

**Technology Education and the Arts in Gifted Programs**  
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We hear quite frequently how the arts continually suffer in the academic day. Many of us who are long-time technology education champions certainly know what this is all about; but there may be some ways to use technology education to bring the arts into the gifted classroom.

**The Basics**

Undoubtedly, the performances we see on the stage and screen benefit enormously from the application of technology. The move to high tech has been so transparent that as viewers we tend to forget how much is actually being used to make our viewing experiences so memorable, and in many cases poignant. Here is a place for you to immerse your gifted students into an educational experience.

In the early days of Thomas Edison and his pioneering movie work, the emphasis of movie-making was on telling a simple, enjoyable story. Today, that story can be told through a variety of technology enhanced venues. Start by looking at the basic movie-making studio. In Edison's day, it was the famous Black Maria rotating studio, taking advantage of the sun's bright and free light. Modern studios are complex systems, with lighting, sound, and special effects components. What is the basic layout for a movie-making studio? Have gifted students to timeline the development of movie-making, and explain how the modern studio has evolved. What have been the basic changes that made all this possible?

Look at TV show making as well. What did early television show studios look like compared to today? How was studio design influenced? The famous comedy team of Lucille Ball and Desi Arnaz (I Love Lucy) did far more than simply create excellent comedy. They also pioneered television show making, studio design, influenced various codes and standards, and operating protocols. Their Desilu Studios were as pioneering on the small screen as Edison was on the big screen. Explore how this all happened.

**Modern Times**

Today, we have the availability of many small TV stations that did not exist when Lucy and Desi were popular. How did this station proliferation become possible? Are they similar to traditional TV studios? How have they changed the viewing landscape for the average citizen? What kinds of shows are available today which were not in the 1950s-60s when Lucy and Desi were popular? What kinds of television programming do the gifted envision in maybe 20 years? Incidentally, the original Start Trek TV series was filmed at Desilu Studios. What does this say about the studios?

Wouldn't it be enlightening to visit a working TV studio, or perhaps a movie-making studio? Is this possible in your municipality? Perhaps there is a community TV station nearby? Maybe your school or local community college operates a station that can serve as an off-site educational facility for your pupils. Think about how this can provide some interesting learning opportunities...such as...but certainly not limited to:

- How is a TV script developed?
- How is it reviewed, revised, and rated for showing?
- How are character actors selected for TV shows or movies?
- What determines where cameras and microphones are placed?
- How is the program kept on time, so it stays within the show's length?
- When are commercials inserted?

- How is commercial time sold to advertisers?
- What special procedures are used to prevent problems during the show?
- What jobs skills are needed by people who make/film TV shows?
- Where can such skills be obtained?
- How are simple sets for TV designed versus large TV spectacles and reality TV shows?
- What are the special effects now being used for TV shows/movies?

Today's audiences enjoy science fiction and high-action movies with lots of spectacular stunts and special effects sequences. How is all this accomplished? What special effects like "morphing" are used? What were some of the ground-breaking technologies that have been invented to make our movie-going experience so exciting? How are stunt men protected during their often dangerous work? Has any safety or special effects technology been transplanted into the everyday world?

This series of activities and suggestions will help gifted students better appreciate what it takes in technology, creativity, and motivation to bring the visual arts to a viewing public. They might also benefit from speaking with actors and studying them to learn how the different media like TV versus big screen affect how they interact with technology on the sets.

It is also worthwhile to visit a local playhouse and stage to undertake a tour of the facility to see how technology has also impacted this visual art form. Perhaps students can also witness a performance to try and identify how technology was used to make certain things happen on stage. It is likely that technology has made performances less people power intensive and scene changes proceed more smoothly. What have such impacts been? How is all this action coordinated on stage during the play?

### **Follow-up**

Once your gifted students have become comfortable in the world of the arts, perhaps you can expand their education into other art forms like sculpture, painting, photography, and even architecture. How has technology influenced these areas? Have new materials allowed artists to do things never before possible, or to express their feelings and thoughts in unusual ways?

Examine the area of computer graphics and animation. Look at the pioneering work of Walt Disney and other cartoon makers of the 1930s -1960s and see how their field has changed. Disney pioneered all sorts of fascinating camera and lens technology for his animation wonders. How has computer animation radically changed what is possible? How are the highly popular voice-over animations made today compared to earlier times? Where might our digital technology take us in the coming decades?

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Bronson, P. & Merryman, A. (2010). *The Creativity Crisis*. Newsweek Magazine, July 19, 44-50.

Carr, N. (2010). *The Shallows: What the Internet is Doing to Our Brains*. New York: Norton.

Lanier, J. (2010). *You Are Not a Gadget: A Manifesto*. New York: Knopf.

Shirky, C. (2010). *Cognitive Surplus: Creativity and Generosity in a Connected Age*. New York: Penguin.

Wolf, M. (2008). *Proust and the Squid: The Story and Science of the Reading Brain*. New York: Harper Perennial.

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