Guidelines for Vetting and Adopting AI Grading Applications

Introduction

Artificial intelligence offers powerful opportunities to enhance assessment at BYU-Idaho, improving consistency, accuracy, and efficiency of grading. As we explore these tools, we are guided by our commitment to the university's mission: preparing students for lifelong learning, discipleship, and service through a Christ-centered educational experience. This framework empowers faculty to thoughtfully evaluate and implement AI grading applications, rooted in principles that reflect our values and priorities:

1. **Faculty-Led Assessment:** AI tools must support, not supplant, faculty-designed assessments that align with course objectives. Faculty are the stewards of evaluation and ensure assessment methods measure student outcomes correctly and consistently.
2. **Safeguarding Student Trust**: The use of AI must protect student privacy and intellectual contributions, upholding university standards and fostering confidence in the assessment process.
3. **Strengthening Relationships**: AI should enable faculty to devote more time to mentoring and building connections with students, preserving the personal, discipleship-focused interactions central to the BYU-Idaho community.

These guidelines equip faculty to integrate AI in ways that elevate teaching and learning while honoring our shared responsibility to nurture students' intellectual and spiritual development. The sections that follow provide practical steps to apply these principles with care and diligence.

Section 1: Assessment Design

A well-designed assessment framework is crucial for ensuring that learning outcomes are effectively measured and achieved. This overview of the key components of an evidence-based assessment design framework serves as the foundation for any type of assessment plan and provides context and best practices to include when considering using AI grading applications. These principles ensure that assessments are ethical, fair, valid, and aligned with educational goals.

The Basic Assessment Framework

1. **Be Clear About What You're Measuring -** Define what students should be able to do or understand by the end of the assignment. These are your learning outcomes.
    a. Review the AI's pre-training data and intended use to determine alignment with your established assessment plan.
    b. Never alter your assessment plan to accommodate AI tool limitations.
2. **Use a Straightforward Rubric -** Create a rubric that describes what different levels of quality look like for each part of the assignment. Use clear, specific, and concrete language.
    a. Create specific prompts for the AI that optimize implementation of your assessment plan and rubric.
    b. Leverage fine-tuning and LLM chain of thought to improve rubric application.
3. **Test the Rubric First -** Try scoring a few student submissions yourself and see if your rubric works. If possible, compare your scores with a colleague or AI tool to make sure it's consistent.
    a. Have the AI score sample artifacts and compare them to expert scores.
    b. Verify the AI applies rubrics consistently and generates appropriate feedback.

4. **Keep the Assessment Aligned -** Make sure your assignment really connects to what you say you're trying to measure. Don't change your goals just because the AI struggles—adjust the AI, not the learning outcome.
    a. Verify the AI scores with consistency across all types of student submissions
5. **Check and Adjust Regularly -** Watch for patterns. If AI grading starts giving strange results or if students raise concerns, review the tool and your process.
    a. Track outcomes, document anomalies, and conduct regular reviews.
    b. Monitor for "drift" in AI assessment patterns and retrain as needed.
    c. Ensure grading remains accurate in predicting student achievement.
6. **Tell Students What's Going On -** Let students know if AI is being used to help with grading. Explain how it works and how they can ask for a human review if needed.
    a. Disclose transparently that an AI tool has been used to assess the assignment. Consider including:
        i. Why the assignment uses AI grading.
        ii. What benefits are provided to the classroom experience.
        iii. A brief overview of the process used to assess the assignment.
    b. Provide a clear process for students to petition a teacher's review of the assignment

Section 2: Data Privacy and Protection

Faculty must ensure that AI grading applications protect student data, comply with university policies, and respect student intellectual property.

University Approval and Compliance

Faculty may only use AI grading tools that have been approved by the AI Executive Committee. Approved tools have undergone security and privacy reviews to ensure compliance with university policies, legal regulations (e.g., FERPA), and data security standards.

Approved grading tools currently include:

1. WriteGrader (currently in pilot only)
2. ChatGPT under CES Domain
3. Copilot (with BYU-Idaho login)
4. Gemini (with BYU-Idaho login)
5. Turnitin (with Canvas integration)

Requirement: Use only the tools above.

*Faculty interested in Piloting ChatGPT under the CES Domain can request access here.
**New tools must be submitted for review and approved before use (Use this form to request a new tool.)

Faculty Responsibilities

Faculty should:

- Verify AI tool compliance with university policies
- Document AI Grading policies & privacy implications in the course syllabus
- Ensure or create options for students to petition human review of any AI Graded assignment

- Report any privacy concerns or suspected violations immediately to the AI Executive Committee

Resources:

Several studies impacted the development of this framework.

- Validity and Reliability: The Core Concepts of Psychometrics in Assessment, Catherine Pease
- Computation and Language Artificial Intelligence arXiv:2501.02334v1 https://arxiv.org/abs/2501.02334