

# Game Design Patterns

## Core Concepts

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Art by Jason Weiser

# Takeaways

1. **Game Design Patterns** and why would you want them
2. Patterns are connected into a **Pattern Language**
3. You create your own patterns to **solve your design problems**
4. Patterns help you **communicate your design ideas** to others
5. You can **use patterns to design**
6. Patterns help you **coordinate design** in your studio
7. Patterns can **impact the bottom line**

# Who am I?

Game Design Student

Created and earned two game design degrees

Industry Veteran

Poptropica.com, FunBrain.com, Indie Board Games and Larps

Game Design Professor

Northeastern University: GAME/GSND

Speaker

ECGC, GDC, GDC Eu, DevCom, Pax/PaxDev, GaymerX, BFIG

Author

Pattern Language for Game Design, Perspectives in Game Design, Interactive Theater



**Northeastern University**

College of Arts, Media and Design



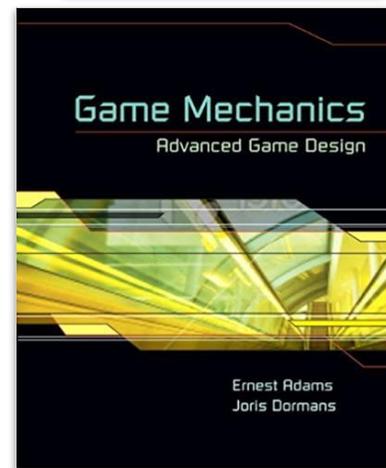
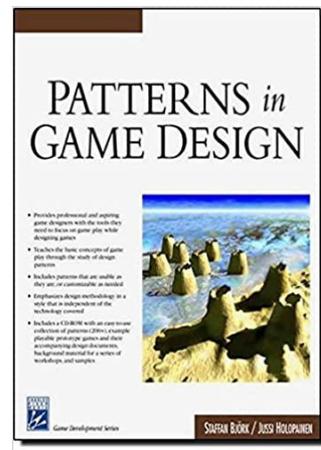
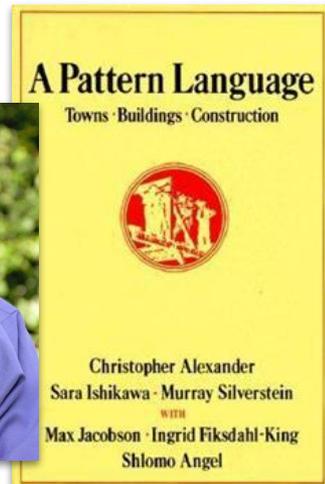
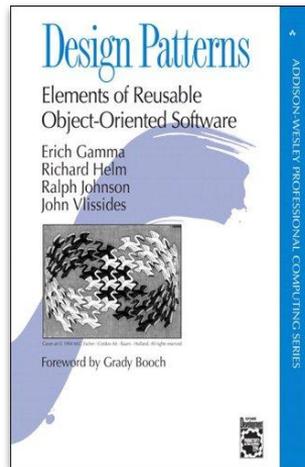
**Metahex Studio**



# What is a Pattern

"Each pattern describes a problem which occurs over and over again in our environment, and then describes the core of the solution to that problem, in such a way that you can use the solution a million times over, without ever doing it the same way twice."

- Christopher Alexander



# What is a Pattern in Game Design? *(According to me!)*

Design Problem

Solution (Pattern Description)

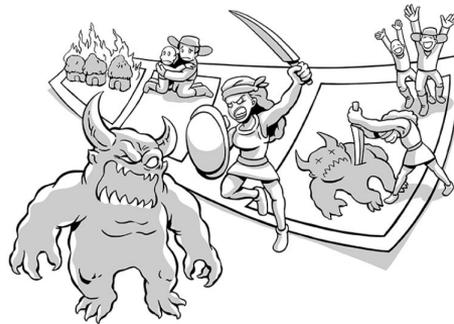
Example Games

Keywords

Related Patterns

Confidence

## The Three Pillars of Meaning in Emergent Narrative



Emergent

*When developers provide context, motivation, and consequence players can construct meaningful narratives.*

**Design Problem:** Given the reality of limited resources, when creating design elements that encourage emergent narratives, designers need to maximize the narrative potential of every element. How can designers know if a given game element will contribute to meaningful emergent narratives?

**Pattern Description:** To allow players to construct meaningful emergent narratives, developers should provide players with context, motivation, and consequence for their actions in the game. There are many child patterns that contribute to this pattern; two are listed and 12 other possibilities are provided in the suggested exercise, and there may be more. But each one contributes to either the context of, motivation for, or consequences of an event that could be part of an emergent narrative.

**Author(s):** [Chris Barney](#)

**Groups(s):** Pattern Language for Game Design

**Pattern:** 2

**Confidence:** November 17th 2020, 9:03am

**Created On:** November 19th 2020, 12:48pm

**Edited On:**

**Seed:** Exercise 11: Emergent Narrative Patterns — What makes emergent events narratively meaningful?

**Keywords:**

- Autonomy
- Choice
- Costs
- Difficulty
- Economy
- Emergent Narrative
- Meaning
- Writing/Narrative
- Deep Interlock
- Not Separateness

# How Do You Make A Pattern

## General Patterns Exercise

1. Name a design element.
2. Name (*at least*) 10 games that use that element.
3. Describe how each of those games uses the element you chose.
4. Describe the design problems the games use the element to solve.
5. What are the Patterns in the ways the elements are used that relate to the problems they solve?
6. Pick one of those patterns and describe it. (*on the Pattern Library website*)
7. You may repeat step 6 for each pattern you observed.

