THE HONG KONG POLYTECHNIC UNIVERSITY
香港理工大學

POLYU DESIGN

Generative AI Use Guideline & Design Research Integrity

The Taskforce for GAI Guideline & Research Integraty
School of Design
Version of Sep. 2025

Opening Minds • Shaping the Future
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WHAT IS RESEARCH INTEGRITY?

What is Research Integrity?

- Research integrity refers to all factors that underpin *good research practice* and promote *trust* and *confidence* in the *research process.*

- Research integrity covers *all disciplines* of research and *all sectors* where research is carried out.

What is Research Integrity?

- Research integrity covers all research and the whole lifecycle, from the *initial idea* and *design of the project* through *the conduct* of the research and *its dissemination*.

- It also covers making sure that *environments* and *systems* for research, safeguard and enhance good research practice, rather than hinder it – often described as *'research culture'.*

What is Research Integrity?

RESEARCH (AND DESIGN) CONDUCTED WITH INTEGRITY IS:

HONEST

*

ORIGINAL

*

ACCURATE

*

RIGOROUS

*

TRANSPARENT

What is Research Integrity?

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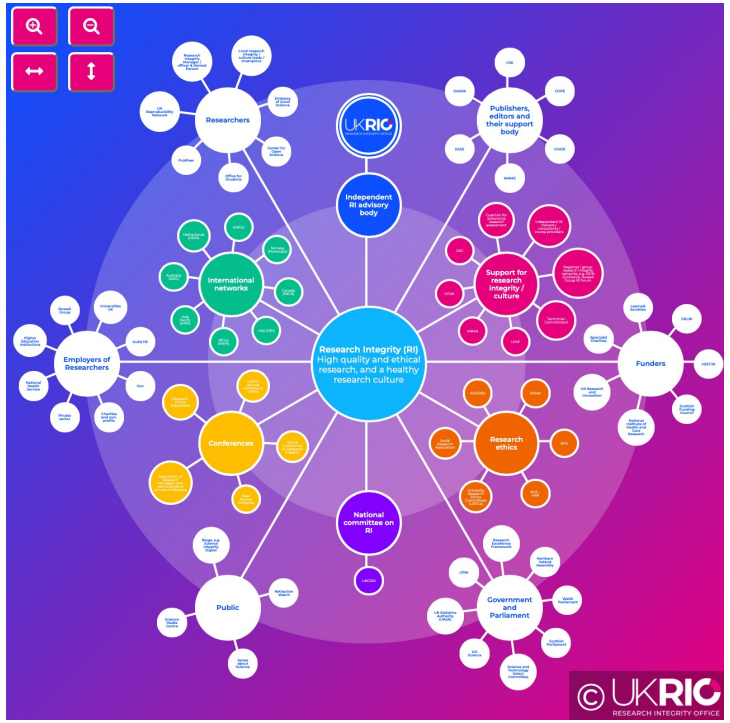
THE CONCORDAT TO SUPPORT RESEARCH INTEGRITY



RESEARCH INTEGRITY

IS DEFINED AS

"conducting (DESIGN) research in such a way that allows others to have confidence and trust in the methods and the findings of the research"

It relates both to the scientific integrity of conducted research
and
to the professional integrity of researchers.

RESEARCH INTEGRITY

IT IS ABOUT HOW (DESIGN) RESEARCH IS CONDUCTED

and the

CULTURES, CONDITIONS & CAREER SUPPORT

THAT SHAPE THE (DESIGN) RESEARCH ENVIRONMENT

Research Integrity

INTEGRITY CHARACTERISTICS

MULTI – INTER - CROSS-DISCIPLINARITY *Skills, knowledge, competencies, listening, learning, reflection*	OPENNESS *Unconscious bias, escaping the echo chambers, sharing and publishing ideas, errors and mistakes*
COLLABORATION *Recognizing self limits and the value of dialogue and shaping ideas*	CREATIVITY *finding the individual and collective power to act in the common good*

Psychological Safety

'a shared belief that within any group it is safe to take interpersonal risks'

In psychologically safe groups, group members feel accepted and respected and can:

1. Share and voice ideas and disagree constructively and without fear of recrimination
2. Seek and provide critical and honest feedback
3. Collaborate effectively
4. Experiment and take risks without fear
5. Admit mistakes and errors and share these
6. Ask for help

Undermining psychological safety creates threat and discomfort

Integrity in Publications
Challenges in Scholarly Publishing

A steep rise in research integrity cases in recent years

Generally, profit driven (pay to publish) but also accidental

It threatens the integrity and trustworthiness of scientific research and the publisher's reputation

Retractions of papers are a concern for publishers and reputation and impacts the wider scientific community

(https://retractionwatch.com)

Publishers generally wish to support and manage this in efficient and simple (automated) ways

Integrity in Publications
Challenges in Scholarly Publishing

Tortured Phrases

Repeated and unusual phrasing that is used repeatedly, in or often in for profit journals to drive up citations stemming from one or very few articles.

