#### INFT3960 – Game Production

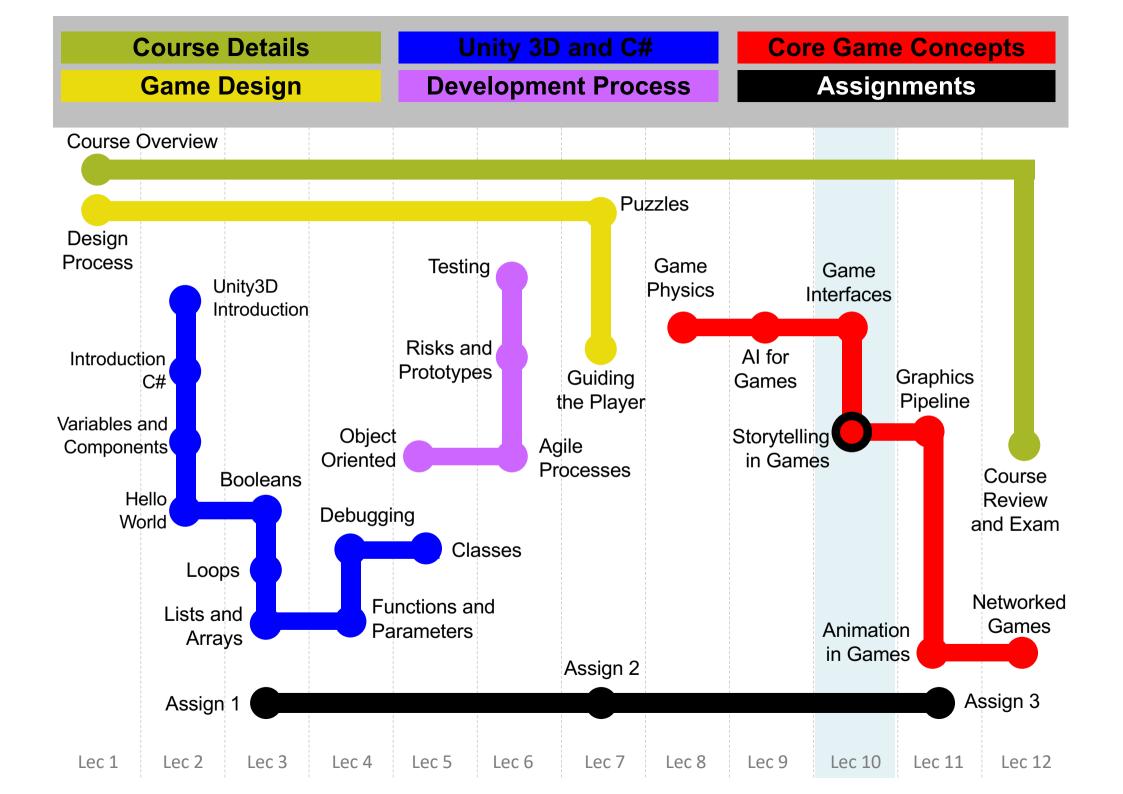
Week 10

Module 10.2

**Storytelling in Games** 

### Course Overview

| Lec | Start Week | Modules                | Topics   | Assignments                  |
|-----|------------|------------------------|--|------------------------------|
| 1   | 3 Aug      | Mod 1.1, 1.2           | Course Overview, Design Process  |                              |
| 2   | 10 Aug     | Mod 2.1, 2.2, 2.3, 2.4 | Unity3D Introduction, Introduction C#, Variables and Components, Hello World |                              |
| 3   | 17 Aug     | Mod 3.1, 3.2, 3.3      | Booleans, Loops, Lists and Arrays  | Assign 1<br>21 Aug, 11:00 pm |
| 4   | 24 Aug     | Mod 4.1, 4.2           | Functions and Parameters, Debugging  |                              |
| 5   | 31 Aug     | Mod 5.1, 5.2           | Classes, Object Oriented   |                              |
| 6   | 7 Sep      | Mod 6.1, 6.2, 6.3      | Agile Processes, Risks and<br>Prototypes, Testing                            |                              |
| 7   | 14 Sep     | Mod 7.1, 7.2           | Puzzles, Guiding the Player  | Assign 2<br>18 Sep, 11:00 pm |
| 8   | 21 Sep     | Mod 8.1                | Game Physics   |                              |
|     |            |                        |  |                              |
| 9   | 12 Sep     | Mod 9.1                | Al for Games   |                              |
| 10  | 19 Oct     | Mod 10.1, 10.2         | Game Interface, Storytelling in Games  |                              |
| 11  | 26 Oct     | Mod 11.1, 11.2         | Graphics Pipeline, Animation in Games  | Assign 3<br>1 Nov, 11:00pm   |
| 12  | 2 Nov      | Mod 12.1, 12.2         | Networked Games, Course Review   |                              |



