Ioannis Konstas

CONTACT INFORMATION
Heriot-Watt University
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PERSONAL PROFILE

I am a lecturer in the department of Mathematical and Computer Sciences at Heriot-Watt University, Edinburgh. (H-Index 12, approx. 1200 citations, 5 years since PhD). My main research interests focus on the area of Natural Language Generation (NLG) with an emphasis on data-driven deep learning methods. In particular, I am investigating generating coherent document-level text from meaning representations, programming language code and multiple documents. I am interested in modeling open-domain dialogue, with an emphasis on NLG. I am a faculty advisor for team Alana, Heriot-Watt's entry to Alexa Prize Challenge 2018 that finished in 3rd place.

EDUCATION

PhD in Informatics, University of Edinburgh — 2014
Thesis: Joint Models for Concept-to-Text Generation.
Supervisor: Prof. Mirella Lapata
Visiting Student at MIT — 2013

MSc in Artificial Intelligence (w/ distinction), University of Edinburgh — 2008
Thesis: Dialogue Context-Based Speech Recognition using User Simulation.
Supervisor: Prof. Oliver Lemon

BSc in Computer Science, Athens University of Economics and Business. — 2007

RESEARCH EXPERIENCE

Research Associate, University of Washington — 2015-2017
Supervisor: Prof. Luke Zettlemoyer
Key Interests: *Natural Language Generation, Meaning Representations, Deep Learning, Large scale generation systems.*

Research Associate, University of Edinburgh — 2013-2015
Project Title: An Integrated Model of Syntactic and Semantic Prediction in Human Language Processing. (EPSRC-funded)
Supervisor: Prof. Frank Keller
Key Interests: *Incremental parsing, Integration of syntax and semantics, Incremental Semantic Role Labelling, Psycholinguistics.*

Research Assistant, University of Glasgow — 2008-2009
Supervisor: Prof. Joemon Jose
Key Interests: *Adaptive Information Retrieval, and Social Media–Networks.*

PRIZES & AWARDS

Winner of LSDSem Shared Task	2017
NAACL Best Reviewers	2016
ACL Conference Scholarship (Registration and Travel Expenses)	2012
NAACL Conference Scholarship (Registration fee)	2012
MSc EPSRC Scholarship (Full tuition fees), University of Edinburgh	2007

FUNDING

Total: £15,169

NVIDIA Academic Research Program (1 GPU donation)	2016
Yahoo! Faculty Research and Engagement Program Gift (£15,169)	2013

SELECTED INVITED TALKS	**Alana: Entertaining and Informative Open-domain Social Dialogue using Ontologies and Entity Linking**
	Athens University of Economics and Business, University of Glasgow,
	Amazon Cambridge Winter 2018
	Building Adaptable and Scalable Natural Language Generation Systems
	University of Illinois Chicago, University of Sheffield,
	Athens University of Economics and Business, Microsoft Research,
	Amazon, Information Sciences Institute, Spring 2017
	University of Hull, Deep Learning Winter School – Invited Speaker Jan 2018
	NNLG: Neural Natural Language Generation
	Uphill Battles in Lang. Proces. Workshop, EMNLP-16 – Invited Speaker Nov 2016
	Towards Contextual and Collaborative Story Generation
	Communicating with Computers DARPA Project, Boulder, CO Sep 2016
	Joint models for Concept-to-Text Generation
	Saarland University, University of Potsdam,
	University of Washington Winter 2013-4

TEACHING	**Lecturer** Heriot-Watt University
	F21RP – Research Methods and Project Planning Spting 2018
	F20ML – Statistical Machine Learning Winter 2018
	F29AI – Artificial Intelligence and Intelligent Agents Winter 2017
	Course Organizer University of Washington
	CSE 591W - Reading and Presentations Group on NLG (PhD level) Winter 2016-7
	Seminar Aberdeen NLG Summer School July 2015
	Tutor University of Edinburgh
	INF1 - Object Oriented Programming Spring 2011, 2012
	INF2A - Processing Formal and Natural Languages Winter 2012
	Demonstrator University of Edinburgh
	Introduction to Java Programming (MSc level) Winter 2011, 2012

OTHER ACADEMIC ACTIVITIES	**Program Committee Member** ACL, EACL, EMNLP, NAACL, AAAI, INLG, ECAI, SIGIR, CIKM.
	Journal Reviewing Journal of Artificial Intelligence Research, Transactions of ACL.
	Area Chair on Generation–Summarization for ACL 2018.
	Co-organiser of 3rd Workshop on Neural Generation and Translation 2019.
	Co-organiser of 1st AθNLP Summer School 2019.

SELECTED PUBLICATIONS	Xinnuo Xu, Ondej Duek, Ioannis Konstas and Verena Rieser. Better Conversations by Modeling, Filtering, and Optimizing for Coherence and Diversity. Brussels, Belgium, EMNLP 2018.
	Shubham Agarwal, Ondej Duek, Ioannis Konstas and Verena Rieser. Improving Context Modelling in Multimodal Dialogue Generation. Tilburg, The Netherlands, INLG 2018.
	Ioannis Konstas, Srinivasan Iyer, Mark Yatskar, Yejin Choi and Luke Zettlemoyer. Neural AMR: Neural AMR: Sequence-to-Sequence Models for Parsing and Generation. Vancouver, Canada, ACL 2017.
	Srinivasan Iyer, Ioannis Konstas, Alvin Cheung, Jayant Krishnamurthy, Luke Zettlemoyer. Learning a Neural Semantic Parser from User Feedback. Vancouver, Canada, ACL 2017.

Rik Koncel-Kedziorski, Ioannis Konstas, Luke Zettlemoyer and Hannaneh Hajishirzi. A Theme-Rewriting Approach for Generating Algebra Word Problems. Austin, TX, USA, EMNLP 2016.

Srinivasan Iyer, Ioannis Konstas, Alvin Cheung, Luke Zettlemoyer. Summarizing Source Code using a Neural Attention Model. Berlin, Germany, ACL 2016.

Ioannis Konstas and Mirella Lapata. A Global Model for Concept-to-Text Generation. *Journal of Artificial Intelligence Research*, Volume 48, pages 305–346, 2013.

Ioannis Konstas and Mirella Lapata. Inducing document plans for concept-to-text generation. Seattle, WA, USA, EMNLP 2013.

Ioannis Konstas, Vassilios Stathopoulos, and Joemon M. Jose. On social networks and collaborative recommendation. Boston, MA, USA, SIGIR 2009. (>**550 citations**)

Oliver Lemon and Ioannis Konstas. User simulations for context-sensitive speech recognition in spoken dialogue systems. Athens, Greece, EACL 2009.