

Personalising Conversational Commerce

Crowd Media Holdings Limited (Crowd Media) is an Alpowered technology company that is leveraging its Al platform for applications in Conversational Commerce. The company has a platform (Talking Heads) that allows businesses to create digital avatars and with them, have 1 on 1 Facetime-like conversations with customers in real time. The platform aims to produce digital avatars at just a fraction of the time and expense of current concepts.

Why would customers want Talking Heads?

Talking Heads avatars will allow Crowd Media's customers to showcase products, take payments, answer queries among other functions. Many of these functions can be done digitally, through mechanisms such as email marketing and chatbots and while these can reach a large number of customers, the experience is a one-way street for customers. Talking Heads aims to provide is customers' customers with a more engaging and immersive experience as the avatars will be able to use natural language processing to understand customers' intent and interact with them.

The opportunity

Talking Heads is in early stages of commercialisation but has significant potential in several verticals including in health, aviation, hospitality and in Web 3.0 infrastructure including NFTs and the metaverse. Talking Heads secured its first commercial partnership earlier this year with African healthcare provider PangeaMed. Last month, it secured a partnership with a Big Five Tech company. Crowd Media has also deployed its platform into two digital entertainment products – Bedtime Stories and Astrology VIP.

Multiple modes for shareholder value creation

Crowd Media can increase shareholder value by expanding Talking Heads into new commercial partnerships and new business verticles. We believe the company can broaden its reach as it proves itself with the PangeaMed and Big 5 Tech deals and continues to refine the Talking Heads technology. Please see page 7 for the key risks.

Share Price: A\$0.025

ASX: CM8 Sector: Technology 7 November 2022

Market Cap. (A\$ m)	18.6
# Shares outstanding (m)	743.6
# Share fully diluted (m)	743.6
Market Cap Full. Dil. (A\$m)	18.6
Free Float	100%
12-months high/low (A\$)	0.05/0.017
Avg. daily volume ('1000)	2,282.9
Website	https://crowdmedia.com/

Source: Company, Pitt Street Research



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Crowd Media is an Al-powered technology company that has the Talking Heads platform.

Talking Heads enables businesses to create visual avatars and have one on one Facetime-like conversations with their customers in realtime.

The avatars are a step above the current text-only chatbots in using natural language processing to understand users' intent and interact.

Introducing Crowd Media, ASX: CM8

Who is Crowd Media (ASX:CM8)? Crowd Media is an Al-powered technology company that has developed and is commercialising the Talking Heads platform. Talking Heads seeks to disrupt the current standard of text-only chatbots by offering fully immersive interactions utilising Al-powered digital avatars. The company has two segments:

- **The Mobile Content-Subscription** segment provides subscription-based content products such as mobile security, games and video portals through an m-payments network.
- **Crowd Direct** works with brands and digital influencers to sell products and services.

How far has Crowd Media progressed in commercialisation of Talking Heads? Crowd Media is only at an early stage of commercialisation but has a handful of commercial partnerships. There are a handful that are particularly noteworthy, two being the Bedtime Stories and Astrology VIP mobile apps. The company's first enterprise customer, signed earlier this year, was African healthcare company PangeaMed. It has also signed a Big Five Tech company as a client (unable to be named for confidentiality purposes) to provide three digital avatars for the purposes of information delivery.

What is Crowd Media's business model right now? For Astrology VIP and Bedtime Stories, Crowd Media retains 80% of revenue with the rest shared by its partners. For deals such as PangeaMed, it is paid a base fee that covers existing operations and an expandable agreement for sale. For this deal these equate to \$32,000 and a minimum of \$332,680 in the first year depending on scale and contingent upon PangeaMed's funding.

What will Crowd Media's business model be in the future? Crowd Media will aim to partner with companies such as PangeaMed to use Talking Heads avatars. As we outline on page 4, applicable partnerships will involve a set-up fee and an ongoing maintenance fee

The Talking Heads platform

What is Talking Heads? Crowd Media is an Amsterdam-based company that is working on Talking Heads. The Talking Heads platform enables businesses to create visual avatars and have one on one Facetime-like conversations with their customers in real-time. Talking Heads enables the creation of these avatars, an audio double that can generate human-like speech in real time and use natural language processing to understand user intentions and provide coherent answers. The final avatars don't just answer a handful of anticipated questions but have full on interactions with customers.

