

CURRICULUM VITAE
Prof. Dr. Ayşe Göker

Contact Information / İletişim Bilgileri

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Academic qualifications

- PhD** **Information Science, City, University of London, UK (1994).** Thesis:
An investigation into the application of machine learning for information retrieval
(Makine öğrenmenin bilgi erişime uygulanmasının incelenmesi)
 Supervisor: Prof. Stephen E. Robertson
 External Examiners: Prof. Karen Spärck Jones, Prof. Michael Keen
- BSc** **BSc (Hons) in Computer Science, City, University of London, UK (1988).**

Research Overview

My background includes professorship, co-founder, and director of a technology start-up company. My research experience is for over 25 years in areas including context-learning algorithms, machine learning, web user logs, personalisation, image retrieval, mobile information systems, and social media. More recently, the research and development and innovation has been in sensors, information fusion and information retrieval. Application areas have included multimedia, news, social media, tourism, cultural heritage, subsea, and maritime. Throughout this work, I've had a strong user-centred approach to algorithm and search system design, development and evaluation.

Since the early 1990s my research has focused on developing novel search techniques and information environments, with an emphasis on machine learning / artificial intelligence, personalised and context-sensitive information retrieval. This included the mobile environment through the AmbieSense project, which later was commercialised. My research grants have totalled over 2 million Euros from a variety of sources including EU, and UK Research Funding. I have been on the Editorial Board of JASIST, editor of a book encapsulating my vision in the field "Information Retrieval: Searching in the 21st Century", by Wiley, 2009, and hold a lifetime Enterprise Fellowship from the The Royal Society of Edinburgh and Scottish Enterprise. I was competitively selected for the Massachusetts Institute of Technology (MIT) Entrepreneurship Development Program in Boston, USA. I have been the Chair of the British Computer Society's Specialist Group in Information Retrieval, BCS IRSG, (2000-2005), and a finalist in the Blackberry Women & Technology Awards (2005) for best woman in technology (Academia).

Awards, Honors, Prizes, Fellowships (Ödüller)

- Best Paper Award** (2018) FTC 2018 - Future Technologies Conference, Vancouver. Title: Searching of self-similar spaces. Algorithm for optimisation and information fusion.
- SNOW Data Challenge Award** (2014) with C. Martin. Winning algorithm for News topic detection methods in social media.
- MIT EDP Team Winner** (2009) Massachusetts Institute of Technology, Entrepreneurship Development Programme, business plan competition, team member in top 3 winning groups.
- The Royal Society of Edinburgh Enterprise Fellow** (2005 -). Innovation & entrepreneurship.
- Blackberry Women in IT** (2005) – Finalist (Academia)
- Honorary Reader** (2007-2013) School of Computing, Robert Gordon University, Aberdeen, UK
- Teaching Award** (2009) – Nominee by students: quality & innovation, City University of London

British Council FCO Sponsorship (1988-1992) for the the PhD programme.

Robert Kitchin Award (1989, 1990) during PhD.

Japan International Cooperation Agency (JICA) Sponsorship (1992) for Course in Electronic Data Processing, Tokyo, Japan.

Rotary Group Study Exchange Bursary (1995) to Washington D.C., and Maryland, USA.

Employment /Positions (Akademik Unvan / Görevler)

Professor, Head of Computer Engineering Dept., Faculty of Eng., Çanakkale Onsekiz Mart Üniversitesi, Türkiye (2023 --)

Professor, School of Computing, Robert Gordon University (RGU), Aberdeen, UK, 2013-2016

Senior Lecturer, School of Informatics, City, University of London, UK, 2006-2013

Honorary Reader, School of Computing, RGU, Aberdeen, UK, 2007-2010-2013

Reader, School of Computing, RGU, Aberdeen, UK, 2005-2006

Senior Lecturer, School of Computing, RGU, Aberdeen, UK, 2002-2005

Lecturer, School of Computing & Mathematics RGU, Aberdeen, UK, 1998-2002

Co-Deputy Chair, Bilkent University, Ankara, Türkiye, 1997-1998

Assistant Professor / Lecturer, Bilkent University, Ankara, Türkiye, 1994-1998

Research Assistant, Centre for Interactive Systems Research, City, University of London, UK, 1988-1992

Teaching Assistant, Department of Information Science, City, University of London, UK, 1988-1993

Graduate Student Representative, School of Informatics, City, University of London, UK, 1988-1991

Industrial Placement Trainee, Systems Development, BP Oil Ltd., Hemel Hempstead, UK 1986-1987

Professional Contributions & Memberships:

Leadership Positions in Programme Committees & Societies

Chair of BCS-IRSG British Computer Society - Information Retrieval Specialist Group (2000-2005)

I led a well recognized and specialist interest group of the BCS. Committee of 10-14 members. My contributions included to help create national and international activities for the researchers and developers in the field. Motivate others to come up with initiatives. Follow through and check on action points. Chair regular meetings. Correspond with external groups. Run annual conference bidding process and provide advice, and support to organizers. During period my leadership, with the help of the committee and several conference organizers, our annual event has grown from being a colloquium to a European conference published by Springer-Verlag. Our newsletter increased and widened in circulation. We also were able to negotiate and secure a £50K sponsorship from the British Computer Society for the ACM SIGIR conference which was held in the UK (Sheffield).

BCS-IRSG Committee Member (1999 - 2018)

Running annual activities, workshops and planning future events, publicity, and collaborations.

Award Panel Chair for BCS IRSG Karen Spärck Jones Award (2009 - 2014)

This is widely recognised as a prestigious award in IR / NLP area. I was involved in setting up the Award, coordinating it, and Award Panel member. Karen was an Emeritus Professor of Computing and Information at the University of Cambridge and one of the most remarkable women in computer science. She was also chair of my PhD examination panel. She has had numerous contributions to Information Retrieval and Natural Language Processing. She is a recipient of many awards including the BCS Lovelace medal, ACM Salton Award.

Award Panel Member for BCS IRSG Karen Sparck Jones (2015)

Reviewing applications of nominees and providing handover for new panel chair.

Conference Chair

ECIR 2017 (29th European Conference in Information Retrieval), Aberdeen, UK

ECIR 2000 (European Conference in Information Retrieval – known as IRSG Colloquium then),
Programme Chair

UM2005 (International Conference on User Modeling), Publicity Chair

Editorial Board

JASIST (Journal of the American Society for Information Science and Technology), Editorial Board
Member (2008 – 2017)

Reviewer, Committee Member, Organiser, etc.

