# LRNT 526 Assignment 1 - Individual Learning Plan

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* **Team:** Team 1 - Andrea, Bart, Edward, Darren, Michael
* **Technology:** AI
* **Learning Event:** OECD International Conference on AI in Work, Innovation, Productivity and Skills (OECD, 2023)

## Overview and Rationale

For the final critical inquiry paper, I plan to write about Artificial Intelligence (AI) and its effect on assessment. Our group decided on AI as a general topic due to its current uptick in use in mainstream society due to the release of LLMs (large language models) such as ChatGPT. These new AIs are publicly accessible, free to low-cost, and relatively easy to use for the average person. Our group will look at AI's effect on education regarding equity and accessibility and their impact on workplace training and assessment. The group chose the Organization for Economic Co-operation and Development (OECD) virtual conference titled “International Conference on AI in Work, Innovation, Productivity and Skills” (AI WIPS) (OECD, 2023). The conference, held in March of 2023, focused on AI's current and future effects in the workplace, education, and society. Although the conference looked at AI from the workplace, culture, and education lens, many of the general issues discussed (disruption and changes to work, privacy, and future skills) can also be applied to the classroom. These changes caused by AI in how people work and what skills they will need will determine what and how we teach and how students achieve and demonstrate knowledge.

While our group will focus on three areas of AI and education (equity, workplace training, and assessment), my paper will focus on student assessment and how AI will change how educators assess learning. AI-powered Large Language Models (LLM) allow essays of average to good quality to be produced by simply entering a short prompt (Keith, 2023), and can pass medical, bar, and MBA exams (Zeisloft, 2023); this leads me to research to determine if it is worthwhile to consider alternative methods of evaluating student knowledge, such as authentic assessments, adaptive assessments, or formative assessment techniques. These forms of assessments might allow students to demonstrate their knowledge that would be difficult to have an AI do for them while also allowing them to learn in a less structured way. For the program I teach in, we rely heavily on more authentic real-world assessments currently, but even so, with the program's subject matter of web development, producing large chunks of code can be easily achieved through natural language prompts with modern LLMs, allowing a student to appear to understand learning objectives, but in reality, not to. This will require instructors in our program to develop other means beyond having students produce applications that AIs can easily create.

## Learning Theory and Course Design Framework

Given AI's abilities, traditional assessments need rethinking. I've chosen Constructivism as the learning theory and authentic assessment as the course design framework. Constructivism posits that people build knowledge through real-world experiences and social interactions (Western Governors University, 2020), which can be complex for AI to replicate, ensuring students demonstrate understanding and synthesis of information.

Authentic assessment aligns with constructivism's focus on real-world issues (Messier, 2022). It requires students to demonstrate learning in non-traditional ways, such as presentations, videos, or class lectures (Messier, 2022). These real-world demonstrations help students learn, apply, and showcase their achievements, which are difficult for AI to automate.

## Research Literature

The brief descriptions in the previous sections regarding constructivism and authentic assessment scratch the surface of my understanding of those theories/frameworks. Additional reading will be required to understand them in-depth to apply them to the current situation around AI and learning assessment.

Below are a few articles relating to constructivism and authentic assessment. This is just a start; reading beyond these articles will be necessary.

## Brief Selection of Articles on Constructivism and Authentic Assessment

* Active learning in a constructivist framework
  + **Author(s):** Glenda Anthony
  + **Date:** 1996
  + **DOI:** <https://doi.org/10.1007/BF00369153>
  + **Summary:** Discusses how active learning in constructivism is insufficient for successful learning. Students must also be able to reflect on and understand their learning.
* Constructing on Constructivism: The Role of Technology
  + **Author(s):** Aloka Nanjappa, Michael M. Grant
  + **Date:** July 27, 2008
  + **URL:** <https://xhspz.wordpress.com/2008/07/27/constructing-on-constructivism/>
  + **Brief Summary:** Looks at how technology can determine how constructivism is applied in the classroom.
* Rethinking authentic assessment: work, well-being, and society
  + **Author(s):** Jan McArthur
  + **Date:** February 17, 2022
  + **DOI:** <https://doi.org/10.1007/s10734-022-00822-y>
  + **Brief Summary:** Makes the argument for expanding the definition of authentic assessment beyond the common belief of it relating to a work scenario or problem to include how a skill or knowledge relates to society.
* Designing the digital in authentic assessment: is it fit for purpose?
  + **Author(s):** Juuso Henrik Nieminen, Margaret Bearman, Rola Ajjawi
  + **Date:** June 20, 2022
  + **DOI:** <https://doi.org/10.1080/02602938.2022.2089627>
  + **Brief Summary:** Discusses how authentic digital assessments have been used to improve digital skills rather than digital literacy.
* Combating Academic Dishonesty, Part 7: Authentic Assessments and the Challenge of AI
  + **Author(s):** Thomas Keith
  + **Date:** February 7, 2023
  + **URL:** <https://academictech.uchicago.edu/2023/02/07/combating-academic-dishonesty-part-7-authentic-assessments-and-the-challenge-of-ai/>
  + **Brief Summary:** Discusses the issues with traditional assessments in an AI world and provides alternative assessment ideas.

