**SARAH HANSEN:** Today on Chalk Radio, we're talking with economist Jon Gruber, whose lecture videos have been viewed millions of times on our channel. We talk about the role of trade-offs in everyday life--

**JON GRUBER:** Let's say you're dating someone, and you're thinking about marriage. Well, you basically have a opportunity cost.

**SARAH HANSEN:** --the intersection of economics and emotions.

**JON GRUBER:** Like I said, the standard model of economics is no room for emotion. There's no room for--

**SARAH HANSEN:** Oh, I don't know if I belong in economics then. What would you say to that?

**JON GRUBER:** Well, you do.

**SARAH HANSEN:** And how his interest in economics is largely driven by his passion for health care.

**JON GRUBER:** And Louis Menand really inspired me that we need to not just think about something that political science as an abstract concept, but really get our hands dirty and think about how we can make the world a better place.

**SARAH HANSEN:** And we ask the question, can AI fix the economy?

**JON GRUBER:** First of all, you should feel bad for my students, who have to read this handwriting. But I wrote--

**SARAH HANSEN:** Find out his answer and much more on this episode of Chalk Radio. Jon, thank you for being here today.

**JON GRUBER:** Great to be here, Sarah. Thanks for having me.

**SARAH HANSEN:** Oh, you're so welcome. You're an economist. So obviously, you looked at the opportunity cost of joining me here today. So what are some of the trade-offs you made to be here?

**JON GRUBER:** It's a great question because that's how economists look at everything. We recognize that every action has an alternative. And that's part of why they call it the dismal science. Because we say, nothing's free. Every time you make a decision, there's something else you could be doing instead.

So let's take my decision to come here today. I could be doing economic research, which I love. I could be back doing some of the administrative work I have to do as chairman of the MIT Economics Department. I could be home walking my grand dog, who's at my house right now. So those are the opportunity costs.

What are the benefits? Well, the benefit is that I feel that academia today suffers from a lack of communication with the public, that we're not doing a good enough job as academics, talking to the public, explaining why what we do is so important to their lives and to our country.

**SARAH HANSEN:** Hmm, I mean, as a consumer in society, I certainly have a lot of questions about economics that I'm hoping you can help me unravel today--

**JON GRUBER:** Sure.

**SARAH HANSEN:** --as we get into this. But how did you find your way to economics?

**JON GRUBER:** Well, actually, it's a great chance to talk about-- you asked me to bring something that represented my journey to economics. Now, my journey in economics started as a freshman at MIT in 1983. I was one of those kids who was good at math, but didn't really love math. And I took 14.01, which is the course I now teach.

And I fell in love with it. I said, Wow, you can use math to do really interesting and worthwhile things and not just proofs that I found abstract, but actually, as I say in 14.01, you can actually do optimization problems that solve people's lives. And that was very exciting for me.

So my object I brought is the MIT Department of Economics hat. I didn't have anything from 1983 I could bring, but this represents the key step in my journey, was taking 14.01, and just, obviously, what a thrill it was to come back in 1992 and get to join and be part of this department and now, ultimately, teach the course that turned me on to economics.

**SARAH HANSEN:** Yeah. Do you have a teacher in mind that really helped hook you on to economics and helped you show how powerful these applications can be in the real world?

**JON GRUBER:** There were so many great undergrad teachers I had at MIT. Many of them then became my colleagues. Jim Poterba, who taught me 14.30, really turned me on to statistics. I had the wonderful late Rudi Dornbusch teach me international economics. Bob Solow, a Nobel Prize winning economist, taught me macroeconomics.

I did UROPs with Professors Dick Eckhouse and Peter Temin and Rudi Dornbusch. So I just had wonderful mentors as an undergraduate here, and then went on to grad school at Harvard and had great mentors there, too. So I've just been very lucky. We have an incredible economics community here in Cambridge, and I've been lucky to benefit from that.

