Agenda

• Welcome & Introductions - Simone M. Cummings, MHA, PhD
  • Dean, George Herbert Walker School of Business & Technology, Webster University
• Mark Tatgenhorst - NGA Research
• Jay Watson / Dave Berczek – NGA Land Transfer Ceremony
• Dave Berczek - GeoPlunge Recap
• Small Lightning Talks / Updates (5 min blitzes)
• Dr. Roz Norman – Urban GIS Partnership for the Urban GIS Academy
• Subcommittee Status Updates
• Open Discussion
• Takeaways
Welcome to Webster University Downtown

• Simone M. Cummings, MHA, PhD
  • Dean, George Herbert Walker School of Business & Technology, Webster University
Introductions

• Name
• Organization
• How long have you been involved with the SLAWG?
• How are you participating? Are you on any subcommittee or what is your interest?
What is the SLAWG?

The SLAWG is a volunteer-based group formed under the U.S. Geospatial Intelligence Foundation (USGIF), a 501c3 educational nonprofit dedicated to supporting the geospatial intelligence tradecraft. It is a group of industry, government, academic and community partners with a goal to clarify pathways for education and training for geospatial careers and certifications in the St. Louis region, and identify needs for new pathways to integrate with existing efforts.
Mark Tatgenhorst – NGA Research
NGA Research Presentation to SLAWG
Mark Tatgenhorst & Christine Woodard
NGA Campus West Research
NGA Research

A trusted partner and source of powerful new capabilities

- Automate
- Assure
- Enrich
- Compute
- Transition

Ensuring The Unfair Fight
NGA Capabilities . . .

DEFENSE
- Warfighter Support

INTELLIGENCE
- Strategic Intelligence
- Indications and Warning

CIVILIAN
- Homeland Defense
- Humanitarian and Disaster Relief

. . . Enable Decision Advantage
Research Goals

- Automate
- Assure
- Enrich
- Compute
- Transition

National Security Strategy
- Protect the American people, the homeland, and the American way of life
- Promote American Prosperity
- Preserve Peace through strength
- Advance American Influence

National Defense Strategy
- Be strategically predictable, but operationally unpredictable
- Integrate with U.S. interagency
- Counter coercion and subversion
- Foster a competitive mindset

NGA Strategy
- Inspire and grow our world-class workforce
- Fuel and drive the entire global GEOINT enterprise
- Secure and deliver the nation’s most trusted GEOINT
- Bring the future into focus to anticipate opportunity and foresee threats

NGA Research Pods
- Analytic Automation
- Analytic Modeling
- Environment and Culture
- Geophysics
- Geospatial Cyber
- Radar
- Space
- Spectral

Providing Innovation, Expertise, and Delivery
NGA Research programs follow Heilmeier Catechism

George Heilmeier
Our Patron Saint

Heilmeier Catechism

• What problem are you trying to solve?
• How is it done now; what are the limitations?
• What is truly new in your approach
• Who cares?
• What are the risks and payoffs?
• How and when will you measure progress?
• How much will it cost? How long will it take?
Enable Decision Advantage

INTELLIGENCE
- Strategic Intelligence
- Indications and Warning

DEFENSE
- Warfighter Support
- Foundation Data
- Special Event Planning
- Safety of Navigation

CIVILIAN
- Homeland Defense
- Humanitarian and Disaster Relief

Approved for public release, 18-942
Challenge: Crop Yield Prediction

Projected impact of climate change on agricultural yields

Develop a crop yield analytic that scales globally.
NGA Capabilities...

DEFENSE
- Warfighter Support

INTELLIGENCE
- Strategic Intelligence
- Indications and Warning

CIVILIAN
- Homeland Defense
- Humanitarian and Disaster Relief

Enable Decision Advantage
Challenge: Threat Detection in Full Motion Video
NGA Capabilities . . .

