



# DAWN OR DOOM '16 & '17

THE RISKS AND REWARDS OF EMERGING TECHNOLOGIES

**PURDUE**  
UNIVERSITY®

**DESIGNING THE WORKFORCE**

**DESIGNING INFORMATION**

**DESIGNING FOOD**

**DESIGNING CITIES**

**DESIGNING HUMANS**

**DAWN OR DOOM '17**  
AT PURDUE UNIVERSITY

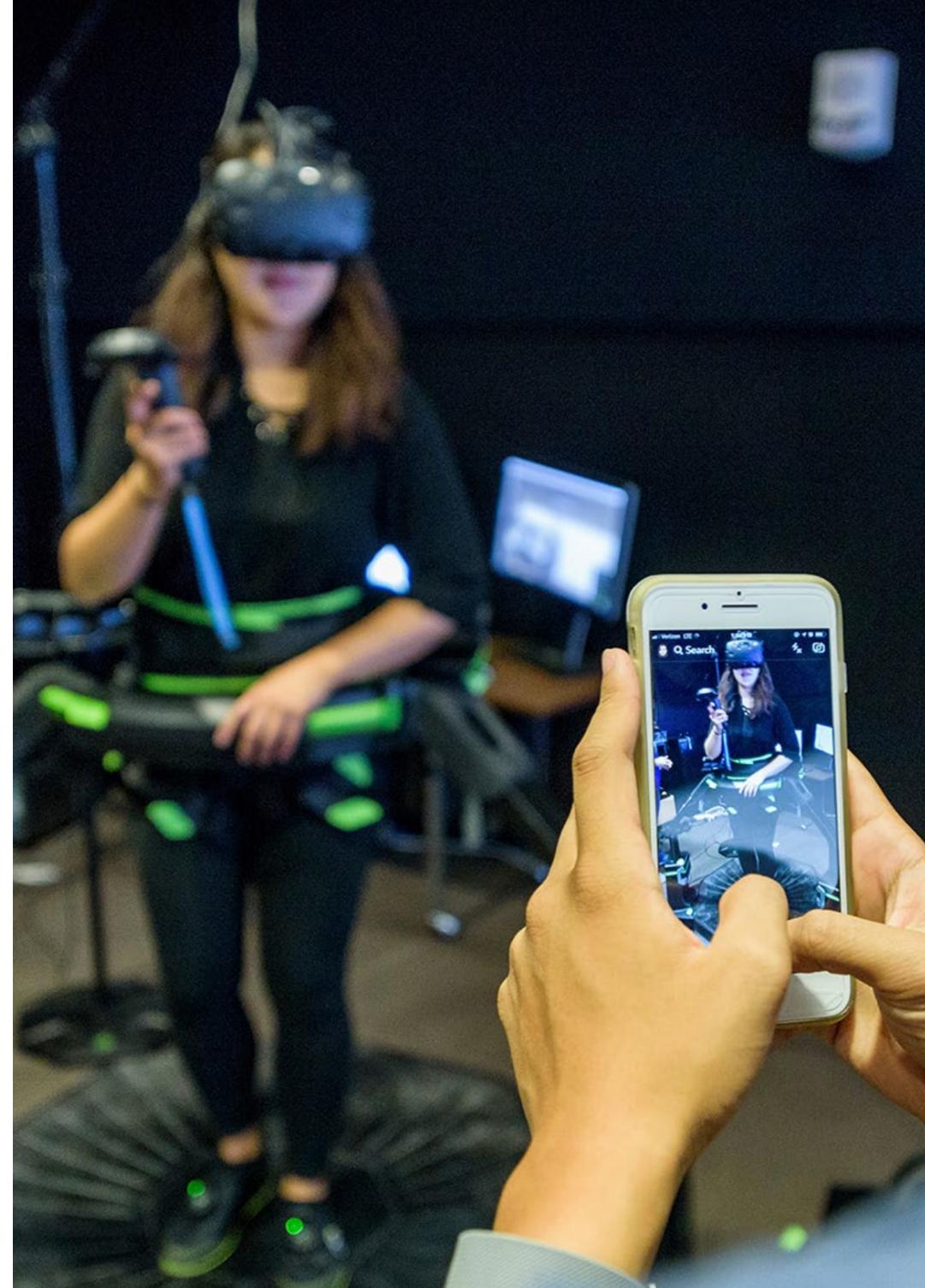
9/26-27

PURDUE.EDU/DAWNORDOOM

JOIN THE CONVERSATION

#DAWNORDOOM

visualized by [inkfactorystudio.com](http://inkfactorystudio.com)



