INFO 4960.001: Research Design for Games to Teach Data Ethics

Instructor Information

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Course Description, Structure, and Objectives

Catalog Description
Introduction to principles of design-based research, design of serious (educational) games, informal learning, and ethical issues related to data science, especially artificial intelligence. Course is part of an ongoing project to increase diversity in STEM fields. Students will work virtually as a single research team formed with undergraduates at the University of Washington. Intended for all majors, including those without related experience.

Research Group Description
This research group will explore the use of digital games to introduce users to ethical and human-centered issues in AI and machine learning, as related to educational game design. Students will be hands-on in exploring examples of educational games, brainstorming and providing ideas for games, and creating prototypes using paper and/or a computer game engine such as Unity3D. This group will receive an overview of both prevalent AI and ML ideas and issues in the world today, in addition to educational perspectives on the importance and subtleties of game design and some hands-on tools to design a game prototype throughout the semester. In addition, the group will strive to write a case study paper describing their design process throughout the quarter.

Course Structure
This course meets on Thursdays from 1:30pm to 2:50pm via Zoom. You are also expected to meet in small work groups outside of course meetings.

Course Objectives
- Students will learn fundamentals of AI and ML and their subsequent ethical issues in the world today.
- Students will design a game dealing with the ethical implications of the above topics working in groups.
- Students will produce a case study paper about their group’s design process.
Required/Recommended Materials

There is no required textbook for this course. This course has digital components. To fully participate in this class, students will need internet access to check email, join meetings via Zoom (video conferencing software), and interact with content on Google Drive (browser-based collaborative file editors) as well as:

- Speakers
- Microphone
- Webcam
- Plug-ins

If circumstances change, you will be informed of other technical needs to access course content. Information on how to be successful in a digital learning environment can be found at Learn Anywhere (https://online.unt.edu/learn).

How to Succeed in this Course

Course Expectations

1. **To show mutual respect for your classmates, teaching assistants, instructor, and any class guests.**

   You are expected to adhere to the [code of conduct](https://deanofstudents.unt.edu/conduct) established by the University of North Texas and expectations set by us as instructors. This includes facilitating an educational environment free of discrimination and abuse, adhering to guidelines for academic honesty, and allowing peaceful enjoyment of the class by others. The instructors reserve the right to augment these expectations.

   Dr. Evans asks that we each strive to follow the [Principles of Engagement](https://untdiversity.org/principles-of-engagement), created by our UNT Division of Inclusion, Diversity, Equity and Access.

2. **To come to class and group work prepared.**

   This means having read, watched, listened to and/or produced the material assigned for that day. If you foresee that you cannot prepare using the provided materials, please do your best to skim and utilize alternative resources to prepare for the topics described. Your contribution to group work is even more important — there is no excuse for not contributing fairly to your team.

3. **To participate and be on time.**

   Please do try your best to arrive on time. Your timeliness affects other people in the class in terms of group discussions and the quality of conversation. That said, we recognize that there are competing commitments (academic, career, and personal) that will cause conflicts. In those cases, please do join us and get caught up in a way that doesn’t infringe on other people’s learning.

4. **To meet deadlines.**

   Because we are going to be engaging in peer discussion and group work, it is imperative that you meet deadlines. We want to not only respect your time and labor, but also the time and labor of others in the classroom. If you foresee that you cannot meet a deadline, please communicate this with me as soon as possible.

5. **To communicate issues in real time.**

   Please communicate things with us that affect you and your relationship to the class. We simply cannot know this information on our own. If something major is happening for you, or that you’re going to miss an assignment or in-person class, simply send us an email so that we know.
Communication Expectations
Connect with me through email and/or by attending office hours. During busy times, my inbox becomes rather full, so if you contact me and do not receive a response within two business days, please send a follow up email. A gentle nudge is always appreciated!

If you do send an email, please also cc my Teaching Assistant. I also request that you include the following information in the subject line:

Course Number Students Last Name: Topic of the Email

You may also leave a message on my office phone number (940-369-8102) and I will respond within 24 hours.

While my office hours (Monday 11am to 1pm) are generally in person, I am happy to meet you on Zoom during that time. Just let me know! My office is out at Discovery Park, which is accessible from main campus by a free shuttle. But I am also available at other times by appointment for in person meetings, telephone calls, or video chats. My goal is to support you in your learning journey, so please reach out as needed.

ADA Accommodations
The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking reasonable accommodation must first register with the Office of Disability Access (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with a reasonable accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request reasonable accommodations at any time; however, ODA notices of reasonable accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of reasonable accommodation for every semester and must meet with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of reasonable accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information, refer to the Office of Disability Access website (http://www.unt.edu/oda). You may also contact ODA by phone at (940) 565-4323.

