#AskTheRobotQuestion

Expert, Activist, & Author Comments

FUTURE LEFT

Sign & share our petition on Change.org to put automation on the 2016 economic agenda and have the issue discussed during the upcoming Presidential debate series.

For more information, contact Adam Simpson at adam@futureleft.org.
Dear readers,

The purpose of our #AskTheRobotQuestion initiative is to amplify a national conversation about the potential impact of automation and computerization on the future of the American workforce. The founders of Future Left hope to see this issue discussed at the highest level of American politics: the upcoming presidential debate series.

Though we at Future Left may have our own set of policy preferences, we wanted to reach out to a diverse range of outside experts to submit feedback on our initiative. We reached out to numerous futurists, labor activists and organizations, authors, robotics experts, and everything in between. We are deeply grateful for the responses we received and hope that the comments we've gathered will be useful to others seeking to participate in this conversation. We strongly encourage those who wish to do so to use the comments below to enrich their own writing, giving attribution to the appropriate individual or organization.

Additionally, we hope our readers will consider signing our petition on Change.org in order to encourage debate moderators to ask US Presidential Candidates about workforce automation. We're committed to continuing this discussion by distributing a weekly podcast series discussing the comments submitted by the petition's supporters. Be sure to leave a comment on the petition page so we can discuss your views during our next podcast.

We hope our readers find the comments below as insightful and provocative as we did, and that it contributes meaningfully to the ongoing conversation about workforce automation and what it means for the future of working men and women and their families.

All the best,

Adam Simpson
Founder & Director, Future Left
adam@futureleft.org
Table of Contents

Contributors                                                               Page 4

Questions:

1. Why is 2016 the time to talk about workforce automation?  
   Haven’t people been concerned about technological unemployment for centuries?  
   Page 5

2. We’ve already heard concerns about jobs lost to free trade agreements and immigration.  
   Should candidates be more or less concerned about jobs lost to automation?  
   Page 8

3. Are the trends in automation a major concern for labor leaders? What do such trends mean to broader prospects of effective, organized labor?  
   Page 10

4. Do you foresee any disruptions within the next presidential administration, potentially 2017-2025?  
   Page 13

5. What policy responses would you most like to see a candidate suggest as a response to increased automation?  
   Page 15

6. The prospect of increased economic inequality is a common theme in conversations about an increasingly automated workforce.  
   How can the United States embrace this technology without contributing to an already disconcerting problem?  
   Page 17

7. Future Left asserts that automation ultimately has the potential to tremendously benefit society, despite the typical conceptions of leaving us all jobless and struggling.  
   Aside from the presidential candidates who have to confront any policy implications, what do you want the public to know about the positive potential of workforce automation?  
   Page 19

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Contributors

Gar Alperovitz, Co-chair of the Next System Project and Co-founder of The Democracy Collaborative.

Calum Chace, author of The Economic Singularity

Robin Hanson, author of Age of Em: Work, Love and Life When Robots Rule the Earth.

Mike Johnston, Co-Host, Robot Overlordz Podcast

Scott Santens, Writer & Basic Income Advocate

Kati Sipp, editor of Hack The Union

Alex Williams, author (with Nick Srnicek) of Inventing the Future: Post-Capitalism and a World Without Work

United Steelworkers (USW)

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The idea that the US economic system faces structural impediments to endless growth and low unemployment was once relegated to the margins of heterodox economic theory and discounted by the vast majority of academics and policy makers. No longer. Recognition of stagnation is now virtually mainstream, discussed in the past few years by such well-known figures as Lawrence Summers and Paul Krugman, and bolstered by the reams of data provided in Thomas Piketty’s landmark book *Capital in the Twenty-First Century*.