Journal of Information Retrieval – Web Information Retrieval, Special Issue, Reviewer (2004)

Journal of Information Processing Management (2004 – 2005, occasional 2006 - 2014)

Transactions of Information Systems, Reviewer, occasional

ACM-SIGIR (Association for Computing Machinery - Specialist Interest Group in Information
Retrieval) Annual International Conference on Research and Development in Information Retrieval,
Committee member/ Reviewer (2001 – 2016)

ECIR (European Conference in Information Retrieval) Programme Committee member / Reviewer
(1999 – 2017)

ACM CIKM (Association for Computing Machinery – International Conference on Information and
Knowledge Management) Reviewer (2016)

SIR 2011 Information Retrieval over Query Sessions, Workshop of the 33rd Annual Conference of the
BCS-IRSG on Information Retrieval, ECIR 2011. Programme Committee member

IiX 2008 (Information Interaction in Context), Committee member / Reviewer

IiX 2006 (Symposium on Information Interaction in Context), Committee member

UM 2005 (International Conference on User Modeling), Organising Committee member, and
Publicity Chair

UM 2003 (International Conference on User Modeling), Organising Committee member

UM 2002 Workshop on User Modeling, Machine Learning and Information Retrieval, Organising
Committee

UM 2001 Workshop on User Modeling, Machine Learning and Information Retrieval, Organiser
(Chair)

CoLIS 2005 Conceptions of Library and Information Science, Doctoral Consortium Program
Committee member

ACM-SAC (Association for Computing Machinery - Symposium on Applied Computing) (2002,
2003), Committee member

Norwegian Research Council, R&D Proposal Reviewer (2004)

EU-IST (European Union – Information Society Technologies), R&D Project Reviewer (2005 –
2017)

UK ESRC (UK Research Council) Project Reviewer (2012 –2016)

Google EMEA (Europe, Middle East, Africa) Faculty Summit Zurich, Switzerland (2009). Invited as
a scholar within EMEA for this Summit to discuss current problems and research issues in field.

Keynotes

Goker, A. “Information Seeking and Context: Providing Search Relevance in Social Media”. Aberdeen. 13 October, 2014. (*Professorial Lecture*)
<https://www.youtube.com/watch?v=mzHz0V6Vpvo>

Goker, A. Information in Context: The Mobile Environment. ELPUB 2011, Digital Publishing and Mobile Technologies - 15th International Conference on Electronic Publishing. (*Keynote*) 2011, Istanbul, Turkey. <http://elpub2011.bilgiyonetimi.net/keynote-speakers/ayse-goker/>

Goker, A. Mobile Information Retrieval. BCS IRSG Industry Day (*Invited talk*), 2009.

Invited presentations

Research presentations at Glasgow University, Delft University, Huddersfield University, University of Maryland, US and others in European universities.

Masterclass on Mobile Search – City, University of London.
 Jointly run by Geographic Information Centre and Centre for Interactive Systems Research. Included several well-known speakers from industry (2007-2009).

Invited panel member ECIR 2003. European Conference in Information Retrieval (2003).

Invited panel member IiX 2008. Information Retrieval and Interaction in Context (2008).

Tutorial Mobile Information Retrieval, IiX 2008. Information Retrieval and Interaction in Context.

Research Projects (ArGe Projeleri)

Cerbero

EU-IST H2020 (2017 – 2020). Total project budget: 5.4 million Euros.

Cross-layer model based framework for multi-objective design of reconfigurable systems in uncertain hybrid environments.

Partners: AmbieSense, IBM, TNO, Thales, Abinsula SRL, S&T, FIAT Research, University of Sassari, University of Cagliari, Universidad Politenica de Madrid, Universita della Svizzera Italiana, INSA.

Cerbero developed a design environment for Cyber Physical Systems (CPS) through three industrial use cases: Ocean monitoring, smart electric vehicle, planetary exploration. AmbieSense led the ocean monitoring research and innovation. The project developed a cross-layer model based approach to describe, optimize, and analyse CPSs. It also provided advanced adaptivity support using a multi-layer autonomous engine. The contributions included a model-based methodology, toolset for design and prototyping adaptive CPSs, and run-time CPS management.

Our ocean monitoring work was on marine robots for surface and subsea applications involving artificial intelligence. The technology included both our own sensors and off-the-shelf ones for our adaptive image processing, object/motion detection, and smart vision. We developed an adaptive camera with multiple-lenses. Part of our algorithms for data analysis and information fusion have also won best paper awards.

Social+: Collecting, analysing, and visualising social media data.

UK Research Council EPSRC RDF (Resource Description Framework)

High Performance Computing Facilities use and Storage, at University of Edinburgh.
PI (Principal Investigator), (2016). £10,000, 25 TeraBytes.

Social+ was an infrastructure project for big data. Its purpose was to, archive and search facility for millions of political tweets during various elections, referendums. The purpose was to extract meaning from these tweets and their associated metadata. Collections of tweets and related news were gathered during the former and current US Super Tuesday, Scottish Referendum and UK General Election. Images used in social media and other relevant collections were also included.

New Radicals: Communities, Cultures, Networks

UK Digital Economy - Communities and Culture Network+ funding (CCN+).
Collaboration with Political Science and Information Management (McLavery, McLeod, Tait) and Scottish Youth Parliament. Circa £40,000, (2014-2015).

The project investigated the online social media presence of politically engaged and active Scottish youth after the Scottish Referendum. The project analysed the transition of social media activism since the Scottish Referendum in order to establish whether the related activism is sustained over a longer timescale with the younger voters.

SocialSensor

EU-IST FP7 Large Integrated Project, (2011 – 2014).
Our budget: 1 million Euros. Total project budget: 10+ million Euros.
PI (Principal Investigator) / Lead for City, University of London, later for RGU.
Partners: Yahoo, IBM, Alcatel-Lucent, CERTH, DFKI, University of Klagenfurt, University of Koblenz, City University of London, Robert Gordon University, CERTH, JCP, ATC. More details of the project and a full list of partners can be found at <http://www.socialsensor.eu/>.

SocialSensor collected, processed, and aggregated big streams of social media data, photos, and multimedia to discover news, trends, events, influencers, and interesting media content. Within the project, our team focused on news and event detection, topic identification and tracking particularly in Twitter streams of data. This included various elections and events leading up to them such as US Super Tuesday. In particular, we developed algorithms for topic identification and clustering, novel search, index, and accessing techniques for real-time multimedia content with integration of events in social media.

Photobrief

UK Engineering and Physical Sciences Research Council (EPSRC) & UK Technology Strategy Board (TSB), (2012 - 2014), £180,000.
Co-Principal Investigator for City, University of London.
Partners: Direct Traffic Media (Search Engine Optimisation company), Media Reach (media advertising company).

Photobrief developed novel solutions for combining commercial photographs and video camera images with a large-scale image retrieval system for professional photographers, journalists, and the creative industry. The work enabled them to capture, store, share, find and market relevant photos and multimedia for advertising agencies. We included creating, searching, and finding textual 'briefs', as known in creative industries, for photo retrieval.

Piclet

UK Engineering and Physical Sciences Research Council (EPSRC) & UK Technology Strategy Board (TSB), (2010 – 2012), £112,000.
Principal Investigator for City, University of London.
Partners: Direct Traffic Media (Search Engine Optimisation company), Media Reach, Innvotek.

