

how does it apply to Generative AI - Can I say a model is creative ONLY when the field (social-cultural) says it is ? So basically, the AI could generate 'inintelligible' novel idea and the human will deem them not creative ?

According to Csikszentmihalyi's systems model of creativity, **yes**—creativity requires validation by the "field" (social-cultural gatekeepers) to be recognized as such. However, this framework raises critical questions about AI's role in creativity and how we define "value" in generative outputs. Here's how this applies to generative AI:

1. Csikszentmihalyi's Model Applied to Generative AI

- **Domain:** The cultural knowledge (e.g., art, science, literature) that AI trains on.
- **Individual:** The AI system generating outputs.
- **Field:** Human evaluators (critics, users, institutions) who decide whether AI outputs are creative.

Under this model, **AI-generated content is only "creative" if the human field deems it novel, valuable, and culturally significant.** For example:

- An AI-generated poem is creative *only if* poets or readers recognize its originality and artistic merit ^{[1] [2] [3]}.
- An "unintelligible" AI idea (e.g., a nonsensical image or text) would not be creative because the human field cannot interpret or value it ^{[4] [5]}.

2. Key Challenges with AI "Creativity"

- **Human-Centric Bias:** Current definitions of creativity prioritize human judgment. AI outputs that defy human comprehension or cultural norms (e.g., radical mathematical proofs, alien art styles) may be dismissed as non-creative, even if novel ^{[2] [3]}.
- **Value Ambiguity:** AI can produce novel outputs, but whether they are "valuable" depends on subjective human criteria (e.g., aesthetic appeal, utility) ^{[4] [6]}.
- **Authorship Questions:** If an AI generates a groundbreaking idea, who gets credit? The AI, its developers, or the user prompting it? Current systems exclude non-human actors from the "field" ^{[2] [3]}.

3. Emerging Research Insights

- **Social Validation Matters:** Studies show AI-generated content is rated more "creative" when it aligns with human preferences. For example, stories written with AI assistance are judged as more creative—but *only if they resonate with readers*^[6].
- **The Filtering Problem:** AI tools like recommendation algorithms now act as *de facto* gatekeepers, shaping what humans see as creative (e.g., trending art styles on social media). This creates a feedback loop where AI both generates and filters creativity^{[2] [3]}.
- **Collective vs. Individual Creativity:** While AI enhances individual creativity (e.g., helping novice writers), it risks homogenizing outputs, reducing collective novelty^{[6] [3]}.

4. Revisiting the Definition of Creativity

Csikszentmihalyi's model assumes creativity is a **social process**, but AI challenges this:

- **Non-Human Fields:** Could AI systems form their own "fields" to evaluate creativity? Early experiments with multi-agent AI systems show promise^[5], but human oversight remains dominant.
- **Process vs. Product:** Should we judge AI creativity by its *outputs* (human-recognized) or its *process* (novel algorithmic strategies)? Current metrics favor outputs^{[4] [6]}.
- **Expanding the Domain:** AI can blend domains in ways humans cannot (e.g., merging quantum physics with jazz improvisation). These cross-disciplinary outputs may challenge traditional field validation^{[2] [3]}.

5. Practical Implications

- **AI as a Creative Tool:** Most experts view AI as a collaborator rather than a standalone creator. Its creativity is "activated" through human curation and interpretation^{[1] [6] [3]}.
- **Ethical Risks:** Over-reliance on AI could narrow cultural diversity if fields prioritize algorithmically optimized content (e.g., viral TikTok trends)^{[2] [3]}.
- **Redefining Innovation:** To recognize non-human creativity, we may need new frameworks that decouple creativity from human intentionality^{[5] [3]}.

Conclusion

Under Csikszentmihalyi's model, **generative AI cannot be "creative" without human validation**. However, this anthropocentric view may limit our understanding of machine-generated novelty. As AI evolves, the debate will center on whether creativity requires *human recognition* or if it can exist as a *systemic property* of human-AI collaboration. For now, the field (humans) holds the keys—but the locks are changing.

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2. <https://research.monash.edu/en/publications/ai-and-the-social-construction-of-creativity>
3. <https://journals.sagepub.com/doi/full/10.1177/13548565231187730>
4. <https://arxiv.org/html/2410.17218v3>
5. <https://arxiv.org/abs/2411.17065>
6. <https://pmc.ncbi.nlm.nih.gov/articles/PMC11244532/>