

Preface

This is an unusual book.

It brings together perspectives of human activity and thinking that seemingly could not be further apart: science, engineering and technology on the one side, the arts and critical culture studies on the other. Yet, in contemporary robotic art they have been intertwined from the start, living off and nurturing each other. The current book follows this symbiotic relationship. It takes a path that meanders between the territories of the unlikely partners, along the fault lines of the areas, changing its style and viewpoint on the run as the narrative of robotic art makes inevitable.

For this book to come into being it took an unexpected collaboration. About seven years ago, a multidisciplinary, multi-university research project with funding from the Australian Research Council and the National Health and Medical Research Council was initiated at the MARCS Institute at Western Sydney University, Sydney, Australia. Titled the ‘Thinking Head Project’, it aimed to develop a sophisticated embodied conversational agent: a virtual, autonomous talking head that could generate appropriate and intelligent responses.

Unlike most other research projects, this project included an artist—an oddity indeed. In the beginning, there were no robots. As the research project progressed, the need for physical embodiment emerged from the desire to make the conversational agent more interactive and engaging. The new ‘Articulated Head’ was designed as a mixed-reality system, part virtual and part physical: An industrial robot arm moving the monitor that displayed the virtual agent. A robotics engineer was hired and a cognitive scientist already in the project switched from researching virtual human–computer interaction to handling the AI controlling the new robotic chimera. It may not come as a surprise then to readers that it is these three individuals who are the editors of the current book.

Such interdisciplinary collaborations are not without difficulties. Replicability and measurability required by science and engineering are at odds with the integrity of a work of art which transcends these norms: Not to be repeated, not to be measured. In implementing the Articulated Head, it became quickly apparent that the enfolding head-on collision of mindsets and methods was neither pragmatic

in nature nor project-specific. It is inscribed in the historical development of disciplines and despite encouragement of interdisciplinarity by universities, funding bodies and government programs in many countries, anyone working at the intersection of very diverse disciplines has experienced these apparent incommensurabilities. In academia especially, the organisational structures and evaluation processes often impede work attempting to bridge the gap between science and art.

It became our ambition to lower the disciplinary boundaries between robotics and art. We started with full-day workshops at international robotic conferences and discovered a rich culture of collaborations in robotic art, sometimes reaching back several decades. However, these collaborations had seldom entered mainstream robotics. The current book is an attempt to mend fences—not by ignoring established requirements and practices of the involved disciplines, but by opening the view to other perspectives.

As you will discover, the artists included in this book—either in their own account or as topic of analysis—have created some of the most iconic and seminal works in robotic art. The contributors to this book were invited for their diverse approaches and viewpoints and the quality of their work. Each contribution has undergone a thorough peer review process. The result is an informed and insightful look at the concepts, the technology, the history and the philosophy of robots in contemporary art and the notable influence it has had on the discussion of robot-related issues in society. The result is also a very readable book, accessible to a wider readership beyond disciplinary boundaries and beyond academic scholarship and education.

<http://www.springer.com/978-981-10-0319-6>

Robots and Art

Exploring an Unlikely Symbiosis

Herath, D.; Kroos, C.; Stelarc (Eds.)

2016, XIX, 456 p. 218 illus., 200 illus. in color.,

Hardcover

ISBN: 978-981-10-0319-6