Rachel Bawden

Researcher in Natural Language Processing

Personal details

Name	Rachel Alice Bawden	Nationality	British, naturalised French
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Education and degrees

29/11/2018   **PhD in computer science**, *Université Paris-Sud, Université Paris-Saclay*, Going beyond the sentence: Machine Translation of Dialogue in Context.
- Supervisors: Sophie Rosset (LIMSI, CNRS) and Thomas Lavergne (LIMSI, CNRS, Univ. Paris-Sud, Univ. Paris-Saclay)
- President: Nicolas Sabouret (LIMSI, CNRS, Univ. Paris-Sud, Univ. Paris-Saclay)
- Reviewers: Jörg Tiedemann (University of Helsinki) and Loïc Barrault (Université du Mans)
- Examiners: Lucia Specia (University of Sheffield and Imperial College) and Andrei Popescu-Belis (Haute École D'Ingénierie et de Gestion du Canton de Vaud)

2013–2015   **Master's degree in Computational Linguistics**, *Université Paris-Diderot*, First class ("mention très bien"). Machine learning, syntactic parsing, computational semantics, probabilities for NLP, machine translation, formal languages.

2012–2013   **Master's degree (first year) in Linguistic Engineering**, *Université Sorbonne Nouvelle*, First class ("mention très bien"). Corpus processing, formal grammars, lexicography, computational phonetics.

2007–2011   **Bachelor of Arts in French and Linguistics**, *Oxford University*, First Class. General linguistics, syntax, historical linguistics, sociolinguistics, French linguistics. Special subjects: phonetics/phonology, psycholinguistics.

2005–2007   **A-levels**, *The Latymer School, Edmonton, London*, French, English, Biology, Geography, four grade "A"s.

Professional experience

Research

2018–présent   **Research associate**, *ILCC, University of Edinburgh*, Machine Translation of low resourced languages, Working with Alexandra Birch.

2015–2018   **PhD in computer science**, *LIMSI, CNRS, Univ. Paris-Sud, Université Paris-Saclay*, Going beyond the sentence: Machine Translation of Dialogue in Context.

May–August 2017   **Research visit**, *ILCC, University of Edinburgh*, Neural machine translation of discourse. Collaboration with Alexandra Birch, Barry Haddow and Rico Sennrich.

February–August 2015   **Master's research placement**, *Alpage (Inria & Université Paris-Diderot)*, Boosting for model selection for statistical syntactic parsing. Supervised by Benoit Crabbé.

May–August 2014   **Master's research placement**, *LaTTiCe (CNRS & Université Sorbonne Nouvelle) and Télécom ParisTech*, Modelling communicative acts for an embodied conversational agent. Supervised by Frédéric Landragin and Chloé Clavel.

June–August 2013   **Master's research placement**, *MoDyCo Laboratory (CNRS & Université Paris-Ouest)*, Development and semi-automatic correction of a dependency treebank of spoken French. Supervised by Sylvain Kahane.

2013	**Translation proof-reading and revision**, *Lucien Tesnière,* Elements of structural syntax, *published in French in 1959, translated by Timothy Osborne and Sylvain Kahane, John Benjamins, Amsterdam, 2015.*
March–June 2013	**Research placement**, *MoDyCo Laboratory (CNRS & Université Paris-Ouest)*, Annotation of a treebank of spoken French for syntactic dependencies.

Teaching

2016–17, 2017–18	**Introduction to Natural Language Processing**, *4th year*, Polytech Paris-Sud, Course supervisor: lectures, tutorials and practical classes (30hrs/year).
2017–18	**Algorithmics and C++**, *2nd year*, Polytech Paris-Sud, Practical classes (10hrs).
2015–16, 2016–17	**Databases**, *3rd year*, Polytech Paris-Sud, Tutorials and classes (24hrs/year).
2015–16,2016–17	**Algorithmics/C**, *3rd year*, Polytech Paris-Sud, Tutorials and classes (27hrs+28hrs).
2015–16	**Tutoring in computer science**, *3rd year*, Polytech Paris-Sud (12hrs).
2009–2010	**English language assistant**, *4 primary schools in Le Puy-en-Velay, France.*

