

[View the Conference Website](#)



THE WHITE HOUSE

FRONTIERS

CONFERENCE

OCTOBER 13, 2016

HOSTED BY

Carnegie Mellon University University of Pittsburgh

# Conference Mobile Site

frontiersconference.org

THE WHITE HOUSE  
**FRONTIERS**  
CONFERENCE

Menu

OCTOBER 13, 2016  
HOSTED BY  
Carnegie Mellon University University of Pittsburgh

President Obama will host the White House Frontiers Conference, a national convening co-hosted with the University of Pittsburgh and Carnegie Mellon University to explore the future of innovation here and around the world. The convening will include topics inspired by the November issue of WIRED, which will be guest-edited by the President on the theme of "Frontiers." The conference will focus on building U.S. capacity in science, technology, and innovation, and the new technologies, challenges, and goals that will continue to shape the 21st century and beyond.

## FRONTIERS PLENARY

A Conversation on the Future of Medicine and Health Care Innovation

President Obama will join a conversation with Atul Gawande and innovators in medicine and health care to discuss future health breakthroughs, such as those being driven by the Administration's BRAIN and Precision Medicine Initiatives.

[View Schedule](#)



## EXPLORING ADVANCES TOWARDS FIVE FRONTIERS IN SCIENCE AND TECHNOLOGY

The White House Frontiers Conference will bring together some of the world's innovators in Pittsburgh to discuss how science and technology frontiers will help improve lives, including progress and investments that are keeping America and Americans on the cutting edge of innovation.



//PERSONAL

This Administration's efforts to drive innovation in health care—such as the Precision Medicine Initiative and the BRAIN Initiative.

[View Schedule](#)

Menu



### //LOCAL

Communities are creatively connecting and using data, new technologies, and infrastructure to work together to improve quality of life for all citizens.

[View Schedule](#)



### //NATIONAL

Advances in artificial intelligence, machine learning, automation, and robotics can help address complex national problems and lead to greater prosperity.

[View Schedule](#)



### //GLOBAL

The work that is leading to tremendous strides in climate change mitigation and achieving a clean energy revolution—as well as in new advances in climate data, information, tools, and services.

[View Schedule](#)



## FRONTIERS

### //INTERPLANETARY

NASA and a thriving American space industry are developing new space technologies for our journey to Mars and to send humans "out into the solar system, not just to visit, but to stay," as President Obama called for in his 2015 State of the Union Address.

[View Schedule](#)

## STAY INFORMED

Receive updates and more information about the conference.

[Receive Updates](#)

## ASTRONOMY NIGHT

In continued celebration of exploration and new frontiers, the Allegheny Observatory at the University of Pittsburgh will also host the White House Frontiers Conference Astronomy Night to close out the conference. Featuring telescopes for stargazing, tours of the historic observatory, and expert astronomers, the event will bring together conference participants and students to celebrate science, innovation, and the spirit of discovery.

[Register Now](#)

Note: Your information may be shared among the University of Pittsburgh, Carnegie Mellon University, and the White House, as well as with other agencies and nongovernmental organizations working on the White House Frontiers Conference.

## NEWS ROOM

October 13, 2016

**White House to award \$300M in new initiatives at Pittsburgh conference**

October 13, 2016

**FACT SHEET: Harnessing the Possibilities of Science, Technology, and Innovation**

October 12, 2016

**Barack Obama: Now is the Greatest Time to Be Alive**

WIRED

October 12, 2016

**The Administration's Report on the Future of Artificial Intelligence**

whitehouse.gov

October 11, 2016

**Over \$1B in research annually fuels innovation in Pittsburgh region, site of upcoming White House Frontiers Conference**

imaginepittsburgh.com

October 09, 2016

**Frontiers Conference to draw Obama, top scientists and researchers to Pittsburgh**

Pittsburgh Post-Gazette

[View All](#)

**Carnegie Mellon University and the University of Pittsburgh would like to thank the following organizations for their generous support:**

The Benter Foundation, BNY Mellon Foundation of Southwestern Pennsylvania, The Buhi Foundation, The Claude Worthington Benedum Foundation, The Eden Hall Foundation, The Grable Foundation, The Heinz Endowments, The Hillman Family Foundations, The Jewish Healthcare Foundation, The Kavli Foundation, The McCune Foundation, The Pittsburgh Foundation, The PNC Foundation and Simons Foundation.

