ACADEMIC PROFESSIONAL DEVELOPMENT WORKSHOP PROPOSAL
FOR AMCIS 2015

Title | Big Data and Location Analytics I: Concepts and Recent Developments

Abstract
Big Data and Analytics have recently emerged as important areas of investigation for MIS researchers and students. Increasing interest has also been witnessed in industry and federal agencies, as evidenced by the recent White House initiative on Big Data, opportunities created by it, and value added by analyzing Big Data. At the same time, proliferation of sensors and location sensing devices such as smartphones have created an abundance of geographically referenced data. This workshop will focus on Big Data location analytics; as geo-services global annual revenues approach $300 billion, this workshop will renew attention to Big Data and Analytics theories, concepts, and technologies, and how Geographical Information Systems (GIS) enable visualization and analysis of the location component of Big Data to create added value to make better decisions. Spatial Big Data tools such as SpatialHadoop that leverage the power and sophistication of traditional Big Data enabling technologies such as Apache Hadoop will be presented and discussed. Big Data opportunities in different industries that are known to leverage geotechnology will be presented.

This is part I of a two-part workshop on Big Data and Location Analytics. The conceptual foundations of Big Data and Location Analytics presented in this part of the workshop will be followed at 11:00 am by Part II of the workshop, which will focus on Location Analytics tools/solutions for Big Data. Both workshops are of interest to MIS academics and practitioners and the topic is consistent with the “Blue Ocean IS Research” theme of this year’s AMCIS conference.

Duration | (x) 9.00 am to 10.30 am
( ) 11.00 am to 12.30 pm

Workshop leader(s) information
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Speakers’ background, description of workshop, and envisioned activities during the workshop
This workshop is part I of a two-part workshop on Big Data and Location Analytics. It will first focus on concepts and technologies of Big Data and Analytics. Traditional Big Data concepts such as volume, velocity, variety, veracity, and recently emerging dimensions of Big Data will be discussed along with Big Data technologies such as Apache Hadoop. Analytics will be introduced as a paradigm for evidence and data-
driven decision making; the evolution of Business Intelligence and Analytics (BI&A) from analysis of DBMS-based structured content (BI&A 1.0) to web-based unstructured content (BI&A 2.0) to mobile and sensor-based content (BI&A 3.0) will be discussed. This will pave the way for a discussion on the importance of analytics of geographically referenced data. Foundational concepts of Geographical Information Systems (GIS) that enable us to visualize, question, analyze, and interpret data to understand relationships, and uncover patterns and trends in georeferenced data will be discussed next. Next, the workshop will focus on areas, problems, and industries where Big Data, Analytics, and GIS converge as Location Analytics to uncover the value locked in the location component of Big Data to help make better decisions. Location Analytics tools such as SpatialHadoop will be presented along with case studies that manifest the impact and value of analyzing the spatial and spatio-temporal aspect of Big Data. Research and teaching opportunities in Location Analytics and how location interfaces with Big Data analytics, Text Analytics, Web Analytics, Network Analytics, and Mobile Analytics will be presented.

Workshop leaders with significant teaching and research experience in MIS, GIS, Big Data and Location Analytics will lead discussions in this part of the workshop. An industry keynoter from a world-leading developer of geotechnology who will headline part II of this workshop will be introduced during this segment.

Approximately one-half hour of the workshop will be allocated for small group discussion of the topics presented among attendees. Such discussions will be facilitated by the workshop leaders in attendance. Attendees will be encouraged to think about research questions and teaching implications in their own areas of expertise as they relate to Big Data and Location Analytics. Questions that may act as discussion starters will be provided.

A tentative agenda for the workshop is provided below.
9:00 – 9:10 – Introduction to Workshop, Introduce Presenters. Mention of second Workshop and Brief Introduction of its Keynote speaker.
9:10 – 9:30 – Overview of Big Data and Analytics
9:30 – 9:45 – Geospatial backdrop and Location Analytics
9:45 – 10:00 – How and where do Big Data, Analytics, and GIS intersect? Tying Them Together
10:00 – 10:20 – Breakouts (small group discussions focused on academic concepts)
10:20 – 10:30 – Workshop Summary: Focus on “Takeaways” from Concepts of Big Data and Location Analytics

Special requirements
Regular equipment includes a projector and a screen. Microphones can be made available based on the size of the room and the number of attendees.

IMPORTANT: Presenters are required to provide their own computers. Internet will be provided in the meeting rooms.

A flipchart can be made available if needed.
Do you need a flipchart? (x) Yes ( ) No
Audience/Participants

Workshop participants are anticipated to be MIS academics, practitioners, and students. MIS academics will be able to take away knowledge on how to educate their students about the power of geotechnology and the value added by location when combined with powerful analytics solutions. The workshop will also motivate MIS researchers interested in Big Data, analytics, social media, smart cities, GIS, and spatial decision support systems to explore spatial connections of problems and datasets in their respective domains. Industry practitioners such as Directors, managers of groups or departments of business analysts and knowledge workers who deploy business intelligence reports and dashboards will be able to learn how location analytics may be integrated with their organization’s IT/BI framework to leverage the power of geo-data, enable visualization, and data-driven decision-making within a single unified view. BI system and security administrators will also benefit. MIS students, especially those interested in the rapidly evolving areas of Analytics and Big Data will be exposed to location-based analytics and the power of geotechnology to provide spatial decision support. The workshop is expected to provide motivation to such students to think about (i) careers in industry as an analyst with specialization in location analytics, or (ii) relevant research questions in location analytics and may sow the seeds of research in this area as part of a masters thesis or doctoral dissertation.

Please indicate maximum number of participants: __25____

Are Audience/Participants required to bring laptop or other devices?
_____x_____ (Yes) _________ (No)

If Yes, please list what they must bring?
Participants are encouraged to bring laptops or notebooks that are able to connect to the internet using conference wireless.

Please indicate your preferred workshop room setup:

( x ) Rounds (i.e., roundtables)
( ) Classroom (i.e., rows of seats with tables for writing)
( ) Theater (rows of seats without tables or desks for writing)
( ) Other
( ) Special instructions: ____________________________________________________

Please go to http://mc.manuscriptcentral.com/amcis2015 to submit your Academic Professional Development Workshop proposal.