Teaching & Work at the Dawn of Generative AI *
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The lesson plans, discussion questions and assignments below are based on Jose Antonio Bowen and C. Edward Watson's book, *Teaching with AI: A Practical Guide to a New Era of Human Learning,* published in 2024.

These materials were created to guide a series of four one-hour discussion sessions on the book, *Teaching with AI: A Practical Guide to a New Era of Human Learning*. Over the course of these sessions, participants who mentor or work with students will examine how Artificial Intelligence (AI) is reshaping student experiences within and outside of the classroom. It also explores broader ethical and creative dimensions of AI use. Each session includes learning objectives, discussion questions, and AI-based assignments to deepen the participants' engagement with the text's themes and build a shared understanding of AI's transformative potential in higher education.

Session 1: AI Ethics and Literacy

Chapters 1-3 – These chapters discuss fundamental aspects of AI, its impact on the future of work, and the importance of AI literacy.

Chapter 1 introduces AI as a transformative technology, by explaining key concepts like machine learning, neural networks, and foundational models. It also covers the development of Large Language Models (LLMs) and their capabilities, while also addressing challenges like bias and hallucinations.

Chapter 2 focuses on how AI could change the nature of work across various sectors of the economy, potentially altering every job and requiring humans to work alongside AI. It explores AI's potential to improve efficiency, productivity, and even relationships, while also raising concerns about job displacement and other ethical considerations.

Chapter 3 highlights the necessity of AI literacy, suggesting that everyone needs to learn how to ask AI tools better questions, craft effective prompts, and understand the iterative process of working with AI. It emphasizes that critical thinking and adaptability, core components of a liberal arts education, will become even more crucial in the age of AI.

Learning Objectives:

1. Faculty and staff will be able to apply their understanding of AI to critique popular claims about AI's capabilities.
2. Faculty and staff will develop a perspective on the value of human skills in the age of AI by understanding AI's limitations and considering how human qualities like empathy, creativity, and critical thinking can be emphasized.
3. Faculty and staff will be able to demonstrate an ability to refine AI outputs by analyzing responses and iterating through successive prompts.

Discussion Questions:
(20-30 minutes)

1. In what ways did these chapters challenge, affirm, or refine your initial perceptions of AI's role in teaching and learning?
2. What do you see as the most significant potential benefits and dangers of AI in education and work settings?
3. How should faculty and staff address ethical challenges posed by AI, such as biases, hallucinations, and privacy concerns?
4. As AI increasingly automates tasks traditionally performed by humans, what shifts might be necessary in how we define learning, effort, and success in both educational and professional contexts?
5. The authors argue that critical thinking and problem-solving skills are more essential than ever in the age of AI. To what extent do you agree or disagree with this claim? How can the skills of critical thinking and problem-solving be intentionally fostered in AI-integrated classrooms and workplaces?
6. Chapter 3 discusses "AI literacy" as a key concept. How would you define AI literacy in your own words? Should Berry faculty, staff, and students be expected to achieve AI literacy? Why or why not?

AI Assignment: Iterative Prompt Refinement
(Collaborative discussion about the AI assignment, followed by individual work outside of the discussion group. Estimated time: ~1 hour.)

In this assignment, faculty & staff will explore how different AI models generate outputs through the process of iterative prompt refinement. The goal is to create an effective recommendation letter for a fictional candidate applying for a position in your department, using your own CV/resume as the scholarly foundation for the applicant's background.

Steps:

1. Create a prompt asking an AI model to write a recommendation letter for a job in your department. Use your own educational and scholarly achievements as the applicant's details. Reference Bowen and Watson's recommendation that an effective prompt clearly defines **Task**, **Format**, **Voice**, and **Context** to ensure success (pages 48-50).

2. Sign in to copilot.microsoft.com

3. Type the following in the chat box*: Analyze the following prompt idea: (insert your prompt here).* <submit>

4. Type the following in the chat box: *Rewrite the prompt for clarity and effectiveness.* <submit>

5. Type the following in the chat box: *Ask me any questions necessary to improve the prompt.* <submit>

6. Answer any of the questions the AI model asks; do not submit your responses until you've answered all the questions you think are important for a good recommendation letter. <submit>

7. Type the following in the chat box: *Identify potential improvements or additions to the prompt.* <submit>

8. Type the following in the chat box: *Refine the prompt based on identified improvements.* <submit>

9. Type the following in the chat box: *Present the optimized prompt.* <submit>

10. Copy the final prompt, click the "New Chat" button, enter the optimized prompt in the chat box. <submit>

11. Save the optimized prompt and the AI-generated output for later discussion.

12. Using the initial prompt you created, repeat steps 3-11 with chatgpt.com and claude.ai.

13. If time permits, use the initial prompt you created to repeat steps 3-11 with gemini.google.com.

We will analyze and discuss the outputs from these models during our next meeting, focusing on the utility of iterative prompt refinement and any observations about platform differences.

