



PLAYFUL LAW: DESIGNING GAME-BASED ENGLISH FOR LEGAL PURPOSES IN LARGE GROUPS



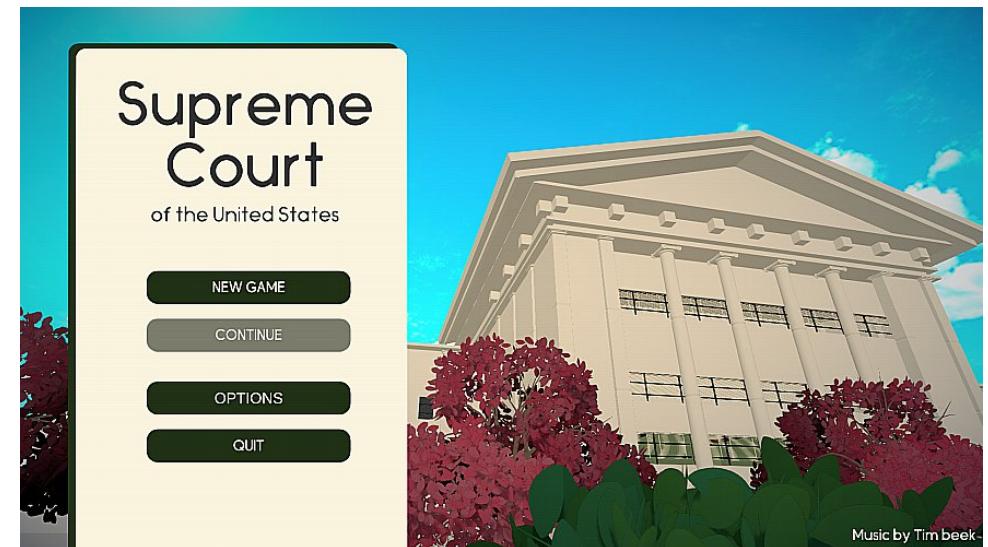
Co-funded by
the European Union



Ce travail a bénéficié d'une aide de l'Etat
attribuée à l'université de Bordeaux au titre du
Plan France 2030.

Introduction

- Who we are
- LUDIBRILANG project (2021-2025)



Introduction

- Partnership with [Ikigai games](#), a consortium of game developers and French universities purported to develop digital serious games
- Ikigai's sponsors:



Establishing students' gamer profiles

Why establish gamer profiles?

- To understand user engagement and design personalised gaming experiences
- Self-determination theory: individuals endeavour to fulfil three basic needs, autonomy, competence and relatedness, and improve their well-being (Ryan & Deci, 2020)
- What are some empirical gamer typologies around?

Gamer typology #1: Bartle's (2003)

- 4 player types, **Killer**, **Explorer**, **Socialiser**, **Achiever**



- <https://www.interaction-design.org/literature/article/bartle-s-player-types-for-gamification?srsltid=AfmBOoq1xFkz6fwZE0RN3F3X5Kv-Qmi5MJpT3gLu7qnZN-IHzXJITGYI>

Gamer typology #2: Hexad

- Expands on Bartle's work
- **Gamification User Types Hexad Scale (Hexad-24)** (Tondello et al., 2016):
6 user types, namely **Philanthropist**, **Socialiser**, **Free Spirit**, **Achiever**,
Disruptor, **Player**
- Valid psychometric pro
- Marczewski's types:



Gamer typology #3: BrainHex

- BrainHex (Nacke et al. 2016): 7 player types, **Seeker, Survivor, Daredevil, Mastermind, Socialiser, Achiever**
- Interesting as a questionnaire to define an individual's gamer's profile is available, but unfit for using in a large-group context
- <http://survey.ihobo.com/BrainHex/index.php>

 **Welcome to the BrainHex questionnaire!**

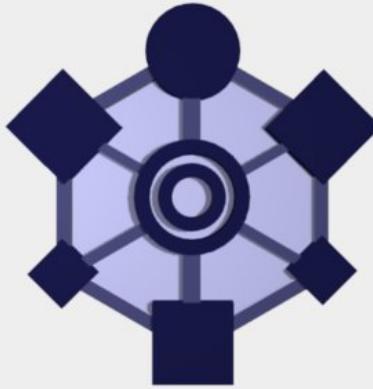
Find out your BrainHex class by answering the following videogame-related questions, and help International Hobo study the reasons why players enjoy different gaming experiences in this new survey and player satisfaction model.

(Although this survey is mostly interested in videogame players, even if you don't play many videogames we are still interested in your results!)

There are 4 pages of questions about your videogame preferences.

When you have finished, we will tell you your BrainHex class. You can then go to BrainHex.com to read about your class and tell us why we're right or wrong about you.

[Click here to begin.](#)

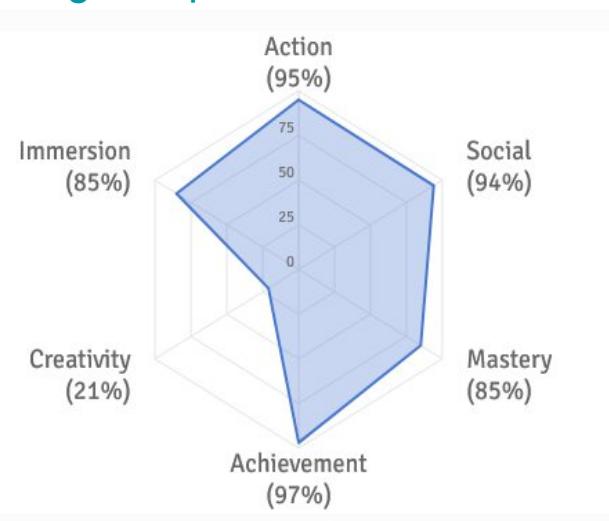


Last Updated:



Gamer typology #4: Yee & Ducheneault

- 9 player types, **Acrobat**, **Gardener**, **Slayer**, **Skirmisher**, **Gladiator**, **Ninja**, **Bounty Hunter**, **Architect**, **Bard** and 6 motivation groups, Action, Social, Mastery, Achievement, Creativity and Immersion.
- Available online: cf QR code
- Sample of a gamer motivation profile
- <https://apps.quanticfoundry.com/surveys/start/gamerprofile/>



Comparing Gamer typologies

Table 1

Comparison of Gamer Typologies

Typology	Gamer Types	Focus	Commercial Dimension
Bartle	Achiever, Explorer, Socialiser, Killer	Behavioural motives	No
Hexad	Philanthropist, Socialiser, Free Spirit, Achiever, Player, Disruptor	Gamification, user engagement	Yes
BrainHex	Seeker, Survivor, Socialiser, Achiever, Daredevil, Mastermind, Conqueror	Neurobiological, affective responses	Yes
Yee & Ducheneault	Acrobat, Gardener, Slayer, Skirmisher, Gladiator, Manager, Networker	Multiplayer online games	Yes

Guide to establishing students' gaming profiles

1. Choose a typology (ours: **Mastermind**, **Seeker**, **Conqueror**, **Daredevil**, **Achiever**)
2. Create a gamer profile questionnaire. Ours, inspired from BrainHex, contained 20 items on videogame experiences that respondents were asked to rate by choosing from a scale between “I love it!”, “I like it”, “It’s OK”, “I dislike it” and “I hate it!”
3. Map each item to one or two of the profiles
4. Set your marking scheme
5. Export your results to .xls and compute them

Sample gamer profile questionnaire

- FYI only (you will not get your gamer profile)



- Our typology: **Mastermind, Seeker, Conqueror, Daredevil, Achiever**
- A similar questionnaire that included psychometric data was sent to about 2,000 1st and 2nd year Bachelor's in Law students at U. Bordeaux and Lyon using Sphinx (software)

Item/profile matrix

- Each item is mapped to one or two of the five profiles (**Mastermind**, **Seeker**, **Conqueror**, **Daredevil**, **Achiever**) according to the core experience it describes
- Sample of our item/profile matrix:

Table 2

Mapping of Gameplay Items to Gamer Profiles

Item	Description	Profile(s)
1	Fleeing a fearsome enemy	Daredevil
2	Solving a tough riddle	Mastermind
3	Battling a formidable final enemy	Conqueror
4	Reacting fast in high-stakes moment	Daredevil
5	Gathering all hidden items	Seeker, Achiever

Scoring system

- Assign a numerical value to each response
 - “I love it”: 4 points
 - “I like it”: 3 points
 - “It’s OK”: 2 points
 - “I dislike it”: 1 point
 - “I hate it”: 0 point
- If an item maps two profiles, split the points (e.g., 2 points each for “I love it”) or assign the full value to both (if you want those hybrid items to weigh more)
- Calculate profile scores by summing the points for each profile based on item mapping
- Determine dominant and secondary profiles = with the highest score and with the second highest score

Validate your typology idea through playtest

- Observation and recording: use “think aloud” protocols or simple observation notes on how players interact with each segment; audio or video recordings can enhance analysis
- Quick post-test feedback: gather post-test player feedback based on self-assessment
- Analyse alignment of actions and feedback against typology predictions

Group discussion

- What is more appropriate in your context?
 - Ready-made gaming typologies?
 - Custom-made gaming profile typologies?
 - Relying on AI to determine students' gaming profiles, based on field of study?
- Which would you choose? And how would you proceed?

