



ROGUELIKE * MARSHALL

Preface

I've played under an hour of tennis in my entire life. Maybe I've hit a tennis ball with a racket 20 times. I don't watch tennis. I don't know anything about tennis.

And yet -- Timothy Gallwey's *Inner Game of Tennis* was brilliantly valuable to me.

I don't run. I don't like running. I like lifting weights. With my bad knees and mediocre lung capacity, there's very little that appeals to me less than the idea of long-distance running.

And yet -- reading Haruki Murakami's *What I Talk About When I Talk About Running* gave me an incredibly powerful metaphor for creativity, personal improvement, discipline, and just dealing with reality.

This book is about video games.

Well, sort of.

This book is about video games the way Gallwey's book is about tennis or Murakami's book is about running. Which is to say, despite the fact that we're going to be talking about video games constantly, the book isn't about video games.

I should clarify. The vast majority of video games, I think, have very little value in terms of art, in terms of lessons learned, or in terms of a worthwhile leisure activity.

Just like the rest of society, games have trended in the "everyone gets a trophy" direction. The market has spoken -- they want games that are nearly impossible to fail at, that, if you sit at a console long enough, good things will happen to you.

I have no interest in that.

This book looks at a particular subset of games played only by people who want their leisure to put them on the edge of their mental abilities: roguelikes.

A roguelike is a type of role-playing game that, if you die once, you're dead. The game automatically saves the fact that you're dead, and there's no coming back. You can't save and reload. There's no checkpoints. That's it -- you died -- you lose.

These games don't typically play fast. It might take 20 to 70 hours to beat a roguelike. If you're 15 hours in and on the way to winning, but you slip up and play sloppy for five minutes, that's the end of it. You're dead. Good game. The game has automatically saved that you're dead. You lose. Better luck next time.

These very hard games, thus, become interesting laboratories if you reflect on them. To win at one of them, you need to play patiently solid for hours on end. If you find your patience going and sloppiness setting in, you need to set the game down for a while until you're rested.

In the harder roguelikes, not thinking through your advancement and development might make the game unwinnable.

The games offer a large array of choices for difficult situations, letting you mentally wade through risks, variance, and so on.

There's a lot of quick applied math and decision theory.

You need to have awareness and perception of when things are going wrong.

Interestingly, all these skills -- planning, math, patient execution, emotional management, awareness, perception, self-control -- these are what's needed to do important high-concept work in the modern economy.

I'm a natural maximizer, so I want my leisure to do more than just relax me -- I want to get lessons and mental models out of it.

In this book, we take a look at some best practices from winning the hardest type of games -- and apply those lessons to real life situations, whether it be mentally relating to events around you, finding cohesion and gamebreakers in real life, or applying the basics of math honed in games to making high-dollar sales or doing well in finance and investing.

I think that's pretty cool -- but shall I address the elephant in the room? I don't dwell on this much in the book, but I'd like to say why I chose to write this now.

Like many kids born in the 1980's, I started playing the original Super Mario Bros on the Nintendo, and gradually graduated to Super Nintendo, Nintendo 64, Playstation, Playstation 2. (Which was the last console I owned.)

I had a nice time playing. I think games made me smarter, sharper, and gave me better reflexes. I think they gave me better mental models of the world.

But they were never "cool." It wasn't something you wanted to bring up. I think, even five years ago, I wouldn't want to say at a party that I wrote a book about mental models and math from video games.

What changed?

Three things. I'll save the biggest one for last.

The least big thing is I started thinking about why Chess is prestigious. Why is Chess prestigious? I think Chess -- with no disrespect to people who love and immerse themselves in the game -- is less of a useful thing to train in for people. There's a huge amount of memorization and static learning you need to do to start to be competitive, and the real beauty of Chess doesn't show up until you've mastered opening play and endgame play, which is a lot of book-learning with minimal improvisation or flexibility.

Eventually, I came to an answer -- Chess is prestigious because smart and influential people played a lot of Chess at one point, and it got a reputation for that. I think that's going to happen to video games; I think it's happening now.

But that's the least important reason.

The second reason is, and perhaps this is cowardly, is I noticed people I respect and admire largely nonchalantly using metaphors for video games. My friend, the mathematician, investor, and entrepreneur Ivan Mazour wrote on his blog about an Actions Per Minute metaphor comparing life to high-level Starcraft play, and wrote

nostalgically about his times playing X-Com: UFO Defense.

This was heartening. Gradually, games became conversation that was fun and light, like reflecting on a "cool" activity like listening to music or playing frisbee.

Maybe that's cowardly to some extent, but seeing people I respect and admire writing openly on the topic was heartening.

But you know what the biggest reason was?

I read this article by a woman who went out on a date with a former Magic: The Gathering champion, and because she thought this was uncool, she wrote nasty and publicly about him.

And I thought -- is *this* who I'm afraid of offending?

This woman is loser.

This guy seems like a good guy.

And then it all started to crystallize in my mind -- we live in a silly showy narcissistic culture, where people do things less for the joy and engagement of their activities, and more so that they can photograph and Instagram or Facebook that they've done the activities.

