

Dr Maria Eskevich

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Radboud University, Nijmegen, Netherlands
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Research interests evaluation, natural language understanding, information retrieval, data mining, crowdsourcing, multimedia processing and hyperlinking, spoken content retrieval, machine learning

EDUCATION

2009 – 2014 **PhD, School of Computing, Dublin City University, Ireland**
Centre for Digital Video Processing (CDVP),
Centre for Next Generation Localisation (CNGL), CNGL Centre for Global Intelligent Content
“Towards Effective Retrieval of Spontaneous Conversational Spoken Content”

2005 – 2009 **Postgrad-student, Nordic Graduate School of Language Technology, Sweden**
Courses: Natural language processing; Statistical Machine translation: A practical introduction;
Speech Technologies; Speech and Speaker Recognition; Speech technologies. Automatic speech
recognition; Praat-scripting; Information extraction; Speech Synthesis; Statistical Methods

2000 – 2005 **Diploma with honours, Philological Faculty, St Petersburg State University, Russia**
Majoring in “Theoretical and Applied Linguistics” and “Computer and Speech Technologies”

CAREER ENHANCEMENT TRAINING

Dec 2006 **Center for Higher Education Policy Studies, Twente, the Netherlands**
Course: Innovative Technologies in Higher Education

Oct 2005 **EU Project ‘Regional Capacity Building Initiative’ (RCBI), Pskov, Russia**
Course: BSR INTERREG Project management

LANGUAGES (6) Russian (Native speaker), English (Fluent), Italian (Fluent), French (Fluent),
German (Advanced), Dutch (B1)

TECHNICAL SKILLS Mac, Linux, Windows; Python, Java, Perl; HTML

AWARDS Scholarship of Potanin Charity Fund 2002/2003 (is received by 1200 students from the best
universities of Russia, was received by 1 in 250 students from St Petersburg State University)

PUBLICATIONS (52) Journal papers: 2; Peer-reviewed conference papers: 11;
CITATIONS=349 Peer-reviewed workshop papers: 5;
h-index/i10-index=10/11 Workshop papers: 16; Project deliverables: 4; Others: 14; Seminars/talks: 9

RESEARCH AND ACADEMIC DUTIES **Area co-chair:** area ‘Perception’ at ICTIR’17;
Main Organiser: Special sessions “User-centric Video Search Hyperlinking” at ICMR’14 and
“Identifying and Linking Interesting Content in Large Audiovisual Repositories” at ICMR’17;
Member of Organising Committee: Special Student Events Interspeech’11-13: “Students
meet Seniors’, “Students meet Experts’, “Students discover Industrial career challenges’;
“Open Space: How to teach computer scientists?” (St Petersburg, Russia, 2007);
Reviewer for conferences:
AINL’13, RANLP’13, CrowdMM’13-14, MediaEval’13-15, MMM’14, ICME’15-16, LMAC’15,
SLAM’15, LREC’16, MMDA’16, RuSSIR’16, COLING’16, ICMR’17, SIGIR’17;
Reviewer for journals: IEEE TKDE’15, IEEE MultiMedia’15;
Reviewer for EU projects: CHIST-ERA’14 call ‘Human Language Understanding’;
Editor: Working Notes Proceedings of the MediaEval 2014-2015 Workshops;
Member of Distinguished Lecturer Committee at ISCA (2013-2014);
Conference photographer: ACM MM’16, SIGIR’13, ECIR’11, IWPT’11, SPMRL’11,
NTCIR-9, EVIA’11;

WORK EXPERIENCE

RESEARCH:

Post-doctoral researcher, Radboud University, Nijmegen, Netherlands www.ru.nl. (Nov 2015 – present)

Duties: - Research on text and data mining policies, open access (Horizon2020 Project 'FutureTDM');
- work on funding applications (personal and H2020 ICT call)

Post-doctoral researcher, EURECOM, Campus SophiaTech, France, www.eurecom.fr. (Nov 2014 – Oct 2015)