“Despite the falling unemployment rate in recent years, critical issues are the type and quality of new jobs created, the falling labor force participation rate, and the significant gap between productivity gains and wage growth. Mainstream organizations such as the OECD are warning that economic growth in the world’s advanced industrial economies—including Europe, North America, and Japan—will likely slow even further over the next half century while inequality will rocket to new heights. Automation and technology play important roles in stagnation and inequality. MIT professor Erik Brynjolfsson and MIT Research Scientist Andrew McAfee, for instance, estimate that technological change is destroying more jobs than it is creating leading to lower employment growth, stagnating incomes for the majority of Americans, and rising inequality.

“New technologies have the potential to both produce major changes in productive capacities and also allow for a systemic transformation away from the...
corporate capitalist system. With planning and alternative distribution strategies they could easily lead to bountiful lives for all, especially in the advanced systems. Now is the time to begin this discussion.” —Gar Alperovitz, Co-chair of the Next System Project and Co-founder of The Democracy Collaborative.

“Automation by machine intelligence is in its very early days, but we will soon start to see big effects. Possibly the first effect to be noticed by most people will be self-driving vehicles. Machines have already proved themselves considerably safer drivers than humans, and unlike humans, they are improving at an exponential rate. "Driver" is currently the most common job title in more than half of all US states, and around 5 million Americans make their living this way. This will start to change in the coming decade, and that will make other people wonder whether it will be their turn soon.” —Calum Chace, author of The Economic Singularity

“It isn’t. 2016 isn't special. There are fashions in worries, and one of today’s worry fashions is automation, but today’s burst of progress isn’t much different from many past bursts of progress.” —Robin Hanson, author of Age of Em: Work, Love and Life When Robots Rule the Earth.

“It's certainly true that the idea of unemployment caused by changing technology is not new. But what is new now that changes that existing equation is how technology is changing cognitive tasks. That's a major shift that is causing the underlying dynamics of labor to change radically, more than ever before. 2016 is in fact one of the first times in history where that is becoming more observable, and as such it's definitely time to step up the conversation on these issues. Simply dismissing the idea that this is going to be a problem is short-sighted at best, downright dangerous at worst. We're going to need time as a society and as a species to come to grips with how things are changing. There's no time like the present for that.” —Mike Johnston, Co-Host, Robot Overlordz Podcast

“Technological unemployment is not a binary manifestation. It doesn't exist as a 1 or a 0. It exists along a spectrum that has on one extreme the working of 40-hour/week full-time jobs for the same employer for decades, and on the other extreme machine labor performing what was once the work of humans. In between those two extremes are the chopping up of labor into smaller and smaller chunks of time and tasks and that process has been underway for decades. We are actively transforming the way we work from what once provided a secure way of life dignity to what is now an increasingly insecure way of life without dignity. It is far too late for piecemeal reforms. A transformed labor market requires transformative solutions like securing an income floor above the poverty line for all with a basic income so that everyone can work more flexibly and so automation can be seen as a goal instead of a danger.” —Scott Santens, Writer & Basic Income Advocate

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“Discussions around automation and job losses have been ongoing for decades (if not back to the Nineteenth Century). However, the evidence suggests that this time might well be different, in terms of the pace and extent of change. New technologies, in particular machine learning systems and advanced robotics, combined with big data analytics are predicted to strip far more jobs than previous waves of automation. These will not just be manual jobs, but also white collar professions.” —Alex Williams, author (with Nick Srnicek) of *Inventing the Future: Post-Capitalism and a World Without Work*
2. We've already heard concerns about jobs lost to free trade agreements and immigration. Should candidates be more or less concerned about jobs lost to automation?

“Candidates should not only be concerned with job losses in the aggregate sense, but also the concentration of job losses in certain industries and in certain groups within the population. For instance, automation in manufacturing (alongside free trade agreements and the internal movement of capital to low wage states) has had a disproportionate impact on the so-called “rust-belt” in the north-east and mid-west, and on the working class population without a college education in general.

