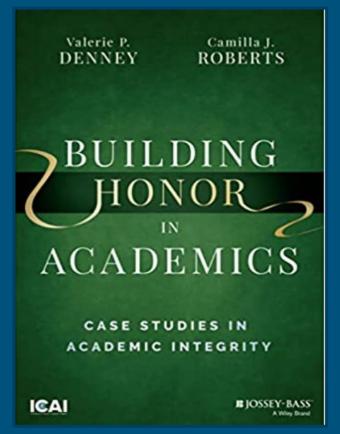# Brave New World: Artificial Intelligence and Academic Integrity

31 May 2023
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The ICAI

International Center for Academic Integrity (ICAI)

- Conference March 9-12, 2023
- Higher Ed Faculty and Staff
- Worldwide organization
- Primary and secondary school librarians welcome
- Learn more at ICAI

Denney, Valerie P. and Camilla J. Roberts, Ed. *Building Honor in Academics: Case Studies in Academic Integrity.* Jossey Bass, 2023.

Different Tech, Same Challenges

- Dec. 2021: Metaverse, hyperwrite, quillbot
- March 2023: Chat GPT3; Chat GPT4; Caktus AI
- The challenges remain:
  - Authenticate work
  - Develop independent learning and research skills
  - Promote critical thinking and integrity
  - Determine what (the AI) tools can and **canno**t do

Academic Integrity: Six Characteristics

- Honesty
- Trust
- Fairness
- Respect
- Responsibility
- Courage

Image source: International Center for Academic Integrity

Transition to Higher Education

High school students need:

- Practice with college level resources
- Solid research skills
- Critical thinking skills
- Safe space to ask questions and learn from mistakes
- Deeply ingrained sense of academic integrity

Students' struggles are our "zone of intervention" (Kuhlthau)
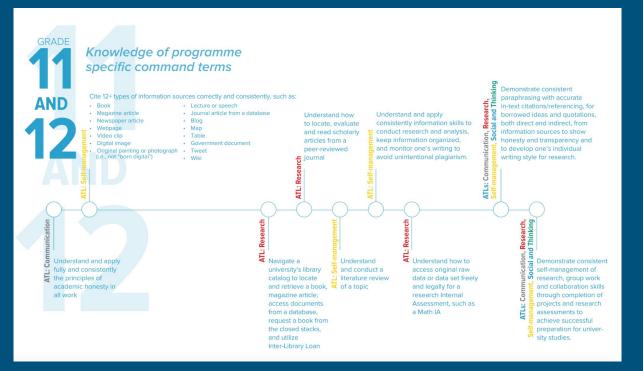
ICAI March 2023 Conference Highlights

- Chat GPT (version 3) dominated many discussions
- Students need strong research skills
- Need for a K-12 curriculum with artificial intelligence tools and information skills
- Student data ownership loss following "free-to-use" tools
  - Fine print
- Institutions are struggling to write policy for AI
  - IB response to Chat GPT viewed as "reactive"
- "Where in the Metaverse is Boris's Voice" Case Study by Vivienne Blake

Information Skills Timeline

Source: V. Blake and International School Basel

Information Skills Timeline

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Information Skills Timeline Guidelines

- Insert possible AI tools guidance, use and instruction
- Evaluation is especially important now
- Updated K-12 curriculum and instruction is essential–AI is a major, permanent part of the educational landscape

Information Skills Timeline Guidelines

- When developing a timeline of information skills instruction:
  - Consult librarian colleagues before and after your students' grades in the continuum
  - Include Artificial Intelligence tools (or provide placeholders)
- Timelines can be unique to each school due to population, curriculum and location

Academic Integrity Policy

- Updates will be more frequent – "living documents"

- **Signed** student agreements (annually)

- Colleges and universities address:

  - Legal questions

  - Student Privacy

  - Loopholes

  - Unauthorized use of generative AI tools

Academic Integrity Policy continued…

- How can policies support both:
  - Artificial intelligence tool skills development
  - Academic integrity
- Why do students take bad shortcuts/cheat?
  - Lack of time management
  - Fear of failure
  - Learning to make decisions
  - Thinking they can outsmart the teacher
  - Peer pressure

Academic Integrity Support

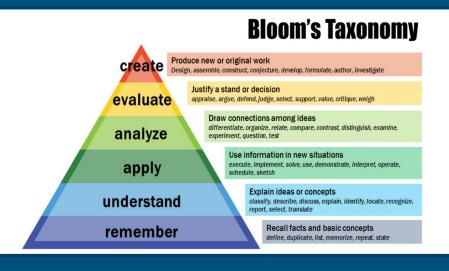- Student involvement in supporting academic integrity
  - Honor Council
  - What if the students wrote some case studies?
  - Student-designed academic integrity workshop
- Focus on the learning process rather than the end product (and grade)
  - Authentic progress in a student's learning; reflection vs. "plausible arguments"

Academic Integrity Support continued..

