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## **The Electronic Issue Forum: A Tool for Distance Learning**

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### **Abstract**

This paper describes *Electronic Issue Forums*, in which students use role-playing to debate academic controversies of interest over extended periods. There are significant educational benefits to this tool for students in a traditional classroom. Moreover, because all communications take place over a computer network, the tool is also well suited for distance learning. Electronic issue forums incite valuable student interactions that are often lost when students and instructors are scattered across many different locations, and are therefore a good supplement to the videoconferencing systems typically used for distance learning.

## Introduction

Most early film-makers simply set their cameras in front of a stage and filmed a live play. There were no camera movements, close-ups, remote locations, or complex editing techniques. Similarly, early records were produced by setting a microphone in front of a group of musicians, with none of the mixing and editing typical in today's music studios. Technology was just an imperfect imitation of live performance. It takes time to choose the right technology, and to exploit its unique qualities. It is not surprising that today's systems for distance learning consist of a camera in front of the instructor linked via a telecommunications network to a video monitor that remote students can watch. Many of these systems also have audio or video links from each remote location back to the classroom where the instructor is, so students can ask questions. Much can be achieved with such a set-up, but it's still a long way from offering students in distant schools, or even hospital beds, the same quality of education as those who can be physically present, and it does nothing beyond imitating live classes. One serious limitation is that students using these systems have few opportunities to interact with each other. In traditional classrooms, students can learn more from each other than they do from the instructor, and when a class contains a diverse group of students from around the world who share a common academic interest, this is even more likely. Consequently, there is motivation to supplement these videoconference systems. We have been experimenting with *Electronic Issue Forums*, which can give students more opportunities to interact with their peers and develop important skills, regardless of whether they are all in the same location or thousands of miles apart.

So far, this approach has been used in an interdisciplinary class called *The Computer: Technology and Policy Issues*. Roughly 70% of the students are first-semester college freshmen, the majority of whom will later choose to major in some branch of engineering. The rest are older, and come from the humanities, social sciences, engineering, and the arts. In the past, this class required a major group research project, where students address a specific policy question involving information technology. This project has been highly beneficial in a number of ways: it allows students to apply the concepts they have learned in class, research a topic, learn to work in groups, and to present their ideas in both written and oral forms. However, students have consistently had difficulties in two critical areas. First, students are asked for a balanced analysis; even if they ultimately recommend one option over another, they are supposed to warn the reader of any liability of that option or any uncertainty. However, our students tend to be far more comfortable writing persuasive papers, and they often produced one-sided arguments. Second, we were often asking students to reevaluate their standards of what constituted evidence for their point, and to question the conclusions reached in any thing they read. The students need an opportunity to apply the concepts learned in class in a way that addresses these two problem areas. Ideally, we should provide this opportunity in a way that would apply even when students are scattered throughout the country.

This is possible by using computer networks such as the Internet for all communications. To date, we have principally relied on two simple tools that allow students to exchange ideas: electronic mail and newsgroups. These tools have important advantages over alternatives such as face-to-face meetings, telephone calls, or exchanging written text. Students (and instructors) can communicate by sending and reading mail without ever being in the same place, or ever acting at the same time. Complete records of all activities are generated automatically, and can be used for student reference, and later for grading. These records can automatically be made available to all interested participants. Mail reaches its destination within seconds, so fairly heated interactive exchanges are possible. Finally, the lack of visual cues may also be an advantage, encouraging shy students to participate, and maybe even challenge the instructor in a way they would not do in class. Emerging multimedia tools will also allow future students to record and exchange audio recordings, pictures, animation, and even video.

