WM9A9-15 Big Data, Analytics & Optimisation

22/23

Department
    WMG
Level
    Taught Postgraduate Level
Module leader
    Liping Zheng
Credit value
    15
Module duration
    2 weeks
Assessment
    Multiple
Study locations
    University of Warwick main campus, Coventry Primary
    Distance or Online Delivery

Description

Introductory description

Advanced eCommerce and Digital Analytics involves the utilisation of many of the newer, and more sophisticated technologies and techniques for optimising digital assets and business processes. This module introduces some of the most important of these, and gives participants practical experience of their uses

Module aims

The module aims to expose students to the latest in technical eCommerce practice and provide a toolkit for the implementation and optimisation of digital platforms and strategies. This incorporates technological developments, strategy and management, as well as analytical methods to derive insights from data at scale (which is common to modern digital platforms). Participants will get the opportunity to develop hands-on experience with the latest technology, within a modern cloud environment, to critically analyse a range of business scenarios, and implement sophisticated big data and digital analytics solutions

Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

1. eCommerce optimisation

- Google analytics
- Multivariate testing
- Technical SEO
- Personalisation
- Chatbots

1. Big data

- Big data fundamentals
- NoSQL databases and data lakes
- Internet of Things
- Artificial intelligence and machine learning

1. Social media analytics

- Natural language processing
- Social network analysis
- Sentiment analysis
- Topic models
- Image processing

1. Data visualisation

- Interactive data visualisation
- Dashboards

1. A practical simulation of the above topics

Learning outcomes

By the end of the module, students should be able to:

- Demonstrate a comprehensive understanding of the key differences between Big Data technologies and analysis methods and traditional approaches.
- Evaluate real-world scenarios and devise appropriate analytical solutions.
- Demonstrate a comprehensive understanding of the core concepts of visual communication and data visualisation.
- Practically implement analytics and optimistaion techniques in real-world settings

Indicative reading list

View reading list on Talis Aspire

Interdisciplinary

A mixture of technology/computing topics and business topics

International

Topics are of high international demand

Subject specific skills

Big data, analytics, visualisation, multivariate testing, technical SEO, social media analytics

Transferable skills

Programming, statistics and modelling, team work, critical analysis

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Study

Study time

Type	Required
Lectures	14 sessions of 1 hour (9%)
Seminars	4 sessions of 1 hour (3%)
Supervised practical classes	12 sessions of 1 hour (8%)
Online learning (independent)	15 sessions of 1 hour (10%)
Assessment	105 hours (70%)
Total	150 hours

Private study description

No private study requirements defined for this module.

Costs

No further costs have been identified for this module.

Assessment

You do not need to pass all assessment components to pass the module.

Assessment group A1

	Weighting	Study time
Big Data Analytics Presentation	20%	15 hours

	Weighting	**Study time**

A presentation of analyses of various datasets and recommendations on business actions from them

Post Module Assignment	80%	90 hours

A business-style report discussing core topics in big data and eCommerce optimisation

Assessment group R1

	Weighting	**Study time**
Post Module Assignment	100%	

A business-style report discussing core topics in big data and eCommerce optimisation

Feedback on assessment

Verbal feedback for in-module element. Written feedback and annotated scripts for post-module element

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Availability

Courses

This module is Optional for:

- Year 1 of TWMS-H1S4 Postgraduate Taught e-Business Management (Full-time)