

Jake Auchincloss: We have to recapture that spirit that politics does not need to be skullduggery. Politics does not need to be vicious. Politics can be something that you would talk to your grandchild as something that you were proud to have done, that you were proud that your family had done.

On my dad's side, it was a tradition to live up to. Now, on my mom's side, public service was very different. On my mom's side, we were nowhere near the halls of power in the 1940s or the 1960s. The Glimchers came from Russia, fleeing the Russian pogroms before World War I. Like many Jews at the time, they settled in Chelsea. They built a garment business in Boston. They scraped by.

Their son, my grandfather, Melvin, in 1942, walked into a Marine Corps recruiting office. His mom walked in right after him, grabbed him by the ear, and dragged him...sergeant the entire time. He was a...guy. He came back in. He enlisted.

In 1942, the Marine Corps was losing the war in the South Pacific. America was losing World War II. They gave him a test. He did pretty well on it. The US government, at a time when Jews were being persecuted in many countries in this world, sent this 17-year-old poor Jewish kid to Purdue to study engineering.

It totally transformed his life and my family's trajectory. He becomes a scientist. He pioneers the development of artificial limbs. His daughter, my mom, goes on to become a scientist in her own right because a recruiting sergeant in a US government recruiting office in 1942 saw promise in a young American teenager.

After I graduated from college myself, I walked into a Marine Corps recruiting office as well, thinking both of the fact that on my mom's side this was an obligation, that this was a way to repay what service had done to our family. Then on my dad's side, there was a tradition to live up to, of service.

When I left the Marine Corps after two tours of duty, I came home. I wanted public service to continue to be a part of my life. I ran for the Newton City Council. There is no better political education, for those of you who are interested in joining politics at some point in your life, than local politics.

I really encourage you to not think that it's got to be the Senate or it's got to be some prestigious job on a national political office role. Knocking doors in your neighborhood is how you learn politics. You hear from citizens about what's on their mind. You basically give a stump speech 10,000 times in a row.

I was able to win that election. I've been reelected twice as a Newton City Councilor. Frankly, I was pretty happy in that role, but politics is 90 percent timing, 10 percent preparation.

When Joe Kennedy announced in August that he was challenging Ed Markey to run for Senate and this opened up, I had to think hard and long with my wife about whether this was the right next step for me. Serving in Congress does feel like the best way I can now deliver results for Massachusetts after having served in the military and served at the local level.

It is fitting that a key part of my platform as I'm running for Congress has to do with the Green New Deal and environmental sustainability. I have always been engaged with the environment as a key issue. As a Newton City Councilor, I have been an advocate for solar panels, for measures about plastic bags, for measures about renewable energy in our city's energy supply.

As the Chair of the Transportation Committee, I've pushed forward for greener modes of transportation. As a manager at Liberty Mutual's Innovation Lab, I've helped the company think about what risk solutions are going to look like in the future when we are orienting away from a car-centric transportation system and we are not relying on gasoline-powered cars.

In my current bid for Congress, I've been a strong proponent of the Green New Deal. I've put forward a cohesive position paper on how we can use federal funding to transform our energy infrastructure.

I don't actually want to talk about an environmental platform with you all today. What I want to do instead is propose a number of habits of thought about environmental sustainability that I think are going to be critical. The reason I want to do that is I think the most appropriate way to speak to people in your age range...

Frankly, I don't know what you're going to do in your careers. Actually, you don't really know what you're going to do in your career yet either. It can be corporate boardrooms. It can be the nonprofit sector. It can be government. It can be media.

Any given platform is going to have myriad ways that it can manifest itself. It's more important that there are habits of thought that would guide you as you make decisions about environmental sustainability in whatever career you choose to pursue.

The second reason that I want to propose habits of thought is that adolescence is the best time to form them. Adolescence is actually defined by sociologists as the period of time when people are most prone to challenging the received assumptions from their elders. That can be disrupted. That can be productive.

There is no issue in the United States or in the world right now where we are most in need of challenging received assumptions than on the issue of climate change because the status quo has, quite frankly, not worked.

I'm going to propose a number of assumptions that I think need to be challenged and I think your generation is best suited to challenge. I do not expect that everyone in this room is going to agree with all of these. If even one of them sticks with some of you, this will have been a success.