Citation Manipulation

- Excessive citation of an author's research to build the author's number of citations - the author's own research (self-citation)
- Excessive citations of articles from published journals in which the author contributed, increasing the number of journal citations.
- Excessive citation of another author's work or journal.

Integrity in Publications
Challenges in Scholarly Publishing

Salami publishing or Salami Slicing

- The publication of two or more articles derived from a single study,
- Characterized by similarity of hypothesis, methodology, or results, but not similarity in text.
- Existing software applications do not objectively detect these aspects of publications.
- The segmentation of a large study into two or more publications differs from reporting the same data in two publications, but it remains an unacceptable scientific practice.
- Salami slicing can lead to a distortion of the literature by leading unsuspecting readers to believe that data presented in each salami slice (i.e., journal article) is derived from a different subject sample.

EXAMPLE: Kassirer and Angell (1995), former editors of The New England Journal of Medicine:

"Several months ago, we received a manuscript describing a controlled intervention in a birthing center. The authors sent the results on the mothers to us and the results on the infants to another journal. The two outcomes would have more appropriately been reported together."

Integrity in Publications
Challenges in Scholarly Publishing

Paper Mills (See Committee on Publication Ethics COPE)
The process of submitting 'manufactured manuscripts' to a journal on behalf of researchers for a fee.

These make it easier for researchers to be published or offered as an 'author for sale.' The submissions include faked or manipulated data and images, the use of stock images, substantial authorship changes, and plagiarism.

Paper mills can sometimes only be detected after a pattern of submission behavior across several submissions and journals. These are not always detected because they come from a translated version of another article.

Original data can be convincingly fabricated and must be independently verified. A challenge for a busy journal with busy peer reviewers and editors, who are not in a position to spot such problems.

Design & Research Integrity

WORKING DEFINITIONS

DESIGN gives meaning and form to ideas

RESEARCH

is the investigation of knowledge in a field

DESIGN RESEARCH

is the investigation of the critical parameters that give meaning and form to ideas