Piclet investigated the image search and retrieval behaviour of professionals. We developed hybrid approaches from content-based image retrieval and text-based information retrieval techniques to retrieve or filter photographs. The images were relevant to areas such as news, advertising, blogs, and other social media.

OPENi

EU-IST FP7 project (2012-2015), Total Project budget: 2.5 million Euros.

Open-Source, Web-Based, Framework for Integrating Applications with Cloud-based Services and Personal Cloudlets.

Partners: AmbieSense, Logica, Waterford Institute, Velti, Betapond, Fraunhofer, NTUA

For innovation in the European mobile applications industry, improving the interoperability of cloud-based services and trust in personal cloud storage through the development of a consumer-centric, open source mobile cloud applications platform.

Openi focused on enabling personal cloudlets and big data storages in the cloud. Within the project, our AmbieSense team researched and developed: PhotoLife – an innovative web application to capture, annotate, repurpose, share and express personal photos for the mass market. Use our (Ambiesense) pioneering multimedia retrieval techniques in combination with new timeline and cloud technologies; MyWardrobe - ubiquitous in-store shopping solution combining our search technologies, ubiquitous browser, and wireless InfoSparks (with Bluetooth and NFC) to deliver multimedia content about in-store fashion products on the mobile.

Webinos

EU-IST FP7 Integrated Project (2011-2014), Total Budget: 10 million Euros approximately.

R&D for secure Web OS and mobile cloud/platform.

Partners include: AmbieSense, Samsung, Sony Ericsson, W3C, Oxford University, BMW, Telefonica, Telecom Italia, Deutsche Telekom, Fraunhofer, TNO, VisionMobile, NTUA, DoCoMo. 20+ partners/ affiliates from telecom industry, handset manufacturers, SMEs, and universities.

Webinos researched and developed a new application developer platform and runtime operating system. Innovative applications capable of running and interoperating across a wide range of wireless and inter-connected devices (mobile, laptop, TV, home multimedia device, automotive in-car unit) were developed. Security and privacy aspects of users and these devices was also integrated in the work.

AmbieSense

EU-IST FP5 Programme, (2001-2004), Our budget: €534,000, Total budget: 5.7 million Euros.

Project Project leader & Principal investigator for RGU and Co-proposer.

Partners: SINTEF Telecom & Informatics (coordinator), Siemens AG, Lonely Planet Publications, Oslo Airport, Reuters Ltd., Norwegian University of Science and Technology (NTNU), Sevilla Global, YellowMap, CognIT.

AmbieSense created ambient, personalised, and context-sensitive information applications for mobile citizens. The project focused on travellers and tourists as end users who were on the move and had mobiles. It combined a variety of context information and user information needs to provide ambient intelligent information to mobile users. The context included aspects of the environment, tasks, spatio-temporal information, etc. The information was acquired through novel sensors and hardware developed within the project and applied through our context modeling. This was used with individual user context information to provide personalised interactive information services for mobile users.

AmbieSense: Business Support Application

Scottish Enterprise and Grampian Funding (Oct 2004 - Apr 2005), £20,000.

Principal proposer / project leader. Co-proposer: Stuart Watt.

This was continuity funding (from EU-IST AmbieSense work) towards a commercial demo for potential investors. Project involved financial contribution and support from SINTEF ICT, Norway, as part of collaboration.

Senior Visiting Fellowship in Communications

The Royal Academy of Engineering, supported by Vodafone Group Foundation, (Feb 2004 – 2006), £4,000). Principal proposer / project leader. Co-proposer: Stuart Watt; Fellow: Hans Myrhaug.

Facilitating Information Retrieval by User-Adaptive Learning

UK Engineering and Physical Sciences Research Council (EPSRC) (2000-2001), £60,000.
Principal Investigator / principal proposer (project leader). Collaborator: Reuters Ltd.

This adaptive information retrieval project used predictions from user sessions and contexts to help differentiate between their different roles and search contexts in order to improve information retrieval system effectiveness. The work involved investigation of probabilistic and Bayesian approaches.

User Context Learning for Intelligent Information Retrieval

School of Computing and Mathematical Sciences, Robert Gordon University, Aberdeen, UK. (1998-2001).

Principal Investigator / principal proposer (project leader). Collaborator: Reuters Ltd.

This project investigated user context and machine learning approaches for intelligent, adaptive information retrieval systems. The algorithms used user session on user log data for Web users.

WebCluster

School of Computing and Mathematical Sciences, Robert Gordon University, Aberdeen, UK.

RGU IR Group (1998 - 1999). Collaborator: Ubilab – Union Bank of Switzerland.

WebCluster developed information clustering techniques to provide mediated access / portals to the Web. It enabled search activities and retrieved results to be presented through relevant information clusters.

Working Groups and Research Collaborations

TeleMedicine Booth (2005) – TeleMedicine Booth project was created in response to the steady reduction in medical services to remote areas in Scotland. A telemedicine booth (a site where a variety of technologies can be brought together) was proposed to support generic health workers provide acceptable and effective care to isolated patients in Scotland. We contributed with large scale demonstration expertise, and knowledge in mobile computing and information access.

INEX (Initiative for the Evaluation of XML Retrieval (2003 - 2006). INEX developed a test framework and methods for evaluation of information systems with XML. The widespread use of the extensible Markup Language (XML), especially the increasing use of XML in scientific data repositories, Digital Libraries and on the Web, arose in this initiative.

Mira - Evaluation of Multimedia Information Retrieval Applications (1999). Mira working group focused on evaluation frameworks and methods for interactive multimedia information retrieval systems. Multimedia information has different characteristics to textual information and needs different evaluation methods. The working group identified these and relevant metrics for users and multimedia evaluation.

Experience (Deneyim)**Co-founder / Director, AmbieSense Ltd., UK.** (www.ambiesense.com)

(May 2005 – present)

AmbieSense is an SME and hence I have contributed with a variety of roles and responsibilities, as necessary. These included those for setting up the Company, aspects of day-to-day running of the business, product and business development, contributing to R&D.

AmbieSense provides innovative products and solutions with sensors and mobile content including images and videos. Its vision involves augmenting physical space with digital ambient information in an intelligent manner. We have delivered across sectors including travel, education / cultural heritage, smart cities. Currently, the focus is on maritime, subsea and ocean monitoring applications. We work with customers to bring information to the users. We help businesses in developing, delivering, and servicing new innovative solutions from pioneering technology.

Ambiesense Ltd was formed in 2005 as a result of research and development from the large EU project Ambiesense (2001-2004). The start-up Company benefitted from innovation support from Scotland, UK, and Norway in its launch.

NRP Professor of Computational Systems (NRP: Northern Research Partnership)

School of Computing and Digital Media, Robert Gordon University, Aberdeen, UK.

