



Corporate Cartooning

the art, science and craft of computer
business simulation design

Jeremy J. S. B. Hall

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You are free to download and print this material but not to sell it on. If you teach simulation-game design you can make multiple copies for your students and if you wish to use extracts please contact me as in these circumstances I can supply the materials in Word format. If you use it in your course please cite the source and if you let your students download the materials directly please provide a link on your organisation's website.

Updates

Publishing in this manner means that the material can be updated easily as my thinking evolves and based on feedback from yourself (about typos, where the material is unclear or needs to be added too, or where you disagree with it). Therefore I shall be updating the material and the *current* version will be identified by a version number and date each page's footer and on this page. Thus [V0.0 25/01/11] - preliminary version 25th January 2011. Note: The version number before the decimal point implies major changes and the version number following the decimal point implies minor changes. If you wish me to inform you of updates please let me know with an email with the subject **Corporate Cartooning Update**.

Rationale

By distributing this way I can ensure that the material is kept up to date in a way impossible with conventional book publications. Updates that allow *you* to share your design and use knowledge, experience and wisdom. (I recognise that I make no money from it this way but I have never really made any money from my three previous books - in any case I believe passionately in business simulations for learning and improving their design and use.)

The Day Job!

My firm designs and provides business simulations and am happy to discuss your business simulation needs and advise on their use. Also, on an expenses only basis I am happy to talk to groups about designing and using business simulations.



Dedication

This book is dedicated to my mother – Hyacinth Ruth Hall, 1913 –1991. Who alone and disabled by Polio she cared for me and brought me up. I love you and miss you.

For Whom

The structure of this resource allows for it to be used by several groups.

Designers of Business Simulations

These materials are primarily for you. Chapters 1 to 8 address design from different viewpoints and are designed for you to access as and when required. Chapters 9 to 11 are of interest when communicating with course designers, trainers and people commissioning business simulation design and use.

Academics teaching simulation-game design

These materials are available as a free download for your students. If you decide to adopt Corporate Cartooning for your course I ask you to let me know and provide a link from your institution's website to the download page. <http://www.simulations.co.uk/corporate%20cartooning.htm>

Course Designers, HR and Training Executives

The following chapters will be of particular interest – Chapter 1 (Types of Business Simulation), Chapter 2 (Learning and Simulation), Chapter 9 (Ways to Use Business Simulations) and Chapter 11 (Choosing Business Simulations).

Trainers

The following chapters will be of particular interest - Chapter 1 (Types of Business Simulation), Chapter 2 (Learning and Simulation), Chapter 4 (Design for Process), Chapter 9 (Ways to Use Business Simulations) and Chapter 10 (Tutoring Business Simulations).

Training Providers

The following chapters will be of particular interest – Chapter 1 (Types of Business Simulation), Chapter 2 (Learning and Simulation), Chapter 9 (Ways to Use Business Simulations) and Chapter 11 (Choosing Business Simulations).

To All

An advantage of publishing this way is that I can incorporate updates and ideas from you. Please, if there are areas that are unclear, need expansion or that you disagree with please let me know. Also, please let me have any comments or review of the materials please contact me - jeremyhall@corporatecartoonist.com.

Preface

I have spent most of my adult life building and using simulation models for business training. Reflecting on this, I am very happy to have had a career and life that has been both fun and challenging - a career that combined my engineering and artistic skills. A career that has involved my designing more than sixty simulations for business training – simulations that have covered most types of industry from manufacturing through service, retail and banking to not-for-profit and even casinos! But besides designing simulations, I have also used them in the classroom well over two thousand times with many tens of thousands of business people around the world and believe that this *practical* training experience has been vital to my designs.

In the early 1990s, after more than twenty years designing and using business simulations for company training, I decided to convert my tacit knowledge and experience into explicit knowledge to enable me to improve the design and use of my business

simulations. Work that I was to discover was different from academic research. Why do I say this? I discovered that pedagogic doctoral research places the researcher outside the study and as such is appropriate for twenty-something people without deep tacit knowledge and experience. But, I had very significant knowledge and experience to provide the basis for my work – effectively what I did was to *harvest wisdom*.