You see silly people photographing their cake and uploading it to social media, taking photos of themselves in front of landmarks, taking photos of themselves in an expensive car...

... it's like, *that* is the behavior that people should be embarrassed about.

A great solo game, like a roguelike, is not showy at all. It's a personal experience, immersing your mind in the mechanics and gameplay in an intellectual activity.

A team game, like a tactical shooter, lets you hone cooperation and coordination among other people.

And a competitive game lets you test your wits against another person in an environment where you characters can go battle royal with no hard feelings in real life.

The more I thought about it, the more I realized just what a useful and praiseworthy activity that playing games can be, sharpening our minds, sharpening our work ethic, making us smarter and more effective.

And I don't mean the "everyone gets a trophy" games -- yawn. I mean, difficult games that force us to play smart, plan ahead, learn and do math, spot patterns, and really stay calm and mentally sharp in order to progress and win.

Does this transfer to real life? It has for me. Many of the most effective, smartest, wealthiest young people I know play games as one of their leisure activities. And the kind of people who judge and get arrogant about it seem like some of the dumbest and shallowest people around.

So maybe that's a petty reason to do it -- but I figure, if the opposition is so aggressively overbearingly stupid, this must be the right side to join.

Section I. A Brief Look Backwards

1. Morphine, or the Lack Thereof

“Are you sure you don’t want morphine?”

I don’t want morphine.

“Most people take it?”

“Yeah, they do.”

“Ehh, I’m pretty tough. I meditate, and I, uhh, try to use these things as a training opportunity.”

(I feel silly right after saying that.)

She blinks and doesn’t seem to process that.

“What’s your pain at on a scale of 1 to 10?”

“I don’t know... somewhere between 4 and 6?”

“Six! That’s pretty high! You sure you don’t want something?”

“You mean... morphine?”

“Yes.”

“No, really, I’m good. Thanks.”

“Okay! Well, if you need some...”

The nurse smiles cheerfully and exits to my right.

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inspect room

It is dark with dim lighting. As your eyes adjust, you note you're laying on a flat hard surface in a hospital recovery room post-surgery. The room is spacious and your bed is precisely in the middle of it; the headboard touches a wall but the rest of the walls are too far away to interact with. It gives a certain "floating" feeling.

There is a desk here to your left, built into the wall.

There are windows, but it is too dark to see outside.

An IV is in your right arm.

There is one exit here: east, to the main hospital corridor.

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No book to read, no work to do, no laptop to use. Just... alone here in the darkness, the anesthesia wearing off. A training opportunity: indeed. The pain isn't so bad. My thoughts are clear and lucid.

I can't remember the last time I had nothing scheduled and nothing to do.

I have a long list of things I do each day. Seven days a week, I wake up with at least a couple hours of things to do: walking, fitness, meditation (two sessions), standard bed-making and tooth-brushing, writing, a whole host of other stuff.

Of course, there's whatever I'd planned to do the night before -- advancing projects and what not -- and "30+ Minutes of Misc Task Clearing"... my concession to the fact that I previously would let details pile up. So I spend 30 minutes a day doing whatever really ought to be done: cleaning, paperwork, details type stuff. I used to get way behind on the details, but now with my concessionary 15 hours per month, my taxes get done on time, my laundry is usually clean, my flights are booked more than three days before I'm scheduled to go on a trip. It wasn't always this way.

Of course, I can't book flights or do my taxes or do my laundry right now. I'm not sure I can even move: I try, and it's confirmed -- the pain in my abdomen shoots up to 9+ out of 10 at my attempt to shift around. The nurse, with her morphine, is long gone. I'll just... stay still.

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Time passes, as it's prone to do.

The night waxes and then wanes; I drift in and out of sleep; eventually it is the next day and the surgeon has come to visit.

The basic details are clear enough: the appendix hadn't burst. The surgery went smooth. I'm lucky I came in when I did. Etc.

After surgeon-talk, the surgeon shifts to doctor-talk. "Now, don't you go doing anything for a few weeks."

He doesn't say it like that; he says it more precise and doctorly. You know the tone.

He admonishes: no work at all for one week; no fitness for three weeks.

Okay, doc, thanks.

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I'm flying through my work. I haven't been this productive in ages!

Memento mori: remember you are mortal. I've got those "brush with death" superpowers right now. I'm focused; I'm killing it.

I haven't done fitness in almost a week now; I'm going crazy.

Pushups. I do pushups.

Who listens to doctor anyways?

Wait, that kind of hurts.

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It's the next day.

I've regressed.

I'm exhausted and in a lot of pain.

Damn it, why didn't I listen to the doctor?

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Okay, I'm going to take a few days off. Explicitly. No "30+ Minutes of Misc Task Clearing"; no fitness; nothing.

I do some quick research, and download Tales of Maj'eyal.

2. The Difficulty Level Is Too Low

Most games were never able to hold my attention for long. Before I more-or-less entirely quit video games a few years ago, I would have to search out for games that were either incredibly difficult and nuanced -- or I'd have to make a non-nuanced game more difficult.

Apparently, I'm not the only person that does this. Sometimes at Gamefaqs.com, there are listed "Challenge Guides" for how to play a game more difficult.