(February 2013 – October 2016)

My overall contribution related to how computing and information systems play a role in our society and how RGU can extend its international recognition in specific fields such as information retrieval to other areas. My strategy included to lead by example for external and internal collaborations and to seek to involve other colleagues and researchers. This is particularly important in interdisciplinary aspects. This approach helps to ensure that the application-oriented research has more direct relevance to society and generates more commercial opportunities. My research areas covered *artificial intelligence, machine learning, multimedia retrieval, social media mining and retrieval, user-centred evaluation*.

Within RGU, I initiated collaborations with several academics in IMAGES Research Institute on interdisciplinary aspects relating to information sciences, media journalism and political sciences. I initiated funding proposals and joint work. This resulted in several collaborative projects, and numerous publicities in our fields, many of which are joint efforts. [see publications & publicity].

I was able to bring a large EU project, SocialSensor, to the initiatives in IDEAS around big data and applied research. My contributions helped shape and fit with the launched Smart Data Centre initiative and the Data Lab (of which RGU is one of three hubs in Scotland) and the new MSc *Data Science* (started Oct 2016). I used the expertise gained around this project in terms of real-time data, large volumes of data, and its multimedia aspects to help shape the Universities Research Data management needs and infrastructure needs and strategy for the data labs.

As Digital Technologies Theme leader, I was also the research lead for the School, representing IDEAS Research Institute. I helped shape the research vision and strategy and preparations towards REF2020 (UK Research Evaluation Framework) including targets with colleagues (funding, publication) and means of achieving this.

Teaching: I designed and introduced a new module with a view to strengthening the link between research and teaching. This emerged in response to various needs expressed within the School. The module was entitled “New trends in computing” and involved sharing state-of-art research literature and their analysis and discussion. I also designed and delivered a series of lectures on *Entrepreneurship*. Other teaching

included contributions to *information retrieval*, and *machine learning* in relevant modules. Undergraduate and postgraduate project supervision continued as usual.

Senior Lecturer

Department of Information Science, School of Informatics, City, University of London, UK.
(September 2006 – January 2013)

I grew the research project profile of the Department and was a key driver in providing momentum to the Centre for Interactive Systems Research (CISR), www.soi.city.ac.uk/is/research/cisr. I brought in several projects, researchers, PhD students, and included more academics to the research. My research covered *machine learning*, *information retrieval*, *human computer interaction*, *user evaluation*, *news and social media analytics*, *image retrieval*. My course leadership responsibilities spanned four postgraduate courses: Information Systems & Technology, Information Management, Electronic Publishing (joint with Journalism), and Social Media (joint with Sociology). The first of these was the longest running course, flag-ship course, at the Department, for several decades. I supervised over 80 masters projects.

I designed and developed the teaching in a number of priority modules for the Department, in order to improve student feedback (e.g. Information Knowledge Management for postgraduates, Information Management for undergraduates) and extended my teaching to others closer to my research such as Information Retrieval. These modules subsequently gained excellent feedback from students and from School assessment/mentoring processes. I believe I made a unique contribution and boost to the Department with relevant industrial background as well as innovative teaching. I innovated the delivery in various modules both in terms of embedding more entrepreneurial knowledge and experience as well as reinventing the role of the viva in both undergraduate and postgraduate courses. I have supported colleagues in the delivery of other modules with large student numbers. Additional roles/responsibilities included: Contributing to regular Departmental, School, and audit reports for various parts on teaching/learning, course leadership, and research.

Enterprise Fellow

The Royal Society of Edinburgh, UK. (www.rse.org.uk/awards/enterprise-fellowships)
(May 2005 – May 2006)

As a result of highly successful R&D, I won a competitive award as an Enterprise Fellow of The Royal Society of Edinburgh. The Award provided a year's sabbatical to commercialise the R&D, business mentoring and courses. In financial terms, the Award is considered to be worth £100,000. The collaborative commercialisation was for the AmbieSense EU project R&D. Since the formation of AmbieSense Ltd. as a company, and following activities, I continue to be an RSE Enterprise Fellow.

Reader, Senior Lecturer, Lecturer

School of Computer and Mathematical Sciences.
The Robert Gordon University, Aberdeen, UK.
(June 1998 – September 2006)

I progressed from Lecturer to Reader in 7 years, and then continued in this post for the last year during which I was on The Royal Society of Edinburgh Enterprise Fellowship and on sabbatical.

Duties and responsibilities over the whole period consisted of research, teaching and administration. Research area focused on developing novel search techniques and environments, for users, with an emphasis on *personalised and context sensitive* information retrieval & management systems particularly within *web search*, and *mobile and wireless computing*. Responsibilities and duties included the recruitment and pastoral care of PhD students as Research Student Coordinator. Early responsibilities included the co-ordination of day-to-day activities of the Information Retrieval Research Group and establishing good communication of information and work within members of the group. As Departmental seminar organiser, identified and invited suitable speakers within and outside the UK. Project supervision responsibilities and experience covered undergraduate, MSc and PhD level. Core

teaching duties (postgraduate and undergraduate) involved compulsory course modules (such as *programming*) and electives on *information retrieval*, *information management systems*, and *databases*. Within an agreed School vision and overall plan, I helped design and develop several course modules in information systems on *several degree programmes* including the introduction of a *mobile applications degree*. I have also previously taught aspects of *machine learning*, *adaptive systems*, and *intelligent systems*. As module coordinator for several course modules, I designed, organised and co-ordinated the subject teaching, preparation and marking of course works and exams. Experience also included the design, preparation and delivery of external courses on databases and information retrieval for *asset managers and engineers* in the *oil & gas industry* (Univation Ltd.). Administrative duties have included those of a year tutor, assignment scheduling for course years, and subject group liaison. University committee memberships included: University Research Degrees Committee, Postgraduate Certificate Committee, Department Research Committee, External seminar organiser (2000-2001), Research Student Coordinator (2002-2005).

Co-deputy Chair of Department, Assistant professor

Computer and Information Engineering Department, International Relations Department¹.
Bilkent University, Ankara, Türkiye.
(August 1994 – July 1998)

I was a Co-deputy chair (1997-1998) having responsibilities at executive level involving strategic decisions relating to the running of the Department. My responsibilities involved identifying the needs of the Department in various subject areas and recruitment of staff, students, and research assistants. During this time current courses in the faculty were re-evaluated and compared to others at national, international and level in order to improve the syllabuses. Other duties included the relevant filtering and communication of incoming information, subsequent allocation of action points to staff, as well as the timetabling and distribution of staff teaching loads. As Assistant Professor, I designed taught and coordinated course modules. Subjects taught included *computer research methods and Internet*, *programming*, *database systems*. My contributions included academic and personal tutoring, and external summer courses. Academic tutoring involved student project supervision, advising on electives and resits, cross-checking transcripts, and authorising add/drop of modules. External work included establishing, designing and developing two courses for professionals: one for librarians the other for members of government (Foreign Ministry). I served on several University committees: Faculty Computer Services Technical Committee (technical advisor); Student Academic Information Registration System Committee (department representative), Committee on the Preparation of Student Evaluation Forms.