Session 2: The Opportunities and Challenges Posed by AI

Start session 2 by having participants share key takeaways from the iterative prompt-refinement assignment.

Homework Reflection: Iterative Prompt Refinement
(10-15 minutes)

1. What insights or surprises did you encounter during the prompt refinement assignment?
2. Did you notice any significant differences in the outputs or responses you received across the various AI tools?
3. How might this assignment inform your future approach to AI in teaching or in administrative tasks?

Book Discussion: *Teaching with AI* (Ch. 4-6)

Chapters 4-6 – These chapters explore AI's potential for creative innovation and administrative support, emphasizing how understanding its capabilities can inform policies and assignments that discourage academic dishonesty.

Chapter 4 examines how AI, unbound by human limitations and norms, can enhance creativity by generating a wide range of novel ideas. It argues that AI's so-called "hallucinations" can inspire breakthroughs in various academic fields when guided by human judgment and critical thinking.

Chapter 5 highlights how AI can support faculty and staff by streamlining administrative tasks and enhancing productivity. It underscores the value of using AI as a collaborative tool while staying mindful of its limitations and ethical implications such as data privacy and bias.

Chapter 6 addresses the opportunities AI offers for enhancing learning and the risks it poses to academic integrity. It emphasizes that creating authentic learning experiences requires understanding the limits of AI detection tools, adopting strategies to reduce cheating, and promoting responsible use of AI.

Learning Objectives:

1. Faculty and staff will be able to explain how AI both fosters and constrains creativity and assess where human judgment is needed.
2. Faculty and staff will be able to identify and describe various ways AI can assist in their workflow, enabling them to focus on higher-level tasks.
3. Faculty and staff will be able to develop effective strategies for addressing AI-assisted cheating, balancing detection methods, assignment design, and institutional guidelines.

Discussion Questions:
(20-30 minutes)

1. The authors suggest that human-AI collaboration can enhance creativity. What should a partnership between humans and AI look like? What are the benefits and drawbacks of AI assistance in the creative process?
2. Did any of the examples (help organizing paper ideas, summarize articles, get feedback on writing, draft emails, create examples or analogies, develop engaging class activities, etc.) presented in "Chapter 5 – AI-Assisted Faculty" strike you as either particularly useful or problematic? Do you have an example of using AI on routine or repetitive tasks?
3. What are the ethical implications of integrating AI into faculty and staff workflows? Does Berry need to develop policies or guidelines regarding AI-assisted research, communications, course design, or other tasks? Why or why not?
4. To what extent should educators and mentors help students use AI tools to learn complex concepts while ensuring they still develop key disciplinary skills, such as critical reading, analysis, and problem-solving?
5. How concerned should educators be about inconsistent AI detection results and the risk of false accusations regarding AI use?

6. How have you—if at all—adapted your assignments to encourage authentic learning and what factors have influenced your decision to make or not make changes?

AI Assignment: Accelerate Completion of a Repetitive Task with AI
(Collaborative discussion about the assignment 5-10 minutes, followed by individual work outside of the discussion group. Estimated time: ~1 hour.)

In this assignment, faculty & staff will identify a repetitive task in their daily or weekly work and attempt to develop an AI-based approach to streamline or optimize it. It is designed to help you experience the practical benefits of AI in reducing repetitive tasks and freeing up time for higher-level work.

Steps:

1. Think about a task you do at least once a week that seems repetitive. Examples include emailing reminders to students, compiling simple data from forms or surveys, or formatting documents in a consistent way. If you are having trouble coming up with a use case, you might want to consult Chapter 5 in Bowen and Watson or you could review this list.

2.Write a 2-3 sentence description of the specific, repetitive task you want to address.

3. Select an AI model you would like to use to help you with the task. Different models have different capabilities. ChatGPT and Gemini tend to have more multi-modal capabilities (can work with images and audio) than Claude or the Enterprise version of Copilot.

4. Develop a process to streamline your task:

A. Identify what input you use to complete the task currently (emails, pdfs, .csv file, etc.) and what output you expect as a result.

