Teaching Ideas

Teaching Negotiation Using Web-Based Streaming Video

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This brief essay describes the author's experiences using web-based, streaming video technology in the Spring 2002 Legal Negotiation workshop at the University of Colorado's School of Law. He first describes the practical and pedagogical problems with traditional videotaping approaches that led him to consider streaming video. He then explains the project, how it was implemented, and its pedagogical costs and benefits. He also presents the results of a short survey of students indicating how useful the students found this feedback format. Appendix One describes the technical aspects of the project, including startup costs and the software and hardware used.

It is difficult to learn from experience. If a task is relatively routine and we already know how to do it well, there is little to learn. But if a task presents challenges, we are often unable to learn from our mistakes.

Why is this so? There is generally a gap between how we think we act and how we actually act (see Argyris 1991). A mother describes herself as "completely hands-off" vis-à-vis her daughter's wedding, but is actually (according to those around her) quite domineering; a boss believes that he is open to hearing difficult feedback and says "my door is always open," but in fact brushes aside complaints or becomes angry and aggressive when faced with criticism; a colleague says "I am not shouting" even as his voice gets louder and louder.

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It is equally hard to help a person learn from their experience. Given this gap between intention (or self-understanding) and action, a coach can generally assume that a novice's unhelpful behavior is largely invisible to the novice. But bringing that behavior into focus for the novice presents a dilemma for the coach. People dislike feeling embarrassed, vulnerable and incompetent — and we generally react defensively when confronted with information that suggests we have made a mistake or acted inconsistently. Rather than investigate our own failings, we tend to deny responsibility, instead placing the responsibility on others or on external causes. We often try to wiggle out of our actions, attributing them to something — anything — other than our own lack of skill or understanding.

We also tend to employ defensive reasoning that seals these attributions off from challenge. For example, we may make causal statements (“It wasn't my fault — there was nothing I could do about it”) without offering sufficient data or information to the listener about what happened to permit that listener to test whether our statements are accurate. To borrow a metaphor familiar to many negotiation instructors, we stay “high on the ladder of inference” to protect ourselves (Argyris et al. 1985: 57-58). As Argyris has long described, “[d]efensive reasoning encourages individuals to keep private the premises, inferences, and conclusions that shape their behavior and to avoid testing them in a truly independent, objective fashion” (Argyris 1991:103). To make matters worse (although perhaps on the surface more peaceful), we are likely to act throughout as if none of this defensive reasoning is going on.

In a negotiation course, such defensive reasoning can look as follows: Students participate in a negotiation simulation, usually one-on-one. Instructors rarely observe these simulations, most of which take place either outside of class or in class but in a format that the instructor cannot directly watch. Students may then return to the classroom for a general “review.” Often this includes presentation of concepts or frameworks. In addition, however, the students may be asked to reflect on their negotiation experience.

Because being asked to investigate their mistakes may trigger defensiveness, students are likely to generate abstract conclusions and attributions about what happened in the simulation. Students may describe their interactions in such general terms as: “He was being difficult,” “I had no choice but to start with a high opening offer,” or “Talking about interests wasn't helpful.” Although students can be pressed to relate examples of what was actually said or done during the simulation, memories differ and are often incomplete, and, as already described, students may avoid sharing such information in order to defend themselves from really testing whether their conclusions (e.g., “I had no choice ...”) are accurate (Argyris 1993). Unfortunately, the class lacks access to the information it needs to make an informed choice about whether the assertion is correct. The group thus cannot help the student overcome her defensiveness — and learn.
The instructor, meanwhile, has no more access to valid behavioral data than the students. Coaching, therefore, is likely to gravitate towards abstract assertions that parallel the reflections of the students—e.g., "It would have helped to listen more" or "You should have thought about their interests" (see Fisher, Ury, and Patton 1991). The students, of course, can discount this advice for the simple reason that the instructor "wasn't there" and thus by definition probably does not really understand the challenge or complexity of the negotiation moment in question. And even if students want to incorporate such advice into their behavioral repertoire, they will most often fail for the simple reason that the instructor has yet to help them uncover why they weren't already listening more or already focusing on interests instead of positions. This deeper level of coaching likewise depends on being able to examine data about how someone behaved and why.