PhD Student, Research Assistant, Teaching Assistant

Department of Information Science, School of Informatics, City, University of London, UK
(October 1988 – May 1994)

a) **PhD Student, Department of Information Science**, (October 1988 – May 1994)

Thesis: "An Investigation into the Application of Machine Learning in Information Retrieval".

I developed a user context learning algorithm to improve and optimize the effectiveness of an information retrieval system called Okapi. The Okapi system uses the probabilistic model of information retrieval. It provides a framework for evaluating many probabilistic models and algorithms. My research involved user studies to identify user search query patterns, followed by the investigation and further development of machine learning techniques. A primary argument was that users had a particular context within which their queries were formed and that those queries over sessions were related. Evidence over several online sessions for frequent users of the system was exploited (different to relevance feedback within a session). The learner was used to enhance document ordering in a partial match system. After the development of the system, user-oriented evaluation was performed.

¹ This was during a period in which computer science lecturers were seconded to several departments where courses were delivered.

b) Research Assistant, Centre for Interactive Systems Research,
(October 1988 – September 1992)

I designed and coded system components to an experimental information retrieval system (Okapi) for both small and large scale bibliographic databases (Unix based). The system was based on the probabilistic model of information retrieval. The probabilistic models behind the Okapi system also later became part of the foundations of Microsoft's Bing search engine through Professor Robertson. My programming in Okapi focused on components for extracting, recording and manipulating user system interaction details, and the analysis of resulting data. During this period, I also gained experience in participating in the DARPA funded Text Retrieval Conference (TREC) experiments run by National Institute of Standards and Technology (NIST), USA. The work also involved user session tracking and log analysis.

c) Teaching Assistant, Department of Information Science, (October 1988 – July 1993)

My responsibilities were in lecturing MSc students (Expert Systems) and undergraduate students (basic programming methods); assisted with computer laboratory sessions and tutorials on programming languages, operating systems, spreadsheets and information retrieval systems. The work was not a compulsory condition of the degree program.

d) Graduate Student Representative, School of Informatics, (1988 – 1991)

Represented and followed-up the needs and requests of postgraduate students at the Board of Studies for the School.

e) Tutor of Hall of Residence, Northampton Hall, City, University of London, (1989 – 1993)

Contributed to activities helping students to engage in university social life. Provided help, counselling and advice to students. Other responsibilities included duty-shifts, providing first aid, and monitoring closing of the bar.

Undergraduate Student, Industrial Placement Trainee,

Computer Science Department, City, University of London; and BP Oil Ltd., Hertfordshire UK
(October 1984 – June 1988)

a) Bachelor of Science (Honours) Computer Science. Upper Second (2.1).

Department of Computer Science, City, University of London, UK.
(October 1984 – June 1988)

Undergraduate degree specialisation's included comparative programming languages, systems programming, knowledge based systems, systems methodology / systems analysis, database management systems, human-computer interaction, and behavioural studies.

b) Industrial placement Trainee

Information Systems Division, BP Oil Ltd., Hertfordshire, UK
(June 1986 – September 1987)

One year industrial placement working on the Lubricants System for oil and gas industry which covered order taking, stock control, distribution and audit sub-systems for various oils (motor, turbine-quality, high quality gear and hydraulic oils, and cutting oils for engineering). Also supported the operational system and provided help-desk support which involved dealing with queries from users (both within and outside the company). After first few months, also trained new members of staff to the online system.

Entrepreneurship & Innovation

Massachusetts Institute of Technology (MIT), Sloan School of Management (Nov 2008 - May 2009)
Sponsored by Scottish Enterprise, University of Edinburgh, UK, and Innovation Ventures, UK.

Entrepreneurial Development Programme, Financing for Growth course, entrepreneurial product marketing course, global sales strategies course, women in hi-tech start-ups.

City, University of London, UK (May-June 2012)

Course on Leadership in times of change.

EPSRC Technology Transfer Entrepreneurship Programme. Sponsored by UK Engineering and Physical Sciences Research Council (2006-2007).

The Royal Society of Edinburgh (RSE), Enterprise Fellowship. Sponsored by Scottish Enterprise. (2004-2005)

Courses including SME finance, intellectual property rights, business development, negotiation, etc.

Further details:

I have been part of a team from the UK that was competitively selected for the Entrepreneurship Development Program at the MIT campus in Boston, USA along with follow-on courses. We were 8 out of some 90 applicants. At Boston, I competed in the business plan competition for all Entrepreneurship (around 130) participants and was a member of the winning team (joint winners). The opportunity provided a tremendous insight into how commercialization can occur on a global scale, and the importance of getting the right people, right business model, source of funding, and momentum on board. I bring this entrepreneurial knowledge in to my classes in addition to providing specific sessions on technology and entrepreneurship. This is very important for students given the current economic climate and that most employers are SMEs.

Secondary Education

Pre-University Examinations

A-Levels, UK : Mathematics (B), Turkish (B). Undertook two-year study period in one, (1984).

ÖSYM, Türkiye: Qualified for the Business Administration course at the Boğaziçi University, Istanbul, Türkiye (formerly Robert's College). Qualified in top 1%, percentile rank, (1983).

School Education

Holland Park School, London, UK., (1983-1984)

Ankara Atatürk Anatolian Lycee (Anadolu Lisesi), Ankara, Türkiye, (1980-1983)

Damascus Community School, Damascus, Syria, (1979-1980)

International School of the Sacred Heart, Tokyo, Japan, (1975-1979)

Languages

Fluent in English, Turkish, and Japanese (speech). Basic reading/writing skills in Japanese, working knowledge of French, moderate to advanced level speaking skills for Central Asian languages (Kyrgyz, Kazakh, Uzbek, Azerbaijani).

Other Skills

Very good interpersonal and communication skills with an appreciation of different cultures and languages, together with good presentation skills. Proficient in project management and financial planning. Fine organisation capabilities with experience in running conferences and courses. Good adaptation skills and enjoy working in a team environment. I hold a 3rd degree Black Belt in Karate (Shotokan) and have been training in this martial art for the most part since age 16.

Prof. Dr. Ayşe Göker - Publications / Yayınlar

<https://orcid.org/0000-0002-4462-5489>

Ayşe Goker / Ayse Göker / Ayşe Göker / Ayse Goeker / A S Goker / Göker Myrhaug S A

Book / Monograph (Kitaplar)

1. Gaber, M.M., Cocea, M., Wiratunga, N. and Goker, A. eds., (2015). Advances in social media analysis (Vol. 602). Springer. ISBN 978-3-319-18458-6, 2015.
2. Goker, A., and Davies, J. Information Retrieval: Searching in the 21st Century. John Wiley and Sons, Ltd., ISBN-13: 978-0470027622, November, 2009.

