

Mischa Moussavian Tuffield
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Research Interests

My work is primarily focused on the dissemination and adoption of the Semantic Web. I have interests in privacy, decentralised social networks, and personal information. As a result I am now involved in the W3C's RDF Working Group after actively participating in the W3C's Social Web Incubator Group where I helped edit and the author the final report.

Education

Oct 04 – Aug 10 **PhD in Artificial Intelligence**
University of Southampton, IAM Group

Supervisors: Professor Nigel R. Shadbolt & Dr David E. Millard

Title: Telling Your Story: A Tale of Autobiographical Metadata and the Semantic Web.

Aim: The overarching aim is to provide insight into collecting and storing personal metadata in a surreptitious non-invasive manner. My interest is born out of my involvement with the EPSRC *Memories for Life* Grand Challenge, which I am a member of. The goal of my PhD is to identify techniques of narrative generation that could be applied to an automatically captured personal context store along with some multimedia, in order to evaluate the richness of automatically capture metadata.

Oct 03 – Oct 04 **MSc Artificial Intelligence in**
Reasoning and Representation & Knowledge Engineering
and Management
University of Edinburgh, AIAI
Supervised: Dr Dave Roberston

<i>Exams</i>	<i>Marks</i>	<i>Grade</i>
<i>AI Programming in Java</i>	79	A
<i>Fundamentals of Artificial Intelligence</i>	63	B
<i>Genetic Algorithms and Genetic Programming</i>	80	A
<i>Knowledge Engineering</i>	73	A
<i>Knowledge Management</i>	76	A
<i>Knowledge Representation</i>	78	A
<i>Learning from Data 1</i>	60	B
<i>Learning from Data 2</i>	70	A

MSc Thesis: A Hybrid Multi-Agent Co-ordination System for Computer Game Worlds. **B**

Project Aim: To provide insight into the dilemma facing developers when deciding to employ either a reactive or deliberative multi-agent architecture for a Computer Game World. The knowledge gained through the comparative analysis of the aforementioned reactive architecture and the previously designed AnyTime planner presents novel results for such a reactive hybrid agent architecture.

Sept 98 - July 02 **BSc Software Engineering** *with Honours*
Oxford Brookes University
Result: 2:1

BSc Thesis: Agent Technology and its Practical Application of Enhancing a Library Search Engine

Sept 96- Jun 98 **International Baccalaureate (IB)** at Tehran
International School

High-Level (HL): Computer Science, Maths, Economics
Sub-Level (SL): English, French, Physics

Work Experience

Jul 08 – Present: Senior Research Engineering
Garlik Ltd (www.garlik.com)

At Garlik I have helped build the current DataPatrol system (Java), online identity theft protection, whereby I built Garlik's web searching capabilities. I also spent time building <http://foaf.qdos.com/> that uses bleeding edge technology to hint at what a distributed social network may look like. I have also worked on Garlik's 4store/5store RDF storage engines. Garlik is a VC based Financial services startup, leading innovation in the real world application of the Semantic Web.

Jan 08 – Feb 08: Data Harvesting/ RDF Integration Work/ Perl
(Lockheed Martin)
ECS Partners Limited – Consultancy

I helped developed and integrate information from the Ordnance Survey, and Camden City council into a SPARQL enabled knowledge-base, which was in turn used to demonstrate path-finding and reasoning developed by Lockheed.

Oct 07 – Dec 07: Data Harvesting/ RDF Integration Work/ Perl

Garlik Ltd (www.garlik.com)
ECS Partners Limited – Consultancy

I did some work for Garlik as a consultant/programmer helping them develop their semantic tech driven capabilities. I helped develop the data harvesting technologies used in the site <http://qdos.com>. This included the harvesting of data from numerous websites/servers.

Dec 05 – Mar 06: JavaScript / PHP /RDF
CoastWeb Marine Portal (www.coastweb.info)
ECS Partners Limited - Consultancy

I helped develop the Coastweb Marine Portal. The system is driven by an editable ontology stored in an RDF store. I developed a Java-script based taxonomy viewer to run off a given triple store. I also helped with server/knowledge base installation and setup.

Oct 05 – Sep 07: Web and IT Developer
French Learner Language Oral Corpora,
University of Southampton – Modern Languages

I worked work one day week on this project, writing scripts to parse the project's data into bespoke formats, along with data-management/server admin for the project. I worked with Linguists from Newcastle & Southampton University to retrain the French Part of Speech Tagger (POST) algorithm used to disambiguate the French Language.

