-Mart, and instead distribute them digitally for the audience for that music is likely to find it. So what's the value that, given that I said the entire tools of the music industry are in your laptop, why do you need to deal with a label at all? The answer is that there is a certain amount of credibility that comes with having a label name. Now is it worth signing away 90 percent of your royalties? No. So they have to give you much more favorable deals, it's a much more equitable, you know, contract. And that if your music does do well and you are signed to that label, then they can take you into Wal-Mart, you know, they have the ability to go that extra step and reach the broader audience out there in the bricks-and-mortar-world. So I think that's a kind of positive lesson—the music industry is finally adapting to the long-tail world, and I suspect television is going to be going there in the next few years as well.

LAWRENCE LESSIG: And so we'll take, we have time for one more?

Q: Thank you. As a husband and father and a provider for a family, I really want to congratulate you on the success of your book. I'm also a user and a huge respecter of Creative Commons, thank you for everything you've done, Mr. Lessig, on that. So I have to ask, basically for a year and a half, I've followed along on your blog, and watched the

intellectual journey to this concept and this body of knowledge for *The Long Tail*. The coup de grace is a *paper* book. You more than anybody out there understand all the problems that come along with that. So my question is, have we reached the point where the paper book is actually a tool used to restrict the flow of information—it's actually a new form of DRM?

CHRIS ANDERSON: Wow. That's a good last question.

(laughter)

LAWRENCE LESSIG: Looks like we're out of time. Thank you very much.

(laughter)

CHRIS ANDERSON: So. I see my publisher has now left so I can answer. **(laughter)** I believe in books. I think books are the right way to read. I think paper is the right way to read a book. I do not want to read 150,000, no actually it's only 80,000, words on an electronic form. I don't happen to like e-book formats, even with the Sony e-Reader. I think books are the right form for that kind of content. However, one size doesn't fit all. So for the book, that was paper, but I also realize there's plenty of my ideas, my geeky power law discussion, etcetera, etcetera, that didn't fit into the one-size-fits-all model. It was too geeky for some of the audience. There's all sorts of industries that I didn't include—you know, beer, agriculture, things that are great long-tail examples that didn't

fit into the one-size-fits-all model. So fortunately I have a blog. So, the long tail of *The Long Tail* is on the blog, the short head of *The Long Tail* is the book.

LAWRENCE LESSIG: And the long tail *Long Tail* on the blog is licensed under a Creative Commons license.

CHRIS ANDERSON: Exactly. And by the way we also give away four free chapters and if it were up to me, I would give away the whole book online, **(applause)** because I want to maximize my readership, and the way to maximize readership is you give it to people in whatever form they want it. And I will find a way to make money off charging you guys even more to come in here **(laughter)** or other things. But I want to have an impact and the way you have an impact is that you make things available in the easiest way and the cheapest way for everybody.

PAUL HOLDENGRÄBER: Chris, I'm really relieved to know that books are still important **(laughter)** particularly since we're at the New York Public Library, it's a great source of relief for me. So if you want to get a book, rather than a blog, from Chris Anderson, he will be signing his book, rather than his blog, right after this event, and I would like to thank Lawrence Lessig and Chris Anderson for goading each other.

(applause)