What AI says the types of games that best match certain disciplines

1. **Exploration Games (Discovery and Investigation)**
 - *Discipline:* Science, Geography, Environmental Studies
 - *Example:* A virtual exploration game where students navigate a simulated ecosystem to identify species, understand ecological relationships, and investigate environmental changes
2. **Quest-Based Games (Mission-Driven Problem Solving)**
 - *Discipline:* History, Literature, Law
 - *Example:* A game where students must solve a historical mystery by gathering clues, interviewing characters, and completing tasks—similar to "The Lost History of the World," where learners piece together historical events.
3. **Simulation Games (Real-World System Modeling)**
 - *Discipline:* Business, Medicine, Engineering
 - *Example:* "SimCity" for urban planning or "Medical Simulation" for practicing diagnoses.
4. **Puzzle Games (Logical Reasoning and Critical Thinking)**
 - *Discipline:* Mathematics, Physics, Computer Science
 - *Example:* "The Witness," which involves solving puzzles to progress, helps develop logical reasoning and problem-solving skills in math or physics contexts.
5. **Collaborative or Social Games (Teamwork and Communication Skills)**
 - *Discipline:* Language Learning, Social Sciences, Business
 - *Example:* Multiplayer role-playing scenarios where students work together to negotiate treaties or conduct diplomatic negotiations, fostering communication and teamwork.
6. **Role-Playing Games (Empathy and Perspective-Taking)**
 - *Discipline:* Ethics, Social Studies, Law
 - *Example:* A game where students assume the roles of different stakeholders in a community dispute, encouraging understanding of diverse perspectives.

Set learning goals

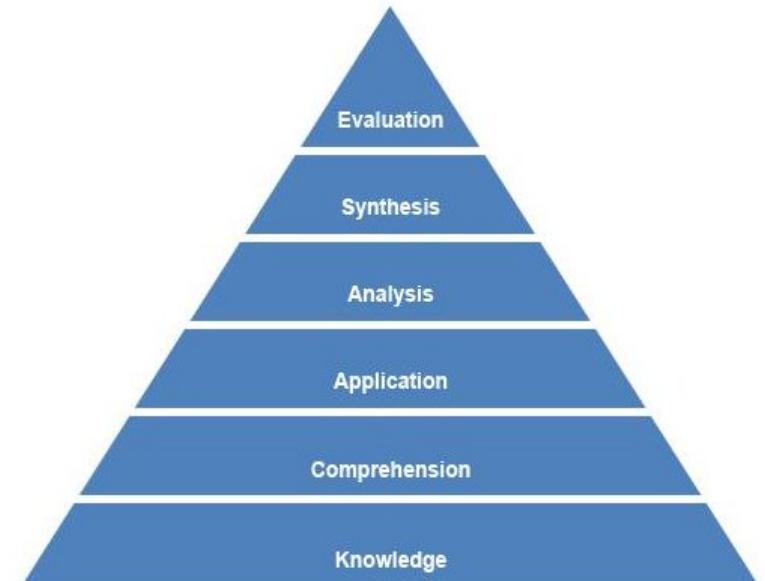
Learning goals

- Context: large cohort of about 1,500 1st year students in Law, in two series
- 12 weeks, amphitheatre, no tutorials, limited number of faculties and classroom space
- Active competencies in English (written and oral expression and interaction) left apart at the start of the project
- Project objectives:
 - Make the lecture **less top-down and more fun**
 - Use **active pedagogy, boost engagement**, take into account **diverse student populations**

Learning goals

- 5 chapters, English as a Lingua Franca context
 1. Legal studies and legal professions in common law and English-speaking countries
 2. English law in medieval times
 3. The UK constitution
 4. The US constitution
 5. Crime
- Listing learning outcomes using Bloom's taxonomy

<https://fctl.ucf.edu/teaching-resources/course-design/blooms-taxonomy/>



Key messages

- 5 chapters, English as a Lingua Franca context
- A complete re-writing of the lecture using the key verbs in Bloom's terminology and selecting the main points in the course. 2 months

Learning goals and Key Messages of the 1st year of Bachelor's degree in Law Course

I. Law studies

Describe your studies to an English-speaking or non-English-speaking person (in English): identify expressions and vocabulary to talk about your studies:

Vocabulary: First year; to do a Bachelor's degree, a Master's degree in Law; university fees; internship; moot court; law society; student union; tutorial; lecture; doctorate PhD; option; assignment

Identify the main law degrees internationally (Anglo-Saxon, American, Australian, etc.)

There are several types of law degrees, professional and non-professional. Law studies can start at the BAC level or BAC+3 or BAC+4. The terminology for degrees is almost always the same: BA or BSc in law at the undergraduate level; MA or MSc at the Master's level; JD or PhD at the doctoral level. LLB and LLM do not exist everywhere. The duration of studies to obtain these degrees varies: some BAs are three years, others four, and master's degrees are one or two years. One can enter law school in the USA without a prior law background and graduate as a lawyer.

Identify some key issues of legal studies in common law countries

Key messages: students are often older than in our system. There is significant selection. There are

Fostering meaningful learning experiences that go beyond traditional lessons

- Creating an engaging, immersive universe
- Craft entire worlds populated with characters, narratives, and interactive quests that serve pedagogical goals

Game 1: *Magna Carta*

- Medieval court scene with characters such as King John, barons, and people of various trades that students meet and/or interact while navigating the process of drafting and signing the document
- Immerse students in the political and social tensions of the time to make the learning experience more tangible

Game 2: *Supreme Court*

- Students assume the role of a female judge (Justice Singh)
- She interacts with various characters working in the court (her fellow justices, her clerk...) but also journalists, environmental activists, and our character's own daughter
- Through her quests, she examines evidence, debates legal principles, and makes a decision that determines the majority ruling

Gamifying a legal English course

- Building a **compelling narrative environment** tailored to the learning goals (it is not about replicating the structure of a regular lesson plan)
- It demands:
 - Creativity
 - Storytelling skills
 - Relevant game mechanics

Choosing the type of game and the game mechanics

Main types of serious games

Type	Main Feature	Key Research References
1. Exploration and Discovery	Open-world environments encouraging exploration and self-guided learning	Gee 2003; Whitton 2014
2. Quest and Narrative-Based	Story-driven missions with role-playing and decision-making	De Freitas & Oliver 2006; Mayer 2014
3. Simulation	Realistic modeling of systems for practice and experimentation	Aldrich 2009; Graafland et al. 2012
4. Puzzle and Logic	Focus on problem-solving, pattern recognition, and strategic thinking	Prensky 2001; Connolly et al. 2012
5. Role-Playing and Empathy	Players assume roles to experience perspectives and make decisions	Crookall 2010; Steinkuehler & Duncan 2008
6. Collaborative and Multiplayer	Team-based activities fostering communication and cooperation	Squire 2011; Jansz & Martens 2005
7. Problem-Based and Scenario	Practical, real-world scenarios requiring critical decisions	Lean et al. 2006; Bekebrede et al. 2011
8. AR/VR Experiences	Immersive, spatial environments for experiential learning	Huizenga et al. 2009; Radianti et al. 2020
9. Gamified Platforms	Incorporate game elements like points, badges, leaderboards to motivate	Deterding et al. 2011; Domínguez et al. 2013

Types of game mechanics

Game mechanics	Main features	Magna Carta	Supreme Court	References
Points and Scoring	Quantifies achievement, motivates progress	X		Deterding et al. 2011; Domínguez et al. 2013
Badges and Achievements	Rewards specific accomplishments, encourages goal-setting			Deterding et al. 2011; Domínguez et al. 2013
Leaderboards	Promotes competition and social comparison			Deterding et al. 2011; Jansz & Martens 2005
Quests and Missions	Structured tasks guiding gameplay and learning objectives	X	X	De Freitas & Oliver 2006; Mayer 2014
Resource Management	Managing limited resources to make strategic decisions	X		Lean et al. 2006; Bekebrede et al. 2011
Decision Trees	Players choose from options influencing outcomes	X		Crookall 2010; Steinkuehler & Duncan 2008
Time Pressure	Adds urgency to decision-making			Connolly et al. 2012; Graafland et al. 2012
Collaboration and Communication	Tasks requiring teamwork and dialogue			Squire 2011; Jansz & Martens 2005
Feedback and Hints	Immediate responses guiding player actions			Baranowski et al. 2008; Gee 2003
Role Assumption	Players adopt roles to experience perspectives	X	X	Crookall 2010; Steinkuehler & Duncan 2008
Environment Interaction	Manipulating and exploring virtual environments	X	X	Anderson et al. 2010; Whitton 2014
Narrative Progression	The unfolding of story elements to maintain engagement	X	X	Gee 2003; Mayer 2014

Magna Carta

Students have the role of a medieval character, a Baron, who makes choices that influence the course of history

- **Role-playing:** *allows students to embody characters and experience their perspectives*
- **Decision-making:** *engages them in applying legal principles actively*
- **Narrative progression:** *helps structure the learning journey, making complex processes like signing the Magna Carta or issuing a court ruling more tangible*

Supreme Court

Students embody Justice Singh, a judge at the South Montana Supreme Court who needs to make a decisive ruling on an environmental case taking into account the facts of the case but also the law and what the state constitution says on that specific issue.