THE WHITE HOUSE

**FRONTIERS**

CONFERENCE

Carnegie Mellon University

University of Pittsburgh



**#WHFrontiers**

The Frontiers Conference is co-sponsored by The White House, Carnegie Mellon University and University of Pittsburgh.

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## [View the CMU Highlight Video](#)



# Example Schedule: [National Track](#)

## Artificial Intelligence (AI), Machine Learning, Automation, Robotics

October 13, 2016 | 8:30 AM – 12:00 PM  
Pittsburgh, PA | Carnegie Mellon University

### Welcome & Introduction

#### Remarks on Harnessing Emerging Technologies at the State and Local Level

Tom Wolf, Governor, Pennsylvania

### Ignite Talks: Artificial Intelligence (AI) For Good

#### AI for Wildlife Preservation

Tanya Berger-Wolf, Professor, Department of Computer Science, University of Illinois-Chicago

#### AI to Relieve Pittsburgh Traffic Congestion

Stephen F. Smith, Research Professor, Carnegie Mellon University

#### AI in Healthcare

Suchi Saria, Assistant Professor, Johns Hopkins

### Industry Panel: Best Practices in AI

*Moderator: Issie Lapowsky, Staff Writer, WIRED*

Jeannette M. Wing, Corporate Vice President, Microsoft Research

Françoise Beaufays, Research Scientist, Google

Yann LeCun, Director of AI Research, Facebook

Guruduth Banavar, Vice President of Cognitive Computing, IBM Research

Raffi Krikorian, Engineering Lead, Uber Advanced Technologies Center

### Ignite Talks: Artificial Intelligence (AI) For Good

#### Drones for Search and Rescue

Robin R. Murphy, Raytheon Professor of Computer Science and Engineering Texas A&M

#### AI For Poverty Mapping

Stefano Ermon, Assistant Professor of Computer Science, Stanford University

#### Cyber Grand Challenge

Michael Walker, Program Manager, Information Innovation Office, Defense Advanced Research  
Projects Agency

### Brain Computer Interfaces for Assistive Technology

Michael Boninger, MD, Professor, Department of Physical Medicine & Rehabilitation, University  
of Pittsburgh School of Medicine, Senior Medical Director for Post Acute Care, UPMC Health  
Service Division Physician Research, Department of Veterans Affairs

# Example Schedule: [Main Plenary](#)

## Main Plenary

October 13, 2016 | 1:45 PM – 4:00 PM  
Pittsburgh, PA | Carnegie Mellon University

**Carnegie Mellon University Welcome Remarks**  
Subra Suresh, President, Carnegie Mellon University

**National Frontier Lightning Talk**  
Tim O'Reilly, Founder and CEO, O'Reilly Media

**Local Frontiers Live Podcast: Creating a Smart Inclusive City of the Future**  
Roman Mars, Host and Creator, 99% Invisible  
Raj Chetty, Professor of Economics, Stanford University

**Global Frontier Lightning Talk**  
Charles Orgbon III, Student, University of Georgia

**WIRED Panel on Interplanetary Frontiers**  
*Moderator: Robert Capps, Head of Editorial, WIRED*  
Anousheh Ansari, CEO and Co-Founder, Prodea Systems, Inc.  
Dava Newman, Deputy Administrator, NASA  
Erika Wagner, BlueOrigin

**University of Pittsburgh Remarks**  
Patrick Gallagher, Chancellor, University of Pittsburgh

**Presidential Introduction**  
*Introducer: Alexis Chidi, Student, Medical Scientist Training Program of the University of Pittsburgh & Carnegie Mellon University*

**Presidential Panel on Brain Science and Medical Information**  
*Host: President Barack Obama*  
*Moderator: Atul Gawande MD, MPH*  
Kafui Dzirasa, Neuroscientist, Duke University, Laboratory for Psychiatric Neuroengineering  
Riccardo, Sabatini, Research Scientist, Data Scientist, Human Longevity, Inc.  
Zoë Keating, Cellist, Composer, Patient Advocate

## [View the Main Plenary Video](#)

# FRONTIERS PLENARY

A Conversation on the Future of Medicine and Health Care Innovation

President Obama will join a conversation with Atul Gawande and innovators in medicine and health care to discuss future health breakthroughs, such as those being driven by the Administration's BRAIN and Precision Medicine Initiatives.