The Dawn or Doom conference series launched in September 2014 to explore the effects of rapidly emerging technologies such as artificial intelligence and genetic engineering by bringing together some of the nation's leading experts and stars from Purdue's large constellation of researchers to kick-start conversations on campus and beyond.

Since then, the need for such conversations has not diminished. Do you really want to design your children from the genes up? Are GMO animals safe to eat? Are emojis a new language? When will artificial intelligences surpass human intelligence? If they do, does that really spell our doom? Can an AI be humorous? What's the future of work if AIs and robots can do it all for us? What will it mean when networked vehicles, appliances and other devices surround us pervasively and persistently? Is privacy even possible anymore?

Free and open to the public, Dawn or Doom attracted more than 6,000 participants in 2017. Among others, they heard featured speakers such as Nick Thompson, WIRED editor-in-chief, Monsanto Chief Technology Officer Robb Fraley, the father of GMO crops, HPE's Tom Bradicich, a leader in developing "Internet of Things" technology, and historian Michael Bess, author of "Our Grandchildren Redesigned: Life in the Bioengineered Society of the Near Future." The 2017 conference also was notable for the variety of related activities it included, from technology-themed art exhibits and a common book reading program to interactive virtual and augmented reality tours and the kind of network-connected car that we may be driving (or that may be driving us) in the near future.

This brochure - selections from a book about the 2016 and 2017 conference proceedings - provides a taste of Dawn or Doom's flavor. We invite you to attend and join the conversation at the fifth Dawn or Doom conference Nov. 5-6, 2018, on Purdue's West Lafayette, Ind., campus.



Technology is getting pretty complicated, and a lot of people who were optimistic are getting less optimistic, and people who were less optimistic are now kind of on the fence.

My general philosophy is that if a billionaire asks you to coffee, you say yes.



## THE OPTIMISTIC TECHNOLOGIST

### NICHOLAS THOMPSON

EDITOR-IN-CHIEF, WIRED

We're at a moment when technological advances present us with choices to make – choices with profound consequences for the way society functions, the way our relationships work, the way our economies work, the way our minds work, in a sense even what the human species is. Choose well.



Mel Fox @melfoxphd · Sep 27

@nsthompson talks abt how our phones & apps like Twitter hijack us, while I'm taking notes on my phone & tweeting. Hmm... #DawnorDoom