# Pattern Library Website:

### Editing: And Now I Guess We Are Doing This

**Pattern Name**

**Design Problem**

**Pattern Description**

**Pattern Image**

**Pattern Image Description**   
This will be used as alt text and caption.

**Pattern Confidence**

**Author(s)**

**Group(s)**

**Pattern Seed**

**Keywords - Categories - Properties**

**Example Games**

### Editing: Alan Wake

Date picker inline

# General Patterns Exercise

1. Name a design element

## Jumping

Functional design element, for the purpose of this example I am considering jumping in relation to the player controlled character jumping.



# General Patterns Exercise

## 2. Name (at least) 10 games that use that element

- Donkey Kong/Jumpman
- Q-Bert
- Super Mario Bros.
- (Braid as subversion?)
- Mirror's Edge
- Gravity Rush/VVVVVVV
- Alice / Super Mario World / Crackdown
- Guild Wars 2
- Tomb Raider (Reboot)
- Prince of Persia (2008)
- Poptropica
- Super Meat Boy
- StreetFighter/Soul Caliber/Devil May Cry
- Doom/Quake/Spllosion Man
- Tribes
- Assassin's Creed
- Canabalt
- Sonic
- Trials HD



# General Patterns Exercise

## 3. Describe how each of those games uses the element you chose.

- **Donkey Kong / Jumpman, Geometry Dash** - Jumping is used to avoid enemies and traverse the 2d space.
- **Q-Bert** - This game is Pac-Man-like in that it is a reflex-based puzzle game. It uses jumping as its only movement mechanic.
- **Super Mario Bros.** - Jumping is used to avoid enemies, traverse 2d/3d space, and as a way to attack enemies.
- **Mirror's Edge** - First-person jumping as pure traversal
- **Gravity Rush / VVVVVV** - Jumping with control of physics
- **Alice/Super Mario World /Crackdown** - Jumping with a glide. Also, in-air control?
- **Guild Wars 2** - Jumping for exploration and as a puzzle. Little need in world traversal, none in combat.
- **Tomb Raider (Reboot)** - Jumping as a puzzle mechanic.
- **Prince of Persia (2nd reboot)** - Assisted jumping. The game is single-player so that maybe just a double jump
- **Doom/Quake/Splision Man/Tribes** - Jumping for world traversal. Jumping assisted by the physics of unrelated systems (Rocket Jumping, Ski Jumping, Bunny Hopping).
- **StreetFighter/Soul Calibur/Devil May Cry** - Jumping for world traversal, jumping as a combat move
- **Poptropica, Super Meat Boy** - Jumping for world traversal with very unrealistic physics.
- **Trials HD** - Jumping in unrealistic environments with very realistic physics.
- **Assassin's Creed** - Jumping 'on rails' for world traversal, jumping to escape enemies

# General Patterns Exercise

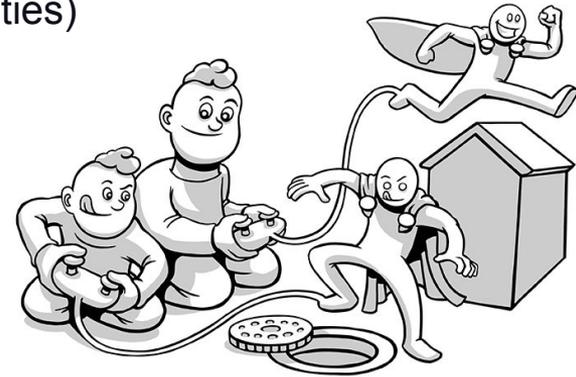
## 4. What design problems do the games use the element to solve?

- Navigation through the world space (All Games Listed) - All games that I could think of that used jumping used it as part of world traversal. At a base-level jumping gives the player **more movement options**.
- Creating a **sense of autonomy** in the player. (All Games Listed) - I think that this is because jumping increases the players' ability to move in the world. There is some subtlety in how this works, though. Given that in some games jumping serves to make the character able to interact with the world in a way that more closely mirrors the real world, and in others jumping serves to differentiate the character from the player by allowing the character to move through the world in ways that the player can not.
- Creating a **sense of danger** for the player (*Super Mario Bros.*, *Mirror's Edge*, *Gravity Rush / VVVVVV*, *Super Meat Boy*, *Tomb Raider*, *Prince of Persia*, *Trials HD*) - Jumping has the real possibility of causing death in all of these games. The ratio of how dangerous jumping is to how much it lets you traverse the world seems to directly relate to the amount of power vs. fear that it creates in the player. In a game like *Super Mario Bros.*, you may die from jumping incorrectly, but mostly it increases your ability to navigate the world. In a game like *Geometry Dash* jumping does allow you to progress through the world, but it mainly the thing that causes you to die when you do it incorrectly.
- **Adding variety** to the ways the player can interact with the world. (All Games Listed except *Q-Bert* and *Geometry Dash* in which jumping is the 'only' way you move through the world. But particularly *Guild Wars 2*, where it is not a primary world traversal tool and mostly used in optional jumping exploration puzzles.)
- Enabling **player mastery** of game systems through creating complicated, intricate systems that require player **skill growth**. (All Games Listed) - The degree to which this is the point seems related to how central a mechanic jumping is and how complicated and subtle the jump mechanics are.
- Enabling **player mastery** of game systems by creating opportunities for the player to **subvert** them: (*Doom/Quake*, *Tribes*) This is interesting in that, in the case of these games, the mechanics were not intended to allow player subversion. Rocket Jumping and Ski-Jumping were on some level bugs that players found and used to enhance gameplay. The developers recognized the value of the bugs and incorporated them into future games intentionally.
- Character building through **giving the character abilities the player does not have**: (*Mirror's Edge*, *Gravity Rush*, *Alice*, *Tomb Raider*, *Poptropica*, *Assassin's Creed*) - Superhuman jumping abilities help make the characters seem superhuman. Improving a character's most basic movement abilities probably more profoundly differentiates them from the player.
- Maintaining immersion in the game world by making player abilities and movement match the player's understanding of **how the real world works**. (Interestingly none of the example games use jumping in this way, but other games do - *Silent Hill 2*, *Flashback*)
- **Enhancing combat** by enhancing aggressive player actions. (*Street Fighter/Soul Calibur*, *Super Mario Bros.*, *Devil May Cry*) The jumping itself may not be aggressive, but it serves to amplify the character's aggressive action. A jumping punch to the head is just more impactful than a standing punch to the head.

