# **Preface**

This preface describes both the need for, and purpose of this book – current work in the field of gender and the computer games industry. The book's guiding message comes from the perspective that there is a need for women to be involved in the production of computer games and all forms of technology development at all levels. We will explore the issues women face working in this relatively new industry and present some UK-based research as well as research that has recently been conducted globally in the USA, Australia, and Japan. In general, the message of our book is that females should be involved in the development of such an economically and culturally influential industry. Although the book includes women working in other digital media industries, the focus is on women working in the computer games industry.

# INTRODUCTION

Women and men are segregated within the workforce, and although women are increasing in the workforce, they are segregated into certain jobs (horizontal segregation) and at lower levels (vertical segregation) within sectors and organisations. Occupational segregation is an important issue and can be detrimental to women (see Prescott & Bogg, 2012 for an overview of the issues). Women face a number of barriers which hinder their career choices and career progression, this is especially so for women working in male-dominated occupations and careers. For instance, Eagly and Carli (2003) found women in male-dominated organizations suffered from gender stereotypes more than women in more gender-neutral or female-dominated organizations. This does not appear to be the case for men working in female-dominated occupations, who often gain from working in gender-incongruent industries. Although there is some research that suggests men are penalized for not adhering to gender norms (Heilman, et al., 2004; Heilman & Okimoto, 2007), it is not to the same extent as women. With regard to the identity of women working in male-dominated work environments and occupations, it appears women have conflict due to gendered behavior expectations. Social role theory as proposed by Eagly (1987) is an important theory when discussing expectations. According to this theory, due to conflicting gendered expectations of what behavior is appropriate, both men and women experience disadvantages when they participate in gender-incongruent behavior. However, the disadvantages are particularly detrimental to women's careers, as leadership is associated with masculinity women's career progression and advancement is negatively impacted. Gender role identity is a pertinent issue for women in gender-incongruent occupations and industries, with research (i.e. Gottfredson, 1981; Cejka & Eagly, 1999; Kawakami, et al., 2000; Willemson, 2002; Oswald, 2008) suggesting women need to adopt a more masculine identity in order to fit into the male-dominated environment.

There is a need for more women in a number of male-dominated areas, especially SET (Science, Engineering, and Technology) and ICT (Information and Communication Technology). Computer games could be a potential way forward in achieving more female representation in not just the computer games industry but also other computer-related industries (Prescott & Bogg, 2014). The relatively new industry of computer games is itself highly male-dominated, with recent figures suggesting that women represent just 4% of the UK's games industries workforce (Skillset, 2009). Similarly low figures have been reported in the USA (Gourdin, 2005), Canada (Dyer-Whitheford & Sharman, 2005), and Australia (Geneve, Christie, & Nelson 2009, also in this edition). Research has found a number of reasons for the underrepresentation of women in the SET sector. These reasons are similar to those that research has found exists in the computer games industry, in particular the long hours culture and the lack of flexible working practices available (Deuze, Martin, & Allen, 2007; Prescott & Bogg, 2010, 2011, 2012; Sweetser, Wyeth, McMahon, & Johnson, 2013). Sweetser, Wyeth, McMahon, and Johnson (2013) found from their research on women working in the Australian computer games industry that, aside from the reasons for the underrepresentation of women in the SET sector more generally, the games industry has a number of additional reasons for this underrepresentation. The games industry does not attract and retain women due to the additional reasons of a lack of information on careers in the industry, the gendered perception related to the industry and computer games generally, as well as parental perceptions of the industry. These act as additional barriers to women entering the games industry, so despite a number of similarities for the underrepresentation of women in the games industry compared to the wider ICT and SET sector, the industry itself is unique.

