

The National Academies of
SCIENCES • ENGINEERING • MEDICINE

TRANSPORTATION RESEARCH BOARD

January 2020 Executive Committee

Artificial Intelligence in Transportation Policy Session

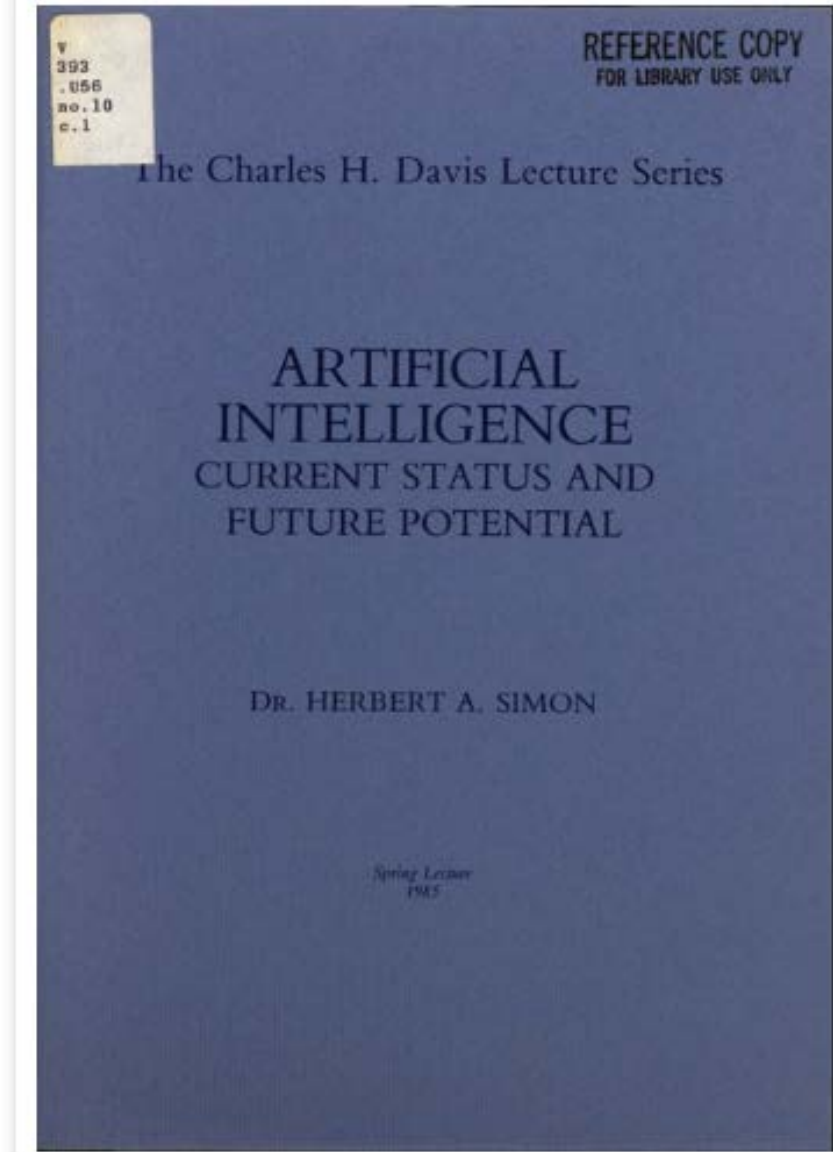
January 15, 2020

Artificial Intelligence



- “The ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings.” (Intelligent beings are those that can adapt to changing circumstances.) Encyclopedia Britannica
- “Artificial Intelligence” term first coined in the mid-1950s

National Academies Report 1985!



TRB Standing Committee on Artificial Intelligence & Advanced Computer Applications (2012)



TRB Standing Committee on Artificial Intelligence & Advanced Computer Applications

- Sponsoring numerous sessions, workshops, & webinars
- Reviewing Annual Meeting paper submissions

	2016	2020
# of papers submitted	58	161
Accepted for presentation	29	103
Accepted for TRR publication	9	24

- Finalizing Primer on Machine Learning in Transportation
 - Expected in 2020

TRB Publications on Artificial Intelligence

- Almost all TRB papers and projects deal with very specific applications of AI
 - Transportation Research Record = 95 papers since 2014
 - TRB Annual Meeting = 161 papers since 2014
 - Numerous Cooperative Research Program projects
- Few, if any, address strategic or long term implications

Session Panelists



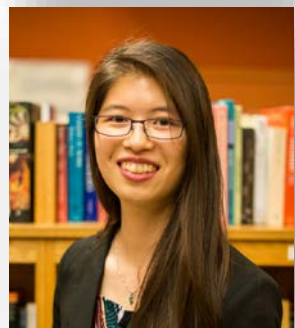
Prasanna Balaprakash

Computer Scientist, U.S. DOE-Argonne National Laboratory



Richard Davies

Deputy Director of Sustainable Transportation Program, U.S. DOE - Oak Ridge National Laboratories



Cathy Wu

Gilbert W. Winslow Career Development Assistant Professor,
Civil and Environmental Engineering, MIT

Session Schedule

- Wednesday, January 15: 2:30 pm -5:30 pm
 - Moderated by Carlos Braceras
 - Panelist Presentations:
 - Primer on AI and Related Terms (Prasanna Balaprakash)
 - AI Applications in Transportation - Example Cases (Richard Davies)
 - The Future of AI in Transportation (Cathy Wu)
 - Open Q&A and Discussion
 - TRB Executive Committee members and panelists
- Thursday, January 16: 8:30 am - 9:15 am
 - Moderated by Vicki Arroyo
 - Rapporteur summary of Wednesday presentations and discussion (Michael Berube)
 - TRB Action Items (TRB Executive Committee members)