

# UCLA *ECONOMICS*

*Undergraduate Newsletter*

Editor: Joshua Strickfaden

## Welcome Back Econ Bruins!

“Someone is sitting in the shade today because someone planted a tree a long time ago.”  
—Warren Buffett



## Welcome New Professors!

The UCLA Department of Economics would like to extend a warm welcome to three new faculty members who have joined us for the 2017-2018 academic year.

Professor Katherine Meckel: Ph.D. (Econ) Columbia University

Professor Volker Nocke: Ph.D. (Econ) London School of Economics

Professor Jonathan Vogel: Ph.D. (Econ) Princeton University

## Important Dates and Notices

Last day to add courses with a fee through MyUCLA: **10/20/17**

Last day to DROP non-impacted courses without a transcript notation and with a fee: **10/27/17**

Last day to change grading basis (optional P/NP) with fee through MyUCLA: **11/10/17**

Last day to DROP non-impacted courses with transcript notation and fee through MyUCLA: **11/17/17**

Last day to WITHDRAW from current term: **12/8/17**

Final Examinations: **12/11/17-12/15/17**

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## Nobel Prize in Economics Awarded to Richard Thaler

On October 9, the Royal Swedish Academy of Sciences awarded the 2017 Nobel Prize in Economic Sciences to Richard Thaler. A distinguished professor at the University of Chicago, Thaler is a pioneer in the expanding field of behavioral economics, which applies principles from psychology to economic theory to provide insights into how individuals and institutions make decisions.



The heart of Thaler's work rests on the idea that human reasoning diverges from that of the consistently rational "homo economicus" espoused by conventional economic theory. While most economists recognize that people are susceptible to irrationality, they have historically resorted to simplifying models that assume individuals are well-informed and rational. Noticing that humans systematically deviate from rationality, psychologists such as Daniel Kahneman have played a key role in trailblazing a new school of economic thought – behavioral economics. Perhaps more than any other scholar, Thaler brought behavioral economics to the frontline.

Thaler's contributions to behavioral economics are well-represented by his development of "nudge" theory, which looks into how subtle policy shifts can persuade people to make decisions that are in their general best interest. Instead of penalizing people for acting in a certain way, "nudge" theory aims to make it easier for individuals to make certain decisions.

This concept has been put into practice in various parts of the globe, with a recent example being British pension policy. In an effort to boost low pension saving rates among private sector workers, the government mandated employers to implement an automatic enrollment scheme in 2012, meaning contributions would be deducted automatically from employee pay packets unless the workers themselves formally requested to be exempted. According to Ben Chu, "the theory was that many people actually wanted to set aside more money for retirement but were put off from doing so by the need to make what they feared would be complicated decisions." Applying Thaler's "nudge" theory, the government concluded that automatic enrollment would make saving the default option for employees and facilitate what they wanted to do in the first place – build a nest egg. The results have been nothing short of effective, with active membership of private sector pension plans jumping from 2.7 million in 2012 to 7.7 million last year.

From guiding the course of pension policies to influencing Prime Minister Theresa May's announcement of an "opt-out" policy for organ donations, Thaler's work has fundamentally transformed the ways in which we understand economics as well as human psychology and decision-making. It's safe to say that an exciting future awaits behavioral economics.

But the big question is: How will Thaler spend the 9 million kronor (roughly \$1.1 million) prize money for winning the award? His response: "I will try to spend it as irrationally as possible." Well said, Dr. Thaler.

Cr: <http://www.independent.co.uk/news/business/analysis-and-features/nudge-theory-richard-thaler-meaning-explanation-what-is-it-nobel-economics-prize-winner-2017-a7990461.html> (source)

Cr: <https://www.uchicago.edu/> (image)

Contributor: Joshua Strickfaden, Undergraduate Economics Student

## Keeping up with the Trends: The Economics of Artificial Intelligence

Artificial Intelligence (AI). Machine Learning. Natural Language Processing. Big Data. Deep Learning. These phrases are being murmured reverently, debated hotly and mentioned in forced indifference within society at an increasing rate. Dominating conversations between ambitious college students and overworked Silicon Valley techies as well as the headlines of global news, these fields simply cannot be overlooked. Even if you don't know much about them, you more than likely know that they're huge, hot and trending. Yet, the precise implications of these terms – what they currently comprise of and what their impact will be on the global economy, labor force and the everyday lives of people – are unknown to many and theoretical to the experts at best.



What is AI? Modern pop culture will have society believe that it is conscious robots, set out to destroy humanity. Alan Turing, known today as the father of computer science, proposed that the intelligence of computers would be revealed when people are no longer able to distinguish between answers from a human and those from a computer. In truth, the AI so hotly discussed today performs tasks that imitate intelligence such as visual image recognition, decision making, speech recognition and data analysis through extraordinary computational power and algorithms. These tasks are then tailored to multiple industries and can be specifically altered to go hand in hand with the subfields of economics.