TECHNICAL SKILLS

Programming: Perl, PHP, Java, C, Matlab, RDF, Java-script, SQL, SPARQL, Web-tech (XML, SOA, Services etc.).

Others: I am well versed in using 4store, a large quad store, and know how to make use of Hadoop and the Nutch indexing system. I administer a number of linux servers at work, and run a linux based home network/entertainment suite. I am familiar with OS X, and Windows, I use the Eclipse IDE for Java, and use vi for everything else.

PROJECTS

NHS Choices I started a campaign against the inappropriate use of social features on the NHS Choices website. And as a result have been asked to join their steering committee as their first Web Privacy and Technology advisor.

- W3C* I am currently an active member of the W3C's RDF Working Group where by our charter is set to standardise and revisit the specifications since last updated in 2004. I also co-authored and co-editted the Social Web Incubator Groups final report entitled "A Standards-based, Open and Privacy-aware Social Web" for the W3C.
- OpenKnowledge* I collaborated with the OpenKnowledge consortium to implement the Photocopain and the Semantic Logger systems on their peer-2-peer infrastructure.
- Photocopain* I lead the development of a Photo Annotation system that used both context and content-based methods to annotate personal photo collections. The project involved integration of work at Southampton and the Universities of Aberdeen and Sheffield. Photocopain was used as one of the AKT 's(www.aktors.org) final technology demonstrators.
- Semantic Logger* A system for housing, storing, querying and visualising personal metadata. The aim of the system is to present a user with an easy way to setup their own RDF store, a collection of client side services for the uploading personal metadata, and a dynamic mSpace generator to allow users to visualise their personal RDF stores. This is seen as the first step towards the goals set out by the *Memories for Life* project.
- OntoMedia* Work undertaken with two other PhD students in Southampton, on an ontology defined to mark-up and add semantics to descriptions of various types of media, including, books, film, and computer games.

TEACHING EXPERIENCE

Undergraduate Project Team Manager for the Obstacles Visualization Project of Southampton International Airport (sponsored by IBM).

Advanced Programming concepts in C++ and Java (01/05 - 07/05) to first and second year undergraduate student's at the University of Southampton.

OTHERS

Languages: Persian (Fluent) & French (Basic)

Hobbies: guitar, bass, drums, juggling, diabolo, rock-climbing, photography, graphic-novels, sciences, and do have an appreciation for art.

PROGRAMME COMMITTEES

Semantic Web in Use - 10th International Semantic Web Conference ISWC2011

Federated Social Web Europe Conference 2011

W3C Workshop on Web Tracking and User Privacy 2011

User Profile Data on the Social Semantic Web (UWeb 2011) at ESWC 2011 Programme Committee

Making Sense of Microposts (MSM2011) at ESWC 2011 Programme Committee

Linked Data on the Web (LDOW2011) at WWW'11 Programme Committee

ESWC 2011 Social Web and Web Science Track Program Committee

ESWC 2011 Linked Open Data Track Program Committee

Social Data on the Web (SDoW2010)

W3C Workshop on Privacy and data usage control (PC member)

Personal Semantic Data EKAW 2010 (PC member)

W3C Workshop on Privacy for Advanced Web APIs, London July 2010: PC

BlogTalk Galway 2010, 7th International Conference on Social Software: PC

Linked Data on the Web Workshop at WWW 2009 PC (LDOW09)

International Semantic Web Conference Poster/Demo Session PC (ISWC2009)

AAAI Spring Symposium on Linked Data Meets Artificial Intelligence (AAAI 2010)

7th Extended Semantic Web Conference (ESWC 2010) - Web of Data Track

7th Extended Semantic Web Conference (ESWC 2010) - Demo Track

SPOT2010 2nd Workshop on Trust and Privacy on the Social and Semantic Web @ ESWC 2010

Linked Data on the Web (LDOW2010) @ WWW'2010

Hypertext and Web Science: Emergent Structures, Communities and Collective Intelligence - New Review of Hypermedia and Multimedia

PUBLICATIONS

Halpin, H., Tuffield, M., Appelquist, D., Brickley, D., Carvahlo, M., Iannella, R., Passant, A., Perey, C., Story, H. (2010) W3C Social Web Incubator Group (SWXG) Final Report *W3C Incubator Group*

Harris, S., Ilube, T. and Tuffield M. (2010) Enterprise Linked Data as Core Business Infrastructure in book *Linking Enterprise Data*

O'Hara, K., Tuffield, M. and Shadbolt, N. (2009) Lifelogging: Privacy and Empowerment with Memories for Life. *Identity in the Information Society*, 1 (2).

