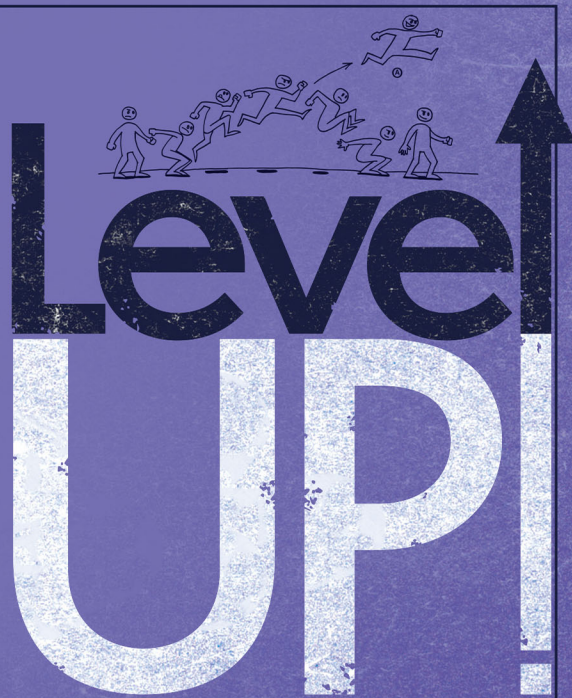




SCOTT ROGERS

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THE GUIDE TO GREAT  
VIDEO GAME DESIGN

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# **Level Up!**

Third Edition



# **Level Up!**

# **The Guide to Great**

# **Video Game Design**

Third Edition

Scott Rogers

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*To everyone around the world who has read the first two editions of Level Up! and gone on to dream about, learn about and make their own games.*

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Apologies if I have forgotten anyone. There's always the fourth edition.

# About the Author



**AFTER DISCOVERING THAT** game designers have more fun, **Scott Rogers** embarked on a 30 year plus career as a video game designer, author, educator, imagineer and cartoonist.

He has designed many video games that you have heard of and maybe even played, including *Pac-Man World*, the *Maximo* series, *God of War*, the *Drawn to Life* series, *Darksiders*, and many *Spongebob Squarepants* games (but not the good one). In addition

to the two editions of this book, Scott wrote *Swipe This! The Guide to Great Touchscreen Game Design* and *Your Turn! The Guide to Great Tabletop Game Design*. He also contributed an essay to *Level Design: Processes and Experiences*.

He is the creator of the comic book *Bedbug: Single Father Superhero* and a designer of board games including *ALIEN: Fate of the Nostromo*, *Pantone the Game*, *The Texas Chainsaw Massacre Game*, *Rayguns and Rocketships*, and a couple of expansions for the game *Marvel Villainous*. His board game knowledge and career have been featured on the History Channel's *The Toys that Build America* and in the 2020 documentary, *Gamemaster*.

Scott is an adjunct professor at USC's prestigious School of Interactive Media and a former instructor at the New York Film Academy. He was a Principal Imagineer for Walt Disney Imagineering R&D and is now trying to figure out what to do for an encore.

Scott lives just outside Los Angeles with his wife, two children, and more games than he has time to play.

Why not visit him online at [www.mrbosdesign.com](http://www.mrbosdesign.com) or follow him on Insta, X, Facebook or whatever. Oh, and review this book. It really helps us authors!



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# Foreword

**WHEN SCOTT ROGERS** first released *Level Up! The Guide to Great Video Game Design*, our industry was on the cusp of a revolution. Indie developers were beginning to rise, new platforms like mobile, cloud gaming, and VR were still finding their footing, and the concept of games as a mainstream cultural force was just starting to solidify. Scott's book became an essential addition to the library of aspiring game designers, offering a treasure trove of insights, practical advice, and a deep understanding of what makes games resonate with players.

In the past 15 years, the gaming landscape has continued to evolve. Our industry is bigger than ever in terms of both revenues and global reach, our audiences are more diverse and inclusive, and technology continues to push the boundaries of what's possible. Despite all these changes, good game design is still about understanding players, crafting compelling experiences, and telling stories that matter.

This latest edition of *Level Up!* doesn't just update the content for today's technologies and trends; it also reflects the growth and maturation of the industry itself. Scott has expanded earlier topics to move from early inception to broader use (VR/XR/AR/MR/LBE). He's also investigated the vital connection between playtesting and systems design, even providing processes and materials to up your design game.

As a game designer, I've always found Scott's approach to be both practical and inspirational. His writing demystifies the complexities of game design without losing sight of the creative spark that drives us to make games in the first place. As you make your way through the pages of this literal treasure trove, you'll find yourself engaged by how downright approachable it all is.

I've been fortunate enough to know Scott personally for more years than either of us will readily admit. Professionally, we've shared many of the same experiences and shared our hopes and dreams for what could be accomplished through games when we were both at The Walt Disney Company. I've always envied his role as an Imagineer as it was the perfect title for someone who has always dreamed big and then worked incredibly hard to bring those dreams to life. This book is one of those dreams that we all benefit from having become real.

Enjoy - and, as always, Keep Gaming!

Bill Roper

Co-Founder, Lunacy Games // Creative executive on over 20 titles including the *Warcraft*, *Diablo*, and *StarCraft* franchises, *Hellgate: London*, *Champions Online*, *Star Trek Online*, and *Disney Infinity*

# Press Start!

*"The only thing that is constant is change"*

—Heraclitus of Ephesus

**WHEN I STARTED** working in the video game industry, games were coded in assembly language, specifically 68009. The 16-bit artwork and character sprites were created using two commercial products published by Electronic Arts: Deluxe Paint and Deluxe Animator. They were clunky to use, and it took time and skill to create anything that looked good, let alone looked like art. The most popular game genres on consoles were fighting games and character-based platformers, while adventure games and flight sims were still popular on PCs.