INNOVATION

the implementation and realization of DESIGN

Design & Research Integrity

DESIGN
is contingent
*

an eternal work-in-progress
*

a fallible human action
*

a reflexive practice/praxis
*

forever becoming, fragile, and in tension

Design & Research Integrity

DESIGNERS ARE OPTIMISTS

often distracted by new technologies and blinkered by technological determinism

DESIGN IS A HUMAN ACTIVITY

Design Research is positioned between achieving both

objective distance ⟺ individual insights

DESIGN

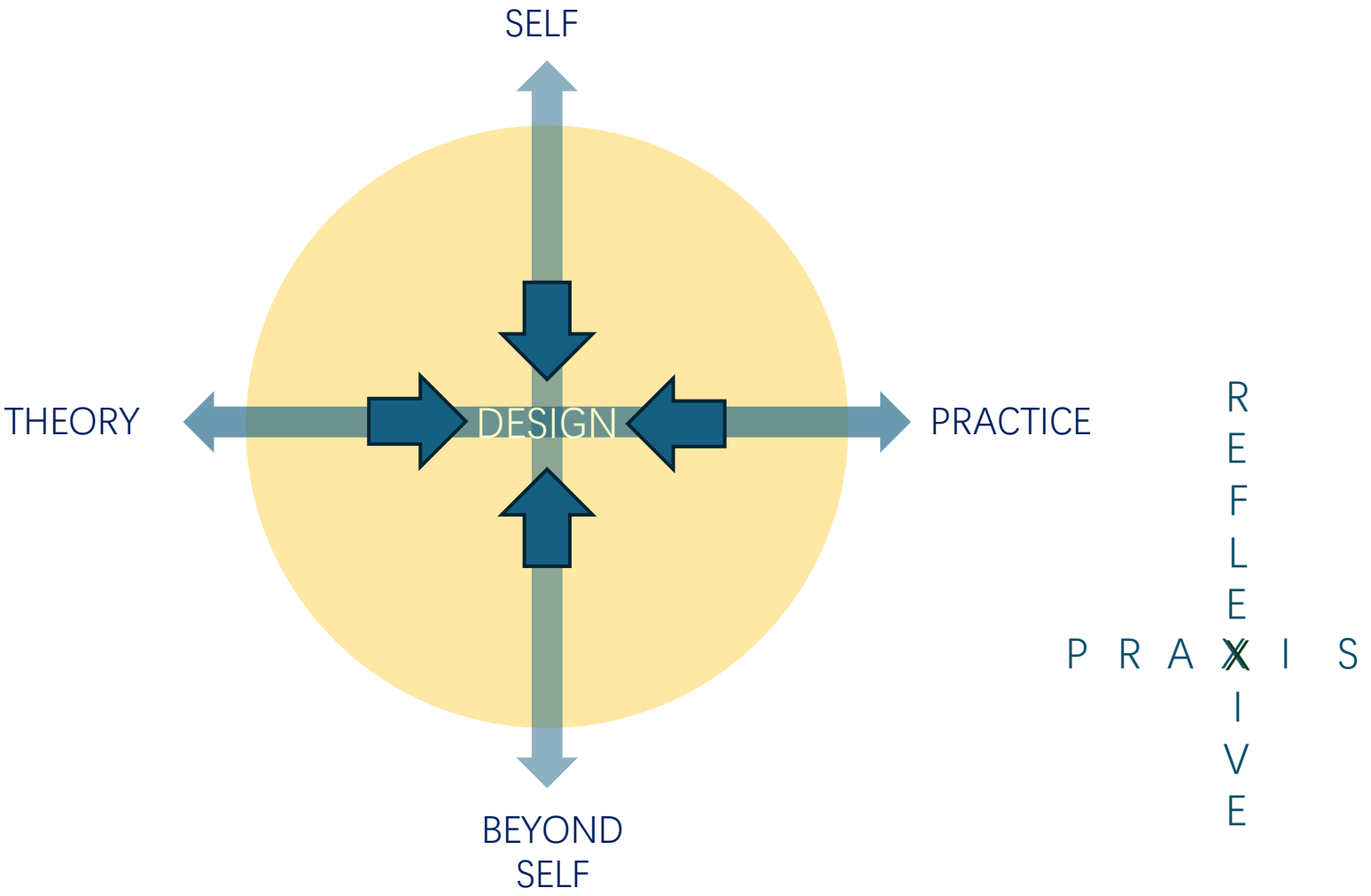
from practice to praxis

*"**Praxis** is an iterative, reflective approach to **taking action**. It is an ongoing process of moving between practice and theory. Praxis is a **synthesis of theory and practice** in which each forms the other"*