**SARAH HANSEN:** So let's talk about economics and human decision making. You've noted in one of your lectures that economics is sometimes called the right-wing science. And I'm wondering if you could unpack that for me, and let me know if there's more nuance to that saying.

**JON GRUBER:** It's not really called that. It's how I introduce to students that it's a fundamentally right-wing science. What do I mean by that? What we mean by that is economics has a set of basic models that are unbelievably powerful in describing much of the world. And those basic models make a series of assumptions under which the market knows best.

So take the basic core assumptions of economic models and run them through. They deliver the outcome. The best thing you can do is to let the market run and get out of the way. Now, obviously, in reality, that's wrong. And what I do in the second half of my course is teach all the reasons why that's wrong. And then I go on and teach another course at MIT called 14.41, Public Economics, where I spend much more time talking about these market failures and the role the government has in a properly functioning economy.

But the point is, where economics start is this notion that Adam Smith had of the "invisible hand," the notion that the market is the best way to allocate goods across people and allocate production across firms, which is absolutely true. The market is a much better allocation mechanism than is, say, a communist government.

That said, an unfettered market will not get it right, because there are a lot of failures in those markets. And that's why economists tend to think that the right answer is a-- if you think about an economy as bowling, think of capitalism with gutter guards, the idea is that there should be freedom to Bowl the ball, but there should be some protection against really damaging going to the gutter and ending in a disastrous outcome.

**SARAH HANSEN:** That's a really interesting way to think about it. Talking about models themselves, what are some tricky human behaviors that economic models can help us make sense of those decisions?

**JON GRUBER:** Let me give you a couple of examples. So, one great example is when I give a lecture about concert tickets. So I talk in lecture about the time that I liked the band Journey. Journey was touring-- it wasn't really Journey, it's like a Journey cover band. They have the new singer. And I bought tickets, and it was $250 for my wife and I.

And then I looked at the set list, and I thought, I really don't want to go. I'm not that excited to go. So I'm going to sell these tickets. Now, a common intuition would be, well, you paid $250. You should ask $250. And you should be upset if you get less than $250. But that would be wrong.

**SARAH HANSEN:** OK, how so?

**JON GRUBER:** Why is that wrong? Because the $250 is gone. Economics, we're all about looking forward to the next step in the decision. The $250 is gone. The next step is, how much would I be willing to pay to still go? So in other words, if I say, look, I wouldn't spend any money to go to this concert, then I should be willing to accept any price over $1 for those tickets. Because I get 0 value from going.

So as long as I get a dollar for the tickets, I'm better off. The $250 is gone. I already made that decision. That's gone. So, really, I should say to myself, well, if I get less than, say, $100, what I say, at that point, I'd rather go. And that's the way I should make that decision. That's not very intuitive. That's tricky, right?

**SARAH HANSEN:** No. And it's also like-- I'm not sure that's real life. Let's say I spend $250. I can't go for some reason. That doesn't mean I don't want the $250 back.

**JON GRUBER:** You want the $250. But it also doesn't mean that you should feel like the $250 is the right answer. At that point, if you literally can't go, then the right answer is whatever the market will bear. But the point is, I think a lot of people will kick themselves. Why did I buy those tickets? I can't go. Well, if you can't go for reasons that you didn't anticipate, and you get less, that's not your fault. That's where the market is.

**SARAH HANSEN:** I mean, I find it so interesting to think about how emotions and economics intersect.

**JON GRUBER:** Like I said, the standard model of economics, there's no room for emotion. There's no room--

**SARAH HANSEN:** Oh, I don't know if I belong in economics, then. What would you say to that?

**JON GRUBER:** Well, but you do. You do. Because here's the way I like to think about building up economics. There's a basic model that doesn't have room for emotion. It has a room for preferences. You can like one thing more than another, but those preferences are all optimized. You choose the best possible outcome in a calm, rational way that doesn't feature emotions.