B. Draft a prompt to streamline your workflow. For example: *Using the attached syllabus write a polite email in the instructor's voice reminding students of the assignment due on [date]. Don't use the phrase, I hope this message finds you well.*

C. Iterate and refine the prompt until it meets your expectations. If you get stuck, ask an AI model for help. For example: *Generate a short piece of code to extract these columns from my spreadsheet.*

5. Run a quick test of your accelerated AI workflow.

6. Reflect on the process.

- Does this save you at least a few minutes each time you do the task?
- What still needs to be done manually?
- How might you scale or extend this workflow to other tasks?

We will discuss the tasks you chose to streamline, the AI tool(s) you used, and the results at our next meeting.

Session 3: AI Policies and Practices

Begin session 3 by inviting participants to discuss the main insights they gained from the AI task acceleration assignment.

Homework Reflection: Accelerate Task Completion with AI
(10-15 minutes)

1. What was your experience like identifying a suitable repetitive task and creating a prompt to streamline your workflow?
2. After testing your AI accelerated workflow, what unexpected benefits or new frustrations emerged that you didn't anticipate?
3. Based on this experience, what advice would you offer colleagues who are interested in integrating AI into their daily work?

Book Discussion: *Teaching with AI* (Ch. 7-9)

Chapters 7-9 – These chapters examine how AI's increasing impact on writing, learning, and assessment is prompting educators to develop new academic policies and to explore methods for helping students use AI ethically and effectively.

Chapter 7 argues that the adoption of AI outside of academia necessitates new educational policies that go beyond simply banning AI use. It offers guidance on creating AI policies that align with learning objectives, emphasize proper attribution, and establish clear expectations for AI use and accountability.

Chapter 8 explains that since AI can now produce college-level work—often at a "C" grade level—academic standards must be redefined. It recommends adjusting grading rubrics to prioritize work that surpasses what AI can generate and revising assignments to emphasize higher-order thinking, creativity, and uniquely human insights.

Chapter 9 demonstrates that AI can serve as an effective learning tool by providing feedback that is unbiased, instant, and tailored to individual needs. Educators can optimize AI's educational potential by establishing clear guidelines for its use and teaching students how to critically evaluate AI-generated feedback.

Learning Objectives:

1. Faculty and staff will be able to develop clear AI policies that align with institutional guidelines while addressing academic integrity and responsible AI use.
2. Faculty and staff will be able to articulate the skills students need to demonstrate to surpass AI-generated work in academic and professional settings.

3. Faculty and staff will be able to critically evaluate the advantages and limitations of AI-generated tutors or AI feedback in educational and professional settings.

Discussion Questions:
(20-30 minutes)

1. What do you think are the most important factors to consider when drafting AI policies (transparency, ethics, equity, accountability, detection, etc.)? What are the potential benefits and drawbacks of co-creating AI policies with students?
2. How should schools like Berry balance teaching foundational skills with the need to prepare students to use AI in their future careers?
3. If AI-generated writing is the new "C-level" work, how can we ensure that students continue to think critically, develop original ideas, and engage rigorously with the subject matter?
4. What are the ethical dilemmas and other implications of AI-assisted grading? Should Berry adopt a policy governing the use of AI in assessing student work?
5. What are the potential benefits and challenges for students in using AI as a learning tool or as a source of constructive feedback?
6. How can faculty and staff help students develop the ability to critically evaluate AI-generated content for accuracy and bias?

AI Assignment: Build a Custom AI Tutor Using Bot101
(Collaborative discussion about the assignment 5-10 minutes, followed by individual work outside of the discussion group. Estimated time: ~1 hour.)

In this assignment, faculty and staff will explore the design and customization of an AI tutor using Bot101.app, a tool developed by Stanford University. The goal is not only to build a functioning chatbot, but more importantly, to critically evaluate the educational value, limitations, and potential risks of using AI-generated tutors or feedback tools in academic and professional contexts.

Steps:

1. Choose a topic that you regularly teach, support, or advise on. This could be anything from writing thesis statements to explaining citation formats, from coaching students on time management to providing information about best practices in writing resumes. If you're unsure what topic to choose, think about common questions students ask you or skills they often struggle to master.

2. Write a 2–3 sentence description of the tutoring function you'd like the AI to perform. Example: "I want to build a tutor that helps first-year students understand how to analyze primary sources in U.S. history. It should offer examples, ask guiding questions, and provide feedback on their responses."

