

# Climate Cartoons

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**Greg Dalton:** I'm Greg Dalton and today on Climate One we're bringing some much needed comic relief to the conversation about fossil fuels and carbon pollution. The facts are grim, human addiction to oil and coal are causing increased severe weather, stress on water and food systems, and dying oceans. Over the next hour we will talk about the story of our hot and crowded world while also sharing some laughs with our audience here at the Commonwealth Club in San Francisco. We begin with Yoram Bauman, a stand-up economist and author of the new book, *The Cartoon Guide to Climate Change*. He has a Ph.D. in Economics and promises the presentation he is about to give won't make you yawn. Please welcome, Yoram Bauman.

[Applause]

**Yoram Bauman:** Thank you very much. It's a pleasure to be with all of you tonight. My name is Yoram Bauman. I appear before you this evening, ladies and gentlemen, as the world's first and only standup economist, thank you. It's a niche market. I figure before I go any further I should - I should show you my t-shirt. It's my "Enjoy Capitalism" t-shirt, made in China. If you look at the tag on the back, it's actually made up of 80% cotton and 20% irony. It's dry clean only. I did live in China, I figured if I was gonna work on climate issues, I should learn something about China, so I finagled a position at a university in China and lived in Beijing for five months and I lived in a housing complex in Beijing, that houses uh - I lived in a housing complex in Beijing and the houses 400,000 people and I was one of two non-Chinese people who lived there. It was me and the guy that everybody there referred to as "the black guy".

And then one day I was walking down the street to the bus stop, and I saw a black guy and I kind of lost my sense of propriety a little bit, like I stared at him a little bit and finally I kind of walk up to him and I kind of pointed at him a little bit and I said, "look, excuse me," I said, "You must be the" - but before I could get the words out, he pointed at me and he said, "Excuse me", he said, "You must be the white guy." Sure enough, he was the black guy and I was the white guy. He was from Ghana, he was there on a scholarship - super nice guy, we went to McDonalds, we had lunch - international sign of friendship. It's actually great to be back here in San Francisco. I went - I grew up in San Francisco, I was born and raised here. My family still lives here. I went to Lowell High School. I was one of the few, at Lowell High School, I was one of the few white kids at Lowell High School, so that joke resonates with me. I tell that joke partly because there's something, and we talk about this in the cartoon book a little bit. There's something, it's my own personal theory of the world that I'm very proud of. I call it the Five Chinas Theory of the World. In the Five Chinas Theory of the World says you can take world population, which is how many people? Seven billion people divided by five, you get 1.4 billion which approximately the population of China. So you actually divide the world population up into five chunks of the size of China.

So China, India is about the same size as China, out of everybody else in developing Asia. So Indonesia, Bangladesh, Pakistan, The Philippines, Vietnam - put them all together, it's about the same size as China. The rich world is the fourth China, so North America, Europe, Japan, South Korea - couple of the countries put them all together about the same size as China. And then everybody else is principally Africa and South America. So if you think about the world is being divided up into five - these five groups of the size of China. If you look at world carbon emissions at the start of the century, the rich world was responsible for about half the world CO<sub>2</sub> emissions.

And really, I think there are gonna two big stories of the century, this is how we start out the cartoon book is by saying that story number one for this century is gonna be looking at - it's gonna be about economic growth and development especially in poor countries in the world. We've seen this in China. Hopefully we'll see this in Africa and India over the coming century. I think the other big story this century though, is gonna be dealing with the environmental impacts of dealing with 7

billion people growing to 9 or 11 billion people who are all trying live the lifestyles that we live. So that's the Five Chinas Theory that I've talked about and that's sort of why I think that climate change turns out to be an important issue. So what I've learned, I actually make a living doing standup comedy about economics, believe it or not. My father doesn't believe it. But I do a lot of colleges and corporate events and things like this. And what I've learned is that if you talk to people, if you make them laugh for 45 minutes, then you can talk to about sort of anything that you want for five or ten minutes and they'll be open to it. They won't necessarily agree with you, you know, it's not - one of the benefits of being an economist is you get the benefits of low expectations, right? So a lot of it is about lowering expectations. I often say that if you think about the way the economists sort of - the reason why economist were often optimists is that we have such low expectations for human behavior. You know, I mean basically if we see two old ladies crossing the street and one of them gets - has a thug come by and knock her down and take her purse, the economist is the person who says, "Hey look, the other one made it!"

[Laughter]

So having this sense of optimism and also the sense of low expectations, I don't think comedy is the sort of the thing that you will be convinced - convince everybody that immediately that for instance carbon taxes, which is what I work on, is the best policy in the world, but I think it opens doors, and where I go from that is talking about this policy that I work on as an economist, which is environmental tax reform. The idea that we should have higher taxes on things we want less of, like carbon emissions and then we can afford to have lower taxes on things who want more of, like jobs and income and savings and investment. And that's an idea that economists across the political spectrum think is a pretty good idea, and this is where I find common ground even with folks like George Will. So George Will is a columnist for Washington Post, pretty conservative fellow. He doesn't believe that humans are partly responsible for increasing global temperatures.

But he came to one of my classes few years ago and I asked him if you would support replacing part of the payroll tax, part of the employment tax in this country with a carbon tax and he said that he was all for it because he hates the payroll tax. And with unemployment at 6% or 7% - I hate the payroll tax, right? And Al Gore hates the payroll tax. Al Gore says we should tax what we burn and not what we earn. So I asked George Will what he thought about the fact the he and Al Gore agreed on this particular issue. And George Will said - you know a policy should not be held responsible for the people who believe in it. So certainly economists are kind of across the political spectrum think of this as a pretty good idea - this sort of environmental tax reform idea. And it's an idea that there's actually a place that's done this. So I live in Seattle, just to my north the Canadian province of British Columbia has what many economist considers to be the best climate policy in the world, actually implemented by a right-of-center government that said look we want to do something about climate change, we want to be market friendly, we don't want to grow government and they implemented this revenue-neutral carbon tax. So revenue neutral means all the money that comes in from the carbon tax is used to reduce personal and corporate income taxes in the province of British Columbia, there is an offset for low income households, but really a very smart policy.

In my view, if you asked an economist to design a climate policy they would give you something very similar to the BC Carbon Tax. So I actually in work in Washington State with a group that's called Carbon Washington, our website is [carbonwa.org](http://carbonwa.org). We're running a November 20, 2016 ballot measure to bring a BC style Carbon Tax to Washington State. The basic idea being that we're gonna have a carbon tax and the BC Carbon Tax is not nothing, it's \$30 per ton of CO<sub>2</sub>, so that's the covering of about 30¢ a gallon of gasoline, about 3¢ a kilowatt hour of coal-fired power, half of that for natural gas, so it's not nothing, but they also have the lowest personal income tax rates in Canada. They have the lowest corporate income tax rates in the G8 group of rich democracies, so there's a payout on the other end through the economic benefits, not just the environmental benefits, and they also have environmental benefits. So since 2008, they reduced carbon emissions by maybe 10% or 15% which is really a terrific start.