Nigel Shadbolt, Kieron O'Hara, Tom Heath, and Mischa Tuffield (2007) *Advanced Knowledge Technologies: Selected Papers 2006-2007*. ISBN: 0854328734

Tuffield, M., Harris, S., Dupplaw, D. P., Chakravarthy, A., Brewster, C., Gibbins, N., O'Hara, K., Ciravegna, F., Sleeman, D., Wilks, Y. and Shadbolt, N. R. (2006) *Image annotation with Photocopain*. In Proceedings of First International Workshop on Semantic Web Annotations for Multimedia (SWAMM 2006) at WWW2006, Edinburgh, United Kingdom.

Tuffield, M. M., Millard, D. E. and Shadbolt, N. R. (2006) *Ontological Approaches to Modelling Narrative*. In Proceedings of 2nd AKT DTA Symposium, AKT, Aberdeen University.

Tuffield, M. M., Dupplaw, D. P., O'Hara, K., Shadbolt, N. R., Chakravarthy, A., Brewster, C., Ciravegna, F. and Wilks, Y. (2006) *Photocopain - Annotating Memories For Life* (Poster Paper).

Tuffield, M. M., Loizou, A., Dupplaw, D., Dasmahapatra, S., Lewis, P. H., Millard, D. E. and Shadbolt, N. R. (2006) *The Semantic Logger: Supporting Service Building from Personal Context*. In Proceedings of Capture, Archival and Retrieval of Personal Experiences (CARPE) Workshop at ACM Multimedia, Santa Barbara.

Tuffield, M. M., Shadbolt, N. R. and Millard, D. E. (2005) *Narrative as a Form of Knowledge Transfer: Narrative Theory and Semantics*. In Proceedings of 1st AKT Doctoral Symposium, Milton Keynes, UK.

Lawrence, K. F., Tuffield, M. M., Jewell, M. O., Prugel-Bennett, A., Millard, D. E., Nixon, M. S., schraefel, m. c. and Shadbolt, N. R. (2005) *OntoMedia - Creating an Ontology for Marking Up the Contents of Heterogeneous Media*.

In Proceedings of Ontology Patterns for the Semantic Web ISWC-05 Workshop (in press), Galway, Ireland.

Jewell, M. O., Lawrence, K. F., Tuffield, M. M., Prugel-Bennett, A., Millard, D. E., Nixon, M. S., schraefel, m. c. and Shadbolt, N. R. (2005) *OntoMedia: An Ontology for the Representation of Heterogeneous Media*. In Proceedings of Multimedia Information Retrieval Workshop (MMIR 2005) SIGIR, Brazil.

Tuffield, M. M., Millard, D. E. and Shadbolt, N. R. (2005) *Towards the Narrative Annotation of Personal Information and Gaming Environments*. In Proceedings of Hypertext 05, Workshop on Narrative, Musical, Cinematic and Gaming Hyperstructure, Salzburg, Austria.
Technical Report

Tuffield, M. M., Millard, D. E. and Shadbolt, N. R. (2006) *An Investigation into Automatically Captured Autobiographical Metadata, and the Support for Autobiographical Narrative Generation*. Mini-Thesis: PhD upgrade report.
Technical Report, Electronics and Computer Science, University of Southampton.

Tuffield, M. M., Millard, D. E. and Shadbolt, N. R. (2005) *Narrative as a Form of Knowledge Transfer, Narrative Theory and Semantic: Present Challenges - Future Possibilities* (9 month Report). Technical Report, Electronics and Computer Science, Intelligence, Agents, Multimedia.

Dupplaw, D., Croitoru, M., Loizou, A., Dasmahapatra, S., Lewis, P., Tuffield, M. and Xiao, L. (2007) *Multimedia Markup Tools for OpenKnowledge*. In: 1st Workshop on Multimedia Annotation and Retrieval enabled by Shared Ontologies, 5th December 2007, Genoa, Italy.

Potter, S., Kalfoglou, Y., Alani, H., Bachler, M., Buckingham Shum, S., Carvalho, R., Chakravarthy, A., Chalmers, S., Chapman, S., Hu, B., Preece, A., Shadbolt, N., Tate, A. and Tuffield, M. (2007) *The Application of Advanced Knowledge Technologies for Emergency Response*. In Proceedings of 4th International Information Systems for Crisis Response and Management (ISCRAM 07), Delft, The Netherlands.

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