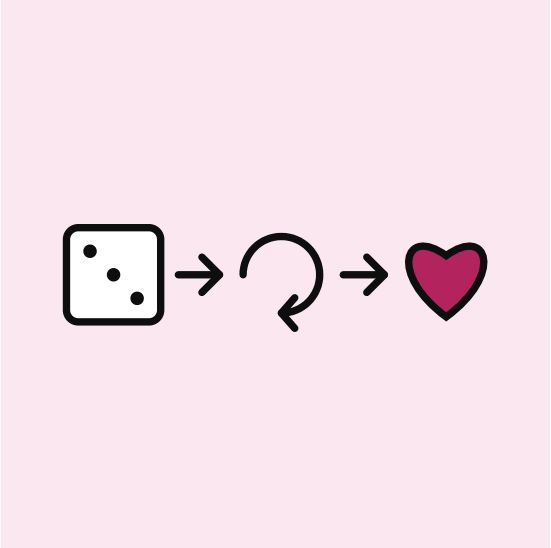
Model

MDA: mechanics, dynamics and aesthetics

Splits a game into three linked layers: mechanics (the rules), dynamics (what happens when people play with them) and aesthetics (what the player feels).



In Spanish
MDA: mecánicas, dinámicas y estética

Origin
Hunicke, LeBlanc and Zubek (2004)

What problem it addresses

Designers can only change the rules, but players only notice what they feel. The framework helps go from a desired feeling to the rule that needs changing.

Components

Mechanics
The rules and pieces: the only thing design decides directly.

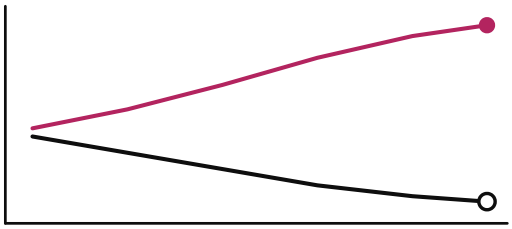
Dynamics
What happens when those rules are set in motion with people playing.

Aesthetics
What the game makes you feel: challenge, discovery, fellowship…

An example

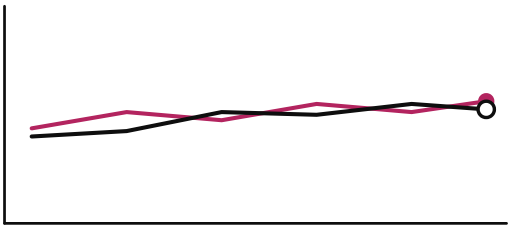
A case from the original paper: in Monopoly, whoever is winning charges the others more and more.

Without changing the rules



The leader earns more each lap and those behind fall further and further back. **The game is decided early and the tension is lost.**

With a balancing rule



The paper suggests, for example, helping those behind or taxing the leader. **The game stays open for longer.**

To change what people feel you don't touch the emotion: you change a rule and watch what happens in play.

How it works

1

Designers choose the mechanics, the rules and the pieces;

2

in play, they give rise to dynamics that nobody fully wrote,

3

and the dynamics give rise to the experience, which is the first thing players notice.

Applications in design

✓ Use it like this

Start from the experience you want, ask which rule would produce it and test it by playing.

✕ Avoid

Adding rules without looking at the dynamics they create when people play.

Don't fall for it

If a feeling doesn't show up, don't look for it in the game's text: look for the rule that causes it.

8

What the research says

Kinds of experience the framework proposes as a vocabulary: sensation, fantasy, narrative, challenge, fellowship, discovery, expression and submission (pastime) (Hunicke, LeBlanc and Zubek, 2004).

●●○ **Debated evidence.** It is a framework for thinking, not a measured result. Walk, Görlich and Barrett (2017) propose widening mechanics to the whole design and aesthetics to the experience.

Connections

Used in

- Prototyping

Related to

- Flow
- Gamification
- Octalysis
- Bartle's player types

Authors and works

2004	**Robin Hunicke, Marc LeBlanc and Robert Zubek**	Presented the framework at a workshop on AI in games to link design work with what is experienced in play.
2017	**Wolfgang Walk, Daniel Görlich and Mark Barrett**	Extended it as DDE (design, dynamics, experience): mechanics now include the concept, the code and the interface.

Sources

Original sources

- Hunicke, R., LeBlanc, M., & Zubek, R. (2004). MDA: A formal approach to game design and game research. In Proceedings of the AAAI Workshop on Challenges in Game AI (WS-04-04). AAAI Press. View source (https://aaai.org/papers/ws04-04-001-mda-a-formal-approach-to-game-design-and-game-research/)

Academic reviews

- Walk, W., Görlich, D., & Barrett, M. (2017). Design, Dynamics, Experience (DDE): An advancement of the MDA framework for game design. In O. Korn & N. Lee (Eds.), Game dynamics: Best practices in procedural and dynamic game content generation (pp. 27–45). Springer. View source (https://doi.org/10.1007/978-3-319-53088-8_3)

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