

## **Panel discussion: Experiences of Web Science students of the taught curriculum and PhD research**

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### **Abstract**

The discipline of Web Science at the University of Southampton has evolved and changed substantially since being established in 2009. The Web Science Doctoral Training Centre has supported students in pursuit of MSc and PhD research in the subject, and has presided over changes in the Web Science curriculum during this period. This panel discussion will facilitate discussion with current MSc and PhD students about the experiences of and reflections on the changing demands of Web Science in terms of the taught curriculum, PhD research and transition to future careers.

### **Categories and Subject Descriptors**

K.3.2 [Computing Milieux] Computer and Information Science Education

### **General Terms**

Human Factors

### **Keywords**

Panel discussion, Web Science Education, curriculum development

## **1. INTRODUCTION**

Web Science has been taught and researched as a discipline in its own right at the University of Southampton since 2009. The Doctoral Training Centre (DTC) supports students in their study of a 4-year iPhD, comprising a taught MSc, followed by progression onto the PhD proper. The DTC currently has 16 MSc students, 60 in the PhD cohort, and a further 6 graduates working in academia or industry. This paper proposes a panel discussion which will explore the experiences of Web Science students over the past 6 years, and trace the development of the Web Science curriculum over that period.

## **2. INTERDISCIPLINARY RESEARCH**

Web Science aims to be fundamentally interdisciplinary in nature, so attracts individuals from a broad range of backgrounds ranging from science and technology, to humanities and social sciences. This interdisciplinarity necessitates the building of connections across distinct subject areas. All Web Science students become members of the [Web and Internet Science \(WAIS\)](#) research group, an active and dynamic community at the university. Other related research groups include the [Web Observatory](#) and the [MOOC observatory](#) which seek to collect and link Web data to foster further research. In addition to collaborations across academic boundaries, the DTC also fosters links between industry and academia in the form of short-term research projects.

## **3. DEVELOPMENT OF THE WEB SCIENCE CURRICULUM**

Although the DTC has become an established part of the university, the centre and the

courses it runs continue to change and evolve in parallel with the development of the Web. This means that the curriculum for the Web Science Masters degree also needs to develop to help students investigate the Web as an “amazingly complex socio-technical system”[1].

The current curriculum covers fundamental aspects of the Web such as Web Architecture, the science of Online Social Networks, Computational Thinking and Semantic Web Technologies, but also focuses on methodological concerns. In addressing methodology, the curriculum explores both practical methods and their philosophical underpinnings via courses in Qualitative and Quantitative Research Methods, Interdisciplinary Thinking and Practice, and the Foundations of Web Science. A project and dissertation provides the opportunity to combine theory and practice investigating a real world issue in Web Science.

It is important to recognise, however, that this is only one interpretation of a Web Science curriculum, and that building common understandings of Web Science as a discipline is a complex process [2]. Attempts to outline particular curriculums have emphasised the variety of disciplinary perspectives which can be brought to bear, along with “an open toolbox of quantitative and qualitative methodologies” [3] to be explored.

#### **4. AIM OF THE PANEL DISCUSSION**

This panel discussion will present the experiences of Masters and PhD students in Web Science at the University of Southampton, reflecting on the taught curriculum, the transition to PhD and future academic careers. The panel will include Web Scientists from a range of backgrounds, who are at various stages of their Masters or PhD research. It is hoped this will generate an informative discussion of the different disciplinary perspectives which can be brought to bear on the subject, and give insights into how the Web Science curriculum has evolved over the past 6 years at Southampton.

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