The computer games industry could potentially benefit from attracting a more diverse workforce and be viewed as a viable career to women by increasing the appeal of games to a more diverse gaming/gamer audience (Prescott & Bogg, 2014). The industry could widen its appeal through an increased awareness of the variety of roles and skills within the industry and through highlighting the benefits and rewards of working in such a creative, competitive, and growing industry (Prescott & Bogg, 2014). Computer games are important to today's society and significant both economically and culturally. In 2010 it was estimated that worldwide the industry was a US\$41.9 billion industry (Vancouver Film School, 2010). Games are a mainstream form of entertainment with many titles outselling film releases. Indeed computer games have become one of the most popular leisure activities for children and adults in Western and Asian societies (Hartmann & Klimmt, 2006). According to the Entertainment and Software Association (ESA, 2012), in 2012 72% of American households played computer games. To illustrate the increasing impact of computer games over recent years, the ESA (2011a) reports that in 1996 the American entertainment and software industry sold about US\$2.6 billion in sales revenue, and in 2009 sales were US\$20 billion. Despite being a relatively new industry under the umbrella of the SET and ICT sectors, the computer games industry has become an important and established industry in itself. The impact of computer games has changed the media landscape and will continue to do so. The new media landscape includes digital technologies such as Web 2.0 applications, online dating, and mobile phone technologies. The computer games industry has become one of the biggest of the digital technology industries in both economic and cultural terms. To illustrate the magnitude of the industry, in 2009 games were one of the biggest forms of entertainment in Britain, outselling films (including going to the cinema and DVD sales; Wallop, 2009). The Prince of Persia: The Sands of Time is currently the highest grossing movie based on a computer game. Excluding DVD sales, the movie has made US\$312,583,548 worldwide (Mai, 2010). The 5<sup>th</sup> Grand Theft Auto game in September 2013 is currently the world's biggest selling game, earning the games developers, Rockstar, US\$800 million in the first day of release, US\$1 billion in the first three days of release – faster than any other entertainment launch (CVG, 2013). The game made UK£65 million in revenue in the UK alone (CVG, 2013).

Recent figures suggest the games industry in America directly and indirectly employs more than 120,000 people in 34 states (ESA, 2011b). Canada's games industry earned approximately US\$2 billion in 2008, which according to the VFS (2010) is more than many parts of the entertainment sector. The games industry is made up of a number of specialism's including development, production, design, level design, audio design, art, and testing. According to 2008 figures, the UK industry supports an estimated 28,000 jobs, directly and indirectly (Oxford Economics, 2008). The estimated turnover of the UK computer games industry in 2008 was UK£625 million, having a direct contribution to UK GDP (Gross Domestic Product) of approximately UK£400 million (Oxford Economics, 2008). More recently, the Vancouver Film School (2010) suggests that in 2009 the worldwide games industries worth stood at US\$41.9 billion.

The games industry itself is an interesting industry and has developed in accordance with the popular demand of games themselves. The game industry has grown over approximately four decades from a small sector, niche market into a thriving multi-billion dollar industry and a mainstream entertainment choice for millions globally. Advances in both technology and the changing gamer demographic of the last decade have been instrumental in the evolution of the industry, which seems set to grow. The relatively new computer games industry has accelerated from small firms and individuals programming in their bedrooms to an industry dominated by multinational hardware producers. Despite the games industry being a global industry with game development companies in the UK, USA, Australia, Iceland, Brazil, and South Korea, to name but a few, it appears that the industry has three distinct geographical areas: North America, Europe, and Japan. These three distinct geographical areas produce cultural products distinct to their geographical area. The greatest difference in the nature of games occurs between Japan in the East and the American and European markets of the West. This cultural difference is worth noting in this preface since one of the chapters within this edition is investigating Japanese female game developers. It is therefore important to gain an understanding of the differences and similarities between this industry compared to the Western, American, and European markets.

The Japanese games industry is based on comic books, such as Manga, with the games sold in Japan being produced by Japanese producers, whereas the other two markets (the American and European) interrelate more (Johns, 2006). According to Mia Consalvo the game industry is "a hybrid encompassing a mixture of Japanese and American businesses and (more importantly) cultures to a degree unseen in other media industries" (Consalvo, 2006, p. 117). This hybrid of cultures is interesting, and in a case study of Japanese game publisher Square Enix, Consalvo found distinctions between what the company produces for its home market and what they successfully sell abroad. For instance, Consalvo found countries give characters a more "native" look and more "native" items, such as Asian objects in the Sims game.

Through a brief look at the history of computer games, it seems the American and Japanese markets have always had a close, yet competitive relationship. The first electronic game, *Tennis for Two*, was developed in 1958 by William Higginbotham at the US Department of Nuclear Energy's Brookhaven National Laboratory (Kline, et al., 2003). In 1977, Atari released the 2600 home computer console in America, whilst Nintendo released its first console in Japan. In 2004, it was reported that North America accounts for approximately 40% of the global games market, Europe nearly the same, with the remainder divided between Japan and the rest of Asia (DFC, 2004). The top game producing countries are the USA,

Japan, Britain, Germany, and France, followed by Canada (DTI, 2002, cited in Dyer-Whitheford & Sharman, 2005). Within Europe, Britain has the highest number of game development studios (ISFE, 2004, cited in Krotoski, 2004). More recent figures suggest that the UK games industry has 9900 employees (Oxford Economics, 2008), with just over two-thirds of these people working in games development and the remainder focused on publishing, marketing, and other core business functions.