For instance, Final Fantasy VIII -- a pleasant game that I played as a pre-teen a couple decades ago -- is really rather easy once you get the hang of the slightly unusual character development mechanics.

The ease of the game made it nigh unplayable for me after beating it once, but I liked it. It was pleasant to play, sort of like running into an old friend and reminiscing. I'm not sure it was a very good game; I don't really know how much of my affection towards it is nostalgia (probably a lot), but I enjoyed the idea of playing it. But -- it was trivially easy.

Then, one day I saw a "No Level Up" challenge guide. Wow, how interesting. It was slightly complicated: you needed to run from the fights you could run from, and in the fights you couldn't run from, you needed to get a special very-complicated-and-not-normal-to-get magic that let you turn those enemies to stone. If you turn enemies to stone, you don't get experience points -- and don't level up. Meanwhile, there's ways to dispatch enemies that help you develop your technology without getting experience, and you have to do a healthy amount of that, which is also tricky to execute.

That's the sort of thing that got me jazzed. It turns out, FFVIII is actually very easy past the initial stages if you're doing no-level-up; you wind up really overpowered, actually. No matter, the novelty of the challenge, planning it out, executing it is very interesting. Especially the early game which actually becomes somewhat dangerous.

To increase the danger level and improve playing ability, I'd often play games in "Hardcore Mode" that weren't meant to be played that way. Meaning, if I died, I'd erase the save file and call the character dead.

This made Morrowind, the epic fantasy game, this made it playable after the beauty and interestingness of the first play was over.

Sometimes I'd combine challenges: make a character in Morrowind who wouldn't use weapons at all; only magic; and then make it one-death-game-over. This meant that instead of blindly rushing from area to area, you'd actually have to sit and plan like you're planning a military campaign.

"Okay, what happens if I get paralyzed? What happens if I get poisoned? If I run across a Flame Atronach, can I handle taking a first big nasty fireball without dying?"

Often in games, you're required to go get some item before you can get on with your quest. In "The Legend of Zelda: Ocarina of Time," you'd have to go get a flame-proof

suit before you could enter the volcano.

But if you were playing something like Morrowind on this made-up one-death-it's-over hardcore mode, you'd *de facto* have to go get anti-flame gear before you could go take on an area with fire enemies. The game wouldn't tell you to; rather, you'd need to do lots of planning and thinking ahead.

Sometimes it was tedious having to go search through shops with randomly generated inventory to stock up on +10% resistance to fire items, but mostly it felt like something a real adventurer would have to deal with. If you were going to explore the North Pole in real life, you don't get a Save/Reload button. You need to have your anti-cold gear so you don't die. And, if you have a single pragmatic bone in your body, you would be happy to do lots of research and testing and small trials to make sure you were ready to go, before you got into the most dangerous parts.

Combat, likewise, got very exciting if your character would be over if you lost the battle. Normally you'd reload your last save; you could often go into a fight where you had a 50/50 chance of winning, and if you lose, you just reload. Not so, here. Even a 1% chance of losing a fight from getting paralyzed right as your shield wears off, or something, would mean you wouldn't survive to beat the game.

You can't rely on luck in a game where a single death ends your game; if you're willing to accept a chance of dying over 0% per battle, you'd eventually get killed. Your guy would be over.

3. Thai Kickboxing, Childproofing, and the Fighter/Wizard

Older games are to modern games what a Thai kickboxing ring is to a child's playpen.

Have you ever seen Thai kickboxing? I went to a match in Chiang Mai. It's vicious, vicious stuff.

They wear minimal gear. They generate immense power.

We were seated in some stands above and a set a little bit back from the ring. My Japanese friend and I were the only non-Thai in that area; these were the cheap seats; the few foreigners there sat on the ground near the ring.

But it worked out well: above the ring, it was possible to see everything play out. Up close, things would be more visceral and more of a blur; further back, the matches took on a Chesslike quality where you could see mistakes happen and get reacted to. Most matches ended after the first major mistake.

The fourth match was two young, energetic, and lightning-fast Thai guys. One maybe 19 years old, the other maybe 22.

The 19-year-old overcommitted on an attack and lost his balance slightly.

Stumbling slightly, the 19-year-old wound up leaning *into* his opponent's kick, taking a vicious foot to the head.

He hit the canvas immediately, knocked out cold.

The crowd went wild.

Me, too.

Everyone sobered up a little bit when the medics came and put the kid's neck in a splint before carrying him off on a stretcher.

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If you'll forgive me for comparing the seriousness of Thai combat with the not-quite-as-serious video games, this might be an apt metaphor.

Back in the day, computers were largely for intellectual, analytical, deeply thinking people. This was a relatively small market.

In other words, the prototypical video game player in 1990 was much more armed and equipped to play games that were... punishing.

And they were -- punishing. Think about the original Super Mario Bros. You started with a few lives. You got a *rapid* rampup of difficulty between levels as mechanics are rapidly added. Dying was unpleasant. It was "Game Over" if you died a few times. You couldn't save and restore. The game didn't "cheer you on" very much, especially not when you died. (You did get points for stomping enemies and minor fireworks when grabbing the flag at the end of the level. But then, alas, the princess is in another castle.)