Let's get started. The first habit of thought I want to encourage you all to challenge is that cars and driving are the most efficient and most important form of transportation. This has been the implicit dogma of American urban planning since World War II. We've built our cities around driving. We have built our infrastructure around highways and parking.

What have we gotten out of it? Boston now has the worst traffic in the country. 40 percent of Massachusetts' carbon emissions come from the transportation sector. It's also the only sector that is growing as a source of carbon emissions.

How many of you, even though I expect many of you do not have your driver's licenses, have felt, as you're with your parents or as you're getting around the city yourself, that traffic is getting materially worse over the last few years?

Yeah, it's not just a quality-of-life issue. It's increasingly a crippling economic issue as huge swaths of the state are locked out of economic opportunity in the core of Boston because the commutes are just too long. It's a public health issue as asthma rates are spiking near highways, disproportionately affecting populations of color and disadvantaged communities.

It's becoming an issue, frankly, of racial justice as the populations that are most likely sitting on a bus, stuck in traffic for three hours each way, are African American and Latino populations.

It doesn't have to be this way. The example I always point to is Copenhagen. How many of you have ever been to, actually, Copenhagen or really almost any European city? Amsterdam, London, Paris.

These cities have the wonderful advantage of having been designed before the automobile was prevalent. They did not make the mistakes that we have made in a lot of American cities, especially in the Southwest and West.

Copenhagen is an especially interesting example because it actually was close to making those mistakes. In 1970, Copenhagen and Boston were very similar places. They both had very well-educated populations. They were relatively hollowed-out downtowns. They had an infrastructure that was crumbling. They hadn't quite figured out how they were going to fund infrastructure by developing land near it.

Since 1970, both Boston and Copenhagen have had some similarities, and they've had some differences. Boston invested in the Big Dig and invested in highways and in greater parking as a means of transportation. Copenhagen invested in probably the best regional rail system in the world. It expanded infrastructure for cycling and walking. It encouraged mixed-use development.

Both cities saw a renaissance in their downtown. Both cities now have booming economies, but Copenhagen is the single best city in the world to get around.

You can get from about 50 miles outside of the core into the core without once having to walk up a flight of stairs, without once having a full mug of coffee get spilled, without once being inconvenienced or cold. It's a truly tremendous way to get around. None of it requires parking and driving.

In Boston, meanwhile, we have gotten to the point where transportation has become a top-two issue for voters in this state based on traffic. I'll tell you that right now we're on a trajectory for it to get worse.

The last thing I did at Liberty Mutual's Innovation Lab before I left to run full time for Congress was give a presentation to the president who's in charge of, frankly, all decisions they make about investments into big new programs.

The single most important statistic I tried to get across was that traffic is not a linear phenomenon. When you add five percent more cars to a road, traffic does not get five percent worse. Traffic gets about 20 percent worse.

Boston has added about 15 to 20 percent more cars to its road because of a growing economy and growing population over the last 10 or 15 years. What has happened to traffic? It's gotten about 80 to 100 percent worse, measured by commute times.

That is going to continue into the next decade. We are just on that path right now. Our economy is growing. Our population is growing. Traffic is going to get twice as bad in the next 10 years.

The answer to the problems that we have right now with traffic is not going to be to pave highways or build more parking spots or continue to improve our street infrastructure. The answer has to be all-electric regional rail connecting the entire state from Springfield to Massachusetts to Fall River and Taunton and New Bedford and Gloucester and Manchester-by-the-Sea.

Needs to be connected bus rapid transit, with prioritized bus lanes. Needs to be protected bicycle lanes for scooters and bikes that service first- and last-mile solutions for public transit. These are all unglamorous solutions that have been proven to work in places like Copenhagen, Amsterdam, London, Seattle and Mexico City.

What's the impediment to this? This all sounds like it's worked elsewhere. Frankly, it's not actually that expensive. The big impediment to all this is parking. I know what you're thinking. You're thinking, "You're supposed to be talking about environmental sustainability. This is supposed to be a grand idea. He's coming here and he's talking about parking spots."

[laughter]

Jake: Folks, I have been through two different events in my life. I went to the Marine Corps' Survival, Evasion, Resistance, and Escape training program, where we get interrogated by Marine Corps Sergeants as a way to train us how to withstand enemy interrogation and capture. It's a rough two weeks. You get beaten up.

I have also been in Newton's Traffic Council meetings where we try to take away parking spots...

