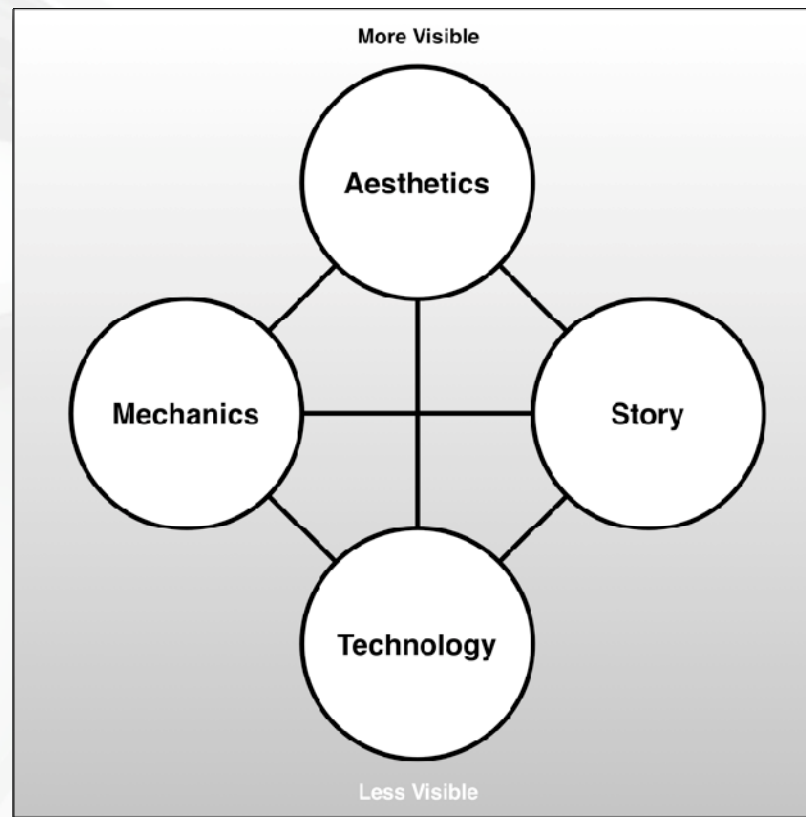# Week 5
THE LAYERED TETRAD

Topics

- **The Layered Tetrad**

- **The Inscribed Layer**

- **The Dynamic Layer**

- The Cultural Layer

The Elemental Tetrad

- **Schell arranges the elements in a tetrad**
  - Four elements also represent four groups in a game studio
  - Arranged from most to least visible

The Elemental Tetrad

- **Mechanics**
  - **Rules for interaction between the player and the game**
  - **Contain**
    - Rules
    - Objectives
    - Other Formal elements
  - **Different from *mechanics* in MDA**
    - Schell differentiates between mechanics and technology

The Elemental Tetrad

- **Aesthetics**
  - **Describe how the game is perceived by the senses:**
    - Vision
    - Sound
  - **Many different aspects of aesthetics**
    - Soundtrack
    - 2D graphics and animation
    - Packaging and cover art
  - **Different from *aesthetics* in MDA**
    - MDA aesthetics **describes the emotional response** to the game, Schell's aesthetics describe the five senses

The Elemental Tetrad

- **Technology**
  - **The underlying technology that makes the game work**
  - **Digital technologies**
    - Computer and console hardware
    - Software and programming
    - Rendering software
  - **Paper technologies**
    - Dice and other randomizers
    - Statistics tables

The Elemental Tetrad

- **Story**

  - **Everything included in Fullerton's Dramatic Elements**

  - **Differs from Fullerton's Dramatic Elements because it is broader than what she terms *story*.**

    - Schell's story includes premise and **character** as well

THE LAYERED TETRAD

The Layered Tetrad

- Expands upon those that came before it
- Considers the cultural significance and impact of games **

- **Does not define what a game is**
  - Instead helps you **understand and analyze:**
    - *The elements that are needed to make a game*
    - *The dynamic behavior of those elements during play.*