In the Thai boxing arena, these are already the top 1% of most competent fighters in the world going at each other. Those two young men are two of the toughest men on the planet. And when one overreaches ever so slightly, it's *punishing*. It's not celebratory-punishing. The spectators wound up almost ashamed to have watched it.

Likewise, games used to be played by the top 1% of most analytical people -- almost exclusively. And when you overreached in a game, you got punished.

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"Punished" isn't too strong of a word, either.

Let me tell you a story; you can chuckle if you want, but I don't think you will.

I played "Dungeons and Dragons" -- 2nd Edition and some 3rd Edition -- from around age 11 or 12 to around age 16.

At age 15, I joined a game with some older teenagers that had been going on for a while. One guy, let's call him Jonny, had a level 18 fighter/wizard (if memory serves) who he'd really built up.

Level 18 was pretty high in Second Edition Dungeons and Dragons.

He and another player there -- let's call him Tommy -- got into a tiff, and two characters that were once friends split off, and wound up fighting to the death.

This was all on pen-and-paper, occasionally using a checkerboard with little makeshift figures put on it, and rolling dice to determine the outcome.

Jonny lost and his character died.

He cried.

Oh, I guess I didn't build that up well enough: to be clear, Jonny was not at all some hyper-intellectual kid. It was actually kind of an odd game. The guy running the game

was nerdy, but Jonny and Tommy -- friends in real life -- were actually tough kids. Jonny drank and smoked pot and had sex. (I was a couple years younger, and wasn't doing any of those things.) He had bleach blond hair and earrings. He even got a girl pregnant while in high school. (They gave the baby up for adoption.)

He was a really tough kid, from a tough background. He was from the poor part of town and was doing a bad job of trying to get out of it. He could kick your ass.

But when his fighter/wizard died, he cried like a baby.

It was mentally devastating for him; I dare say it hurt him more than the time he talked trash at some older kids and got his ass beaten into the ground, or any of the times he failed one of his classes, or whatever else. Tough kid, but losing this made-up character was mentally punishing to him.

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Games don't do that any more; in fact, they aim not to do it. They try to fence off the world so that you can play in it, but without hurting yourself.

This makes sense: basically all strata of society play video games now.

No, really, who doesn't play games? Everyone I know in first-world countries have at least played Mario Kart, and often a lot more than that.

As the market for video games has grown, it's gone from people who want to be pushed to their intellectual limits to people who want to relax after work. They want to see some scenery, get some vicarious hero factor going, and not at all suffer or practice to excel.

Scenery was irrelevant for me; a bonus if it's there, but not at all necessary. Vicarious hero factor? I guess, sure, I was into that. But I wanted to know that I needed to really suffer and practice to excel.

This is what led me first to older games, and then to roguelikes.

4. Eating Chicken

I just read that chicken -- poultry -- eating chicken, you know? -- I just read that it used to be a luxury good.

How about that? Who would have thought? Who would have known?

I guess it's obvious in retrospect. Before refrigeration, everything perishable could easily be a luxury good. It's not like you can herd chickens around, either. So if you're not near a chicken farm, how could you get chicken? Well, you couldn't. Not affordably, anyways.

It was less than 100 years ago -- not long before the advent of video games, actually -- that chicken became affordable and common in most of the Western world.

Insights went off in my head upon reading that, insights about culture.

Through most of American history, parents haven't understood their children very well. With a few small exceptions, every generation of Americans have been wealthier and more prosperous than their parents.

This really took off at the end of World War II, and the confusion has been immense in all subsequent generations.

But it's perhaps understandable when you think about the chicken. If someone grew up very poor, in cramped and dirty housing, maybe without electricity and indoor plumbing -- this was the norm really not that long ago -- then getting your own clean house with electricity and toilets and showers must have seemed miraculously better.

If there's regularly chicken on the table -- or better yet, "two chickens in every pot" -- then you'd be well-satisfied. "I came from dirt and lived in squalor. My children live in a clean home with plumbing and electricity. Sometimes I was hungry. My children are never hungry; we regularly have chicken on the table. My education was spotty; my children have the finest education. I've done well."

Easy to understand, when you look at it like that.

But the children growing up with electricity, plumbing, and chicken -- they think nothing of it. It's the norm.

In fact, it's the norm for you. It's probably hard to get your mind around. Allow me to give you an example that might resonate better, then.

Probably the majority of people reading this, if they drink alcohol (I don't, but used to) -- probably you see champagne as a luxury drink.

Imagine then, a self-made couple who works really hard and sacrifice a lot to start a business and build it up. Imagine them going from normal middle class -- you know, normal American life -- into being very wealthy.

Imagine that the first time the couple have champagne together is after the first month that the family business makes \$10,000. Then they regularly have champagne with new milestones -- at \$20,000 per month, at \$50,000 per month, after the first million-dollar in revenues year, after the first million-dollars-in-profit year.

Champagne would be very special. Having champagne for the first time at age 25, 28, 30, 35, something like that, only in celebration after an immense amount of toil, champagne would be extremely psychologically satisfying, rooted and tied to hard work and accomplishment.