[laughter]

Jake: ...from residents. I'll let you guess which one is less pleasant.

[laughter]

Jake: I sit in these Traffic Council meetings. There is no more unifying issue for residents. I don't care if you're a Trump voter or a Clinton voter. I don't care how old you are. Parking spots are deemed a constitutional and human right for residents.

[laughter]

Jake: I know it seems ridiculous. In the abstract, we can all say we need to maybe move beyond that. I'm going to put it back on you as an onus here. As you're walking around cities, as you're dealing with local issues in your lives going forward, double-check how much space parking takes up in our cities. The answer is about a third of all urban land.

Double-check and question the gravity that parking spots and parking has for all political conversations about mobility in cities going forward. Well, we could do this bus lane, but it would mean taking away parking spots. Well, we could build this affordable housing, but we can't quite afford it because we've got to put in all these parking spots.

Yeah, we can build this electric regional rail, but where are you going to put all the parking for that train station? I promise you. You scratch any question about transportation. What's lying underneath it is parking.

This country is going to fix its transportation system almost exactly in proportion to the extent to which your generation moves away from parking spots as something that you are owed as a homeowner or as a renter or just as a resident of cities. I want you to take that with you going forward as you engage with your neighborhoods and as with your city planners.

Habit number two that I would ask you to question. This one might be even more controversial. We have been told by a lot of very respected people that nuclear power is bad. I would ask you to question that assumption. Nuclear power is a clean energy source that does help to reduce carbon emissions. It generates electricity without any carbon output.

It operates at a much higher capacity factor than other sources of renewable energy or fossil fuels. Nuclear power plants spend a much higher percentage of their time actually producing energy. They're more productive. They're more efficient. They release less radiation into the environment than other major energy sources, paradoxically.

This is particularly relevant here in Massachusetts. The Pilgrim Nuclear Power Plant Station in Plymouth was the only commercial power plant operating in the state. It closed permanently last May.

Clean nuclear power, when Plymouth was operating, was 15 percent of the energy produced in Massachusetts. That was twice that of solar. I'll say that again. It was twice the clean energy produced in Massachusetts than solar.

Without that plant, Massachusetts is likely to fall short of its self-imposed 2020 carbon reduction goals. We've taken, empirically, a step backwards in the progress that we've made towards a zero-emissions Massachusetts.

The criticism of nuclear power is reasonable. It lies in the risk of accident and the issue of disposal. These concerns are legitimate. The next generation of nuclear power plants though does promise to be safer, cheaper, more efficient. If we just dismiss them, we risk a viable and necessary solution to our environmental challenges being thrown out.

I want to point to an example that I think is particularly relevant today. This is the widespread nuclear rollback that's happened in Europe and Asia. It's being called nuclear power phase-out.

The catalyst for this was the Fukushima nuclear disasters in Japan, which was caused by the tsunami that caused a radioactive fallout.

Germany, after that point, closed, I believe it was, half of all of its nuclear power plants following the Fukushima disaster. A scientific paper released just last year found that that German nuclear phase-out led to an increase in carbon emissions of around 36 megatons per year. That resulted in a conservative estimation of an increase in 1,100 deaths due to increased air pollution.

Moving away from nuclear power, Germany basically both increased its carbon emissions output, and it also decreased public health goals. If Germany had invested simultaneously in nuclear and renewable energy, it would be burning 25 percent less gas and one-third less coal for electricity.

Germany's energy system may be progressing, but it's much more slowly than it would have been had it pursued nuclear energy as a possibility. This is particularly important because one of the ways that we're going to get better at building nuclear power plants cost-effectively is by doing it more often. We start to move down the cost curve of these major structure projects.

Without Germany, China, Japan, Korea and France investing in the next generation of nuclear power plants, we're losing a huge amount of the learning that would've helped us move forward.

Unfortunately, this is not an opinion that's shared by almost any of the most prominent American politicians today. It's going to be an issue that your generation is going have to raise to the fore again, and sheer off of it some of its very negative connotations that its acquired, based on Chernobyl and Fukushima and other nuclear problems.

Now, this point about Germany and Asia leads me to my third habit of thinking that I want to encourage you to challenge, and that's that climate change is talked about domestically, as an American [inaudible 18:52] see about climate change in the United States, is about the habits of American consumers.