By the time I wrote the first edition of *Level Up! The Guide to Great Video Game Design*, games were being coded in C#, and Maya and Photoshop were being used to create the 3D artwork. This software was expensive AND complicated to use, and the most popular genres were 3D shooters and motion-controlled sports games. It was a totally different way to design and develop games, and if you couldn't keep up, you were out.



It's been almost 15 years since I wrote *Level Up! 2e* and the game industry has changed again and again by leaps and bounds. During that time, games on mobile phones have become ubiquitous, virtual reality (VR) has come and mostly gone (again), and streaming video games have replaced most physical media. The tools, platforms, and architectures have evolved. Unity and Unreal—the most popular game creation platforms—used to cost thousands of dollars for professionals to license but are now free for students and novice creators. Creating 2D art can be as simple as typing a few words into AI tools like Midjourney or NightCafe. There are literally thousands of YouTube tutorials available on a variety of topics from coding to game design theory. There is so much to choose from, how can we even know where to start!?

Adaptability is the key to a long career in video games. It's also the key to having your book still stocked on the shelves! So, it's time for a new edition of *Level Up! The Guide to Great Video Game Design*! Over the time since I wrote the second edition, I've realized that the book needs to refocus. The first two editions were from the perspective of the games I created during my career, which were third-person action games.

In this new edition, I take a broader view and address as many different topics and game genres as the book's page count allowed. I wanted to make sure that you feel like you're getting your money's worth, even if you've bought the previous editions of *Level Up! The Guide to Great Video Game Design*. More importantly, my goal is to make this book as up-to-date and as relevant as possible with content that will hopefully be relevant for the next 10 years or more!

That's not to say that we aren't going to cover the material in the other editions of *Level Up! The Guide to Great Video Game Design*. We're still going to talk about action games, boss fights, chili, dynamic game difficulty balancing, ergonomics, fun, gender representation, haunted mansions, islands and alleys, jump distances, keys and doors, leitmotifs, Mexican pizzas, non-player characters (NPCs), one-sheet design, pitch presentations, quick timer events, roguelikes, skill trees, the Triangle of Weirdness, unfun, virtual reality, walking simulators, XR, y-axis and zombies, but we're going to look at them through a more defined lens, to help you apply the knowledge to making games, not just theorize about making games. This book will teach you the who, what, where and most importantly, the how of designing video games.



I have always thought of *Level Up! The Guide to Great Design* as a handbook, something that a game developer can refer to from time to time or find inspiration in during their regular workday. Heck, there are times I find myself referring back to it. However, my viewpoint on some subjects has matured, evolved, refined, even changed! There might be some contractions in this edition. That's okay; it's good to grow. I've grown a lot as a game creator having worked on a wider variety of games and projects in the intervening years as well as spending many years as a game design educator on a wide variety of topics.

Before we start, keep in mind that there are many ways to approach game design. Most of them are valid, but they must first and foremost COMMUNICATE the designer's ideas to the team. We'll talk about many ways to do this further on. Many of these are techniques I have personally used, so I know that they work. I want to make sure you have the best tools possible to help you with your own design efforts.

Another quick reminder: when I say "I designed a game" this is an oversimplification. Video games are created by many, many, many talented people (you'll be introduced to them shortly) and to give the impression that I did all the work myself is not only incorrect, but it is wrong. Credit always needs to be given to those who deserve it. There is no "I" in team.

You'll find that many of the concepts found in this book are relevant to many different types of game design—whether it's console, mobile, computer, or XR. These design concepts will also work when designing theme parks, museum installations, ARGs, location based experiences (LBEs), and even analog games like tabletop games. It shouldn't be too hard for you to translate the design lessons from one game medium to another.

Another thing before we get started. If you are looking for a single chapter about gameplay design, don't bother. EVERY chapter in this book is about gameplay. You should be thinking about gameplay all the time and how the experiences and systems you create affect the player, even when designing passive elements like cutscenes, monetization models, pause screens, and passive gameplay systems.

Since you've made it this far, I may as well start by telling you the bad news up front. While **making video games is the best job in the world**, it can be thrilling, frustrating, rewarding, nerve-wracking, hectic, boring, vomit-inducing, and just plain fun. BUT, making video games is ALWAYS very hard work. As my former boss used to say, "Video games is a hard business."

This is why I feel fortunate that I have survived 30 years as a game developer. I have experienced the industry as a developer on AAA games, as a developer on Indie games, as a developer on VR games, as a game developer at a major theme park, as a producer at a major video game publisher, and as a business director at a small developer. I have seen the video game business from just about every side...and it is always difficult. You won't always succeed. You'll make dumb mistakes, but I'm here to help you with that. I've already made the mistakes. Follow my advice, and hopefully you won't make them yourself.

## No, You Can't Have My Job

All of the experience I have gained over my career, I will list for you in the section at the end of each chapter called **Clever Ideas and Universal Truths**. That way, you can reference insights quickly when you are designing your own games. These clever ideas and universal truths are things that I know to be true because I have experienced them and wrestled with them again and again and again.

In the main body of the text, I will call out **very important things** for you to note. It might be a term, a concept, or a theory. **Very important things** are always in **bold text**. For example, the first very important thing I learned on my career journey as a game designer was:

### GAME DESIGNERS HAVE MORE FUN!

My first job in the video game industry was as an artist. Back in those very early 16-bit days, video games artists drew images pixel by pixel. Now there are several amazing 16 bit artists