- **Puzzles:** *Students analyse evidence and interpret legal information, solving a "puzzle" of understanding the case*
- **Exploration:** *Players explore the evidence (in the court's library, the judge's office etc) and legal documents to inform their decision*

Game 2: Supreme Court

- **Decision trees:** *The outcome depends on the player's interpretation of the documents or situations*
- **Narrative progression:** *The students' decision influences the story's direction, culminating in a final ruling that closes or advances the case*

Example: A History course on the French Revolution Gamified

Scenario: The Storming of the Bastille

You are a revolutionary leader in Paris, and today is a pivotal moment. Tensions are rising, and the crowd demands action. Your choices will influence the course of the revolution.

Learning goals: understanding

Situation:

The citizens are gathering outside the Bastille, demanding weapons and freedom. The guards are anxious, and the crowd is growing restless.

Options:

1. **Negotiate peacefully** with the guards to let the crowd in without violence.
2. **Encourage the crowd to storm the Bastille** immediately, risking casualties but aiming to seize weapons quickly.
3. **Call for calm and organize a delegation** to speak with the authorities, trying to find a diplomatic solution.

Example: A History course on the French Revolution Gamified

Outcome:

- If you choose to negotiate peacefully, the crowd feels heard, but the guards remain suspicious, which could lead to future unrest.
- Storming the Bastille may inspire a swift victory but could cause casualties, fueling anger.
- Organizing a delegation might delay action but could lead to a more stable transition.

Role-playing

This is ideal because students assume the roles of historical figures or different societal groups during the Revolution, making decisions and experiencing consequences.

Relevant Game Mechanics:

- **Decision trees:** Students' choices influence the course of the revolution, illustrating cause-and-effect.
- **Narrative progression:** The course unfolds through key historical events, shaped by student decisions.
- **Exploration:** Students explore different perspectives, documents, and options during their decision-making process.

Playing our games



Magna Carta

NEW GAME

CONTINUE

OPTIONS

QUIT





Year: 1214

Place: Hertford castle, Hertfordshire,
England

Role: Robert Fitzwalter,
Baron of Little Dunmow





King Richard the Lionheart died, and his brother John became king. Troublesome times began...

You, Robert Fitzwalter, got upset with King John's poor leadership.

You rebelled but were punished and sent away to France.

This tough experience made you more determined.





DUNSTAN

My Lord, there seems to be a commotion at the entrance of the forest. I think your presence is required. The game warden caught a group of poachers red-handed. It seems there is a lady amongst them, and a group of peasants.











LadyRose

(left click to interact)





R. FITZWALTER

You are being judged today for you are accused of poaching in one of the King's forests.

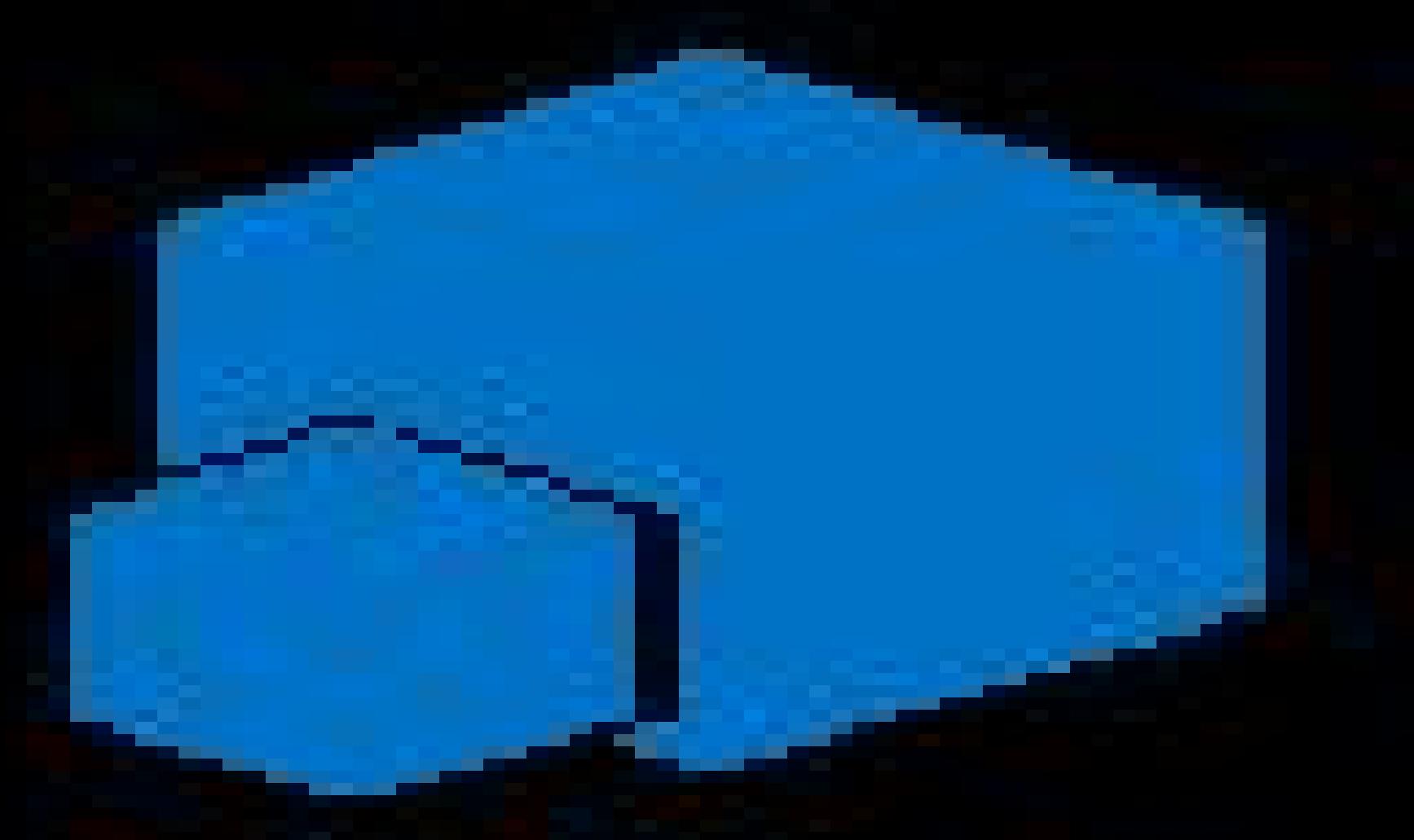




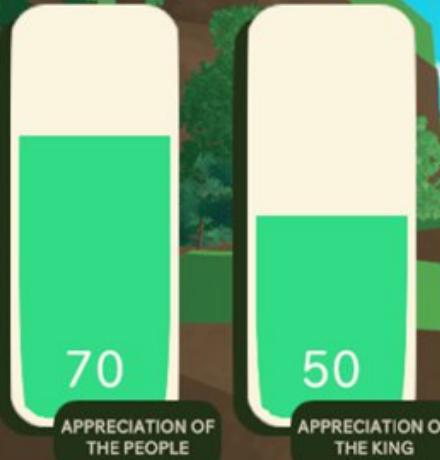
PEASANT

Do we really deserve death for a crime that was punished by jail time a couple of days ago?











WOMAN

They've found a corpse near the village. The sheriff will fine the whole village unless we find and punish the culprit.





WOMAN

Whether he's guilty or not, we don't want to pay.