# General Patterns Exercise

5. Are there Patterns in the ways the elements are used that relate to the problems they solve?

- More complex mechanics provide more opportunities for player skill. (Autonomy and Mastery)
- When power has a cost, it's frightening to use (Dangerous Jumping)
- Two great things that go great together (Jumping and Punching)
- She's just like me! vs. I want to be her when I grow up! (Maintaining immersion by creating realistic character abilities vs. Character building through superhuman abilities)



# General Patterns Exercise

6. Pick one of those patterns and describe it on the Pattern Library website.



One of these days that's going to get you killed.



Author(s):	<a href="#">Chris Barney</a>
Groups(s):	Pattern Language for Game Design
Pattern	2
Confidence:	
Created On:	June 13th 2020, 11:14am
Edited On:	November 16th 2020, 9:10am
Seed:	Exercise 1: Basic Patterns Exercise — Jumping
Keywords:	<a href="#">Balance</a> <a href="#">Character Progression</a> <a href="#">Mechanics</a>

*Jumping over a dangerous pit and suffering from a weapon overheating are both examples of this pattern in action.*

**Design Problem:** How do you maintain game balance and create tension when giving the player greater power in their interactions with the game world?

**Pattern Description:** To maintain balance and create tension when designing character abilities, a designer may introduce consequences resulting from using those abilities. The result may be something natural, like falling into a pit of lava you try to jump over, or it may be something mechanical, like weapon heat build-up, or a stamina meter.

**Example Games:** [Super Mario Bros.](#) (i)

The ability to jump, which increases the character's ability to move through the world and defeat enemies, also puts him in danger. Failing to jump over dangerous obstacles can result in Mario's death. Similarly, failing to jump over an enemy results in the enemy killing Mario.

[Sekiro: Shadows Die Twice](#) (i)

Stealth-killing enemies is the easiest way to defeat them, but failing to execute a stealth kill alerts the enemy and nearby enemies and suddenly puts you in a dangerous situation.

[Anthem](#) (i)

Firing weapons increases their heat. Failing to manage that resource, to self-limit the damage you are doing, can result in not being able to fire your gun when you most need it.

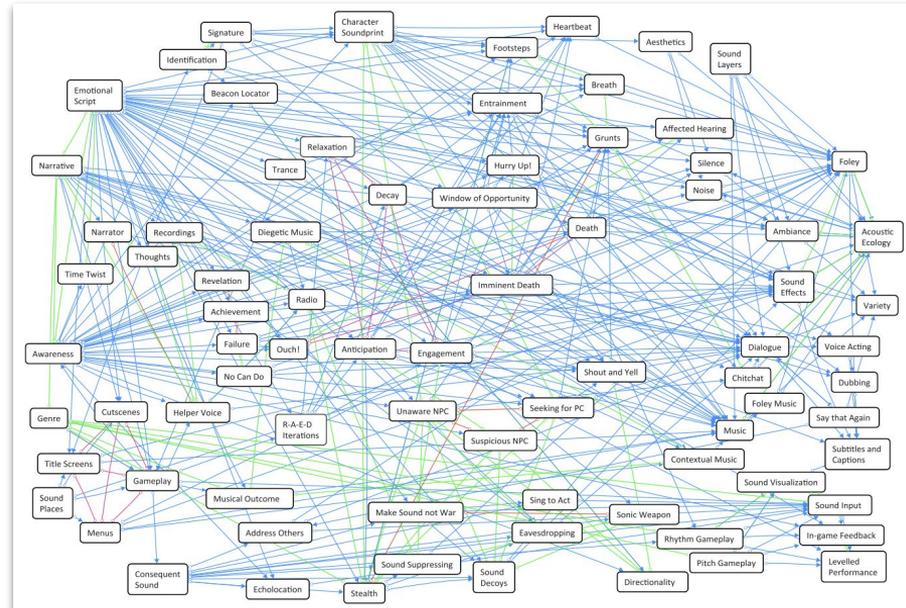
[The Legend of Zelda: Breath of the Wild](#) (i)

Link can climb almost anything, but he has a stamina meter, so if he tries to climb something too high he will fall. He can jump off things and glide, but if he runs out of stamina, he falls to his death.

# What is a Pattern Language

"In short, no pattern is an isolated entity. Each pattern can exist in the world only to the extent that is supported by other patterns: the larger patterns in which it is embedded, the patterns of the same size that surround it, and the smaller patterns which are embedded in it."