It has been suggested that 10% of games make 90% of the money (Dyer-Whitheford & Sharman, 2005). This is because major game publishers prefer clones of proven hits rather than experimentation, as indicated by the "franchises" that dominate the bestseller lists (Dyer-Whitheford & Sharman, 2005), producing what Shaw terms a "narrow vision" (Shaw, 2010). Many games are based on other media, such as blockbuster films (i.e. *Enter the Matrix*), popular books (i.e. *Harry Potter*), and television programmes (i.e. *The Simpsons Road Rage*). What gamers play is also impacted by the design teams, who make and produce the games (Gansmo, Nordli, & Sorensen, 2003). In particular, it is argued that there is a male dominance in the culture of computer games generally, and more specifically in terms of the development of the games (Prescott & Bogg, 2014). Prescott and Bogg (2014) posit that all aspects of computer games culture is gendered, with women underrepresented throughout the games industry and gaming culture generally, including the games themselves.

Women have become increasingly more visible in games culture, especially as gamers in recent years. Brathwaite (2010) views the social network site Facebook as a catalyst in which women are increasingly becoming more hard-core gamers. The issue of gender and computer games is timely and relevant. The image of the games industry, like the wider ICT and SET industries, is still very much "boys' work." However, this image could change with a more diverse workforce and an increasing number of female gamers; the industry may then begin to lose its "for-boys-only," masculine image. Findings from the research discussed within this book highlight issues that prevent women from entering the industry, as well as highlight issues that may enable the games industry to review its policies and working practices in order to facilitate women and other minority groups to enter the working environment. Instead of women "fitting in or getting out," more can be done to eradicate career barriers and discriminatory work practices in all aspects of the games industry. More research is needed in this area to continue in developing an understanding of the issues, eradicate barriers, and find and enable solutions. As with the SET and ICT sectors, a one-solution-fixes-all approach is not viable (Prescott & Bogg, 2012).

# The Target Audience

In writing this book, we had a broad mix of audiences in mind. The target audience of this book will be composed of professionals and researchers working in the field of education and career development of women in male-dominated industries and occupations, in particular the computer games industry but also including those interested in the wider ICT and SET sectors. Moreover, the book will provide insights and support those concerned with attracting and retaining women in ICT disciplines, specifically computer games, where women are traditionally underrepresented. The book will also provide valuable information to executives and members of professional bodies representing computer games industry workers and those working in the digital media who wish to encourage women during their career progression. The research, which considers the experiences of women within the industry, is not restricted to the Western computer games industry; it also includes a chapter on the experiences of women working in the Japanese games industry. This range of experiences will hopefully broaden the book's appeal. In preparing this book, we hope the personal profiles from women currently working

in the industry will inspire and provide hope for increasing the diversity within the industry. The book presents an overview of current research and issues, while encouraging the reader to think of future directions, both in research and in practice.

#### AIMS OF THIS BOOK

The overall objective of this book is to present a collection of recent empirical studies and theoretical work related to the careers of women working in the computer games industry and digital media. The book will bring together current international research investigating underrepresentation in gaming and digital media industries. In particular, the book will include research looking at the experience of workers working in this male-dominated environment, including the personal and professional barriers of working in this industry, and will include viewpoints from female industry workers. This book will represent a valuable snapshot of the current state of the field with the aim of bringing together a wide range of perspectives in the area and sparking more debates and future research questions.

Our aim is to edit a book that provides a collection of recent high-quality empirical studies related to the computer games and digital media industries. This book will provide a valuable contribution as it will add to the literature on women working in male-dominated industries, the new industries of digital media, and women's underrepresentation in the wider SET and ICT sectors. The book will provide a valuable contribution, as it will highlight the personal experiences of women who currently work in this new technological industry and male-dominated work environment.

