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What is a video game designer?

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Rather than begin this article by trying to justify the video game industry's position as an entertainment giant or validate video games as art, we're going to immediately dive into the role of a key player in game development. This creative position can be extremely rewarding and offers the opportunity for talented individuals to entertain gamers for hours on end. More and more students are planning to take on this role and turn it into a successful career as colleges are now offering courses and degrees for this particular field. However, it is still very possible to claim your spot on a development team if you can creatively demonstrate what the role calls for. So grab a seat (pretty good chance you've already done that), and prepare yourself for an all-inclusive trip into the world of the Video Game Designer.

When you play a video game, it's very easy to pinpoint what a 3D modeler or animator contributes to the game experience. Same goes for the sound engineer and music composer. Of course, the game wouldn't even run were it not for the thousands of lines of code written by the programmers. But what about the not-so-obvious components? For example, in a first-person shooter, who determines how many rounds a gun will hold? Or how powerful each round will be? Or the rate of fire? Or reload time? In an adventure game, who causes the red door to open when the red key is used? In an RPG, who sets up the skill trees and economy? Last of all, and most important, who is responsible for making the game fun to play?

Relax, your intelligence is not being insulted, but what you're going to see is the Game Design role is arguably the most diverse in the industry. A Game Designer's main function is to conceive the elements of gameplay, and to turn those elements into an interactive experience for the player to enjoy. This requires a robust skill-set both technically and artistically, because the Designer uses level editing software to build levels in a game, as well as high-level programming (scripting) to make things happen in the game world. What you must understand is that a Game Designer does not show up to work and simply write stories, character bios, and game ideas. Brainstorming and coming up with cool concepts are what a Designer does 10% of the time. The remaining 90% is comprised of the execution of the ideas; and, in order to make this happen, the Designer utilizes numerous artistic and technical tools.

The design process begins with ideas, and these ideas need to be written up. A program like Microsoft Word is used everywhere, and most game and gameplay concepts are type up first before being distributed. Game Designers need to be become advanced users of word processing software, as they'll want to integrate tables, images, creative formatting, a table of contents, headers and footers, and more beyond simply typing paragraphs. Some documentation, especially a GDD (game design document), can become very large in size, so knowing how to convert your documents to a more reasonable format, like a .pdf, makes it easy to send your docs to coworkers and clients via email. Spreadsheet software like Microsoft Excel is a must-have for Game Designers, and they all put it to professional use. The strength of Excel is its ability for Designers to create mathematical formulas when constructing systems, such as: difficulty curves, experience systems, and economies to name a few. To take it a step further, Designers should become familiar with Excel's scripting capabilities, and

have the know-how to write simple code when designing tables with particular data dependencies. The reason why this is so important is that Programmers often write tools that can pull data directly from Excel and convert it into game code.

Microsoft Visio is a popular example of diagramming software used by all Game Designers for the purpose of creating flowcharts and pipelines. What happens after a player fails a mission? What screen pops up after a player quits out of the game? What steps does a player take to save or load a game? Somebody has to design all of this, and there's no better way to do it than with a flowchart. Ideally, the entire flow of the game should be diagrammed, as this will make your programmers extremely happy, which might garner you a new feature later in development. Always make your programmers happy.

Adobe Photoshop is a no-brainer. All Game Designers use it, and if they don't, they at least know how to use it. Designers don't touch up photos or create textures in Photoshop; instead, they create mock-ups of their vision of how they want the game to look and play out. Before Designers build a puzzle in an adventure game, they first create the concept in Photoshop. This is where they determine where items (like health pickups or ammo) appear, where enemies spawn, or where the trigger that starts the next cutscene is placed. You don't need to be an advanced user like a 2D illustrator, but you should know how to use layers, edit reference pics, create text, and export files into different formats.

White board. Especially in a team environment where improvised meetings can occur instantaneously, the white board is essential for making important notes, design sketches, design tasks, and more on the fly. Sure, it's not software, but walk into any professional development studio and you'll find a white board. Studios either license a game engine or create

their own proprietary development code, and this determines the kind of game creation tools a Designer uses. Licensed tech, like Unreal or Unity 3D, are popular enough for a Game Designer to become very proficient at, and then take that expertise to relevant studios. The components of these licensed packages that Designers use are the level editors and scripting languages. If you become very skilled with building worlds in Unity 3D, for example, you can essentially walk into any studio that uses it and begin designing for them with very little ramp-up time.

Regardless of the title you're given, it takes hard work to reach the top. Great games come from great teams, and great teams are made up of talented individuals. Talent comes from experience, taking your job seriously, being professional, and pushing the envelope. Surround yourself with talented people and you'll learn something new each day. Above all, you must have the desire to succeed and to be great. Envision yourself being the head of a studio, or accepting an award for "Game of the Year," or conceiving that great new design feature that everyone else will attempt to emulate. With everything you design, no matter how insignificant or superior, it all deserves your best. That is how you will make an impact in the industry as a Game Designer. Take it from Steve Jobs when he said, "I want to put a ding in the universe."

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