# Storytelling in Games – Topics

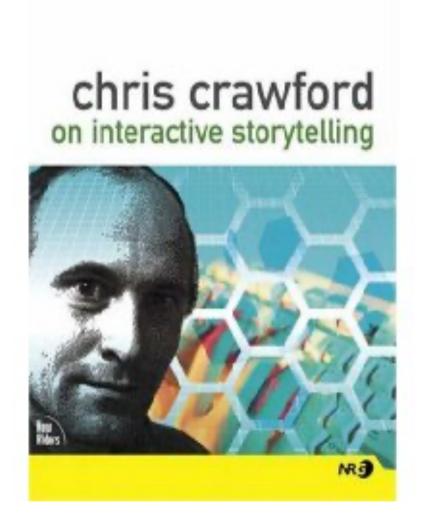
- Interactive Stories
- Narrative Events
- The Storytelling Engine
- Linear and Nonlinear
  - Conversations

#### Useful Reference

Crawford, C.

Chris Crawford on Interactive Storytelling (2004).

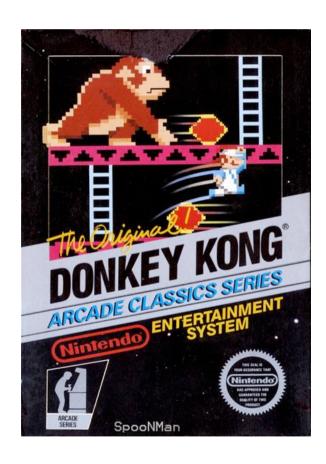
New Rider Games. USA



#### Stories in Games

The use of storytelling and narrative in computer games has changed over time.

In early action games there was usually little story or at best some attempt was made to set the context of the game - often in the manual or on the box the game came in.



#### Stories in Games

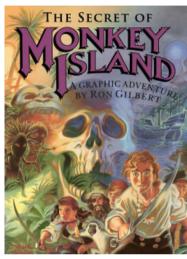


Adventure
games are an
exception and
have always
included a
story
component

Leisure Suit Larry 1

#### Stories in Games

In many games the narrative can be quite central to the game world experience.









## Story and Gameplay

The narrative can be delivered in the form of

- -

- a movie
- cut scenes
- scrolling text
- voiceover

But is critical to balance narrative with action to keep players interested.

## Story and Action

It is the art of interactive storytelling that makes computer games different.

But most players want to interact!

Gameplay is interactive (not story)

If you just want a story there are a lot of good books and films.

# Setting the Context

Many existing games come with a cinematic lead in (a small introductory movie)

This introduces the player to the game world and helps put their actions in context ..

(What is the goal of the game?)

e.g. you are saving the world

# Setting the Context

These lead ins set the context - but are not interactive.

It involves no game play and delays the start of the game.

In the future games will trend towards creating a rich enough game world that requires no context to be spelt out..

#### Cut Scenes

Many games also attempt to weave a story within the game.

The story develops as the player progresses. For example, it is linked to challenges.

e.g A reward for completing a challenge or level might be an advance in the storyline.

Cut scenes are often used for this purpose to advance the plot, present character development, or provide more background detail.

### Rendering

Lead ins & cut scenes may be produced in 2 ways.

- Prerecorded films or photorealistic animations.
   These scenes may contrast with the rest of the game and break the player's immersion in the game world.
- 2. Using the game engine itself to render the scene either in real time or prerecorded. This is a more flexible approach and ensures the look and feel of the game remains.