So what we're working on at Washington State is essentially to have a BC style carbon tax. So again, fossil fuel prices are gonna up but we're gonna - excuse me, we're gonna reduce the state sales tax by a full percentage point, which may or may not sound like all that much but nickels and

dimes add up over the course of the year and basically what it means is a couple hundred dollars a year more for fossil fuels and a couple hundred dollars less a year for everything else. And the - if you're interested in learning more, the website for this group again is [carbonwa.org](http://carbonwa.org) but the biggest challenge that we face, I think in dealing with this is really is breaking through that initial skepticism, cynicism, opposition that we face. I think that if we could actually convince people that we were actually going to cut sales taxes then they would be much more open to it, but there's a hesitancy that sort of says, no, I don't believe that you're gonna do that. I don't believe the government is gonna reduce sales taxes and I think that's part of where - I think that's part of where comedy can come in.

It's because it's about establishing sort of a human relationship and I often think of comedy as -- I think like the carbon tax pitch that I - generally I do an hour long routine and I'll spend five or ten minutes talking about carbon pricing and I think about it as sort of the pill that you put inside the ball of meat that you feed to the dog, right? It's not necessarily the favorite part of the routine, but they listen to it and I generally end my little climate change pitch that I give to them by telling them that I will now go back to telling them jokes and I thank them for putting up with the climate material. And I say that, you know I appreciate them putting up with it. Although I once did a show for a very conservative crowd in Minnesota and this fellow came up to me at the end of my talk and said that the stuff that I said about climate change was the funniest part of my whole routine.

[Laughter]

And I think there's a little bit about - I think there's a little bit that is sort of self-deprecating that works. And maybe some of these last jokes will help express some of that, so I will share with you some of my "You Might Be an Economist If..." jokes. You might be an economist if you're expert on money but you dress like a flood victim. You might be an economist if you don't read human interest stories because they don't interest you. You might be an economist if you're against the death penalty because it's too expensive. Sad but true, yes. You might be a macroeconomist if you think the chicken cross the road because of a series of unexpected developments in global financial markets. You might be a game theorist if you're an expert on poker but you've never actually played a hand. You might be an environmental economist if you spend a lot of time flying around the world telling people that we need to spend less time flying around the world. You might be an economist if you've ever gone to a bank in the hopes of getting a date. If you plan to have your children born in December instead of January so you can maximize the discounted present values of the child tax credit. I see some heads nodding around the room. You might be an economist if you think that supply and demand is the good answer to questions like, where do babies come from? You might be an economist if you adamantly refuse to sell your children because you think that they will be worth more later.

I am happy to say that it's been a - I have a couple of jokes that are not just about economics, I have a joke about speaking Spanish, which I do reasonably well but not perfectly, as I learned a few years ago. This was well before I was married, and I was down in Ecuador, practicing my Spanish in a bar with a young woman. Hey, economists are people too. And finally she turned to me and she said in Spanish she said, "Hey, if you're so great like how come you're not married?" And I wanted to say something sort of flirtatiously self-deprecating. You know, like "I don't know maybe woman just don't like me" and what I ended up saying was, "Tal vez no me gustan las mujeres" which means, "Maybe I don't like women." When I found out what I said I said I felt very embarazada which means pregnant. I'm learning Chinese now, there are no false cognates, that's the good news. I also have a joke, this joke rarely works in comedy clubs on a Saturday night. It's a joke about quinoa. I'm in San Francisco, maybe it'll do better. How many people know what quinoa is? Yeah, everybody. I guess they put it in the water. Until recently I believed that quinoa was an ancient grain, but then I did a show on Manhattan and was informed by somebody in the front row that in fact, it's not an ancient grain because you can eat it during Passover. It's a seed apparently that's the Talmid lesson for the day. Anyway, it's actually a meta-joke about quinoa. The meta-joke is that it's very difficult to tell jokes about quinoa because 90% of the American public has no idea what quinoa is. And that the people who do know what it is, half of them think its pronounced "kwi-noa."

[Laughter]

So the only place where I've been able to successfully tell jokes about quinoa, except in San Francisco apparently, is at the Hippie Food Co-op. Because at the Hippie Food Co-op not everybody knows the substance named quinoa, at the Hippie Food Coop, everybody knows a person named Quinoa. I have offended somebody here in the front row, I'm sorry. This is the challenge, the quinoa lovers are gonna come after me. I'm happy to say that 2013 the year that ended recently was a big year for economics comedy. That was not a punch line, but thank you. I got to be on the PBS NewsHour. Yes, now I don't know how much you all know about the world of stand-up comedy, but let me just tell you this, in the world of stand-up comedy, ladies and gentlemen, it does not get any bigger than the PBS NewsHour. I've been getting phone calls non-stop on my rotary dial telephone. It was actually pretty amazing. They interviewed with the three economists on the show. They interviewed Robert Shiller who won the Nobel Prize. They interviewed Joseph Stiglitz who won the Nobel Prize. And they interviewed me. I felt like kind of a self-aware version of Sarah Palin. And when they asked me, a moment of TV fame on the PBS NewsHour, they asked me if I ever bombed on stage. All right now a couple of things about this, right. First of all, I am not afraid of failure. I'm an economist. Secondly, I'm a professional comedian, right, so if the joke doesn't work you sort of keep throwing stuff out there until you find something that sticks, which is basically the same thing that the Fed and the Treasury have been known for last six or seven years. Finally, I had to admit on the PBS NewsHour that in fact I had bombed on stage. The worst show I ever did was on October of 2008. Do you remember what was happening to the stock market and the global economy in October of 2008? Yeah it looked like we're going back into the Great Depression. October of 2008, I did a show in Colorado Springs for a group of bankers. Yes and they were not happy campers. And comedy is a kind of a violent business, right? If you're doing while then you're killing, if you doing poorly then you're bombing, and I totally bombed that show. And I actually spent a fair amount of time afterwards sort of soul searching, trying to figure out like where had I lost the audience. You know, were lost in the connection with this audience, bankers in Colorado Spring in October of 2008. And I finally realized that I lost them on my opening line, and my opening line was, "Hey, how is it going?"

