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Technology on Purpose: Taking Education to the T.O.P.

OVERVIEW

Problem

How do we know about the American Revolution? For many Americans and other persons educated in American school systems, knowledge about the American Revolution comes not *only* from textbooks or documentary research into that period. Rather, our knowledge about "the" Revolution *also* comes from the paintings and works of art that characterize that age. The works of John Trumbull, for example, are iconic, taking their place in galleries and museums around the world, even on the national mall.

Unfortunately, works of art, and other forms of visual mediums, are not used in many classes. There are many reasons for the absence of non-document or –text based visuals, but they can be boiled down to the lack of visual literacy and the lack of technology to facilitate their use. Without visuals and visual literacy, students are missing out on great learning opportunities.

Solution

We propose that technology be used to enhance the education experiences of our students at every level and in every discipline. We propose taking the most basic component of the contemporary technological revolution—the use of visuals—to recover an ancient and lost modality of education. We propose an otherwise return of the visual arts to the classroom setting and to the teaching of humanities.

Technology On Purpose (T.O.P.) proposes a three-fold plan to address the absence of visuals, visual literacy, and visual technology in Vanderbilt classrooms. First, we propose the creation of collaborative teams of college students, graduate students, professors, and graphic designers to brainstorm various concepts and ideas in the humanities that would be facilitated by a visual representation.

Think: what would a visual representation of Marx's "capital" look like? This would require both the expert on Marx as well as the novice who experiences and appreciates the impact of the visual design. The variety of the persons on the teams will help to facilitate the expanded impact of the model or representation created.

Second, we propose the pairing of a visual artist/note-taker with a professor for every class. This will take learning to a new level, giving visual learners a new angle on material that is often only written or verbally experienced, and traditional learners the opportunity for visual reinforcement. Third, we want to empower students to co-create. The collaborative teams and the visual note-taker are not the only persons who can create. Rather, all of us can help to make visual models for complex ideas and social phenomena. Thus, we propose that Vanderbilt supply students with graphic design technology to help students build upon and extend the visual learning that they are only starting to do in the classroom. Ideally, the technology would be an app, easily downloadable to a computer and phone. This will indeed make our uses of technology purposeful, and take them to the top!

IMPACT

No other university is doing this. This will set Vanderbilt and its students apart as knowledge producers and persons who contribute to the educational promise of our modern age. Moreover, by placing into the hands of students the capacity to create images as a product of philosophical and critical discourse, the knowledge produced by Vanderbilt students will come to characterize the current age.

GOALS

1. <u>Visualize complex ideas in the humanities</u>.

    In the hard sciences, visual models, interactive models, and other visual tools to enhance educational experiences are often used. The goal of this proposal is to

enable the humanities fields to take the same route in distilling equally complex ideas into visual aids for furthering comprehension.

2. <u>Demystify knowledge production and turn students into producers of knowledge</u>. Students often have great ideas but their inability to communicate those ideas in the language of the particular course may shut down their contributions. Technology On Purpose (T.O.P.) proposes that by providing technological resources accessible by phone, computer, or iPad (similar to the way that Microsoft Word is leased), students will endeavor to create complex images that help them conceptualize complex philosophical ideas.

IMPLEMENTATION

We imagine three (3) wings of Technology On Purpose (T.O.P.):

- Team of Graphic/visual artist, professor(s), and students who are all working together to come up with specific visual representations for certain concepts or ideas in a particular field. These teams can be interdisciplinary, however, we imagine that while some ideas may find such interdisciplinary work useful ("capital" "discursive formation"), other ideas may require discourse and discipline specific teams (think about "immanent and economic Trinity" for example).
- In-class note-taking visual artists and their more general classroom collaboration with students and professors.
- To ensure that models and notes are not lost, we imagine that what happens in the classroom will need to be digitized. We imagine, moreover, that those notes may be worked with to render 3D models. This could be the work of individual students, of the collaborative team, or of the artist/professor relation. Moreover, we imagine that this digitized material will need to be accessible to multiple parties, curated in a particular way, and archived.

This requires a three (3) phase implementation:

- Phase 1: Consultation with professors and students to see what ideas would be helpful to map, how they envision technology in the classroom, for research, etc. This stage would also include deciding on the best technology platform to build this work on so that the next stage will run smoothly. This stage would include our own research and assessment program.
- Phase 2: Development and implementation of training for professors, graphic designers, digital curators. This phase would include an orientation to the technology team so that professors and artists are getting to know one another. Teams should include undergraduates, graduates, artists, and a couple of professors, potentially separated by schools of thought (i.e., Religion, sociology, anthropology, etc.). The training and implementation would follow the development of a pilot program crafted in phase 1.

- Phase 3: Implementation of programs with data analysis, surveys to see the utility to education outcomes, as well as satisfaction in relation to participation in knowledge production

ESTIMATED COST

Things we need:
- Technological resources available in class: This could include dry erase boards that allow for screen captures; software which would allow a professor to create and bring up a model (or visual) that they have created to class; sympathetic applications that are downloadable for phones, tablets, or laptops which would allow students to view said model (when it is available to share) and to make updates to it. Here, we imagine that we will collaborate with graphic artists to understand the programs that they use as well as Vanderbilt to know if special licensing deals are possible.
- Software/technology required software to digitize hard documents or visual note-taking performed in class. Again, we expect that the visual note-taker will digitize classroom notes.
- Wages for graphic designers, internship hours for students, some type of compensation for professors
- Patents: We rightly expect that the models that are created will be respected as the intellectual property of the collaborative team. As such, we will need financial support for the patenting process as well as the appropriate fees for licensing said models or visuals.

Sample Year:
Two years working in two different departments/schools (i.e. religion and sociology)

- **Technology ($8,350)**
  - 2 Electronic Dry Erase Boards @ $2300/board (4600)
  - Adobe Creative Cloud Package $450/person (3150)
    - applications for students may be included in the creative cloud package
  - 2 Fujitsu Document Scanners @$300 (600)
- **Team Compensation Per Semester ($44,000)**
  - Professor _ committee and/or additional compensation roughly ($6,000 per professor/$12,000 for both professors)
  - 2 undergraduate and 2 graduate Students_ TAship ($5,000 per student/$20,000 for all students)
  - Graphic Designers_ for team and classroom ($6,000 per artist)

Rough Total_ $44,000 per semester per team, and $8,500 for technology costs, some of which will not repeat.