IDGA
Institute for Defense and Government Advancement

Intelligence Analytics SUMMIT

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ARTIFICIAL INTELLIGENCE IN THE INTELLIGENCE COMMUNITY: TRENDS WITHIN ANALYTICS, THE FUTURE & MORE

INSIGHT FROM INTELLIGENCE EXPERTS

Lieutenant General (ret) Robert Otto
Former Air Force Deputy Chief of Staff for Intelligence, Surveillance and Reconnaissance
Chairman, Intelligence Analytics 2018

Grant Scott
Assistant Research Professor
Data Science and Analytics Masters Program
Center for Geospatial Intelligence
University of Missouri

Prior to **Intelligence Analytics 2018**, we sat down with Retired Lieutenant General Robert Otto and Assistant Research Professor Grant Scott to discuss upcoming projects, trends in artificial intelligence and machine learning, how intelligence analytics will transform in the next few years, what they are most looking forward to at the upcoming Summit and more.

Interview with Lieutenant General (ret) Robert P. "Bob" Otto

Lieutenant General (ret) Robert Otto
Former Air Force Deputy Chief of Staff for Intelligence, Surveillance and Reconnaissance
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ABOUT

I was blessed to have a diverse Air Force career, from line F-15 pilot in my early years to leading the 27,000 men and women who make up Air Force intelligence and reconnaissance. In between those bookends I had the chance to command at the squadron, group, wing, and center level. During the dozen or so years I was a general officer, I was in the reconnaissance and intelligence business. It was exciting to train the crews and generate the sorties that gathered the SIGINT, COMINT, and GEOINT around the globe. It was especially gratifying to lead the women and men who turned that collection into intelligence. The Air Force ISR enterprise is huge, complicated, and diverse. It is also critical to the DoD and our nation, so it was an honor to play a key role.

WHERE DO YOU SEE THE FUTURE OF INTELLIGENCE ANALYTICS WITHIN THE NEXT 3 YEARS?

Analytics is rapidly transforming. Increased processing power, GPUs, availability of huge data sets, and advanced algorithms are all key reasons we are seeing an acceleration in the rate of change in analytics. The challenge for the DoD is to harness the best of what is happening in the private sector, and apply it to the defense business. It presents organizational, agility, and process challenges. Worse, there are good reasons to believe other nation states have a head start embracing new ways to looking at analytics. I think the DoD recognizes both the threat and the potential, so the next three years will be marked by experimentation, rapid development, and fielding. Training and integration will remain major challenges for all of the services and agencies.

WHAT ADVICE WOULD YOU GIVE LEADERS IN THE INTELLIGENCE SECTOR OF THE MILITARY? PRIVATE SECTOR?

Don't sit on your laurels. We clearly have many areas of excellence and world-leading capabilities. But the tectonic plates are shifting, so the landscape so familiar to the military and private sector can rapidly shift. It is more important than ever to stay abreast, and to ensure agile policies and processes to take advantage of the right opportunities.

WHAT ARE YOU MOST EXCITED ABOUT FOR THE INTELLIGENCE ANALYTICS SUMMIT?

I really look forward to the chance to learn from the varied experts that will be presenting their thoughts, ideas, best practices, and vision of the future. It is important to learn from the work of others, and understand how to apply it to similar situations. The conference will provide the chance to learn, debate, collaborate, and energize the attendees. It promises to be a meaningful three days.

Interview with Grant Scott

Grant Scott
Assistant Research Professor
Data Science and Analytics Masters Program
Center for Geospatial Intelligence
University of Missouri

ABOUT

Dr. Scott is currently a founding Director of the Data Science and Analytics Master's Degree program at the University of Missouri (MU). He serves as the Program Manager (principal and architect) of the University of Missouri's Program of Study in Data Science training contract for the National Geospatial-Intelligence Agency and other DOD/IC customers. He currently holds a position as a Research Assistant Professor at the Center for Geospatial Intelligence and in the Department of Electrical Engineering and Computer Science at MU. He has participated in projects for NGA, DIA, Army and DARPA. He is currently mentoring or leading research projects in a number of areas including data science, computer vision, spatiotemporal analytics, high-performance computing, and Internet of Things (IoT), and crowd-sourced information mining. He also has years of industry experience in enterprise systems support and development.