[Laughter]

I've since then done a lot of other shows for banks and they've gone much better, especially because I've learned an important lesson, I've learned to get paid in advance. Because you never know whether, you know if the bank is gonna be there for you tomorrow. Well, maybe I should end with that, ladies and gentlemen. If you want to see more, my website is [standupeconomist.com](http://standupeconomist.com). I'm excited to join the rest of the conversation for the evening and thank you all so much for coming out for the night.

**Greg Dalton:** Our thanks to Yoram, Yoram Bauman. I'm gonna learn to pronounce that name correctly. We're gonna have a brief technical pause while we get some chairs up here, then we're gonna have a conversation with Jonah Sachs.

[Applause]

**Greg Dalton:** Tough act to follow that was, let's hear it for Yoram Bauman, thank you.

[Applause]

**Greg Dalton:** I'm going to it and we're talking about climate comedy in economics at Climate One today and my guest will be joined now by Jonah Sachs, CEO of Free Range. They're one of the producers of The Story of Stuff Series, very popular on the internet and Yoram Bauman is the author of The Cartoon Introduction to Climate Change. Yoram, let's talk a little bit about the book, you start the book where there's two stories really in the 21st century. There's this very positive story of healthy, wealthy people 10 billion people and then we'll get Jonah in on this, but frame the book and so how it looks like, those two overarching stories for the 21st century.

**Yoram Bauman:** Yeah, well I think that the first story, The Economic Growth Story really is a very

positive story. I mean, I think the best example I have of that is you look at China. In 2006, China passed the US as the number one source of CO2 emissions in the world and a lot of that - I mean China has been growing at 10% a year for 30 years and having been there, you know, yes they have some environmental problems, some other problems, but they have also experienced a great deal of growth in living standards and I guess an economist I have to say I sort of hope that that wave of development continues in India, in Africa and other places in the world where people don't have access for electricity, transportation, to the things that we sort of take for granted. But in the - so in 2006, China passed the US to be the number one CO2 emitter in the world. Roughly this year, next year China will be at double US levels in terms of CO2. And even at double US levels, China has four times more people than the US does. So even at double US levels, China is at half our level per capita. So that gives you really a sense of the - of the magnitude of the challenge that we face. That's why I like to talk about this, this Five Chinas Theory of The World that I have.

And we talk about this in the book as well. And partly I tell a joke about being in China and being in this neighborhood with 400,000 people and I was the white guy and there's only other one - only one other non-Chinese person there, who was the black guy. And sometimes that joke gets a little bit of, you know, people are a little nervous about that joke, but partly I tell that joke, because if you divide the world up into these five Chinas like I was suggesting, you will, you get in very broad strokes to over generalize, you have a white person, a black person and three Asian people. And that's a good way to think about the world, and most of the people in that story are poor. And so the economic growth angle is an important one, it's one that's almost certainly going to happen over the course this century. I would argue as an economist that we would like to have it happen over the course of the century and then I think the second story is dealing with the environmental impacts of having 7 or 9 billion or 11 billion people living the lifestyles that we live.

**Greg Dalton:** And Jonah Sachs, that second story about the climate impact etc. Facts are out there, the facts are abundant, and yet, they're not really breaking through, they're not causing the individual or governmental or collective action that is necessary to meet the challenge. Why?

**Jonah Sachs:** I think people are overwhelmed with facts right now, I mean there was a time in human history where facts were like gold, you know, if you controlled information, you had power, people sought information, a book had a tremendous value and not everyone could even read it, and now we're just awash and overwhelmed in facts. And add to that the fact, that people can have platforms to communicate, who don't necessarily have our trust or support, there's so much information out there. We don't know how to sort through the amount or the credibility of it. But as human beings, we've always really organized our sense of meaning and purpose around stories.

We agree with stories, we live by stories, we listen to stories and say, "that connects with my values and who I am, and therefore I will go along with that and I will act on it." We even have a lot of evidence that people's lives are built around rituals that go with stories and we see that of course in ancient cultures and still to this day. So I think we need to encode this information in ways that don't just appeal to people saying, "Yes, I believe that" or "No, I don't" or "Yes, that's a fact, but - well here's a counter fact for it." Comedy is totally one way to do that and, you know, with storytelling on the internet for instance, stories can travel and hold those facts, and move them forward. So, yeah, I think we need to be better storytellers and continue to be better storytellers.

**Greg Dalton:** And does it need to be a hopeful and positive story or does it -- in order to make us - it's hard to be optimistic and cheery or funny about climate, because it's a pretty dark story. It can be.

**Jonah Sachs:** Yeah.

**Greg Dalton:** The threats, the challenges are unprecedented in human history.

**Jonah Sachs:** Absolutely, I mean, it is a difficult and dark story, it's a story that I've started to tell my 7 year old daughter and trying to figure my way through it, but it's a story that if we can't provide any hope, and if we can't provide a path for the listener, like, stories have always travelled that really make their listener believe that they can be the hero of their own life story. And if we're just telling a story that makes people feel like they're the villain of their own life story, or that

they're helpless, in the damsel in distress if you will, in the old fairy tale model, that's not a story that people will act on or adopt as a kind of core myth and belief. Joseph Campbell talks about the hero's journey, which is really about listeners listening to a story about an ordinary person accomplishing extraordinary things and that is the kind of template for stories that have always travelled and spread. So I think we need to tell stories that do give people a sense of agency and a sense of belief that more is possible without papering over the very difficult, you know, reality that were facing.

**Greg Dalton:** Yoram Bauman, do you – do you think about that, the stories and uplifting, in sort of comedy as way to kind of – are you informing people providing them obviously some relief, opening doors, access?

**Yoram Bauman:** Yeah, some – certainly some of that. And I try not to – I actually don't spend too much time when I do public presentations talking about climate science, I think people either – they're either on board or they're not on board, and I actually skip pretty quickly to the tax reform part of it, because that's where I feel like I can find common ground – even with folks who are not necessarily on board with the climate science, the George Will folks, who – nobody really likes the tax system that we have now. So the idea of changing to a tax system where we tax bad things instead of taxing good things, I think has a lot of appeal, appeal sort of across the political spectrum, so I try to focus on that. And to the extent that I talk about climate issues, I'm gonna talk, I cover the basics of climate science, I don't want imply that I jettison that, cause I think it's important to cover it. But, I talk about it mostly as a risk factor. I mean it's, we are heading into sort of terra incognita. We are heading into this unknown land and it – I think it's plausible, as we say in the cartoon book about climate change; it's possible that it could turn out to be, okay. It's possible that it could turn out to be a disaster and there are smart things that we can do to avoid taking that risk.

