



Re-engineering the IMAX Theater

THE TECH. REINVENTED.

The Tech has embarked on its most ambitious undertaking since the facility opened its doors in 1998. In 2012 The Tech launched a five-year institutional transformation, The Tech 3.0 Campaign, to redefine the museum as a Silicon Valley resource for innovation. One priority project with unmatched potential to increase community engagement and impact is the conversion of the IMAX Theater to digital use.

WHAT IS THE IMAX THEATER CONVERSION PROJECT?

The Tech’s IMAX Theater is at a critical crossroads. The traditional oversized, miles-long reels of film are being phased out, and IMAX films are going digital — the theater must do the same. But this is not simply a technical decision. The right digital solution and structural makeover will make the giant-screen theater a centerpiece of The Tech’s new identity in the community.

This theater conversion project will replace the outdated dome projector and screen with the most technologically advanced laser-based digital theater system and the largest 3D flat screen in Silicon Valley. A digital theater will broaden The Tech’s list of movie options from a limited selection of dome-compatible films to the best educational and Hollywood movies available. But The Tech’s greater goal is to turn the theater space into a powerful community asset that encourages the creation of original digital content. With a new stage and the best audiovisual and broadcasting equipment available, the theater will become far more than a place to see a movie. It will become a coveted venue for live entertainment, corporate product launches, artistic performances, media innovation, gaming tournaments, and other technology-enabled interactive forums. It will inspire innovation in media in ways we have yet to imagine.

HISTORY OF THE THEATER

At The Tech’s IMAX Theater, expressions of awe and wonder are unmistakable on the faces of schoolchildren and adults who are visually transported to places they have never been, having adventures they never imagined possible. Since 1998 more than 3 million people have seen an IMAX film here. The theater has featured about 35 educational films, each aligning with an average of 19 California science standards across grades K–12. Through The Tech, hundreds of thousands of students have embarked on the greatest expedition in history with “Lewis & Clark: Great Journey West,” have been engulfed by a tornado in “Forces of Nature,” and have inspected a snail’s tongue in “Mysteries of the Unseen World.

The theater is a central part of The Tech’s identity, as its shape defines the museum’s iconic façade. At its 1998 debut, the theater was the most technologically sophisticated of its kind in the West. But 15

years of high-tech advancements have accelerated its path to obsolescence. In recent years, the theater has underperformed, primarily because of obstacles that digital theaters don't face. These include the high cost of film purchases (\$20,000 per copy), limited film selection due to lack of storage space for giant reels, sky-high shipping costs, pricey replacement bulbs for the light source, and other crippling expenses. Topping the list is the simple fact that film prints are yesterday's technology. Theaters of all types have been transitioning from film to digital, with the majority of commercial cinemas fully converted. Museums that plan to continue operating their giant-screen theaters are all expected to convert to digital within the next two to five years. For The Tech, the time for change is now.

THE THEATER TODAY

Currently, the IMAX Theater has one purpose: to show films. Each year about 160,000 visitors come to The Tech for an IMAX educational movie or box-office feature. Attendance has been trending down, declining every year from 2007–08 (251,402) to 2013–14 (159,117). IMAX films remain popular for school field trips, but student attendance also has been declining since 2010–11 (84,929). In the last academic year, 73,304 students experienced an IMAX film during a school visit. Sixty-five percent (47,713 children) were from low-income Title 1 schools.

The numbers belie the fact that every day young people still light up when they walk into the theater and see the giant screen, hear the immersive sound, and are surrounded by the eight-story-high images of space, sea, and land. The majority of thank-you letters that The Tech receives from students include raves about their IMAX experiences.

The Tech keeps a library of 14 educational films, available by teacher request. Each film aligns with state education standards for science and includes educator resources to incorporate the experience into class curricula. Many teachers have fully integrated an educational IMAX experience into their lesson plans and bring their students to The Tech year after year to enhance learning and retention.

The museum's general visitors also consistently give high marks to their IMAX experiences. About 40 percent see an IMAX film during their visits. In a spring 2014 survey of museum guests, 60 percent of respondents who saw an IMAX film rated their overall museum satisfaction as excellent, compared with 52 percent of those who did not. Most also ranked the screen size as the theater's top-driving feature (76 percent). When it comes to movie screens, size matters.

