

Digital Imaging Careers

DIGITAL IMAGING can pertain to the photography and motion picture industry as well as the medical industry. With technology changing at an increased speed, new careers in these industries are endless. Digital imaging has been around since 1920 and continues to be revolutionized with newer and better equipment. From camcorders to cameras to scanners, more visual equipment is making images clearer and more vivid.



Objective:



Explain digital imaging and identify careers.

Key Terms:



brand identity designer	illustrator	nuclear medicine
creative art director	imaging	technologist
diagnostic medical	layout artist	radiation therapist
sonographer	logo designer	radiologic technologist
digital	magnetic resonance	
digital imaging	imaging technologist	
graphic designer	multimedia designer	

Careers Related to Digital Imaging

Various career opportunities exist related to digital imaging and its uses.

DIGITAL IMAGING

Digital imaging is the creation of electronic reproductions, typically from a physical scene. **Digital** is data represented using discrete (discontinuous) values in electronic form. **Imaging** is the reproduction of an object's outward form, especially a visual representation. Digital imaging was first produced in 1920 as a series of negatives on zinc plates. Devices were

developed to store digital data on a computer in 1957. Real-time digital images could be produced in the early 1960s. By the 1980s, this equipment was readily available at a reasonable price for consumers to use in camcorders, cameras, and computers.

DIGITAL IMAGING CAREERS

The field of photography and motion pictures offer many career opportunities for those in digital imaging.

Graphic Designer

A **graphic designer** is a professional who assembles images, typography, or motion graphics to create a design piece. A graphic designer must be organized and must be able to work with others to produce the desired product. A graphic designer draws out and digitally generates all design layouts.

Creative Art Director

A **creative art director** is a person who oversees the production of art design. He or she focuses mainly on the creative aspect of the design.

Layout Artist

A **layout artist** is a person who deals with the structure and layout of images and text in a pleasing format. He or she makes sure the design is informative and visually appealing.

Brand Identity Designer

The **brand identity designer** is a person who creates all advertisement concepts for a company. Advertising can include commercials, merchandise, and logos.

Logo Designer

The **logo designer** is a person who creates a way to express the company through an image. Another name for a logo designer is an **illustrator**. He or she takes the information from the client and creates a concept, draws the concept, and pieces it together with the company's marketing specialist to convey the key points of the company.

Multimedia Designer

The **multimedia designer** is a person who combines graphic design with different types of media to create entertainment and educational products. The multimedia designer must have extensive knowledge of graphic design software.

DIGITAL IMAGING CAREERS IN THE MEDICAL FIELD

The medical digital imaging industry is growing because of technological advancements. As a result, many careers are available in this industry.

Radiation Therapist

A **radiation therapist** is an allied health professional who works in a specialized field of oncology with radioactive substances. He or she plans and administers radiation treatments to cancer patients.

Nuclear Medicine Technologist

A **nuclear medicine technologist** is a health professional who works in a highly specialized field of medicine dealing with diagnostic and therapeutic techniques using radionuclides or radioisotopes. His or her job involves administering radioactive substances in the diagnosis and treatment of disease.

Diagnostic Medical Sonographer

A **diagnostic medical sonographer** is a person who uses ultrasound-based diagnostic imaging to visualize internal body structures. Many types of images can be formed using ultrasound.



ON THE JOB...

CAREER CONNECTION: Diagnostic Medical Sonographer

A diagnostic medical sonographer, also known as an ultrasound technician, plays an essential role in helping identify, monitor, and treat medical conditions and diseases. A typical day consists of an eight-hour shift in which 10 to 15 sonograms are performed and paperwork and documentation are completed.

A diagnostic medical sonographer helps interpret ultrasound images. The images are captured inside the body using equipment that relies on sound wave technology. Most employers require an associate's degree in sonography, which is typically a two-year program. Some programs offer a certificate that can be obtained in 12 to 18 months. Ultrasound certification is not required by law, but many employers prefer licensed candidates.

With a projected job growth of 46 percent, more than 23,000 new jobs are expected within this decade. A diagnostic medical sonographer can work in hospitals, doctor offices, labs, outpatient centers, and other healthcare facilities. Currently, 61 percent of sonographers work in hospitals. The median salary is \$66,410 per year. The bottom 10 percent earn \$44,840, whereas the top 10 percent earn \$92,070.



Modern sonography equipment.

Medical Resonance Imaging Technologist

A **medical resonance imaging technologist** is a person who uses ultrasound-based diagnostic imaging to visualize internal body structures by producing cross-sectional images. A range of applications exist, with more than 25,000 scanners used worldwide.

Radiologic Technologist

A **radiologic technologist** is a person who performs imaging of the human body for the diagnosis or treatment of medical problems. He or she uses expertise and knowledge to assess patients, develop optimal radiologic techniques, and evaluate radiographic images.



FIGURE 1. This is radiology equipment in an operating room.

Summary:



Digital imaging careers are a fast-growing opportunity for many, especially in the medical field. Many careers exist in the photography and motion picture industry in which you can design and produce images for companies and clients. The medical field of digital imaging is growing in many ways.

Checking Your Knowledge:



1. When did digital imaging first appear in use?
2. When did the average consumer begin using digital imaging?
3. Which field is growing the fastest?
4. How many medical digital imaging careers are expected in the next decade?
5. Digital imaging is typically of what scene?

Expanding Your Knowledge:



Further investigate careers not listed in the digital imaging industry, whether medical or photography/motion picture. Is there a position that may be of interest to you when you complete high school? Are there classes you can take in high school that would help you better qualify for the job? Does the position you are interested in require a college education?

Write a two-page paper discussing the position, its requirements, duties, salary range, benefits, and other pertinent information. Explain why you would like this position.

Web Links:



Digital Imaging

<https://www.library.cornell.edu/preservation/tutorial/contents.html>

Bureau of Labor Statistics

<http://www.bls.gov>

Job Descriptions

www.thejobexplorer.com