

## Video Game Design Foundations ©2014

### Chapter 3: Evolution of the Game—Glossary

**Atari 2600.** First commercially successful video game system (1977) for homes; allowed the owner to purchase individual game cartridges.

**Backward compatibility.** Older games can be played on newer game consoles.

**Balance.** Mix of physical, mental, work, and play activities.

**Behavioral development.** Learning how to react to situations.

**Bit.** Computer term for a single binary digit of 0 or 1.

**Board game.** A portable game environment in which players use imagination to engage in mental or strategic competition.

**Brain-extremity pathways.** Nerve connection from the brain to movement points throughout the body.

**Card games.** A series of uniquely printed cards used within set rules of a game.

**Carpal tunnel syndrome.** Condition that causes pain or tingling in the hand resulting from a pinched nerve in the wrist.

**Chance.** Adds interest to a game by allowing different random results each time a game is played.

**Cocooning.** Social phenomenon where people do not interact with their physical environment.

**Cognitive development.** Building of intelligence through learning, remembering, and problem solving.

**Commercial success.** Product that makes enough of a profit to continue producing it.

**Compact disc, read-only memory (CD-ROM).** Provides interchangeable video games on an inexpensive plastic disc; replacement technology for the ROM game cartridges.

**Compete.** To play against an opponent with a goal or victory condition to determine who is the best.

**Competitive advantage.** Benefit to consumers that other companies do not provide.

**Content descriptors.** Part of a rating system; indicates elements in the game that may have triggered a particular rating.

**Coordination.** How well your hands, feet, and eyes work together to perform a task.

**Desensitized.** Repeated exposure to an unpleasant event until it no longer results in an emotional reaction.

**Digital video disc (DVD).** Similar to a CD-ROM or music CD, but can hold much more information.

**Entertainment Software Rating Board (ESRB).** Nonprofit, self-regulatory body that assigns age and content ratings for computer video games, enforces industry-adopted advertising guidelines, and helps ensure responsible online privacy practices for the interactive entertainment software industry.

**Game Boy.** Handheld device released by Nintendo in 1989 with 8-bit processor and interchangeable ROM cartridges.

**Game environment.** Setting altered or designed to play a specific activity.

**Game-specific controllers.** Game controllers that can only be used for a specific game, like a guitar controller for *Rock Band*.

**Generation 1.** First series of video games and systems; available to consumers in the early 1970s.

**Generation 2.** Began in the mid-1970s when home video games became popular and could be played on an interchangeable-cartridge platform.

**Generation 3.** Began in the mid-1980s and featured home video game computer systems with 8-bit processors that could process better movement, graphics, and sound.

**Generation 4.** Began in the late 1980s and featured computer game systems with 16-bit processors that led to improved game graphics.

**Generation 5.** Began in the mid-1990s; introduced 32- and 64-bit game systems with advancements in computer technology and game storage.

**Generation 6.** Began in the early 2000s; featured 64- and 128-bit game systems, DVD-ROM technology, and realistic 3D movement.

**Generation 7.** Began in the mid-2000s; introduced multicore processor game systems and new user interfaces; featured immersive gameplay and online play.

**Hand-eye coordination.** Ability to move your hand in response to a viewed object of action.

**LAN party.** Players meet at a location and connect their machines to a local area network (LAN) to play an online game.

**Licensing agreement.** Provides third-party designers the rights to obtain the game source code for a specific system.

**Light gun.** User interface that senses the direction the gun is pointed and interacts with objects on a cathode ray tube television.

**Mental acuity.** Person's learning, problem-solving, and reasoning ability.

**Motion-based controllers.** User interface that allows the player to move in real space with the action in the game environment.

**Motor skills.** Combination of hand-eye coordination, muscle memory, and brain-extremity pathways to make movements appear smooth.

**Motor skills development.** Learning to control muscles to perform necessary tasks.

**Muscle memory.** How the muscles in the body remember practiced movements.

**Nintendo Entertainment System (NES).** Began selling in 1985 and dominated the home system market at that time.

**Online play.** Players connect via the Internet to compete with other players.

**Patent.** Issued by the government patent office to protect the rights of designers.

**Physical dexterity.** Skill or ability at performing physical tasks.

**Physical trials.** Competitions featuring athletic abilities as the basis in determining the winner.

**Play.** Participation in an entertainment activity.

**PlayStation.** A 32-bit video game system from Sony that used CD-ROM technology.

**Poker.** Popular card game with several variations.

**Ported.** Video game source code translated to work on a different video game system.

**Proprietary game.** Designed to play only on a single manufacturer's game console.

**Puzzles.** Require the player to mentally analyze and solve a problem.

**Random-number generator.** Any device used to create a number at random within a given range of numbers.

**Rating symbols.** Suggest age appropriateness for a game; found on the front of game packages.

**Reflex.** Quick, involuntary movement.

**Role-playing games (RPGs).** Allow for very deep immersion as players assume a character and play the role.

**ROM cartridge.** Read-only memory chip in a plastic case that stores the game program.

**Royal Game of Ur.** One of the earliest known board games; played similar to backgammon.

**Sega Genesis.** First successful 16-bit video game console (1989); featured improved graphics, colors, and movement in 2D.

**Six-axis controller.** Interface device for the Sony PlayStation that allows the player to shake or twist the controller to input some commands.

**Socializing.** Interacting in a group environment.

**Source code.** Underlying game creation code.

**Stereotype.** Opinion that all members of a group of people have the same characteristics; usually considered a negative.

**Super Nintendo.** A 16-bit game console introduced in 1991 and using a ROM cartridge system.

**Tarot cards.** Playing cards common in the late 1300s.

**Themed board game.** Board games with a central theme.

**Third-party providers.** Manufacturers licensed by the game console manufacturer to make games for that system.

**Video game arcade.** Variety of coin-operated video games gathered in one location and offered to the public at a price per play.

**Wii.** Generation 7 game console manufactured by Nintendo; featured the introduction of the motion-based controller.

**Xbox 360.** Generation 7 video game console manufactured by Microsoft.