Designing with Ethics:

Implementing an AI Ethics-Informed Motion Graphics Project in an Undergraduate Studio Course

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Introduction

The rapid integration of generative artificial intelligence (AI) into visual design education has transformed creative workflows by enhancing students' creativity and productivity. Design educators have increasingly integrated generative AI into design curricula, with findings showing that AI expands students' creativity as a creative driver and increases design productivity.

However, since ethical issues arise post-implementation of new technology, early AI adoption in education often prioritized digital skill gains over ethical considerations, leaving a gap in students' ability to critically evaluate the ethical implications of AI-enhanced design practices.

this gap can lead to ethical oversights in both academic practices and professional contexts, which underscores the importance of integrating ethics into AI-integrated design education to ensure that students develop ethics awareness and apply AI in their design projects with a responsible mindset.

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Study Goals

The study addresses the following research questions:

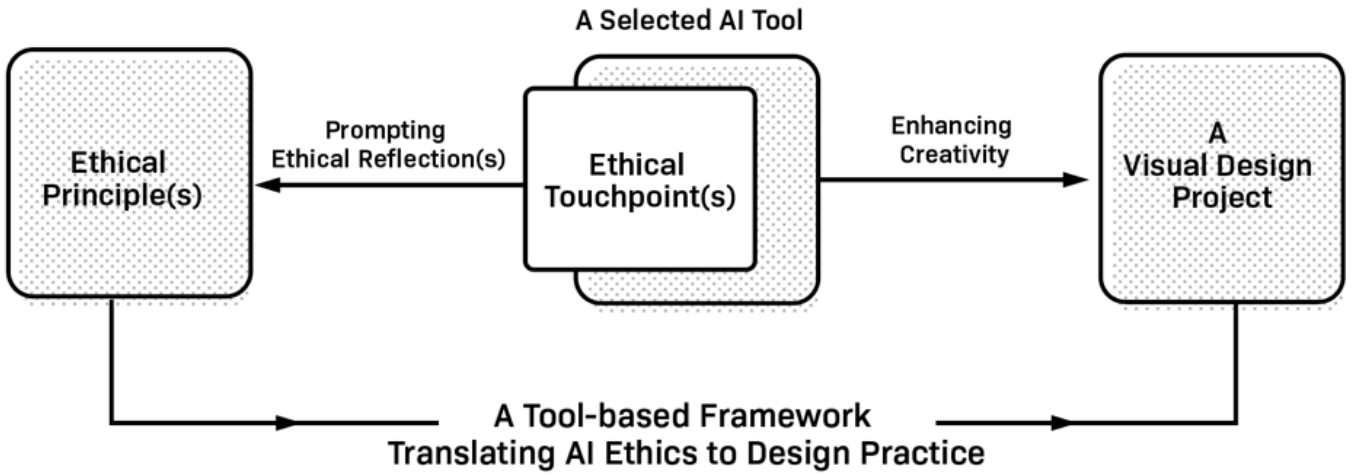
1) How to translate AI ethics to practice in visual design?
2) Does a tool-based ethical learning framework facilitate students learning AI ethics in a creative workflow?
3) What challenges do students face when engaging with AI ethics through AI tools in a design project, and how do these challenges impact their learning outcomes?

Ethical Touchpoint Framework

A structured, tool-based framework featuring ethical touchpoints was developed to integrate AI ethics to design education and translate AI ethics into hands-on design practice.

Touchpoint, a term commonly used in service design, refers to a point of contact that engages customers with service in a customer journey.

In this tool-based framework, the term 'touchpoint', adapted from service design, is used to articulate the specific features in generative AI tools that prompt AI ethical reflections, serving as points of interaction that link students with AI ethics.



Universal Significance of the Framework

- Despite being tool-based, the framework is tool-agnostic and applicable across diverse AI tools.
- AI engineers increasingly embed ethics into AI tools via established guidelines (e.g., ECCOLA, Adobe AI Ethics).
- Major organizations (Google, Apple, Adobe) integrate transparency, accountability, and responsibility into AI tool engineering and design.
- This engineering commitment supports the pedagogical validity of using tool features as ethical touchpoints in design education.

The AI Tools Used in the Motion Graphic Design Project

ChatGPT for brainstorming ideas
Adobe Firefly for storyboarding and creating keyframes
Runway ML for generating video clips

Focused Ethical Principles

Given the framework was implemented in a motion graphic design project, with the AI tools selected to support that specific workflow, this study may not capture the full spectrum of AI ethics but focused on three major ethical principles: transparency, human-AI collaboration, and reliability, closely relevant to the AI ethics while recognizing the broader AI ethics beyond the scope of this study. These major ethical principles can serve as a foundation for design students to explore ethics in AI-enhanced design practices and then navigate broader ethical inquiry as they engage with diverse AI tools and contexts.

- Transparency – Are we honest about how AI is used in our work?
- Human-AI collaboration – Do humans still lead the creative process?
- Reliability – Is the AI output trustworthy and accurate?