That model is unbelievably powerful. So much of the world can be described by that. But a lot can't. So what we do in economics, we start with that basic core model, that right-wing model, if you will, and then we build on it.

And when we build on it, it's through the field of behavioral economics, which is bringing psychology into economics and saying, emotions matter. Problems making decisions matter. People aren't able to control their actions in a way they'd like to. We build that in. And in some sense, what I teach in 14.01 is a scaffolding of a basic model that by itself does quite well, but you can build on to really explain more and more of human behavior.

The statistician George Box said that all models are wrong, but some are useful. The point of a model is that it's not a description-- It's not a perfect description of reality. If it was a perfect description of reality, it wouldn't be a model. It would be reality.

**SARAH HANSEN:** So are you saying that those of us out in the world, not in an economics department, might be using these models without thinking about it?

**JON GRUBER:** Oh, we are absolutely using these models. Part of what is exciting about taking economics is it opens your eyes to realize the things you're already doing and puts a framework to be consistent in how you apply that. So that's really what we're doing is. It really is innate human nature, in many ways, that we're modeling, like I said initially, without the emotion. We add that in later. But basically, it's a set of tools that help you understand why people do what they do.

**SARAH HANSEN:** I can imagine that would be really important in business.

**JON GRUBER:** It's very important in business. It's very important in life. I'm an economic imperialist. There's no decision you can talk to me about that you can't bring an economic model. One of the most famous economists was Gary Becker. He was at the University of Chicago. And Gary Becker developed the economic models of love, economic models of marriage, economic models of crime, economic models of discrimination, all things which really, economics is a framework to put on.

**SARAH HANSEN:** What? I haven't really thought about it in that way before.

**JON GRUBER:** Well, think about an economic model of marriage. Let's say you're dating someone, and you're thinking about marriage. Well, you basically have an opportunity cost of that marriage. And you have a trade-off of you are gaining certain things by being married and giving up certain things by being married. And economics can bring a framework to help you evaluate that decision.

**SARAH HANSEN:** Hmm, this is interesting. I'm going to have to give this some thought. You've especially thought a lot about how economics can be applied in health care. You're, basically, a health care economist. Would that be the right--

**JON GRUBER:** That's a lot of what I do for my time, yeah.

**SARAH HANSEN:** So what are some ways that you're using economics to think about the inequities in our health care system and how models can help us address some of those inequities? Can you give us some tangible examples?

**JON GRUBER:** Yeah, so here would be a tangible example. A tangible example would be we have many uninsured individuals in America, about 30 million uninsured individuals. And you might ask, well, is that worth doing anything about? We probably have more than 30 million people who don't have beautiful flat screen televisions. Are we really going to do something about that? I don't think we should.

So why is health insurance different from a flat screen television? And what economics tells us is different because the market for health care suffers from a set of market failures that the market for flat screen televisions doesn't. Flat screen televisions is a basic 14.01 model. You've got supply and demand. The market works.

Health care, there's a number of problems. For example, if I don't get health insurance and a result, I get sick, and I come in here today, and I cough on you, and you get sick, then I've imposed a cost on you that I'm not incurring. We call that an externality. That's a problem with the health market.

Another problem with the health market is that people might not understand the risk of getting sick. Many people, we have what we call the young invincibles. People who are 35, they're like, I'll never get sick, especially guys. I can't get pregnant. I'm never getting sick. What do I need health insurance for? They're wrong. They can get hit by a car. They can get sick for many reasons. That's a failure of information or a failure of reasoning.

We have failures on the market side. For example, economic models work best when markets are competitive, when there's many competitors trying to compete for your business. Well, that's not true in health care.

**SARAH HANSEN:** I was going to say.

**JON GRUBER:** If you're a hospital on Nantucket, you've got a monopoly because you're the hospital. There's no competition. People aren't going to take a ferry to get their heart attack dealt with. So for all these reasons, we need to bring in the tools, other tools, to help think about how we fix problems in the healthcare markets.