But, like almost all people who get wealthy, eventually they would acclimate and be able to have champagne all the time. Maybe they're in their 40's or 50's now, and they've got children who are teenagers on the verge of becoming adults.

And the kids see the grown-ups having champagne, now, every Christmas, most birthdays, regularly celebrating milestones and eventful good happenings.

Champagne would be not-so-special for the children. The taste of champagne isn't the taste of victory over adversity, of the fruit of toil, of the final reaping of the harvest long-sown through years of deprivation and sacrifice.

No, champagne would just be normal.

And perhaps every generation is like this. Automobiles, travel on airplanes with jet engines, computers, the Internet -- these were miracles when we first saw them. But for younger people, it's passe. No big deal. It's not even, "Who cares?" -- rather, it's not

even thought about.

It's strange for me, I'm only roughly 30 years old, and seeing teenagers now think nothing of the internet is just really odd. Thinking nothing of smartphones with 3G internet that gets beamed down to them. Thinking nothing of WiFi just being everywhere. It's like -- whoa, don't you realize how big of a deal this is?

Like... electricity or plumbing or cars or air travel or chicken?

Oh. I'm starting to get it.

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I remember reading JR Tolkien's "The Hobbit" in Barcelona -- and being underwhelmed.

"Yeah, yeah, dwarves, a troll, a hobbit, a wizard, a dragon, magic stuff. Whatever, I've read this before."

Then I realized that Tolkien *invented* all that stuff.

Whoa.

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I had to write all this introduction because otherwise I'll seem crazy when I praise 1998's Baldur's Gate.

It was legendary for its time -- but like commonplace chicken, electricity, and the internet -- it might seem quaint that I'm so enamored with it.

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But let's try. Imagine, for a moment, that you're a teenaged version of me. It's the late 1990's, the new millennia will come shortly (or maybe it's already came).

Dell computers are the state-of-the-art. The internet is dialup and you don't feel it's painfully slow because you don't know any better. Actually, it's hard to get around. Google either doesn't exist yet or isn't commonly known.

At a friend's recommendation -- the one who got you into fantasy novels and Dungeons and Dragons, actually -- you get Baldur's Gate. It's on six CD's.

That's a big game. It's like -- wow, there's going to be a lot to do in this game.

So you insert the CD into your Dell computer and it's got this epic score of music, really rich and symphonic, and the graphics are crystal-clear and have this surreal life-likeness to it.

It's like -- wow, I'm really in for something special here.

This is before online game reviews or spoiler-sites and you don't read magazines. So you have no idea what's going to happen in the game. Really -- none at all. (I can't remember the last time I didn't have a vague idea of what was going to happen in a game before I started playing. But it was around this era.)

You fire it up, and you're in a little scholarly community called Candlekeep. Your adopted father tells you that something bad is going on and tells you to get your things together and you'll leave on a journey. He gives you some money and tells you to buy

equipment.

In Candlekeep, the non-player characters in the game, they talk to you like they've known you for years. Some of them offer to teach you little things, others ask you to do a little errand for them.

This is all very normal and passe now, but at the time, it felt incredibly immersive.

Then, as you're wandering around and exploring, someone attacks you and tries to hurt you! Whoa, you're thrust right into the fire.

When you go outside and tell the guards, everyone is very concerned and tells you to hurry up and meet your adopted father.

There's this sense of worry and confusion, of a certain gravity. These have held up reasonably well over time, but the novelty of this has worn off -- after the immense success of Baldur's Gate, this became a very common set of storyline and beginning in games like this. Starting off in a gated community, wandering around, interacting with people from your youth, but there's a tension in the air and things going a little wrong. This is normal and commonplace in games now, but it was the first time I ever saw anything like it.

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Most of the "twists" in video games are somewhat cliché and predictable. Oh, the "good mayor" of the city is actually the evil mastermind! Whoa, who could have guessed!

Baldur's Gate is interesting because it hits you with a "twist" right away. You seem like you're about to go on this great journey. Your adopted father helps you get ready for travels, you say goodbye to the people at Candlekeep, and he starts briefing you on the situation. When nightfall hits, you hurry out of the little scholarly community.

Then, as you're walking, the evil antagonist -- a gigantic man in spiked black armor -- intercepts you with two very large ogre henchmen. Your adopted father tells you to run and an epic battle ensues. Your father is able to kill the two ogres, but falls in the end to Sarevok.

You ran. In the morning, you wake up after that nightmare of a night.

And you're alone in the wilderness for the first time in your life.

That's it. That's how the game starts. You don't have superpowers; you don't have any powers at all. You're almost useless.

An old friend from Candlekeep runs after you; she asks to accompany you and offers to help. Then, as you walk through the world, you encounter other travelers. The first you come across are obviously sneaky and untrustworthy, mercenaries looking for money. But they invite you to travel with them.

It is safer to travel with them. But they're obviously bad guys. So right away, you're in a dilemma. A group of four is safer than a group of two, and these look like world-weary and savvy veterans. But they're bad people. Do you let them join you or not?

It's kind of scary. It gets the point across about starting from nothing and improvising.