The Layered Tetrad

- **Presented in a tetrad (based on Schell's)**

- **Presented in three layers**

  - **Inscribed:** The game as created and encoded by the **developers**

  - **Dynamic:** The game's **behavior during play**

  - **Cultural:** The game's relationship to society **

The Inscribed Layer

- **Game as created and encoded by developers**

- **Similar to Schell's Elemental Tetrad**

- **Limited to elements that exist when the game is not being played**
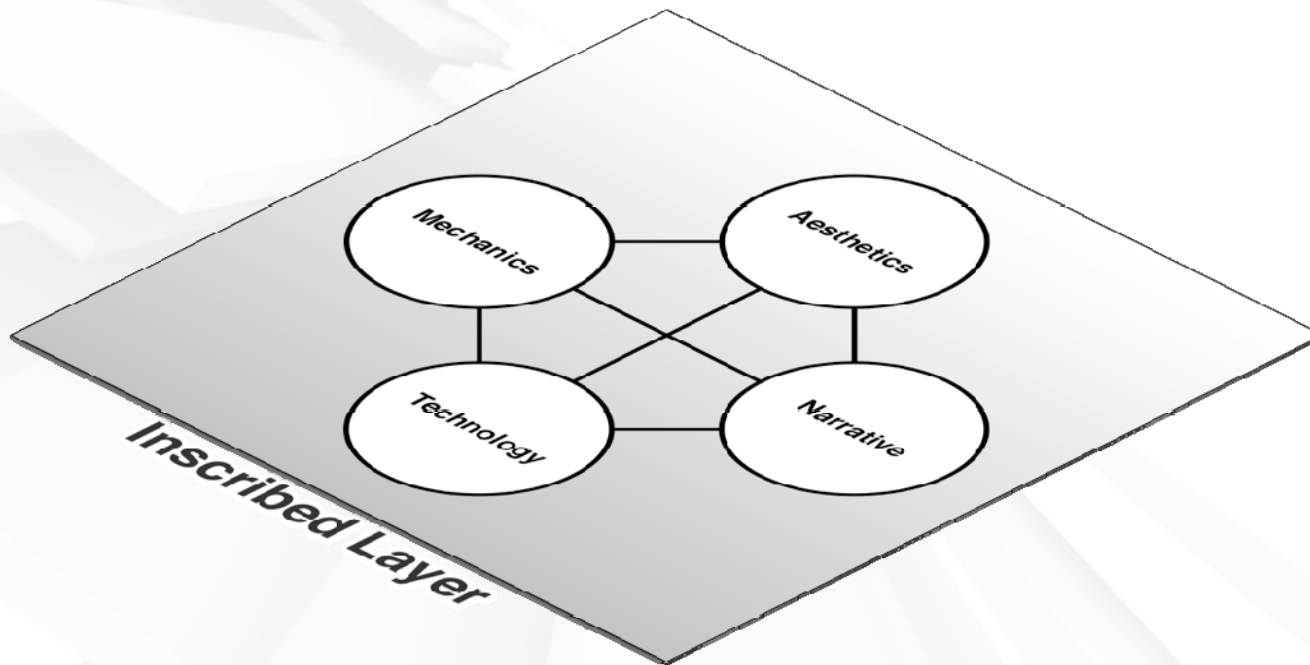
The Inscribed Layer

- **Mechanics**
  - **Systems that define how the player and game will interact**
  - **Includes: *Player interaction pattern*, *Objective, Rules, Resources, Boundaries***