Videotape or audiotape can capture valid, observable information about a student's behavior. Such data reduce a student's analytical "wiggle room" by giving the instructor (and other viewers) raw information about what happened in the student's negotiation. The instructor can then confront or circumvent defensive routines—such as redescribing or remaining vague about the experience—using the video data.

Recognizing the power of video, instructors incorporate video feedback into negotiation courses in a variety of ways. At Harvard Law School, for example, where I was a Lecturer on Law from 1996 to 2000, we used multiple video camera setups to tape simultaneously all of the pairs of students negotiating a given simulation. Thus, for example, if our section of 24 students was negotiating the "XYZ Simulation," we would capture all of the students on video by having six cameras (in six different rooms) running simultaneously. If the negotiation lasted 40 minutes, each camera would tape 20 minutes of one pair of students negotiating the first half of their interaction, and 20 minutes of a second pair, for a total of twelve 20-minute tapes. The instructor or teaching assistant would then review each tape with the students on that tape—most likely in a review session scheduled outside of normal class hours.

This implementation approach honored several implicit design principles. First, all students were guaranteed to see themselves on video. Second, all students were videotaped at roughly the same point early in the course. To the extent that video feedback improved performance, this ensured that all students advanced at roughly the same rate. Finally, and perhaps most importantly, students were guaranteed some privacy in which to review their video. This permitted tailored feedback to each student in a small group session.

The Problem

The Practical Problem. The multiple-cameras approach is resource-demanding. It requires multiple cameras, microphones and taping setups, as well as multiple rooms in which to videotape. It also requires multiple
instructors (or teaching assistants or media staff) to run those cameras and, ultimately, to review the tapes with students. If twelve groups review for 30 minutes each, that requires at least six hours of review time. (In addition, such review sessions often start late or run over, and there are the inevitable transaction costs of scheduling errors, absent students and technical delays, all of which add time to the review process.)

When I joined the faculty at the University of Colorado's School of Law, I originally tried simply to modify the approach I had learned and fit it to my new environment. This proved quite difficult. First, I had no teaching assistant to help me with taping and review, nor a cadre of qualified students from which to draw. Second, as at many universities there was no media staff available to help with taping. Although the school did have access to sufficient equipment to tape in multiple rooms simultaneously, during my first year at Colorado my attempt to do so on my own proved extremely frustrating. A single instructor working alone can at best operate two video setups in two separate rooms simultaneously. This essentially eliminates the efficiencies of the simultaneous approach. Although the instructor can spread the taping out over several simulations (taping perhaps two or four pairs of students for each simulation) this likewise spreads out the review sessions. If the negotiation course meets only once or twice weekly, this may require several weeks to complete all of the taping and reviewing. The single instructor also bears the entire burden of scheduling these sessions.

*The Pedagogical Problem.* In addition to the practical problems of implementing individual or small group video reviews, my interest in helping students to learn by facilitating their investigation into their own defensive reasoning has led me to question the pedagogical wisdom of relying solely on private video reviews.

Just as individuals engage in defensive reasoning by drawing and asserting conclusions while keeping the data and thinking behind such conclusions private, *groups likewise promote and permit such defensiveness by restricting access to valid behavioral data that could circumvent it.* Because sharing information about errors, inefficiencies, or questionable reasoning may seem too confrontational, groups hide such information to allow group members to save face. Argyris (1994: 79) has described this phenomenon in the corporate world:

> In the name of positive thinking, managers often censor what everyone needs to say and hear. For the sake of "morale" and "considerateness," they deprive employees and themselves of the opportunity to take responsibility for their own behavior by learning to understand it. Because...learning depends on questioning one's own assumptions and behavior, this apparently benevolent strategy is actually anti-learning. Admittedly, being considerate and positive can contribute to the solution of [routine] problems like cutting costs. But it will never help people figure out why they lived with problems for years on end, why they covered up...
those problems, why they covered up the cover-up, why they were so good at pointing to the responsibility of others and so slow to focus on their own.

Rather than challenge individuals' defensive routines, managers — and, I submit, many teachers — participate in elevating such routines to the organizational or group level. If individual defensive reasoning includes drawing conclusions while keeping one's basic premises and inferences hidden and unavailable, group defensive routines similarly include collectively suppressing potentially embarrassing or threatening (but possibly enlightening) information.