INTELLIGENCE
- Strategic Intelligence
- Indications and Warning

DEFENSE
- Warfighter Support

CIVILIAN
- Homeland Defense
- Humanitarian and Disaster Relief

Enable Decision Advantage
Challenge: Geophysical Inversion

Distinguish subterranean man-made objects of interest from natural formations using geophysical methods.
Challenge: Water Budget Prediction

Assess a daily water budget for the entire planet remotely.
Challenge: Mission Supply Routes

Develop a weather-related risk assessment analytic for supply routes.
NGA Capabilities . . .

INTELLIGENCE
- Strategic Intelligence
- Indications and Warning

DEFENSE
- Warfighter Support

CIVILIAN
- Homeland Defense
- Humanitarian and Disaster Relief

Enable Decision Advantage

- Foundation Data
- Special Event Planning
- Safety of Navigation
Challenge: Foundation Data Change Detection
Challenge: Arctic Travel Routes

Develop a risk assessment analytic for arctic routes.

Output: Heavy icebreaker access
7 Feb 2018

Output: Medium icebreaker access
7 Feb 2018
NGA by the numbers

Develop analytics to anticipate opportunity and foresee threats.
Work with NGA

Visiting Scientist Program
• One to five year appointment
• Work with NGA scientists
• Faculty and postdocs can apply
• Apply novel research against our hardest problems

Academic Research Programs
• New Investigator Program
• University Research Initiatives
• Research Collaboration Forums
• Academic Research Grants
  • Internships

Research Focus Areas
• Radar
• Geophysics
• Spectral science
• Automate analytics
• Anticipate & predict
• Human-environment interaction
• Geospatial cyber

Impact
• $148 million awarded since 1997
• 378 grants & 138 universities to date
• 29 active grants: $10.5 m value
Research Locations

DENVER, CO

SOUTHWEST

DAYTON, OH

FT. MEADE, MD

SPRINGFIELD, VA

ST. LOUIS, MO
How to work with NGA

▪ Come visit! Contact NGA_Research@nga.mil

▪ Boosting Innovative GEOINT Broad Area Announcement (BIG BAA) – www.fbo.gov (search “NGA”, “BIG BAA”)
  ► White papers followed by invited proposals
  ► Evaluations on a rolling basis – quarterly awards
  ► Seedlings!

▪ Intelligence Community-wide academic outreach initiatives
  ► Center of Academic Excellence in Geospatial Science (CAE GS)
  ► Intelligence Community Centers of Academic Excellence (IC CAE)

For Visiting Scientist Program, visit:
https://orise.orau.gov/nga/
https://www.nga.mil/Partners/Academic_Opportunities/Pages/default.aspx
https://www.nga.mil/Partners/ResearchandGrants/Pages/AcademicResearchProgram.aspx
Jay Watson / Dave Berczek – NGA Land Transfer Ceremony
Dave Berczek - GeoPlunge Recap
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(5 min blitzes)
Dr. Roz Norman – Urban GIS Partnership for the Urban GIS Academy
GATEWAY GIS

A PIPELINE FOR GEOGRAPHIC INFORMATION SYSTEM (GIS) AND SCIENCE, TECHNOLOGY, ENGINEERING, THE ARTS, AND MATHEMATICS (STEAM) EDUCATION, CAREERS, AND ENTREPRENEURSHIP FOR UNDERSERVED, URBAN, LOW-INCOME K-12 STUDENTS OF THE BI-STATE REGIONAL COMMUNITY
“Concern for man [humankind] and his fate must always form the chief interest of all technical endeavors.” — Albert Einstein
PURPOSE

The purpose of GatewayGIS is to offer GIS and STEAM opportunities that are not ordinarily made available to K-12 students in underserved, urban, low-income communities of St. Louis city and East St. Louis/Madison County, Illinois.
GatewayGIS Five-Year Rollout Plan

Year 1 - EXPOSE (2019/2020)
- Juniors & Seniors
  - Orientation
  - Seminars
  - Drop-In Experiences

Year 2 - EXPLORE (2020/2021)
- Juniors & Seniors
  - GIS and STEAM Careers
  - Entrepreneurship
  - Internships

Year 3 - EXPAND (2021/2022)
- Add: Sophomores & Freshmen
  - Orientation
  - Seminars