### Genre Dependence

The need and depth of narrative is still highly dependent on genre.

For example it tends to be more critical in Role Playing and Adventure Games than Action Games.

But even simple games tend to have a backstory.

e.g Donkey Kong must recover his stolen hoard of bananas



An interactive story includes three kinds of events:

- 1. Player events
- 2. In-game events
- 3. Narrative events



These three kinds of events interact with one another to change the state of the game world.

An interactive story includes three kinds of events:

Game

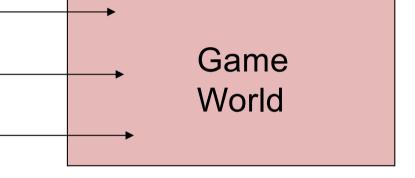
World

- 1. Player events
- 2. In-game events
- 3. Narrative events

Player events result from actions taken by the player during gameplay (e.g. enter the building)

An interactive story includes three kinds of events:

- 1. Player events
- 2. In-game events -
- 3. Narrative events



In-game events are things that happen under control of the game itself. These are determined by the core mechanics of the game engine (e.g. enemies are spawned every 2 minutes).

An interactive story includes three kinds of events:

1. Player events
2. In-game events
3. Narrative events

Narrative events are also controlled by the game but are designed to advance the story. These may be generated by what is called the "Storytelling Engine" (e.g. heroine appears).

# Storytelling Engine

Weaves together the gameplay and the story

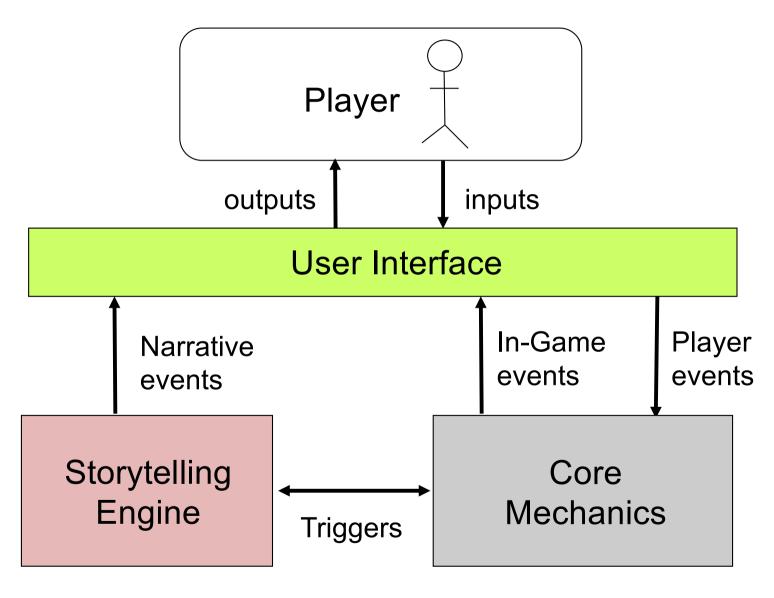
Receives triggers from the core mechanics to track the player's progress

How does this work?

Presents the narrative at the correct time

Sends triggers to the core mechanics

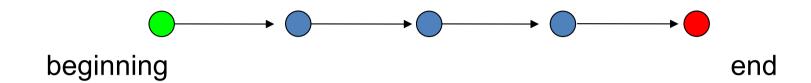
# Storytelling Engine



## Storytelling Engine

Typical moments for the storytelling engine to advance the plot are:

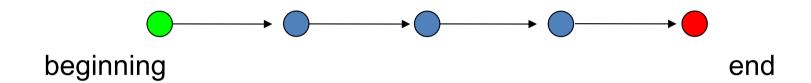
- when a player completes a specific challenge
- after a player makes a critical choice
- when the player arrives at a set location
- at a set time depending on player's pace
- after a set time independent of player's pace



Linear stories confine the participant to a predetermined journey through the story.