- Christopher Alexander



*From Design Patterns in Games: the case for Sound Design*  
by Valter Alves and Licinio Roque

# How Do You Make A Pattern Language

## First, Connect the Patterns

- Keywords
- Parents
- Children
- Additive / Subtractive Patterns
- Alternate Patterns

## Second, Understand Your Scope

- How broad/deep is your collection?
- How **confident** are you in your patterns?
- How **confident** are you in your links?
- Who is going to use your language?

## Third, Make Patterns Findable

- Filter by Keywords
- Link to Related Patterns
- Search Titles
- Search Text
- Share your patterns with others

 Chris Barney

**USER PROFILE:**  
 Display Name: Chris Barney  
 First Name: Christopher  
 Last Name: Barney  
 Contact Email: Ryha2000@gmail.com

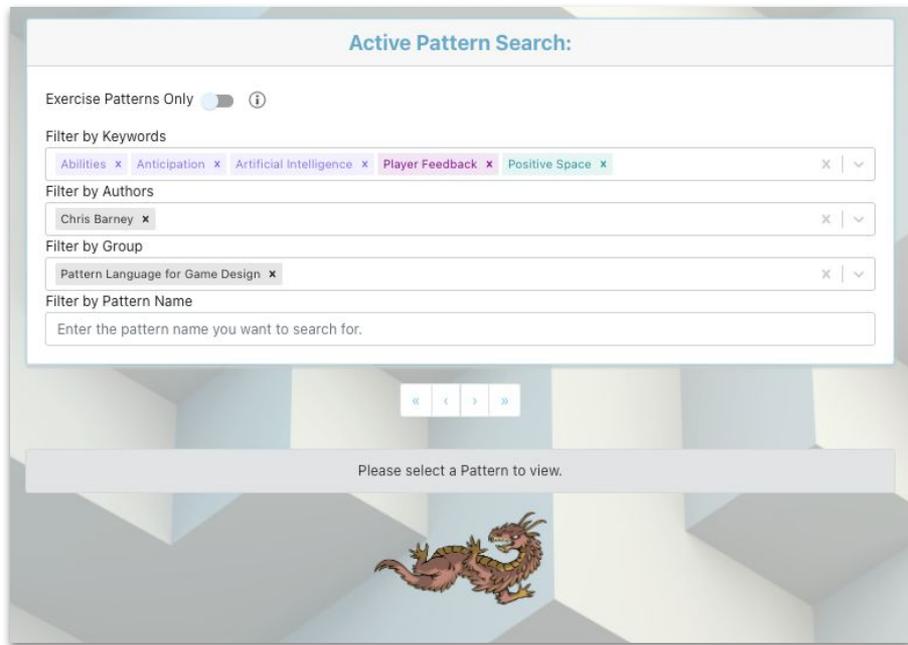
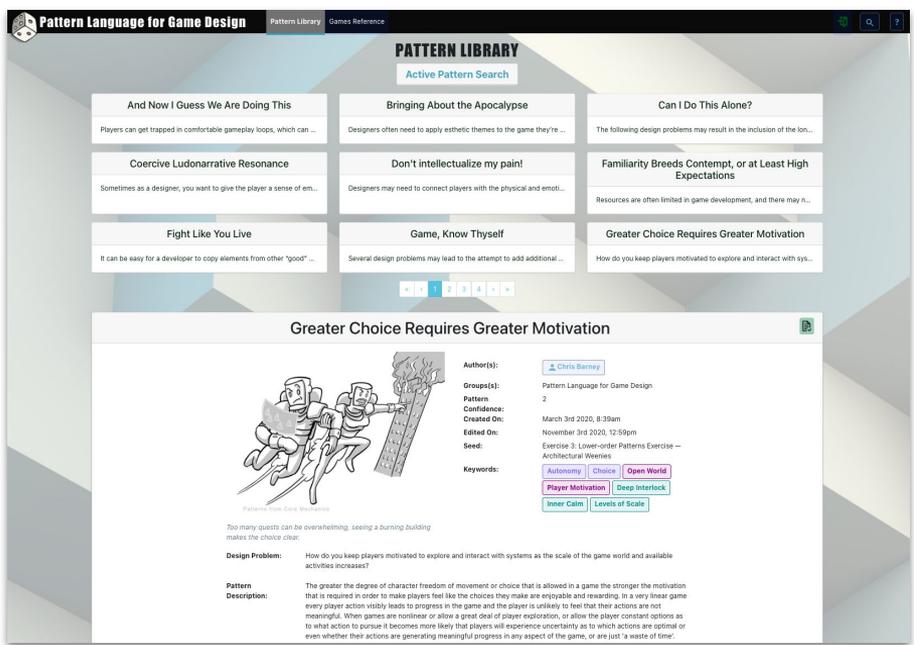
**GROUPS:**

Group Name: Pattern Language for Game Design  
 Group Type: Publication  
 Group Role: Group Manager — Author  
 Group Members: ★ Christopher Barney  
 ☆ [blurred]  
 ☆ [blurred]  
 ☆ [blurred]  
 ☆ [blurred]  
 ☆ [blurred]

Group Name: Northeastern University  
 Group Type: School  
 Group Role: Group Manager — Professor  
 Group Members: ☆ [blurred]

# A Library for Patterns in Game Design

This is one possible implementation of a Pattern Library allowing developers to collect and search patterns.