- **Aesthetics**
  - **How the game looks, sounds.**
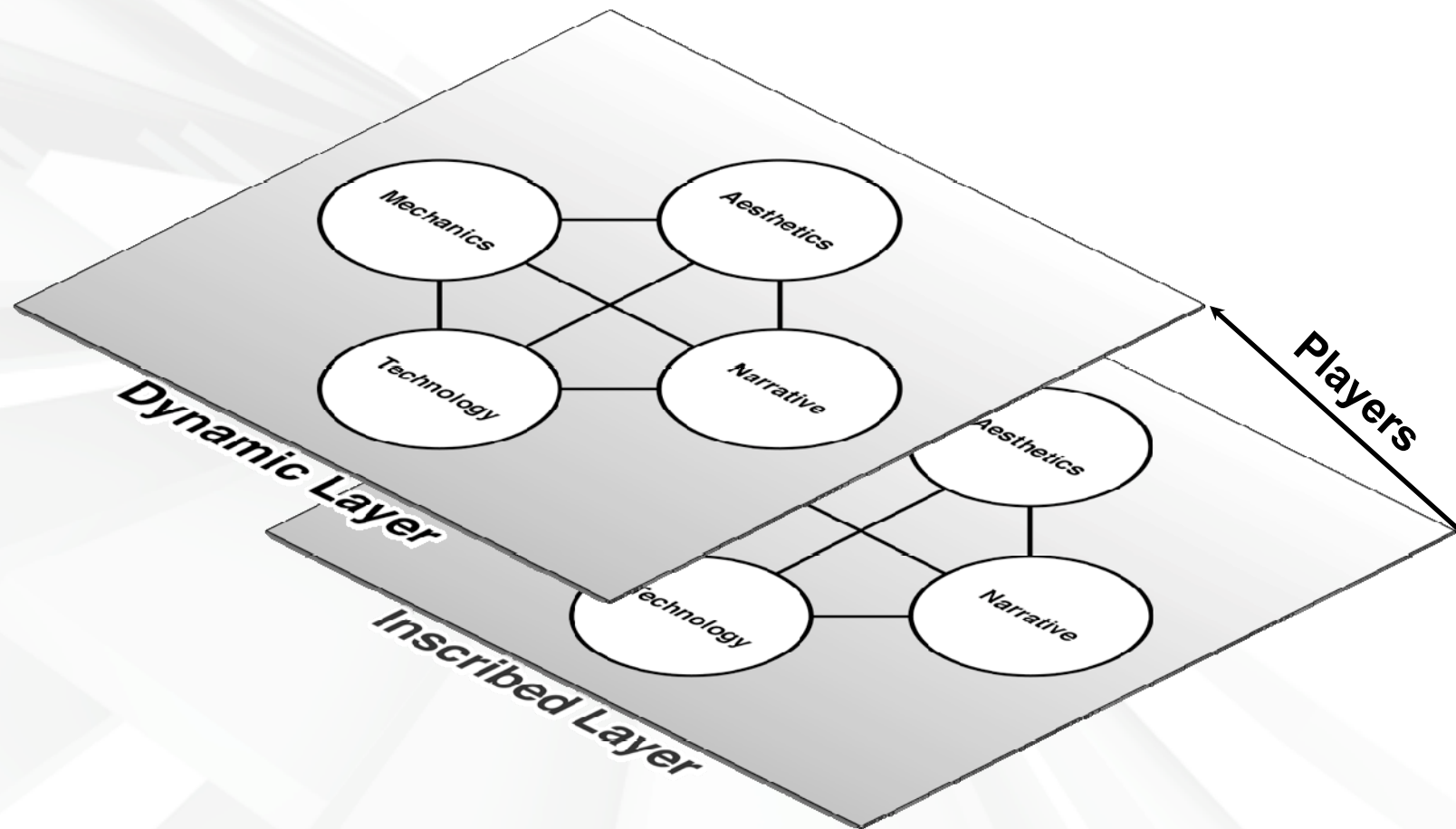
- **Technology**
  - **Digital technology that enable gameplay**

- **Narrative**
  - **Authored premise, characters, and plot.**

The Dynamic Layer

- **The game as it is being played**

- **Players move the game into the dynamic layer**

The Dynamic Layer

- **Mechanics**
  - **Players' interactions with inscribed mechanics**
  - **Includes: Procedures, Strategies, Emergent game behavior, Outcome**

- **Aesthetics**
  - **Aesthetics that are generated during play**
  - **Play environment**

