MMM006-340161 Web Analytics Programme: Data Engineering



Fall Semester 2018

Lecture 1: Administrative information

Instructor: Dr. Bendick Mahleko

b.mahleko@jacobs-university.de

Objectives



Objectives:

- Disseminate administrative information about the course
- Course outline
- Schedule
- Teaching and Evaluation methods

Schedule and Venue



Schedule

- Saturdays, 09:45h – 11:00h; 11:15h – 12:30h

Venue

- Lecture Hall Research I

Assumptions



- This course assumes that students are familiar with fundamental networking concepts usually covered in undergraduate courses.
- Basic knowledge of Java and a scripting language such as JavaScript is assumed.
- 3. Knowledge of common Internet and Web protocols and how they work

4. Basic statistics.

Teaching and Evaluation



Teaching

- Student-centered approach students are not passive recipients of knowledge but are actively involved in the learning process
- Lectures (slides, notes, reading assignments, research papers)
- Lab activities
- Research activities focus on higher levels of learning

Evaluation

- There will be a term paper (project report and presentation) to be submitted at the end of the course. The deadline for submission will be announced.
- There is no final (written) examination

Grading Schema



Rubrics for assessing the term paper will be provided when details of the paper are given to the students.

Resources



Recommended Reading Material

- Beasley, M. (2013) Practical Web Analytics for User Experience. Elsevier Inc.
- Kaushik, A. (2010) Web Analytics 2.0: The Art of Online Accountability and Science of Customer Centricity. Wiley Publishing, Inc.
- Jansen, B. J. (2010) Understanding User-Web Interactions via Web Analytics. Morgan & Claypool Publishers.
- Dhyani, D., Keong Ng, W. & Bhowmick, S. (2002) A survey of Web metrics. ACM Computing Surveys (CSUR): 34 (4).
- Booth, D. & Jansen, B.J. (2009) "A Review of Methodologies for Analyzing Websites," IGI Global.
- Google Inc. (2017) Analytics Training and Support. Available online: https://support.google.com/analytics/answer/4553001?hl=en.
- Clifton, B. (2010) Advanced Web Metrics with Google Analytics. 2nd Ed. Wiley.

Resources



Recommended Reading Material cont ...

- Khan, S., Gani, A., Wahid Abdul Wahab, A., Aminu Bagiwa, M., Shiraz, M., Khan, S., Buyya, R. & Zomaya, A. (2016) Cloud Log Forensics: Foundations, State of the Art, and Future Directions. ACM Computing Surveys (CSUR): 49 (1).
- Zheng, G. & Peltsverger S. (2015) Web Analytics Overview, In book: Encyclopedia of Information Science and Technology, 3rd Ed.

Course Outline



Introduction and definitions

Data collection techniques (e.g., cookies, page tagging, web beacons, packet sniffing)

Privacy issues related to data collection (GDPR)

Metrics and dimensions (e.g., visits, pageviews, bounce rate, time on site, entry/exit points, abandonment, efficiency, etc)

Analysis (visitor analysis, traffic analysis, content-usage analysis, click-path analysis)

Segmentation (techniques, metrics, dimensions)

A/B testing and reporting

Web Analytics process (best practices)

Course Outline



Web Analytics Lab using Google Analytics (other tool(s))

- Google Analytics setup and configuration
- KPIs, metrics, reports, dashboard
- Analysis and evaluation