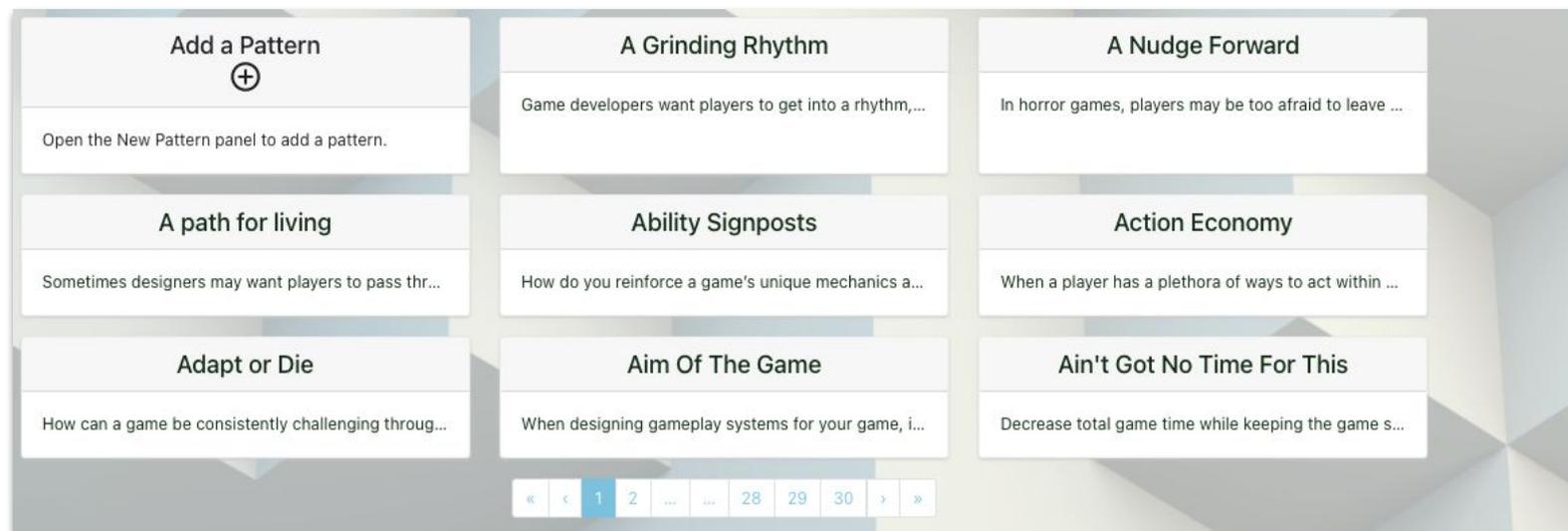


# Why do I need my own?

The problem space of game design is too large for any one group to derive all the patterns that define it.

Your problems are too specific to solve with just patterns created for other problems.

Your own language can become the framework that you hang your understanding of design on.



# What would I do with it?

Learning Design

Teaching Design

Understanding your successes and failures

Solving a specific design problem

Planning your next game

Communicating your design ideas clearly

Reducing risk by using proven patterns without creating derivative games



# Design Patterns as Pedagogy: *Learning and Teaching Functions as Proposed by Shuell and Moran*

## Knowledge Manipulation

- **Encoding:** Developers create their own patterns, deciding how to express the ideas they have observed. They choose the pattern title and image to help solidify the concept the pattern captures.
- **Comparison:** During the first stages of the pattern process, designers compare the use of their seed technique across existing games. Later in the process, they identify the best applications of the pattern that they have articulated as it is applied in existing games and choose the most diverse applications as examples to include in their pattern.
- **Repetition:** Within a specific iteration of the process of pattern discovery, designers analyze ten or more games looking for uses of their seed technique. The larger process of language creation involves repeating the pattern creation process many times and reviewing the created patterns looking for connections.
- **Interpreting:** Designers must examine existing games which contain the techniques they are investigating, understand the use of those techniques, and then articulate the shared aspects of their purpose and implementation in the form of a pattern. Later, they must begin with a pattern and design a game that implements the pattern to achieve the previously stated purpose.
- **Exemplifying:** When completing an exercise, developers must provide examples of the use of the pattern. These examples usually differ from the games that were analyzed as the source for the pattern. Additionally, designers are encouraged to find the most diverse set of examples possible to illustrate the scope of their pattern.

## Higher Order Relationships

- **Combination, integration, synthesis:** Individual patterns are created by observing and combining the purpose and implementation of techniques across games. Pattern languages are created by articulating the relationships between patterns in terms of subject, purpose and function.
- **Classifying:** Each pattern must be assigned a set of keywords to place it within the context of existing design theory. Three levels of keywords are provided: keywords which identify the patterns' subject matter, categories which place it in an area of design, and properties which indicate its purpose.
- **Summarizing:** The description of the pattern is a summary of the analysis that the designer has undertaken to derive the pattern.
- **Analyzing:** Patterns are created through the analysis of a set of existing games; these must be decomposed and understood in terms of the seed technique of the pattern exercise.

## Learner Regulation

- **Feedback:** As part of the language creation process, patterns are peer reviewed and revised to best form the connections necessary for the language.
- **Evaluation:** On project completion, projects are peer reviewed to analyze the efficacy of their implementation of the patterns.
- **Monitoring:** During the use of patterns in design projects, the implementing designers provide feedback to the designers that developed each pattern.
- **Planning:** The use of patterns in practical design projects is intrinsically a planning process wherein the designers use patterns to structure their design prior to implementation.