- Clear and consistent language about expectations across subjects
    - When is it acceptable to use AI tools?
    - Students: "how would an AI tool help you learn?"
    - Close potential loopholes: "do not use any aid or resource that would give an unfair advantage"
    - The teacher can decide if generative AI tools are acceptable
    - *"If you don't take notes, write a draft and follow the project schedule, how can I authenticate your work?"*
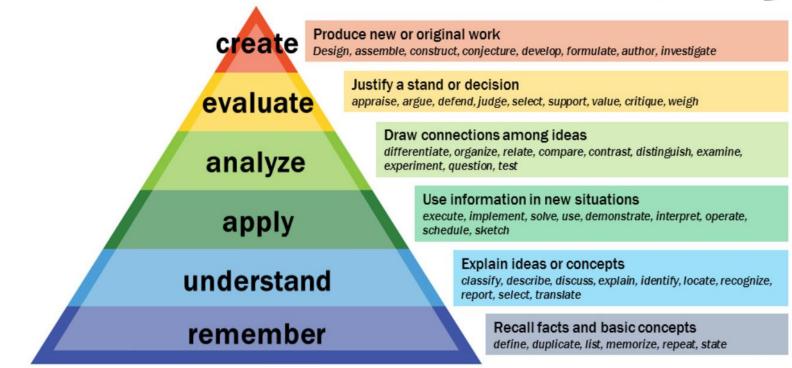
Breakout Session: Bloom's Taxonomy

- Where do AI tools fit best in Bloom's Taxonomy?
- What is knowledge in the era of artificial intelligence?
- Discuss in assigned breakout room (15 minutes)

Bloom's Taxonomy

create — Produce new or original work
Design, assemble, construct, conjecture, develop, formulate, author, investigate

evaluate — Justify a stand or decision
appraise, argue, defend, judge, select, support, value, critique, weigh

analyze — Draw connections among ideas
differentiate, organize, relate, compare, contrast, distinguish, examine, experiment, question, test

apply — Use information in new situations
execute, implement, solve, use, demonstrate, interpret, operate, schedule, sketch

understand — Explain ideas or concepts
classify, describe, discuss, explain, identify, locate, recognize, report, select, translate

remember — Recall facts and basic concepts
define, duplicate, list, memorize, repeat, state

Source: Vanderbilt University Center for Teaching

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Source: Vanderbilt University Center for Teaching

Copyright

- Respecting copyright is an ethical decision
- Are "Fair Use" practices in schools due for a review?
- Basic copyright knowledge should be part of digital literacy curriculum
  - Generative AI learns from data sets, often containing copyrighted material
  - US Copyright requires "human authorship" ("Zarya of the Dawn")

"The output you get is due to the fact that AI has been trained on those artists' intellectual property," (Nicolaou).

DALL-E and Stable Diffusion

An artist's perspective:

- Create original work
- Acknowledge inspiration in appropriation of other artists' work
- Provide full captions for any quoted or borrowed work
- Create, do not manipulate

If a generative AI tool is used, how is the original artist credited?

Music and Generative AI

- Research in music history, theory and appreciation a concern
- Analysis, performance and composition remain straightforward … for now

Set the terms:

- Creation of work
- Ethical decisions
- Control of the tool

Information Search Process (ISP)

- Where and how does generative AI affect the ISP?
  - Initiation
  - Selection
  - Exploration
  - Formulation
  - Collection
  - Presentation

"The ISP is a process of seeking meaning not just finding and reproducing information," (Kuhlthau).

"Cognitive Offloading"

- Defined at the ICAI conference as: assigning lower level tasks to a tool
- Skillful use of AI tools essential for future employment
- Younger students need different scaffolding than university students
  - Critical thinking development
  - Evaluation skills
  - Ethical judgement

New Challenge to Academic Integrity?

The latest AI launches will allow users to input text queries and receive entire documents or emails generated by AI, and also allow them to create AI-generated images in slideshows and auto-generate tables.

"We're not trying to replace people but help people get their jobs done faster by providing them with a starting point," said Slav Petrov, a research scientist at Google.

Source: Murgia, Maduhita. "Google Unveils AI-Powered Search Engine to Rival Microsoft's Bing" Financial Times, 10 May 2023, https://www.ft.com/content/97515324-b75a-4c2c-b3d7-fef1f6e51efe, Accessed 10 May 2023.

Four initiatives to start now

- Draft or update an information skills timeline to include AI tools and find collaborative opportunities with classroom colleagues
- Consider joining the ICAI
- Start or expand an Honor Council and encourage students to write some critical thinking scenarios
- Start a discussion about where AI tools may fit in the Information Search Process

Resources

Digital Trends Online Magazine

The Distributed Artificial Intelligence Research Institute DAIR.ai

Financial Times

- ○ B2B Secondary School subscription program for international schools (no charge)
- ○ Regular and well-written reporting on artificial intelligence developments

ISS Edulearn Workshops (register)

MIT Technology Review (subscription)

Quanta Magazine

Resources

Science Direct Newsletter (available through Elsevier)

  ○ *Computers in Education* (open access journal)

US Copyright Office, https://www.copyright.gov/ai/.

Vogt, Matthew. "A Bot Might Have Written This," *JSTOR Daily,* 3 May 2023,

  https://daily.jstor.org/a-bot-might-have-written-this/?utm_term=Read%20More&utm
  campaign=jstordaily_05042023

  &utm_content=email&utm_source=Act-On+Software&utm_medium=email. Accessed
  4 May 2023.

Using a Case Study in PD: Guidelines

- Structure
  - Synopsis and structure
- Value Discussion
  - Who is the primary audience?
  - Who is the secondary audience?
  - What is the fundamental value? (there may be overlap)
- Question Discussion
  - Consider alternative perspectives
  - Balance the discussion
  - Consider the possibilities
- Conclusion
  - This is primarily a case of…

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   in Academic Integrity, Jossey-Bass, 2023, viii-xi. Print.

Kuhlthau, Carol. *Information Search Process*, 1993. Rutgers University School

   of Communication and Information,
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