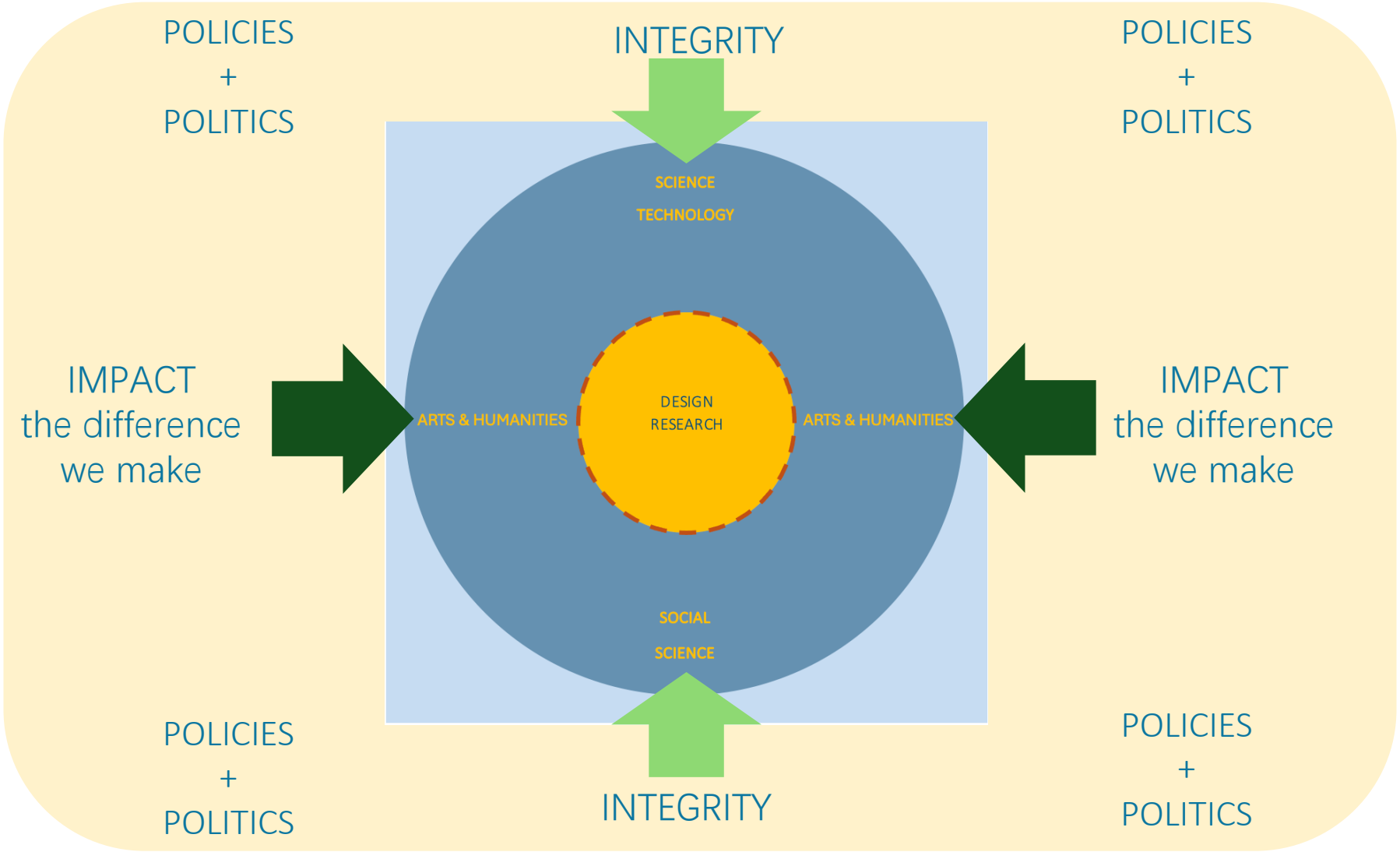
Freire 1985

Design & Research Integrity

from REFLECTIVE PRACTICE to REFLEXIVE PRAXIS



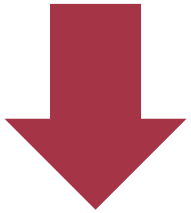
Design & Research Integrity



Design & Research Integrity

PolyU is strongly committed to preserving academic integrity and has a zero-tolerance policy towards academic dishonesty.

Do not commit such acts, e.g. cheating, contract cheating, plagiarism (copying others' work as your own without full acknowledgement, including ***using generative artificial intelligence (GenAI) tools without proper referencing), impersonation, fabrication and falsification.*** *So…*



HOW TO USE GENERATIVE AI

Challenge

AI Black Box Problem in Design and Design Research

Transparency

How AI tools arrive at its conclusions is not always known.