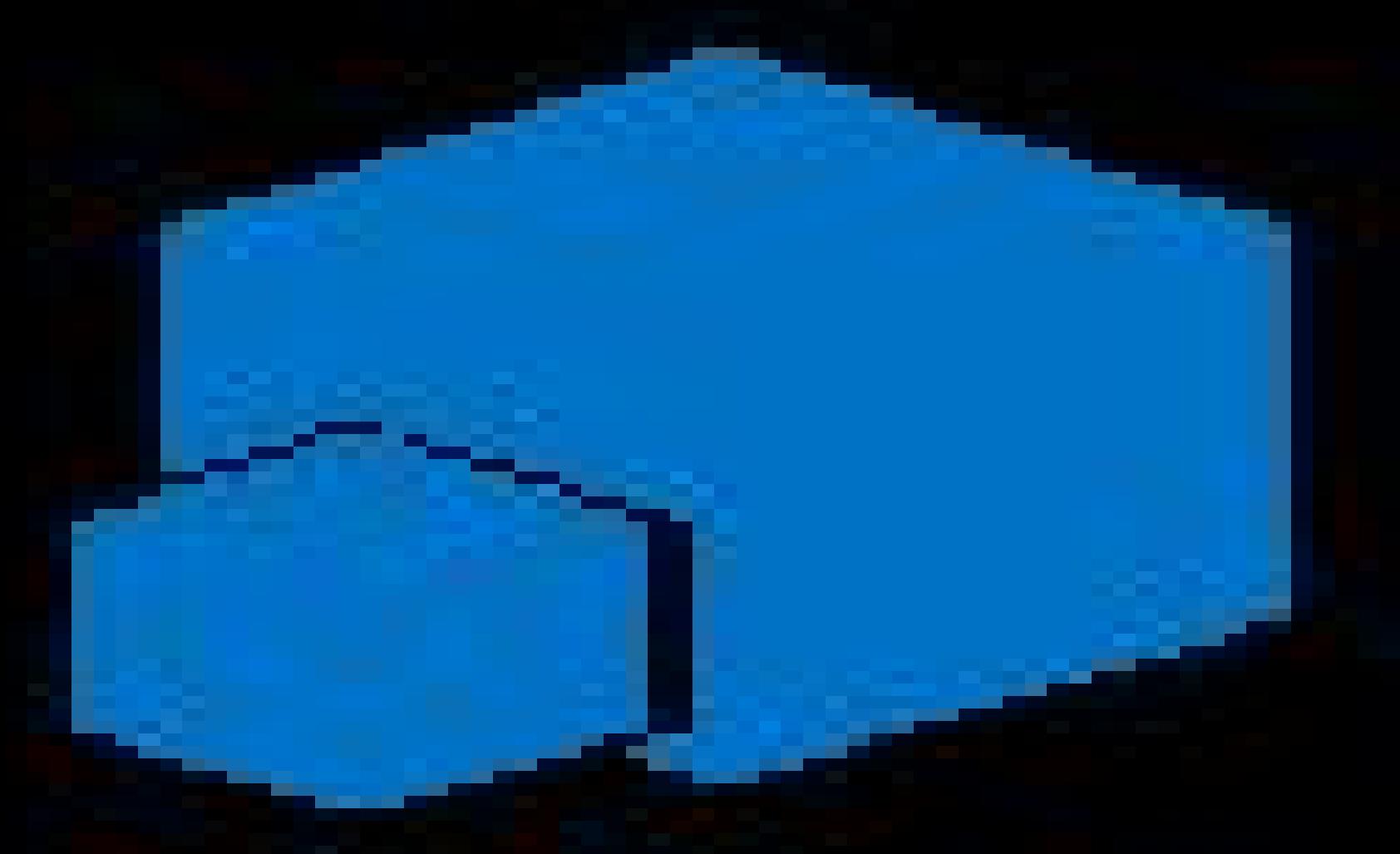




MEN

Look the moral dilemma we're in. The sheriff's corruption is pushing us to do something we may regret...
What a disgrace!









WOMAN

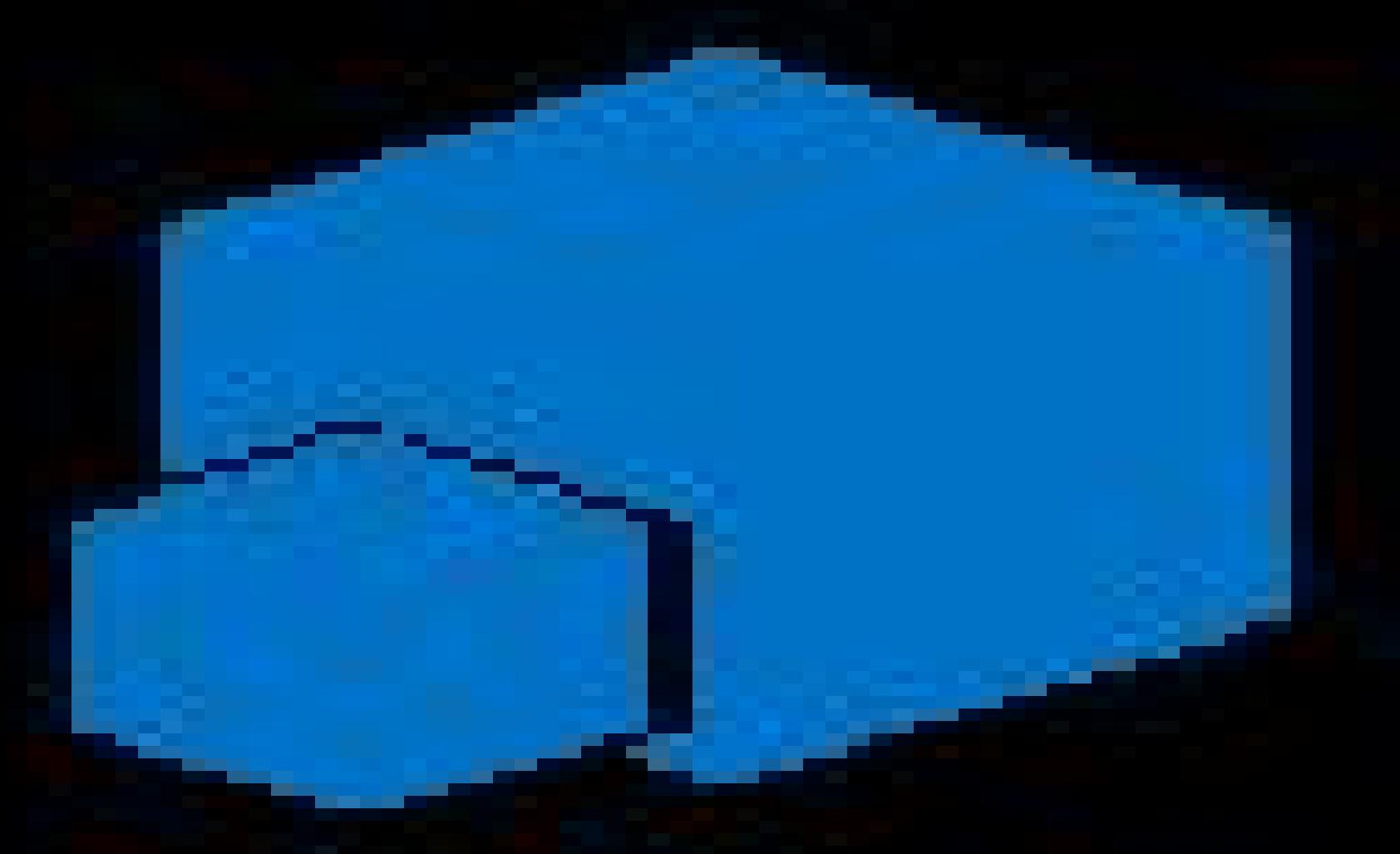
I think so. She is the wife of poor George Atkinson, a carpenter by trade, who fell off a roof and has been a cripple ever since.





R. FITZWALTER

If she is the only breadwinner, and her family needs her, why take her to the pilori instead of having her pay a fine?





R. FITZWALTER

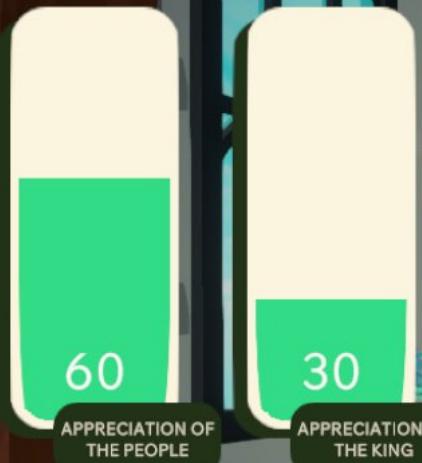
Sheriff, it is my understanding that you directed the jury to obtain the verdict you wanted. This poor woman does not deserve the punishment she got.



SHERIFF

How dare you say so? My role is to impose law and order unto this village. I am going to report you to the king.







R. FITZWALTER

You let me have your three fields located in Dunford.

You and your brother are to marry the daughters of my dear friend Mr Barnes. I know his social standing is lower than yours, but they are beautiful and will give you strong children.

Please sit down and wait for it. You can offer me the hand of your beloved sister, Lily.



80

APPRECIATION OF
THE PEOPLE

50

APPRECIATION OF
THE KING





A medieval town square with a fishmonger, a boy, and a map.

FISHMONGER

You liar! There is no way you are going to stay here! This is my spot!





FISHMONGER

This has been my stall space for the past years. When I arrived with the fish this morning, my space was occupied by him! And what am I supposed to do with my fish?





BUTCHER

Hey, this is my space now! Go away! People want red meat!





Les Hundred Courts

Il y avait plusieurs tribunaux de ce type dans chaque comté. Les audiences se tenaient une fois par mois. Il s'agissait d'un tribunal populaire présidé par le shérif.