Journals (Dergi Makaleleri)

3. Göker, A., Butterworth, R., MacFarlane, A., Ahmed, T.S. and Stumpf, S. (2016). Expeditions through image jungles: The commercial use of image libraries in an online environment. *Journal of Documentation*, 72(1), pp.5-23. [SCI, SSCI]
4. Konkova, E., MacFarlane, A. and Goker, A. (2016). Analysing Creative Image Search Information Needs. *Knowledge Organization Journal*, Vol. 43 Issue 1, p13. [SSCI]
5. Palomino, M., Taylor, T., Göker, A., Isaacs, J. and Warber, S., (2016). The Online Dissemination of Nature–Health Concepts: Lessons from Sentiment Analysis of Social Media Relating to “Nature-Deficit Disorder”. *International Journal of Environmental Research and Public Health*, 13(1), p.142. [SCIE, SSCI]
6. Kaliciak, L., Myrhaug, H., Goker, A. and Song, D., (2015). Early Fusion and Query Modification in Their Dual Late Fusion Forms. *ISIF Journal of Advances in Information Fusion*. International Society for Information Fusion peer reviewed journal (LCCN: 2005215160) Vol. 10, No. 2, pp 183-198.
7. Konkova, E., Goker, A.S., Butterworth, R. & MacFarlane, A. (2014). Social Tagging: Exploring the Image, the Tags, and the Game. *Knowledge Organization*, 41(1), pp. 57-65. [SSCI]
8. Schifferes, S., Newman, N., Thurman, N., Corney, D.P.A., Goker, A. and Martin C. (2014). “Identifying and verifying news through social media: Developing a user centred tool for professional journalists,” *Journal of Digital Journalism*. [SSCI]
9. Abbas, Z., MacFarlane, A., and Goker, A. (2014). Smartphones for law students – Persuasive, pervasive and legal: a research study, *Legal Information Management*. Cambridge University Press. Vol. 14, Issue 3. 12 Sept, 2014. Pp. 174-180. [ESCI]
10. Aiello, L.M., Petkos, G., Martin, C., Corney, D., Papadopoulos, S., Skraba, R., Goker, A., Kompatsiaris, I. and Jaimes, A., (2013). Sensing trending topics in Twitter. *Multimedia, IEEE Transactions on*, 15(6), pp.1268-1282. [SCIE]
11. Goker A. and Myrhaug H. (2007). Evaluation of a mobile information system in context. *Information Processing & Management Journal*, Special Issue on “Evaluating Interactive Information Retrieval Systems” Eds: Borlund P., and Ruthven I. 44(1), November 2007, 327-338. [SCIE, SSCI]
12. He D., Goker A., and Harper D.J. (2002). Combining Evidence for Automatic Web Session Identification Information Processing & Management Journal, Special Issue on "Context in Information Retrieval", Volume 38, Issue 5, pp. 605-742, September 2002. [SCIE, SSCI]

13. Goker A. (1997). Context learning in Okapi. *Journal of Documentation*, January, 1997, pp 80-83. [SSCI]

Conferences (Konferans, Bildiri)

14. Goker, A., and Elmacioglu, B. (2019). Situational awareness in ocean monitoring: Artificial intelligence, context, and accountability. *International Security Congress: Theory, Method, Practice*. Gendarmerie and Coast Guard Academy of Turkey (GCGA) publication. Dec 2019, pp.283-305. (Uluslararası Güvenlik Kongresi: Kuram, Yöntem, Uygulama UGKONGRE 2019. Jandarma ve Sahil Guvenlik Akademisi (JSGA) Yayınları. Aralık 2019. pp.283-305) ISBN: 978-605-035-006-7
15. Kaliciak, L., Myrhaug, H., and Goker, A. (2018). Searching of Self-similar Spaces. *Proceedings of the Future Technologies Conference (FTC 2018)*, Vol. 2. pp 1106-1124. In *Advances in Intelligent Systems and Computing* (Eds., Arai, K., Bhatia, R., and Kapoor, S., 2019), Springer, Cham.. ISBN 978-3-030-02683-7. (Best Paper Award).
16. Kaliciak, L., Myrhaug, H. and Goker, A. (2018). On Search Spaces of Fractal Nature. *Proceedings of Fuzzy Systems and Data Mining IV (FSDM 2018)*, pp.202-207. In *Frontiers in Artificial Intelligence and Applications: Fuzzy Systems and Data Mining IV* (Eds., Tallon-Balesteros, A.J., and Li, K). ISBN 978-1-61499-926-3.
17. Frankowska-Takhari, S., MacFarlane, A., Goker, A. S. and Stumpf, S. (2017). Selecting and tailoring of images for visual impact in online journalism. *Information Research*, 22(1), CoLIS paper 1619. *Proceedings of the Ninth International Conference on Conceptions of Library and Information Science*, Uppsala, Sweden, June 27-29, 2016. (<http://InformationR.net/ir/22-1/colis/colis1619.html>).
18. Göker, A., Butterworth, R., MacFarlane, A., Stumpf, S. (2017a). Presenting and visualizing image results for professional image searchers: A field evaluation. *Proceedings of the 31st International BCS Human Computer Interaction Conference (HCI 2017) (HCI) - Digital Make Believe (theme)*, July 2017.
19. Göker, A., Butterworth, R., MacFarlane, A., Stumpf, S. (2017b). Presenting and visualizing results on an image retrieval user interface. *Proceedings of the 31st International BCS Human Computer Interaction Conference (HCI 2017) (HCI) - Digital Make Believe (theme)*, July 2017.
20. Kaliciak, L., Myrhaug, H., and Goker, A. (2017). Unified Hybrid Image Retrieval System with Continuous Relevance Feedback. *Proceedings of The 21st World Multi-Conference on Systemics, Cybernetics and Informatics (WMSCI 2017)*. pp 275-280.
21. Kaliciak, L., Myrhaug, H., and Goker, A. (2017). Content-Based Image Retrieval in Augmented Reality. In *International Symposium on Ambient Intelligence*. pp. 95-103. Springer, Cham.
22. Kaliciak, L., Myrhaug, H., Goker, A. and Song, D. (2015). Adaptive relevance feedback for fusion of text and visual features. In *Information Fusion (FUSION)*, 18th International Conference on (pp. 1322-1329). IEEE, July 2015.
23. Martin, C., Corney, D., and Goker, A. (2015). Mining newsworthy topics from social media. In *Advances in Social Media Analysis*. In *Studies in Computational Intelligence* 602, In Gaber et al (Eds) pp.21-44. Springer, 2015.
24. Pedersen, S., Baxter, G., Burnett, S.M., MacLeod, I., Goker, A., Heron, M., Isaacs, J., Elyan, E. and Kaliciak, L., (2015). Twitter response to televised political debates in Election 2015. (Report)
25. Motajcsek, T., Le Moine, J-Y, Larson, M., Kohlsdorf, D., Lommatzsch, A., Tikk, D., Alonso, O., Cremonesi, P., Demetriou, A., Dobrajs, K., Garzotto, F., Goker, A., Hopfgartner, F., Malagoli, D., Nguyen, T.N., Novak, J., Ricci, F.,

- Scriminaci, M., Tkalcic, M., and Zacchi, A. (2016). Algorithms Aside: Recommendation As The Lens Of Life. In Proceedings of the 10th ACM Conference on Recommender Systems (RecSys 2016). Boston, MA, USA. Sept. 2016, pp 215-219.
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 35. Heron, M.J., Belford, P., Goker, A. (2014). Sexism in the Circuitry: Female Participation in Male Dominated Popular Computer Culture. Computers and Society. 44 (4). ACM Conference, New York. [Available online at <http://dl.acm.org/authorize?N84609>]
 36. Martin, C. and Göker, A. (2014) "Real-time Topic Detection with Bursty N-grams", Proceedings of the SNOW 2014 Data Challenge, Seoul, Korea, April 8, 2014, pp 9-16.
 37. Gaber, MM., Wiratunga, N., Goker, A. and Haig, E. (2013). (eds). Proceedings of the BCS SGAI Workshop on Social Media Analysis 2013. CEUR Workshop Proceedings.