Step 1- Brainstorming with ChatGPT

Design Process	Brainstorming→	Storyboarding/Keyframe→	AI Video Output
Generative AI Tools	ChatGPT	Adobe Firefly	Runway ML
Ethical Touchpoints	Text Prompts for Idea Generation	Sketches as Compositional Guides	First & Last Frame Feature
Reflections on AI Ethics	Transparency	Human-AI Collaboration	Reliability
Pedagogical applications	Document and Report on AI Use	Class Discussion on Human-AI Collaboration and Concerns in Copyright and Authorship.	Class Critique Session on AI Reliability.

- Used in the concept development phase to support brainstorming in the motion graphic design project .
- Serves as a transparency touchpoint by prompting students to log and attribute AI-generated ideas.
- Promotes deeper understanding of transparency, trust, and accountability in AI-assisted design.

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Step 2 – Keyframes with Adobe Firefly

Design Process	Brainstorming→	Storyboarding/Keyframe→	AI Video Output
Generative AI Tools	ChatGPT	Adobe Firefly	Runway ML
Ethical Touchpoints	Text Prompts for Idea Generation	Sketches as Compositional Guides	First & Last Frame Feature
Reflections on AI Ethics	Transparency	Human-AI Collaboration	Reliability
Pedagogical applications	Document and Report on AI Use	Class Discussion on Human-AI Collaboration and Concerns in Copyright and Authorship.	Class Critique Session on AI Reliability.

- Used for storyboarding and keyframe creation.
- Allows students to upload hand-drawn sketches as guides to shape AI output, reinforcing human creative control.
- Promotes ethical reflection on human-AI collaboration.
- Encourages ethical awareness of authorship and copyright.
- Greater human input reduces legal and ethical risks in AI-generated work.
- Encourages discussion of human-AI partnerships in design education.

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Step 3 – Video Output with Runway ML

Design Process	Brainstorming→	Storyboarding/Keyframe→	AI Video Output
Generative AI Tools	ChatGPT	Adobe Firefly	Runway ML
Ethical Touchpoints	Text Prompts for Idea Generation	Sketches as Compositional Guides	First & Last Frame Feature
Reflections on AI Ethics	Transparency	Human-AI Collaboration	Reliability
Pedagogical applications	Document and Report on AI Use	Class Discussion on Human-AI Collaboration and Concerns in Copyright and Authorship.	Class Critique Session on AI Reliability.

- Used for generating video between two keyframes with “First Frame & Last Frame” feature.
- Students encountered output issues: distortions, unnatural transitions.
- Prompts reflection on AI reliability—consistency, accuracy, and user trust.
- Reinforces that reliability is both a technical and ethical responsibility.
- Encourages students to critically assess AI limitations in creative workflows.

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Final Phase – Adobe After Effect

After using the AI tools, students imported their video clips into Adobe After Effects.
They can integrate text, transitions, music, and motion design.

By mixing AI-generated footage with traditional tools, students experimented with how AI can be part of a larger creative workflow—but not replace it.

This project helped students reflect not only on creativity, but on the ethical dimensions of their design choices.

Findings: Overall Ethic Learning

Survey data revealed several key trends, beginning with an increase in students' familiarity with AI ethics.

Prior to the project, only four students (28.6%) identified as "very familiar" with AI ethics, 6 (42.9%) as "moderately familiar," and the remaining four were evenly split between "somewhat familiar" and "not familiar" (each 14.3%).

By the end of the project, 11 students reported being "very familiar," 1 "moderately familiar," and 2 "somewhat familiar" with AI ethics.

Finding: Transparency

64% of students said the project helped them better understand transparency.
79% said it was important to document how they used AI.

Students commented:
“Being honest about your work is critical in our industry.”
“Transparency helps build trust with clients.”

However, not everyone agreed.

One student said, “If someone wants to cheat with AI, a report won’t stop them.”

This tells us that some students completed the task but didn’t fully internalize the ethical idea.

Finding-human-AI Collaboration

71% of students said they understood better why humans should guide the AI design process.

One student wrote: “AI shouldn’t carry the whole load.”
Another said: “I like modifying AI output to keep it personal.”

But again, a few students resisted AI.
Some said AI “makes people lazy” or “takes away from human talent.”

Interestingly, many of these negative responses came from students with traditional art backgrounds.

Finding-reliability

In the final phase, 85% of students said they better understood the need for reliable AI output. However, many students also said that Runway ML sometimes created distorted or unnatural videos.

This showed students that AI is still evolving, and we can't fully utilize AI tools without any human review and involvement.

Students learned that ethical use of AI means checking for quality and making sure the result fits the context.

Limitations

- Despite its pilot nature, the study's small sample size (14 students) may limit generalizability.
- Focused on 3 ethical touchpoints: transparency, human-AI collaboration, and reliability more related to design field, which did not cover broader issues like algorithmic bias or environmental impact.
- Future research should include larger, more diverse groups and a wider range of AI ethics topics.

Conclusion

Key Achievements
Successfully translated abstract AI ethics principles into practical design education.
Ethical touchpoints framework effectively improved students' AI ethics understanding.
Tool-agnostic approach demonstrates broad applicability across AI design applications.

Critical Challenge Identified
Framework effectiveness depends on students' acceptance of AI as legitimate design tools.

Research Impact
Establishes foundational framework for ethical literacy in design education.
Addresses a pedagogical and professional imperative in the evolving AI-driven design landscape.

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Thank you!