<

1/1

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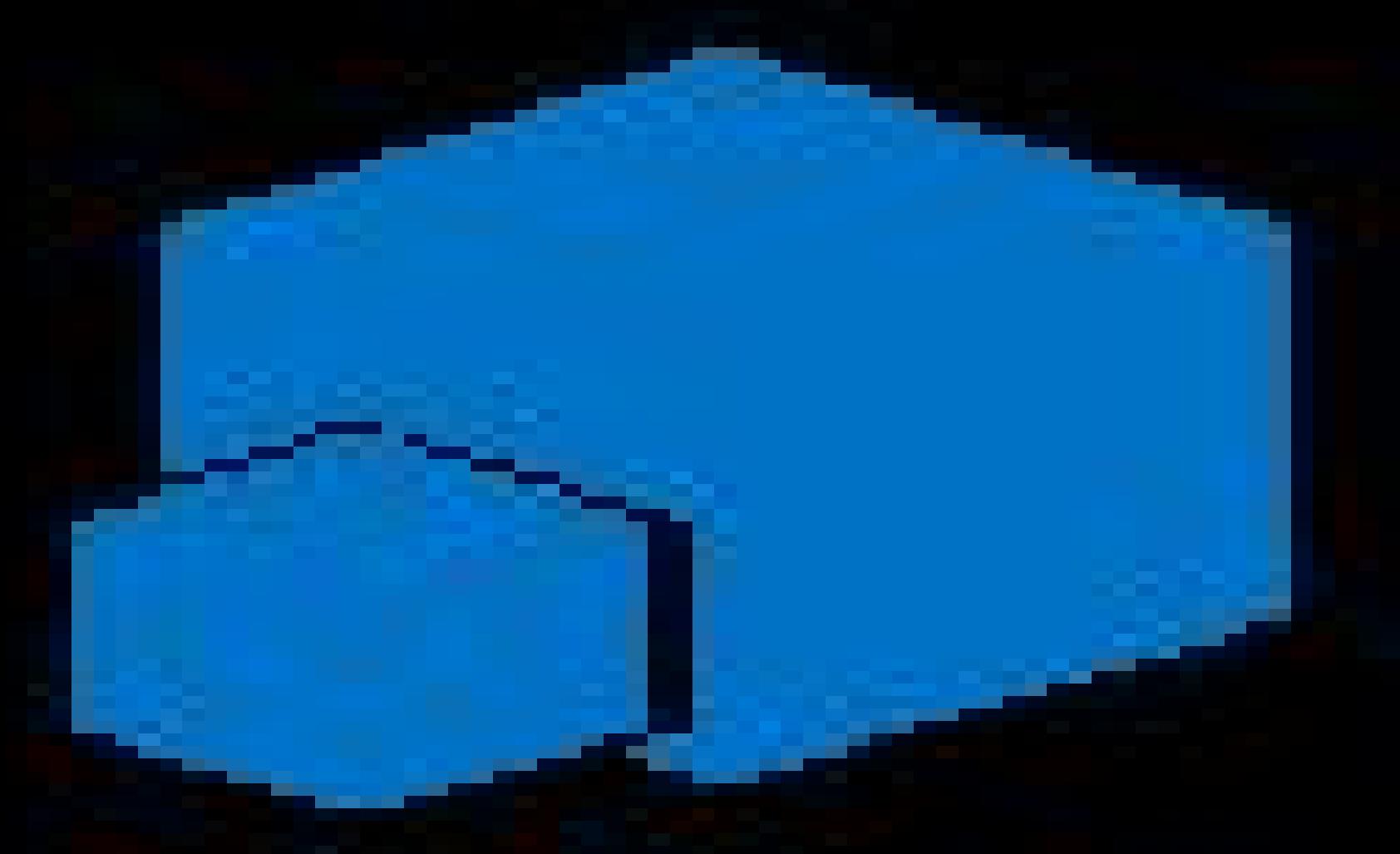
R. FITZWALTER

Oh, you are asking me to intervene, but this is beyond my prerogatives. I think you'd better submit your case to the next Hundred Court. The next sitting is tomorrow.



SHERIFF

Ladies and Gentlemen, the Hundred Court assembled here, and that I am presiding in my capacity of sheriff, is to give its verdict. The Court has decided that the butcher is to keep the stall.





**The people like you so much
that the king distrusts you
and has you assassinated.**

RESTART THE LAST QUEST

MAIN MENU

QUIT







LORD

Yet another arbitrary decision made by John! This should be no more!





R. FITZWALTER

Your Majesty, you know what we are here for. The day has come. You have been aware of our grievances and our disapproval of your governing methods. Reforms are now needed! As you might still remember, a few months ago we besieged London and we are ready to go further! You must now abide by the law!



KING JOHN

I can agree with renouncing rivers but certainly not all the forests! Let's replace "all the forests" by "half of the forests.





Success!

King John has signed the Magna Carta, and the kingdom
celebrates!

You have effectively limited the king's excessive
powers.

A basic Parliament is now in place.

Having the Magna Carta gives you a strong tool for
future talks with the monarchy, securing stability for the
realm.

The impact of the Magna Carta will echo through
history, influencing nations for generations!

RESTART THE LAST QUEST

MAIN MENU

QUIT

Supreme Court

of the United States

NEW GAME

CONTINUE

OPTIONS

QUIT



Music by Tim beek



Year: this year
Place : Washington, United States of America
Role: Lin Singh, US Supreme Court Justice

The federal Supreme Court is about to give an opinion on the Fisher v. State case. This is a climate case in which a group of youngsters has challenged the state of South Montana over the constitutionality of certain state laws and their enforcement.

0
PLAINTIFFS' ARGUMENTS

0
DEFENDANTS' ARGUMENTS



From what you have heard, the Justices are deeply divided on the issue, and their opinion is expected any time soon.

Now, you stand at a pivotal moment in history. The choices you make will shape your destiny and influence the future of the entire country.

Now the stage is set, and the story is about to unfold.

Climate Change Litigation Databases

**U.S. CLIMATE CHANGE
LITIGATION**

**GLOBAL CLIMATE CHANGE
LITIGATION**

This site provides two databases of climate change caselaw. The Global database includes all cases except those in the U.S. Cases in the databases are organized by type of claim and are searchable. For many cases, links are available to decisions, complaints, and other case documents.

 Columbia **Law School** | COLUMBIA CLIMATE SCHOOL
SABIN CENTER FOR CLIMATE CHANGE LAW



U.S. CLIMATE CHANGE LITIGATION

State Law
Claims

Environmentalist Lawsuits

113 CASES FOUND

Lowry v. Proctor & Gamble Co.

Filing Date: 2025 Court/Admin Entity: W.D. Wash.

Status: Motion to dismiss filed. [03/20/2025]

Description: Greenwashing class action against the manufacturer of Charmin toilet paper.

[READ MORE >](#)**Sierra Club v. New York State Department of Environmental Conservation**

Filing Date: 2025 Court/Admin Entity: N.Y. Sup. Ct.

Status: Memorandum of law filed in support of verified petition. [01/22/2025]

Description: Challenge to the issuance of a new Clean Air Act Title V permit for the Caithness gas-fired power plant on Long Island.

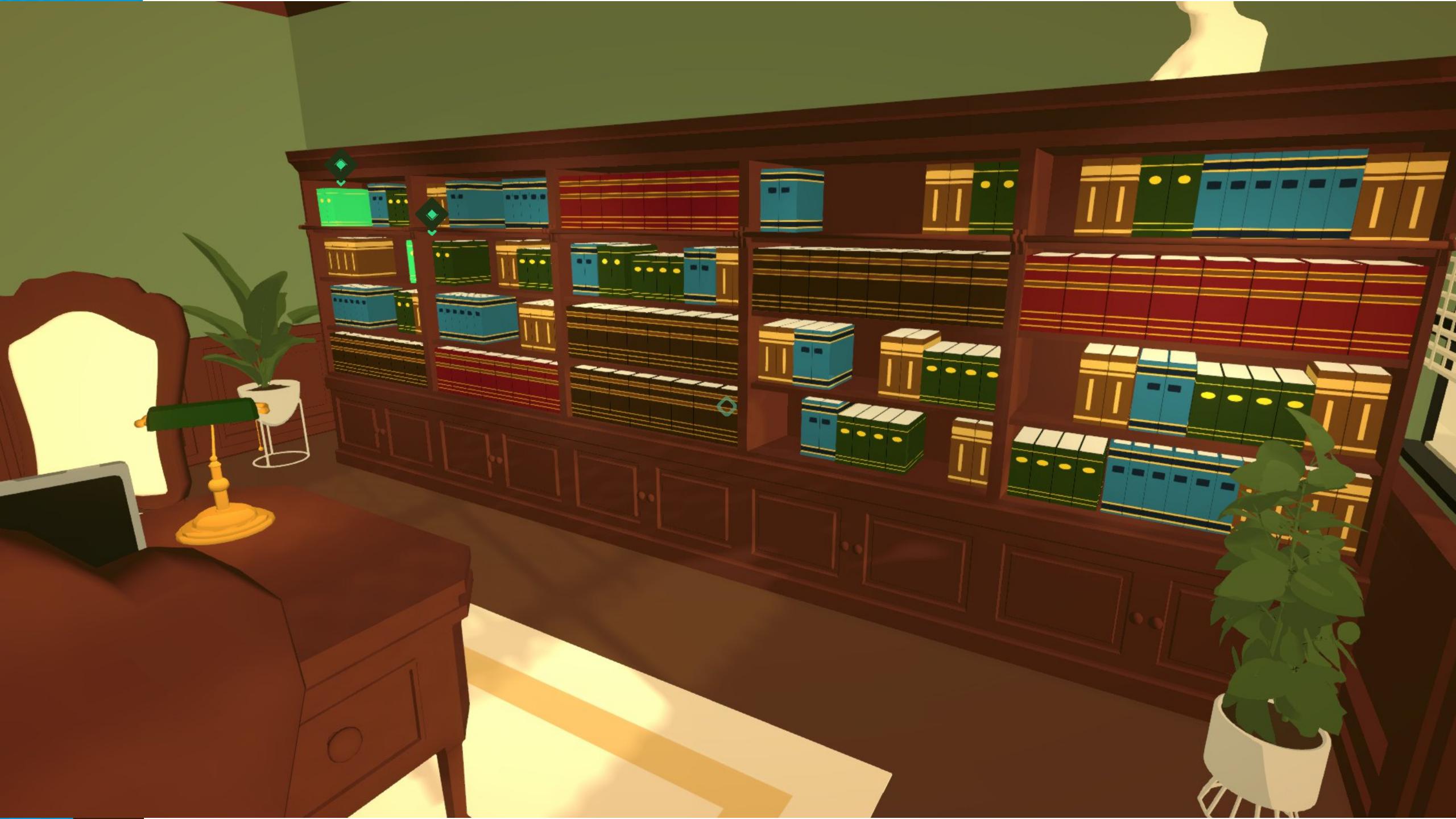
[READ MORE >](#)