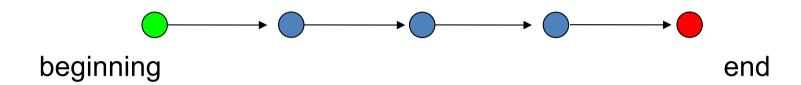
From beginning to end with no diversions.

The players actions have no impact on how the story develops.



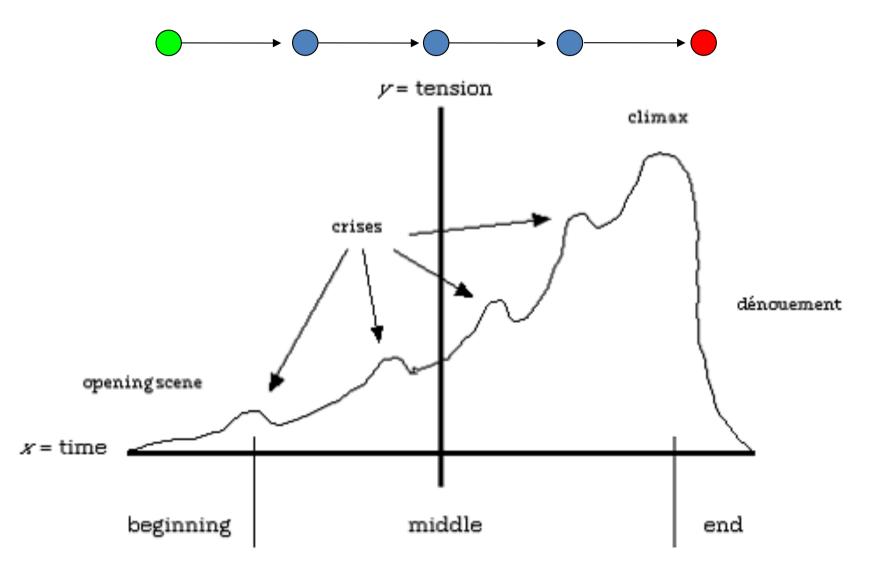
Simpler to produce as they are defined by a set order of narrative events.

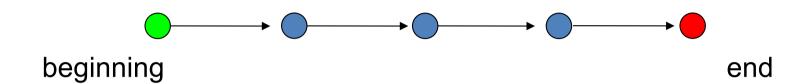
Also cheaper as you only need to produce a limited number of cut scenes for example.



Because the journey is well-defined the author can also assert greater emotional control over the player.

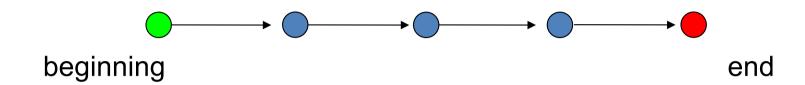
They can follow a traditional, well-described plot curve e.g. with a well placed climax.





Linear stories are also easier to integrate into the gameplay and test as there is only one path through the story (less states)

Because only one path is available to the player less content is required in terms of artwork and coding.



They do reduce the interactive freedom of the player.

The player's actions don't really change the direction of the story.

Linear stories have little replay value as they always play out the same way.

#### **Nonlinear Stories**

Nonlinear stories are more aligned to the ideal of interactive stories.

Some good examples with different degrees of player influence over the story are:

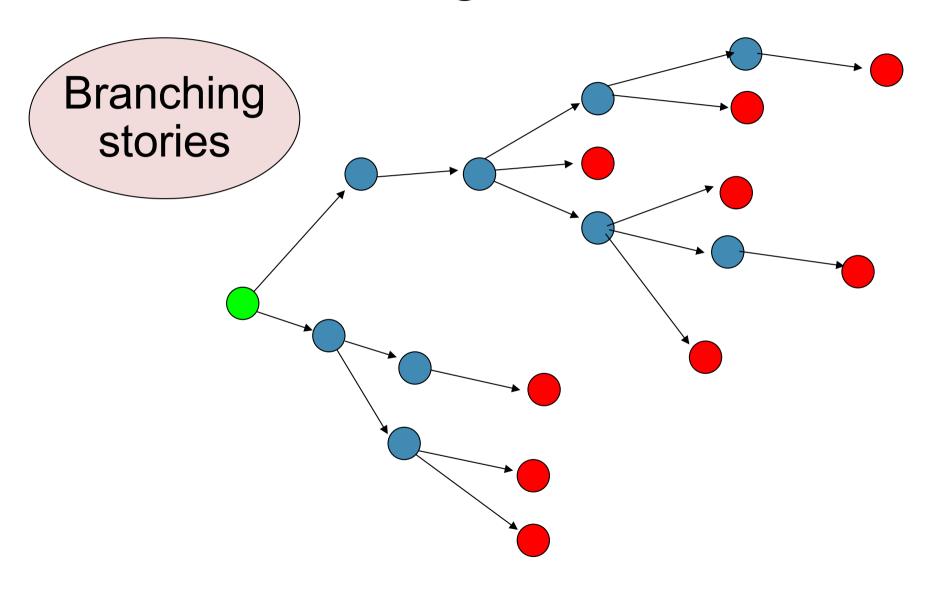
- The Elder Scrolls III: Morrowind
- Grand Theft Auto
- Mercenaries
- King's Field: The Ancient City
- True Crime
- Horizon: Zero Dawn

#### **Nonlinear Stories**

We will discuss three different types of nonlinear stories:

- 1. Branching Stories
- 2. Foldback Stories
- 3. Emergent Stories

## **Branching Stories**



# **Branching Stories**

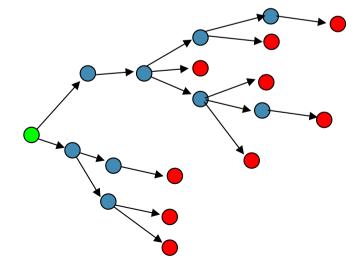
Branching stories

The player must play repeatedly to see all the content

More expensive and complicated to build than linear stories

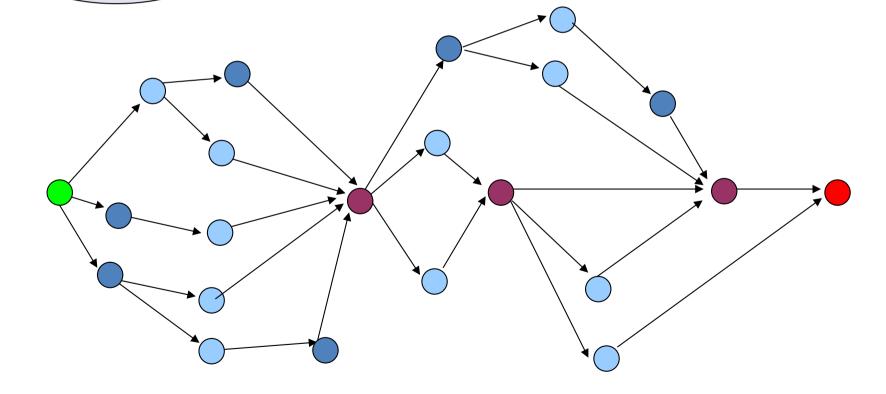
Provide a different experience when different choices are made

Player has an immediate, deferred, or cumulative effect on the game



#### Foldback Stories

Foldback stories



#### Foldback Stories

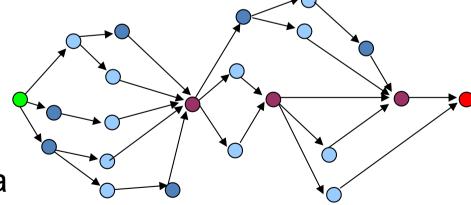
Foldback stories

Compromise between branching and linear stories

Plot branches, but the branches fold back into a single inevitable event

Easiest nonlinear story type to devise and most commercially successful

Offer players some dramatic freedom without the cost and complexity of a branching story



# **Emergent Stories**

Emergent stories



## **Emergent Stories**

Emergent stories

At present, no commercial games use purely emergent narrative

Storytelling produced entirely by player actions and in-game events—story emerges from act of playing