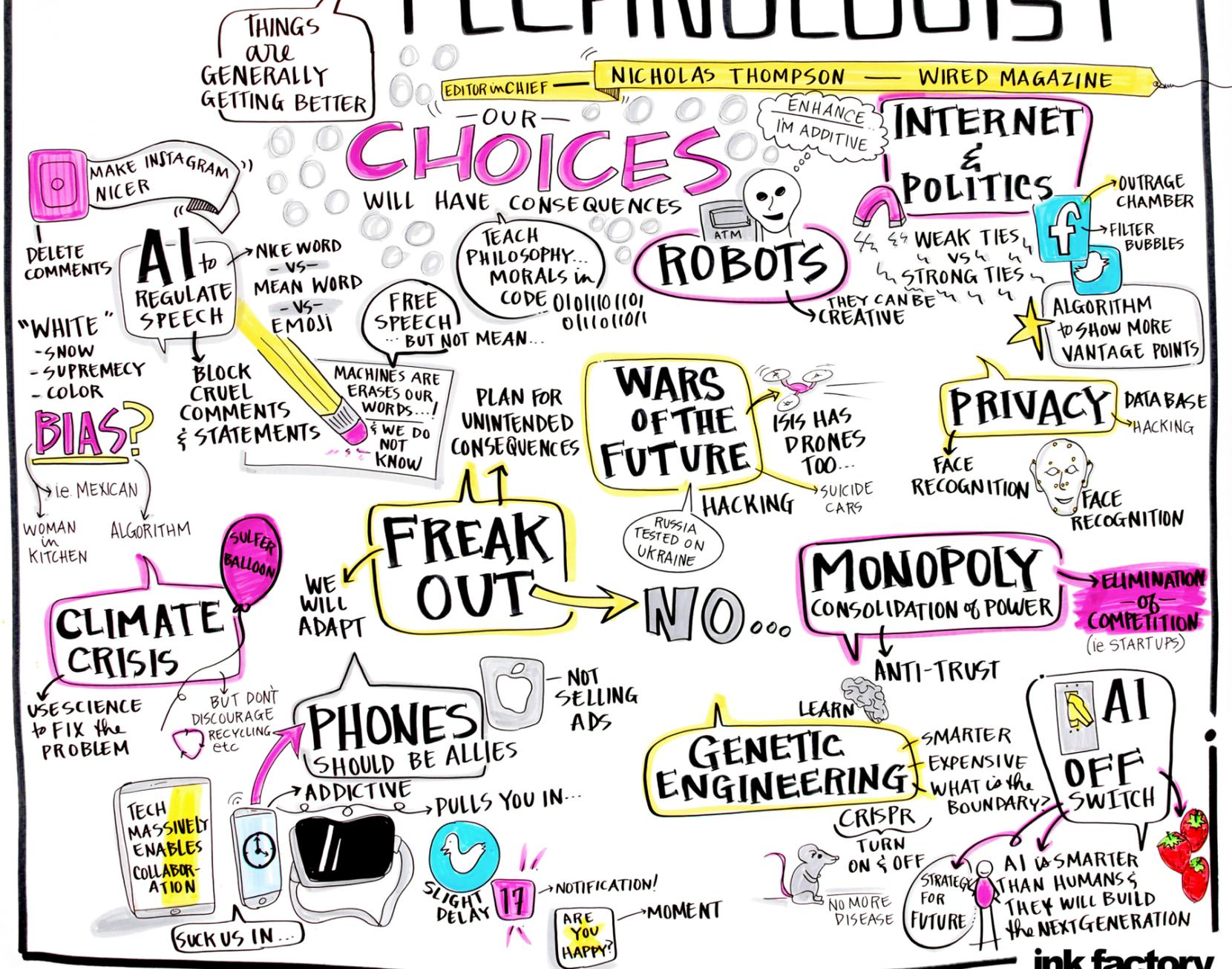


Greg Kline @mrgreg · Sep 27

"Our phones are better at hijacking our time than we are at controlling them." WIRED Editor-in-Chief Nick Thompson @ #DawnorDoom.

DAWN OR DOOM '17

# the Optimistic TECHNOLOGIST

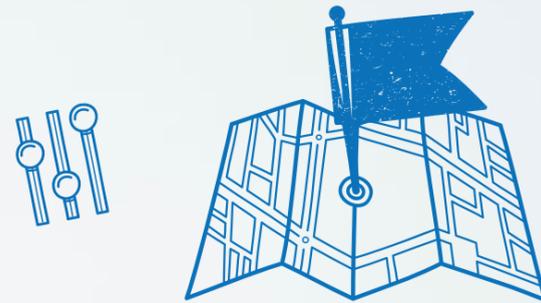


ink factory  
you talk. we draw. it's awesome.

# DATA, CREEPINESS AND CONVENIENCE: ENABLING THE CAR TO DECIDE FOR YOU

**MOHAMMAD RAHMAN**  
ASSOCIATE PROFESSOR OF MANAGEMENT  
PURDUE KRANNERT SCHOOL OF MANAGEMENT

Where data and its ownership are concerned, consumers mostly have indicated that they prefer convenience over privacy. Will this continue to be the case as ubiquitous technology connects us pretty much anytime, anywhere and with almost anything?



There are choices we're making, judgments we're making that we need our AI, our smart car, to understand.

Google probably knows more about you than you know about yourself.

