EdSutra

Teaching guide

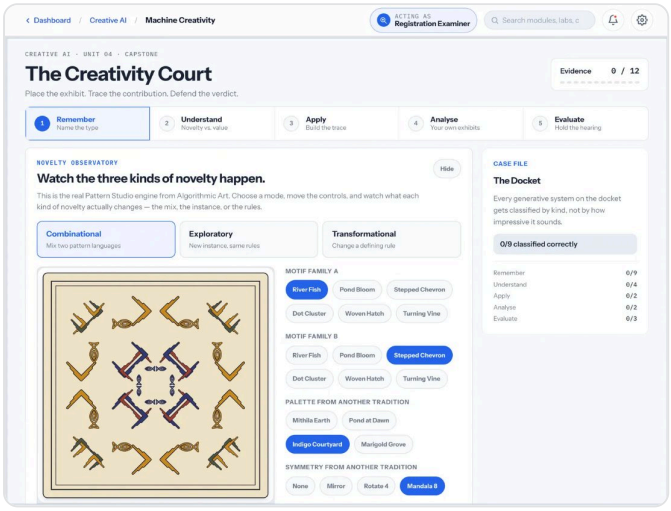
Module 07 · Creative AI · Unit 04 · Stage 2, Capabilities

Machine Creativity

The Creativity Court

Grades 7–11 | **30 minutes** | Role: **Registration Examiner**

Grade 7: About age 12–13 · Year 8 in the UK · Class 7 in India



The big idea

Calling a piece "creative" is a claim that needs evidence. Creativity comes in kinds (combinational, exploratory, transformational), and novelty is not the same as value. A contribution trace shows which of seven jobs a person or a machine did. Creativity, credit, consent and copyright are separate questions; US copyright law requires a human author.

The learner's job

Learners are the **Registration Examiner** at The Long Room · Court. Anyone can call a piece 'creative.' The registry needs a ruling backed by evidence. Their task: decide what a piece owes to a machine, and what it owes to a person.

By the end, learners can say

- I can classify examples of generative creativity as combinational, exploratory, or transformational without anthropomorphising the system
- I can distinguish novelty from value and justify a grid placement with cited evidence
- I can trace a generated artifact's contribution across source, system design, prompt/rules, sampling, selection, editing, and presentation
- I can apply that same contribution trace to your own saved Algorithmic Art and Music & AI work
- I can evaluate real, dated copyright precedent and defend a verdict with coherent evidence

Before class

- One computer or tablet for each learner or pair, with EdSutra open (this Module is part of the full EdSutra studio).
- Open the studio once on each device before class, so the Unit still runs if the internet drops.
- Learners should save a pattern in Algorithmic Art and a melody in Music & AI, on the same device: Analyze traces that work.
- Play the first two steps yourself, so you know where learners will click.
- The four precedent cases are real US decisions. Read them before class so you can answer questions about dates and outcomes.
- Best after Algorithmic Art and Music & AI.
- Units open in order, and Module 1 comes first. To start a class here, switch on Open every Unit in Settings → Teachers & parents.

Words to introduce

Combinational creativity: A fresh mix of familiar ideas, like a lighthouse merged with a teapot.

Exploratory creativity: Something new made inside fixed rules, like a new seed's pattern.

Transformational creativity: Changing the rules of a space, so new kinds of ideas become possible.

Novelty and value: How new something is, and how useful or wanted it is.

Contribution trace: A record of seven jobs, each marked Human, Machine or Not used.

Copyright: A legal right that protects a person's original work from copying.

Precedent: An earlier legal decision that guides how similar cases are ruled.

Running the lesson 35 minutes

Open 5 min

"Anyone can call a piece of AI art "creative". What evidence would you need before you agreed?"

Before anyone clicks, ask: an AI-made image wins an art prize. Can its maker also get copyright for it? Take a vote, note the count, and return to it in Evaluate's 600-prompt hearing.