Are we using plastic straws, are we using plastic bags, are we driving too much, are gasoline prices too high or too low? That's an important conversation to have, but to discuss climate change in a truly grounded way, we have to recognize that America's about 14 percent of all carbon emissions in the world, and that percentage is going down.

If we want to talk about climate change in the world today, we have to recognize that China stands as the largest emitter of carbon in the world, and that India and China are the keys for how we are globally going to solve a global problem.

Now, there's a couple of ways that we can engage on that. I'll point out two. One, our multi-lateral institutions and agreements like the Paris Accord, which imperfectly though it may be, does bind countries together in mutual commitments to lower their carbon output.

That's not going to be enough. What we're going to need going forward, I believe, is a global carbon cap and trade scheme that will have all countries, or at least the significant economies of the world, engaging together in a common market to reduce their carbon output.

That's a project that I do not think has the political capital in the current generation of political leaders to get accomplished. That's a project that will require new ways of thinking to get accomplished.

Then, the second is how we approach research and development on energy. Some of you probably have seen that these days, a major source of contention between the United States and China is that China is stealing a lot of our intellectual property, and that China has been playing very unfairly in issues of trade and issues of technology.

Without question, there are issues to be smoothed over, but if we're serious about climate change and having China and India reduce their carbon output, we need them stealing our technology.

There's a project right here in [inaudible 21:13] called Manhattan 2, which aims to have the best scientists in the world working together, funded with non-profit grants, to develop new energy technologies for some of our hardest problems, whether they're based on batteries or solar panels, or transmission lines, or hydrothermal.

Now, the only strings attached to these non-profit grants, are that they have to open source the intellectual property that results from their research. What that means is, the developers of that technology are not allowed to commercialize it on their own. By taking the grant, they have to make it accessible to anybody in the world.

This is a unique but an interesting approach, to the urgency with which we have to laterally transfer intellectual property and new technologies throughout the world. We need Chinese companies, Indian companies, German companies and American companies to be internalizing new energy technologies today, tomorrow.

We cannot afford for us to be debating and disputing intellectual property patents, or having major courtroom battles over who owns what technology. Open source may well be the theme, going forward, for these problems.

Again, that is not something I do not think that the current leadership of the US business community, even maybe the US scientific community, is going to be fully comfortable with. That may be an issue that needs to be challenged by our younger set of leaders.

I had mentioned the idea of a global cap and trade scheme for carbon. Just to be clear about what that means, the idea is that the right to emit carbon is allocated by governments, and then different companies and different emitters of carbon can trade those permits for a price that's established by a global common market.

It's a way to try to efficiently allocate the right to emit carbon to those who are most productive at reducing their carbon footprint. Underneath this, though, is a basic premise that is also going to require, I believe, a new habit of thought.

We have assumed and we have implicitly acted over the last 60 years as though carbon is costless. Carbon has tremendous negative externalities to our public health, in the form of asthma and other diseases that are caused by air pollution. Carbon has negative externalities in the form,

of course, of global climate change. We need to price carbon to reflect its actual, total societal cost.

This may be, second only maybe to parking, the most [laughs] politically-unpopular thing that anybody could say in the United States today, because what it is saying is that a lot of goods and services that Americans assume are quite cheap, need to get a little bit more expensive.

The current estimate of the social cost of carbon, what it costs all of society to emit a ton of carbon, is \$50. That's probably an underestimate. The actual price that we pay, inherent in goods and services that we buy, inherent in price of gasoline, for example, for a ton of carbon, is at least an order of magnitude less than that.

Over the last 60 years, what we've seen is that manufacturing and driving and agriculture industry, very carbon-intensive sectors of the American economy, have become relatively cheaper, relative to services based after the American community healthcare and education, for example.

What we need to do going forward, is going to be, to require the sectors of the American economy where carbon is a major part -- transportation, manufacturing -- to internalize the higher price of carbon. That means, a lot of goods and services may have to get somewhat more expensive. It's going to be an incredibly politically-painful transition to make.

It's going to be fought by the business community, but more importantly, it's going to be fought by the average American consumer. It's going to be fought by the average consumer in developing economies. It is also, without question in my mind, going to be the most effective way for us to reduce carbon, just simply to price it for what it's worth.

I'll tell you right now, I have zero hope, zero, that any political leader of the Baby Boomer generation, or even the generation after them, is going to be able to muster the political coalition to substantially raise the price of carbon.