## Non-Academic Resources on AI and Education

While a large portion of academic research will rely on traditional scholarly articles since publicly available and easy-to-use AI LLMs are a very recent phenomenon, some reliance on more recent blogs, videos and other non-academic resources will also be used. Below are three articles that represent just a few of the many I have bookmarked for reading.

* Breaking What Was Already Broken: AI and Writing Assignments
  + **Author:** Brenna Clarke Gray
  + **Date:** January 23, 2023
  + **URL:** <https://digitaldetox.trubox.ca/breaking-what-was-already-broken-ai-and-writing-assignments/>
* AI & the Future of Assessment in Higher Education
  + **Author:** Matt Wood
  + **Date:** February 2, 2023
  + **URL:** <https://dcad.webspace.durham.ac.uk/2023/01/24/ai-the-future-of-assessment-in-higher-education/>
* Update Your Course Syllabus for chatGPT
  + **Author:** Ryan Watkins
  + **Date:** December 18, 2022
  + **URL:** <https://medium.com/@rwatkins_7167/updating-your-course-syllabus-for-chatgpt-965f4b57b003>

## Applying Previous MALAT Learning to this Research

MALAT courses have deepened my understanding of education and technology. Three introductory courses, LRNT-522, LRNT-523, and LRNT-524, will inform my analysis of AI and assessment. LRNT-522 provided insights into knowledge formation and how educators can design assessments that encourage students to gather, understand, and critically analyze information (Johnson & Christensen, 2013).

LRNT-523 explored the relationship between education and technology, examining how technology affects students' learning and educators' teaching methods. Grasping how technology intertwines with pedagogy will help analyze AI's impact on assessment design.

LRNT-524 introduced course design frameworks, like Universal Design for Learning (UDL), which support learners of all abilities. UDL promotes non-traditional mediums for demonstrating knowledge, such as presentations and videos (UDL: Expression & Communication, 2018), aligning with authentic assessment's real-world focus. Understanding the importance of course design frameworks and their application in education will contribute to the discussion on AI's effects on assessment practices.

## Research Log

As a web developer, I prefer to write in markdown (HTML shorthand) and version control content using GitHub. Consequently, I will use markdown files to log reading notes, concept ideas, resources and other information related to developing a final paper on AI and assessment. These can be found at this URL:

* <https://github.com/michaelwhyte/lrnt-526-a1-research-log>

## Summary

Understanding how technology such as AI affects society here and now is essential. Selwyn (2010) encourages educational researchers to look at technology not just regarding its future potential but how it will affect everyday life today. My hope with this forthcoming paper is to discover an understanding of how AI is affecting assessments so that for future course and assessment designs, effective ways can be developed that will allow students to utilize AI to enhance productivity, but not just to use it as a crutch to give the appearance of learning.

## AI Disclosure

This document’s initial draft was human written and edited. Subsequent drafts used Grammarly, ChatGPT, and human editing. Grammarly was used for grammar and general writing flow revisions. ChatGPT was used on two sections:

1. Learning Theory and Course Design Framework
2. Applying Previous MALAT Learning to this Research

For both sections ChatGPT was used to reduce the word count down. This was done to enable the word count for the entire document to get closer to the 1000 word maximum allowed for this assignment.

All drafts from the initial human written and edited draft through to this final submission can be viewed at this url:

* <https://github.com/michaelwhyte/lrnt-526-a1-learning-plan/tree/main>

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