Unfortunately, the private video review format seems to be an example of elevating defensive reasoning to a collective level. Because of the logistical burdens of videotaping all students simultaneously, little video is actually collected. Most negotiation reviews continue to be run in the abstract without access to dependable information about what happened in the simulations. And the data that are captured are sequestered, thus compromising widespread learning.

In the worst case scenario, students and instructors may collude in covering up the students' shortcomings, collude in covering up that cover up, and, further, collude in ignoring that little behavioral change is actually occurring. This sends several mixed messages to the students. The most important is about the nature and value of mistake-making and learning. The overt message in a negotiation course is often ‘Mistakes are natural; take risks so that you can learn; we're in this together.' At the same time, in their actions instructors can send quite the opposite message. By avoiding giving critical feedback and by restricting access to video or other information that might actually aid learning, an instructor can send the implicit message that mistake-making is so shameful that it must be kept private.

All of this can lead to collective avoidance. Although the students might enjoy their negotiation workshop because of its emphasis on simulation instead of case-method instruction, many are likely to leave such a workshop having experienced very little real behavioral change.

A Description of the Project

With these concerns in mind, I set out to try a new approach to video in my Spring 2002 Legal Negotiation course at the University of Colorado's School of Law. I used several design principles:

- to use video as often as possible as the basis of skills-oriented review sessions, preferably each week. This necessarily meant using video in a more public way than I had before.

- to disseminate video as quickly and widely as possible to students. Whereas in the past students had always had to trade a single videotape between them if they wanted to do self-review on their own, I wanted to eliminate this bottleneck.

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• and finally, to try to make these changes without causing undue discomfort for students.

Although I was willing to experiment with a more public review format, I did not want to aggravate defensive routines through callous exposure of students’ mistakes. I knew that using video publicly would require increased contracting with students and opportunities for students to push back on me as the instructor and on the video project as a whole.

Several months before the start of the course, I informed all students in a written memorandum that they would be videotaped in the course and that some weeks we would review these videos together in class. I reiterated this on the first day of the course to remind students prior to the closure of the drop/add period that video was an integral aspect of the course.

My class met once a week for three hours. I videotaped six different simulations over the course of the semester: Sally Soprano, Mountain View Farm, 67 Fish Pond Lane, Discount Marketplace, DONKS, and Casino. I did not warn students in advance of the tape that they would be on tape on a given day — this motivated more complete preparation! For most simulations I simply videotaped one pair of negotiators, but twice I scheduled the simulation so that I could capture two pairs independently. (In one case, I also separately videotaped the lawyer-client interviews that preceded a lawyer-to-lawyer simulation.)

On the days that I shot video, I then captured the data on a computer after class, using digital video editing software (see Appendix One). The computer processed the data overnight into the “RealPlayer” streaming video format suitable for distribution over the Internet. The day following class, I forwarded this compressed streaming video to the university’s Information Technology Services department, which was able to post the video to one of the university’s streaming video computer servers. I then posted a page to my password-protected course web site (using the Westlaw “TWEN” web service) for the students. This page usually had information about the video (e.g., descriptions of various clips, etc.) and a link to the video itself.

Students were instructed to watch the video either at home or in an on-campus computer lab. I posted the entire video (usually 20-40 minutes in length) from the week’s simulation, but usually also posted descriptions (with time signatures) of the specific clips I found most interesting. Students were invited to analyze the video in their weekly journal assignment, and/or to prepare questions for our group discussion of the video during the following week’s class.

We then watched clips from the prior week’s video in the next class session. I generally selected these clips, although on occasion I asked a panel of students to select the clips we would watch collectively. Usually we watched two or three clips per week and discussed them. From my perspective, this worked very well. I tried to structure class time so that skills-focused instruction centered on the video from the prior week. In general, this meant that, after each simulation, we would have a review that
focused primarily on conceptual material (e.g., What were the BATNAs in this case? What were the relevant criteria?, etc.) and then a second review the following week, using video, that focused more on skills.

Results

Student Reaction. As the semester ended, I asked students to complete a brief anonymous survey regarding the use of video both out of class and as a shared in-class review tool. In addition, the survey asked students about their computer competence and their access to reliable off-campus Internet service. Although my short survey of my students was hurried and incomplete, it offers some perspective on the students' reactions to my use of video.