THE TRANSFORMATION

The Tech seeks to transform its theater into a powerful community asset for the best possible film-going experience *and* the best possible digital experience for all forms of new multimedia. The Tech consulted with Blaze Digital Cinema Works on technology options and developed detailed cost analyses. Blaze is known for advising science centers on converting from film to digital, with clients including the Carnegie Science Center, Memphis Pink Palace Museum, COSI Columbus, Milwaukee Public Museum, City of Spokane, Orlando Science Center, and TELUS World of Science–Edmonton.

For this project, Blaze helped The Tech: 1) evaluate the entertainment industry's top laser digital systems; 2) analyze dome versus flat-screen and IMAX versus non-IMAX options; 3) evaluate recent

conversions at comparable museum theaters; and 4) conceptualize The Tech as a purveyor of alternative content.

Based on Blaze's in-depth, 61-page Digital Cinema Planning Report, completed in August 2014, The Tech is eager to pursue the following:

- A. A wall-to-wall, floor-to-ceiling, 70-by-52-foot flat screen, the largest in Silicon Valley. Why?
 - 3D capability.
 - Broader film selection, as most Hollywood films require a flat screen. An expanded Hollywood film strategy will maximize net revenue and sustainability.
 - Alternative content, since multimedia programming outside of educational films requires a flat screen.
 - A 70-foot screen is wide enough to deliver an immersive experience.
 - Screen cost is substantially less expensive than a new dome screen.
 - It will be the biggest high-definition flat screen in Silicon Valley.
- B. IMAX GT Digital System 6p laser, 4K projectors, 3D (1.90:1, 4:3 aspect ratio). Why?
 - This will be the first IMAX system that can deliver all of the benefits of our existing system; no other digital system can fully replicate the wall-to-wall, floor-to-ceiling immersive experience that our guests love.
 - IMAX's quality remains unmatched in the industry, while cost is on par with its competitors.
 - IMAX is the most recognized brand in institutional theater and will provide customized marketing support to help launch our new digital theater.
 - The format provides true 4K resolution, with improved brightness and color.
 - The IMAX Film Distribution agent streamlines booking for Hollywood films and eliminates the need to contract with a professional film buyer.
 - 3D capability makes educational films even more engaging for students. Imagine watching "Flight of the Butterflies" or "Hubble" in 3D.
 - IMAX recently launched the world's largest documentary film fund to reinvent the educational documentary film genre and attract broader audiences. (Already, IMAX has green-lit Terrence Malick's "Voyage of Time" and is in final discussions with iconic filmmaker Werner Herzog to take viewers inside an active volcano.)
 - The digital system enables alternative content, including video gaming, animated short-form content for younger children, live sporting events, local film festivals, indie films, and more.
 - The Tech will be one of the first institutions in the world to receive IMAX's digital two-projector 6p laser system, making it the most technologically advanced digital theater in Northern California.
 - The new IMAX theater will be exhibit-worthy science and technology in its own right. The underlying technology can serve as an additional plank in our STEM education programs, exciting students and the public about the science of optics, the physics of sound, and the technological uses of lasers.
- C. New stage and broadcast equipment to host, produce, and distribute alternative content. Why?
 - Increases The Tech's relevance and capacity as a community resource.

- Retools the theater as multipurpose and flexible.
 - Engages the art-tech, music-tech, and ed-tech communities to showcase their work in the region’s most cutting-edge theater.
 - Allows The Tech and Silicon Valley to create and broadcast more original content, increasing our reach across the state, nation, and world.
 - Enables The Tech to launch a “digital jam night” one evening per week to foster innovations in digital entertainment and engagement.
 - Supports The Tech’s Creative Collisions initiative to cultivate local innovation.
- D. Physical upgrades to transform to a state-of-the-art flat-screen theater. How?
- Remove and dispose of existing dome screen.
 - Remove IMAX projection booth and renovate the space into a large concession area.
 - Remove current projector “doghouse” in auditorium’s center.
 - Install ceiling and walls for proper acoustics.
 - Create upper projection booth for new digital system.
 - Effect overall architectural, engineering, construction, lighting, wiring, acoustic, and design improvements.