**SARAH HANSEN:** Can you tell me a little bit about your involvement in the Affordable Care Act?

**JON GRUBER:** Yes. So the proper way to make government policy is to understand as much as possible what effects the policy will do, to not fly by the seat of your pants, but to really have a model of how it will work. I developed a model like that. So basically, I developed what was called a giant computer microsimulation model, which, essentially, was a fancy way for saying, there's a lot of computer code.

They could basically use the best available economic evidence to say to a policymaker, if you do policy x, y will happen. If you do this policy, this many people will gain health insurance coverage. This is what it will cost.

That model was used by Governor Romney in the state of Massachusetts to help figure out the best way to set up our health care reform here in Massachusetts. Once we'd set it up, I then got to be on the board that actually implemented the health care reform. So I got to actually go from abstract academic to actually making decisions, like, what health insurance should people get? which was very eye opening. I did that for a decade. And then I was able to bring that model to bear on the national level, working for both President Obama and the Congress, to help them understand the trade-offs in setting up the Affordable Care Act.

**SARAH HANSEN:** What did that feel like for you as a person? That's a tremendous responsibility that affects so many lives.

**JON GRUBER:** Well, I mean, this is what's wonderful about not being the politician, being the advisor, which is it's not that much responsibility because, I mean, basically, it's an exciting opportunity to be involved. But ultimately, the advantage and disadvantage of my role as an expert and not a politician is I hand them the numbers, and then I walk away.

So I could say to them, look, here's the choices you can make. But ultimately, they make the choices. Now, that can be very frustrating because they can make a choice. I may have view on those choices, and it's not my choice.

On the other hand, it's also less stressful because it's not my choice. So in some sense, my job is stressful because I want to do the best possible job. But my job is to present them with a set of options. But ultimately, it's the policymakers that decide.

**SARAH HANSEN:** I mean, all your work in health care, it came from somewhere. Why health care of all the things?

**JON GRUBER:** Great question. So as an undergraduate at MIT, I was very inspired by a political science course I took with a professor, who was here, named Louis Menand. And Louis Menand really inspired me that we need to not just think about something like political science as an abstract concept, but really get our hands dirty and think about how we can make the world a better place. And it really inspired me to think about making the world a better place.

And I really decided when I went into economics, that's what I wanted to do with it. And in 1990, when I was searching around for what I wanted to work on, health care was a very big topic. It was the beginning of a real movement towards what became eventually, the Clinton health care reform, thinking about new models of universal health care. And I realized this is an area that economics had a lot to contribute to and that I had a lot to contribute to in trying to make the world a better place.

**SARAH HANSEN:** It's so central. When I think about employment, health care and health insurance is such a huge part of it. It affects jobs and what decisions I'm going to make about where I'll work.

**JON GRUBER:** Well, first of all, it's 18% of our economy. It's the biggest sector of our economy. It's the largest single government expenditure at both the state and national level. So just magnitudes, it matters. But you're right. It affects everything.

We have an employment-based health insurance system in America. About 60% of Americans get health insurance from their employer. That means an important part of your job decision is your health insurance decision. An important part of an employer's compensation decision is how much health insurance they're going to give their employees.

It's a huge sector of getting jobs. So health care jobs are one of the main drivers of economic growth here in Massachusetts. It permeates everything, not to mention permeating our actual physical health. Our health is determined by many things, primarily our genetics. But a lot of it is by the health care we get. And so it affects all aspects of our lives.

**SARAH HANSEN:** I know. In some ways, it feels a little unfair. I make decisions about my own health based on what my insurance will cover.

**JON GRUBER:** This is the challenge. The challenge is-- let's go back to this conversation started. There's no free lunch. You can't have it all. We would love a world where we all got to get whatever care we wanted, whenever we wanted, from whoever we wanted. We could have that world if we're willing to spend a lot more on health care.