Reliance on AI tools without understanding decision making processes may lead to

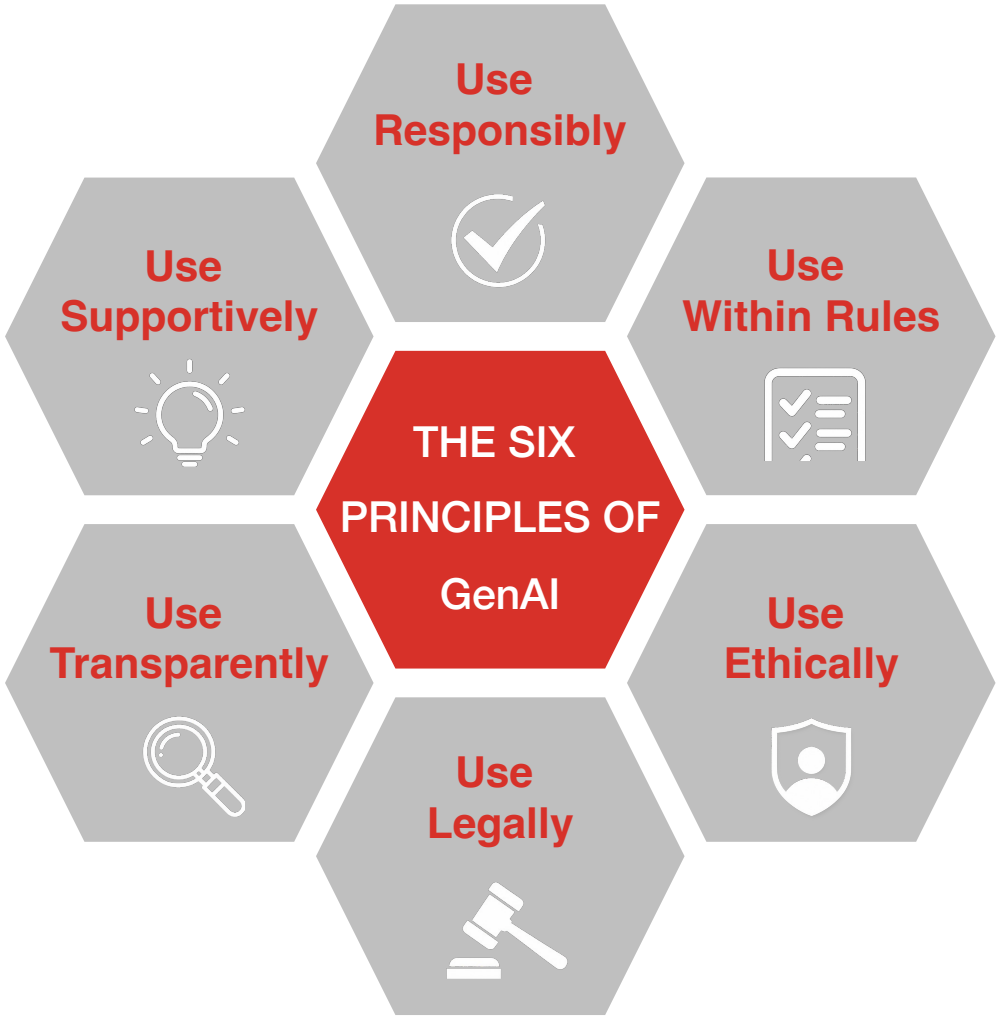
over-reliance

AI's potential to

hallucinate

generate inaccurate information.

Principle



- **Use Responsibly**

Check and edit everything that AI creates. Make sure the content is accurate, original, and suitable for academic or design use. You are responsible for the final quality and integrity of your work.

- **Use Supportively**

Let AI enhance your creative process like brainstorming, idea generation, drafts, or mock-ups, but don't rely on it to create final outcomes. Your project should reflect your own thinking and design process.

- **Use Transparently**

Always say if you used AI — whether for writing, image-making, or translating. Acknowledgement must be clear and cite them properly using academic referencing styles.

- **Use Legally**

Review the terms of the AI tool. Make sure it doesn't take ownership of your work or use your content without permission.

- **Use Ethically**

Respect privacy, confidentiality, and authorship. Do not submit sensitive, unpublished, or personal work to AI tools. Avoid generating content that mimics others' voices or reinforces bias or stereotypes.

- **Use Within Rules**

Follow all relevant rules — from course guidelines, School of Design, PolyU and external parties like publishers or design competitions. Unapproved AI use is treated the same as plagiarism or ghost-writing.

* OpenAI Identifying opportunities for AI impact. https://cdn.openai.com/business-guides-and-resources/identifying-and-scaling-ai-use-cases.pdf

Privacy and Ethics

Ethical Focus	Meaning in Design Practice
Learn	Understand AI's role and risks in design
Purpose	Use AI thoughtfully, with user impact in mind
Transparency	Clearly mark AI-generated elements
Originality	Credit sources, don't pass off AI work as your own
Bias Check	Look for and fix stereotypes or exclusion
Privacy	Protect personal and community data
Impact	Keep humans in control of creative decisions
Oversight	Consider the wider effects of your AI-powered design

[1]Taylor & Francis. AI Policy. https://taylorandfrancis.com/our-policies/ai-policy/.
[2]Wiley. AI Guidelines. https://www.wiley.com/en-us/publish/book/ai-guidelines.
[3]Springer Nature. Artificial Intelligence (AI). https://www.nature.com/nature-portfolio/editorial-policies/ai.