All 24 students in the course completed the survey. Of the six videos I posted to the Internet, students, on average, watched two completely and three in part. Most students, in other words, watched some portion of most of the videos. Students were then asked whether watching the web-based videos on their own (not considering the discussion in class) was helpful. Students rated their answers to this question on a scale of 1-7 (1 = strongly disagree, 7 = strongly agree). On average, students had mixed reactions to the utility of watching the video on their own (Mean = 4.33, Mode = 5, Snd. Dev. = 1.785). In their qualitative comments many students indicated that watching the unedited video was time-consuming and that they often felt unsure about which segments to focus upon. Students noted, however, that access to their own videos outside of class was helpful in reflecting on their negotiations. In addition, many students stated that it was helpful (particularly towards the start of the course) to be able to watch their classmates and analyze how others handled the simulations. (I also believe that shared access to the video outside of class made the in-class discussions less frightening.)

I then asked students whether watching and discussing the videos in-class collectively was helpful. Students rated their answers on the same 1-7 scale, where 7 represented strong agreement that in-class discussion was helpful. Students overwhelmingly found the collective viewing of the video useful (Mean = 6.41, Mode = 7, Snd. Dev. = 0.775). In their qualitative comments students noted that observing their classmates discuss and react to the videos was often useful in its own right. Approximately five students voiced concerns about the possibility for embarrassment or the need to self-censor to avoid hurting someone's feelings in discussing the videos.

Finally, I asked students whether they would recommend that web-based video be incorporated into the class in the future. Using the same seven point scale, students indicated that they did support the continued use of the video (Mean = 5.91, Mode = 6, Snd. Dev. = 0.829). In their qualitative comments, many students indicated that they would continue the collective viewing of the videos in class even while they might eliminate (or make optional) the out-of-class web-based viewing of the video.
Of the 24 students, 21 had access to a computer outside of school, two did not, and one student failed to respond to the question. Of the 21 with off-campus access, eight had access to a high-speed connection (DSL, cable modem, or T1/T3) while thirteen used a dial-up modem (28K or 56K). Students varied in whether they viewed the videos from home or in the on-campus lab. Although the results clearly indicated that those with slower at-home Internet connections favored the on-campus computer facilities, at least three students with 56K dial-up connections used their at-home computers for these assignments and found the connection adequate.

*My Reaction.* Like the students, I found the in-class video reviews helpful. The discussion usually followed a simple format:

- we watched a video clip;
- I asked for students' general reactions;
- we analyzed specific interactions on the clip. Usually I first asked the class for reactions to a particular “move” made by someone on the video, usually eliciting many different interpretations of or reactions to that move. We then checked in with the students captured on the video to test whether our attributions about their intentions, and/or our assumptions about the results a given move produced, needed correction.
- sometimes students role played alternatives to the move in question, thereby eliciting further discussion of the relative merits of the role play.
- the students on the video were given an opportunity to add any additional comments or reactions (the last word).

Class discussion of the video was lively and, I think, produced several key insights for students. (I regret not having video- or audio-taped the class discussions so that I could substantiate this belief. I hope to do so next year.)

First, students quickly realized the pervasiveness of their assumptions about the videos. Because the protagonists on the video were also participants in our collective video review, we were able to check in with them to debrunk the stories we told ourselves about their intentions and strategies. Having the raw video data available to the group also allowed us to go back and check students' analysis. If a student's analysis was full of untested attributions (e.g., "He's just trying to get her to think he's tough") we could compare these assumptions against the views of the protagonists on the video and against the competing interpretations of others in the class.

Second, and closely related, students saw how a given negotiation move, tactic or strategy might impact each class participant differently. A given student might find the protagonist on a video clip aggressive while others saw nothing of the sort. One person would find the protagonist condescending, another thought his tone and demeanor perfectly acceptable. Noting these differences helped students to understand the gap between one's intentions and the impact one's actions may produce. (In particular, I
think students saw that in the negotiation context actions taken based on benign intentions often nevertheless seem aggressive, opportunistic, or self-serving.)