The restrictions that are put in place that cause people to hate insurance companies also keep our premiums down. If the insurance companies got rid of those restrictions, we'd have more choice and higher health insurance premiums.

**SARAH HANSEN:** So, trade-offs.

**JON GRUBER:** So there's a trade-off. So the example I teach in my class I like is that students in my class don't remember what it was like to fly in the 1970s. The 1970s flying in airplanes was awesome.

**SARAH HANSEN:** What was it like?

**JON GRUBER:** Huge legroom, free food, real silverware--

**SARAH HANSEN:** What?

**JON GRUBER:** --free booze, in coach. It was incredible and unbelievably expensive. And most Americans never flew. Then we deregulated the airlines in the late 1970s and allowed much more entry of airlines. Prices came way down, and service got way worse.

Now, people today complain about the worse service, but they don't complain about the low prices. And if it really is true that people didn't like the bad service, there would emerge an airline which would be like the old airline, super nice and super expensive and have charter jets. But the bottom line is, people have revealed they'd rather pay low prices for mediocre flights than pay high prices for better flights.

There's trade-offs in life. The difference with flights is it's pretty much for the market to decide. With health care, there's a government role in deciding that. There's a government role in, for example, deciding, what's the minimum insurance package people should have? The government has a role with airlines, too. We decide on safety.

**SARAH HANSEN:** Sure.

**JON GRUBER:** But we don't decide on legroom as a government. We don't decide on food. We don't decide on baggage fees.

**SARAH HANSEN:** Yes, that's clear.

**JON GRUBER:** When we go to health care, the government has a role in deciding, look, what's a minimum acceptable health care package? What's a reasonable way that we pay for our health services? There's more of a role. But ultimately, you can't avoid the trade-offs.

**SARAH HANSEN:** So I have a question about models. So you can put your professor hat on. So I've been hearing a lot about preference pricing, AI surveillance pricing. So I'd like you to explain what that means. But then also, what does that do to the basic economic model of supply and demand?

**JON GRUBER:** Yep, so at the heart of economics is a trade-off between equity and efficiency. What do I mean by that? Basically, think of it as, how big is the pie versus how you slice up the pie? And what determines the size of the pie is, Can we make the best match between what people want and what gets produced? is a key thing there.

What algorithmic pricing does is it really improves that match. Because it lets me say, well, Sarah really likes this thing, and so I'm going to make sure that she gets it. Now, I'm going to charge her a higher price. But if I didn't charge that higher price, I might not make it. So let's say--

**SARAH HANSEN:** But that's such a benevolent way to think about it.

**JON GRUBER:** No, let me finish. Let me finish.

**SARAH HANSEN:** I feel like that's not true.

**JON GRUBER:** It is true. So the thing is, if you don't want it, you don't have to buy it.

**SARAH HANSEN:** But that's for things that I want. What about basic needs, like buying milk for my child?

**JON GRUBER:** [INAUDIBLE].

**SARAH HANSEN:** I won't name the stores, but you can do online grocery shopping. And they clearly know what I buy and at what price I'm willing to buy it.

**JON GRUBER:** Right.

**SARAH HANSEN:** And I went on a site like that, and they wouldn't tell me my price until I added it to the cart.

**JON GRUBER:** That is a great example of why you can't just leave the free market alone. Here's the difficult question. You go online, and they say, aha, I know Sarah likes this, so I'm going to start raising the price of that thing to her.

**SARAH HANSEN:** Yeah, that feels bad.

**JON GRUBER:** It feels unfair. But then that comes to the second issue, which is equity, which is what happens to that money they make from that. Now, if they take that money, and it goes to Jeff Bezos, that is unfair.

**SARAH HANSEN:** Mm-hmm.

**JON GRUBER:** But if Amazon is in a competitive marketplace-- we can go back to whether they are. But imagine they were. Then that money wouldn't go to Jeff Bezos. That would mean they'd charge less for something else.