Year 4 - ENHANCE (2022/2023)
- Add: 6th-8th Graders
  - GIS Summer Boot Camp Experience

Year 5 - EDUCATE (2023/2024)
- Add: K-5th Grade Educators
  - Professional Development Series
YEAR 1 (2019/2020) PILOT PROGRAM

• Launch *Young Entrepreneurship Speaker Series* with Jaylen Bledsoe
• Conduct monthly seminars by collaborating partners
• Facilitate group study sessions at designed public “drop-in” sites
• Shadow and develop opportunities for internships
• Access free GIS-related curriculum online
• Enhance leadership skills
COMMUNICATIONS PLAN

GatewayGIS
Public

Underserved, urban low-income junior and senior high school students in St. Louis city and East St. Louis/Madison County, Illinois
Goal

Increase knowledge of the GatewayGIS pipeline of GIS and STEAM-related education, careers, and entrepreneurial opportunities in academia, industry, government, and nonprofit organizations.
WHY WE NEED YOUR HELP

Collaboration
YOU are important collaborators in communicating our purpose.

Community
We are ALL members of the growing geospatial and science, technology, engineering, the arts, and mathematics (STEAM) community in St. Louis.

Inclusion
We want our students to become a part of community engagement for the GatewayGIS pipeline.
Developing

• Tactic teams. After students are selected (by March 2019), we will work with them to generate ideas and create content (photos and social media posts).

• It’s vital that the students work with us from the beginning.
Evaluation

• Look at social media analytics (Facebook).
• Conduct pre-and-post written surveys with students to determine effectiveness of engagement processes.
Timeline

• Tactics begin in March 2019.
• Start sending out updates to GatewayGIS collaborating partners; share spotlights of participating students via other websites; upload stories of students, community residents, and collaborating partners of interest to the GatewayGIS website.
Sub Committee Updates
Strategic Steering Sub Committee Updates
Strategic Steering Sub Committee

Calendar of Events

- **January**
  - Ongoing in January, Apprenticeship Program for GIS
    - Contact Zekita Armstrong, Gateway Global American Youth and Business Alliance. (314) 473-6897

- **February**
  - T-REX and Gateway Global American Youth and Business Alliance are teaming up to hold a tech job and internship fair
    - Date and Time: February 27, 2019, 2-6 PM
    - See next slide

- **March**

- **April**
  - Job Shadowing, Career Explorations Alliance through the City of St. Charles School District, Spring Career Weeks, April 2-5 and 9-12, 2019.
    - Contact Jessie Skeen, CEA Program Specialist, (636) 443-4207

- **May**

- **June**
  - USGIF GEOINT 2019, June 2-5, 2019 in San Antonio, TX
    - Website up: [http://geoint2019.com](http://geoint2019.com)
    - We’re still working on updating it but general information is up and we hope to open registration in early February.
STL Tech Talent and Job Fair at T-REX

• T-REX and Gateway Global American Youth and Business Alliance are teaming up to hold a tech job and internship fair
• Date and Time: February 27, 2019, 2-6 PM
• Industries: GEOINT, Information Technology, Software Development, Data Storage and Security, Supply Chain and Logistics, Department of Defense, Computer/Cloud Engineering, E-Commerce and Financial Technology, Advertising and Sales, etc.

• Register on Eventbrite
• Job seekers: Email zekitaagatewayglobaldl.com with resume
• Vendors: Contact madeleine@downtowntrex.org with a list of job openings or desired skills
K-12 Subcommittee Updates
University and R&D Sub Committee Updates
University and R&D subcommittee

• University and R&D committee merged
• New co-chairs: Patty Hagen (T-REX) and Ness Sandoval (SLU)
• Exploring the idea of a seed fund for cross-university relevant research in the region
• Also exploring the idea of a geospatial accelerator
Open Discussion
Geospatial Industry News, Scholarships

• 4 emerging tech careers in development (GIS):