Step	What learners do	Ask the class	Listen for
1. Remember 5 min	Learners sort nine examples into chambers: combinational, exploratory, transformational or not confirmed. One card is a trap, an AI that "wanted" to surprise people. The Novelty Observatory lets them watch each kind first.	• Why is a new seed in the Pattern Studio exploratory, not transformational? • What would count as evidence that a system "wanted" something?	Exploratory stays inside fixed rules; transformational changes the rules. Output alone is not evidence of wanting or imagining.
2. Understand 6 min	Learners predict whether novelty and value can move apart, then place four exhibits on the novelty-by-value floor, citing evidence for each. Three placements must be backed by evidence.	• Which exhibit is new but not good, and what evidence shows it? • Which evidence chip did you leave out, and why did it not count?	Novelty and value are separate: Sixteen Silent Frames is new but unreadable; Riverside, Take 4 is a near-copy that is still useful.
3. Apply 6 min	For two case files, learners assign seven jobs (source, system design, prompt or rules, sampling, selection, editing, presentation) to Human, Machine or Not used, then check against the case file.	• Which job did the machine really do in both pieces? • Why is editing "Not used" for the pattern but human for the melody?	The machine did the sampling. People designed the system, set the rules, chose, edited and presented the work.
4. Analyze 5 min	Learners run the same seven-job trace on their own saved pattern and melody from earlier Units. With no saved work, bundled samples appear instead.	• In your own melody, which notes were yours and which were the machine's? • Did tracing your own work change how much credit you would claim?	Specific jobs, named: "I set the rules and chose the take; the machine sampled; I edited two notes."
5. Evaluate 8 min	Learners read four real, dated copyright decisions, then rule on three hearings, such as a logo made with no human input. The verdict is not graded; the evidence behind it is.	• Could the Zero-Prompt logo be registered in the US? Which precedent decides it? • The 600-prompt image won a prize. Does that settle copyright? Check our vote.	US law needs a human author, as in Thaler. A prize shows merit; copyright is a separate legal question.

Steps follow Bloom's revised taxonomy, in the order the Unit presents them.

Deepen the thinking

Critical thinking	Static #88 is random noise no one has seen before, yet its novelty counts as low. Why might pure randomness not count as new?
AI thinking	In both case files the machine did the sampling and people did most other jobs. Would that change for a big image generator? Which jobs?
Ethics and fairness	In one hearing, a poster copied the look of a living illustrator. Even with credit given, is that fair to the illustrator? What would make it fair?
Connect to life	Think of a school project you made with help. How would you split the seven jobs between you, your helpers and your tools?

Misconceptions to listen for

"The AI wanted to make something new."
Remember's trap card belongs in "Not confirmed": output alone is not evidence that a system wanted, imagined or felt anything.

"If it is new, it must be good."
The evidence floor separates them: Sixteen Silent Frames is new but unreadable, and Riverside, Take 4 is a near-copy an app licensed.

"Winning a prize proves it can be copyrighted."
Théâtre D'Opéra Spatial won a 2022 prize, yet registration was refused when its maker would not exclude the AI-made part. Merit and copyright are separate.

In real life the card learners see at the end of the Unit

- News about AI-made art winning a contest sparks debate over what is new, good, and whose.
- When a chatbot says it "loved" your idea or "imagined" something, that's output, not proof of feelings.
- US courts have ruled that a work made by AI with no human author can't get copyright.

Try it this week. Pick a song, game or drawing you love. List who chose the idea, the rules, the edits and the final version. Who did most?

Watch out for. New isn't the same as good. And who made it, who owns it and who gets credit are separate questions.

Talk about it. Can a machine be creative, or only the people who build and use it? Why?

Exit ticket

1. What is the difference between exploratory and transformational creativity?

   _____

2. Give one example of something new that is not valuable.

   _____

3. Name two of the seven jobs in a contribution trace, and who did them.

   _____

Going further

Next, the Creation Checkpoint quiz closes the Module. In the Sound and Music Lab, learners play chords with their hands (camera optional); afterwards, they can trace the seven jobs behind the chord loop they built.