In a really competitive market, their profits are limited. So they're going to make money off you. They're going to make less money off someone else. So that's a redistribution issue. That's not an efficiency issue.

Now, that's different if all the extra money goes to Jeff Bezos. And that's, once again, why we can't just leave the market alone, why you need a government involved to make sure that you have enough competition. But in a standard economic model, if we have algorithmic pricing, and people's prices better reflect their preferences, then that makes things more efficient. The question is whether it makes things more equitable.

**SARAH HANSEN:** And so how are economists thinking about this? Are they grappling with it? This is a fairly new thing.

**JON GRUBER:** It's a fairly new thing. I think we're early to grappling with it. I think we are trying to think about, essentially, what you do when this becomes exploitative because of lack of information. That's one thing we need to think hard about; whether it leads to increased market failures because of monopolization of markets. And so the money just goes to Jeff Bezos. And not to pick on him, but you know what I mean; and also, the fact that there's a fundamental inequity.

So you're right. I made the good case. Let me do the opposite case. Let's say that you're well off, and you can shop from lots of options. So they know if they price high to Sarah here, Sarah's going to go over there and buy it.

Now imagine a poor person in an inner city who only has one store they can go to. That store could then say, aha, I've used algorithm determination to decide this person has no car. They have nowhere else to go. I'm going to charge them a lot.

**SARAH HANSEN:** Yeah, that's terrible.

**JON GRUBER:** That is unfair. But that has to separate the efficiency from the fairness. And the proper role of society is to address both.

**SARAH HANSEN:** But I wanted to go back to AI for a second and just how economists are thinking about the role of AI. Before we started the podcast, I asked you a question, and you wrote an answer. And you haven't shown me the answer yet. But I asked you, can AI fix the economy? So I'm wondering if you could show me your answer now.

**JON GRUBER:** First of all, you should feel bad for my students because they have to read this handwriting. But I wrote, it's up to us.

**SARAH HANSEN:** "It's up to us."

**JON GRUBER:** And basically, what do I mean by that? What I mean by that is really parroting a wonderful book called *Power and Progress,* by my colleagues, my Nobel Prize winning colleagues, Daron Acemoglu and Simon Johnson. They talk about, through the whole history of technology, that technology can always be used for good or for bad. And really, it's up to us to direct it, to decide which direction it's going to go in.

So I often ask this question, which is I feel like social media has led to very many terrible outcomes in our society. And I often think, 25 years ago, if we knew what we know now, what would we have done differently with social media? What could we have done differently? I don't really know the answer.

But I feel like that's a conversation we should be having now about AI. We shouldn't get behind. We know bad things are going to come out of AI. We know good things come out of AI, just like bad and good things that come with social media. We need to be getting ahead of the bad things in a way we didn't with social media.

So it's up to us how AI is going to affect the economy, how it's going to affect life. It's up to whether we establish the proper regulatory frameworks and the proper way of thinking about it, so that we can deal with the negative effects while capturing the positive effects.

**SARAH HANSEN:** So it's like the bowling analogy that you use.

**JON GRUBER:** Yeah.

**SARAH HANSEN:** The gutters full.

**JON GRUBER:** Yeah.

**SARAH HANSEN:** A little bit.

**JON GRUBER:** We need some gutter guards.

**SARAH HANSEN:** We need some gutter guards.

**JON GRUBER:** Like when you bowl with your little kid, and you've got the gutter guards. We need some gutter guards to allow the ball to rock around the alley, but so we don't go in the gutters, which that could be existential destruction rather than a ball in the alley.

But the bottom line is, we have lots of hard questions that this is raising. But it's still early days. I know it's moving fast, but it's still early days. I guess I'm not optimistic that I see people engaging with these hard questions in a constructive way. And I feel like we need disinterested people, expert people, who aren't there to make a dollar out of it, to really start thinking hard about these things.