Duties: - Research on multimedia hyperlinking (FP-7 Project 'LinkedTV'); work on funding applications

Research Assistant, CNGL Centre for Global Intelligent Content, DCU, Dublin, Ireland, www.cngl.ie. (Sep 2013 – May 2014)

Duties: - Research on spoken content retrieval, multimedia hyperlinking

Speech applications analyst, Yandex, Moscow, Russia, www.yandex.ru. (Apr 2011 – Mar 2012)

Duties: - Consulting projects involving speech technologies
- Management and assessment of speech database preparation

Linguist, AudiTech Ltd, Saint-Petersburg, Russia, auditech.ru. (Jan 2008 – Sep 2009)

Duties: - Auditory analysis and scientific research for Projects: 'Russian Speech Recognition System', 'Russian Text and Speech Database'

Researcher, Saint-Petersburg State University, Russia, www.phonetics.pu.ru. (Jun 2006 – Sep 2009)

Duties: - Speech signal auditory analysis and segmentation for the Project 'Text to Speech Synthesis of Russian'

Linguist, Promt, Ltd, Saint Petersburg, Russia, www.promt.com. (Dec 2004 – Mar 2005)

Duties: - Translation from French into German and vice-versa; evaluation of the Promt dictionary applications

BENCHMARKING: TASK ORGANIZER

MediaEval Benchmark, www.multimediaeval.org. Tasks: 'Rich Speech Retrieval (RSR)' (2011), 'Search and Hyperlinking (S&H)' (2012-2014), 'Search and Anchoring in Video Archives (SAVA)' (2015)

Duties: - General task coordination
- Dataset preparation, metrics developments and task adjustments, results evaluation and analysis

TRECVID Benchmark, <http://trecvid.nist.gov>. Task: 'Video Hyperlinking (LNK)' (2015 – present)

Duties: - General task coordination
- Dataset preparation, metrics developments and task adjustments, results evaluation and analysis

TEACHING:

Semester project supervision (Masters level students):

'Automatic anchors creation for multimedia hyperlinking' (spring/autumn semesters 2015), EURECOM;

'Person-based Multimedia Hyperlinking' (autumn semester 2014), EURECOM;

Summer internship supervision (Undergraduate level students):

'Implementing New Methods for Speech Retrieval' (summer 2012), Dublin City University;

Teaching assistant:

Course: 'Machine learning and intelligent systems (MALIS)' (spring semester 2015), EURECOM;

Course: 'Advanced Topics in Multimedia (ATMM)' (autumn semester 2014), EURECOM;

Course: 'Introduction to Programming' (96 hours, Sep 2012 – May 2013), Dublin City University;

Private tutor, English, French, Italian. (2002 – 2008)

ADMINISTRATIVE MANAGEMENT:

Head of the International department, State Museum of the History of Saint-Petersburg, Russia, www.spbmuseum.ru. (Jun 2007 – Dec 2007)

Duties: - Communication with foreign partners
- Translation from English, Italian into Russian and vice-versa
- Promotion the State Museum of the History of Saint-Petersburg on the international level

Manager, linguist, Saint-Petersburg State University, Russia, www.philarts.spbu.ru. (Aug 2005 – Jun 2007)

Duties: - Coordination of scientific research and projects at the Philological Faculty
- Administrative maintenance and financial management of grants and research schemes
- Organization of international conferences (Second Biennial Conference on Cognitive Science, Annual International Philological Conference, Annual Student Conference in Linguistics and Philology)
- Maintenance of English version of the web-site <http://iphil.spbu.ru/iphil.en/>

LIST OF PUBLICATIONS (52)

JOURNAL PAPERS (2)

- J1 M. **Eskevich**, G. J.F. Jones. Exploring Speech Retrieval from Meetings using the AMI Corpus. Computer Speech and Language, Special Issue Information Extraction&Retrieval, 2014.
- J2 M. Larson, M. Soleymani, M. **Eskevich**, P. Serdyukov, R. Ordelman, G. J.F. Jones. The Community and the Crowd: Developing large-scale data collections for multimedia benchmarking. IEEE Multimedia, Special Issue "Large-Scale Multimedia Data Collections", 19-3, pp. 15-23, 2012.