That is going to have to be something that comes grassroots, bottom-up, by thinking about carbon as something that can no longer be invisible in our economy, that must be priced accordingly. That's going to have to come from your generation.

Again, this segues to a habit of thought that I would encourage you to challenge. There's this idea that, necessarily for us to be environmentally sustainable, we have to take an economic hit, that growth and sustainability are somehow at odds.

A study led by the Boston Consulting Group and the World Economic Forum, a thousand companies, ranging in size from \$25 million to \$5 billion were reviewed. Within this pool, more than a dozen companies were considered environmental champions, with sustainability practices that were incredibly effective, innovative, scalable.

These companies consistently generated above-average growth rates and profit margins. Their environmental efforts paid off financially through the use of multiple approaches. They invested in more sustainable options up front, that produced greater returns down the line. Sometimes

they used their sustainable edge as a marketing appeal to consumers, who thereby increased their purchasing of their goods.

The person to look to on this issue is none other than Al Gore, who...it's amazing for me to think about, but is before your time.

[laughter]

Jake: I remember Al Gore as the Vice-President, as a Presidential candidate, as a Oscar-winning documentarian, who produced "An Inconvenient Truth." As somebody who now runs a firm called Generation Investment Management, Al Gore, to his great credit, took this thesis that being sustainable and being environmentally sound, was a winning business practice. He put his money where his mouth is.

Generation Investment Management is a major asset manager based in London, that Al Gore is the general partner of. It invests by very strict standards of sustainability. It claims that investing in environmentally and fiscally sustainable companies is the greatest business opportunity in history, and that it's going to prove that with its rates of return.

So far, it has. Its flagship global equity fund has produced annual returns of 13.5 percent, compared to just above 7 percent for the world index benchmark. He's making more money than his peers investing sustainably.

Here in Massachusetts, Charlie Baker, who is in a different party than Al Gore, has also put his money where his mouth is, when it comes to showing that environmental sustainability and economic growth need not be locking horns.

The Transportation and Climate Initiative is a regional agreement, though a tenuous one at this point, that seeks to raise the cost of gasoline and [inaudible 29:23] crude oil import to...As you're moving gasoline across state lines, there's a tax levied on that gasoline, which functionally is going to make it more a little more expensive for truck drivers.

That money that's raised across all these states, will be invested in public transportation and green infrastructure. It's going to reduce the cost to the state for dealing with the public health fallout of pollution.

It's also going to reduce the cost to the state of funding transportation improvements, and it's going to improve economic productivity. While this is taxing gasoline, it's going to improve economic growth.

These types of political initiatives are going to be increasingly important going forward. I would encourage you to challenge the assumption that there's always going to be a trade-off, a win-lose situation between economic growth and environmental sustainability. The path forward for us on this issue, is that it increasingly can be win-win.

I point back to transportation, where the default approach of more parking and driving feels like the easy path to take, but in fact, harder decisions up front about orienting our infrastructure on public transportation, are in fact win-win for improved economic productivity, as well as a greener economy.

The last habit of thought that I'll leave you with -- then I'm going to open it up to questions, and I'm going to insist that you challenge me on any of these -- is that the term sustainability is functionally and necessarily an environmental term...

That to be sustainable means that you're talking about just being green, that you're talking about trees or you're talking about carbon emissions, or that you're talking about solar.

I think of sustainability as not borrowing from the future when you are building in the present. One of your panel speakers today, Emily Norton, is a colleague of mine on the Newton City Council. She is a major advocate for the environment here in Massachusetts. In the Newton City Council, she's also something of a fiscal hawk.

What she oftentimes says is that taking out huge debt for post-employment healthcare or pension liabilities and leaving our kids to pay those debt, that is not sustainable either. That is not practicing sustainability. A \$20 trillion federal government budget debt is not a sustainable practice because it's going to be your generation that's paying for that.

Fighting two, two and a half wars in the Middle East that have cost us \$6 trillion, of which we have paid almost nothing out of our current operating budgets, putting almost entirely of those wars on our credit card, is not a sustainable practice.

I would encourage you, as you go forward, to think about sustainability not so much just in terms of being green but in terms of are we leaving the planet better than we found it, for our kids. That needs to be the project for our current set of political leaders. That needs to be my project. That needs to be your project going forward.

At this time, I'd love to take any questions that you have about any of these habits of thought that I put forward. Thank you.