**Greg Dalton:** You talk about it's possible that climate changes caused by broccoli, but probably not likely. That's one of the things in the book. But let's talk about risk, because individuals who are used to managing risk, personally, most people have fire insurance, wear seatbelts, act prudently, presume, maybe not in Washington State, no seat belts? Okay, but--

**Yoram Bauman:** Fifty years ago, maybe not.

**Greg Dalton:** Right. But collective risk, when it comes, when you talk about it, insurance policy for the planet, we're not so good at collective risk, if we think something bad is gonna happened to someone else outside our family or tribe.

**Yoram Bauman:** Well that's true, and people are not necessarily all that great about thinking about risks to themselves.

**Greg Dalton:** Drinking, smoking.

**Yoram Bauman:** Sure. And I think it was challenge 50 years ago to get people to wear seatbelts, in order to pass seatbelt laws. I mean – I think that part of the underlying challenge it, as I see it is that, you know the average person spends, what 5 minutes a year thinking about politics, and I have folks I know – I – since I think about climate change all the time I come to California and I ask people, like you know what do you think about California's climate policy, AB 32, the cap and trade system, because I sort of get up and I eat this stuff for breakfast. And there are people who live in California who are like, "the what?" and that's – it's breaking through that. I mean that's – that's I think where stories can be helpful, you know, they may not know that, but they know about the woman who is elected to the senate almost because the – because she castrated pigs in her youth, right? That's a story that catches.

**Greg Dalton:** Or she kept that yeah.

**Yoram Bauman:** You know who I'm talking about right?

[Laughter]

**Jonah Sachs:** Well at this point that you're thinking about people, thinking about politics for 5 minutes a year, politics are also a place where we can think more broadly and we – we were – our minds shift into thinking about the future and thinking about what kind of world we want, whereas, you know, day to day, it's very difficult to make decisions and break habits and to make positive decisions, especially if you think your individual actions won't make a huge difference. I think what's so beautiful about the carbon tax solution, is that it allows us when we are in that space and making a rational decision, if we can – if we can tell a positive and profound story that moves that needle forward, then we don't have to, every single day of our lives make the right choice for us, the market helps us make the right choices every day by putting a price on carbon, we're used to dealing with market forces and if things that are more expensive, we tend not to buy them, companies respond, so I think really, what we need is that giant push to tell that story, and break through, especially since Washington is such a mess, on local level and start – like BC has done and start to scale that up, that's a story that really needs to be told. (00:33:15)

Unfortunately, so much climate stories being told are about individual action only and I think that's a real missed opportunity, because you get people excited, I'm going to do something and buy a Prius, I'm gonna get solar panels and yet they don't necessarily see the change. Whereas, wholesale changes can happen with things like economic policies.

**Greg Dalton:** While we're on it, I want to play some clips we have from some comedians who have done some political treatments of this sort of thing, and this gives you a sense of where some people get their news these days and then, where people do think about politics, let's listen to these clips of Jon Stewart and John Oliver.

[Video playing]

*Speaker 1: There's that gallop poll that came out last month, which found, one in four Americans is skeptical of all the effects of climate change and thinks this issue's been exaggerated--*

*Speaker 2: Who gives a shit? That doesn't matter; you don't need people's opinions on a fact. You might as well have a poll asking which number is bigger 15 or 5 (00:34:06).*

*Speaker 3: There is really only one solution to get Republicans to do something about climate change, Barack Obama must become a global warming denier, he must ride up to congress in a Hummer with a gun rack and tell them, "I was wrong and you were right!"*

[Laughter]

**Greg Dalton:** So Jonah Sachs, that would be quite an interesting twist of the plot there for Barack Obama to become a climate change denier. But let's talk about the role of humor in something that is so dark, does it polarize? I mean dismissing and putting down deniers, that can be polarizing, dismissive, and could cause resentment, and perhaps backfire.

**Jonah Sachs:** Yeah, I think that, you know, you have to be careful about what you're doing for each audience that you're trying to reach. And I do think that we spend a lot of time as climate communicators, thinking about that imagined audience that's out there that is, totally doesn't believe it, it's not onboard and how do we bring them onboard. But so much of the public polling shows us that the concern and desire to see movement across, in the US at least, is far greater than we ever saw with civil rights for instance, it's far greater than, even the – the opposition of The Vietnam War, these things may made movements that moved things, but were not mobilized. So if we keep thinking about, well we might offend and polarize the climate deniers out there, most of the climate denying – denial movement is a funded kind of media campaign, it's not that we need to get that last 20 or 30 percent onboard with us. We need to mobilize the 70 percent and get them excited about something. And I think what this kind of comedy that you're seeing, these clips, really mainstream and make it acceptable, if Jon Stewart is up there ranting, well I can do that too, you know. So I think that we need to be very careful about not worrying too much about the

opposition and really rallying our allies and think let's get out there and do this.

[Applause]

**Greg Dalton:** Jonah Sachs is a CEO of Free Range, they're behind The Story of Stuff on the internet. And also our guest today here at Climate One is Yoram Bauman, author of - the co-author of The Cartoon Introduction to Climate Change. I'm Greg Dalton. Yoram Bauman, I'd like to have your take on the Jon Stewarts, John Olivers, and how they, how they address these issues and how they - you know what they say about the public discourse happening around climate.

**Yoram Bauman:** I do think they do -

**Greg Dalton:** They're not as funny as you of course.

**Yoram Bauman:** Well, of course, that's why I refuse to go on their shows.

[Laughter]

**Yoram Bauman:** They keep asking me and I keep saying no. I do, I mean, I think what they do actually is fairly polarizing, but I think like what Jonah said is, it's probably not that important, I mean to people that are being polarized off to the negative side are people that you're probably not gonna pick up anyway, and ultimately, you're not - I mean the people you want to reach are the people who spend 5 minutes a year thinking about politics, right, who think about - they live in, you know, they think about how is this gonna affect me and my family and my sort of - you know my, immediate future, they're not, thinking about climate change every day, and it's hard, when you're in the climate world it's easy to think that everybody in the world thinks about climate all the time, either yes, or deny, or whatever, but the vast majority of people just don't think about climate change, they don't think about taxes either which blows my mind.

[Laughter]

**Yoram Bauman:** But it's true.

**Greg Dalton:** So what are you - what are you gonna do -- So to say, at a family event where you meet someone who doesn't live and breathe this every day. Do you go to sort of a hope and opportunity at story, do you go to the fear, like, worry about your grandchildren? And how do you engage with someone that doesn't spend that much time thinking about it? They heard about it but they go as far away in time and space.

**Yoram Bauman:** Well. I think that - I think part of the opposition to it, part of the push back from it, is this idea that, oh, if I acknowledge it's a problem, then we're gonna have to do something about it, and doing something about it is going to be very costly to me, to my family, to my community.