Third, students reported insight into the complexity of the interactions in a simulation. In addition, students became more facile with labeling moves using the conceptual frameworks taught in the course (the Getting to YES "elements" [Fisher, Ury, and Patton 1991], the "three tensions" from Beyond Winning [Mnockin, Peppet, and Tulumello 2000], etc.). Because we could move slowly through a video clip, students began to parse the negotiation interactions in smaller and smaller segments. Rather than very generalized discussion (e.g., "Well, we started with small talk..."), the class began to look more carefully at individual negotiation moves (e.g., "He started by setting an agenda when he said... and then he made a quick move to talk about how good his alternative was...").

Fourth, and quite unexpectedly, students spontaneously reported that they found watching the videos — both in and out of class — reassuring rather than frightening. Students could see others struggling with the simulations, leading to the somewhat liberating realization that the negotiation problems presented were difficult for everyone and allowed no easy solution. Student journals often contained revelations such as "I always thought X was so smooth and such a tough negotiator, but then I saw him do the same thing I did last week!" As the semester went on, I believe that this access to video data about others' performance both motivated students to work harder and reassured most students that they were not significantly behind the learning curve.

Although some of the student surveys did indicate concern that the in-class discussions were embarrassing for those on video, overall students did not express resistance to the use of the video, nor did I receive any complaints about the class discussions. (I asked for such feedback in almost every class. I also gave the students an anonymous midterm feedback form on which they could have expressed concerns about the video. I received no such concerns.)

In addition, however, it may be worth describing two interrelated complications that deserve additional thought. First, although designed in part to circumvent resource constraints, the project was time consuming. Startup required familiarizing myself with Internet video technologies and securing the correct equipment and software. (The University of Colorado had most of the necessary technology, but some additional equipment was purchased using a $2000 grant secured from our Faculty Teaching Excellence Program.) In addition, however, each evening after class I had to capture and process the video. (By mid-semester I had one of my student research assistants trained to do this task, which generally took approximately one to two hours. Unlike training a student to be a teaching assistant for a negotiation course, it took a very short time to teach someone to do this technical task.)
I also watched each video before the following class so as to select the clips to view collectively.

To save time, I did not edit the video prior to posting it on the Internet. In other words, I simply posted the entire video of a negotiation, although I usually added notes on which portions the students would find most interesting. The second complication, however, is that many students reported that they found it difficult to glean much from the videos on their own. Although most continued to watch the videos out-of-class, the student surveys showed that many students did not find this particularly educational. They wanted additional guidance on what to look for and, if possible, edited versions of the videos that highlighted the most interesting aspects. Although I believe that having the video available over the Internet may have served several useful functions (including allowing the students on each video to prepare for the in-class discussion of their interactions and offering students a chance to compare between videos as we built a collection of clips over the course of the semester), it remains an open question whether assignments can be sufficiently tailored to make the students' out-of-class viewing worthwhile.

**Some Conclusions**

In an ideal world, one could base all reviews in a negotiation course on video, as this would provide the greatest likelihood of promoting real behavioral change. Each student's negotiation would be videotaped during each class session, and students would have the ability instantly to call up that videotape during the class discussion to illustrate a point or provoke inquiry. Just as modern courtroom computer technology puts massive amounts of information at a lawyer's fingertips, students would constantly have access to valid data about the complexities of their simulation experiences.

Although the day may come when such technology can be incorporated into negotiation courses, in the meantime we will continue to have to compromise in the ways in which we incorporate video. My overall experience with this web-based video project was highly positive. The combination of shared access to the video over the Internet and collective analysis of the video in class contributed to creating an energized, cohesive, and purposive semester. Students seemed to enjoy the video, despite their anxiety about seeing themselves on tape. And the class seemed impressed with its ability to discuss the video as a group in a productive and learning-oriented way.

I do not pretend that this experiment eliminated the theoretical problems with non-video or private-video course structures. Nor can I substantiate my belief that this video approach facilitated increased behavioral change among the students. During this semester I was so focused on implementing the project that I gave relatively little thought to testing its impact. I hope to collect more information in future years, particularly by
recording class “review” discussions with and without shared video to compare their quality.

I also hope to take an additional technological step next year: using “real-time capture” technology to be able to capture video to my computer as it is recorded. This will enable me easily to use video clips from negotiation in class on the same day that the video was recorded. In addition, it will shorten the after-class processing time that I incurred this year.

Regardless, I report this experience to encourage discussion of the ways in which video and Internet technology can be used in the teaching of negotiation. I encourage others to experiment with what can be, I think, a rewarding teaching tool.