PEER-REVIEWED CONFERENCE PAPERS (11)

- C1 M. **Eskevich**, M. Larson, R. Aly, S. Sabetghadam, G.J.F. Jones, R. Ordelman, B. Huet. Multimodal Video-to-Video Linking: Turning to the Crowd for Insight and Evaluation. 23rd International Conference on MultiMedia Modeling (MMM), Reykjavk, Iceland, 2017.
- C2 Y. Graham, T. Baldwin, T. Lynn, M. Dowling, L. Tounsi, M. **Eskevich**. Is all that Glitters in Machine Translation Quality Estimation really Gold? 26th International Conference on Computational Linguistics (COLING), Osaka, Japan, 2016.
- C3 M. **Eskevich** Stakeholders in academic publishing: text and data mining perspective and potential. International Conference on Electronic Publishing (ELPUB), Göttingen, Germany, 2016
- C4 M. **Eskevich**, H. Nguyen, M. Sahuguet, B.Huet. Hyper Video Browser: Search and Hyperlinking in Broadcast Media. ACM Multimedia 2015, Brisbane, Australia, 2015.
- C5 S. Chen, M. **Eskevich**, G. J.F. Jones, N. E. O'Connor. An Investigation into Feature Effectiveness for Multimedia Hyperlinking. 20th Anniversary International MultiMedia Modeling (MMM) Conference 2014, Dublin, Ireland, 2014.
- C6 M. **Eskevich**, G. J.F. Jones, R. Aly, R. Ordelman, S. Chen, D. Nadeem, C. Guinaudeau, G. Gravier, P. Sébillot, T. De Nies, P. Debevere, R. Van de Walle, P. Galuščáková, P. Pecina and M. Larson. Multimedia Information Seeking through Search and Hyperlinking. ICMR 2013, Dallas, Texas, USA.
- C7 S. Schmiedeke, P. Xu, I. Ferrané, M. **Eskevich**, C. Kofler, M. Larson, Y. Estve, L. Lamel, G. J.F. Jones, T. Sikora. Blip10000: A social Video Dataset containing SPUG Content for Tagging and Retrieval. Dataset Track. ACM Multimedia Systems. Oslo, Norway, 2013.
- C8 M. **Eskevich**, G. J.F. Jones, M. Larson, C. Wartena, R. Aly, T. Verschoor, R. Ordelman. Comparing Retrieval Effectiveness of Alternative Content Segmentation Methods for Internet Video Search. 10th Workshop on Content-Based Multimedia Indexing, Annecy, France, 2012
- C9 M. **Eskevich**, G. J.F. Jones, M. Larson, R. Olderman. Creating a Data Collection for Evaluating Rich Speech Retrieval. LREC 2012, Istanbul, Turkey, 2012.
- C10 M. **Eskevich**, W. Magdy, G. J.F. Jones. New Metrics for Meaningful Evaluation of Informally Structured Speech Retrieval. ECIR 2012, Barcelona, Spain, 2012.
- C11 M. **Eskevich**. Prominence detected by listeners for future speech synthesis application. NEALT. Proc. of the 17th Nordic Conference of Computational Linguistics NODALIDA, Odensee, Denmark, 2009.

PEER-REVIEWED WORKSHOP PAPERS (5)