38. Corney, D., Martin, C., Göker, A., Spyromitros-Xioufis, E., Papadopoulos, S., Kompatsiaris, Y., Aiello, L., and Thomee, B. (2013). "SocialSensor: Finding diverse images at MediaEval 2013," in Proceedings of the MediaEval Benchmark Workshop 2013, Barcelona, Spain, Oct. 2013.
39. Martin, C., Corney, D., Göker, A., and MacFarlane, A. (2013) "Mining Newsworthy Topics from Social Media", BCS SGAI Workshop on Social Media Analysis, Cambridge, December 2013.
40. Martin, C., Corney, D.P.A., Göker, A. (2013) "Finding newsworthy topics on Twitter", IEEE Computer Society Special Technical Community on Social Networking E-Letter, vol. 1, no. 3, September 2013.
41. Schifferes, S., Newman, N., Thurman, N., Corney, D.P.A., Goker, A. and Martin C. (2013) "Identifying and verifying news through social media: Developing a user-centred tool for professional journalists," The Future of Journalism Conference, 12-13 September 2013, Cardiff, UK.
42. Diplaris, S., Petkos, G., Papadopoulos, S., Kompatsiaris, Y., Sarris, N., Martin, C., Goker, A., Corney, D.P.A., Geurts, J., Liu, Y., Point, J-C. (2012) "SocialSensor: Surfacing Real-Time Trends and Insights from Multiple Social Networks," presented at the 2012 NEM Summit, Istanbul, Turkey, 16-18 October, 2012.
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44. Diplaris, S., Papadopoulos, S., Kompatsiaris, I., Goker, A., MacFarlane, A., Spangenberg, J., Hacid, H., Maknavicius, L. and Klusch, M. (2012). SocialSensor: Sensing User Generated Input for Improved Media Discovery and Experience. In: Proceedings of the 21st international conference companion on World Wide Web (WWW 2012), Lyon, France. pp. 247-260.
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51. Myrhaug H., Whitehead N., Goker A., Faegri T.E., and Lech T.C. (2004). AmbieSense – a system and reference architecture for personalised and context-sensitive information services for mobile users. Second International Symposium on Ambient Intelligence, November 2004, Eindhoven, Netherlands, Springer Verlag. pp 327-338.
52. Goker A., Cumming H., and Myrhaug H.I. (2004). Content Retrieval and Mobile Users: An Outdoor Investigation of an Ambient Travel Guide. Mobile HCI 2004 Conference, Second international Workshop on Mobile and Ubiquitous Information Access, September 2004.
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54. Goker A., and He D. (2003). Personalization via collaboration in web retrieval systems: a context based approach. American Society for Information Science and Technology Annual Conference ASIST03, pp.357-365, Long Beach, CA., USA, 2003.
55. Myrhaug H.I., and Goker, A. (2003). AmbieSense - interactive information channels in the surroundings of the mobile user. 10th International Conference on Human-Computer Interaction (HCI International 2003), pp. Crete, Greece, 2003.
56. Goker A. and Myrhaug H.I. (2002). User Context and Personalisation, European Conference on Case Based Reasoning Workshop on Case Based Reasoning and Personalization, 4-7 September 2002. (*Invited paper*).
57. Sheng H., Goker A., He D. (2001). Web user search pattern analysis for modelling query topic changes. User modeling for Context-Aware Applications Workshop: 8th International Conference on User Modeling, Sonthofen, Germany, July 2001.
58. Goker A., and He D. (2000). Analysing Web search logs to determine session boundaries for user-oriented learning. Adaptive Hypermedia and Adaptive Web-Based Systems International Conference (AH2000). Trento, Italy, 2000. pp. 319-322. In Lecture Notes in Computer Science 1892. Eds: P. Brusilovsky, O. Stock, and C. Strapparava. Springer-Verlag, 2000.
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60. Muresan G., Harper D., Goker A., and Lowitt P. (2000). ClusterBook, a dual tool for information access. In Proceedings of the 23rd Annual International Conference of the ACM SIGIR conference on research and development in information retrieval, 2000, Athens, Greece, pp. 391.
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AmbieSense EU Project Public Reports:

The below are amongst the well cited AmbieSense project outputs recognised for the research and innovation also through support from UK and Norway for a start-up.

Myrhaug H.I. (Ed). Authors: Goker A., Watt S., Pollich J. (2005). Test and Evaluation Report. D17: AmbieSense: Ambient, personalised, and context-sensitive information systems for mobile users. EUIST project IST-2001-34244. Tech. project report, 2005.

Goker A., Whitehead N. (Eds) (2004). System Architecture and Information Standards Report. D6 -Information Sharing and Distribution for personalised, context-sensitive use. AmbieSense: Ambient, personalised, and context-sensitive information systems for mobile users. EU-IST project IST-2001-34244. Tech Report. Authors: Goker A., Rabin J., Yakici M., Bierig R. , Myrhaug H.I., Gallagher R., Whitehead N., Huber H. Tech. project report, 2004.

Tomassen S.L., Lech T.C., Pollich J. (Eds). (2003). Haugset B., Faegri T.E., Myrhaug H.I., Mikalsen M., Tomassen S.L., Engels R., Kofod-Pedersen A., Huber H., Markovics P., Goker A., Yakici M., Hu B., Bierig R., Whitehead N. (2003) AmbieSense Reference Information Model. AmbieSense: Ambient, personalised, and context-sensitive information systems for mobile users. EU-IST project IST-2001-34244. Tech Project Report. 2003.

Lech T.C. (Ed). Goker A. (one of several co-authors) (2004). AmbieSense Multi-agent System Architecture Report. Deliverable D8. AmbieSense: Ambient, personalised, and context-sensitive information systems for mobile users. EU-IST project IST-2001-34244, project report, 2004.

Myrhaug H.I. and Goker A (Eds). Authors: Myrhaug H.I., Goker A., Cumming H., Watt S., Pollich J. (2004). Test and Evaluation Report. D12: AmbieSense: Ambient, personalised, and context-sensitive information systems for mobile users. EU-IST project IST-2001-34244. Tech. project report, 2004.

