

Transforming Family Learning Through Technology

Some parents and educators worry that technology isolates children, but The Children's Museum of Indianapolis uses new technology and social media as powerful tools for bringing people together and for sharing and building knowledge.



The Children's Museum of Indianapolis is reaching out to families and children with both established and emerging technologies. In fact, everything the museum does is either interactive or uses immersive technology to create transformative family learning experiences across the arts, sciences, and humanities—whether in the museum's galleries or online.

Creating Immersive Environments

Several of the museum's permanent galleries include immersive sound and light shows that guide visitors to explore and interact with components of the exhibits.

Notable among these is the sound and light show in the tomb of Seti I, featured in the museum's newest permanent exhibit, *National Geographic Treasures of the Earth*.

Via a life-size video projection, Dr. Zahi Hawass, Egypt's minister of antiquities, leads visitors in archaeology training to find clues that identify the owner of the tomb. Families interact by examining replicas of artifacts and feeding information into a monitor, finding images in the tomb, and by touching hieroglyphs on a capacitive touch wall that detects electrical charges emitted by the human body. The wall reacts to what visitors find, triggering illumination of 12,000 embedded fiber optic lights. The Children's Museum of Indianapolis is the only children's museum in the nation currently making use of capacitive touch technology in this way.

Other sound and light shows include:

- The Treasures Transport in *Treasures of the Earth*—an immersive environment that uses sound, light, and video to take visitors on a simulated descent into the authentic recreation of tomb of Seti I.
- An immersive, simulated *tuktuk* ride and flight to Cairo aboard EgyptAir in *Take Me There: Egypt*.
- Multimedia installations in *The Power of Children* that use sound and light to draw attention to artifacts and areas devoted to each of the exhibit's three featured children: Anne Frank, Ruby Bridges, and Ryan White. The exhibit helps families work through tough topics such as the Holocaust, Civil Rights, and the rise of the AIDS epidemic through the stories of these three children.
- A 24-minute immersive sound and light show that recreates a full day among the dinosaurs in *Dinosphere*.
- *All Aboard!*, a train exhibit about the 1868 Reuben Wells, which features a sound and light show that mimics this one-of-a-kind engine pulling away from its station.

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Building and Sharing Knowledge

The Children's Museum uses a wide array of technologies and social networking platforms to teach children and families and to share knowledge with visitors, both onsite and online.

- **Multiple interactive computer learning stations** with subject-specific games and explorations are featured in every one of the museum's 11 permanent galleries and in most temporary exhibits. Among the topics included are: exchanging currency in *Take Me There: Egypt*; glass-blowing in *Fireworks of Glass*; practicing philanthropy in *The Power of Children*; analyzing pigments to repaint China's Terra Cotta Warriors in *Treasures of the Earth*; and making healthy food choices in Health House, located within *ScienceWorks*.
- **This Week's WOW** is an ongoing series of videos posted on YouTube that explores the museum's exhibits, ideas, experiences, and programs, from Lilly Theater productions to science experiments conducted on the *Jolly Days Yule Slide*.
- **QR (Quick Response) codes** located in various galleries instantly direct children and families to additional information about artifacts, specimens, and topics of discussion via smartphones. The museum is also in the process of adding QR codes to its news releases.
- **Use of SCVNGR**—a location-based social gaming platform the museum uses to create and offer interactive family games and challenges based on museum exhibits and programs.
- **Unique online games**—The Children's Museum of Indianapolis makes many of its original educational games (which are designed by professional educators) available online through childrensmuseum.org.

- **The Children's Museum Blog** is a great and regularly updated resource for behind-the-scenes information about the museum's exhibits, programs, and collections.
- **Wikipedian-in-Residence**—The Children's Museum of Indianapolis was the second museum in the world to host a Wikipedian-in-Residence, and in July 2011 became the first museum in the world to include a Wikipedian on paid staff. The goal of the Wikipedian is to oversee the contribution of accurate, neutral, relevant content and images concerning objects in the museum's collection as new articles or as supplementary information to entries on related topics.

Communication and Interaction

The Children's Museum has multiple integrated and strategic interactions each day with its online audiences via its website and blog, and across multiple social networking platforms. These interactions include solicitation of visitor commentary, suggestions, memories, and images, as well as contests related to museum exhibits and programs. The museum is active daily on the following social networks:

- Facebook, facebook.com/childrensmuseum
- Twitter, @TCMIndy
- Flickr, flickr.com/tcmindy
- Gowalla
- Foursquare
- YouTube, youtube.com/indytcm

Many museums are working in one area of technology or social media, but The Children's Museum of Indianapolis is connecting and integrating them to enhance the family learning experience onsite, and to extend learning beyond a museum visit.