Supporting Your Success and Creating an Inclusive Learning Environment
As members of the UNT community, we have all made a commitment to be part of an institution that respects and values the identities of the students and employees with whom we interact. I value the many perspectives students bring to our campus. Please work with me to create a classroom culture of open communication, mutual respect, and inclusion. All discussions should be respectful and civil. Although disagreements and debates are encouraged, personal attacks are unacceptable. Together, we can ensure a safe and welcoming classroom for all. If you ever feel like this is not the case, please let me know. We are all learning together. In my courses, I ask that we each strive to follow the Principles of Engagement, created by our UNT Division of Inclusion, Diversity, Equity and Access.

Assessing Your Work
Your assessment for the course will be based on a combination of written responses to weekly readings, presentations, a midterm examination, class participation, and finally, a group project code and report. We will let you know about the assignments per week.

- Class and research participation 60%
- Written responses 30%
- Discussion presentations 10%

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Written responses will include some reflections throughout the quarter of the assigned readings.

Discussion presentations will be short presentations of an assigned reading, no longer than four minutes.

Class participation will be measured by a combination of attendance and participation in both class and the research the group will be engaging in.

Late submissions are not accepted for the discussion and project presentations due to the impact it has on the class schedule and group discussion. Written responses can be accepted for 50% credit up to 5:00PM PST on the day of class. After that time, no credit will be given.

Assignments will be pass/fail – do all the assignments to the best of your ability and you will get an A in the course!

Course Requirements/Schedule

Topics and assignments may change and as needed for the group. Our focus is more on being a research team than a formal course. Everything we do will contribute to the goals of the project.

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>Week 1</td>
<td>1/20</td>
<td>Intro to the class, goals of the class, basics of AI/ML</td>
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<tr>
<td>Week 2</td>
<td>1/27</td>
<td>Technical + sociotechnical issues with AI/ML</td>
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<td>Week 3</td>
<td>2/3</td>
<td>Student presentations from their essays + Ethics</td>
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<td>Week 4</td>
<td>2/10</td>
<td>Possible solutions to the societal implications + Diversity in AI and STEM</td>
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<td>Week 5</td>
<td>2/17</td>
<td>Informal learning / Connected Learning</td>
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<td>Week 6</td>
<td>2/24</td>
<td>Games / Serious Games</td>
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<td>Week 7</td>
<td>3/3</td>
<td>Play games</td>
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<td>Week 8</td>
<td>3/10</td>
<td>Syllabus</td>
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<td><strong>Spring Break</strong></td>
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<tr>
<td>Week 9</td>
<td>3/24</td>
<td>Research design (no UW students)</td>
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<td>Week 10</td>
<td>3/31</td>
<td>Recap of topics so far</td>
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<td>Week 11</td>
<td>4/7</td>
<td>Design of games</td>
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<td>Week 12</td>
<td>4/14</td>
<td>Wireframing basics + Narrative design</td>
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<td>Week 13</td>
<td>4/21</td>
<td>Game work time</td>
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<td>Week 14</td>
<td>4/28</td>
<td>Game feedback</td>
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<td>Week 15</td>
<td>5/5</td>
<td>Game work time</td>
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<tr>
<td>Week 16</td>
<td>5/12</td>
<td>To Be Determined</td>
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Attendance and Participation

Research has shown that students who attend class are more likely to be successful. You should attend every class unless you have a university excused absence such as active military service, a religious holy day, or an official university function as stated in the Student Attendance and Authorized Absences Policy (PDF) (https://policy.unt.edu/sites/default/files/06.039_StudAttnandAuthAbsence.Pub2_.19.pdf). If you cannot attend a class due to an emergency, please let me know. Your safety and well-being are important to me.

Because this course involves collaboration, participation is essential to learning. Our project-based activities require you to be actively engaged in discussions and group work. I understand tardiness and absences may
occur. If you are late to class, please drop me an email to let me know the circumstances. If you must miss class, please let me know prior to your absence.

About COVID
Students are expected to attend class meetings regularly and to abide by the attendance policy established for the course. It is important that you communicate with the professor and the instructional team prior to being absent, so you, the professor, and the instructional team can discuss and mitigate the impact of the absence on your attainment of course learning goals. Please inform the professor and instructional team if you are unable to attend class meetings because you are ill, in mindfulness of the health and safety of everyone in our community. If you are experiencing any symptoms of COVID (https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html) please seek medical attention from the Student Health and Wellness Center (940-565-2333 or askSHWC@unt.edu) or your health care provider PRIOR to coming to campus. UNT also requires you to contact the UNT COVID Team at COVID@unt.edu for guidance on actions to take due to symptoms, pending or positive test results, or potential exposure.