EU-IST R&D Project Public Reports

I am a co-author of over 40 public reports and outputs through participations in the EU-IST projects below:

SocialSensor, Webinos, OPENi, Cerbero

Patent references

My work has been cited in several patents by search engine companies and others. Below are a few of the patents that have referenced my work within their patent applications:

Patent US7657519. Forming intent-based clusters and employing same by search. *Microsoft Corporation*. Filing date 30/9/2004. Publication date 2/2/2010.

Patent US20100125575A1. Searching document collections using semantic roles of keywords - *Google Patents*
US 2010.0125575A1 Patent Application Publication. Yahoo! Inc. Filing date 17/11/2008 . Publication date 20/05/2010.
(Hugo Zaragoza) <https://patentimages.storage.googleapis.com/77/ca/ab/63d77e9b8f9c42/US20100125575A1.pdf>

Patent US007194454B2 Method for organizing records of database search activity by topical relevance. *Lucent Technologies*. (Mark A. Hansen and Elizabeth A. Shriver) Filing date 12/03/2002. Publication date 20/03/2007.

Exhibitions

Oceanology 2020, Neva 2019, Yakamoz 2019, HiPEAC 2019, HiPEAC 2020, Mobile World Congress 2013, CeBIT 2012, EyeForTravel 2009, Visit Scotland 2005, EyeForTravel. 2004.

Selected news and media coverage

Turkish Radio and Television. TRT Turk (17.09.2014) Total 25 mins. Showing SmartWeb area, RSE atrium, library in RGU, our social media mining work and projects of Goker and team at IDEAS relevant to Scottish Referendum. Also included interviews from RGU colleagues which Goker enabled and facilitated (Prof. Alex Russell, Professor, Dr. Iain MacLeod, Dr. Peter McLaverty.) (Turkish national TV, akin to BBC).

Turkish Radio and Television. TRT Turk (18.09.2014) Total 45 mins. 15 min plus Goker for 30 mins on panel broadcast live on night of Scottish Referendum. Clips included those that facilitated for other RGU colleagues. (Prof. Alex Russell, Professor, Dr. Iain MacLeod, Dr. Peter McLaverty.) (Turkish national TV, akin to BBC).

TRT & A Haber (10.08.2014) – Interviews on Turkish Elections and voting from abroad and the Scottish Referendum.

STV (Scottish TV) and Radio Scotland (20.09.2014) Pedersen interviews mentioning collaborative work with Goker and team.

Radio - BBC Radio Scotland, Fred MacAuley and Co, Morning show. Interview on R&D work (2005).

TV – EuroNews, AmbieSense EU-IST project demo (2004).

Newspapers – Scotsman, Press and Journal, local Scottish papers on results and potential of R&D work (2005-2006).

Online news & BBC: SocialSensor 2011. Webinos 2010-2012.

Further details on Scottish Referendum news publicity and media coverage

Indy Ref (Scottish Referendum) Twitter stories - Media values are based on equivalent advertising value:

BBC Radio Scotland Referendum Tonight – (25.08.2014) (20 mins in)

<http://www.bbc.co.uk/programmes/b04fcc8m>

Good Morning Scotland BBC Radio – (25.08.2014)

Reporting Scotland - (25.08.2014) (5mins in)

<http://www.bbc.co.uk/iplayer/episode/b04fclpz/reporting-scotland-25082014>

BBC Radio 5 live - (26.08.2014)

BBC Radio Scotland Good Morning Scotland – (26.08.2014) (7.10am)

<http://www.bbc.co.uk/programmes/b0074hf7>

BBC news website – (26.08.2014) (£20,631)

<http://www.bbc.co.uk/news/uk-scotland-scotland-politics-28934691#>

Clyde 1 (Web) - (26.08.2014) £139

Clyde 2 (Web) - (26.08.2014) £31

<http://www.clyde1.com/news/local/referendum-debate-trending-across-tweetsphere/>

Evening Express - (26.08.2014) £3248

Evening Express web - (26.08.2014)

<http://www.eveningexpress.co.uk/news/local/massive-surge-in-tweets-showed-public-interest-in-referendum-debate-1.542489>

Glasgow Evening Times (Web) - (26.08.2014) £501

<http://www.eveningtimes.co.uk/news/u/indyref-debate-trends-on-twitter-from-stoke-on-trent-to-seville.1409048325>

Herald Scotland (Web) - (26.08.2014) £1016

Itv.com - (26.08.2014) £8923

<http://www.itv.com/news/update/2014-08-26/14-000-more-tweets-sent-during-second-scotland-debate/>

Press and Journal (web) - (26.08.2014) £1234

<https://www.pressandjournal.co.uk/fp/news/politics/referendum/326153/second-indyref-debate-sees-increase-twitter-users/>

Reporting Scotland – BBC One Scotland - (26.08.2014)

Scotland Decides – BBC - (26.08.2014)

The Courier and Advertiser – (27.08.2014) £514 + £521

The Times – (27.08.2014) £31,364

Daily Record

<http://www.dailyrecord.co.uk/news/female-politicians-target-sexist-tweets-4158905> £2324

The Scotsman

<http://www.scotsman.com/news/politics/top-stories/scottish-independence-sexist-tweets-during-debate-1-3530192> £8714

Herald Scotland

<http://www.heraldsotland.com/politics/referendum-news/female-politicians-are-target-of-abuse.25236018> £756 + £1016

<http://www.heraldsotland.com/comment/columnists/sad-sexist-tweets-are-modern-day-norm.25230940> £1764 + £1016

Clyde 1 and 2 £31

Metro Scotland £1168

Daily Mail ‘Mary Doll’ story £246

North Wales Daily Post £255

The Guardian

<http://www.theguardian.com/politics/scottish-independence-blog/live/2014/sep/12/scottish-independence-referendum-cabinet-secretary-rejects-improper-leak-claim-live>

RGU

Can Twitter be used to predict outcome of Indyref? + additional news releases

(<http://www.rgu.ac.uk/news/yes-voters-dominate-indyref-hashtag-on-twitter-in-last-hours-of-polling>)

<http://www.rgu.ac.uk/news/do-no-voters-get-up-earlier-than-yessers>

<http://www.rgu.ac.uk/news/morning-twitter-sample-gives-yes-the-lead-say-rgu-researchers>

<http://www.rgu.ac.uk/news/rgu-academics-to-monitor-voting-intention-on-twitter>)

Daily Record (18.09.2014) £696 / Scottish Sun 18.09.14 £3919 / P&J web £1234 / Daily Record web £2324 / Northsound / Guardian £0 – all 18.09.14

<http://www.theguardian.com/politics/live/2014/sep/18/scottish-independence-referendum-polling-day-live> (Scroll down to 6.41PM)

Total media value of coverage, excluding broadcast coverage: £97,049