“In the coming years, automation further threatens manufacturing as well as industries which require less intensive education such as transportation, administration, and services. Automation induced job losses, at least in the short-term, will likely exacerbate geographic and class disparities, deepening the problems of poverty, inequality, incarceration, ill-health, substandard education, and disinvestment in many communities—to say nothing of the corrosive effects this is likely to have on democracy.”

—Gar Alperovitz, Co-chair of the Next System Project and Co-founder of The Democracy Collaborative.

“More. Automation by machine intelligence will very likely render the majority of humans—perhaps nearly all of us—unemployable in the next few decades.”—Calum Chace, author of The Economic Singularity

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“Personally I think that both the trade agreements and immigration have for a while now been masking the underlying effects of technology and automation. As Martin Ford said a couple times in *Rise Of The Robots*, outsourcing and offshoring are just trial runs for AI.”—**Mike Johnston**, Co-Host, *Robot Overlordz Podcast*

“Globalization is an unstoppable force made possible by technology. It is farcical to think that trade agreements can be negotiated in a way that results in paying people in rich countries high wages and salaries when the technology exists for machines to do that work for less money and no unions. The global middle class of which the US is part is right to be upset that their abilities to earn good incomes have been greatly reduced, but people are only worse off because an unconditional basic income was not part of any trade agreement so far. Telling someone who just lost their $50,000 per year job that they are better off because they can buy a flat screen TV for $500 instead of $2000 is a slap in the face. Technology is causing real grievances and those grievances must be addressed immediately.”—**Scott Santens**, Writer & Basic Income Advocate

“The evidence I have seen for my own country, the UK, does not point to major losses due to immigration. But certainly, the new wave of automation portends a significant threat to jobs and the world of work as it currently exists, far greater than immigration or global free trade treaties.”—**Alex Williams**, author (with Nick Srnicek) of *Inventing the Future: Post-Capitalism and a World Without Work*

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3. Are the trends in automation a major concern for labor leaders? What do such trends mean to broader prospects of effective, organized labor?

“Automation is a critical issue of concern confronting the labor movement. In recent years the business press and right-wing organizations have routinely heralded the new era of automation as the death knell for unions, and the long standing confrontation between auto workers and company executives over automation in the automobile industry during the 20th century is legendary. One area where union jobs are currently being threatened by automation involves ports. Dockworkers in Australia and other countries have recently gone on strike to preserve jobs in the emerging era of port automation, and the U.S. Labor Secretary has called on US unions to assist in the process of automating US ports to stay competitive with foreign rivals.

“U.S. unions—which were never strong compared to other advanced economies—have declined significantly from their post-war peak of around 34.7 percent of the workforce to 11.1 percent (and just 6.7 percent in the private sector). They are also under siege in numerous states, including traditional heartlands such as Wisconsin and Michigan (currently controlled by Republican legislatures and governors). Such pressures have led some in the labor movement to re-evaluate their traditional stance on workplace organization and control. For instance, in recent years the United Steelworkers have entered into an agreement with the Mondragón cooperative network in the Basque region of Spain to develop a new union-cooperative worker ownership model which is currently being experimented with in Cincinnati, Ohio and Pittsburgh, Pennsylvania. Several other unions have become involved with other forms of worker owned firms such as democratic ESOPs (Employee Stock Ownership Plans).
“In the short-term, worker ownership, could serve as a partial barrier to the dislocations from automation induced job reductions in vulnerable industries (evidence suggests that worker owned firms will often cut jobs only as a last resort after all other options have been exhausted). In the longer-term worker-owned firms with union involvement could embrace automation and distribute the productivity gains in the form of increased dividends, reduced work hours, or increased flexibility rather than layoffs.” —Car Alperovitz, Co-chair of the Next System Project and Co-founder of The Democracy Collaborative.