- **Technology**
  - **Execution of inscribed technology and code.**

- **Narrative**
  - **Narrative created as a part or result of gameplay.**
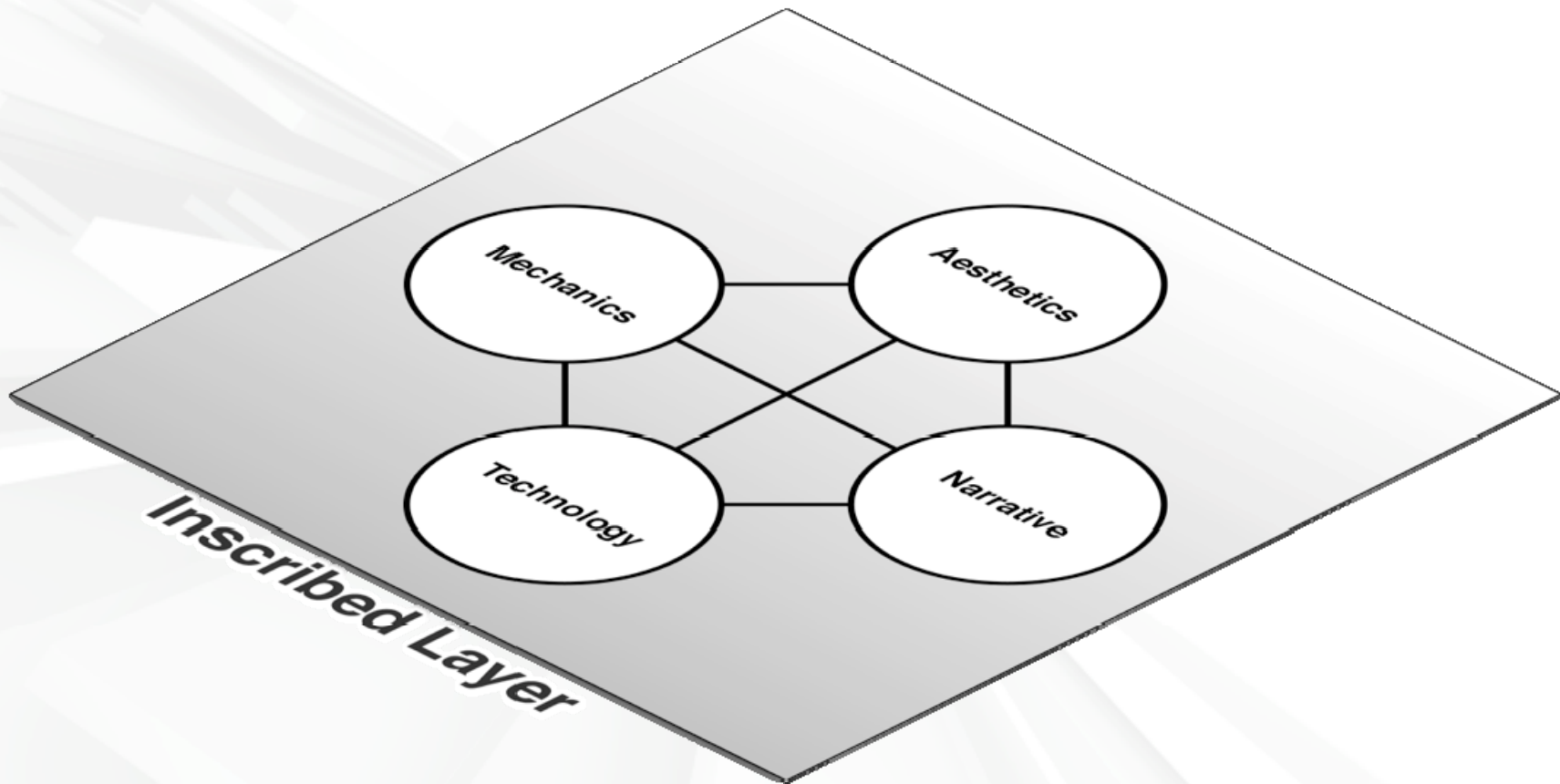
THE INSCRIBED LAYER

Topics

- **The Inscribed Layer**

- **Inscribed Mechanics**

- **Inscribed Aesthetics**

- **Inscribed Narrative**
  - **Traditional Dramatics**

- **Inscribed Technology**

The Inscribed Layer

- **All elements that are directly designed and encoded by game developers**

- *Inscribed elements are encoded experiences*
  - The designers think of an experience
  - They encode this experience into the Inscribed Layer
  - Players decode the experience into the Dynamic Layer

The Inscribed Layer

The Inscribed Layer

- **Mechanics**
  - **Systems that define how the player and game will interact**
  - **Includes:** Player interaction pattern, Objective, Rules, Resources, Boundaries

- **Aesthetics**
  - **How the game looks,** sounds, smells, tastes**, and feels**

- **Technology**
  - **Paper and digital technology that enable gameplay**

- **Narrative**
  - **Authored premise, characters, and plot**

Inscribed Mechanics

- **Seven Inscribed Mechanics**

  – Objectives – What are the player's goals?

  – Player Relationships   How do players compete & collaborate?