And that's why I tend to focus, especially as an economist, on the well we can do something about this without all having to, you know, wear disposable underwear all the time, right. Like there's this idea that we're gonna have to go live on communes or stop flying on airplanes--

**Greg Dalton:** Or worse, live like Europeans.

[Laughter]

**Yoram Bauman:** Terrible. So it's not - you know we can, we can do things about - we can do things about climate change like British Columbia has done with tax reform that - I'm not saying that the people in British Columbia are - they're not excited about their tax system, they're not like, yeah, I've been there. They don't say like, "we have the best tax system in the world and we're thrilled with it." So it's not like an, I'm going to Disneyland kind of story, it's an I went to the dentist and everything's okay.

[Laughter]

I think that's the most that you could expect. But I think showing them that look, there's something that we could do about it, that's tangible, that's gonna address the problem and it's not gonna require like this massive change in everything that you do, you don't have to stop taking showers, except for twice a week.

**Jonah Sachs:** Let me ask you a question about that.

**Yoram Bauman:** Jonah Sachs.

**Jonah Sachs:** Yeah, so, I work on communications and how to package things, I don't work on the numbers and you're, you're really looking at the numbers there, and I – you know as Paul Hawken said in the warm up video here, this is great opportunity, I mean, I've worked in a lot of campaigns that say climate change is an opportunity, it's gonna be great for the economy and great for innovation, and yet we have an economy, global economy that is completely run on the incredible power of fossil fuels to produce energy, is it, are you saying, that there are policies that we can put in place, that will allow us to transition and solve this problem without making sacrifices?

**Yoram Bauman:** I think there are things that we can do that will be, low cost. Some people might argue that they're no cost, but certainly things that, that – it's not gonna mean massive changes in the standard of living for most people. British Columbia has a carbon tax, they reduced personal income taxes, they reduced carbon emissions by 10% or 15%. I don't know if anybody here saw the Olympics, but they're okay. And I think – and you could do the same thing elsewhere. I mean, California has a cap and trade system. It hasn't fallen into the ocean.

**Jonah Sachs:** How about we do it to reduce 80 percent, not 10 to 15, right?

**Yoram Bauman:** By 2050, that's a long time from now.

**Greg Dalton:** So Jonah Sachs, are you implying that you think sacrifice is in order, we're not just owning up to that, we're not confronting the fact that there's no painless way, we're kind of out of shape and overweight and there's no way to avoid a little pain and sweat to get out of this?

**Jonah Sachs:** I'm just taking advantage of the fact that I'm sitting next to an economist who knows a lot more than I do. I'm not implying anything, but I do think that this question of what – of economic growth and what economic growth means and the ongoing push to grow, especially in developed worlds, is something that we have to confront, you know, can we continue to fly around the world, can we continue to have all the amenities of really cheap energy in our lifetimes? My sense is that, as the – making that individual choice to no longer get on an airplane ever is very painful, but if society transitions so that becomes a quite expensive thing thanks to because we can't transition fast enough alternative fuels and people are just doing it less, and we're all doing it less, I don't think that's gonna be terribly painful in itself. So I think that we can still live fulfilling and wonderful lives and material – material use does not actually predict a happier life, but we actually need to confront these issues and we can't necessarily continue to grow our footprints while somehow just reducing energy.

**Greg Dalton:** I mean there – you'd be very familiar Yoram Bauman, The Club of Rome in the 70's said, there are limits to growth, and people have derided for saying look they missed the green revolution in agriculture etcetera. But they might have been on target by just off by a few decades, there are some people out there who are questioning this inevitable quarterly compounded growth and where that leads in terms of resource extraction and 10 billion people living like everyone in this room listening to this, the math doesn't add up.

**Yoram Bauman:** I suppose that's a possibility, I mean you bring up the Club of Rome, and I think the Club of Rome has actually been – that whole issue has not been great for the environmental movement. You know, you give lots of talks to fairly conservative audiences and they say, "Yeah

you care about climate change, but 20 years ago, you were talking about how we were gonna run out of oil." Well, it turns out we're not running out of oil, they're like a -

**Greg Dalton:** No time soon either.

**Yoram Bauman:** No, I don't spend my time worrying about running out of oil, I spend my time worrying about not running out of oil.

[Laughter]

**Greg Dalton:** But the fish in the ocean are a different story, there are resources that are hitting some real limits, arable land, water etc.

**Yoram Bauman:** You can have - You could - you could have discussions about those, I tend to be actually - I'm a fairly neo-classical economist, I tend to be more on the Julian Simon side of that debate, than the Paul Ehrlich side of debate to be perfectly honest. And I think that if tackling climate change is gonna require not flying on airplanes, that's - that's a long way from where we are now. And the way that I like to think about it, I do like to put numbers on it. So if we had a carbon tax, it's like the BC tax, \$30 per ton of CO<sub>2</sub>, 30¢ a gallon of gasoline, 3¢ to fill our coal fired power, a flight from the West Coast, from San Francisco to New York, that carbon tax, which is a hefty carbon tax, \$30 per ton of CO<sub>2</sub> that's gonna add about \$15 to an airplane ticket, to New York City. That is not the end of the world people. [Laughter] Alright. And it is going to change behavior in important ways, and if we continue that for the next 40 years, it's gonna accomplish a lot. So I don't think that people are ready to do those transformational sorts of things. But I'm not convinced that we - that that's necessary right now at this point where we are.

**Greg Dalton:** What have you done in your personal life to limit, I'd like to ask both of you, your carbon handprints, the positive things, as well as the footprints, the things you've done to reduce. Yoram Bauman?

**Yoram Bauman:** This is a very economist to that, but what I do is, when people ask me if I will fly somewhere and perform for them, I'd charge them a lot of money.

[Laughter]

**Greg Dalton:** Do you buy carbon offsets for your flight?

**Yoram Bauman:** No, I don't but if I have a number and if you don't pay me that number, then I'm not gonna get on an airplane. And partly that's climate related, partly that's family related so there are all sorts of things tied up in that. But I've had people ask me, you know, I've had people say, "Hey, we'll pay your way and put you up in a hotel and fly to nice place X on the other side of the world," and I say no.

**Greg Dalton:** What else have you done?

**Yoram Bauman:** Ah... So, let's see, I mean I ride my bicycle around town, I don't drive very much, I mean my carbon footprint is essentially airplane travel, and I think that's true for a lot of people - a lot of people in the room.

**Greg Dalton:** And are you saying that individual reductions don't matter, that's policy is what matters? You kind of minimize your life.