The game has no overarching plot or narrative that you're aware of and moving

towards at this point; it's not clear what should happen next. Your adopted father, Gorion, he told you to head north to the Friendly Arm Inn to find some old friends of his should anything happen. On the way, you periodically get attacked -- the roads aren't safe and bandits are around, and you yourself have bounty hunters after you.

The game starts you off weak and largely useless. The world is dangerous. If you wander around aimlessly, you will be killed. Absolutely. And that was one of the joys of the game. And when you played it "hardcore," it was even more satisfying.

5. Hardcore Mode

Baldur's Gate suffers from the same flaw that almost every mainstream game suffers from: in order to not frustrate the player too much, it makes dying not-so-painful.

The game automatically saves every time you change a level, and by pressing "Q" on your keyboard, you could quick-save and reload from that point at any time. There was no penalty to doing so.

A lot of the fights in Baldur's Gate wind up being intricate puzzles to solve. For instance, there's a number of fights where there is a hostile party of four mercenaries out to kill you, of whom one will be extremely dangerous, and three will be not such a big deal. Often, the really dangerous enemy would be a spellcaster or archer behind a few fighter-types.

Like any other game with liberal checkpoints and being able to reload with no penalty when you die, you wouldn't actually have to solve the puzzles these fights presented. You could just charge in and hope to get lucky. Maybe you win; if you lose, reload and try again, maybe slightly differently.

When you play in a "Hardcore Mode" -- where death is permanent and you don't reload -- it became a detailed challenge.

Some games come with a hardcore mode built in -- Diablo II's "Ironman" mode is probably the most famous; death is permanent there.

Baldur's Gate didn't have those settings available, but I improvised and set those as rules for myself. No reloading. Death is permanent. No resurrecting party members at the temple if they died; they just had to be disbanded from the party. Thus, every encounter was rather leveraged.

And suddenly, you do things quite differently. If you have a party with some mix of rogues or rangers in it, you probably wait until night before a big fight. You probably send someone who has sneak or invisibility out to scout important areas before blindly charging in. In very dangerous areas, maybe you don't move at all without summoned monsters in front of your party to absorb the first wave of damage.

At the start of Baldur's Gate, your main character is incredibly weak and useless. A single arrow from a bandit who just appears on the edge of your vision can kill your character. This doesn't matter if you quick-save after every battle, which is what most people do. It matters a lot if you take all results as permanent and are trying to win.

Sometimes, like the fight at the top of the Iron Throne Building, you have to go stock up on an immense amount of materials and supplies to beat it. The top of the Iron

Throne is full of hostile rogues and spellcasters; quite nasty ones too. Really, the only way to be reasonably assured of beating it is coming in with *a lot* of explosives which can be purchased. Your casters can obviously blow stuff up on their own, but non-caster classes suffer up there -- in "Hardcore Mode," that's a pretty late fight in the game, and so you take the time to *carefully* prepare (dying means starting over from the beginning, if you keep playing that game) and so you get all your defenses in line, get some escapes ready, and have every person have some opening moves that will blow up basically the entire room full of powerful (but physically weak) assailants.

The nature of a Hardcore Mode-type no-reload all-results-permanent type game is radically different. The risk/reward calculus is different. In a normal game, you'll have at least a few hundred encounters. If you have a 1% chance of dying -- a 99% chance of winning! -- you won't make it through the game in one piece.

In my opinion, this single shift -- towards "Hardcore Mode" where everything counts, no re-do's, death is permanent -- is what took my video-game playing habit from a mostly useless entertainment indulgence into something that actually starts to produce useful life lessons.

Life, after all, *life itself* is run in "Hardcore Mode" -- there's no reload button if you screw up a job interview, or get mugged in a dangerous foreign country, or whatever other thing might happen in your adventures.

By playing in Hardcore Mode, games became about thinking, strategy, preparation, balancing the tradeoffs between safety and resource usage (should I use the potion now to guarantee I win this one? will I need it later?); it requires creativity and patience.

An additional underrated bonus is you'll usually do something stupid and get yourself killed when you're tired, so for savvy players, it de facto sets a "it's better to turn the game off now..." time.

6. Not Twitchy

As I got older, I slowed down from playing video games; eventually, I mostly stopped. But before ceasing, I became almost obsessed with finding certain types of very difficult games.

I wasn't looking for "twitchy" games where you needed to have fast reflexes. I was very, very good at the shooters Goldeneye 007 and Perfect Dark on the Nintendo 64 -- 15 years ago. How was I good? I knew all the maps, perfectly. I knew where all the guns, ammunition, and body armor would spawn. I knew which way to turn around a corner and what the room inside would look like. I knew roughly how many shots from each gun it would take to take someone down in multiplayer, and I knew roughly how accurate each gun was.

I think shooters are great, especially team-based shooters like Counterstrike or SOCOM. At a high level, they can teach kids communication and coordination skills and strategy.

But they lose their luster as a player gets older and can't or won't devote significant time to them. The background knowledge to be assimilated is very game-specific and non-transferable. And then, it takes a lot of time to fine-tune your muscle memory so you can enter commands into your controller fast enough to be effective.

For the same reason, I preferred turn-based strategy games (like Civilization IV) to real-time strategy games (Starcraft). In a turn-based game, you could make up for a lack of knowledge about the game itself with some critical thinking and logic.