  – Rules – What can and can't players do to achieve their goals?

  – Boundaries – Where are the edges of the game?

  – Resources – What holds value in the game?

  – Spaces – Where does the game take place?

  – Tables – What is the statistical shape of the game?

Inscribed Mechanics: Objectives

- **More than just the final objective of the game**

- **Players are constantly weighing several possible objectives**

- **Objectives are categorized by:**
  - **Immediacy**
    - Short-, Mid-, and Long-term Goals

Inscribed Mechanics: Player Relationships

- **Fullerton lists seven player interaction patterns**

  – **Single Player vs. Game**

  – **Multiple Individual Players vs. Game**

  – **Cooperative Play**

  – **Player vs. Player**

  – **Multilateral Competition**

  – **Unilateral Competition**

  – **Team Competition**

Inscribed Mechanics: Rules

- **Rules limit players' actions**

- **In digital games, the** programming code **can be seen as the** writing of the rules **of the game**

- **Rules can be explicit or implicit**
  - **Explicit: Roll the die and advance the number of spaces shown**
  - **Implicit: Don't lie about the number shown on the die**

Inscribed Mechanics: Boundaries

- **Define the edges of the space and time in which the game takes place**

- **Within the boundaries, game resources have value, and the rules must be followed**

- **Boundaries are the edge of the "Magic Circle"**

Inscribed Mechanics: Resources

- **Things that have value in the game**

- **Two types:**
  - **Assets:** Actual objects in the game
    - Houses, hotels, and property in Monopoly
  - **Attributes:** Numbers representing value in the game
    - Health
    - Amount of air left when swimming under water, etc

Inscribed Mechanics: Spaces

- **Navigable spaces in the game**
  - Both the board in board games and levels in digital games

- **Things to consider when designing spaces:**
  - **The purpose of the space**
    - Why does it exist?
    - Why is it important to the player?
  - **Flow of movement**
    - Can the player move through the space easily?
  - **Landmarks**
    - Does the player have landmarks to help her orient herself?
  - **Experiences**
    - Does the space offer the player interesting experiences?
  - **Objectives**
    - Does the space contain short-, medium-, and long-term objectives?

Inscribed Mechanics: Tables

- **Tables are grids of game information**
  - **Used extensively for game balance**

- **Tables have several purposes, including:**
  - **Probability**
    - Tables can determine probability in very specific circumstances
      - A table could show the relative offensive and defensive strength of two armies based on the territory that they inhabit (e.g., *Advanced Wars*)
  - **Progression**
    - Tables often hold information about how players abilities increase and change as their player level increases .

Inscribed Aesthetics

- **Aesthetics are the elements perceived by the player's senses**

- **Inscribed Aesthetics are those created and inscribed by the developers of the game**

- **These include**
  - **Visual Art**
  - **Sound and Music**
  - **tangible Elements**

Inscribed Aesthetics: Vision

- **Game developers put a tremendous amount of effort into their visual aesthetic**

- **Not just character models and texturing**

- **Also includes**
  - **Box art**
  - **Advertising**
  - **Font choice**
  - **Game website**

- **All of these must have a consistent visual aesthetic**

Inscribed Aesthetics: Hearing

- **Various platforms have different audio capabilities**
  - **Console and PC audio is very, very high quality**
  - **Mobile game audio is often never heard**
    - Background noise vs. Small speaker size
    - Owners often mute mobile devices

Inscribed Narrative

- **The dramatic elements of a game that have been designed and inscribed by the game developers**

- **Four Components**
  - **Premise:** The world in which the story takes place
    - The story's narrative basis
    - Example: "A long time ago in a galaxy far, far away"
  - **Setting:** The details of the space in which the story takes place
    - Example: A moisture farm on the desert planet, Tatooine.
  - **Character:** The people featured in the story

  - **Plot:** The sequence of events that take place in the story
    - Character + Objective + Obstacles = Drama

