

s an independent film-maker, visual effects artist and resident instructor in the College of Engineering's computer science department, Chip Gubera is well versed in the digital world. In his first feature-length documentary film, he uses new technologies to spin a tale around one of humanity's oldest questions: Can you ever really go home again?

On May 22, 2011, Gubera was in his living room in Columbia, pedaling away on an exercise bike while he flipped through channels on the TV. More than 200 miles away, one of the deadliest tornados in American history was raging through his hometown of Joplin, Mo.

After news of the devastation broke, Gubera, BA '00, M Ed '11, spent hours dialing and redialing the numbers of friends and relatives, hoping to hear the voices of loved ones. He was greeted instead by the same automated message, the same nameless stranger announcing — again and again — that all lines and signals were down.

It was three hours later before he received word. His mother barely had time to tell him that she and the rest of his family were OK before the call was dropped. Early the next morning, Gubera loaded his car and headed home to Joplin.

It was a place Gubera had long ago left behind, physically and emotionally.



"I have this love-hate relationship with my hometown, and every time I go home, the old feelings come back," he says.

After high school, he got his bachelor's and master's degrees at Mizzou and went on to become a filmmaker and multimedia producer. In part, he says, he was seeking distance from the characteristics he'd ascribed to Joplin — tough, stubborn, proud. But as he surveyed the devastation, the community's response gave him

another perspective.

"I watched people digging themselves out of their homes, and I realized maybe this attitude is worth something," says Gubera. "It was very inspiring."

So, he started filming. At first, he did it to work through the emotions of his own homecoming, but it became cathartic for the survivors he interviewed.

"I just set up a camera and let people talk: What happens when you step outside and everything is gone?"

After weeks of interviews with survivors, city officials and emergency responders, Gubera realized that they were rebuilding the hometown of all Joplin natives, near and far. And like him, all were searching for — longing for — the familiar.

The film evolved into a narrative of the people of Joplin as they simply, stubbornly, proudly began to pick up the pieces.

Although natural disasters and the havoc

they wreak are as old as time, new technology helped Gubera humanize the experience.

"If I didn't have the technology, I wouldn't have been able to make this film today," Gubera says.

He recorded most of the video with a small digital camera that made traveling and setup easy. He used the same digital editing methods that he teaches students in his computer science courses at MU to condense hours of footage into one cohesive story.

But it was others' technology that contributed most to the film, he says. Twitter feeds out of Joplin provided a real-time record of the storm. The police scanner audio became a sort of official narration as it streamed live on the Internet. And the proliferation of consumer technology—especially cellphones capable of taking pictures and recording video—transformed thousands of residents into ad hoc documentarians.

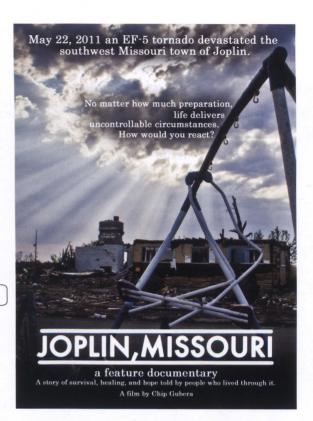
In one of the film's most haunting scenes,

Gubera layers the audio of the police scanner over video of the devastation that a survivor recorded just minutes after the storm.

"The person taking the video was in shock and he wasn't speaking clearly," Gubera says.
"On the scanner, you could hear the disaster — people trapped in their homes, some even trapped in a grocery store freezer. It told parts of the story that he couldn't."

MORE JOPLIN PHOTOS MIZZOUMAGAZINE.COM

The movie poster for MU instructor and alumnus Chip Gubera's documentary film features this photo of the devastation after the May 22, 2011, tornado. View the trailer at youtu.be/8vWevllw-1Q.



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Sometimes innovation requires good old-fashioned legwork. A **new theater course** teaches social understanding by asking students to interview community members and create a performance piece in which they portray their subjects.

More data doesn't necessarily lead to more understanding. Researchers across campus are using **complexity modeling** to transform reams of information into real understanding.

Tomorrow's workers need to be fluent in handling information and stories digitally. A new degree in **digital storytelling** is in the works that would train students in the art of narration while providing hands-on experience with the technologies of digital production.

In the old model, engineers and designers thought of buildings as jigsaw puzzles to be pieced together from windows, walls, floors and wiring. The new idea is to think of structures as living organisms that are green, efficient, comfortable and durable.

Hospitals are among the institutions using Facebook to communicate with the public. A study analyzed what hospitals post for consumption by an online community of patients.

The powerful tornado that struck Joplin, Mo., in May 2011, took its toll on survivors' mental health.



Using telehealth technology, Mizzou psychiatrists conducted virtual visits with patients and helped rebuild the town's emotional wellbeing without leaving their posts in Columbia.

In The Secret Garden, author Francis Hodgson Burnett shows readers a garden through the eyes of a child. Five undergraduate biology and English students set out to analyze the novel through both literary and scientific lenses.