

## Digital Humans

### The Future Face of Live Commerce

by Xinlong Li



In 2021, the global live e-commerce market was valued at approximately USD 1.35 trillion and is forecasted to surge to USD 3.9 trillion by 2031, with a steady CAGR of 11.28% over the decade. [1] This growth is underpinned by the dynamic evolution of the live commerce landscape, attracting a wave of young enthusiasts to the live streaming domain. These individuals are not just dabbling in broadcasting as a fleeting endeavour but are increasingly viewing it as a sustainable career path.

Outstanding live streamers such as Li Jiaqi, a celebrated figure in China's streaming sphere, generate annual revenues of more than 400 million Singapore dollars, highlighting the lucrative potential in this field.

But the arena of internet broadcasting is facing an unprecedented wave of competition coming from an unconventional corner - the realm of digital entities. The rise of generative AI is ushering in an era where virtual digital humans are staking their claim and captivating the e-commerce sector with their indistinguishable human appearance, expressive nuances and convincing vocal tones.

## Human Hosts vs Virtual Hosts



**Li Jiaqi, Human Host**

Image Source: YouTube @vivamusic131



**Virtual Host**

Image Source: YouTube @SouthChinaMorningPost

These virtual hosts offer a number of advantages over their human counterparts, particularly in terms of cost efficiency. Hiring a human host, especially one with some name recognition, can be a costly affair, often involving commission-based compensation. In addition to the host's fee, an extensive team from photographers to make-up artists is usually required, increasing the financial burden on companies. In contrast, digital host expenses are primarily limited to the development costs of the digital persona, with no ongoing fees or profit share, even for daily streams.

Moreover, the endurance of human hosts is naturally capped, with performance waning over extended streaming sessions. This limitation necessitates a rotation of hosts to maintain engagement, further inflating costs.

On the production front, crafting traditional short videos is a resource-intensive process, demanding everything from meticulous planning to extensive post-production tweaks. Maintaining a daily content cadence compounds the challenge, requiring an

ample backlog of footage ready for editing. The advent of virtual digital humans revolutionises this workflow, enabling rapid content creation with minimal effort. This efficiency empowers creators to swiftly populate their channels with a wealth of content, potentially achieving viral success with minimal turnaround.

### **Challenges and Considerations**

Digital humans hold great potential in enhancing live commerce experiences, yet numerous uncertainties persist. Key considerations include determining the most effective appearance for specific product categories, identifying the appropriate tone of voice, deciding on the languages to be used, and strategies to make digital human-led live streams more engaging. To address these complexities, a research team from the Nanyang Center for Marketing and Technology (NCMT) is joining forces with Yiwise.ai, a frontrunner in digital human services, aiming to unravel these questions and optimise the integration of digital humans in live commerce. Assistant Professor Xinlong Li, a member of the research team, highlighted the need for a deeper understanding of how digital humans can most effectively contribute to live commerce.

"Digital humans often adopt an enthusiastic tone when presenting products during live streams. However, this approach might not suit all product categories," he explained. "Our findings suggest that for specific items, such as luxury and electronic products, an overly enthusiastic tone could negatively impact sales."

Digital human anchors today also face a number of critical challenges that require immediate attention. For products that rely on sensory experiences, such as clothing and jewellery, digital humans are inadequate because they cannot reproduce the tactile feedback required for such demonstrations. Live human presenters are essential to convey the fit and feel of these products, which is an important aspect of live broadcasts. Maternity, infant care and technology products also require a level of professionalism and credibility in presentation that digital humans cannot yet achieve.

Another problem is the "almost real but not quite real" nature of digital humans, which leads to the "uncanny valley" effect. This term, coined by Japanese roboticist

Masahiro Mori, refers to the discomfort people feel when robots or digital beings look almost, but not quite, human. Although digital humans are able to interact with the audience in live broadcasts, their lack of nuanced interactivity and repetitive dialog often leave viewers feeling uneasy and doubtful of their authenticity. This feeling of unease can develop into a sense of betrayal when viewers realise that a presenter they have grown to love is not human, which could damage the brand's reputation.

In addition, the use of digital humans raises complex issues of copyright and intellectual property. Since they are created from human likenesses and technologies such as motion capture, the question arises as to who owns the rights to the original data and who can decide on the use and distribution of digital humans. Small businesses that use their employees' likenesses to create digital humans could face legal issues, such as demands from former employees to stop using their digital likeness or pay ongoing compensation, adding to the ethical and legal complexity of digital human technology.

The intersection of live e-commerce and digital innovation is not only changing the profession of broadcasting, but also redefining content production and setting the stage for a new era of digital engagement.

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<sup>[1]</sup> <https://www.businessresearchinsights.com/market-reports/live-e-commerce-market-102558>