Although the journey started with formal academic research it moved on to where I was honing and contrasting my understanding against the existing business simulation knowledge-base and then testing this by using it to design and redesign business simulations and explore these for company training.

Honing and contrasting with the existing business simulation knowledge-base presented problems as little of the literature explored the design and use issues of business simulation and where it did explore design and use issues this was largely in an academic (university) setting rather than a company training setting and these two domains differ in terms of needs and use (Hall, 1995a).

In 1995 I won a Churchill Fellowship to study the design and use of business simulations in the USA to complement my knowledge and experience of their use in the UK and Europe. This study allowed me to consolidate my ideas about why and how companies used simulations for their business training and the constraints to this use. This study led to my third book *SIMULATION: Virtual Business Experience*.

The Churchill Fellowship and my own experience using simulations for company training led me to establish simulation architectural needs (Hall, 2003) and then implement in software (work that won me an major UK Innovation Award in 2002) and in 2006 led to the UK's leading training industry award – the World of Learning “*Outstanding Contribution to the Training Industry*”.

In the mid-noughties, having re-engineered my simulations, I moved on to investigating design methodology (Hall, 2005) and design metrics (Hall, 2007). In the late noughties, I moved on to explore business simulation design *beyond reality* - the *artistic design* aspects (Hall, 2008 and Hall, 2009) of business simulation design – the aspects associated with simplification, stylisation and structure and that address and focus on learning and engagement needs.

As an electronics engineer where electronics are designed and understood using a model - the circuit diagram, it has always seemed natural to use models to help plan and understand business. Later I realised that there was a second parallel – a parallel between the systems dynamics of a control system and process going on in the classroom. As a result, I believe that a key *part* of business simulation design is an *engineering* process and this is one theme in this book and the chapter entitled “*Design for Process*” explores this, the implications and issues..

The second part of business simulation design is the creative element – the *art*. Explaining how to be an artist is a more challenging task. Never the less I will attempt to do so. Over forty years ago, just after I had started designing business models, I realised that a business simulation as a simplified and stylised replica of the real world was the mathematical equivalent of the graphical strip comic or cartoon. But for many years I was not able to explore this parallel as I could not find any book or books on the *design* of cartoons. Rather, the bookshelves in bookstores were stacked with countless books on how to draw cartoon pictures. In other words, I could not find books on design – the relationship between the cartoon's words and pictures, how they progressed frame by frame to the denouement, stylisation, etc. However, the situation changed with my discovering to books of Scott McCloud (1993 and 2006) and Will Eisner (1985 and 1996). Books that provided me with ideas that are directly usable when designing and critiquing the *art* of simulation design. And so, this book will treat the art of business simulations as the mathematical form of comic or cartoon art. And, the parallel, implications and issues are explored in the chapter entitled “*The Art of Simulation Design*”

A third element is the *craft* aspects of simulation design and especially the producibility and usability aspects of design. My reasons for this are my business and training background. Although I obtained a degree in engineering, my early career was in business management – initially in manufacturing and then marketing. Because of this I believe that any product needs to be made right and fulfil customer needs. A view reinforced by my business training experience. As a consequence, when designing simulations I believe that it is important to just build in those features that address customer needs, wants and constraints and, have a design process that is rigorous, *agile*, structured and allows for creativity.

Jeremy J. S. B. Hall, 2011

Thanks

To my customers, who over the years have allowed me to develop business simulations and run them on their courses.

To my fellow simulation designers and users at ABSEL (Association for Business Simulation and Experiential Learning) and SAGSET (Society for the Advancement of Simulations and Games in Education and Training) for their advice and comments on my papers.

To the Winston Churchill Memorial Trust (<http://www.wcmt.org.uk/index.php>) for awarding me a fellowship to study the use of business simulations in the USA. A study that helped me consolidate my knowledge of why and how companies use business simulations for management development and business training.