- CW1 R.J.F. Ordelman, R. Aly, M. **Eskevich**, B. Huet, G.J.F. Jones. Convenient Discovery of Archived Video Using Audiovisual Hyperlinking. Speech, Language and Audio in Multimedia (SLAM) Workshop at ACM Multimedia 2015, Brisbane, Australia, 2015.
- CW2 M. **Eskevich**, Q.-M. Bui, H.-A. Le, B. Huet. Exploring Video Hyperlinking in Broadcast Media. Speech, Language and Audio in Multimedia (SLAM) Workshop at ACM Multimedia 2015, Brisbane, Australia, 2015.
- CW3 R.J.F. Ordelman, M. **Eskevich**, R. Aly, B. Huet, G.J.F. Jones. Defining and Evaluating Video Hyperlinking for Navigating Multimedia Archives. Third Worldwide Web Workshop on Linked Media (LiME-2015) at WWW'15, Florence, Italy.
- CW4 R. Aly, R.J.F. Ordelman, M. **Eskevich**, G.J.F. Jones, S. Chen. Linking Inside a Video Collection - What and How to Measure? First Workshop on Linked Media (LiME-2013) at WWW'13, Rio de Janeiro, Brazil.
- CW5 G. J.F.Jones, M. **Eskevich**, A. Gyarmati. Towards Methods for Efficient Access to Spoken Content in the AMI Corpus. Workshop on Searching Spontaneous Conversational Speech (SSCS) at ACM MM 2010, Florence, Italy, 2010.

WORKSHOP PAPERS (16)

- W1 G. Awad, J. Fiscus, M. Michel, D. Joy, W. Kraaij, A.F. Smeaton, G. Quénot, M. **Eskevich**, R. Aly, G.J.F. Jones, R. Ordelman, B. Huet, M. Larson. TRECVID 2016: Evaluating Video Search, Video Event Detection, Localization, and Hyperlinking. Proceedings of TRECVID 2016, NIST, USA.
- W2 B. Merialdo, P. Pidou, M. **Eskevich**, B. Huet. EURECOM at TRECVID 2016: The Adhoc Video Search and Video Hyperlinking Tasks. Proceedings of TRECVID 2016, NIST, USA.

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WORKSHOP PAPERS (16)

- W3 **M. Eskevich**, G.J.F. Jones, R. Aly, R. Ordelman, B. Huet. Pursuing a Moving Target: Iterative Use of Benchmarking of a Task to Understand the Task. MediaEval 2016 Workshop, Hilversum, Netherlands, 2016.
- W4 U. Niaz, B. Merialdo, C. Tanase, **M. Eskevich**, B. Huet. EURECOM at TrecVid 2015: Semantic Indexing and Video Hyperlinking Tasks. TRECVID 2015, NIST, USA.
- W5 **M. Eskevich**, B. Huet. EURECOM @ SAVA2015: Visual Features for Multimedia Search. MediaEval 2015 Workshop, Wurzen, Germany, 2015.
- W6 **M. Eskevich**, R. Aly, D. N. Racca, R. Ordelman, S. Chen, G. J.F. Jones. SAVA at MediaEval 2015: Search and Anchoring in Video Archives. MediaEval 2015 Workshop, Wurzen, Germany, 2015.
- W7 **M. Eskevich**, R. Aly, D. N. Racca, R. Ordelman, S. Chen, G. J.F. Jones. The Search and Hyperlinking Task at MediaEval 2014. MediaEval 2014 Workshop, Barcelona, Spain, 2014.
- W8 D. N. Racca, **Maria Eskevich**, G. J.F. Jones. DCU Search Runs at MediaEval 2014 Search and Hyperlinking. MediaEval 2014 Workshop, Barcelona, Spain, 2014.
- W9 **M. Eskevich**, R. Aly, R. Ordelman, S. Chen, G. J.F. Jones. The Search and Hyperlinking Task at MediaEval 2013. MediaEval 2013 Workshop, Barcelona, Spain, 2013.
- W10 **Maria Eskevich**, Gareth J.F. Jones. Time-based Segmentation and Use of Jump-in Points in DCU Search Runs at the Search and Hyperlinking Task at MediaEval 2013. MediaEval 2013 Workshop, Barcelona, Spain, 2013.
- W11 **M. Eskevich**, G. J.F. Jones. DCU at NTCIR-10 SpokenDoc2 Passage Retrieval Task. 10th NTCIR Workshop Meeting, Evaluation of Information Access Technologies: Information Retrieval, Question Answering, and Cross-Lingual Information Access, Tokyo, Japan, 2013.
- W12 **M. Eskevich**, G. J.F. Jones, S. Chen, R. Aly, R. Ordelman and M. Larson. Search and Hyperlinking Task at MediaEval 2012. MediaEval 2012 Workshop, Pisa, Italy, 2012.
- W13 **M. Eskevich**, G. J.F. Jones. DCU Search Runs at MediaEval 2012: Search and Hyperlinking Task. the MediaEval 2012 Workshop, Pisa, Italy, 2012.
- W14 M. Larson, **M. Eskevich**, R. Ordelman, C. Kofler, S. Schmiedeke, G. J.F. Jones. Overview of MediaEval 2011 Rich Speech Retrieval Task and Genre Tagging Task. Proc. of the MediaEval 2011, Pisa, Italy, 2011.
- W15 **M. Eskevich**, G. J.F. Jones. DCU at MediaEval 2011: Rich Speech Retrieval (RSR). Proc. of the MediaEval 2011, Pisa, Italy, 2011.
- W16 **M. Eskevich**, G. J.F. Jones. DCU at the NTCIR-9 SpokenDoc Passage Retrieval Task. Proc. of the 9th NTCIR Workshop Meeting, Evaluation of Information Access Technologies: Information Retrieval, Question Answering, and Cross-Lingual Information Access, Tokyo, Japan, 2011.