**Alexander Cam Liu** @alexcamliu · Sep 27  
"The car needs to learn about you, it does not talk to you, or about you" #DawnorDoom

**Mark Sullivan** @Sully\_65 · Sep 27  
Standing room only for Data Creepiness and Convergence: Letting Your Car Decide For You by Mohammad Rahman #DawnorDoom

DAWN OR DOOM '17

# DATA, CREEPINESS, and CONVENIENCE: ENABLING the CAR TO DECIDE for YOU

MOHAMMAD RAHMAN

CAN YOUR CAR KNOW YOU BETTER THAN YOURSELF?

**DECISIONS**

**JUDGEMENT**

WE ALL MAY CHOOSE A DIFFERENT ROUTE

TAKE INTO ACCOUNT PERSONAL PREFERENCES

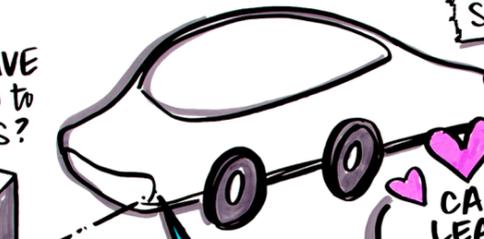
DO WE ALL HAVE the SAME INFO to MAKE DECISIONS?

MACHINE DOESN'T HAVE SAME BIASES

I'M SAVING YOU FROM YOURSELF!

TECHNOLOGY IS MORE OBJECTIVE THAN YOU

WE'RE TAKING THIS ROUTE... EVEN if YOUR BIAS MAKES YOU PREFER ANOTHER



CAR WILL LEARN ABOUT YOU

WE'RE OUT OF MILK  
RE-ROUTING to WALMART...  
10% OFF  
HOW BIG OF A DISCOUNT NEEDED to GET YOU to CHOOSE WALMART?

THE MORE KNOWN ABOUT YOU, THE MORE YOUR DECISIONS CAN BE INFLUENCED

DON'T FALL into SUNK COST FALLACY

amazon WOULD HAVE SAVED YOU \$20!!

REALLY... it's FOR the BEST!

SCENIC ROUTE  
TRUCKS

DATA TRANSFER NEEDED to MAKE THIS FUNCTION

HUGE OPPORTUNITY for COMMERCIALIZATION

COMPANIES DON'T WANT to SHARE THEIR DATA

IOT MAKES PERSONALIZATION POSSIBLE

CARS HAVE the POTENTIAL to BE NEXT BIG DISRUPTOR to OUR LIVES LIKE SMART PHONES DID

"IT'S a BEAUTIFUL DAY! RE-ROUTING to SCENIC ROUTE"

"BIG STORE IS ON THE WAY & HAS YOUR FAVORITE WINE... RE-ROUTING"



"You can repurpose one tool for multiple things, I think that's another really great thing about VR."

"Everything is filtered through our own perspective, and that's what's interesting about a virtual experience."

