

# Preface

To know the road ahead, ask those coming back—Chinese proverb

I remember the day that I received my first game console, an Atari 2600, very well. I was about 6 years old and at that time I could be considered among the happy few to get a first hands-on experience with today's classics as *Frogger*, *Pong*, and *Space Invaders*. The world has changed dramatically since that time. Nowadays masses of people are playing games. They are playing anytime and anywhere thanks to technological advances as the Internet and mobile telephony. They are also playing anything, from playing music in *Guitar Hero* to shooting aliens and other mean looking creatures in *Halo*. Most importantly, the people of today are playing anyhow and anyways. Games have unmistakably become an even more so important part of our culture than what Johan Huizinga once described in his masterpiece “*Homo Ludens*.”

While more and more people are playing games, I suddenly started to barely play anymore. This loss in appetite actually surprised myself, because I never thought I would play less. I remember clearly how much I used to “love” games. After my Atari 2600 I bought almost all game consoles available, from the GameBoy to the first Playstation. My life simply evolved around “games” (and my parents can acknowledge this). At that time, I figured that I would never, but never not play again. Even if I would get married, have children, have a busy job, and so on, I would still play games. I was a bit wrong though.

Because just around finishing secondary school and going to the university I lost my desire to play games. It did not have to do with growing up or women. Simply, when I played a game, I constantly had the feeling that I have “been there, done that.” Many games offered the same kind of experience in a different setting, or even worse, the same sort of game with some small improvements. I was done with saving princesses, finding keys to unlock doors, and precisely timing my jumps to get from platform to platform. Games did not keep my attention anymore. I never really stopped playing at all, but I became a “softy.” I only played occasionally.

Despite my loss in appetite for games, my youth love did sort of influence my eventual career, because another vivid memory is how much I felt attracted on an open house at a university to these dynamic graphical calculators that were used to

understand complex problems in today's society, such as traffic congestion and airport capacity management. These were what I now consider "hardcore simulation models." With these tools, we can "simulate" what could happen by calculating different outputs based on varying inputs. To me this meant I could "play around" with variables to see how I could defeat the "evil" problem at hand. It almost felt like playing a game, but then one with a meaningful purpose. I was sold and started studying this "Systems Engineering, Policy Analysis, and Management" (SEPAM).

While I was busy passing my exams, certain scholars at the university realized the limitations of these hardcore simulation models. The human element or the "socio-political complexity" is missing from these tools. Decisions are not made rationally and processes, especially if these involve humans, are difficult to capture with algorithms. What is needed is to involve humans into these simulated models. And if we incorporate humans into a simulated environment, let them make decisions, and give them feedback about these decisions, we get a "game." Largely unaware of these developments at the university, I was missing the human element in my study as well. For this reason, I decided to start studying psychology in addition to SEPAM.

At the time some scholars at my university experimented with the use of gaming within the policy domain, others looked into the application of games in completely other domains, from the military to education, and into the positive effects of games in general. So it happened that more and more people started to recognize the potential of gaming and games were being developed for a huge variety of serious purposes, from recruiting personnel, societal critique to advertising brands and goods.

All of these developments were beyond my awareness as well until by mere coincidence I got into touch with the scholars involved with gaming at my university. This made me fall in love with games again. The puzzle pieces seemed to fall into place: my youth admiration of entertainment games, my attraction to hardcore simulation models and my desire to use these to solve societal problems, and my interest in psychology. Since then I have been involved with using games for serious purposes. This book is a result of my involvement so far.

To be clear, the book is not about culture, gender and health issues, violence, generation differences, business models, programming, and graphics. Rather, it is about the *design* of games that are used for serious purposes. This involves thinking of the concept behind those games: the aspects and mechanics that make such games work. Specifically, it lays out the idea of a "design philosophy" called "Tri-adic Game Design" that may help in thinking about these concepts and may help in eventually designing "good" games with a serious purpose. As the subtitle suggests, creating a "good" game involves balancing the triad of Reality, Meaning, and Play. Each are "worlds" with their own aspects, criteria, people, and disciplines that designers need to take into account.

I conceptualized this philosophy during and after the design of in particularly *Levee Patroller*. This is a game to train inspectors the knowledge and skills of inspecting levees, the barriers that protect a land from flooding. This "journey" gave me the experience and observations to reflect on. In this respect, my journey is

somewhat comparable although by no means of the same scientific significance to Charles Darwin's journey of the Beagle. His journey, which lasted 5 years, took him to several places all over the world to collect specimens, investigate geology, and observe nature. Darwin kept careful notes of his observations and made theoretical speculations throughout. The observations and these initial theoretical speculations were the basis of his groundbreaking evolutionary theory as described in "On the Origin of Species," which was written after almost 30 years (!) of reflection.

In contrast, my journey lasted nine months and in total I reflected almost four years on it. The insights will not change the world like Darwin's insights did, but they can certainly be helpful for those who want to develop or use games with a serious purpose. They make it at least possible "to know the road ahead"...

### **A number of notes related to the book**

1. A movie and a playable demo of *Levee Patroller* can be found on a website that accompanies this book. This website also has information and documents about the workshop based on this philosophy. It further includes links to games that are mentioned throughout this book. See <http://triadicgamedesign.com>
2. I played most of the games in this book, except for those that I could not buy or download. The screen shots are made by me while playing. For those games that I could or did not play, I requested a screen shot.
3. A standard for citing games has not been established yet. Based on the citation style for movies, computer software, and scholars in the field, I have decided to cite games as follows: "Developer(s). (Year). *Title* [Hardware platform]. Place: Publisher." Games which are very old or of which the origin is unclear, I did not include in the bibliography.
4. The subdivisions of this book consist of "levels" rather than chapters. In Level 1 I will explain why.



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Balancing Reality, Meaning and Play

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