3. Open https://bot101.app and begin building your tutor. You'll be prompted to define several key elements that shape how your chatbot will interact with users. Take time to think carefully about each of these:

- Persona – Who is the bot pretending to be? (a supportive writing coach, a meticulous lab instructor, a peer mentor)
- Users – Who will the bot be helping? (first-year students, seniors working on capstones, graduate assistants, staff colleagues)
- Tone – What kind of communication style should the bot use? (formal, conversational, motivational, humorous)
- Learning Theories – Which educational frameworks or strategies should guide how the bot teaches or supports learning?
  Examples:
    - Bloom's Taxonomy (targeting different levels of learning)
    - Constructivism (building on prior knowledge)
    - Backwards Design (focusing on end goals)
    - Universal Design for Learning (inclusive, flexible approaches)
    - Spaced Repetition (reinforcing knowledge over time)
- Process – What step-by-step guidance should the bot follow? Use a clear structure such as: *"First, do this... Then, try this... Finally, reflect or apply it this way..."*
- Limitations – What should the bot not do? (it should not give answers to quizzes, it should avoid medical or legal advice, etc.)
- Adjectives – Choose 3–5 words that describe the bot's personality and demeanor. (knowledgeable, experienced, friendly, approachable, encouraging, concise, patient)

4. Fill in the chatbot design fields based on your goal as defined in step 2.

5. Test your chatbot as if you were a student or colleague. Ask it questions, respond to its guidance, and explore how well it performs the intended tutoring or feedback task.
Consider:
- Does it provide clear, accurate, and helpful responses?
- Does the tone and persona feel appropriate for your setting?
- Where does it succeed or fall short?

6. Revise and experiment. Try making small changes to the system prompt—adjust the tone, persona, or limitations—and observe how the chatbot's behavior changes. Ask yourself: What kinds of edits made the bot more effective? Did any changes introduce new issues?

7. Once you are satisfied with how your AI tutor is performing, click the "System Prompt" button at the bottom of the page. This will reveal the full system prompt your chatbot is using. Copy and save this prompt so you can refer to it in our final discussion session.

To explore how AI chatbots can go off track click the "Experiment" button at the bottom of the page. There, you can copy a prompt example from a problematic bot, such as the *Misinformation Bot*, which demonstrates how a chatbot might confidently present incorrect or misleading information, or the *Overreliant User*, which illustrates the risks of users depending too heavily

on AI without engaging in independent thinking. You can test the consequences of these problematic bots by returning to the Build-a-Bot page and pasting in the copied prompts.

Session 4: Critical Thinking and Learning with AI

Begin session 4 by inviting participants to discuss the main insights they gained from the Building a Custom AI Tutor assignment.

Homework Reflection: Building a Custom AI Tutor
(10-15 minutes)

1. What was your experience like building an AI tutor using Bot101? What design choices—like persona or learning theory—felt especially important in shaping the tutor's responses?
2. When you tested your AI tutor, how well did it support understanding or skill-development? Were there any areas where the tutor's limitations became apparent?
3. If you were going to hand your AI tutor off to a colleague or student, what onboarding or contextual information would they need?

Book Discussion: *Teaching with AI* (Ch. 10-12)

Chapters 10-12 – These chapters argue for a pedagogical shift in how content delivery and assessment practices emphasize the unique value of human contributions while preparing students for educational and professional futures where collaboration with AI is both inevitable and essential.

Chapter 10 emphasizes the importance of cultivating students' sense of purpose, self-confidence, and agency in an era of widely available of generative AI tools. It offers practical strategies for increasing motivation, boosting engagement, and thoughtfully integrating AI into learning activities.

Chapter 11 explores the implications of AI-generated writing. While AI can assist with composition, the chapter argues that the value of human writing lies in its capacity to foster critical thinking, reflection, and the development of an authentic voice. The chapter provides strategies for designing writing tasks that highlight human contributions and encourage critical engagement with both personal ideas and AI-generated content.

Chapter 12 presents a wide selection of assignment and assessment ideas that respond to the growing capability of AI tools. These include media presentations, creative projects, and activities that involve analyzing, critiquing, and improving AI outputs. The chapter calls for instructors to adapt their teaching practices to prepare students for a future of human-AI collaboration.

Learning Objectives:

4. Faculty and staff will be able to analyze how the accessibility of AI technologies necessitates a reevaluation of assignment design and student motivation.
5. Faculty and staff will be able to explain the limitations and possibilities of AI-generated writing in relation to learning, creativity, and personal expression.
6. Faculty and staff will be able to evaluate different methods of assessing learning through both the product and the process of creation, given the accessibility of AI tools.