ALEX

Good morning, Justice Singh. There's no time to waste today.





Arguments

FISHER VS. STATE

- many of us are too young to vote
- most political decisions made by our elected representatives have overlooked us and failed to shield us from the consequences of their policies.

ORDER ON MOTION TO DISMISS

- certain elements of the plaintiffs' request, such as mandating a statewide emissions reduction plan or appointing a special master, exceeds the court's authority under the political question doctrine.

ORDER ON MOTION TO DISMISS

The court finds that *certain elements of the plaintiffs' request, such as mandating a statewide emissions reduction plan or appointing a special master, exceeds the court's authority under the political question doctrine.*

Yet, the court upholds the challenge to provisions of South Montana's Environmental Policy Act (SMEPA), which prohibited the state from considering greenhouse gas emissions in environmental reviews.



You have selected
the maximum number
of arguments.
You cannot select
more

1/1

ARGUMENT



1/2



Arguments

- Many of us are not yet old enough to vote.

MEMORIAL HOSPITAL OF SOUTH MONTANA - REPORT ON THE EFFECTS OF THE RECENT CLIMATE EVENTS

- the growing health burden linked to climate events and their cascading effects on physical and mental well-being.

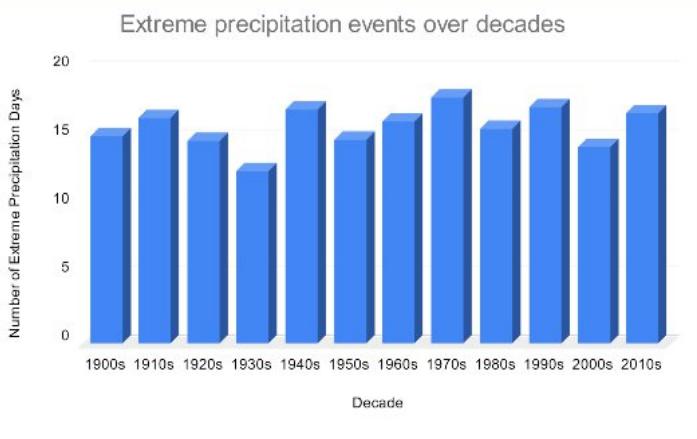
SOUTH MONTANA FOREST AGENCY REPORT

- Climate change continues to impact regions worldwide, including our South Montana Forests and Grasslands

Pr. TURMERIC'S REPORT

- Very hot nights are rare, fewer than 5 per year on average, with fluctuations staying within historical norms.
- Similarly, South Montana's annual rainfall since the 1930s has ranged from 250 to 500 millimeters, with no clear trend in total precipitation, reflecting long-term stability.

Pr. TURMERIC'S REPORT



Similarly, South Montana's annual rainfall since the 1930s has ranged from 250 to 500 millimeters, with no clear trend in total precipitation, reflecting long-term stability.



14

PLAINTIFFS'
ARGUMENTS

6

DEFENDANTS'
ARGUMENTS

You have selected enough arguments. You can close the document or try to find more arguments.

2/3
ARGUMENT









JEFF SOMERFELD

Our agriculture and our standards of living are in danger. We, farmers, are indebted while we have families to maintain. Our trade practices are being constantly scrutinized and demonized, even by our relatives. We are encountering the disapproval of our own children, our flesh and blood!





**GROUP OF
DEMONSTRATORS**

Shouting - We are South Montana, and so is our wildlife!





JIM

Citizens are protesting

Our top story today as the Supreme Court decision is expected shortly. Joining from the courthouse is our own Randall Bask. Over to you Randall.





LYNSEY

On the phone - Ur so naive, mum! Politicians are puppets of corporate fossil-fuel lobbies. They would do anything to get money for their campaigns >_< * __ *





JUSTICE T. BEDEE

Knock, knock.



JUSTICE T. BEDEE

These are tumultuous times, and I believe that this is our duty as justices to prevent the country to run into chaos. Those young socialists have seized the protection of the environment as their new cause. And now, everyone is embracing it as if it were the only important issue our society has been facing.





RANDALL

Justice Singh, don't you feel climate change activists, including your daughter, are acting as responsible citizens, like we should all be acting?

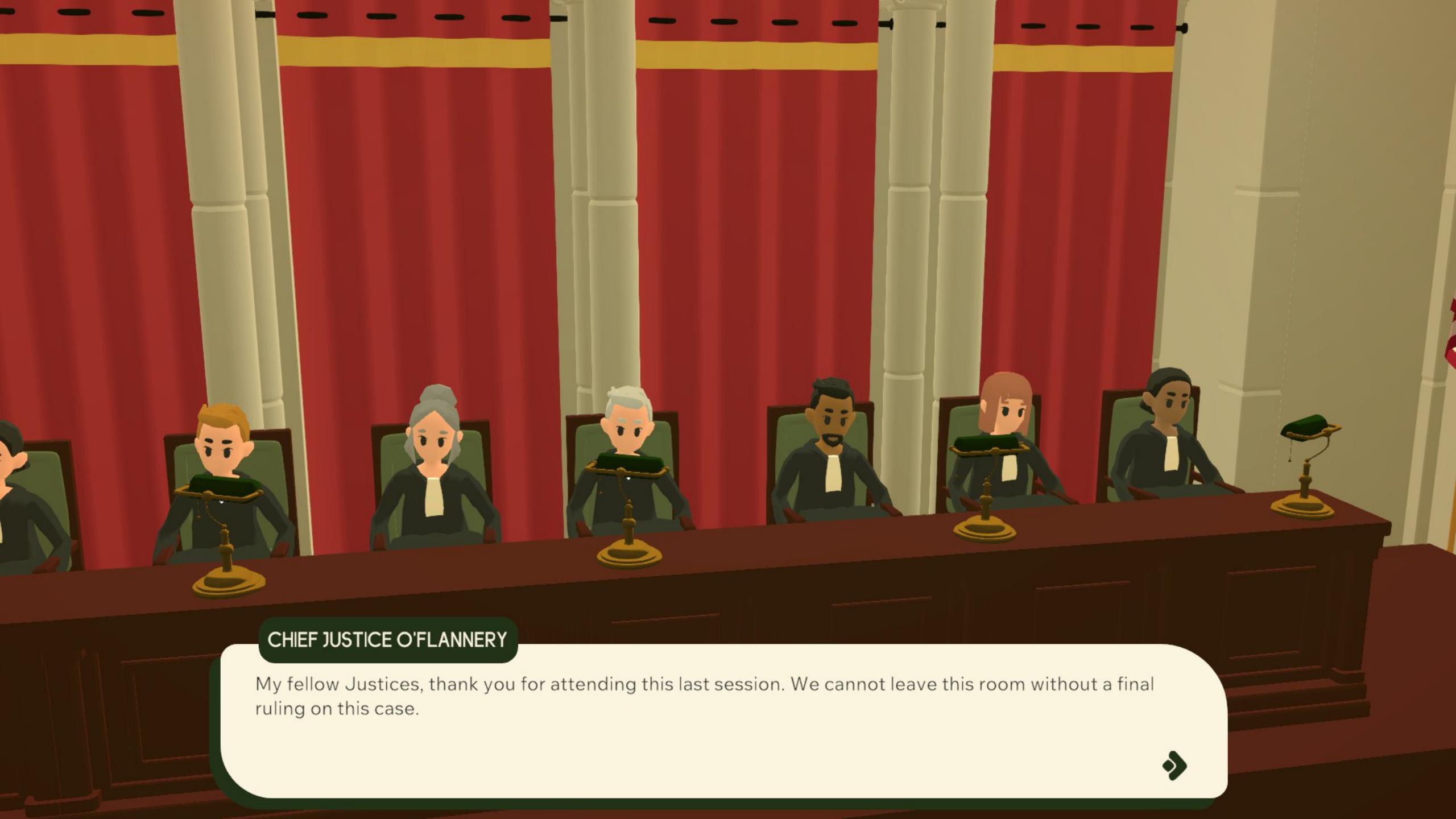




RANDALL

If you give me your opinion, our conversation will be privileged.





