


 The Institute for **Systems** Research

HOME

DIRECTOR'S WELCOME

ABOUT ISR/CONTACTS/STAFF

FACULTY

RESEARCH

CENTERS AND LABS

EDUCATION PROGRAMS

NEWS, PUBLICATIONS, MEDIA

EVENTS

FOR INDUSTRY/GOVERNMENT

FOR ALUMNI

FOR FACULTY &amp; STAFF

FOR VISITORS

FOR STUDENTS

MD ROBOTICS CENTER

MICROSYSTEMS INITIATIVE

BRAIN AND BEHAVIOR INITIATIVE

**GIVE TO THE ISR  
 FELLOWSHIP FUND**

## ISR News Story

**Researchers write about Google's AlphaGo for  
*OR/MS Today***

The University of Maryland researchers who first explored ideas at the core of Google's AlphaGo have written an article for the October issue of *OR/MS Today*, the main magazine of the professional society INFORMS (Institute for Operations Research and the Management Sciences). AlphaGo is the artificial intelligence (AI) system that defeated Go master Lee Se-Dol in early March. (Read our original story here.)

The article, "Google DeepMind's AlphaGo," was co-written by former Institute for Systems Research (ISR) Postdoctoral Researcher Hyeong Soo Chang, now a professor at Sogang University in Korea; Professor Michael C. Fu (Smith School/ISR); Jiaqiao Hu, (FCF Ph.D. 2006), now an associate professor at Stony Brook University; and Professor Steven I. Marcus (ECE/ISR). They originally collaborated on the paper, "An adaptive sampling algorithm for solving Markov decision processes," which was a seminal influence on AlphaGo. It appeared in the January-February 2005 issue of the journal *Operations Research*.

In the article, the authors talk about how their ideas influenced the development of AlphaGo. They also delve into disconnects between the operations research (OR) and computer science/artificial intelligence (CS/AI) communities that hinder idea sharing between the disciplines. They argue that disciplines' very different academic cultures make things difficult—for example, while the CS/AI community mainly publishes through conference proceedings, the OR community values journal publications. The authors then suggest ways these communities could interact in a mutually beneficial way to build on the research strengths of both.

| [Read the article here](#) |

## Current Headlines

Congratulations ISR graduates!

University of Maryland to Establish Research Center of Excellence with UTC Climate, Controls & Security and Otis

MSSE student Jessica Knizhnik wins INCOSE/Kossiakoff Scholarship

UMD Researchers Find Ultra-thin Solution to Primary Obstacle in Solid-State Battery Development

Alumna Naomi Leonard wins Hendrik W. Bode Lecture Prize

S.K. Gupta leads finalist group in KUKA Innovation competition

Two UMD Teams NASA BIG Idea Challenge Finalists

UMD Receives \$1M in Federal Funding to Help Increase Number of Minority Students Graduating with STEM Degrees