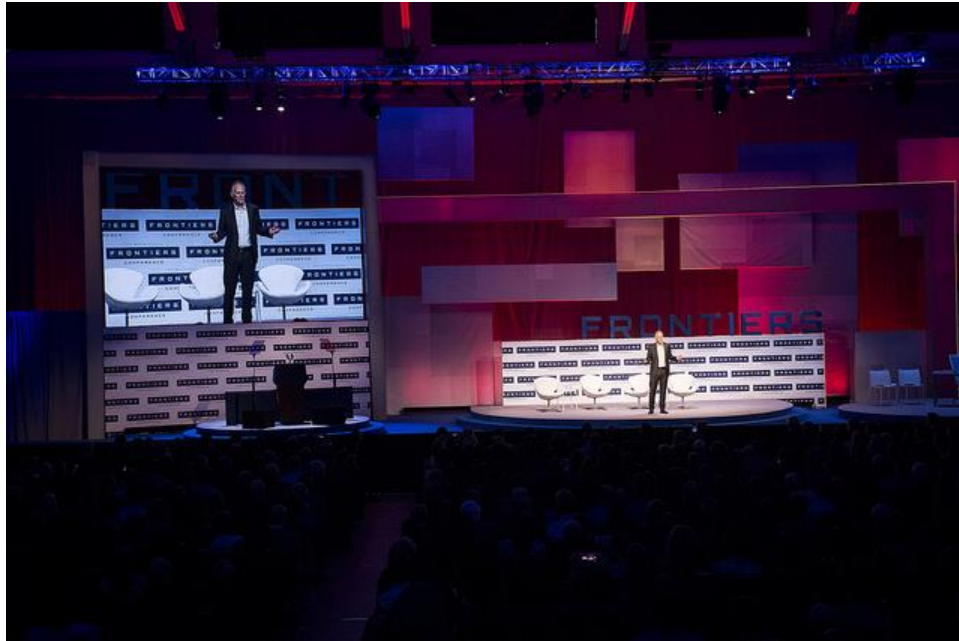
[View Schedule](#)



Speaking in the Cohon University Center during his fifth visit to Carnegie Mellon, President Obama told 700 leaders in academia, industry and government that Pittsburgh is the home to transformational technologies such as artificial intelligence and robotics, not to mention world-class universities. He even gave a shout-out to the CMU-sponsored robotics club "Girls of Steel."