“Trade unions will resist automation, and in some sectors, where competition is weak, they will succeed for a while. But the iron hand of economics always prevails in the end.” —Calum Chace, author of The Economic Singularity

“They certainly should be. Labor has been losing its place at the table in our society for decades and these trends are only poised to accelerate. Since most of us only have our labor to participate in the economy, this is going to become a larger issue. If we don’t want to see catastrophic breakdowns in our social structure, we need to make sure that we’re not leaving people behind. I think that is very much one of the most pressing issues that we face today.” —Mike Johnston, Co-Host, Robot Overlordz Podcast

“The threat of increased automation has already been used to deter workers from fighting for higher wages, with many conservative commentators threatening that iPads will soon replace fast food workers, if they achieve a wage of $15/hour. While this rhetoric fails to take into account the fact that fast food workers in countries like the Netherlands or Australia routinely make wages that high—or higher, it is still the case that some jobs will no doubt be lost to automation. US employers have always used the threat of wage competition to drive wedges between different groups of workers. It seems likely that the next iteration of that will be humans versus robots.” —Kati Sipp, editor of Hack The Union

“Automation should be of huge interest to labor leaders. Former president of the SEIU Andy Stern is one of the few labor leaders out ahead on this issue, and more need to follow suit if they have any real concerns about the bargaining power of human workers in a world of increasing ability to replace those workers with capital itself in the form of robots and software. For labor to have any real power in the future, they must fight for bargaining power outside of labor. That is, organized labor must push for universal basic income, so that everyone as an individual has the power to say no to insufficient wages and working conditions by having the actual ability to go on strike without end.” —Scott Santens, Writer & Basic Income Advocate

“Automation is on the agenda for the smarter leaders of labour unions. I have argued that what they need to understand is that this wave is going to be difficult to

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oppose, and more importantly, offers real advantages. For example the potential ability for everyone to work less, and for prosperity to no longer be so closely tied to human suffering in the workplace. That requires, in turn, a transformation in how unions operate, and their entire agenda, which historically has become closely tied to wanting good jobs for all. Effective organised labour in the future will be about making a world which is liveable for ordinary people, and creating the political conditions in which automation can be embraced for its socially useful effects.” —Alex Williams, author (with Nick Srnicek) of Inventing the Future: Post-Capitalism and a World Without Work

“By far, the biggest and most immediate threat to USW members' job security is unfair trade. That's our focus. Unless the U.S. takes steps to stem the tide of manufacturing jobs leaving our country for places like China, there won't be any work left for Steelworkers to lose to automation.” —United Steelworkers (USW)

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4. Do you foresee any disruptions within the next presidential administration, potentially 2017-2025?

“When self-driving vehicles render drivers unemployed, people in all other sectors will wonder when it might be their turn. They will probably make economic decisions well ahead of their actual unemployability which will have big impacts. They may decide to liquidate their major assets by downsizing their property, for instance, and this could lead to major slumps in house prices.”—Calum Chace, author of *The Economic Singularity*

“I don't foresee any disruption in the continuing trend towards automation, but I do see the increasing potential for disruption on the social and political fronts in society. In the US in particular, I think we're not used to thinking critically about some of our underlying economic, political, and social myths, and there's a real danger that as people get left behind, that that disruption turns violent. I'd prefer to avoid that if we could, even if that means have some difficult conversations.”—Mike Johnston, Co-Host, Robot Overlordz Podcast

“The largest disruption I see ahead of us is the inevitability of self-driving cars and trucks. This technology will eliminate the jobs of millions of people within a relatively short span of time, and that span of time appears to be centered somewhere around 2025 based on a variety of estimates so the next President could face the beginning of this process. However, the disruptions possible through limited forms of artificial intelligence could be even larger in the breadth of applications across all sectors, and this could very well become a great and growing concern in the next Presidential administration. There will be increasing calls for the unconditional guaranteeing of

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incomes and any new administration should immediately look into how to best go about doing so.”—**Scott Santens**, Writer & Basic Income Advocate

“Driverless cars are already on their way, and will be expected to make some inroads into long haul trucking and similar industries in this time period. Within the professions, such as law and finance, we have already seen serious attempts to replace low level work with a combination of machine learning, task analysis, and outsourcing. We can only expect the automated components of these systems to increase over the next few years.”—**Alex Williams**, author (with Nick Srnicek) of *Inventing the Future: Post-Capitalism and a World Without Work*

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5. What policy responses would you most like to see a candidate suggest as a response to increased automation?