CHIEF JUSTICE O'FLANNERY

My fellow Justices, thank you for attending this last session. We cannot leave this room without a final ruling on this case.



JUSTICE T. BEDEE

If I may, Chief Justice, I think the stakes are indeed very important. Still, it seems that there are only four lucid justices on this court. Four justices who understand that the stability of our economy is to be protected at all costs if we do not want to have more Americans living under the poverty threshold and rely on food stamps.





LIN SINGH

You raise your hand to indicate your vote in favour of the plaintiffs.

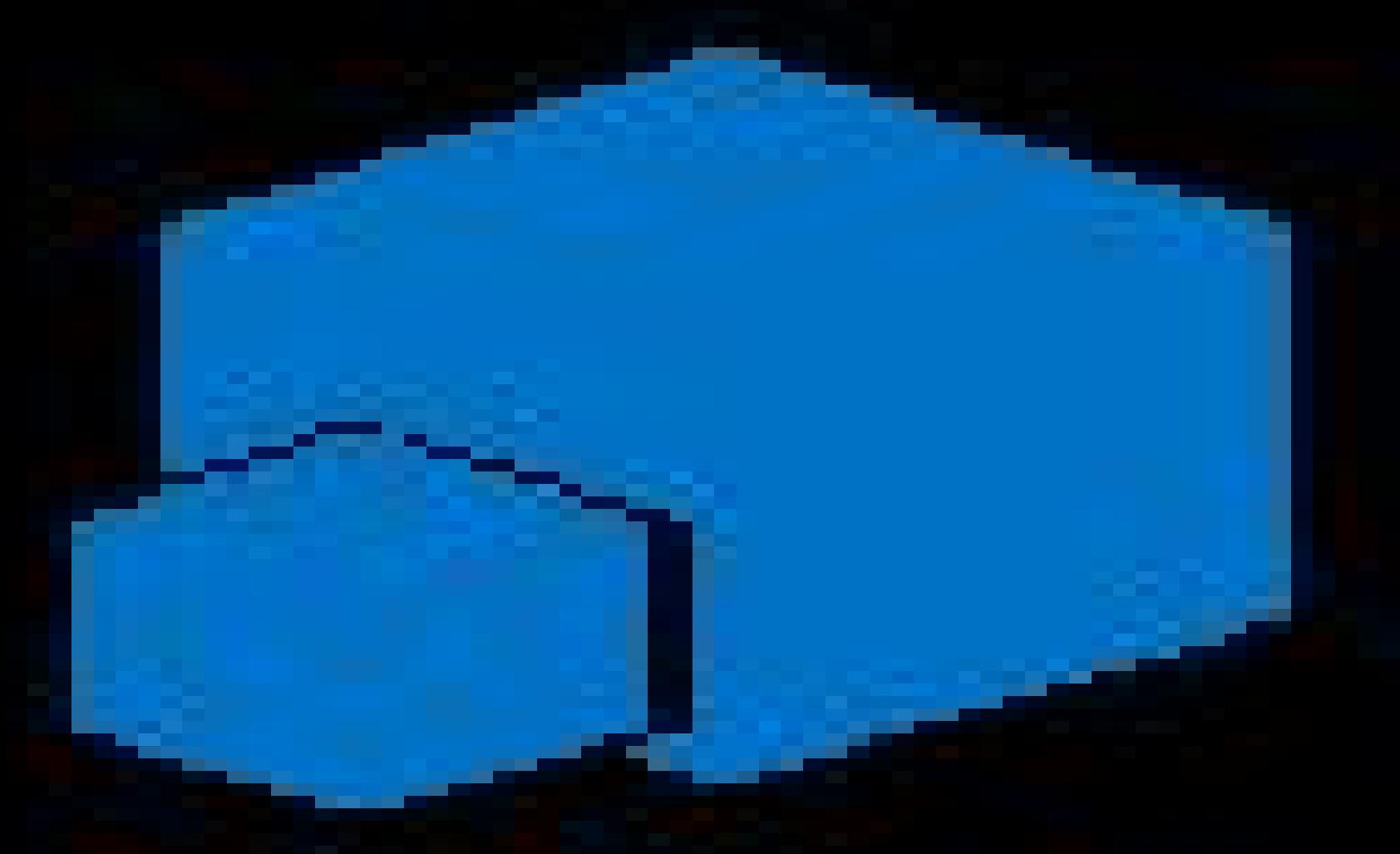
You keep your hands down and raise your hand straight after in favour of the defendants.

16

PLAINTIFFS'
ARGUMENTS

6

DEFENDANTS'
ARGUMENTS



**Collaborating with the
various stakeholders**

Balancing design, learning outcomes and costs

- Some graphics were added along the way to fit with learning outcomes



Balancing design, learning outcomes and costs

- Some functionalities were added along the way to fit with learning outcomes, e.g. translation option in Magna Carta



Balancing design, learning outcomes and costs

- Some graphics were omitted, in order to keep costs low



Balancing design, learning outcomes and costs

- Sticking to the scenario while keeping costs low



Balancing design, learning outcomes and costs

- Sometimes, teachers had little grasp over graphic options



Balancing costs

Funding came in several phases

	Year 1	Year 2	Year 3	Year 4
	2021-2022	2022-2023	2023-2024	2024-2025
Contract 1				
Scenario and project management	5436,25			
Contract 2				
Scenario and project management		6086,12		
Graphics and music		17600		
Testing (student contract)		682,08		
Graphic assets, law-faculty funded			450	
Amendment to contract 2				
Scenario and project management		4698		
Graphic assets		500		
Development		4000		
Total	5436,25	24368,2	9648	
Grand total				39452,45

Balancing costs

- Development in the framework of a consortium, with membership fees that included game development time
- Consortium had several membership plans
- Game design decisions impacted on development costs and project duration, so on costs too

Q&A on technical, pedagogical and institutional scalability

References (1)