**Yoram Bauman:** No, individual reductions matter, I think it's important to think about your own carbon footprint. But I think that the policy perspective is equally, if not more important. I mean again, the way I like to think about this is to think about what's driving climate policy in this century, what is going to determine that the end result in this century is not what we do in this country, but what happens in China and India and Africa. So the best story that I can tell you about that, that has sort of a happy ending, is that we develop, if we work really hard and this is why I

work on carbon taxes, if we incentivize the private sector, perhaps some public sector R&D, to drive the price of renewable energies and technologies down below the price of fossil fuels, then we've won. Right? Then we can sell those technologies to China and India and Africa and they'll adopt them because they're clean—because they're green, right, because they're cheap, and not because they're green. So that's gonna be hard, they're - If we can't do that then, the situation becomes a lot more dire.

**Greg Dalton:** Jonah Sachs, personal action to address your carbon footprint?

**Jonah Sachs:** You know let me - I'll list of things that I've done personally, but as to reducing, and I'll say it first that those things that I see is largely symbolic, because I think - I believe that those are ways of me declaring allegiance with this movement and making that everyday commitment.

So I don't eat meat, I have solar panels on my house, I live two miles from work and so I can walk and bike most of the time, and those are sort of the main things that I do that remind me every day, that I'm part of this movement. I don't actually think that it's making actually any difference right this minute. But what I do, do that I think make a huge difference or I hope that it is, is I devoted my life's work to finding the right way to communicate, so that's my gift and that what I do well is I help translate messages into stories that compel people, and go viral on the internet, and change people's minds, and so I've helped like reach a million and a half kids with the climate change assembly by doing the creative work on it. But that's what I can offer, and I think that's where the big impact is, by building political will and social will and cultural will and I think that everyone can ask themselves without obsessing so much about should I take that flight or not, or should I eat meat or not, those are ways that we express our allegiance, the real way is not by denying ourselves, is really by bringing forth our individual gifts to being part this movement. And for some people that just might mean, providing a place to stay for activists who are working on an issue and for other people that might mean using your art, it might mean using your voice, it might mean using your power as a teacher, it might mean having difficult conversations with people who know you and trust you. That's the most important thing we can do is the positive stuff. The reduction stuff is again, just a way of really being part of it, I believe.

**Greg Dalton:** I think as being part of it, I mean I have electric car, a solar on the roof, but I think that also having solar on the roof, or having an electric car is helping create markets and buying down the price of technology, which Yoram talked about earlier, so that that electric car Nissan Leaf is made Tennessee, it's a red state, someone in a red state has a job putting together that Nissan Leaf, that's important. And part of establishing a new social and behavioral norm for electric cars and solar power, does sort of, send a social signal a market signal. I'd like to have Yoram Bauman if that has any resonance as an economist that my dollars and other people's dollars are helping to support markets of this new things.

**Yoram Bauman:** Sure, every dollar helps. So I think - I mean individual behavior is - contributes, right, like every, it's a drop in the bucket but lots drops add up to a bucket, right? So I think it's valuable to look at your own life and think about what you do and I think mostly it's just a matter of being conscious of it and trying to be aware of the fact that the things that we do in our lives involve burning fossil fuels and that we should try to burn less of them and can we think of good ways to do that. But I definitely think that the policy and the aspect of it is important.

**Greg Dalton:** The big levers of the policy, were talking about the comedy and climate change at Climate One, I'm Greg Dalton and my guest are Jonah Sachs, CEO of Free Range, an Advertising Studio. And Yoram Bauman, author of the Cartoon Introduction to Climate Change. We're gonna invite you to join us and at that microphone over there, all throughout on this side of the audience, please go through those doors back there and the line starts with our producer Jane Ann. right there and we invite you to join us with one, one part question or a comment, you can join us, I'm here for you if you need some help keeping it brief. Jokes are welcome I guess, I got every - but this is not open mic night. Let's go to audience questions, welcome to Climate One.

**Male Participant:** Hi, my name is Carter Brooks, I'm an artist and philosopher of climate art. My question is about humor. Humor is a great way of, of course, getting truth across, so it's important because when you tell a joke it's funny because it's got a grain of truth in it. I'm curious in being a

climate comic of sorts, what's the truth that you know that's hardest to get across with humor that you -- if you are -- you know, of the various truths we're trying to get across, which is the most difficult or which is the easiest to get across with humor, which is the one you're struggling with the most.

**Greg Dalton:** Who'd like to tackle that?

**Yoram Bauman:** Wow! It reminds me of this question that a fellow ask me in China. I do a talk in Chinese University and there was a Q&A afterwards and a student got up and he said "What part of the Chinese economy impresses you the most?"

[Laughter]

**Yoram Bauman:** And I said it's so hard to choose, I can't pick just one. So there's, there's, there's lots of things that are hard to convey. I think if I were to pick one thing, man, cap and trade. Cap and trade is hard. I mean, I think part of that is just that wrapping your brain around how that policy works is, is, is challenging and I actually think that's partly, that's partly a challenge and it's actually partly a benefit, right. So I work on carbon taxes and people say "Oh you can never get it carbon tax because it has the word tax in it. People are gonna realize that you're gonna raise the price of fossil fuels and they'll never vote some like that." And cap and trade essentially does the same things as the back door but you don't have to use the word tax, so the fact that it's opaque is actually, potentially a political advantage. Notice that I'm not really answering the question but --

[Laughter]

**Yoram Bauman:** -- I'm saying interesting things, so hopefully that will make up for it.

**Greg Dalton:** Jon Stewart did a hilarious riff called - Captain Crunch, like Cap'n Crunch, Cap'n Trade where he had -- it's worth looking up, where he spoofed cap and trade partly for that because they're so, like what the heck is this thing that everyone's talking about? Let's have our next audience question, welcome.

**Male Participant:** Hello, my name is Seamus Thornton and my question is regarding offsets like CarePass. I often go to climate protests and find people have driven there and I tell them about carbon offsets. They ask me do they do any good and I'd to be able to tell them that they do.

**Greg Dalton:** Yoram Bauman, you have a part in the book on offsets and that's a very common thing.

**Yoram Bauman:** I think that they are potentially helpful. I mean, it depends on the individual offset that you're purchasing, right? So the challenge is always how do you know about additionality? So if somebody's planting trees, how do you know that those trees were gonna get planted anyway? If somebody is, you know, upgrading a factory, how do you know it wasn't gonna get upgraded anyway? So that's always the challenge about offsets. I will confess that I do not personally buy carbon offsets. What I do is contribute money to this carbon tax effort that I am part of, Carbon Washington, but I think that if folks are interested in buying carbon offsets, I think that's great. So I'm not here to disparage them. I do think that, especially in terms of climate policy you need to look at them very closely.