## THE FUTURE OF VIRTUAL, AUGMENTED AND MIXED REALITY

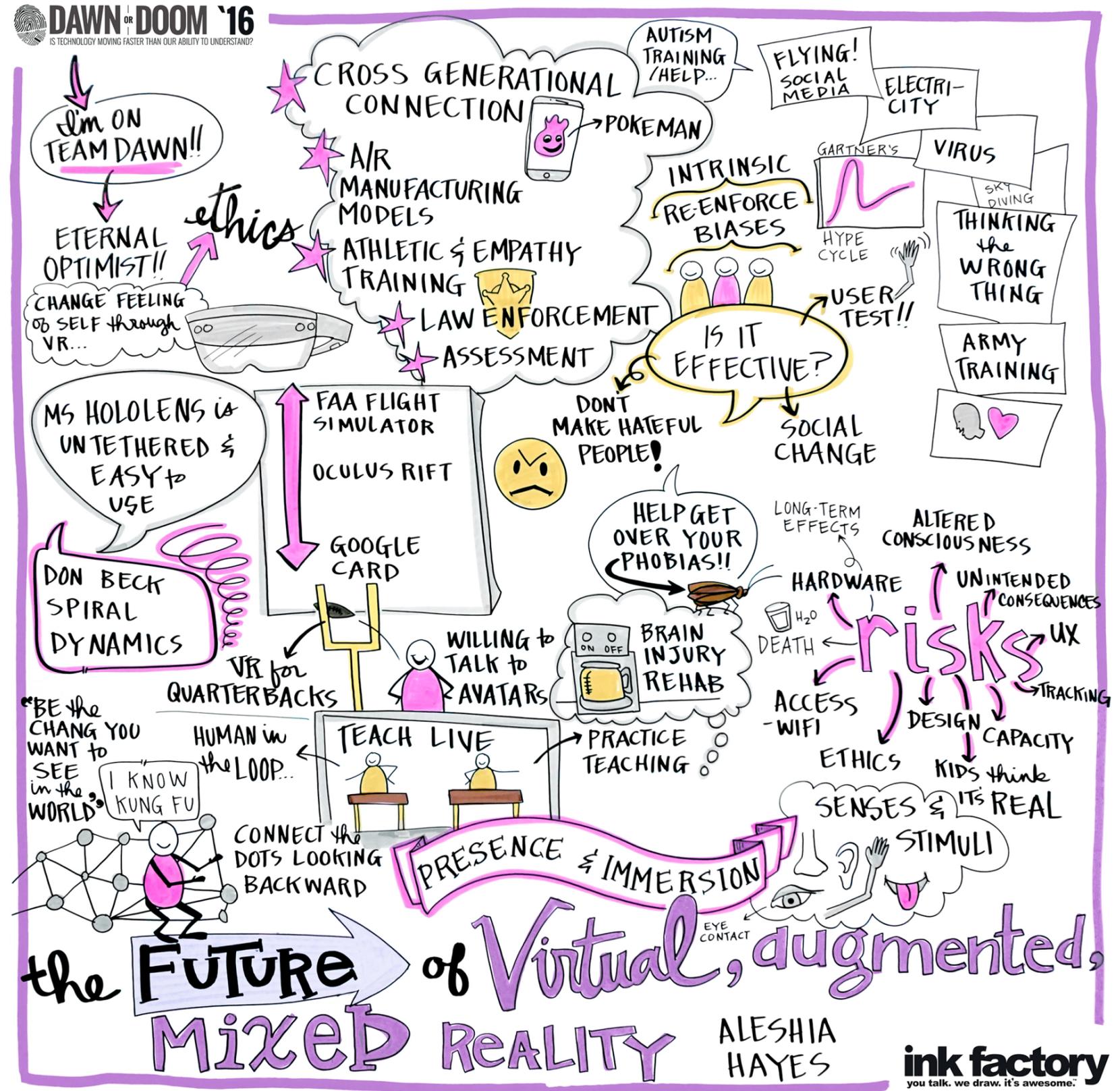
**Aleshia Hayes**

ASSISTANT PROFESSOR OF COMPUTER SCIENCE, IS, AND GAME DEVELOPMENT/HCI RESEARCHER  
DEPARTMENT OF COMPUTER SCIENCE, INDIANA UNIVERSITY-PURDUE UNIVERSITY FORT WAYNE

Experiences in virtual reality can beneficially alter our real-world perception in areas like education, training and health care, but can also be used to spread misinformation and reinforce biases.

 **Ashley Butler** @abutlerferrall · 4 Oct 2016  
"The future is now and we are working on it continuously." -Hayes  
#DawnOrDoom

 **Brett Todd** @bretttodd · 4 Oct 2016  
We are on Virtual Continuum moving from realty to virtual reality. @AleshiaProf  
#DawnOrDoom



# CONCURRENT EVENTS



**HANDS ON VIRTUAL REALITY,  
PURDUE ENVISION CENTER**



**HPE CONNECTED CAR**

**“DESIGN GOOD NOW” CHALLENGE  
MEDICAL DESIGN “HACKATHON”**

**STUDENT WRITING CONTEST**

**DATA DIVE**

**PURDUE GRADUATE STUDENT  
POSTER SESSION**

**zipTrips**

**ECOLOGICAL SCIENCES AND  
ENGINEERING**

**CLIMATE CHANGE DEBATE  
“FAKE NEWS” PANEL DISCUSSION  
3-MINUTE THESIS COMPETITION**

**“DESIGN GOOD NOW” AND DUBLIN  
INSTITUTE OF TECHNOLOGY  
ART EXHIBITS  
RUEFF GALLERIES**

**RINGEL GALLERY ART EXHIBIT**