Advances in machine learning and data-driven tech are reimagining the business world dramatically. Data scientists are the new sought-after employees for strategy as business environments, data and processes can now all be reconfigured into programs that churn out situational models in management plans and employee relations. Consumer behavior and interest can be gauged from tech that records store movement, purchases and motivational responses to marketing techniques and advertisements. Financial models are run again and again in response to the stock market, world crises, fluctuating GDP and sinking national debt at the macro level, as well as to analyze personal investments, real estate purchases and loans at the micro level. AI's impact on the field of economics can be assessed only in the short term as the technology continues to evolve at an exponential rate.

AI's impact on the economy is expected to be significant. The staff from the Council of Economic Advisers, the Domestic Policy Council, the National Economic Council, the Office of Management and Budget and the Office of Science and Technology released a report from the White House in December 2016, informing policymakers to be prepared for five primary effects on the economy:

- Positive contributions to aggregate productivity growth.
- Changes in the skills demanded by the job market, including greater demand for higher-level technical skills.
- Uneven distribution of impact across sectors, wage levels, education levels, job types and locations.
- Churning of the job market as some jobs disappear while others are created.
- The loss of jobs for some workers in the short-run and possibly long-run, depending on policy responses.

## Questions?

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and the effects of public policy. Therefore, policies and strategies designed to allay any potentially negative effects of the AI industry on the economy cannot help but be broad in order to avoid mitigation efforts in an area in which no change occurs. Another point that would need to be considered is the cultural and economic differences between the various countries in which AI is rapidly growing, as it is global in reach.

Due to the uncertainty surrounding the field, the controversy behind the impact of AI both within and outside the tech sector is immense, popularized by the Twitter feud between technology giants Elon Musk and Mark Zuckerberg on the issue. In fact, Musk stated, "If you're not concerned about AI safety, you should be. Vastly more risk than North Korea," before calling Zuckerberg's knowledge on the subject "limited." Society's wariness of advancements in this expanding technology is furthered by the media's constant mention of the term "AI," adding to its preconceptions of the field and its stigma. That said, the sheer amount of excitement among academics, techies and businessmen for the potential opportunities and exponential growth rate of the AI field lends itself to a perpetually positive outlook in the industry. According to the 2017 Extraordinary Future Conference and Business Insider, AI will add \$15.7 trillion to the global economy by 2030. This number can be broken down further into \$6.6 trillion towards labor productivity and \$9.1 trillion towards increased consumer demand by 2035 in a multitude of industries encompassing manufacturing, professional services, wholesale and retail and financial services. The theoretical data mentioned strongly imply that AI will have an impact and a substantial one at that.

However controversial AI and the multiple fields it addresses prove to be, it is evident that AI is dramatically changing the tech industry and the global economy. The investments made in research and development by tech giants such as Google (DeepMind and AlphaGo), Facebook (facial recognition technology), Apple (Siri), Amazon (Alexa) and Tesla (self-driving vehicles) show that AI is here to stay. The conversation surrounding AI today highlights the uncertainty behind the economic, cultural and global changes that it will bring about. However, it is clear that the field of AI is growing at an exponential rate, proving that adaptation to this technology even as it adapts to the needs of society is essential.

Cr: <https://obamawhitehouse.archives.gov/blog/2016/12/20/artificial-intelligence-automation-and-economy>  
(source)

Cr: <http://cdn.washingtonexaminer.biz/cache/1060x600-2a681215b158ff0ad669323aae1836fe.jpg> (image)

Contributor: Joonhwa Kim, Undergraduate Economics Student

Note: The views expressed in this newsletter are those of the authors and do not necessarily represent or reflect the views of the UCLA Department of Economics.

## Keeping up with the Trends: The Economics of Artificial Intelligence (Continued)

The magnitude of these effects is yet unclear. The impact of AI may come as a large shock to the economy in the upcoming years, in which case drastic changes in the job market would create a mismatch between the skills of available workers and those demanded in the labor market. In this case, policies providing assistance to current workers as well as education in the respective fields of demand (such as programming) would need to be implemented. On the other hand, AI may not have a sudden impact on the economy, in which case the current trends in the market and workforce would continue to progress and the effects of AI would only be gradually felt. Due to the broad scope of industries that AI impacts, it will be difficult to determine which industries, and specifically which workers in those industries, will bear the brunt of the economic shift. Given the challenges of identifying a direct cause-and-effect relationship between these economic changes and AI, it will also be difficult to determine how best to address the labor and wage markets, sectors of globalization

and the effects of public policy. Therefore, policies and strategies designed to allay any potentially negative effects of the AI industry on the economy cannot help but be broad in order to avoid mitigation efforts in an area in which no change occurs. Another point that would need to be considered is the cultural and economic differences between the various countries in which AI is rapidly growing, as it is global in reach.

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