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David Wertheimer, executive director and CEO of the ETC at USC, explains the history of 3D as visitors tour the Center's new lab, previewing technologies at the 3D Lab grand opening.

(Courtesy of Entertainment Technology Center/University of Southern California)

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## 3D looms into movie universe

Success off 'Monsters vs. Aliens' confirms digital 3-D's draw, and studios are leaping at the opportunity.

By **Gloria Goodale** | Staff Writer for The Christian Science Monitor/ April 6, 2009 edition

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CENTURY CITY, CALIF.

From an eager director keen to tell a new kind of story to a theater owner eyeing a sevenfold rise in premium-priced tickets to even a Hollywood studio trying to predict the future, there's only one story in town these days: 3-D.

Not the old films with red/green plastic anaglyphic glasses used to make spears and tennis balls “pop” into audience's faces, but a mature, digital system with lightweight, polarized specs used for everything from major sports and cultural events – an NFL game or a U2 concert – and by such Hollywood names as Stephen Spielberg, DreamWorks, Disney, Johnny Depp, and Pixar.

This is what director and longtime 3-D champion James Cameron calls a “renaissance” for the technology, one that is finally viable for serious filmmakers.

“This really expands the lexicon of filmmaking,” says Paul Dergarabedian, film analyst for Hollywood.com. The new digital, stereoscopic technology is a director's tool that gives audiences a broader moviegoing experience, he says, adding that it also provides a bright spot for beleaguered theater owners and studio executives facing a long-term erosion of the moviegoing habit.

“This is as important a step forward in the evolution of the movie business as sound or color,” says Sandy Climan, chief executive officer of 3ality Digital. “This takes people more completely into the action, which is where they want to be.”

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The runaway success of such recent 3-D animated ventures as “Monsters vs. Aliens,” which hauled in \$59.3 million its opening weekend, and “Bolt” have sped the adoption of the tool. Animation has led the way into 3-D’s mainstream acceptance, says Mr. Cameron, who committed to 3-D years ago when he began a \$200 million 3-D, sci-fi fantasy “Avatar.” He says he “gambled” that the industry would catch up by the time he finished the film. It took longer than expected to complete and will now be released in December.

But it appears the industry is well on its way to mainstream acceptance, if not physical readiness. DreamWorks and Pixar have committed their future slates to 3-D; Mr. Spielberg will release the European classic, “TinTin,” in 3-D this summer; Disney just announced a Tim Burton-helmed 3-D IMAX “Alice in Wonderland” with Johnny Depp.

There will be at least 14 3-D films this year with a total of 40 within the next three years. Lack of venues is the biggest obstacle to that number being higher. Movie houses nationwide are scrambling to convert at least a single screen to 3-D capability (at \$25,000 a pop, on top of the roughly \$100,000 for a digital conversion). “Monsters” rolled out on 2,000 3-D screens, which is roughly 5 percent of the nation’s total screens, but that is double the number from less than a year ago.

A growing number of filmmakers beyond the “Titanic” veteran is banking the future on 3-D, because of the richer palette it offers, says newcomer Aristomenis Tsirbas.

“Audiences process three-dimensional images differently than two-dimensional,” Cameron told a recent industry gathering in Century City. Because separate cameras for each eye provide so much more information, viewers are more engaged and have a more “immersive experience.”

Animator and aspiring live-action filmmaker Tsirbas says 3-D offers a new suite of storytelling tools – as well as challenges. For instance, he says, two-dimensional images carefully move the eye to the desired focal point in a movie, but once a viewer is surrounded by a movie environment, attention can wander freely. “A director has to find new ways to guide an audience through a scene,” he points out.

Other technical aspects “get sort of geeky,” says IMAX chief Rich Gelfond, but can have a big impact on the viewer. The theater geometry, for instance – the traditional rectangular movie house versus the wide, square IMAX space – affects how easily 3-D technology can “float” objects into viewer’s laps or push them into the distance.

Despite the industry pile-on, cooler heads still can be found around town. Some critics have dubbed it a new/old fad that still faces the same challenges it had in earlier efforts: eye-strain and motion sickness in some movie patrons. But researcher David Wertheimer, CEO of the Entertainment Technology Center (ETC) at the University of Southern California, points out that this new iteration has fixed the underlying problems of the old analog efforts, namely image alignment. Digital technology now allows both the captured and projected images to be nearly perfectly aligned, which was not previously possible. The old system, he points out, lined up physical film negatives and images from two separate projectors.

“This system is fraught with imperfections,” he says, which digital technology has largely solved. The proof, he adds, is in the audience response. In a national 2008 ETC survey done in conjunction with the Consumer Electronics Association, 25 percent of respondents wanted to see a 3-D film. But that number rose to nearly 40 percent after they’d actually seen one. IMAX has been spooling 3-D spectacles for 15 years. Mr. Gelfond says not every subject may need the treatment, which can add up to 30 percent to a movie’s budget.

However, Mr. Dergarabedian points out, ticket premiums for the 3-D version of a film average \$3 over regular prices. When audiences are given a choice between 3-D and 2-D, says Michael Lewis, CEO of RealD, one of the primary providers of 3-D technology, they overwhelmingly choose the 3-D version – up to seven times as often.

Most observers agree, 3-D will become as routine as sound or color within the next few decades.

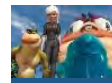
“I used to think not every film should be done in 3-D,” says Dergarabedian, “but then, I used to think

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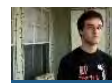
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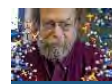
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