PROJECTS DELIVERABLES (4)

- D1 F. van den Boom, B. White, **M. Eskevich**, A. van den Bosch, J. Molloy, B. Akinci, B. Triglav, D. Agnosti, M. Macleod. Compendium of Best Practices and Methodologies, Project H2020 GARRI-3-2014-665940 FutureTDM Deliverable D4.3, 2016.
- D2 S. Piperidis, K. Pouli, M. Gavriilidou, D. Galanis, J. Bakagianni, **M. Eskevich**, A. Bertone. European Landscape of TDM Applications Report. Project H2020 GARRI-3-2014-665940 FutureTDM Deliverable D4.1, 2016.
- D3 **M. Eskevich**, A. van den Bosch, M. Caspers, L. Guibault, A. Bertone, S. Reilly, C. Munteanu, P. Leitner, S. Piperidis. Research Report on TDM Landscape in Europe. Project H2020 GARRI-3-2014-665940 FutureTDM Deliverable D3.1, 2016.
- D4 T. Kliegr, J. Bouchner, B. Červenková, M. Dojchinovski, J. Kuchař, I. Lašek, M. Šimúnek, O. Zamazal, V. Zeman, R. Troncy, J.L. Redondo García, G. Rizzo, B. Huet, **M. Eskevich**, B. Safadi, M. Sahuguet, H.-A. Le, Q.-M. Bui, J. Thomsen, D. Tsatsou, V. Mezaris, A. M.P. Brasoveanu, L.J.B. Nixon, L. Perez Romero. Final Linked Media Layer and Evaluation, Project FP7-ICT-2011-7 LinkedTV Deliverable, 2015.

OTHERS (14)

- 01 **M. Eskevich**, M. Larson, R. Ordelman. How well can the crowd perceive the multimodality and make relevance judgments in case of video-to-video search? Computational Linguistics in the Netherlands 27 (CLIN27), Leuven, Belgium, 2017.
- 02 **M. Eskevich**. Twitter usage as a channel for scientific knowledge sharing. Computational Linguistics in the Netherlands 27 (CLIN27), Leuven, Belgium, 2017.
- 03 A. Kotov , E. Treshcheva, L. Bessonov, D.I. Ignatov , Y. Volkovich, **M. Eskevich**, P. Braslavski. SUMMER SCHOOL REPORT for SIGIR Forum: 10th Russian Summer School in Information Retrieval (RuSSIR 2016). Vol. 50 No. 2, pp. 28-35, December 2016.