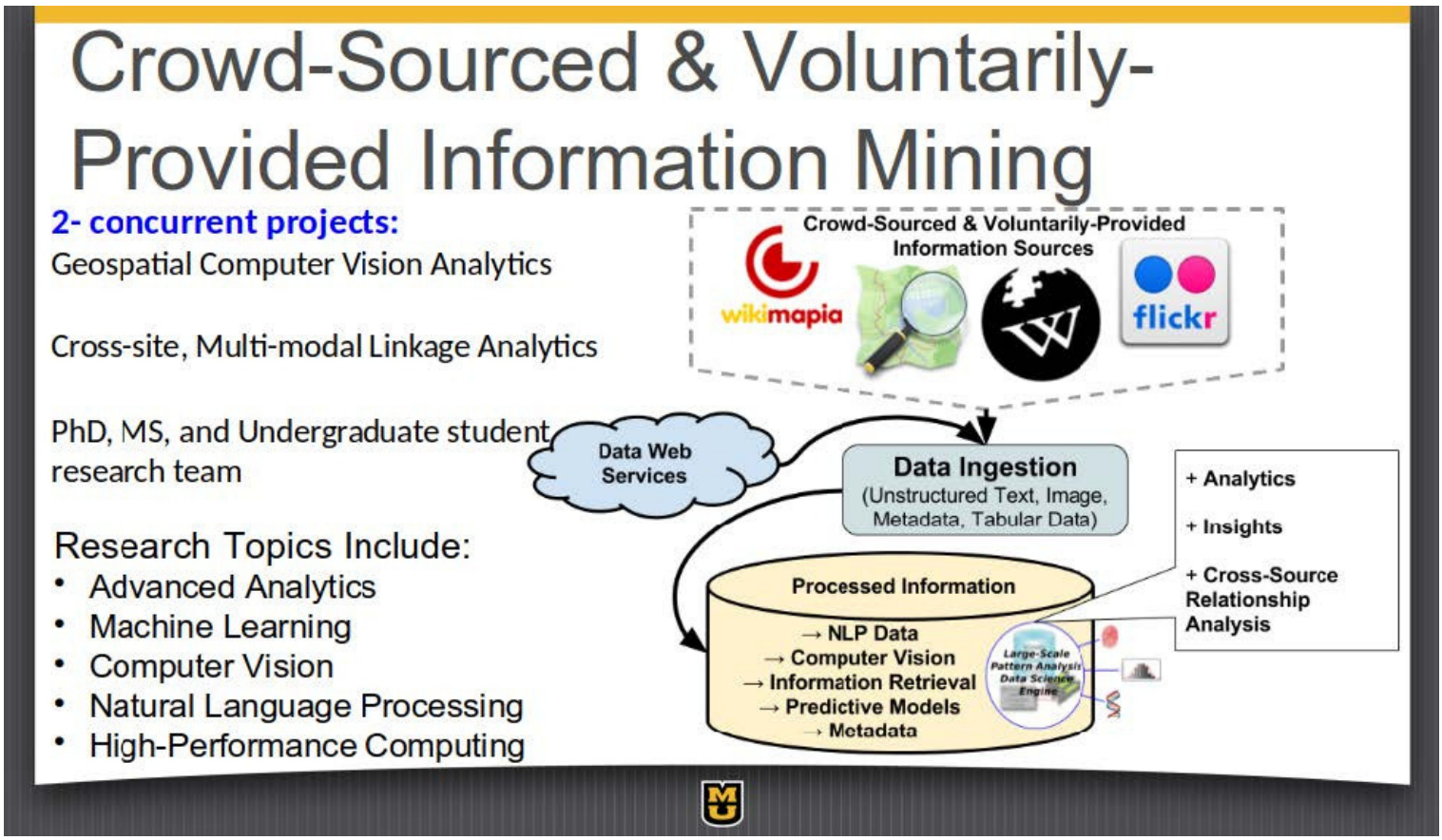
ABOUT (CONTINUED)

Current research interests and areas of contribution include:

- Applying deep learning technologies to geospatial data sets for object detection;
- Data science computation engine, extensions of enterprise RDBMS with HPC co-processors;
- Real-time processing of large-scale sensor networks and Internet of Things (IoT) data;
- Crowd-source information mining and multi-modal analytics;
- High performance & scalable content-based retrieval (geospatial data, imagery, biomedical);
- Imagery and geospatial data analysis, feature extraction, object-based analysis, and exploitation.

My talk will be about:
Machine-Learning Assisted Visual Intelligence Analytics
I will recap some of the CGI past successes and our next stages of research we are pursuing.

UPCOMING PROJECTS



WHAT TRENDS TO DO YOU SEE FOR ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING/DEEP LEARNING IN THE DEFENSE INTELLIGENCE SECTOR? WHAT ARE THE ADVANTAGES, DISADVANTAGES, OR RISKS OF USING AI WITHIN THE MILITARYAND GOVERNMENT?

I think a trend we cannot deny it that AI and Machine Learning (deep or otherwise) will continue to find their place within the defense and intelligence sectors. One of the keys to success will be constraining the goals of the algorithms to supplement and not replace the analysts and their years of tradecraft experience. One of the biggest safeguards we need to have is keeping humans in the loop, continually evaluating and quality assuring the output of advanced models and algorithms. Data and its context are continually evolving, and models must be likewise continually monitored, evaluated, and refined to stay effective.

WHAT ARE YOU MOST EXCITED ABOUT FOR THE INTELLIGENCE ANALYTICS SUMMIT?

I am excited to share my perspective on the possibilities for Machine Learning Assisted Intelligence Analytics!

MEET ROBERT OTTO & GRANT SCOTT AT THE INTELLIGENCE ANALYTICS SUMMIT

Lieutenant General (ret) Robert Otto

April 20th- May 2nd
As the Chairman of Intelligence Analytics 2018, Lieutenant General (ret) Robert Otto will share his remarks throughout the entire Summit.

Grant Scott

May 1st at 13:50
MACHINE LEARNING AS IT ASSISTS WITH ANALYTICS
- Deep CNN processing as it relates to time, efficiency, and accuracy
- Turning AI into a force multiplier vs. a replacement

INTERESTED IN LEARNING MORE ABOUT THE UPCOMING INTELLIGENCE ANALYTICS SUMMIT?

TRANSFORMING DATA INTO ACTIONABLE INTELLIGENCE

- Intelligence Analytics 2018 focuses on the exploitation processing and dissemination of data into actionable intelligence.
- National thought leaders will address operational challenges, artificial intelligence, machine learning, analytics tools, data management, cloud strategies, data governance, and real time processing. How can a system-of-systems approach and open architecture increase flexibility and processing capabilities to package information into actionable intelligence?
- Across the Intelligence Community, Intelligence Analytics 2018 provides the chance to learn, share and connect whilst strengthening readiness and resilience.

FOR MORE INFORMATION:

DOWNLOAD THE BROCHURE

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ACTIVE MILITARY AND GOVERNMENT ATTEND AT NO COST

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