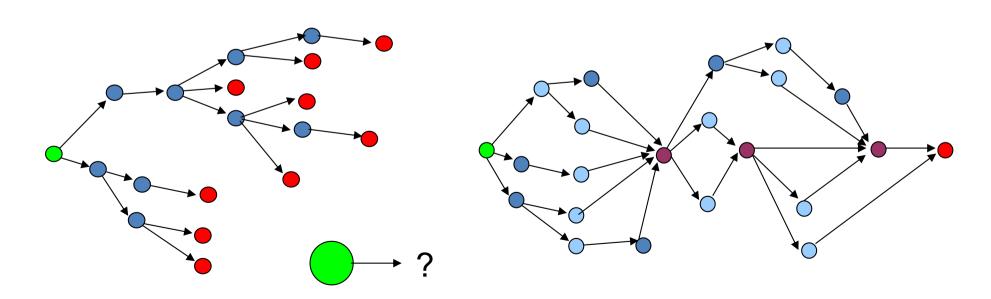
More dramatic freedom because the sequence of events is not fixed by a story structure

Puts a perhaps impossible burden on the core mechanics to produce credible stories



## Happy Ever After?

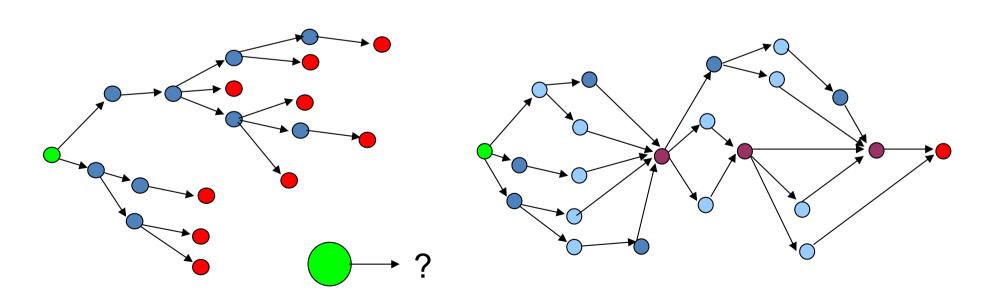
Nonlinear stories introduce the problem of how to end the game, especially if you wish to provide an emotionally satisfying journey and conclusion.



### Happy Ever After?

You may need to provide multiple endings where each one will wrap up the story in a way consistent with player's choices and play.

Once again this will require more work and also clever structure. But it does make the game replayable.



One way to advance the story is to use scripted conversations. They are commonly used in Role Playing Games and Adventure Games.

e.g Mass Effect, Zelda





For example when interacting with a Non-Player Character (NPC) the player may select from a list of possible responses (usually 2-5)

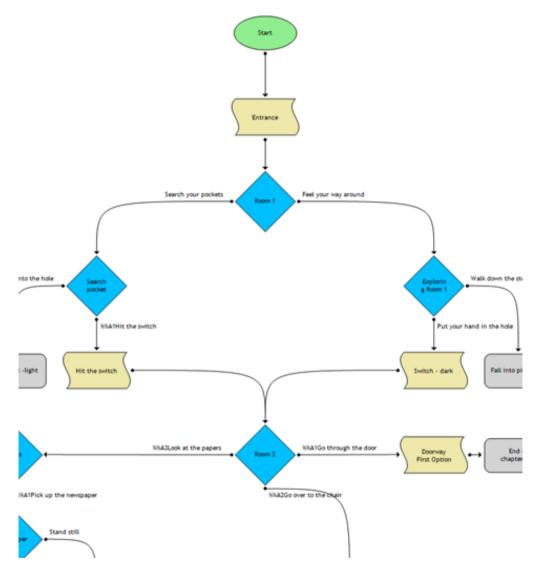
The Elder Scrolls III: Morrowind



Depending on the sequence of responses (and perhaps other factors) the NPC will respond with a piece of scripted dialog or conversation.

In mass effect the dialog can also be influenced by player "attitudes" e.g. charm and intimidate





Scripts are usually designed and stored in what is called a dialog tree

The conversation takes different braches depending on the player's choices.

#### Conversation

More realistic conversation, along with truly emerging stories will rely on advances in Artificial Intelligence (AI).



Can characters be funny? (no really funny)