- **Based in traditional dramatics**

Traditional Dramatics

- **Syd Field's Three-Act Structure**
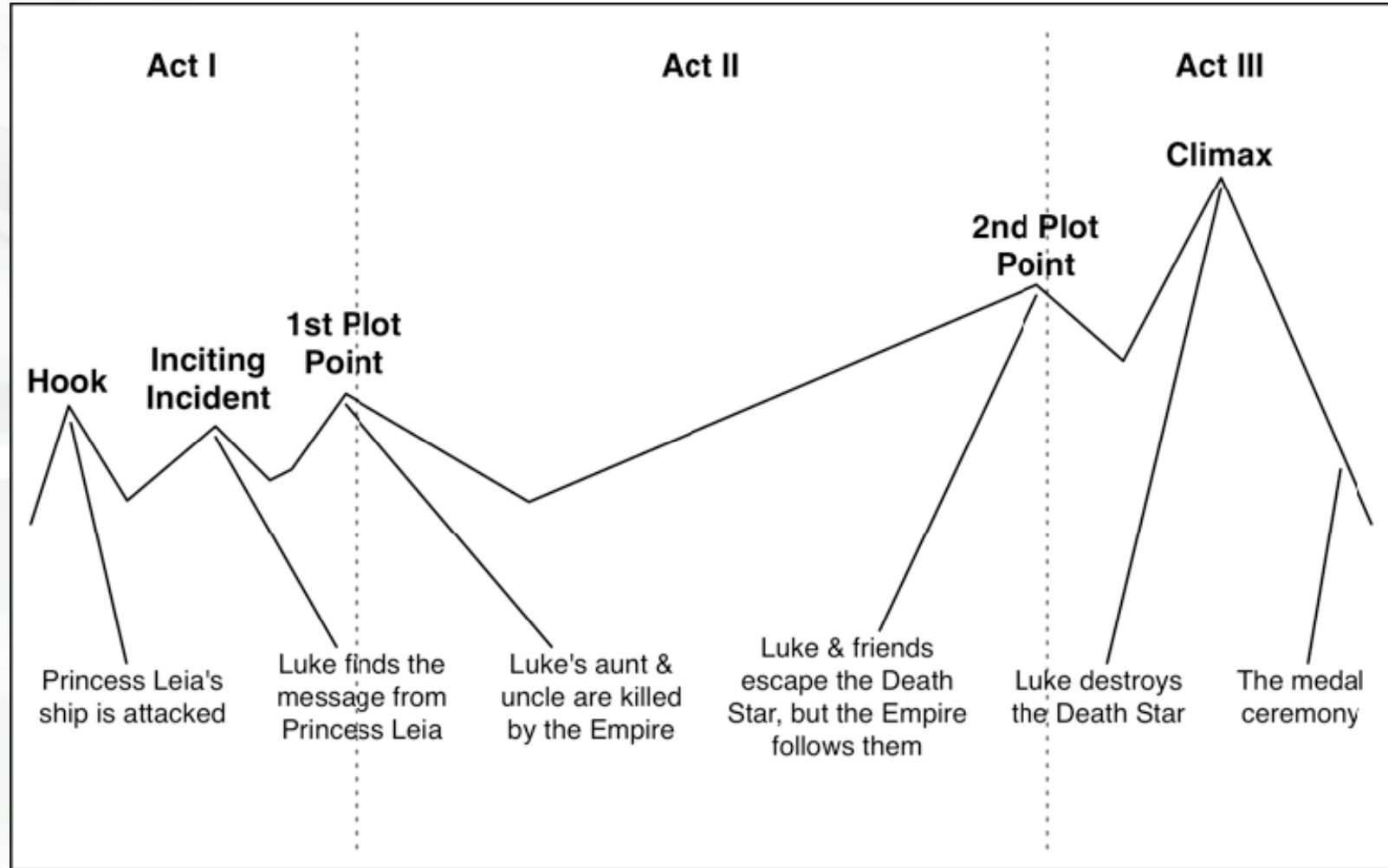
Inscribed Narrative

- **Purposes for Inscribed Dramatics**
  - **Evoking Emotion**
    - Writers have learned over centuries how to evoke emotion through narrative
  - **Motivation and Justification**
    - Game narrative can give the player a goal and justify her actions in the game
  - **Reward**
    - Players are often rewarded by a cutscene at the end of a level

Inscribed Technology

- **The technology designed and inscribed by developers to enable play of the game**

- **Paper inscribed technology includes:**
  - **Randomization**
    - Dice, spinners, and cards
  - **State Tracking**
    - Score tracking, tables.
  - **Progression**
    - The technological design of elements like leveling tables

- **Digital inscribed technology is mostly programming code.**