• USGIF Scholarships:
  • [https://contentsharing.net/actions/email_web_version.cfm?ep=4bYv-BUrJPtiObjDIEG-zc2UaZ36lHzMsE4HbfpwyswmlCTWiFgD2Fhx7pdTE-h3OG3m58YjmzUvv1Q_6vTAD-nx9N3fgfJims6y6xaiaXKB52b_qjfVyyNzgGRz7A](https://contentsharing.net/actions/email_web_version.cfm?ep=4bYv-BUrJPtiObjDIEG-zc2UaZ36lHzMsE4HbfpwyswmlCTWiFgD2Fhx7pdTE-h3OG3m58YjmzUvv1Q_6vTAD-nx9N3fgfJims6y6xaiaXKB52b_qjfVyyNzgGRz7A)

• How much can you earn in the Geospatial Industry?
Takeaways

Career Opportunities (Full-Time/Internships)
• Apprenticeship Programs

Events/Messaging
• Submit calendar events to Tara Mott and Steering subcommittee
• Flashtalks for the Next Meeting

Members should look to join at least one sub committee and share GEOINT Opportunities!
Contact Information

SLAWG Chairman

- Andy Dearing: Adearing@boundlessgeo.com (636) 487-1388
- Justin Bennett: Justin@geodatait.com (217) 390-8085
- Tara Mott: tmott@esri.com (636) 328-6951
- Sekhar Prabhakar: sekhar@cedgecorp.com (314) 537-9970
- SLAWG Email: SLAWG@usgif.org

USGIF

- Camelia Kantor: Camelia.Kantor@usgif.org (703) 793-0109 ext. 112
- Shai Sobrino: Shai.Sobrino@usgif.org (571) 392-7210
- Lindsay Mitchell: lindsay.mitchell@usgif.org (571) 392-7217
- Ronda Schrenk: Ronda.Schrenk@usgif.org

Websites

- USGIF Website: http://usgif.org/
- SLAWG Website: http://usgif.org/community/Committees/SLAWG
Next Meeting

• February 27\textsuperscript{th}, 2019, Location TBD
Back Up Slides
What is the SLAWG?

A WG is...

- Volunteer-based
- Strategic in nature
- Objective (pros & cons)
- Open to participation
- Company-agnostic
- Action and progress oriented
- Focused on goals/outcomes

A WG is not...

- Sponsored by the government
- Restricted in participation
- Proprietary
- A pursuit/capture/networking venue
- A shaping & positioning opportunity
- A venue to recommend products/services
- An open ended discussion forum

Industry, Government, Academic and Community partners self-organizing to discuss matters of mutual concern.
SLAWG Objectives

• Improve geographic literacy in the greater St. Louis area and surrounding regions
• Integration with STEM and/or other similar programs
• Introduce and/or advance Geospatial curriculum in the K through 12th grade levels
• Create engagement strategy between greater St. Louis community and NGA
• Broaden engagement with St. Louis area and surrounding region universities, colleges and community colleges
SLAWG Career Tracks

**USGIF SLAWG GEOINT Career Tracks**

Provide clear & easily understood pathways to a career in GIS/GEOINT

Have multiple pathways to accommodate various ages, goals, education levels, etc

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**Workforce**

Strategic Objective 1 & 4

Focused on individuals who are:
1. Unemployed
2. Under Employed
3. Looking for a career change

Supported by the following sub working groups
- Internship
- Security Clearance
- Catalog of Resources

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**Education**

Strategic Objective 1, 2, 3 & 5

Focused on students who are:
1. K-12
2. Undergraduate Level
3. Graduate Level

Supported by the following sub working groups
- K-12
- Security Clearance
- Catalog of Resources
- University
- Catalog of Resources

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**Entrepreneur**

Strategic Objective 1 & 4

Focused on individuals who are:
1. Looking to start a business
2. Looking to bid NGA contracts
3. Looking to qualify for 8A, GSA 70, etc

Supported by the following sub working groups
- Entrepreneur
- Security Clearance
- Catalog of Resources

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**Research & Development**

Strategic Objective 1, 4 & 5

Focused on individuals or organizations who:
1. Are/Want to engage in GIS research
2. Are/Want to work on GIS Innovation

Supported by the following sub working groups
- Internship
- R&D
- University
- Catalog of Resources