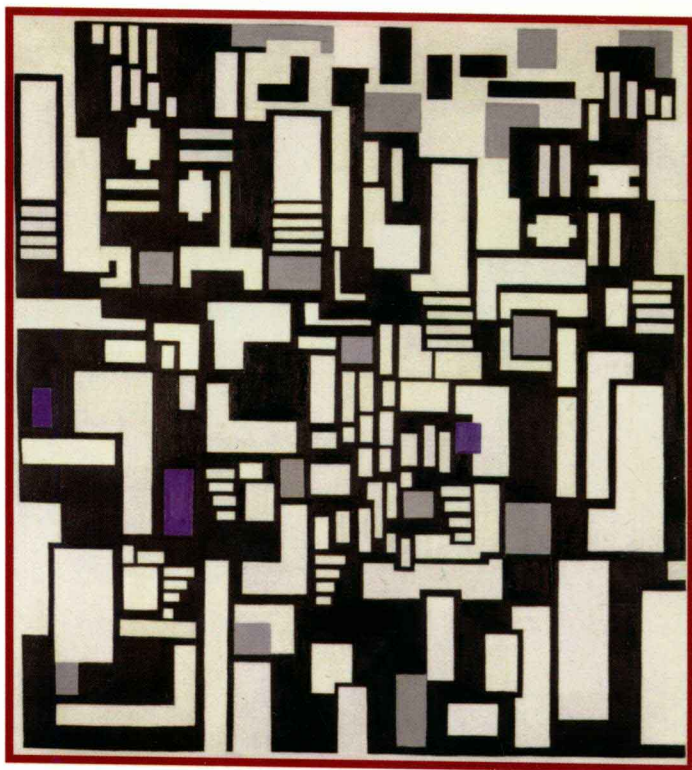


*The Handbook of*  
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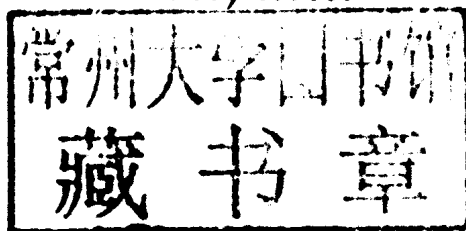
*Edited by*  
**Alexander Clark, Chris Fox,  
and Shalom Lappin**

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# The Handbook of Computational Linguistics and Natural Language Processing

Edited by

*Alexander Clark, Chris Fox, and  
Shalom Lappin*



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לאחיי דוד ודניאל, ולאחותי נעמי באהבה ובהומור

# Notes on Contributors

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**Alexander Clark** is a Lecturer in the Department of Computer Science at Royal Holloway, University of London. His first degree was in Mathematics from the University of Cambridge, and his PhD is from the University of Sussex. He did postdoctoral research at the University of Geneva. In 2007 he was a *Professeur invité* at the University of Marseille. He is on the editorial board of the journal *Research on Language and Computation*, and a member of the steering committee of the International Colloquium on Grammatical Inference. His research is on unsupervised learning in computational linguistics, and in grammatical inference; he has won several prizes and competitions for his research. He has co-authored with Shalom Lappin a book entitled *Linguistic Nativism and the Poverty of the Stimulus*, which is being published by Wiley-Blackwell in 2010.

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Mitkov is author of the monograph *Anaphora Resolution* (2002, Longman) and sole editor of *The Oxford Handbook of Computational Linguistics* (2005, Oxford University Press). Current prestigious projects include his role as Executive Editor of the *Journal of Natural Language Engineering* (Cambridge University Press) and Editor-in-Chief of the *Natural Language Processing* book series (John Benjamins Publishing). Ruslan Mitkov received his MSc from the Humboldt University in Berlin, his PhD from the Technical University in Dresden and he worked as a Research Professor at the Institute of Mathematics, Bulgarian Academy of Sciences, Sofia. Prof. Mitkov is Professor of Computational Linguistics and Language Engineering at the School of Humanities, Languages and Social Sciences at the University of Wolverhampton which he joined in 1995, where he set up the Research Group in Computational Linguistics. In addition to being Head of the Research Group in Computational Linguistics, Prof. Mitkov is also Director of the Research Institute in Information and Language Processing.

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# Preface

---

We started work on this handbook three years ago and, while bringing it to fruition has involved a great deal of work, we have enjoyed the process. We are grateful to our colleagues who have contributed chapters to the volume. Its quality is due to their labor and commitment. We appreciate the considerable time and effort that they have invested in making this venture a success. It has been a pleasure working with them.

We owe a debt of gratitude to our editors at Wiley-Blackwell, Danielle Descoteaux and Julia Kirk, for their unstinting support and encouragement throughout this project. We wish that all scientific-publishing projects were blessed with publishers of their professionalism and good nature.

Finally, we must thank our families for enduring the long period of time that we have been engaged in working on this volume. Their patience and good will has been a necessary ingredient for its completion.

The best part of compiling this handbook has been the opportunity that it has given each of us to observe in detail and in perspective the wonderful burst of creativity that has taken hold of our field in recent years.

Alexander Clark, Chris Fox, and Shalom Lappin  
London and Wivenhoe  
September 2009

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