With a real-time game, you get punished repeatedly for your lack of knowledge. To be sure, in all games, knowing more about a game helps more than knowing it less, and sometimes an ability that looks useless turns out to actually be pretty good. But, definitely, a logical person willing to sit and think patiently does better at games they don't know and play irregularly if those games aren't real-time.

That defined my search space for games pretty well: very difficult, and gave plenty of time to sit and think on courses of action.

There was one more thing I wanted: a relatively open world, where I had flexibility to build and advance how I wanted.

A lot of games have clearly defined "best ways to play them" -- for instance, many Japanese-style RPGs have obvious best ways to develop characters to make them strong. The game might be tough and offer difficult challenges, but it doesn't offer the opportunity for creativity and experimentation.

My search for this game -- immensely difficult, many and flexible options for how to advance and develop and play, an open world, and not-real-time -- this led me back further in time from 1998's Baldur's Gate to 1992's Darklands.

7. Medieval Germany

As you go back further in time, games get harder. Darklands is very difficult.

Among people who play rare, old, classical games, Darklands consistently rates as one of the best.

It also has an incredibly novel premise: the game is set in the Middle Ages in the Holy Roman Empire. The basic premise is that every commonly believed superstition of the era is actually true.

There are gargoyles, dragons, gnomes, witches. The Knights Templar are evil and satanic. Meanwhile, your party is Christian and can call on saints to perform miracles, according to what the saint is the patron of. Saints can save you from blizzards and floods, can turn back satanic enemies, can make the sky go bright in the middle of the night, can help you pass rivers, can protect you from arrows or fire, and so on.

But outside of these supernatural elements, the game also just did a fine job of recreating Medieval Germany. There's raubritters -- robber knights -- in strongholds that harass shipping and extract "tolls" for passing through their lands. Cities obviously don't like this, and once you either build local reputation or Germany-wide fame, they'll pay you to go take them out.

You can fight raubritters by besieging their castle, by trying to sneak in during the night and set it on fire, by asking to be invited inside cordially and then demanding a surrender, or you could ask to spend the night and then sneak out of your room to confront the 'briiter without his guards around.

There's a host of mundane trade to do, and little errands to run. The game starts with an interesting very sandbox-y premise: your party bands together to go "look for fame and riches." That's it. No plot. Depending on how you play, it would be very easy to play the game for years without your characters even coming across the main plot at all, especially if you stick to major cities.

Meanwhile, you can study at local guilds, trade items, study at the university, make donations to the church (money or artifacts) to increase your standing with the church, rest in inns, or even just set up to live in a city for weeks at a time (or longer) working on your trade to make money.

The game is also brutally unforgiving. Parts of the map flood or get covered in blizzards -- if you have no remedies for this (no one with good wilderness survival skills and no knowledge of saints that can help with the situation), your party members will suffer permanent effects of frostbite, or die.

Like Baldur's Gate a half-decade later, Darklands is liberal about letting you save and reload. Like Baldur's Gate, if you flip into "Hardcore Mode" (where you accept every outcome and don't reload from saves at all), the game becomes infinitely more interesting and thought-provoking.

You can make your own party in Darklands through its elaborate character creation system, or you can play an (okay but not great) default party.

I took the default party out in one game and had played it pretty far along when I was caught in a series of disasters in a row. Eventually, the party wound up fighting a lot of bears, and 3/4ths of the party was killed, with only the toughest fighter surviving the battle with only a single point or health or two; the others were permanently killed.

The one fighter rested up and healed a bit, and then carefully limped back to the nearest city, and recruited a new party.

The tough fighter is pretty dumb: he doesn't have good knowledge of religion, alchemy, communication, survival, or craft skills. He's just a tough, dumb fighter.

So the new party wound up with a bunch of green 20-year-olds with this 45-year-old tough fighter. Adventuring consisted of the younger more diversely talented members going around building up their skills and negotiating and supporting the tough fighter, who took the primary role in all battles while the others built up (starting with bow and arrow at first, since to enter close combat would've been dangerous).

This is the kind of emergent result that only happens in a no-reload game. If you were reloading bad outcomes, no way you let 3/4ths of your established party die and limp your one survivor to the city.

But, the way Darklands works, it's more advantageous to continue than to reset, even though you're almost starting from scratch. The party, with its continuity from that one fighter, still has a good reputation in a number of cities, still has some fame, still has

some decent money. So this one guy gets a new group together and they out, and they were actually a pretty successful group.

Darklands is almost a perfect game for its era; it's incredibly deep and they get most of the details right. The biggest problem is that, of the dozens of skills in the game, some are used immensely (Knowledge-Wilderness is critical) and others not at all (Riding horses is used only a couple times), and it's not clear at all from the start which are which.

Even with that, Darklands, with its punishing difficulty, was my last step on the way to the most punishing games of all -- roguelikes.

8. One False Move...

The pace of innovation in video games has slowed down. It's still breathtakingly fast, but there are now established genres, conventions, and franchises that dominate the landscape of games.

From around the year 2005 and earlier, for every five years you go back in time, you're dealing with a radically different type of game. In roughly five year increments, the whole nature of games would radically evolve.