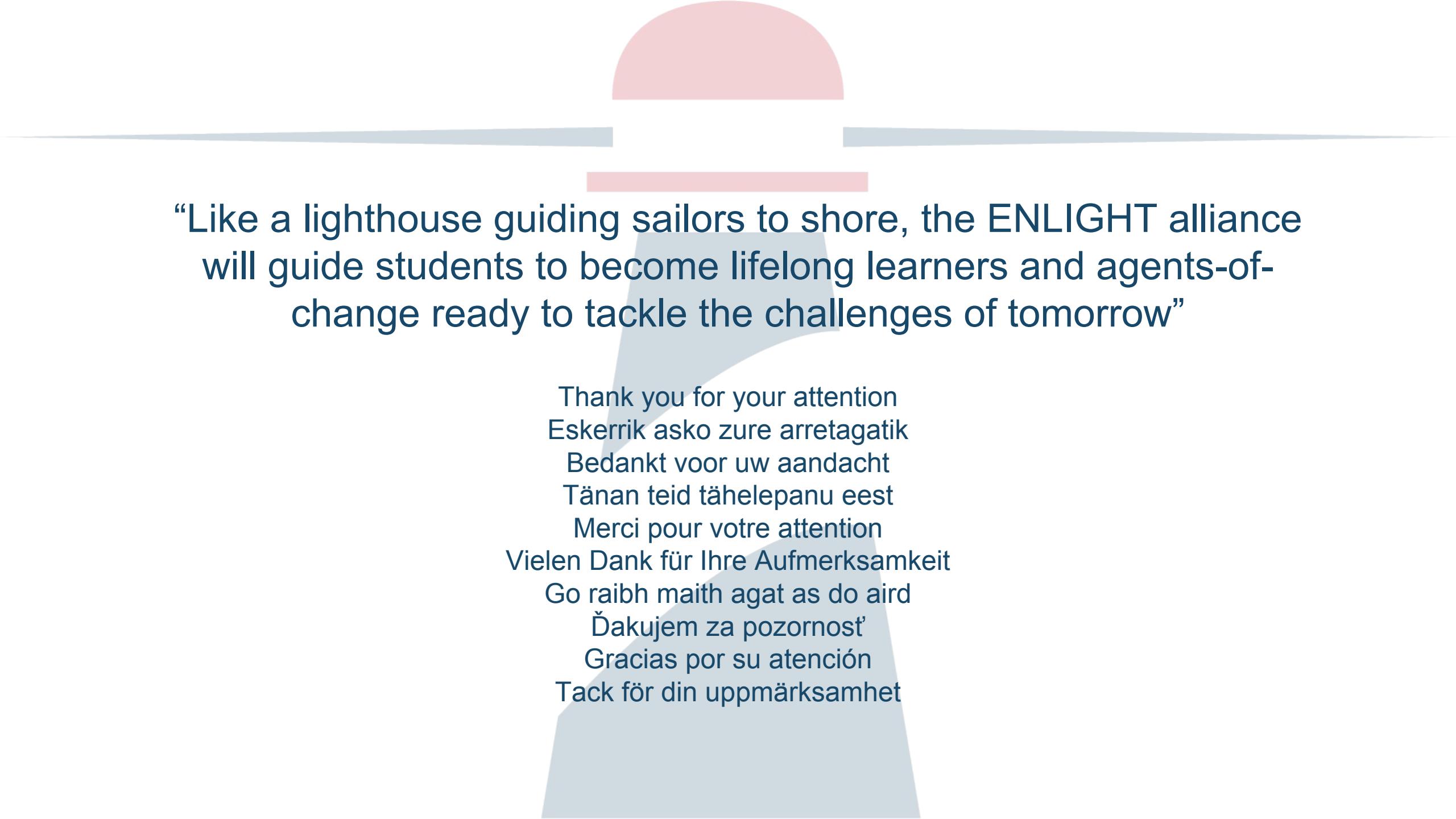
- Aldrich, C., 2009, Learning Online with Games, Simulations, and Virtual Worlds : Strategies for online instruction. John Wiley and Sons.
- Anderson et al., 2010, "Developing serious games for cultural Heritage: a state-of-the-art review, Virtual Reality vol. 14, p.255-275, DOI: 10.1007/s10055-010-0177-3
- Baranowski, T., Buday, R., Thompson, D. I., & Baranowski, J., 2008, "Playing for Real. Video Games and Stories for Health-Related Behavior Change", American Journal of Preventive Medicine, vol.34(1), p.74-82, DOI: 10.1016/j.amepre.2007.09.027.
- Bartle, R., 2003, Designing Virtual Worlds, San Francisco: New Riders/Peachpit Press
- Bartle, R., 1996, "Hearts, Clubs, Diamonds, Spades: Players Who Suit MUDs", available at: <http://mud.co.uk/richard/hcds.htm>
- Bekebrede, G., Warmelink, H., & Mayer, I., 2011, "Reviewing the need for serious games in education to accommodate the net generation. Computers & Education, 2011, vol. 57, no 2, p. 1521-1529.
- Bogost, I., 2007, Persuasive Games: The Expressive Power of Videogames, Cambridge, MA: MIT Press. DOI 10.7551/mitpress/5334.001.0001
- Bogost, I., Ferrari, S., & Schweizer, B., 2010, Newsgames: Journalism at Play, Cambridge, MA: MIT Press. DOI 10.7551/mitpress/8854.001.0001
- Connolly, T. M., Boyle, E. A., MacArthur, E., Hainey, T., & Boyle, J. M., 2012, "A systematic literature review of empirical evidence on computer games and serious games", Computers & Education, vol. 59, no. 2, p. 661–686. DOI 10.1016/j.compedu.2012.03.004
- Crookall, D., 2010, "Serious games, debriefing, and simulation/gaming as a discipline", Simulation & Gaming, vol. 41, no. 6, p. 898–920. DOI : 10.1177/1046878110390784
- De Freitas, S., & Oliver, M., 2006, "How can exploratory learning with games and simulations within the curriculum be most effectively evaluated?", Computers & Education, vol. 46, no. 3, p. 249–264. DOI 10.1016/j.compedu.2005.11.007
- De Souza e Silva, A., & Delacruz, G., 2006, "Hybrid reality games reframed: Potential uses in educational contexts", Games

References (2)

- Deterding, S., Dixon, D., Khaled, R., & Nacke, L., 2011, “From game design elements to gamefulness: defining ‘gamification’”, *Proceedings of the 15th International Academic MindTrek Conference*, ACM, p. 9–15. DOI 10.1145/2181037.2181040
- Domínguez, A., Saenz de Navarrete, J., de Marcos, L., Fernández Sanz, L., Pagés, C., & Martínez Herráiz, J. J., 2013, “Gamifying learning experiences: Practical implications and outcomes”, *Computers & Education*, vol. 63, p. 380–392. DOI 10.1016/j.compedu.2012.12.020
- Fong, T. C., Lu, S., Ye, X., Junus, A., & Yip, P. S., 2024, “Validation of the 12 item gamification user types hexad scale in 1,610 Hong Kong young gamers”, *International Journal of Mental Health and Addiction*, p. 1–19.
- Gee, J. P., 2003, *What Video Games Have to Teach Us about Learning and Literacy*, New York: Palgrave Macmillan.
- Graafland, M., Schraagen, J. M., & Schijven, M. P., 2012, “Systematic review of serious games for medical education and surgical skills training”, *British Journal of Surgery*, vol. 99, no. 10, p. 1322–1330. DOI 10.1002/bjs.8819
- Huizenga, J., Admiraal, W., Akkerman, S., & ten Dam, G., 2009, “Mobile game based learning in secondary education: Engagement, motivation and learning in a mobile city game”, *Journal of Computer Assisted Learning*, vol. 25, no. 4, p. 332–344. DOI 10.1111/j.1365-2729.2009.00316.x
- Jansz, J., & Martens, L., 2005, “Gaming at a LAN event: The social context of playing video games”, *New Media & Society*, vol. 7, no. 3, p. 333–355. DOI 10.1177/1461444805052280
- Lean, J., Moizer, J., Towler, M., & Abbey, C., 2006, “Simulations and games: Use and barriers in higher education”, *Active Learning in Higher Education*, vol. 7, no. 3, p. 227–242. DOI 10.1177/1469787406069056
- Marczewski, A., 2015, “User Types”, in *Even Ninja Monkeys Like to Play: Gamification, Game Thinking and Motivational Design*, CreateSpace Independent Publishing Platform, p. 65–80.
- Mayer, R. E., 2014, *Computer Games for Learning: An Evidence Based Approach*, Cambridge, MA: MIT Press. DOI 10.7551/mitpress/9780262027571.001.0001
- Mortara, M., Catalano, C. E., Bellotti, F., Fiucci, G., Houry Panchetti, M., & Petridis, P., 2014, “Learning cultural heritage by serious games”, *Journal of Cultural Heritage*, vol. 15, no. 3, p. 318–325. DOI 10.1016/j.culher.2013.04.004

References (3)

- Nacke, L. E., Bateman, C., & Mandryk, R. L., 2014, “BrainHex: A neurobiological gamer typology survey”, *Entertainment Computing*, vol. 5, no. 1, p. 55–62. DOI 10.1016/j.entcom.2013.06.002
- Prensky, M., 2003, *Digital Game-Based Learning*, *ACM Computers in Entertainment*, vol 1(1), <https://www.academia.edu/download/50711742/digitalgamebasedlearning.pdf>
- Radianti, J., Majchrzak, T. A., Fromm, J., & Wohlgenannt, I., 2020, “A systematic review of immersive virtual reality applications for higher education: Design elements, lessons learned, and research agenda”, *Computers & Education*, vol. 147, p. 103778.
- Reinhardt, J., & Sykes, J. M., 2014, *Language at Play: Digital Games in Second and Foreign Language Teaching and Learning*, Pearson.
- Ryan, R. M., & Deci, E. L., 2020, “Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions”, *Contemporary Educational Psychology*, vol. 61, p. 101860. DOI 10.1016/j.cedpsych.2020.101860
- Squire, K., 2011, *Video Games and Learning: Teaching and Participatory Culture in the Digital Age*, New York: Teachers College Press
- Steinkuehler, C., & Duncan, S., 2008, “Scientific habits of mind in virtual worlds”, *Journal of Science Education and Technology*, vol. 17, no. 6, p. 530–543. DOI 10.1007/s10956-008-9120-8
- Tondello, G. F., Wehbe, R. R., Diamond, L., Busch, M., Marczewski, A., & Nacke, L. E., 2016, “The Gamification User Types Hexad Scale”, *Proceedings of the 2016 Annual Symposium on Computer-Human Interaction in Play (CHI PLAY)*, ACM, p. 229–243. DOI 10.1145/2967934.2968082
- Vera Cruz, G., Barrault-Méthy, A. M., Bove, M. D., & Nauge, M., 2023, “Relationship between gamer profiles, gaming behavior, sociodemographic characteristics, and big five personality traits among French law students”, *BMC Psychology*, vol. 11, no. 1, p. 285. DOI: 10.1186/s40359-023-01329-6



“Like a lighthouse guiding sailors to shore, the ENLIGHT alliance will guide students to become lifelong learners and agents-of-change ready to tackle the challenges of tomorrow”

Thank you for your attention
Eskerrik asko zure arretagatik
Bedankt voor uw aandacht
Tänan teid tähelepanu eest
Merci pour votre attention
Vielen Dank für Ihre Aufmerksamkeit
Go raibh maith agat as do aird
Ďakujem za pozornosť
Gracias por su atención
Tack för din uppmärksamhet

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