Discussion Questions:
(20-30 minutes)

4. How do you currently make the purpose of an assignment or task clear to students or colleagues? Have you adjusted that approach given the availability of AI tools? Explain.
5. In what ways has AI influenced how you think about or teach the value of writing in your discipline? What do you believe is lost or gained when individuals use AI to draft or revise their work?
6. What types of assignments or tasks in your field are most vulnerable to being completed entirely by AI? How are you adapting to that reality?
7. What are your thoughts on requiring students or team members to work with AI—whether by critiquing its outputs or to using it in structured ways?
8. What concerns do you have about overreliance on AI tools? What strategies or practices have you developed to address those concerns?
9. What types of institutional support would help you feel more confident in integrating AI into your teaching or professional responsibilities?

AI Assignment: Getting Started with Google NotebookLM
(Collaborative discussion about the assignment 5-10 minutes, followed by individual work outside of the discussion group. Estimated time: ~1 hour.)

In this assignment, faculty and staff will explore the functions and potential applications of Google NotebookLM, an AI tool powered by Google's Gemini model. NotebookLM allows users to upload documents, transcripts, webpages, and other materials into a digital notebook and then interact with those sources through features such as AI-generated summaries, question-answering, timelines, and mind maps. The goal of this assignment is to develop a working understanding of how NotebookLM can support a range of academic and professional tasks—while also reflecting on its limitations, accuracy, and broader implications for campus use.

Steps:

1. Choose a set of materials to upload to a digital notebook. These can be documents (PDFs, Google Docs), webpages, YouTube video transcripts, audio files, or copied text. Possible ideas:
- Readings assigned in a course or information guides used in your position
- A collection of your recent syllabi, evaluations, or departmental reports
- Links to websites or YouTube videos relevant to your professional development
- A transcript or the audio file from a meeting, podcast, or guest lecture

2. Upload your materials to a new notebook in https://notebooklm.google.com. Make sure you're logged in with a Google account. You can upload up to 50 sources per notebook.

3. After uploading your materials, explore NotebookLM's features to interact with your content. This step is about testing how the tool can help you work with specific content—whether for teaching, administration, planning, or professional learning. Try the following:

- Ask questions in the Chat Panel: Use the chat interface to ask specific questions about your uploaded sources. For example:
  - What are the key takeaways from these documents?
  - Can you summarize the key themes from the sources?
  - What were the major events discussed in these sources?

- Check the accuracy of the chat responses: Click on the inline citations provided in chat responses to view the specific passages AI used from your upload sources. Compare the chat response to the cited text to verify accuracy.
  - An inline citation will appear like this 1

- Generate a briefing document: Use the "Briefing" button in the Studio Panel under Notes to create a summary or overview of your uploaded materials. Review the results:
  - Does it capture the core ideas?
  - Are there omissions or misinterpretations?
  - Could you use this summary in a meeting, class, or report?

- Experiment with Timeline and Mind Map: If your sources include chronological or conceptual information, try the following,
  - Timeline: Click the "Timeline" button in the Studio Panel under Notes. The timeline will appear as a new note in the Notes section.
  - Mind Map: Click the "Mind Map" button in the Chat Panel (you may need to scroll to the top of your chats to see the button). The completed mind map will appear in the Studio Panel under Notes.

- Try the podcast feature: Click the "Generate" button in the Studio Panel under Audio Overview to turn your content into a podcast-style audio summary. Consider whether this feature could serve as a review tool for students or staff.

- Create saved notes: While chatting with your documents, click the "Save to note" button at the bottom of a chat response to preserve useful answers. Saved notes appear in the Studio Panel under Notes. You can also click on the "Convert to source" button at the bottom of an opened note to turn it into a new source.

- Chat with specific documents only: By default, NotebookLM uses all uploaded sources in responses. To focus on a particular document, deselect the others in the Sources Panel by unchecking their boxes.

- Discover new sources within NotebookLM: Use the “Discover” button at the top of the Sources Panel to search for and add relevant web-based materials directly into your notebook. A pop-up will ask what you are interested in finding. Based on your answer, NotebookLM will recommend web sources that you can choose to add to your notebook.

4. Evaluate NotebookLM’s accuracy, utility, and limitations. After exploring NotebookLM’s features reflect on the benefits and drawbacks of this tool.

- In what ways could it support your teaching, advising, or administrative tasks?
- Were there moments when it provided misleading or contradictory information?
- What features were especially helpful or surprising?

* I used generative AI tools to brainstorm ideas, refine prompts, and explore platform differences while developing assignments and discussion materials for this document. AI also supported the iterative process of drafting and editing the content for this guide.