## Productive Actions

- **Hypothesis generation:** The process of pattern formation consists of analyzing data and forming a hypothesis.
- **Inferring:** Designers take existing design knowledge, examine existing examples of its use, and infer the patterns that it forms.
- **Explaining:** Creating the textual artifact of a pattern using the provided template allows designers to articulate and explain the theory they have constructed. Patterns are then further used to explain the more complex composite concepts that form a complete game design.
- **Applying:** Using patterns as the basis of design in practical game projects allows designers to apply the concepts that they have articulated and validate their efficacy.
- **Producing and constructing:** From simple scene implementations using a signal pattern to complex full game designs, the practical execution of a design into a game provides designers with the opportunity to demonstrate their learning in functional game artifacts.



# Can Patterns Scale to Studio-Wide Use?

In the Summer of 2021 40+ students began a year long game design project creating a Pattern Language as the basis for their design.

In the Fall 10 students continued and 40 new students joined the project. Their introduction began with studying the chosen Pattern Language.

**Decisions are made and disputes resolved by considering which choices are best supported by the Pattern Language.**

The students are currently on track to complete their vertical slice by the end of this semester and begin full production in the Spring with a target of having a shippable game at the end of the academic year.



# Takeaways

- A Game Design Pattern can help you understand and solve a design problem.
- A Pattern Language connects patterns so you can use them to solve complex problems or design whole games.
- Patterns you create yourself will be more useful than those you get from others.
- A Pattern Language can be a shared vocabulary to improve communication between developers.
- Patterns can form a useful basis for design and allow developers across a studio to understand and share responsibility for the design at a deep level.
- Validated patterns with high confidence may help reduce risk.

# Resources

My Free Pattern Library and Book on Game Design Patterns  
[patternlanguageforgamedesign.com](http://patternlanguageforgamedesign.com)

My Design Blog with many articles on patterns  
[perspectivesingamedesign.com](http://perspectivesingamedesign.com)

Application of Pattern Language for Game Design in Pedagogy and Design Practice  
<https://www.preprints.org/manuscript/202107.0485/v1>

Staffan Björk and Jussi Holopainen's Collection (800+ patterns)  
[virt10.itu.chalmers.se/index.php/Category:Patterns](http://virt10.itu.chalmers.se/index.php/Category:Patterns)  
Visualization Tool: <http://gdpv.is/>

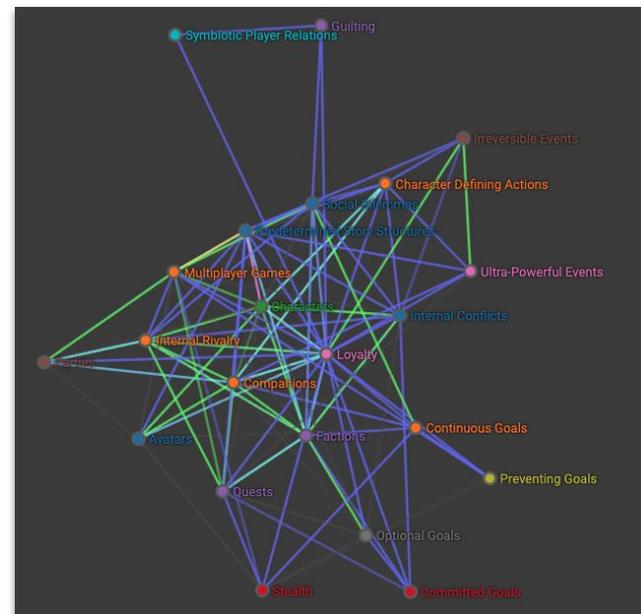
From Design Patterns in Games: the case for Sound Design (Alves and Roque)  
[www.fdg2013.org/program/workshops/papers/DPG2013/b1-alves.pdf](http://www.fdg2013.org/program/workshops/papers/DPG2013/b1-alves.pdf)

Patterns in Game Design (Bjork and Holopainen)

Game Mechanics: Advanced Game Design (Adams and Dormans)

Pattern Theory (Helmut Leitner)

A Pattern Language (Christopher Alexander)



Visualization tool for Björk & Holopainen's Collection

# Some Advanced Topics

OWL 2 Ontology Language Definition

Using ontology reasoners

Games Reference and Game Demographics

Research and Validation

Generative Design Patterns



# Student Pattern Project:

## Using Patterns To Understand Techniques: Shooting

Based on a pattern that addressed the potential for stagnate gameplay in games with a shooting core mechanic this group created a game where the character switches dimensions every time they fire their gun creating a kinetic shooting puzzle game with potential on par with Portal.



**Shoot to Thrill**

Author(s): [Liam Cristello](#)

Group(s): 1

Pattern: February 29th 2021, 3:23pm

Confidence: April 5th 2021, 3:45pm

Created On: Edited On:

Seed: Exercise 20: Using Patterns to Understand Techniques - Shooting

Keywords: [Core Mechanics](#) [Shooting](#) [Variation](#)

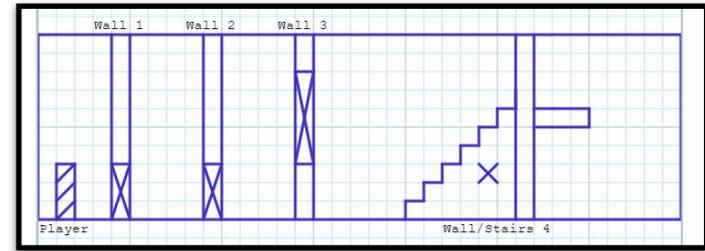
**Design Problem:** Players like shooting games because it allows them to build up precision and skill in an environment where nobody actually gets hurt. But many shooting games often utilize the same general principles, to the point of stagnating the mechanic altogether.