### **What is the Electronic Issue Forum?**

Instead of writing a research paper, students participate in role-playing games via an *Electronic Issue Forum* over an extended period. Like other forums, this is a place where controversial issues can be discussed. However, in this forum, all communications takes place over the computer network. Every student selects a role in a given controversy at the beginning of the semester. Throughout the semester, they submit their writings to a newsgroup dedicated to this issue. An instructor (the professor or a teaching assistant) typically sends confidential comments back to the student via electronic mail. The roles adopted by students vary tremendously, but each role belongs in one of two categories: *partisans* and *decision-makers*. There are two critical differences between the two. First, a decision-maker must ultimately make a balanced decision that considers the needs of all parties. In contrast, a partisan argues from the perspective of a particular group or organization in the debate, and the partisan's goal is to influence the decision-makers. For example, if the issue were a bill before congress on Medicare reform, the partisans might include representatives from the American Association of Retired Persons, the American Medical Association, Blue Cross, and the Concord Coalition, while the decision-makers could all be members of congress who must decide how to vote and explain their decision to their constituents. The second difference between partisans and decision-makers is that partisans must do outside research for evidence to back up their points, while decision-makers rely on input from partisans. Each student plays a partisan in one forum, and a decision-maker in another.

Initially, partisans must try to understand their roles, and begin research on the positions they should take and the evidence they might present. Partisans eventually begin posting their initial statements on the appropriate newsgroup. These statements may be deliberately incomplete. For example, a partisan may argue that there are three issues that matter, and then proceed to discuss only one of them in the first statement. As more partisan positions are taken, partisans can start to comment on each other's statements, perhaps leading to open debate. To further

encourage discussion, decision-makers are required to comment on the status of the debate at one point during the semester, and each decision-maker is given a different deadline to do this. In this comment, the decision-maker lists the positions that have been taken by partisans so far, the most compelling arguments made so far in favor of each of these positions, and any critical issues that have not yet been adequately addressed. The latter is a way that a decision-maker can signal to partisans what they might have to address to win the decision-maker's vote. Finally, there is a deadline after which partisans may no longer add to the debate. One week later, each decision-maker submits a balanced evaluation of the issue, a final decision, and the reasons behind it, drawing exclusively from the research done by partisans.

While all participants in our Electronic Issue Forums are students enrolled in the same class at the same university, they are not all in the same section. Eventually, we hope to include students taking similar courses at other universities in these forums. It is also useful to include non-students. After all, any one who is connected to the Internet can easily be included. For example, in the above debate over Medicare, one might include an interested doctor, or some one who is currently eligible for Medicare. Input from these outside parties can improve the quality of the debate. The students reacted very favorably to this idea, so even if these outside parties say little, their presence may motivate the students to take the work more seriously.

There are many advantages to the Electronic Issue Forum. By explicitly separating the balanced analysis from the persuasive one-sided argument, students can better understand both. It is clear from student work that this goal was achieved. Also, since both rival partisans and decision-makers will react to and possibly discredit their writing, the students acting as partisans have strong motivation to seek evidence that is difficult to refute. As in any place where students exchange ideas on a problem, they can also learn much from each other by example, including any thing from how to write a solid persuasive argument to how to apply some of the concepts learned in class to a specific problem. Moreover, like the Internet pen-pal programs that many schools already employ [1,2], the Electronic Issue Forum exploits the fact that students are often more motivated to write well when they know that their work will be read by peers. Finally, students may learn something about the actual process of policy-making, which often does involve the clash of partisans who must lobby a decision-maker over an extended period.

While this format has been described in a policy context, some variant of it is applicable to a wide variety of subjects. Partisans could be adopting a particular position on any subject where there is cause for disagreement, e.g. what was the most important cause of the American revolution, or is matter best viewed as particles or waves? Alternatively, students can adopt competing methodologies rather than competing positions, e.g. interpret a given set of events in *A Tale of Two Cities* using Marxist, feminist, or deconstructionist analysis, or explain certain anthropological discoveries using Darwinian theory, Lamarckian theory, or Catholic ideology.