**Greg Dalton:** They're very complicated. I was in a Virgin America flight one time to a climate conference and they have those video screens in the back of the seats and you order a sandwich, it's very cool, or your drink and then they had carbon offset on the menu, so I paid \$10 for my carbon offset to offset the carbon for that flight and the flight attendant comes and says "Here's your sandwich, here's your drink" and she looks at her cart and says "I just can't find the carbon offset, I don't know --"

[Laughter]

**Greg Dalton:** -- in here." And I said, "Well no actually that's just throwing money at something to make myself feel better."

[Laughter]

**Greg Dalton:** And she said "You're the first person that's ever ordered that, I didn't know that."

[Laughter]

**Greg Dalton:** So, let's have our next question.

**Male Participant:** I'm with 350 Bay Area and I recommend activism for all of you who are involved. We work to reduce emissions in the Bay Area, like 350.org does worldwide, and it's free therapy for anybody who's worried about this stuff, so I recommend that kind of thing. My question is I really put a lot in stock in things that makes the frog aware that the water is getting hotter and hotter, like the impacts of extreme weather, you know, to waking people to climate change. I personally think that we're getting near to a tipping point of a step function, you know, in awareness based on the idea that insurance rates need to go up in a lot of places where they're still low. There's been some fights over that. We've got places like Miami and New Orleans that are very vulnerable to the next big storm. Do you guys think that there will be a big change in awareness in the next few years around these factors or do you think it's just gonna be, you know, the frog might not wake up very soon?

**Greg Dalton:** Yoram, after people read your book it's gonna change but - what do you think?

**Yoram Bauman:** I would, I would be, I would have low expectations about that. I mean, I've to places like Charleston which exist at zero feet sea level and they don't seem to be terribly concerned about climate change. I got a tour of Charleston from a fellow who's a fourteenth generation Charlestonian and I asked him, Ed Grimble was his name, I said "Aren't worried about climate change?" and he said "No," he said, "Charleston has always been here and it always will be." So I think it's gonna be a slow process. I do think the thing that gives me sort of more hope lately is in the discussions that I've had, again I don't to spend a whole lot of time talking to the choir. I mostly talk to fairly conservative groups, Florida Bankers Association, Barry Goldwater Institute, these sorts of folks. The conversation is a lot of it has moved beyond climate science and moved to climate policy and I think that's good.

**Greg Dalton:** And the business community is very much on board. Large corporations, some of them, are starting to recognize the risks here and they kind of dodge the science because that's politically charged but corporations have to think about the FCC is now requiring them to disclose their carbon risk, they have to think about some of their factories, the exposure, the employees want to be seen as doing the right thing, so there is a change and when you, Yoram Bauman, if you picked this up in your talks talking to corporate audiences that it has become well forget Al Gore and the science but this is smart business and there is risk and opportunity here and General Electric hopes to make a lot of money selling windmills and other things.

**Yoram Bauman:** There's certainly an element of that. I think an additional factor there is even if you don't care about climate change as an issue, businesses care about climate policy. So you look at the recent Obama regulation, the 111B regulations about power plants, you know. I was just at a conference. It was a rural electricity providers; mostly generators, mostly coal fired, a lot of them from the South, and they were meeting to talk about, you know, the next 5, 10, 20 years of their industry and what I told them was I said, first of all, I said thank you because these are the people they spent the morning that day talking about what are we gonna do about these Obama regulations and how are we gonna meet the targets and those are the folks who are on the front lines, right. Those are the people who are going to have to change their business models in important ways. So, even if you don't care about climate change and a lot of those folks didn't necessarily buy in to the whole Al Gore thing, they know that there are these regulations coming.

**Greg Dalton:** Jonah Sachs go ahead.

**Jonah Sachs:** I think also we've been waiting for that giant storm that'll come and make every say "Oh, now it's finally here" but actually the change that's coming over time really is a demographic shift that's so important and so much, I think, in our favor because as a time horizon of when these effects are thought to happen have come closer and closer in and as young people who have grown up with a basic understanding and been able to kind of grasp it and not been able to push it out of their mind is this is new information that I don't want to believe, they come up and they're entering a political world, entering adulthood, even becoming active before that and it's not in my kid's lifetime, it's in my lifetime, that's having an enormous impact. Because even saying well I care about my kids, is harder for people to really act on than I care about myself. So just like we see with same sex marriage, the aging out of people who couldn't even think what that was happened actually quite quickly and that's a big part. There's great communications around, there was all kinds of shifts in culture, but really it was about young people coming up who had always just assumed that this was okay and I think with climate change that's really on our side, what's not on our side as money and politics and all the other stuff but --

**Greg Dalton:** The John Oliver piece that we heard a little bit of he says "It's pretty clear we can't be trusted with a future tense" because, you know, protecting grandchildren doesn't motivate people but, Yoram Bauman, you had an experience at the American Enterprise Institute and one conservative group were some of the younger people, like Jonah was just saying, they're more concerned than the old guard conservatives. Is that right?

**Yoram Bauman:** I think that the younger folks are certainly a little more in tuned. I think that especially the older folks who have lived through the Simon-Ehrlich Debate and, you know, the we're running out of fossil fuels argument. There are folks who have - they're jaded on one side and the younger folks, I think, are potentially a little more open minded. The benefit about the older folks is I think that they're ready to talk about policy issues, they're ready to talk about okay what are the economics of this and is it gonna work out and I think if it pencils out then I think, you know, they'll be able to join in.

**Greg Dalton:** We had Steve Schmidt, John McCain's presidential campaign manager here last year and he said that basically the deniers would die off basically and the younger people will be more open to it. Let's have our next question at Climate One.

**Male Participant:** I thank you so much for this program, both of you, all three of you actually. Peter Joseph from Citizen's Climate Lobby and I think part of the problem is we need to change the frame of the tax and CCL has just done a study that shows that if all the tax revenue is returned to households it actually stimulates the economy; GDP goes up, employment goes up, all kinds of really good things happen. So, as George Schultz says it's not a tax if the government doesn't keep the money. And so a revenue-neutral carbon tax is a completely different frame than any old tax. So, I'm really hoping you can work that into your cartoon book and your next --

**Greg Dalton:** Oh it's in there, believe me when you buy it you'll know it's in there.

**Male Participant:** -- your next video and that can change the whole dialogue on how to harness the economy, which is ours. The economy is ours, to harness the economy to dig us out of this climate ditch that we've dug for ourselves on the way to prosperity.