NOTES

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1. Even having students negotiate in front of the class in a “fishbowl” format fails to provide the negotiating students with observable data about their own behavior. It is certainly superior, however, to outside-of-class simulations because a fishbowl does generate shared data for the observers.

2. Argris distinguishes between single- and double-loop learning. He uses a household thermostat as an example. A thermostat might be set to automatically turn on the heat if the temperature drops to 60 degrees, and it might do so. This is an example of a single-loop system—the thermostat has an action rule (“turn on at 60 degrees”) and it can operationalize that rule. But if the thermostat could ask “why am I set at 60 degrees?” and could explore whether some other temperature would most economically heat the room, it would be a double-loop learner. It would have the ability to investigate the underlying causes and conditions of its behavior and re-orient itself based on its investigation. See Argris, Teaching Smart People, supra at 100.

3. I also videotaped a seventh negotiation — Lucy’s Garage — but technical difficulties prevented my disseminating the video until after the class ended. As a result, this seventh video was not included in the student survey summarized below. All of the simulations mentioned here are available from the Clearinghouse of the Program on Negotiation at Harvard Law School.

4. I used a streaming format as opposed to distributing discrete MPEG-type video files via CD or the Internet to retain control over the files and to prevent students from being able to save or distribute the files.

5. Turnaround time varied somewhat. At the beginning of the semester I went through several software packages and configurations until I hit upon a setup that worked well. This slowed things down. In addition, occasionally our Information Technology Services department could not post the video immediately, slowing down the process.

6. Because this is a short summary I do not reproduce all of the data collected in the survey. I am happy to pass along such data to any who inquire.

7. The complete scale was: 1 Strongly Disagree, 2 Moderately Disagree, 3 Mildly Disagree, 4 Unsure, 5 Mildly Agree, 6 Moderately Agree, 7 Strongly Agree.

8. The combination of “smart” computer-enabled classrooms and increasingly accessible digital video technology makes this vision technically feasible, although logistically it would currently be a nightmare.
REFERENCES

Appendix One
The Technical Stuff

Here are some of the technical aspects of this project:

Video was shot using a Canon ZR10 digital video camera (now called the ZR40, approximately $600) and a standard table microphone. I recommend a PZM microphone such as the Crown Sound Grabber II, but didn’t have one available during the semester.

The video was transferred to a Dell OptiPlex GX110 Pentium III computer with 256 MB RAM using a Creative 28 Live video card and a FireWire connection. Although I tried several software packages, I settled on a professional-grade package called ClearStream (from Media 100, Inc.). This allowed easy capture of the video and came bundled with another software package — Cleaner — that is the industry standard for processing video into streaming and other compressed formats.

Using Cleaner, I was able to create RealPlayer video files that worked well both at slow and broadband speeds. (Although I experimented with Apple’s QuickTime format, it proved difficult to create QuickTime files that worked at modest or dial-up speeds.)

The settings for the RealPlayer compression were:

- Output—Real, Perfect Play, Selective Record, Suse Stream.
- Image—160 x 120, Noise Reduce, Manual Crop, Accurate Scaling, Deinterface.
- Encode—Real Video 8 28 Kbit/s 10 fps, Real Video 8 28 Kbit/s 15 fps, Real Video 8 236 Kbit/s 15 fps, Keyframe every 100 2-pass YBB.
- Audio—8.5 Kbps Voice, 55 Kbps stereo Music RAB.

Capturing the video from the camera to the computer occurred in real time. Processing the video using Cleaner generally took overnight — the compression to RealPlayer format took approximately eight hours for each half-hour segment of video.

I tried several different means of in-class playback. Originally I tried to play the video off of the Internet using a live Internet connection, but this proved too slow and unpredictable to use reliably in class. I then tried simply transferring the RealPlayer compressed file to my laptop for projection in class. This was acceptable but not optimal, because I had compressed the RealPlayer files (to speed Internet transmission) so that they had a fairly small viewing area and only medium-quality video. I thus began processing a second file using Cleaner, for use in class. For this second version I compressed to the higher quality MPEG format. This allowed me to use full-screen projection when playing the video for in-class discussion. Because my class occurred only once per week and there was thus plenty of time between classes, this second compression stage was not inconvenient.