LIST OF PUBLICATIONS (52)

OTHERS (14)

- O4 **M. Eskevich**, A. van den Bosch, F. van den Boom, H. Frew, B. Akinici, A. Bertone, I. Luca, M. Caspers. FutureTDM: Improving Uptake of Text and Data Mining in the EU. Poster at the European Data Forum, Eindhoven, the Netherlands, 2016.
- O5 R. Aly, **M. Eskevich**, R. Ordelman, G.J.F. Jones. Adapting Binary Information Retrieval Evaluation Metrics for Segment-based Retrieval Tasks. Technical report, ArXiv e-prints, 1312.1913, <http://arxiv.org/abs/1312.1913>.
- O6 G.J.F.Jones, **M. Eskevich**, R. Aly and R.Ordelman, The "Search and Hyperlinking" task at MediaEval, IEEE Speech and Language Processing Technical Committee (SLTC) Newsletter, May 2013.
- O7 **M. Eskevich**, G. J.F. Jones. Investigating Next Generation Speech Search Applications. Workshop on Innovation and Applications in Speech Technology (IAST), Dublin, Ireland, 2012
- O8 **M. Eskevich**. Improving Search for Unstructured Conversational Speech Archives. RuSSIR/EDBT Summer School "Web of Data", Saint Petersburg, Russia, 2011.
- O9 A. Viktorov, S. Gramnitskij, S. Gordeev, **M. Eskevich**, E. Klimina. General methodology to prepare components for speech recognition system training. Speech Technologies, 2, 2009. [In Russian]
- O10 **M. Eskevich**, A. Victorov. Language adaptive modelling for language recognition. Materials of the Second interdisciplinary seminar Analysis of Russian spoken language, 2008 [in Russian]
- O11 **M. Eskevich**. Combinations of consonants within word in spontaneous speech, reading and when they are pronounced separately. Fonetki lyce, Philological Faculty St Petersburg State University, 2006. [in Russian]
- O12 **M. Eskevich**. Consonants combinations in different types of speech. Proceedings of the VIII Annual Student Conference in Linguistics and Philology, Philological Faculty St Petersburg State University, 2005. [in Russian]
- O13 **M. Eskevich**, T. Svirava. Modifications of consonants in spontaneous speech and reading. Scientific notes of young linguists, Philological Faculty St Petersburg State University, 2004 [in Russian]
- O14 **M. Eskevich**, T. Svirava. Quantitative characteristics of consonants in spontaneous speech and reading. VII Annual Student Conference in Linguistics and Philology, Philological Faculty St Petersburg State University, 2004 [in Russian]

PhD THESIS (1)

- T1 **M. Eskevich**. Towards Effective Retrieval of Spontaneous Conversational Spoken Content. Dublin City University, Dublin, Ireland, 2014.

SEMINARS, TALKS (9)

- Nov 2016 FutureTDM: Improving Uptake of Text and Data Mining in the EU. LT-Accelerate, Brussels, Belgium.
- Sep 2016 So where are we now? The TDM landscape. FutureTDM Workshop: Improving Uptake of Text and Data Mining in the EU, Brussels, Belgium.
- Mar 2015 Video Hyperlinking task at TRECVID 2015. Seminar Bilan TRECVID2014 et apprentissage profond at GdR ISIS (Groupe de Recherche 720 ISIS (Information, Signal, Image et ViSion)), Paris, France.
- Jan 2015 Use of the crowd for work and research in multimedia. Seminar for Advanced Topics in Multimedia (ATMM) module, EURECOM, Biot, France.
- Jun 2014 Towards effective multimedia retrieval with focus on spontaneous conversational spoken content. LIMSI, Paris, France.
- Mar 2014 Audio/Video Search Overview: Why? What? How? Seminar for Computer Applications (CA115) module, DCU, Dublin, Ireland.
- Oct 2013 Audio/Video Search: Why? What? How? Thesis in Three Competition, Dublin, Ireland.
- Apr 2013 Focus on spoken content in multimedia retrieval. The University of Texas at El Paso, USA.
- May 2010 Introduction to Information Retrieval of Spoken Documents. NCLT Seminar Series 2009/2010, DCU, Ireland.