## Hard Lessons Learned From Use

The biggest problem that we encountered with these forums is that, like any long-term project, students have a tendency to procrastinate. This is a particularly serious problem because forums by their nature work only when a critical mass of students become actively involved. As with face-to-face debates, once enough students become genuinely enthusiastic, the discussion takes on a life of its own, and instructors must simply keep out of the way. If it takes too long before this occurs, then those students that are excited by the issues become frustrated that their positions are not being challenged by classmates, while the other students make little progress. The challenge is to get a significant number of students engaged early on.

One strategy that proved useful was to attempt similar role-playing games over issues of significant interest during a single class period. This leaves no time for useful resolution, but it shows students how the process works, and if all goes well, that it can be fun. The students who were asked to participate in these mini forums did markedly better work when the Electronic Issue Forum began. Another way to make students more enthusiastic is to give them the power to choose roles that they would enjoy. Students are given a number of forum issues, and they rank them in order of preference. They are then assigned to a forum, using these preferences to the extent possible. Next, as a group, they determine what the partisan roles might be. They can then each select one of these roles for themselves. This leads them to a role of their choosing, but there are dangers. Some students select roles without understanding how hard they will be, and must be guided elsewhere. Also, instructors must insure that the list of roles is evenly balanced. If 80% of the partisans are in agreement, the forum is more likely to flounder.

To begin, the students must first understand the role they have selected. If a student is representing the American Medical Association (AMA) in the Medicare debate, she must know whom the AMA represents, and what aspects of this issue are likely to be a concern. Students should be required to discuss this with an instructor individually or in a small group early in the process. In the past, we made such meetings optional. It is clear that students who attended these meetings got off to a better start with less effort, and they generally maintained this advantage throughout the semester.

Students must then begin work on their first partisan statement. Since this is something new for them, clear instructions are important. We give them detailed guidelines, which include grading criteria. In particular, partisans are graded on six criteria: (1) the relevant information they were able to uncover, (2) the analysis they performed, (3) the persuasiveness of their arguments, (4) the timeliness of their submissions (where early is always better than late), (5) the organization of their submissions, and (6) the writing style, e.g. whether it is clear, concise, interesting, and free of spelling and grammatical errors. Decision-makers are graded on five criteria: (1) the positions that they took in the final decision, and the persuasiveness of the reasoning behind them, (2) the restraint of the final decision,

i.e. the extent to which it is balanced, and declares its own limitations, (3) the organization of their submissions, (4) the writing style, and (5) their mid-forum summary of the strong arguments made to date by partisans, and the important issues not yet addressed.

One issue that particularly must be stressed in the guidelines and grading criteria is that each submission to the Electronic Issue Forum is like handing in a paper. Because submission occurs through electronic mail, some students are tempted to take it less seriously, yielding more informal writing and sloppier thinking. We simultaneously emphasize that while students may disagree with each other, personal attacks are completely unacceptable. Thus far, however, this has never been a problem. In addition to grading criteria and instructions, example partisan and decision-maker submissions are very useful.

The most important thing missing from our first set of guidelines was a deadline for the first submission. A student is unlikely to even read his classmates' work before he has submitted something. It is essential that all partisans submit an opening statement fairly early in the process. This also gives others something to argue against.

Naturally, instruction does not end with the initial guidelines. It is hoped that students will improve their work over the course of the semester. Feedback from other students will help in this regard, but it is not enough, especially in the early phases of the forum. The instructors must be prepared to send comments back to the student via electronic mail quickly after each submission.

## **Conclusion**

The Electronic Issue Forum has great promise. It is a valuable educational tool for students from a single class, and because it relies exclusively on network applications, it can easily be extended to include students from other schools, as well as interested professionals. Consequently, distance learning can be well supported by using videoconference technology for lectures, and the Electronic Issue Forum to promote student interaction. The Electronic Issue Forum can also be enhanced through technology. In addition to text, future students will be able to exchange other forms of information like persuasive speeches and animated demonstrations, giving them practice in expressing themselves through other media.

## References

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