“The United States has an enormously productive economic system. Currently, GDP per capita is around $56,000, or almost $225,000 for a family of four. However, this is distributed incredibly unevenly. The plus side of automation raises the possibility of radically reducing the work week and expanding free time—something advocated and anticipated by economists from John Maynard Keynes to Juliet Schor. A universal basic income—which at various points in history has been supported by everyone from Martin Luther King, Jr. to Milton Friedman—could be established on the basis of equitably distributing society’s productive gains. It could be paired with a reduced work week to alleviate many of the pressures, including rising inequality, that may stem from automation-related job losses. An alternative and or complementary proposal would be a job guarantee or employer of last resort program operated by the government along the lines of those proposed by Bard College economists L. Randall Wray and Pavlina Tcherneva.”—Gar Alperovitz, Co-chair of the Next System Project and Co-founder of The Democracy Collaborative.

“Monitoring the economy to watch for the early signs of technological unemployment, or economic decisions which anticipate it. Establishing institutions to draw up scenarios for possible outcomes, and work out how to nudge societies towards the better ones.”—Calum Chace, author of The Economic Singularity

“Just make the economy more efficient overall. No special response is needed to current automation. For the long run, we should try to set up better global insurance against very large bursts of automation, if and when they come.”—Robin Hanson.

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“Personally I'd like to see a focus on global corruption first. As long as corporations can play countries and nations against each other, and hide wealth outside of national borders, addressing these problems is very difficult. Without that, I don't see most of the other possible solutions really gaining traction. The second a country tries something like basic income (which I personally think is a great idea), the rich will abandon it and the poor will flock to it. That's a recipe for systemic failure. We need some basic ground rules on a global level to ensure that this can't happen, that corporations are accountable to the people that actually live in the world. Once that's done, I'd like to see more experimentation with a variety of possible solutions, to see what works and what doesn't, how things scale, etc. But until you address our underlying corruption, I don't see any system making progress on these issues.”—Mike Johnston, Co-Host, Robot Overlordz Podcast

“The key policies needed to ameliorate automation in the coming years are the creation of a universal basic income, set at a high level, and without replacing key welfare services, along with legislation to reduce the working week. Combined with these, there should be state services to help people cope with the psychological effects of becoming surplus to requirement are needed, which should also be identified as an opportunity to help a new civil society emerge.”—Alex Williams, author (with Nick Srnicek) of Inventing the Future: Post-Capitalism and a World Without Work

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6. The prospect of increased economic inequality is a common theme in conversations about an increasingly automated workforce. **How can the United States embrace this technology without contributing to an already disconcerting problem?**

“One of the things that makes increased automation attractive is its potential to open up the question of time, and specifically how much time people must devote to work as opposed to other pursuits. An increase in free time is not only a good on its own, it is also a precondition of the long term reconstruction of genuine democratic community participation. The reduction of time spent at work offers more time to engage and reengage in the democratic process. In a new stage of progressive change people might one day use the time made possible by new technologies (and an equitable distribution of income and work) not only to open new directions in democracy, but to really engage with each other and with their communities—in short, to build a new political economic reality.” —**Gar Alperovitz**, Co-chair of the **Next System Project** and Co-founder of **The Democracy Collaborative**.

“We have no choice about whether to embrace the technology. It is coming whether we like it or not. All we can do is manage the transition to the new economy.” —**Calum Chace**, author of **The Economic Singularity**

“Just embrace the technology, and do general things appropriate for any form and cause of inequality. No need to connect these issues.” —**Robin Hanson**, author of **Age of Em: Work, Love and Life When Robots Rule the Earth**.