## [View the CMU Flickr Gallery](#)



**Main Plenary stage**



**Main Plenary podium with Presidential Seal**



**Main Plenary with CMU and University of Pittsburgh  
branded draping & uplighting**



**CMU Cohon University Center  
display case branding**



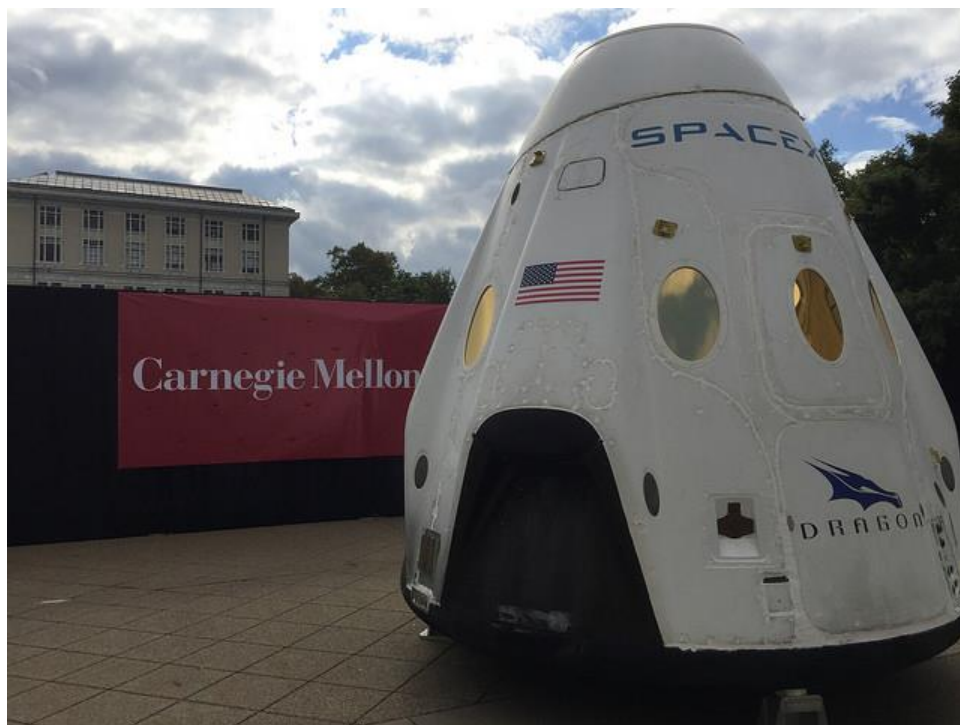
**Interplanetary Track hosted by CMU**



**Local Track hosted by CMU**



**National Track hosted by CMU**



**SpaceX Dragon Spacecraft demo  
with branding at CMU**



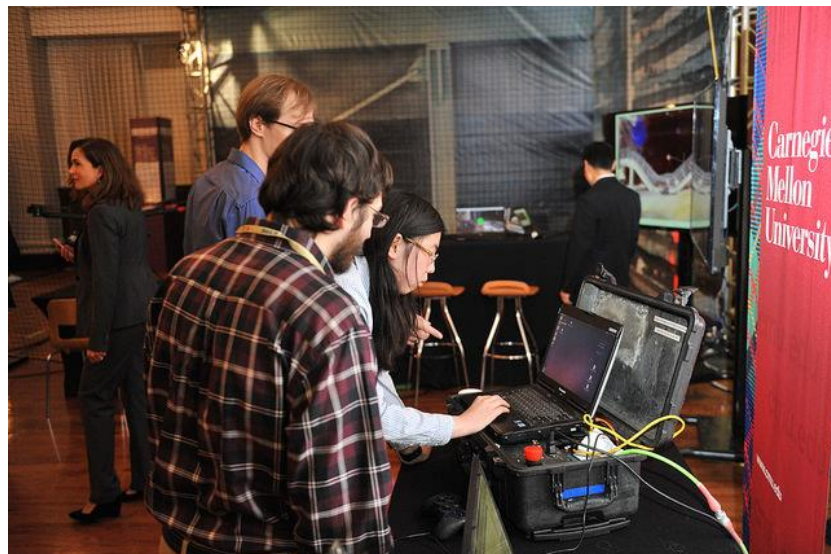
**Boss, winner of 2007 DARPA Urban Grand Challenge  
Driverless vehicle demo with branding at CMU**



**Autonomous Cadillac SRX  
Driverless vehicle demo with branding at CMU**



**CMU robots at the  
University of Pittsburgh demo showcase**



**CMU research at the  
University of Pittsburgh demo showcase**



**CMU research at the University of Pittsburgh demo showcase**



**President Barack Obama interacting with CMU researchers at the University of Pittsburgh demo showcase**





## President Barack Obama Will Guest-Edit Wired's November Issue

By Robert Capps – August 30, 2016

WIRED HAS HAD some amazing guest editors over the years. J.J. Abrams on magic, mysteries, and puzzles; Bill Gates on solving the world's biggest problems; Christopher Nolan on space, time, and multiple dimensions; and, most recently, Serena Williams on equality in the digital age. This November we will add President Barack Obama to our guest editor ranks—the first time WIRED (or any other magazine) has been guest-edited by a sitting president.

The theme of the issue: Frontiers. Like WIRED, our 44th president is a relentless optimist. For this completely bespoke issue, he wants to focus on the future—on the next hurdles that humanity will need to overcome to move forward. These will include personal frontiers, from precision medicine to human performance; local frontiers, including using data in urban planning and making sure renewable energy works for everyone; national frontiers, from civil rights to medical data; international frontiers, like climate change and cybersecurity; and final frontiers, including space travel and Artificial Intelligence.

Why the president? Why now?

