

Arts, Journalism, and Computer Science:

Collaborations that advance our community

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ABSTRACT

Successful interactive experiences often combine the specific talents of many fields to produce the best possible visual design, psychology of play, and a development process that supports both of these [Maxim 2006]. This is the standard in professional game production, but it is often difficult to replicate this cross-disciplinary experience for students at the academic level. A host of issues due to siloed departments, semester time restraints, entrenched mindsets, and others unique to academia often present themselves [Wolz et al. 2007]. Programs that focus on game production are in a unique situation to build bridges between subjects that normally do not interact within the academy. This talk explores the initiation, development, and expansion of two upper level courses that merged to provide students this type of cross disciplinary experience.

CCS CONCEPTS

• **Applied Computing: Education;** • **Collaborative Learning/Applied Computing: Arts and Humanities;** • **Humanities: Media Arts;**

KEYWORDS

Psychology of Play, Cross-disciplinary, Game Production

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1 INTRODUCTION

The initiation of this experience was a combined effort between artist and professor Jeffrey Moser as well as computer scientist and storyteller Frances Van Scoy. Moser is an Assistant Professor of Interactive Design and Van Scoy is an Associate Professor of Computer Science.

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The Interactive Design major is a collaborative program between the Reed College of Media and the Creative Arts College. In it, they pursue designing interactive experiences. Moser recognized an issue he wanted to solve: artist and storytellers that had trouble with the logic and play side of the experience.

The Computer Science major supports classes that engage with game development as well as a Game Development Club. Van Scoy recognized an issue she wanted to solve: programmers that did not see the value of art and story in their games. An artificial environment is created when game implementation is limited to computer science students as it is also dependent on creative writing, music composition, sound technology, theater production, digital 3-D art, cinematography, and character animation [Alves et al. 2015].

Communication between these needed areas of production could also improve as "collaborative communication across disciplines will be critical to the continued success of the American workforce" [Wolz et al. 2007]. By collaborating between CS 475 (Game Development) and ART 472 (Advanced Interactive Design), they created an opportunity and space for students to practice solving these issues.

2 EXPOSITION

This collaborative course is in its fourth year of iteration. The course focuses on a theme each year. Past themes have included 'solve a problem', 'tell a story', and 'local history'. This year's theme is 'education.' The instructors encountered many difficulties in its origination as well as expansion each year. Communication, division of labor, and conceptual disagreements typical among group work have been among the most prevalent [Dickey 2010].

Throughout the course a final game based on the year's theme is designed and developed from start to finish. The language used is Python, a well-known programming language. Designs are typically

created through Adobe Photoshop and Illustrator. A highly polished first level as well as a plan for expansion is considered the final prototype.

The end of the course provides a day for groups to showcase and present their prototypes as well as compete for an award. The award is a raspberry pi RetroPie arcade game system. It is paneled by professional members of the community. One key difference in this year's collaboration is in the collection of data of students at the start of class and at the end of class via a general survey of game design, history, and development. This data will allow researchers to assess the impact of the collaboration and coursework on student learning [Katchabaw et al. 2005].

A new instructor was added to the collaboration, Heather Cole. She is an interdisciplinary artist whose addition will assist the students on theories of play and fun. Cole has had previous experience assisting cross disciplinary game design and production through a previous school. She has also had experience teaching at all levels of education (Kindergarten through College) and will specifically assist them in developing for target age groups.

This year's iteration also needed to contend with the sudden change of a physical collaboration to a completely remote collaboration. This created additional challenges from the student's work together to the way judging of the contest is usually held.

3 CONCLUSIONS AND FUTURE WORK

Over the years, this cross-disciplinary collaboration has fine-tuned. The students final game product has improved each year with adjustments made based on prior years. The collaborative process of group work has also evolved by design. This talk hopes to provide a template for cross disciplinary project initiation, management and evolution. This year will also allow for a presentation of findings

through the data collected. Future iterations of this course may be managed by different faculty or focus on other pathways of development [Maxim 2006]. There is potential for further development through computer science, the arts, and music. Additionally, there is a small but growing indie game studio in the state and we are remaining in contact with those studios (some of which were formed by our former students) and trying to support their work.

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A APPENDIX

<http://community.wvu.edu/~jsmoser/472s20/> Spring 2020 projects