**Pattern Description:** Designers go about saying up shooting by completely swapping out the types of scenarios it is useful for. By changing up how players go about utilizing shooting mechanics, they are able to take one relatively static mechanic and make it dynamic and interesting again.

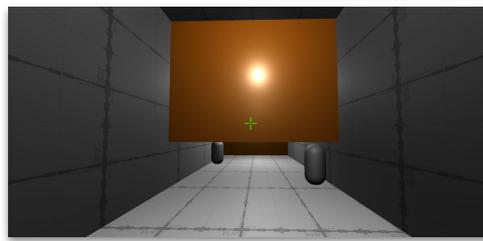
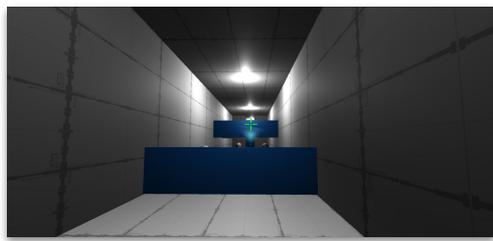
**Example Games:**

- [The Legend of Zelda: Breath of the Wild](#) 0: When Link pulls out his bow, time slows down in game, allowing him to make precise shots and think critically about how to go about combat.
- [Portal 2](#) 0: Players can shoot specific surfaces to create doorways for interesting puzzle-solving applications.
- [Fallout 3](#) 0: The VATS system allows players to take carefully aimed shots and think about where specifically to shoot enemies for critical damage.
- [Team Fortress 2](#) 0: Players can shoot at their feet to propel themselves forward, allowing them to take a whole new look at how to use their weapons to better define the tempo of a team fight.
- [Spatium 2](#) 0: Players can shoot surfaces on the map with ink, creating new interesting routes for mobility, and increasing their zone of map control.
- [Rainbow Six Siege](#) 0: Every headshot is an instant kill, encouraging players to focus more on positioning than on strict aiming and shooting.

**Related Patterns:** [Familiarity Breeds Contempt, or at Least High Expectations](#)  
To play with player's expectations, designers will put spins on age-old mechanics, such as shooting - Confidence: 2



Pattern by: Liam Cristello  
Project by: Christopher Boyd,  
Aharon Leichtman, James  
Mcmanus, Julia Sherbal, Jim Wu



# OWL 2 Ontology Language Definition

## Classes

Class: example\_game

Class: exercise

Class: game

Class: game\_available\_link

Class: game\_developer

Class: game\_info\_link

Class

Class

Class: game\_release

Class: game\_type

Class: group

Class: group\_type

Class: keyword

Class: pattern

Cl: Object Properties

Cl:

ObjectProperty: hasAuthor

Domain: pattern

Range: user

Cl:

Cl:

Cl:

ObjectProperty: hasExampleGame

ObjectProperty: hasGamePlatform

Domain: game

Range: game\_platform

ObjectProperty: hasGamePublisher

ObjectProperty: hasPatternState

Domain: pattern

Range: pattern\_states

ObjectProperty: hasRelatedPattern

Domain: pattern

Range: related\_pattern

ObjectProperty: hasRelease

Domain: game

Range: game\_release

ObjectProperty: hasSuggestedExercise

Domain: pattern

Range: pattern\_suggested\_exercise

ObjectProperty: hasUser

Domain: pattern

Range: user

ObjectProperty: owl:topObjectProperty

Domain: related\_pattern

Range: pattern

ObjectProperty: relatesTo

Domain: related\_pattern

Range: pattern

## Data Properties

DataProperty:

game\_available\_link\_notes

Domain: game\_available\_link

Range: xsd:string

DataProperty:

game\_available\_link\_source

Domain: game

Range: xsd:string

DataProperty: game\_available\_link\_url

Domain: game

Range: xsd:string

DataProperty: game\_description

Domain: game

Range: xsd:string

DataProperty: game\_release\_date

Domain: game

Range: xsd:dateTimeStamp

DataProperty: game\_release\_name

Domain: game\_release

Range: xsd:string

DataProperty: game\_release\_notes

Domain: game\_release

Range: xsd:string

DataProperty: game\_release\_type

Domain: game

Range: xsd:string

DataProperty: game\_type\_name

DataProperty: pattern\_exercise\_name

Domain: pattern\_exercise

Range: xsd:string

DataProperty: pattern\_exercise\_page

Domain: pattern\_exercise

Range: xsd:positiveInteger

DataProperty: pattern\_image

Domain: pattern

Range: xsd:string

DataProperty: pattern\_image\_description

Domain: pattern

Range: xsd:string

# OWL 2 Ontology Language Definition

<pre> Individual: Autonomy Types: keyword  Individual: Bethesda_Softworks Types: game_developer, game_publisher Facts:   game_developer_name "Bethesda Softworks"   game_developer_notes "Large US based publisher comprising several AAA studios including, Well known for the Elder Scrolls franchises."  Individual: Choice Types: keyword  Individual: Chris_Barney Types: user Facts: hasGroup Northeastern_University  Individual: Exercise_11_Emergent_Narrative_Patterns Types: exercise Facts: pattern_exercise_name "Exercise 11: Emergent Narrative Patterns"  Individual: Exercise_24_Theoretical_Patterns Types: exercise Facts: pattern_exercise_name "Exercise 24: Theoretical Patterns"  Individual: Greater_Choice_Requires_Greater_Motivation Types: pattern  Individual: Northeastern_University Types: group Facts: hasGroupType School  Individual: Open_World_Action_Game Facts:   game_type_name "Open World Action Game"   game_type_notes "Typically third person action game that focuses on world exploration and providing a variety of player activities."  Individual: Personal_Computer Types: game_platform Facts:   game_platform_name "Personal Computer"   game_platform_notes "Personal Computer running the Windows operating system."  Individual: Published Types: pattern_state Facts:   pattern_state_name "Published"  Individual: School Types: group_type Facts:   group_type_description "Educational institution, college, or university teaching game design and producing design patterns."   group_type_name "School" </pre>	<pre> Individual: Skyrim_Available_Link_1 Types: game_available_link Facts:   game_available_link_notes "Steam download for the Special Edition release of the game."   game_available_link_source "Steam"   game_available_link_url "https://store.steampowered.com/app/489830/The_Elder_Scrolls_V_Skyrim_Special_Edition/"  Individual: Skyrim_Info_Link_1 Types: game_info_link Facts:   game_info_link_notes ""   game_info_link_source "Official Website"   game_info_link_url "https://elderscrolls.bethesda.net/en/skyrim"  Individual: Skyrim_Primary_Release Types: game_release Facts:   game_release_date "01/01/2011"   game_release_name "Primary"   game_release_notes "Initial release on Windows PC"   game_release_type "Primary"  Individual: The_Elder_Scrolls_V_Skyrim Types: game Facts:   hasGameAvailableLink Skyrim_Available_Link_1   hasGameDeveloper Bethesda_Softworks   hasGameInfoLink Skyrim_Info_Link_1   hasGamePlatform Personal_Computer   hasGamePublisher Bethesda_Softworks   hasGameType Open_World_Action_Game   hasRelease Skyrim_Primary_Release   game_description "Skyrim is the fifth installment in the Elder Scrolls universe. It is an Action RPG in either first or third person, set in an open-world. Sandbox style nonlinear play is exhaustive. Thousands of quests and npc driven mini plots are available, as well as the main storyline quests. The primary character is fully customizable and upgrades in all skills and equipment make for a very wide variety of play experiences. Only Single-player mode is available."   game_image "Skyrim_Image_Link_1"   game_name "The Elder Scrolls V: Skyrim"   video_gameplay "SRTPpN0N0"   video_trailer "SRTPpN0N0"  Individual: Three_Pillars_Relationship_1 Types: related_pattern Facts:   relatesTo Greater_Choice_Requires_Greater_Motivation   related_pattern_confidence 2   related_pattern_description "When you have applied The Three Pillars of Meaning to situations where there are emergent narrative and player choices, then those choices will be meaningful. The more significant you make choices, the more of them your game will be able to support."   related_pattern_type "Child"  Individual: Three_Pillars_Seed Types: pattern_seed Facts:   pattern_seed_description "What makes emergent events narratively meaningful?" </pre>	<pre> pattern_seed_name "Seed for Three Pillars of Meaning in Emergent Narrative"  Individual: Three_Pillars_Skyrim_Example Types: example_game Facts:   hasGame The_Elder_Scrolls_V_Skyrim   pattern_example_game_description "The degree to which the three pillars are present for emergent narrative elements in this game varies. At worst, the events are isolated and unrelated to the player or the world: a group of bandits in a cave with no associated NPCs or consequences for "ridding the countryside" of them. At best, all are present: killing an NPC in town results in the guards becoming hostile, the character attracting the attention of the assassins' guild, and the inability to wear holy armor due to your evil actions."  Individual: Three_Pillars_Suggested_Exercise_1 Types: pattern_suggested_exercise Facts:   hasExercise Exercise_24_Theoretical_Patterns   pattern_suggested_exercise_description "Use Exercise 24: Theoretical Patterns to generate a parent pattern based on the theory that The Three Pillars of Meaning in Emergent Narrative is generalizable to narrative in general."  Individual: Three_Pillars_of_Meaning_in_Emergent_Narrative Types: pattern Facts:   hasAuthor Chris_Barney   hasExampleGame Three_Pillars_Skyrim_Example   hasExercise Exercise_11_Emergent_Narrative_Patterns   hasGroup Northeastern_University   hasKeyword Autonomy   hasKeyword Choice   hasPatternSeed Three_Pillars_Seed   hasPatternState Published   hasRelatedPattern Three_Pillars_Relationship_1   hasSuggestedExercise Three_Pillars_Suggested_Exercise_1   pattern_confidence 2   pattern_created_date "12/22/2020"   pattern_description "To allow players to construct meaningful emergent narratives, developers should provide players with context, motivation, and consequence for their actions in the game. There are many child patterns that contribute to this pattern; two are listed and 12 other possibilities are provided in the suggested exercise, and there may be more. But each one contributes to either the context of, motivation for, or consequences of an event that could be part of an emergent narrative."   pattern_design_problem "Given the reality of limited resources, when creating design elements that encourage emergent narratives, designers need to maximize the narrative potential of every element. How can designers know if a given game element will contribute to meaningful emergent narratives?"   pattern_image "pattern_image.jpg"   pattern_name "Three Pillars of Meaning in Emergent Narrative" </pre>
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