**Greg Dalton:** Thank you. So there is a proposal in Washington. This sounds interesting in part because it's the first one I've heard of to have a carbon tax and a commensurate a reduction in the sales tax which is something that people can see on basically every receipt they buy, whereas in British Columbia one of the critiques from people who implemented that up there was that people saw the increase in the carbon tax because it's on every gas pump. The oil companies are very happy to put it there, you know, the government's gouging you right here, but they don't see the reduction in the payroll tax or the corporate income tax, etcetera. They're less visible. So was that conscious in Washington to make something that people could see on every printed receipt at Starbucks, "Oh the sales tax went down."

**Yoram Bauman:** It's a little bit of it. You know, the carbon tax has some issues with potentially with regressivity with impacts on low income households, so reducing the sales tax helps address that regressivity. I don't want to sell it too hard though, even though it's a policy that I personally am very enthusiastic about. It's hard. If you ask people what fairest tax is, you just poll the general public, people love sales taxes. They think that everybody pays them. They think that it's the same percentage of income for everybody, even though as economist I can tell you that it's not, and I think there's something about kind of if you're already paying I just - to be honest with you if you ask me about things that I do that are good for the environment I'll tell you something maybe that I do that's not right, my wife and I just bought a car and we spent \$18,000 on this car and then we spent another \$2,000 on sales tax on the car but you sort don't -- \$2,000 is a lot of money but we didn't really think about it because it's on top of the \$18,000 right. So, I think the fact that sales taxes are 10% or whatever they happen to be, there's a behavioral economics part of it that says well if I'm already paying a dollar, paying a dollar ten is not that big of a deal.

**Greg Dalton:** So is this thing gonna pass in Washington?

**Yoram Bauman:** I hope so. I think we have a chance and one of the things that gives me extra hope in Washington State is that we actually have some folks on the right side of the political spectrum we are excited about this idea, so there's a libertarian free market think tank called the Washington Policy Center. The environment director there fights with environmentalists all the time about all sorts of issues but he like the idea of revenue-neutral carbon taxes as long as they're revenue neutral. And so, I think that were gonna - we have sort of clever elements in our policy that are designed to deal with impacts on low income households, on manufacturers who use a lot of carbon, so I think that if you - what I like about carbon taxes it sort of gets you a little bit away from the story that says well, you know, it's gonna be this magic solution gets into a realm of discussing okay, you know, can we afford to pay \$15 more for a flight to New York, and what are the offsetting tax reductions gonna be, and how is this gonna work out for my household, for my business and I think it makes sense to a lot of folks.

**Greg Dalton:** Let's have our next audience question, welcome.

**Female Participant:** Yeah, hi, I am in the energy industry and so I'm very much for, you know, removing subsidies for the oil industry which would make the economy for, you know, energy much more equitable all across the board and then of course carbon taxes, carbon fees definitely would make a huge difference overall I think in supporting that. Because I think everyone I talk to is really interested in solar on their roofs or solar in the field or, you know, wind. I think people are really for that, but what I really wanted to ask about was I love the Story of Stuff and I love all those videos and I share them with everybody I know just because they are such a great, you know, they're simple, it's a great story, it explains a lot of things, you know, the economics of consumption or - it just covers a lot of things and what I'd to know is in that storytelling what kind of impact, like what kind of measures do you have to what kind of impact that it is making with all the people that have watched those videos? There must be some because it's altered my opinion of the economy and just wondering from your point of view how you're measuring that.

**Greg Dalton:** Millions of people have seen that on the internet. We have three minutes left. Jonah Sachs.

**Jonah Sachs:** Yes I would just say the interesting thing about viral videos is you send them out into the world and they take on a life of their own and it's not always easy to measure. We have some measurements, you know, about 30 million people have seen the series and so we know there's pick up like that. It's been shown in 1,500 classrooms. They've built an online community of about 250,000 people who kind of take action and, you know, the big thing is we've grown. That series has been first to say, hey there's a problem with our stuff and what happens and where it goes and the quick response was, "Oh my God I better buy less stuff, what should I, you know, how do I respond to this?" and what Annie's been able to do with that series.

**Greg Dalton:** Annie Leonard.

**Jonah Sachs:** Annie Leonard, the host of the series, and get her message out there has really been about to pivot it from it's not just that you need to buy less stuff it's that it's really about knowing or thinking of yourself as a consumer and thinking of yourself as a citizen that really we can change our identity not just our shopping habits and we've told that story over time and as people have signed up and say, yes I'm a citizen that has gotten them into this sort of citizen boot camp that Story of Stuff does, to actually actions to supporting other NGOs. So we measure sort of actions taken but also cultural change, attitude change is often immeasurable but that's where the huge impacts happen. I made a movie called The Meatrix back in 2003 that was about factory farming and the number of people that have come up to me and said I changed the way I eat is huge. I cannot really measure how many people saw it, but it's really that ability to have a new story to take with you when you walk into the grocery store, to Target or you know, when you sit down to eat, that is the world is flooded with the other stories through advertising. We need to be creating those and we measure them as we can but really just the press producing them is so important.

**Greg Dalton:** Last question, welcome.

**Male Participant:** Okay. Thank you, I'm in the communications business too like Jonah. My question to you having to do with the fact that 98% of the scientists believe that such a thing is happening, isn't it tempting as communicators to beat up on those deniers to parody them, to make fun of them, call them flat earth people. Is there a way to break through that resistance?

**Jonah Sachs:** To break through the resistance.

**Male Participant:** The resistance of the deniers.

**Greg Dalton:** Some people will never be persuaded by facts or anything else, Jonah Sachs.

**Jonah Sachs:** Yeah, so I think that again the question of like the few climate deniers who are like in the - the two climate deniers for the 98 scientists for instance, those people we don't need on board at all. I think the people who are in that other set need to be sort of, brought along, I think, one in some ways through comedy. For instance, the watched The Daily Show and just for the comedic effect of it, and take on the attitudes of Jon Stewart simply because he's a lot funnier than anybody on the right, is pretty big. So creating incredibly compelling content that people want to see does actually have some persuasive power I believe, but again, you know, I don't know, I've never seen someone make a piece of content that made that shift. The responses that you get when you produce climate content is brutal. You get a thousand negative comments for almost every positive comment you put out there. So there is a coordinated powerful campaign to tear this stuff down, so I have actually given up on really trying to do persuasion on the far out piece and really try to work from that idea that we have more, a bigger movement ready to go than has ever been before for any kind of social movement in this country and all the money is to go activating it, all the attention needs to go to activating it, so I would love to hear ideas for making it - for getting the deniers on board but we don't quite need them.

**Greg Dalton:** A lot of work for the other people on the Six Americas Spectrum. We have to end it there. Our thanks to Jonah Sachs, CEO of Free Range, and Yoram Bauman author of The Cartoon Introduction to Climate Change. I'm Greg Dalton, thank you all for coming today to Climate One.

[Applause]

[END]