TECHNOLOGY AND INNOVATION

DRIVING PROGRESS THROUGH CREATIVITY, KNOWLEDGE, AND TRANSFORMATIVE TECHNOLOGY

Technological advances and innovation have made previously unattainable tasks possible, converting ideas into practical outcomes. Technology is the application of human knowledge, techniques, and ideas to create tools, systems, and processes that solve problems and enhance human capabilities. New technology and innovation are quickly changing the world, which requires up-to-the-minute analysis for incorporating new facts into everyday life. Understanding and managing the human-technology interface is critical as Family and Consumer Sciences professionals use both technology and innovation in the process of supporting and improving everyday living. These processes can lead to significant increases in efficiency and a better quality of life.

Technology involves the practical use of scientific principles to develop solutions that are accessible, inclusive, and adaptable to diverse needs, and that address real-world challenges and enhance human abilities. Innovation involves the creation and implementation of new or improved ideas, products, processes, or services. An individual accepts the opportunity to think and create, which can lead to significant advancements for their family members, community, and the larger world.

Family and Consumer Sciences (FCS) has used technology to support individuals and families since the profession's inception. In the Industrial Era, FCS professionals integrated new technologies such as electricity. During the Information Era, the profession addressed digital literacy, incorporating computers and the internet. In the Post-Information Era, FCS addresses smart home technologies and sustainability practices, advancements such as artificial intelligence, and technology disparities.

Human knowledge encompasses understanding the facts, theories, and concepts accumulated through research, experience, and education. It is the foundation for developing new technologies and driving innovations and improvements in tools, systems, and processes. For example, the internet, smartphones, and artificial intelligence significantly shape the modern technological world.

To help humans work more efficiently or achieve previously unattainable goals, digital tools like interactive whiteboards, augmented reality (AR), and virtual reality (VR) enhance learning by offering hands-on, immersive experiences. Examples include software applications and computers. Technology also integrates tools and processes into systems designed to achieve specific outcomes. For instance, Extension and education professionals utilize podcasts, webinars, and online videos to reach wider audiences, as well as social media for direct engagement.

Together the use of technology and the skills of managing innovation enhance the Family and Consumer Sciences areas of study including nutrition, food science, financial and resource management, child development, family relations, housing, interior design, and textiles. Additionally, research advances the content and dissemination of knowledge, as well as the process of professional development, and the delivery of knowledge and services. Technology and innovations will continue to stimulate change in the home, community, and workplace.