

## Macs in Action: Michigan State University

# Desktop Movies Help Diffuse Science Friction

East Lansing, MI — Did you hear about the doctor in Chicago who is cloning people? Or about the woman who ate a taco shell and died from a reaction to the genetically modified corn? Welcome to the world of scientific “Urban Legends.” And American society, it seems, thrives on them. Not to be outdone, the popular media is often responsible for spreading its share of such myths. But with the help of iMac DV computers and iMovie, students at Michigan State University (MSU) are helping trace and debunk some of the more controversial science-related myths and misconceptions that have appeared in modern times.

MSU’s Lyman Briggs School offers a full roster of science courses, including biology, chemistry, physics, and the like. Until this semester, the curriculum was similar to that of any other large university: students performed “wet-lab” research, and reported their findings through a combination of written lab reports and extensive papers. But the introduction of the iMac DV with iMovie caught the attention of the Lyman Briggs faculty ... and the in-class teaching model underwent a major overhaul.



“We were striving to get the students to be more reflective about their learning; to step back and think about the process,” says Douglas Luckie, Lyman Briggs School and Physiology professor. “We thought that making movies about the process would combine lots of good educational elements from our classes — about people reflecting on science and society, and synthesizing those worlds. Then the iMac DVs came out, and we thought ‘we could make films ... no wait, the students could make films!’ The iMacs really inspired us to go in this direction.”

### Tracing Science and Society

Luckie and his colleagues chose iMacs and Desktop Movies to be the centerpiece of two courses for the Fall 2000 semester, both of which deal with the enormous impact of science on society. The courses are taught in what the school now refers to as the “iLabs”: biology and physics laboratory rooms outfitted with iMac DV computers on monitor stands at the end of each benchtop.

For both classes, students are working in five-person teams to create short documentary films about science-related media hot buttons such as gene patenting, genetically modified foods, and eugenics. According to Luckie, the courses are helping students to think about two worlds that traditionally have lived apart.

“The idea of the seminars is to get students to take all of the scientific knowledge they’ve gained, and look at society with all of the humanities knowledge they’ve gained,” Luckie says. “Then they try to debunk controversies in science ... places where the public fears something that perhaps if they understood what the scientist did, they’d be relieved, or they might change their minds completely.”

MICHIGAN STATE  
UNIVERSITY



### Crib Notes

#### Challenges

- Motivate students to take fresh look at science and society
- Encourage the use of reflective and critical thinking
- Create an environment for active and collaborative learning
- Test a new educational model that’s not discipline-specific

#### Solution

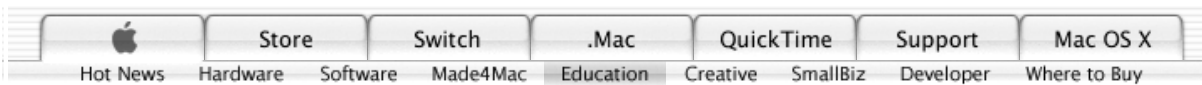
- 3 Biology and Physics “iLabs” including 18 [iMac DV](#) computers
- [iMovie 2](#)
- 6 Sony\* Digital8 camcorders with Apple [FireWire](#)

#### Benefits

- Students are highly motivated by ease of use of digital video
- Students develop both intellectual and technical skills
- Teaching model merges scientific and humanistic thinking
- Video-based collaborative approach applicable in other courses

\* The mention of third-party products is for informational purposes only and constitutes neither a recommendation nor an endorsement.

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### Documentarians in a Day

The student teams are using Sony Digital8 video camcorders to tape their research findings. Several are chatting on camera with five world-renowned scientists who are visiting MSU this semester, as well as conducting “man on the street” interviews with local East Lansing residents. Then feeding the footage into their iMac DVs by Apple FireWire, Luckie says it’s almost no time before the student documentary teams are up and running (and editing) on iMovie.

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into their assignments  
a full month before  
class even started.

“The really powerful part of these classes is iMovie,” Luckie asserts. “With this amazing interface that someone thought up, it’s extremely simple for students to jump on, start dragging clips together, and making thinking happen. Everyone got really jazzed because we only had to dedicate one class day to learn iMovie. The technology at the software level, wrapped in the iMac, which has everything you need, has made this so easy to do.”

So excited is the class about the Desktop Movie projects (and the Mac technology supporting it), Luckie says, that students were diving into their assignments a full month before class even started.

“I’d emailed everyone four weeks before the fall term,” says Luckie, “to let the class know what we’d be doing. I suggested that they start taping pertinent news stories on their VCRs, and making notes on what types of projects they’d like to do. When class started, everyone had notebooks full of ideas and research information. Then when we ran the iMovie tutorial, one student said, ‘Wow, I really want to drop all of my other classes and just do this all semester!’ As a professor, you immediately think, ‘Cool ... they’re excited, they’re ready to go.’”

### Videos Go Global

The minidocumentaries eventually will be broadcast as [QuickTime](#) movies on websites also being created by the student groups. Luckie says the sites will also feature narratives that present each issue, the team’s original findings, how the public representations differed from the scientific representations, what the experts said, and what the teams concluded about their issue and its representations. Each group will present their website to the class at the end of the course.



In addition, as a course requirement, all of the student films must be submitted to the East Lansing Film Festival, an independent competition that draws entries from the local and regional community. Produced by former San Francisco Film Festival coordinator Susan Wood, the East Lansing contest boasts a separate category that will offer the student filmmakers the chance to showcase their works in March 2001.

### Changing the Teaching Landscape

Luckie predicts that the popularity (and effectiveness) of the iLab-based courses will most likely result in similar classes springing up across MSU soon. Since the student teams have begun interviewing professors across the campus, word is quickly spreading about the documentaries in the works. If the qualitative data confirms the success of the approach at the end of the semester, Luckie wouldn’t be surprised to see cameras and iMac DVs employed all over the university in the future.

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— Douglas Luckie, Physiology Professor  
Lyman Briggs School, Michigan State University

“We’ve been hearing back from the professors who are really curious about what we’re doing,” laughs Luckie. “Their students are actually saying ‘I want to interview you about your research on viruses,’ not ‘when is this paper due?’ The same thing is happening inside of class as well. The traditional question used to be ‘so, how many pages does this thesis have to be?’ Now it’s more like ‘can I make two movies?’ or ‘when do we lose points if the video’s too long?’ When you’re an educator, you can’t help but be pleased about that.”