The chapters within section two, "The Experience of Women Working in the Computer Games Industry: An International Perspective," are critical to this book, as they give the women in the industry a voice and provide readers with an insight into their lived experiences. What is particularly interesting and an important contribution of this book is that it has chapters from women in different parts of the world. As acknowledged throughout this edition, women working in the computer games industry are an understudied, under-researched area, resulting in a lack of knowledge about the experiences of females working within the industry.

# ORGANISATION OF THE BOOK

In writing this book, we aim to provide the readers with recent empirical research considering the gendering of computer games, the computer games industry, and digital technology. In order to give the book structure, the book has been organised into three sections: section one, "Education, Computers, and Gaming" (chapters 1-3), section two, "The Experience of Women Working in the Computer Games Industry: An International Perspective" (chapters 4-7), and section three, "Future Outlook/Lessons from the STEM Sector" (chapters 8-11). The book also profiles the experiences of women working in the field of computer games development, the promotion of computer games, or in the education of computer games. The profiles give the reader an understanding of how and why these females made their career choices, what they do within the industry, a snapshot of their personal experiences, and what they hope for the future. The females, who were asked to submit a profile, vary in their roles, their experience, and include women from the UK, Sweden, Germany, USA, and Canada.

# Section 1: Education, Computers, and Gaming

Section 1 has three chapters focusing on different aspects of education and computer games.

#### **Profiles**

#### Profile 1: Carrie Warwick

Carrie Warwick has been working in the UK games industry since completing her degree in Games Art at the University of Bolton in the summer of 2013. She is currently a 3D Artist at Rivet Studios, an innovative new games studio based in Manchester aiming to launch their first title.

#### Profile 2: Elinor Townsend

Elinor Townsend graduated in 2013 and is currently working in her first full-time position in the industry as a programmer at the games company Ninja Theory Ltd.

# Profile 3: Anna Ljungberg

Anna Ljungberg is originally from Sweden and has been working in the UK games industry for 18 months, since graduating from Staffordshire University with a first in "Game Artificial Intelligence." She is currently based at Codemasters as a gameplay programmer and has one released title under her belt.

# Profile 4: Jo Daly

Jo Daly has been working in the games industry since 1996 and has many years of experience in developing games as a texture artist, 3D generalist, character artist, concept artist, lead, and manager. She is currently a lecturer on the BA Games Art course at the University of Bolton and is also developing an as-yet-unannounced iPad product with her partner.

# Chapters

# Chapter 1: From the "Damsel in Distress" to Girls' Games and Beyond – Gender and Children's Gaming

In the opening chapter, Alyson E. King and Aziz Douai take a historiographical approach to investigate how computer games as toys socialise children into traditional gender stereotypes and roles. The chapter includes a feminist critique of computer games, discussing the impact of the "games for girls" movement as well as a discussion of the current gender divide within the industry. Gaming and gender is analysed within the chapter through the analysis of the toy-based social networking portal Webkinz World. Through the case study of Webkinz World, the authors argue that such gaming models have the potential to bridge the gendered digital divide from early childhood.

# Chapter 2: Women and Men in Computer Science – The Role of Gaming in their Educational Goals

The second chapter by Jill Denner, Elroy Ortiz, and Linda Werner explores how gaming motivations and practices are related to an interest in studying computer science. The study involved a survey with 545 male and female student gamers. The study also included a number of interviews to gain a deeper understanding as to why and how avid gamers play computer games. Interestingly, the study found that frequency of play was not associated with interest in studying computer science. An interest in studying computer science was found to differ by gender and motivation for why and how the student participants played games. Female students who considered themselves more serious/hardcore gamers showed the highest interest in studying computer science. The chapter provides recommendations for future research into how game play and an interest in studying computer science are related.

# Chapter 3: The Only Girl in the Class! Female Students' Experiences of Gaming Courses and Views of the Industry

In this chapter, the authors, Lauren Elliot and Julie Prescott, investigate the experiences of female undergraduate game students at a UK university. The chapter discusses the findings from four semi-structured interviews with female undergraduate gaming students studying different game-related courses, including games art and game design. Although a small sample, the study provided an interesting insight into the experiences of the females on the course as well as their views of entering (or at least potentially entering) the male-dominated computer games industry. The females choose to study games because they enjoyed playing games. Despite all experiencing the course positively, there was some apprehension about going into the industry. Interestingly, the study suggests the male-dominated working environment may be off-putting to women, even women studying and interested in going into that area of work. The main themes to emerge were the long hours, culture, and potential sexism within the industry.