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“Unfortunately that seems to be a Catch-22 problem for all. I think the only way to deal with that is to start tackling these conversations, sharing them far and wide, and helping people to understand the underlying issues. Right now, I think too much of our media and politicians are playing to our worst instincts, rather than raising us to be our best. There are a lot of reasons for that, and ultimately we have to start getting involved ourselves and demanding better of society.”—Mike Johnston, Co-Host, Robot Overlordz Podcast

“The biggest issue in terms of inequality is whether we continue with the current system of work or radically transform it, and our expectations for peoples’ work lives. In addition, another concern is over the companies that own and control the process of automation - which is looking like it will be the major technology firms, such as Google. As far as is possible, there ought to be democratic debate and democratic control of this process, as well as measures by which the state can draw tax revenue from these firms, particularly when their technology begins to swallow large proportions of the existing job market.”—Alex Williams, author (with Nick Srnicek) of Inventing the Future: Post-Capitalism and a World Without Work

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7. **Future Left** asserts that automation ultimately has the potential to tremendously benefit society, despite the typical conceptions of leaving us all jobless and struggling. *Aside from the presidential candidates who have to confront any policy implications, what do you want the public to know about the positive potential of workforce automation?*

“First, technology rests on science, and is largely an inheritance from past human endeavor. Yes, work today is critical and important. But a person alive today will have done almost nothing to enable or deserve the enormous productivity of the economic system she inherits and lives in. Almost all of it—up to almost 90 percent according to some calculations—will come to that person as a gift from the past, from the accumulation of technical progress, including technological and scientific knowledge. If the overwhelming source of modern wealth is a collective and common inheritance of technological and other productive knowledge, the incredibly inequitable distribution of that wealth in modern society becomes even more abhorrent and illogical. Automation is only possible because of technological gains that stand upon the huge legacy of the past, and it may reasonably be argued that a portion of what comes from automation is due to each and all members of society. Different forms of distribution could include a basic income program, reduced work weeks, a raft of social policies (such as free higher education, universal free child care, maternity and paternity leave, etc.), or some combination of the above.”—Gar Alperovitz, Co-chair of the Next System Project and Co-founder of The Democracy Collaborative.
“Societies will soon (in the coming years and decades) have to make major decisions about the structure of their new economies. The decisions will be better if the electorate is better informed.”—Calum Chace, author of *The Economic Singularity*

“This time isn’t different. Improved tech is what has made us rich, and we should keep using it to get richer.”—Robin Hanson, author of *Age of Em: Work, Love and Life When Robots Rule the Earth.*

“The idea of a Star Trek economy, or the leisure class growing to include all of us, seems to me to be about as close to Utopia as one can get. With robots and automation to do all the work, I think we’re going to need to radically rethink a lot of how society is structured, but the potential is there for a society that treats each and every one of us as a full human being. Personally I’m incredibly excited by that. It would be a tragedy if we let the human experiment fail on the rocks of fear and ignorance, when there is so much promise in all of us. I’d like to be part of that future, and hope that more people will join in the effort to get us there.”—Mike Johnston, Co-Host, *Robot Overlordz Podcast*

“Technology, especially the kind of technology that reduces our collective workload, should be embraced. The elimination of jobs should be a goal. Being confronted with the choices of what to do in a world with less employment should be welcomed. Our interests should be in how to best go about increasing overall prosperity and quality of life. How do we organize a society where a great deal of labor is done by machines so that people become more free to pursue life, liberty, and the pursuit of happiness? This the question we should be asking ourselves and I believe ideas like basic income are part of the answer. Technological unemployment is not a danger. It's an opportunity.”—Scott Santens, Writer & Basic Income Advocate

“Automation can be made to work for everyone, providing we combine it with a generous UBI, a reduced working week, and a cultural effort to shift perceptions of human worth away from being focused on paid work.”—Alex Williams, author (with Nick Srnicek) of *Inventing the Future: Post-Capitalism and a World Without Work*

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