

Assignment 1. Project Proposal
Big Data, Education, and Society
Fall 2021

Post due 10/4 9am

Response to Other Groups' Posts due 10/8 1159pm

This class will have one primary project with multiple sub-assignments. In this project, you will propose a learning analytics application in a group of three. You will work with this project group throughout the semester.

In the first sub-project, due on October 4, you will propose your learning analytics application. In specific, you must propose an application of learning analytics – how learning analytics will be used to address some existing or upcoming challenge in the context of learning, human development, or education. Learning/human development/education can be broadly construed, but your application must still involve one of these domains in a recognizable fashion. In other words, lifelong career learning, kindergarten programs, and personal fitness are all valid domains, but using analytics in a financial services business is not a valid assignment for this class. (But using analytics to study the personal or career development of bankers **is** a valid assignment!). This application must have the goal of real people learning real content in the real world. In other words, cognitive science research projects involving learning paired associates in a laboratory setting do not qualify, and anything that is basic research with only very distant real-world learning goals does not qualify. If you are uncertain about your project idea's fit, please feel welcome to check in with me in advance.

Similarly, your assignment must involve an application that genuinely involves analytics as it is construed by the writers we study in this class. And, although futuristic applications are welcome, being **too** futuristic may make it difficult to do the later assignments in this class – i.e. envisioning a world where more devices are internet-connected is fine, and envisioning a world where micro-credentialing plays a more prominent role is fine, but envisioning a world where all humans are wirelessly neurally connected to a network such that telepathy is commonplace will make the assignments of the rest of the semester rather difficult.

The goal of this assignment is to propose your application and discuss your proposals with your classmates. You will provide constructive feedback to your peers about their proposed projects, the quality of which will be assessed and contribute to the final mark. They will provide you feedback as well.

A project proposal will be written by each student or group, which will be shared in the Piazza discussion forum for peer feedback. There are no required length limits insofar as you achieve the assignment's goals; however, posts that are too brief to provide appropriate detail will be graded down, and posts that are painfully long to read may not receive useful feedback. All students will be expected both to provide feedback, and to respond constructively to feedback from others. The participation in the discussions about peers' proposals will constitute 20% of the assessment weighting for the assignment.

There are two main tasks for this assignment:

- Application proposal (80% of the Assignment 1 grade)
- Responses to the posts of your peers on your plan and participation in the discussions of your peers' plans (20% of the Assignment 1 grade)

Each student is expected to submit their project proposal in the form of a message submitted to the course discussion forum. Do not email this assignment directly to the instructor.

Proposal content

Your post is expected to have the following elements, clearly separated out from each other.

1) *Title.*

2) *Problem.* What is the problem under study?

3) *Approach.* What is your proposed approach to the problem under study? How will your approach work (technical details are not required, but a general vision for how it works will help your classmates critique your approach)? What are the hoped-for results and contributions of your project?

4) *Past work.* Are there other relevant solutions, and if so, how do they fail to address the problem fully (i.e., why is your approach needed)? Is there relevant published research literature? If so, write a summary of the most recent literature and how it informs your solution. Note: this summary should probably be at least a page of double-spaced text long (if it were submitted in a Word doc instead of a post).

Where to Submit

Submit your proposal to the Assignment 1 "Problem Proposal" discussion folder. Each student/group is expected to submit their plan in a new thread of the forum where the title of the thread is the title of your assignment.

Grading criteria

Proposal submission (80% of the Assignment 1 grade)

Your proposal will be graded in terms of plausibility and technical soundness, importance/relevance of problem selected, quality of explanation, completeness of explanation, justification of your approach, and quality of review of past work. Proposals may also be graded down for lack of clarity, comprehensibility in writing, or failure to conform to the assignment's goals.

Responses to the posts of your peers on your plan and participation in the discussions of your peer submissions (20% of the Assignment 1 grade).

You are expected to participate actively in the posts made by your peers and provide feedback or otherwise contribute to the discussions of **at least five other proposals**. In particular, your participation must provide detailed and constructive feedback and not just a general and non-actionable comment (e.g., "Wow! This is great."). Ideally, your review should focus on their idea and approach rather than their literature review, although it may be helpful to point out key literature they have missed. Please try to distribute your responses across your classmates, so that all projects receive peer feedback.

All students are expected to provide prompt answers to posts from their peers, and to respond to other students' comments on your post.

Late Submissions. Owing to the interactive nature of this assignment and the feedback process, late submissions are not permitted and extensions will be made in exceptional circumstances only (e.g., health related problems).