<https://www.wired.com/2016/08/president-barack-obama-will-guest-edit-wireds-november-issue/>

"When the Founders wrote the Declaration of Independence and the Constitution, they were at the bleeding edge of Enlightenment philosophy and technology," WIRED Editor In Chief Scott Dadich explains. "Franklin was talking about crazy stuff like electricity and communications networks. Paine gave up the copyright to Common Sense so it could get wider publication. Jefferson was radically rethinking design and land use. We want to wrestle with the idea of how today's technology can influence political leadership. And who better to help us explore these ideas than President Obama?"

**The White House is also announcing a Frontiers conference, inspired by the issue, which President Obama will host with the University of Pittsburgh and Carnegie Mellon University on October 13. You can learn more about the event at [frontiersconference.org](http://frontiersconference.org).**

The issue will be available on select newsstands, WIRED.com, and tablet editions beginning October 18, and will hit newsstands nationwide on October 25.

# Sample of Coverage: CMU Co-hosts White House Frontiers Conference



[President Obama to Host White House Frontiers Conference in Pittsburgh, PA](#)

Aug. 30, 2016



[Obama to host tech conference in Pittsburgh](#)

Aug. 30, 2016

**The New York Times**

[Obama to Guest-Edit Wired Magazine](#)

Sept. 1, 2016



[U.S. Partnering With Private Firms to Send Humans to Mars by 2030s, Obama Says](#)

Oct. 11, 2016

**Los Angeles Times**

[President Obama schools Silicon Valley CEOs on why government is not like business](#)

Oct. 17, 2016

**POPULAR  
SCIENCE**

[S.A.R.A. Seeks To Give Artificial Intelligence People Skills](#)

Oct. 14, 2016

**Pittsburgh Post-Gazette®**

[Nation's leading thinkers gather at Frontiers Conference at Pitt, CMU](#)

Oct. 14, 2016

## [View the Segment](#)

the **LATE**  
**SHOW** with  
stephen  
colbert



### **COLBERT DROPS BY CMU, OFFERS PRESIDENT OBAMA RESUME TIPS**

Tuesday, October 18, 2016

President Barack Obama received some unsolicited career advice during his visit to Carnegie Mellon University for the White House Frontiers Conference.

Stephen Colbert, host of CBS' "The Late Show With Stephen Colbert," stopped by to videotape a skit that aired on Monday, Oct. 17 with Obama, who is in the final 100 days of his term.

"I'm so thrilled to join you here at Carnegie Mellon University," Colbert said, "and just like all the students out there taking part in the White House Frontiers Conference, you too will soon be looking for a new job. Isn't that interesting?"

"And I am honored that you asked me here to help," Colbert said.

"Stephen, I didn't ask you here to help," Obama said. "I still don't know how you got in here."

Colbert donned a blue vest and wore a fake mustache to turn into office manager Randy, who conducted a mock interview that included asking Obama where he was born and questioning his lack of any promotion in the last eight years.

"Honestly, there wasn't a lot of room for advancement in my last job," Obama said. "The only one with a more powerful position was my wife."

# Sample of Coverage: Colbert Segment Filmed at CMU



[Stephen Colbert Helps President Barack Obama Polish His Résumé](#)

Oct. 18, 2016

## Los Angeles Times

[Stephen Colbert helps President Obama with his upcoming job search](#)

Oct. 18, 2016

## The Washington Post

[Stephen Colbert asks President Obama, Bill O'Reilly about the election — in very different ways](#)

Oct. 18, 2016



[President Obama Tapes Appearance For Stephen Colbert's 'Late Show' Ahead Of Final Debate](#)

Oct. 13, 2016



Carnegie Mellon University  
October 18, 2016 · 🌐

Even a president needs to brush up his resume once in a while, right? Stephen Colbert stopped by CMU last week during The White House Frontiers Conference to offer President Obama some unsolicited career advice. More: <http://www.cmu.edu/.../archiv.../2016/october/colbert-obama.html>



**Colbert Drops by CMU, Offers President Obama Resume Tips-CMU News - Carnegie Mellon University**  
President Barack Obama received some unsolicited career advice during his visit to Carnegie Mellon University for the White House Frontiers Conference.  
CMU.EDU