TIMELINE

Architectural design work will start as soon as funding is secured, followed by permitting and construction. A general timeline of events:

- Secure funding, summer 2015
- Sign letter of intent with IMAX, summer 2015
- Architectural designs, revisions, construction timeline, summer to fall 2015
- Theater closes and construction begins, fall 2015
- New IMAX digital system installation, winter 2016
- Grand opening, summer 2016

WHAT SUCCESS LOOKS LIKE

Here’s a peek at the future:

The Tech’s new digital theater never stops bustling. Lining up for today’s 1 p.m. showing of “Flight of the Butterflies” in 3D are five different school groups, ready to pack the house. Most of the students already have their cellphones in hand to participate in the interactive preview, a gaming activity on citizen science. They can get extra credit if they upload their results to my.thetech.org and share the link with their teachers.

At 2:30 the Digital Entertainment World Conference is holding a session in the new theater. The Tech has been partnering with the San Jose McEnery Convention Center whenever conference participants need a wired auditorium and stage area to broadcast out speakers or activities. Today’s collaboration will feature an interactive session with LiveFrom.Me Inc. Participants will co-create a live broadcast by tossing audio and video clips onto the giant screen from their mobile devices. LiveFrom.Me will combine

the content in real time and share out using its video player service and syndication platform. The session will be capped by a live-streamed talk by Ynon Kreiz, chief of Maker Studios (part of Walt Disney Co.), who will be discussing a new partnership between Maker.TV and The Tech.

At 6 p.m., crowds of techie music lovers — some wielding instruments (well, some of the devices look like instruments, others resemble disassembled robot parts) — have started streaming in for Visual Music Night at The Tech. It's part of the theater's weekly themed Digital Jam Open Mic series. Performances are broadcast live from The Tech on YouTube, and often feature audience participation from around the world.

Digi Jam continues until about 10, but activities in the theater are far from over on this special night. A long line is snaking around the building. The Tech's spectacular laser projection system and giant screen have garnered a reputation as the premier place to see a movie in San Jose, especially in 3D. Midnight is the opening of "Star Wars VIII," and there's no better place to see it than in this technologically advanced theater, with dual laser-illuminated projection and the largest screen in Silicon Valley. Tickets for the whole weekend sold out within 30 minutes of availability on The Tech's Smart Museum—integrated ticketing system.

A look at The Tech's online calendar of events shows that the theater will be packed day and night for the next four months. Tomorrow's ed-tech-themed Creative Collisions event, held throughout the museum, will include an unforgettable component in the theater: Mark Zuckerberg will make a rare appearance to talk about coding as a high school graduation requirement in California.

THE PROJECT BUDGET

The estimated project budget is \$7.31 million:

- New IMAX GT Digital System 6p laser, 4K projectors, 3D, and screen: \$1,785,625
- System maintenance costs: \$700,000
- Architectural changes and construction: \$2,487,100
- Exterior electronic signage: \$400,000
- Marketing campaign: \$200,000
- Estimated lost revenues: \$350,000
- Personnel: \$219,153
- Digital Jam nights at The Tech (\$60,000 per year for 10 years): \$600,000
- Indirect/overhead (10% [excludes maintenance, lost revenue]): \$569,188

RECOGNITION

The dome will be renamed in recognition of the presenting sponsor's support. Your family or organization's name will be incorporated into the title of the center, such as: The SPONSOR'S NAME Giant Theater or The SPONSOR'S NAME IMAX Theater. Every official reference to this theater will have the sponsor's name, much like a football or baseball stadium. That includes ticketing websites such as Fandango and Movietickets.com, media mentions, and calendar listings. Each individual printed theater ticket also will bear the sponsor's name.

Other recognition includes:

- Name on signage inside and outside the museum (400,000-500,000 visitors annually plus millions of passersby).
- Name on marketing materials promoting events in the new theater.
- Recognition and opportunities to speak at a press event for the theater's opening and other events at the theater upon request.

IN GRATITUDE

We value your consideration of partnership to support this project at The Tech for the Silicon Valley community, and we look forward to many years of continued collaboration. Thank you for your consideration of this philanthropic investment.

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