# Section 2: The Experience of Women Working in the Computer Games Industry – An International Perspective

Section 2 has four chapters, one from the USA, one from the UK, one from Japan, and one from Australia. This section provides the reader with an understanding of some recent research that has been conducted in the area from different worldwide perspectives.

#### Profiles

#### Profile 5: Fiona Cherbak

Fiona Cherbak has two decades of experience in entertainment business development, marketing, staffing, and strategic planning for interactive games, feature films, television, theme park shows, music production, and theatre arts. As president of marketing and media firm ThemePark Studios, she spearheads fundraising, marketing, and publicity campaigns for a cross-section of interactive, film, and tech companies and organizations. Presently, she is co-producer and promoter of the Boston Festival of Indie Games.

# Profile 6: Sheri Graner Ray

Sheri Graner Ray is an award-winning game designer/developer. She is also the author of *Gender Inclusive Game Design: Expanding the Market* and is a sought-after speaker on gender and games. In the game industry since 1989, she has served in many capacities from writer/designer to Director of Product Development. She has more than 30 titles to her name and is currently the CEO and founder of Zombie Cat Studios, based in Austin, Texas.

#### Profile 7: Lindsay Williamson Christy

Lindsey Williamson Christy has been working in the Vancouver publishing, games, and film industries since 1997. She has over 16 years of project management experience working on several blockbuster films and AAA game titles. She is currently an instructor at the Vancouver Film School in the Entertainment Business Management program.

#### Profile 8: Julie McGurren

Julie McGurren has been working in the UK games industry since 1999 and has more than 14 years of experience in developing AAA racing titles as an artist, lead, and manager. She is currently an Art Producer at the games company Codemasters.

#### Profile 9: Althea Deane

Althea Deane has been working in the games industry since 2000 as a character animator. She has worked at a number of companies in this time and has credits on many published titles. She is 46, unmarried, and currently working as a self-employed freelance animator based in Liverpool.

#### Profile 10: Dianne Botham

Dianne Botham has been working in the games industry as an Environment Artist since 2002 and has created artwork for seven AAA tiles for two different game developers in the UK. She was employed by Bizarre Creations for almost nine years as an Environment and Principal Artist, until the company's closure in 2011, and she currently works as an Environment Artist at Ninja Theory.

### Profile 11: Joy Dey

Joy Dey has been working in the games industry for just over five years. Following completion of a degree in Game Development, she has held roles at a number of different companies working within the QA department as a Localisation Technician and a Senior QA Tester. At the end of 2013, Joy realised a career dream and was offered a role as a designer at Headstrong Games. Originally from Sweden, she is now based in the UK.

# Profile 12: Hannah Payne

Hannah Payne has been working in the games industry since 2010. With experience in both art and design roles, primarily in mobile games, she now works as a junior artist at mobile game developer Kwalee.

# Chapters

# Chapter 4: A Look inside the Current Climate of the Video Game Industry

The first chapter in this section, by Vachon M. C. Pugh, examines the game developers' salary survey for the years 2009-2012. This chapter discusses the underrepresentation of female game developers and further examines the roles women play within the games industry from an American context.

# Chapter 5: The Experiences of Women Working in the Computer Games Industry – An In-Depth Qualitative Study

In this chapter, the authors, Julie Prescott and Jan Bogg, discuss the findings from one-to-one semistructured interviews with seven women currently working in the UK computer games industry. This chapter provides a unique understanding of the experiences of women in the industry from a small sample of women who work in it. Discussed are issues around the viability of the industry as a career for women, the experience of being a woman in the industry, work-life balances issues, and experiences of discrimination and sexism in the workplace. The chapter discusses the issues in order to gain an understanding of attracting and retaining women in games development, while also highlighting the benefits of working in this industry and the positive experiences women working in the industry have had.

# Chapter 6: Career Development among Japanese Female Game Developers – Perspective from Life Stories of Creative Professionals

This chapter by Masahito Fujihara discusses findings from one-on-one interviews with 21 female game developers with over five years of work experience in the Japanese computer games industry. The study found that Japanese female game developers display 10 characteristics regarding their careers. Although the author finds no typical career path or clearly defined career goals of female Japanese game developers, most had previously played games. Due to the lack of female game developers in the Japanese gaming industry, the women in the current study strive to become role models to increase more female participation. This is an exciting chapter since little research has been conducted on the Japanese game market for a Western audience.

