



# PROJECT ATLANTIS (Applied Technology Learning Activities for Non-Traditional Instruction on Space)



## Abstract

As commercial and governmental space endeavors increase in number and complexity, the need for people educated in space policy and law will also grow. In order to create this well-educated group of space professionals, a sophisticated space policy and law curriculum is needed. As accessibility of technology increases and more students are becoming digital natives, the importance of non-traditional curriculums increases. Students in an independent study course created space policy and law educational videos based on topics within the curriculum of an existing undergraduate space law course. Two educational models can be derived from this experiment: the creation of the videos as a special project within a traditional classroom or independent study course, or administering the completed videos as part of a flipped-classroom model. This paper proposes measures of success for both educational models derived from the experiment as well. Other potential uses for the videos are also identified.

## Introduction

Digital learning tools, such as educational videos, are used to help make curriculums more flexible and have been widely incorporated into undergraduate-level education programs. Project ATLANTIS (Applied Technology Learning Activities for Non-Traditional Instruction in Space) was an experiment that engaged two students in a novel project within an independent study course, with the task of creating videos based on existing course materials. Project ATLANTIS was designed to test the potential of expanding space law curriculum using educational video content. The Project ATLANTIS videos created can be used as a project to supplement the existing curriculum for future students, or be used as materials for part of a flipped classroom. Other potential uses for the videos are also identified.

## Experiment

The Project ATLANTIS students created videos to supplement the curriculum in an existing undergraduate-level course. The two students held different roles in the project, one being the Project Manager and one being the Content Creator.

## Process



## Educational Models - Special Project

The first educational model that can be derived from Project ATLANTIS is that of a special project that is added to an existing undergraduate space law course. Beyond engaging students in a flexible, non-traditional curriculum, the benefit of creating the videos was twofold: the activity authentically taught the students the material and developed the digital literacies of the student-creators.



## Educational Models - Flipped Classrooms

The Project ATLANTIS videos, vetted by the educator, are ready materials for a flipped classroom, so long as they are used as a part of the same course for which they were created. The Project ATLANTIS videos would be more likely to be viewed by students than textbook readings, and would improve the performance of the students and would therefore be more effective teaching tools.



## Benefits to Educators

The special project model is advantageous because it can be built into a traditional course curriculum, without having to completely overhaul the curriculum. The flipped classroom model is advantageous because educators can more accurately track if their students are reviewing the required materials than if the materials were documents or other reading-focused material, and the videos are more engaging materials.



## Discussion

Further uses for the materials include utilizing them as capacity-building or outreach materials. While Project ATLANTIS has many advantages as an educational tool, there are some aspects that require further consideration. Potential issues include: objectivity and subjectivity in grading and access to video creation and editing technology.



## Conclusions

As technology grows more accessible and educational institutions attempt to incorporate more technology into their classrooms, projects like Project ATLANTIS are increasingly viable and valuable to both students and the institutions they attend.



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