👍 Like   🗨 Comment   ➦ Share

👤 Emily Stimmel, Marry Evans and 1.5K others   Top Comments

527 shares



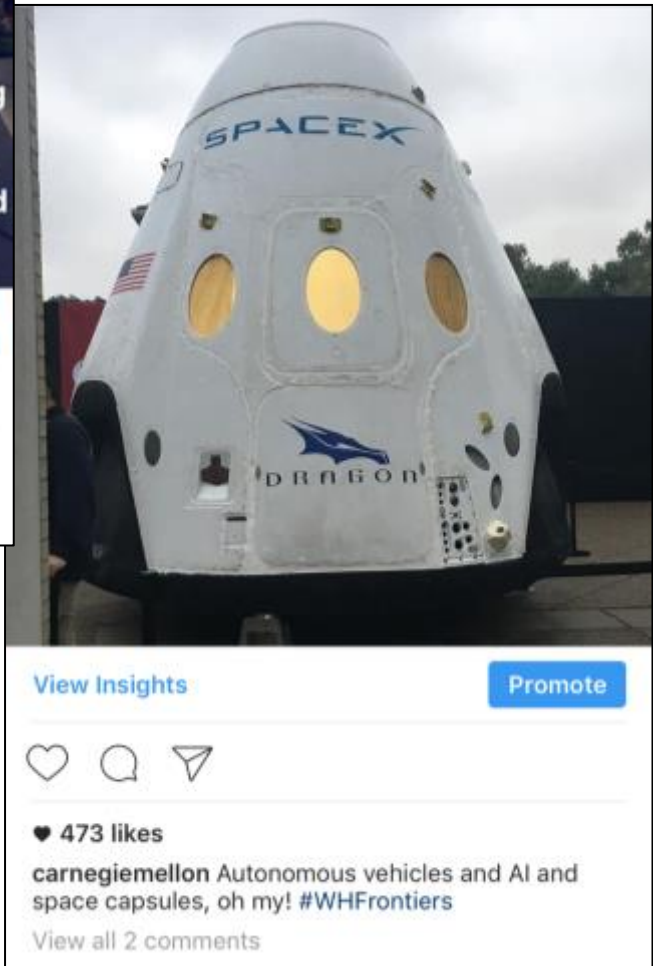
Carnegie Mellon @CarnegieMellon · 18 Oct 2016

That time when @StephenAtHome came to CMU and tried to give @POTUS tips for his resume and future job interviews: [bit.ly/2dML9Vs](http://bit.ly/2dML9Vs)



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# Social Media Highlights: [Instagram](#)



# Social Media Highlights: [Facebook](#)

**Carnegie Mellon University**  
October 14, 2016 · 🌐

President Barack Obama made his fifth visit to Carnegie Mellon University yesterday, this time for [The White House Frontiers Conference](#), a large gathering of national thought-leaders, to discuss building America's capacity in science, technology and innovation. #WHFrontiers



**Obama, Leading Scientists Explore Frontiers at CMU-**  
**CMU News - Carnegie Mellon University**

President Barack Obama made his fifth visit to Carnegie Mellon University for The White House Frontiers Conference, a large gathering of national thought-leaders, to discuss building America's capacity in science, technology and innovation. #WHFrontiers

[WWW.CMU.EDU](http://WWW.CMU.EDU)

👍 Like    💬 Comment    ➦ Share

👍 🧡 🙌 M Shernell Smith, Claire Pro and 1.4K others

271 shares

**Carnegie Mellon University** added 3 new photos.  
October 9, 2016 · 🌐

We're excited for President Obama to make his fifth visit to campus this week. Here are some photos from his past visits. For more information on #WHFrontiers, visit <http://www.frontiersconference.org/>.



👍 Like    💬 Comment    ➦ Share

👍 🧡 🙌 Emily Meyer, M Shernell Smith and 1K others      Top Comments ▾

75 shares

# Social Media Highlights: [Twitter](#)

 Carnegie Mellon  @CarnegieMellon · 13 Oct 2016

1984. 2007. 2014. Thirty years of autonomous vehicles at CMU. Currently on display at #WHFrontiers.



  27  35

 Carnegie Mellon  @CarnegieMellon Following 

Shout out to @TheGirlsOfSteel from @POTUS! #WHFrontiers



RETWEETS 17 LIKES 32 

3:26 PM · 13 Oct 2016

  17  32

# Social Media Highlights: Snapchat