Community activities

2017–présent	**Programme committees**, LREC, ACL-SRW, NAACL-SRW, ACL,[1] EMNLP.
2017	**Programme committees**, LREC, ACL (Student research workshop).
2016	**Jury member of the Doctoral Prize**, *The Doctoral School of Science and Communcation Technology (STIC), Université Paris-Saclay.*
2016	**Co-organiser of the PhD Day**, *LIMSI, CNRS.*
2016–2017	**PhD representative for the laboratory board**, *LIMSI, CNRS.*

Additional training

50hrs	Lisbon Machine Learning Summer School (LxMLS) 2016, Instituto Superior Técnico (IST), *Lisbon, Portugal*

Computer skills

Languages	**Python, C++**, Bash, C, Perl, Java, OCaml, Praat, SQL
Web technologies	HTML, CSS, XML, XSL

Languages

Native speaker	English
Fluent	French

Interests

Piano	Grade 8, 2006, Guildhall Exams
Saxophone alto	Grade 8, 2005, Associated Board
Saxophone tenor	Musician in the Orchestre d'harmonie de Pantin, with a dozen public concerts a year.

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[1]Recognised as an outstanding reviewer.

Publications

Journal Article

[1] Rachel Bawden, Chloé Clavel, and Frédéric Landragin. Towards the generation of dialogue acts in socio-affective ECAs: a corpus-based prosodic analysis. *Language Resources and Evaluation*, 4(2):821–838, 2016. First online 31 July 2016.

Book Chapter

[2] Sylvain Kahane, Kim Gerdes, and Rachel Bawden. The microsyntactic annotation. In *Rhapsodie – A Prosodic and Syntactic Treebank for Spoken French*, chapter 4. John Benjamins, Amsterdam, to appear.

Conference Papers

[3] Rachel Bawden, Rico Sennrich, Alexandra Birch, and Barry Haddow. Evaluating Discourse Phenomena in Neural Machine Translation. In *Proceedings of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies*, pages 1304–1313, New Orleans, USA, 2018.

[4] Rachel Bawden, Thomas Lavergne, and Sophie Rosset. Detecting context-dependent sentences in parallel corpora. In *Proceedings of the 25th Conférence sur le Traitement Automatique des Langues Naturelles*, pages 393–400, Rennes, France, 2018.

[5] Rachel Bawden. Machine Translation, it's a question of style, innit? The case of English tag questions. In *Proceedings of the 2017 Conference on Empirical Methods in Natural Language Processing*, pages 2497–2502, Copenhagen, Denmark, 2017.

[6] Rachel Bawden. Machine Translation of Speech-Like Texts: Strategies for the Inclusion of Context. In *Proceedings of the 19th REncontres jeunes Chercheurs en Informatique pour le TAL*, pages 1–14, Orléans, France, 2017.

[7] Rachel Bawden and Benoit Crabbé. Boosting for Efficient Model Selection for Syntactic Parsing. In *Proceedings of the 26th International Conference on Computational Linguistics*, pages 1–11, Osaka, Japan, 2016.

[8] Rachel Bawden. Cross-lingual Pronoun Prediction with Linguistically Informed Features. In *Proceedings of the 1st Conference on Machine Translation*, Berlin, Germany, 2016.

[9] Rachel Bawden, Guillaume Wisniewski, and Hélène Maynard. Investigating gender adaptation for speech translation. In *Proceedings of the 23rd Conférence sur le Traitement Automatique des Langues Naturelles*, Paris, France, 2016.

[10] Rachel Bawden, Marie-Amélie Botalla, Kim Gerdes, and Sylvain Kahane. Correcting and Validating Syntactic Dependency in the Spoken French Treebank. In *Proceedings of the 9th International Conference on Language Resources and Evaluation*, pages 2320–2325, Reykjavik, Iceland, 2014.

Technical Report

[11] Sylvain Kahane, Kim Gerdes, Pietrandrea Paola, Benzitoun Christophe, Rachel Bawden, Marie-Amélie Botalla, and Adèle Désoyer. *Protocole de codage microsyntaxique*, 2013. Translated into English by Rachel Bawden as "Protocol for micro-syntactic coding".

Master's Thesis

[12] Rachel Bawden. Boosting for model selection in syntactic parsing. Master's thesis, Inria (Alpage), Paris, France, 2015. Supervision by Benoît Crabbé.

Oral communications

[2018] Mediating Bilingual Human Dialogues with Machine Translation. 2018, *SICSA Workshop on Conversational AI*, Heriot Watt University, Edinburgh, UK.

2013 Oral communcation during an annual meeting of the ANR project Orféo, *Marseille, France*.