# Chapter 7: Women's Participation in the Australian Digital Content Industry

In this chapter, the author, Anitza Geneve, discusses the findings from 18 semi-structured interviews with women and stakeholders working in the Australian digital content industry, which includes computer games. The chapter discusses the findings of the interviews using a theoretical framework, "the acts of agency theory," underpinned by both human agency and critical realism. The chapter provides the reader with a background to the theory used and how the theory can offer insights for the underrepresentation of women with the computer games industry and other digital media industries.

# Section 3: Future Outlook and Lessons from the STEM Sector

Section 3 has four chapters that consider future directions for the industry and how the computer games industry can take lessons from the underrepresentation of women in the wider STEM sector.

#### **Profiles**

#### Profile 13: Sabine Hahn

Sabine Hahn worked in the wireless gaming industry in both the United Kingdom and Germany for 10 years before taking a break and focusing more on the academic side of gaming.

#### Profile 14: Elizabeth Richardson

Elizabeth Richardson has grown up with gaming and now runs a channel on YouTube that centres around playing and reviewing video games. The channel started in January 2011 and has been growing ever since.

# Profile 15: Faye Windsor-Smith

Faye Windsor-Smith joined Codemasters as a Q.A. Tester in 2011 and is currently working as a Monetisation Games Designer for their Southam Digital development team.

#### Profile 16: Phil Goddard

Phil Goddard is an obsessive-compulsive Creative Director with a 14-year career in digital media, casual games, and virtual worlds. Phil has designed and led projects for The Cartoon Network, EA Games, Monty Python, Nickelodeon, and the BBC, including the casual MMO game for the 2014 summer blockbuster movie *Legends of Oz: Dorothy's Return*. Phil now leads a new indie studio in Manchester focusing on a new gaming project, MMA Federation.

#### Chapters

# Chapter 8: Professional Socialization in STEM Academia and its Gendered Impact on Creativity and Innovation

This chapter by Gloria-Sophia Warmuth and Edeltraud Hanappi-Egger introduces the topic of professional socialization and how it is gendered. The chapter examines the role of gender scripts in SET organisations through a case study of academics in an Austrian higher education institution of technology and engineering.

# Chapter 9: Lessons from the STEM Sector

This chapter by Vachon M. C. Pugh considers the possible causes of the lack of women in the computer games industry through a look at the underrepresentation of women in the STEM sector. The chapter examines successful recruitment strategies from studies in STEM and non-STEM fields. From the five studies under discussion, a number of trends emerge which the author suggests could be applied to the

computer games industry to increase the number of women in the industry. The four main areas for possible recruitment avenues from the study findings are recruitment programs, marketing tactics, mentoring programs, and social games. Each area is discussed within the chapter in relation to the computer games industry.

# Chapter 10: A Framework for Addressing Gender Imbalance in the Game Industry through Outreach

In this chapter, the , Monica M. McGill, Adrienne Decker, and Amber Settle, address three questions. Firstly, why is the issue of gender imbalance important in the games industry? Secondly, what is the current state of gender imbalance in the games industry and its pipelines? And thirdly, what are the ways in which this issue can be addressed? The chapter discusses a number of existing frameworks for addressing gender imbalances, with initiatives in the UK and USA discussed. The chapter proposes a conceptual framework for outreach initiatives as well as a framework for future research and outreach initiatives to bring more women into the industry.

# Chapter 11: Female Game Workers: Career Development and Aspirations

This study by Julie Prescott and Jan Bogg assesses the impact of career influencers on career aspirations of women working in the male-dominated computer games industry. An online questionnaire obtained international data from 450 women working in the computer games industry. A structural equation model was employed to investigate the internal and external factors that influence career aspirations. Findings suggest that to increase women's career development and career aspirations within the computer games industry a number of factors including self-efficacy, attitudes towards career barriers, work-life balance attitudes, person-environment fit, and job satisfaction are crucial. The psychological constructs included in the study are described for clarity, and future research recommendations are discussed in the aim of increasing women's participation within the industry.

#### A COMMON GROUND

In writing this book, we hope to highlight the need for more women working in the science, engineering, and technology industries, in particular the computer games industry. We hope this book will encourage more empirical research as to why women work and do not work within this culturally significant industry. We hope this publication stimulates both reflection and action.

Julie Prescott University of Bolton, UK

Julie Elizabeth McGurren Codemasters, UK

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