If Baldur's Gate, from 1998, looks like a current-day Ferrari -- then Darklands from '92 looks like a Model-T.

1987's Nethack, then, might be a horse and buggy.

Or so it appears on the surface.

Under the surface, Darklands is a much deeper game with more interesting and varied mechanics than Baldur's Gate, and Nethack has the most interesting set of mechanics and interactions of them all.

But Nethack is really hard to get into.

It's the first roguelike we've talked about.

A roguelike is named after the first in its genre -- "Rogue" -- which came from the 1980's.

Roguelikes typically have three things in common: first, there's permadeath -- if you die once, you're dead. This is enforced by the game auto-saving when you die. (You could get around it if you really wanted to, but it seems to defeat the point of playing this type of game.)

Second, there's "procedural generation" for large parts of the game -- that means, every time you play it, it's different. Shops have random selections of inventory, with random variables and modifiers. Monsters are randomly generated within certain bands of level and difficulty in certain level ranges, according to probability tables. Even level layouts are different each time you play.

Finally, roguelikes are typically really, really hard.

To even get into roguelikes, you have to take on a steep learning curve. Typically, you character is represented by the '@' sign. Monsters will be represented by one letter: a

'k' is a Kobold, a 'd' is a dog, a 'V' is a Vampire, and so on. If you move your cursor over the enemy, it'll give you a longer description of what it is.

You enter all commands by typing and keypad; in older roguelikes, you don't use the mouse at all. (Newer ones often add a graphical interface on top for convenience and prettiness.)

Finally, the games have a rather finicky about inputting commands and usage. It's (unintuitively) the letter 'q' (quaff) to drink a potion, not 'd' which makes you go down.

The board itself is sparse: all text. The symbols that represent things on the map, enemies, shopkeepers, items, and so on — you have to learn what they mean by playing, and the learning curve is difficult. Again, a single false move and your character is dead forever.

Often in roguelikes, you need to also manage food (run out of food and die), and avoid a variety of monsters that can instant-kill you. There's enemies that can turn you to stone in a single move. If you see one, obviously, run.

Roguelikes became the pinnacle of what I was looking for out of video games: incredibly difficult, and calling for incredible flexibility and creativity. After you've played Baldur's Gate a few times, you know how to stop by and take out Mulahey en route to Nashkel, to get his excellent electrical hammer and collect the bounty on him. In a roguelike in the vein of Nethack, the levels are laid out differently every time, you wind up with different gear every time, and you wind up facing different threats every time. You need to be able to improvise, be flexible, and work with the situation you're facing.

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Section II. Lessons
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II 1. A Question of Leisure

I remember a series of nursery rhymes from when I was a young boy.

If my memory serves me, one of them went like this --

*The bear went over the mountain
The bear went over the mountain
The bear went over the mountain*

*To see what he could see
To see what he could see
To see what he could see*

*But all that he could see
Was*

*The other side of the mountain
The other side of the mountain
The other side of the mountain*

Then there is, of course, the famous joke about the chicken --

Q: Why did the chicken cross the road?

A: *To get to the other side.*

And then there's the famous book by John Kabat Zinn, "Wherever You Go, There You Are."

(It's too bad, the title ruins the ending and gives the whole thing away.)

It would be an eminently sensible thing to ask, "Wait, why, Mr. Marshall, do you look to find and play exceedingly difficult computer games? And why do you take computer games of lesser difficulty and impose arbitrary conventions and your own rules on them which are designed simply to make the game more difficult and less forgiving?"

Entirely fair questions.

I could list you a set of benefits of doing so; in fact, I'll share many of those benefits momentarily, and the mental models gained and lessons learned and such.

But any such list would be necessarily incomplete. A better reply would be, simply:

"Why do anything?"

We could broadly separate out the reasons for doing things into (1) means and (2) ends.

Most people who work for money, do so not purely for love of money itself, but for what money can buy. (I get that we're not exactly in massively innovative philosophical territory here.)

We could nail down what people's final values are, their terminal values, the thing they just throw their hands up in the air and say "That matters because it just does" and don't explain any more.

I have a slightly more rigorous system of ethics and what I believe is right and wrong, but alas, I'm not superhuman. I can't write, do commercial work, do creative work, do nonprofit work, teach, speak, prepare, and otherwise get stuff done *all* the time. (I've sometimes tried; the result of nonstop work is burnout.)

So, I take leisure. Grudgingly. Frankly, I think leisure is greatly overrated. I like producing things and making the world a better place. But when I don't sleep, I get fatigued; if I don't eat for a few days in a row, my body and mind start to slow down; the effects of not drinking water kick in sooner, and so on.

...and if I don't take leisure and take a break at all, my mind doesn't compile and recharge, and eventually I'm grinding away through life, ineffectively, uninspired, and not very productive.

So, I take rests and breaks. I've come around entirely on the concept of naps and try to nap daily; the boost after even a short nap is roughly a 10x boost in creativity and perhaps a 2x boost in work speed as opposed to just powering through the mid-day lull.

Likewise, I read a lot, primarily history, and I study a lot of topics with a strong amateur's interest.

Oh and, sometimes, more rare these days, I play games.