

The rapid development of artificial intelligence (AI) tools has sparked vigorous debate about the future of entry-level jobs in the visual effects (VFX) and animation industries. For British Columbia's (BC) creative sector, which thrives on <https://vancouverguardian.com/how-vancouvers-entertainment-industry-is-changing-in-the-digital-age/> a strong ecosystem of film, TV, visual effects, animation, and game studios, understanding how AI influences junior roles is critical. This report explores whether AI will replace entry-level positions in VFX and animation, how virtual production and real-time visualization factor into workflow digitization, and why human creativity remains indispensable in these fields.

The Digitization of Film and TV Workflows in BC

British Columbia's film and TV industry has embraced digitization extensively over the last decade. Traditional linear workflows have given way to interconnected digital pipelines that increase efficiency and enable creative innovation. Key among these advances are **virtual production** and **real-time visualization** technologies:

- **Virtual production** integrates physical sets, digital environments, and live camera tracking to create scenes interactively on set. This allows filmmakers and VFX teams to see the digital effects in context as they shoot, reducing guesswork and revision cycles.
- **Real-time visualization** employs game engine technology to render complex 3D scenes instantly, allowing decision-makers to preview animations, VFX, lighting, and camera moves live, rather than waiting for time-consuming renders.

As these technologies mature, they streamline traditional VFX and animation pipelines — from layout and previsualization phases through to final compositing. This digitization creates a more agile environment, which is essential given the high volume of content flowing through BC's competitive creative market.



How Virtual Production and Real-Time Visualization Affect Animation and VFX Tasks

Understanding the impact of AI on *junior roles* means first clarifying how virtual production and real-time visualization reshape entry-level *animation tasks* and *VFX tasks*.

Acceleration and Automation of Repetitive Tasks

AI-powered tools embedded in these workflows can automate routine tasks such as rotoscoping, cleanup, rigging, and crowd simulation. For example, machine learning algorithms can track and separate characters from backgrounds far faster than manual rotoscoping, a traditionally time-intensive job often assigned to junior artists.

Similarly, animation in-betweening (the process of generating frames between key poses) can now be assisted by AI to produce smoother motion with less manual input. Real-time visualization helps supervisors give immediate feedback, reducing iterations.

New Skill Sets and Collaborative Roles

While AI accelerates some tasks, it simultaneously creates opportunities for junior artists to work in more collaborative and creative capacities. For example, entry-level artists might:



- Operate and refine virtual production tools, making sure that the digital environments sync correctly with live-action footage.
- Create assets optimized for real-time game engines, requiring knowledge of both traditional artistry and software pipelines.
- Focus on storytelling elements like character nuances, emotion, and performance timing that remain difficult for AI to replicate authentically.

Challenges With Over-Reliance on AI

Claims that AI can fully replace junior roles often overlook core challenges:

- **Quality control:** AI-generated content frequently requires human oversight to verify correctness, especially in complex scenes.
- **Creative judgment:** Artistic decisions about style, tone, and narrative are inherently human and contextual.
- **Ethical and legal considerations:** Data used to train AI systems may come from existing works, raising intellectual property questions.

AI Impact on Junior Roles: Replacement or Evolution?

In Metro Vancouver and across BC, the question isn't just whether AI will replace entry-level jobs but how it will reshape them. Based on interviews with hiring managers, VFX supervisors, and animation leads, several themes emerge.

AI as a Tool, Not a Substitute

Most industry professionals view AI as a powerful assistant rather than a direct replacement for junior artists. Rather than eliminating positions, AI tools help accelerate workflows, enabling junior artists to spend less time on tedious tasks and more on developing their craft.

For example, an entry-level compositor might use AI-assisted rotoscoping tools to speed up isolating elements but still needs the eye and hand coordination to fine-tune shots and maintain creative consistency.

Demand for Hybrid Skill Sets

The rising importance of virtual production and real-time visualization means junior roles increasingly require hybrid skills that blend artistry with technical proficiency. Skills in operating game engines (like Unreal Engine), scripting, and digital asset management complement core animation and VFX fundamentals.

Employees who adapt and learn to work alongside AI and virtual production tools position themselves well for emerging roles.

Entry-Level Jobs Will Shift, Not Vanish

Rather than disappearing, entry-level jobs evolve:

1. **More emphasis on interactive and digital media:** BC's animation and VFX workers increasingly contribute to interactive digital media projects such as VR/AR experiences, games, and branded content — all growth areas in the province.
2. **Cross-disciplinary collaboration:** Artists are often called upon to bridge animation, VFX, and even game development workflows, reflecting converging industry practices.
3. **Ongoing training opportunities:** Studios and unions recognize the need for continuous upskilling focused on AI literacy and virtual production software.

VFX and Animation as Competitive Advantages for BC's Creative Economy

British Columbia's industry success hinges partly on maintaining state-of-the-art creative and technological advantages. VFX and animation remain key differentiators attracting international productions, especially in the competitive streaming era where quality and speed matter.

Digitized workflows powered by AI, real-time engines, and virtual production help BC studios stand out globally by delivering visually ambitious projects efficiently.

Factor Impact on BC Film/TV/VFX Industry Implication for Entry-Level Jobs Virtual Production Enables faster iteration and integration of digital effects on set Requires junior artists to learn set technologies and real-time asset integration Real-Time Visualization Allows live preview of animation and VFX, reducing turnaround Entry-level staff increasingly work with game engine tools and live rendering AI-Assisted Automation Automates repetitive or technical animation and compositing tasks Junior roles shift toward oversight, creative refinement, and technical support

Interactive Digital Media: A Major Growth Sector in BC

Importantly, animation and VFX talent in BC fuel the larger interactive digital media industry, which includes video games, VR/AR, and other immersive content. This sector is a major employer and economic driver in the province.

The blending of animation and VFX skills with interactive media is a natural evolution rather than a distinct career silo. Junior artists proficient in AI, real-time visualization, and virtual production technologies are highly valuable across these subsectors.

Conclusion: The Future of Junior Roles in VFX and Animation

Artificial intelligence and related digital tools will continue to reshape how animation and VFX studios operate, especially in British Columbia's dynamic film and TV ecosystem. However, the idea that AI will outright replace entry-level jobs oversimplifies a complex reality.

Key takeaways:

- AI accelerates many animation and VFX tasks but does not fully substitute human creativity, judgment, and problem-solving.
- Virtual production and real-time visualization technologies require junior artists to continuously expand their technical skills alongside artistic talents.
- Entry-level roles are evolving to emphasize interdisciplinary collaboration, AI oversight, real-time asset management, and interactive media competencies.
- BC's strength as a creative hub depends on nurturing this hybrid skill set for emerging artists to maintain competitive advantages globally.

Rather than fearing replacement, early-career artists in VFX and animation should focus on adaptability, continuous learning, and mastering digital workflows. These proactive steps will help them thrive alongside AI and live at the forefront of creative innovation in British Columbia's vibrant industry.