Typical Scenario

Inspiration Divergence and Concept Sketching

Image and Visual Experimentation

Text-assisted Writing

Interview Data Organization and Translation

User Experience Scenario Simulation

Dos & Don’ts

DOs

- Use GenAI to create content in different formats in the design process
- Use GenAI to imagine possible futures or explore design ideas
- Use GenAI to speed up parts of technical prototyping, with proper checking
- Be clear about where GenAI content comes from and respect others’ work
- Check that AI-generated content is accurate and makes sense before using it
- Keep human creativity and teamwork at the center of the design process

DON’Ts

- Don’t copy another designer’s or artist’s style without permission
- Don’t let GenAI decide the main ideas or values in your project
- Don’t skip hands-on or shared parts of the design process
- Don’t use AI to create fake or assumed user research data
- Don’t assume AI-generated images are original or safe to use

When We Use GenAI

Keep critical thinking centerstage

AI use in design and design research has the potential to undermine human creativity, originality, and critical thinking.

The use of AI should augment these abilities.

Minimizing bias in design

Another ethical challenge lies in AI's potential to introduce biases into research and content creation.

Gender, race, age, ethnicity biases are often embedded in the data that LLMs learn from. Gender bias is particularly prominent, with models commonly associating professions like "doctor" with "he" and "nurse" with "she," reinforcing outdated stereotypes.

Citation of GenAI

How to Cite AI Involvement in Different Contexts?

📄 In Academic Papers and Theses

If AI were used to assist in **drafting, editing, summarizing, translating, or generating content**, you must:	• Describe the nature of the AI use in the **methodology, acknowledgment, or footnote** section. • Indicate **which tool** was used, **what version**, and **what role** it played (e.g., content generation, grammar assistance).

🎨 In Design Drafts and Visual Work

For AI-generated **images, sketches, renderings, or mood boards**, you must:	• Label the image clearly in the caption as **“AI-generated”** or **“AI-assisted”**. • Provide the tool name and prompt if relevant (e.g., Midjourney, DALL·E, Adobe Firefly). • Do not present AI-generated visuals as your final design outcome without modification or interpretation.

Citation of GenAI

What is the recommended declaration format?

💬GenAI Citation		📋 Format
In-text	 Fig. 1. Concept sketch generated with Midjourney v5.2 using prompt: 'Futuristic mobility interior, light-focused, abstract.' Further edited and annotated by the author.	*"The chatbot backend was developed using code suggestions from GitHub Copilot (Microsoft, 2025), including initial API call structure and response formatting. All outputs were validated and refined by the author."*
Acknowledgment section	have been examined, and their unique features incorporated into this single new template. The chatbot backend was developed using code suggestions from GitHub Copilot (Microsoft, 2025), including initial API call structure and response formatting. All outputs were validated and refined by the author." The "acmart" document class can be used to prepare articles for any ACM publication — confer-	*"The author used ChatGPT (OpenAI, May 2025 version) to support idea generation and content structuring. No AI-generated text was included without author review and revision."*
Visual caption	14 Acknowledgments The author used ChatGPT (OpenAI, May 2025 version) to support idea generation and content structuring. No AI-generated text was included without author review and revision."	*"Concept sketch generated with Midjourney v5.2 using prompt: 'Futuristic mobility interior, light-focused, abstract.' Further edited and annotated by the author."*

** The pictures are referenced from ACM Template*

References

1. The Hong Kong Polytechnic UniversityGuidelines for Students on the Use of Generative Artificial Intelligence. https://www.polyu.edu.hk/ar/students-in-taught-programmes/use-of-genai/?sc_lang=en.
2. Elsevier. The use of generative AI and AI-assisted technologies in writing for Elsevier. https://www.elsevier.com/about/policies-and-standards/the-use-of-generative-ai-and-ai-assisted-technologies-in-writing-for-Elsevier.
3. Taylor & Francis. AI Policy. https://taylorandfrancis.com/our-policies/ai-policy/.
4. Wiley. AI Guidelines. https://www.wiley.com/en-us/publish/book/ai-guidelines.
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8. Google People+AI Guidebook. https://pair.withgoogle.com/guidebook/.
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