**SARAH HANSEN:** You said in one of your lectures, maybe about two years ago, which was pre- where we are now with AI.

**JON GRUBER:** Yes, very much.

**SARAH HANSEN:** And I'll read you the quote. "Any government, no matter how large and how benevolent, cannot make the enormous, massive quantity of billions and billions of decisions that need to be made. Think about every good we consume in America, a government deciding how much of it to make and literally who gets it. It's overwhelming."

**JON GRUBER:** This is from my introductory lecture to the class, where I talk about the fundamental nature of capitalism. Capitalism has a bad name right now in many circles. But let's remember that capitalism is, essentially, about letting the market, the invisible hand of the market, make those billions of decisions.

The opposite is what we call a command economy, which is often in communist societies, which is where the government would make those decisions. I don't really see AI making it feasible to have a command economy. Because ultimately, that's about people's preferences and things.

I think AI comes to earlier conversation. AI is going to really match people more with exactly the goods they want and need and match the production of that. And then the question is, who benefits from that? I'd like to think there's a world where consumers benefit, where they get goods they wouldn't have otherwise gotten, at prices below what they were willing to pay, and get some surplus from that. But that might not happen.

Like I said, and like Jerome Simons book highlights, technological advancement is a choice. We may instead end up in a world where consumers get exploited, and a few monopolists get very rich. And that would be a bad outcome indeed.

**SARAH HANSEN:** You've been an avid publisher on OpenCourseWare, which we've so appreciated. And I often think, how can MIT justify giving their proprietary content away for free in this economy?

**JON GRUBER:** It's a great question. I think that it actually relates to another discussion we had, which is that tuition at MIT is very high. Now, if your income is below $200,000 a year, it's free. But above that, it's very high. And people often say, well, that's unfair. People shouldn't pay that much.

But you have to remember what's done with that money. Part of what's done with that money is producing things like OCW. We have to remember that organizations like MIT do not break even on every transaction. They win on some transactions. They lose in some transactions. They're trying to serve their broad public function. One of those functions is educating the public. And MIT is willing to lose money in OCW because they know it's very important to get that information out there.

**SARAH HANSEN:** So, Jon, you've shared a lot of you are thinking and a lot of your teaching on MIT OpenCourseWare, which we're really grateful for. I'm wondering if you could tell our listeners and our viewers what some of those offerings are.

**JON GRUBER:** Yeah, so 14.01, the course that turned me on to economics, I now have an updated version on OCW. I had a version from 2018. There's now a version from 2023 up on OCW. We're about to put up the other course I teach at MIT, which is 14.41, which is Public Economics, which is really about the role of the government in the economy, so taking as a starting point that there are these market failures and problems, and what should the government do about them?

And those are my two main offerings on OCW. There's an enormous number of offerings from the Economics department. As chairman of the department, I want to also say, from the Economics department at large, there's many courses that people should look up and take. We have wonderful teachers and great material.

And the last resource I'd point out is actually-- it's funny, Sarah. You're probably too young to remember, but when I was young, and you'd fly in a plane, you'd actually talk to the person next to you, before phones.

**SARAH HANSEN:** Oh, wow.

**JON GRUBER:** You'd actually talk because there was nothing else to do. And the number of times someone said to me, Oh, Economics, I hated that class-- and I thought, how can that be? And I realized it's really badly taught, especially because you take it in high school. About 80,000 kids a year take the AP Microeconomics exam. And they're typically taught by the gym teacher or the history teacher or someone who doesn't really understand economics.

So I took a sabbatical and made, with MITx, an AP Economics high school class. If you go to MITx, it's Microeconomics, MITx, And that's, I think, a really good resource for high schoolers and others who really want to get started with economics.

**SARAH HANSEN:** Jon, thank you so much for being here.

**JON GRUBER:** It's my pleasure. Thanks for having me, Sarah.

**SARAH HANSEN:** You're so welcome.

[MUSIC PLAYING]