How is Talking Heads superior to competing technologies? The avatars are a step above the current market standard of text-only chatbots. This is because it can use natural language processing to understand users' intent and interact. Talking Heads draws upon over 500 voices in 140 languages and be tailor-fit to a client's individual brand. The platform aims to produce these avatars at just a fraction of the time, expense and hardware use of current concepts as well as human support workers. Talking Heads draws on more than 10 years of data analytics extracted from over 180m customer Q&As.

What is the point of Talking Heads? This results in a more engaging and immersive experience for customers. For businesses, this means a higher likelihood of customer conversion. Conversational commerce, which involves interactions between people and businesses to drive sales online via ecommerce websites, is becoming increasingly important to brands wanting

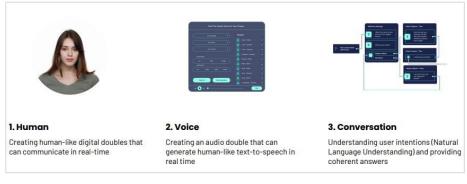


to stand out from their competitors. This especially true as younger generations enter the workforce, grow their incomes and start to shop – they are more apt to communicate directly with businesses. The ability of avatars to converse in dozens of languages will save clients hiring multiple employees to cover different regions and navigating the current labour market.

How do Talking Heads avatars come together? Figure 1 below depicts the 3 pillars of the platform. These are developed separately and come together on the final platform to form the final avatars. The engine that generates the video part (Human) belongs to the company.

The Voice is compiled by Api.audio, a company operating independently to Crowd Media but one that Crowd Media has a 10% stake in. Api.audio has the world's first fully automatable solution for end-to-end audio creation from text that has processed in excess of 180m questions and answers. The Conversation pillar can be generated either from Crowd Media's conversational engine or from one operated by any second or third party. Crowd Media has the ability to operate the entire process for customers and can embed it in a customers' websites and servers (or on Crowd Media's own servers).

Figure 1: The Three pillars of Talking Heads



Source: Investor Presentation – September 2022

The opportunity

What is the opportunity before Crowd Media? The conversational AI market was worth US\$6.8bn in 2021 and is expected to grow to \$37.9bn by 2029, assuming current 23.6% CAGR is maintained. This is anticipated to occur as businesses turn to AI to replace jobs performed by unreliable labour and as consumers increase their expectations on levels of customer service.

How will Crowd Media make money out of Talking Heads? At present, Crowd Media's commercialisation in its subscription division (with Astrology VIP and Bedtime Stories) is a revenue share with its partners. It retains 80% of revenue with the rest shared by the network.

In later stages of commercialisation, when Crowd Media is reaching enterprise clients, it is anticipated that it will charge a set-up fee and an ongoing maintenance fee. Package pricing will vary dependant on the clients' needs but the typical enterprise package is US\$5,000 set up and US\$2000 per month as a subscription fee. In early stages of commercialisation, Crowd Media may provide discounts for multiple purchases.

In the longer-term, when the company has a larger market reach, Crowd Media anticipates that Talking Heads will operate with a freemium model.

The conversational AI market was worth US\$9.3bn in 2021 and is expected to grow to \$95.2bn by 2030.



Customers will be able to try for free and use some basic services but have to pay when they want to put their own voice on it. The company anticipates it will cost in the range of hundreds of dollars per month.

Current commercial deals

Crowd Media has a number of commercial deals for Talking Heads, many of which indicate which verticals Talking Heads could succeed in and how exactly it could disrupt them:

- Big Five Tech Company. Earlier in October, Crowd Media was engaged by a Big Five Tech company – one of Meta, Amazon, Apple, Microsoft or Google, but unable to be identified due to commercial confidentiality purposes. Crowd Media will provide digital avatars for the purpose of information delivery, specifically three of them that will be able to interact with real people in multiple languages. Although the value of this deal was not disclosed, the avatars are licensed for two years and the subscription will expand as more avatars are engaged.
- **Pangeamed**. This is a med-tech company from South Africa engaging with hospitals, Medicare and govt providers. It engaged Crowd Media to build a Talking Head designed as a medical professional and to answer hundreds of patient queries for patients recoverying from surgeries. It can do it all in low technology environment because Talking Heads is lightweight and can run on a simple server. The deal comprises of a base fee that covers existing operations and an expandable agreement for scale. It is a 12-month deal with the potential to be extended for 12 more months.
- SrcFlare. SrcFlare is an Israeli data tech company. SrcFlare and Crowd Media ran a three month proof of concept earlier this year involving the integration of Crowd Media's Talking Head conversational AI technology into SourceFlare's marketing platform to optimize customer acquisition and lead generation. These arrangements generated \$149,000 in the first 12 months. In September, the three month proof of concept was extended by another 3 months to Crowd Media with the licensing fee payable to around \$81,400 for the three months.
- **Bedtime Stories and Astrology VIP.** Both deals involve the integration of Talking Heads into the applicable applications. In Bedtime Stories, Talking Heads will convert children's books into audio-visual elements where a user is read the story by a digital avatar generated by the platform and chosen by the user. Astrology VIP will read a number of different astrology readings from its avatar Astra which will include horoscopes, tarot cards and dream interpretation. In both deals, 80% of revenue retained with the rest shared by the network. They can be accessed on any computer or smart device without the need to download additional software beyond the initial applications.
- **Impssbl** specialises in the application of digital assets in storytelling, where NFTs are interated with AI to tell stories via web3 domains. Crowd Media has provided Impssbl access to the platform with the aim of developing a bridge that will transform an AI generated talking head (digital avatar) into an NFT network. Profits from the NFT series will be shared with 70% to Impssble and 30% to Crowd Media. For NFT certification, Impssbl will be classified as a producer of any NFT chain created under the HOA. Impssbl will collect all creator fees and share profits with crowd media on a quarterly basis to get your entitlement in ETH. Crowd Media offers Impssbl the change for NFT owners to have a

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Crowd Media Holdings Limited

unique experience with their NFTs by owning a collection of NFTs that interact with them.

Future potential verticals

Talking Heads has particular potential in a handful of business verticals which tend to deal with large numbers of customers.

- Health. In many ways, this offers the most potential because Crowd Media has already been engaged in this space, by African company PangeaMed. We see potential for Talking Heads to help medical providers deal with patient queries including treatment and recovery options. There is particular potential for the technology in low technology environments given the versatility of the technology.
- Entertainment. This is arguably the vertical immediately behind healthcare because of Crowd's historical ties to celebrities and the global network of social media influencers. Talking Heads could help celebrities and influencers have one on one conversations with fans on a mass scale personalised scale that otherwise would not be possible.
- **Aviation**. The Aviation industry deals with a large number of customers. As it recovers from the pandemic, there have been deteriorating levels of customer service as aviation struggle to rebuild their workforces. We think Talking Heads could help airlines increase customer satisfaction and reduce labour costs.
- Web 3.0 infrastructure. This includes NFTs and the metaverse, another vertical at an early stage. We see the potential for further deals similar to the current deal with Impssbl whereby stories can be told through Web3 mediums by the integration of NFTs and Talking Heads. The current dal with Impssbl provides for the Impssble to develop a 'bridge' that will convert an AI generated Talking Head into an NFT network.
- Media search. The amount of business being done through search engines is several times higher than a decade ago but little has changed. The current deal with SrcFlare is an indication of how Talking Heads could disrupt the industry, specifically optimising customer acquisition funnels and lead generation. The SrcFlare platform applies machine learning and data insights to generate customer leads for its clients. Digital avatars will generate unique marketing campaigns in multiple languages to promote customer acquisition funnels and optimise lead generations for its clients.

What are the potential value uplifts?

We see four main ways in which Crowd Media can increase shareholder value:

- New partnerships. The biggest catalyst for a value uplift would be further commercial partnerships that will see a further roll out of the Talking Heads Platform, and with it, more revenue for Crowd Media. We also think that the mere identification of the currently anonymous 'Big Five' technology company would be significant too.
- **Increased engagement**. Of course, the very reason a business would use Talking Heads is to drive engagement and therefore sales. If Talking Heads proves itself to be better than text-only chatbots in those regards, we think there is serious potential for it to take a significant market share in the industry.

We see four main ways in which Crowd Media can increase shareholder value.



- **New verticals**. Crowd Media will expand into new verticals and once it has proven itself with individual clients, we think it can open the floodgates for further agreements.
- **Further investments** in the Talking Heads platform that will continue to reduce the time required to create a 'digital twin' and allow for more simultaneous conversations at once.

Key risks

We see the following key risks associated with Crowd Media:

- Commercialisation Risk: There is a risk that Crowd Media will be unable to achieve sufficient scale in the commercialisation of its products across target customer segments. This could be because the products are not supported by market needs or otherwise not adequately marketed and fail to sell.
- Competition Risk: There is the risk that competing companies develop products that are superior to Crowd Media's products or are at least perceived to be superior by consumers. These products could lead to a loss of market share by Crowd Media.
- Talent risk: Crowd Media's success depends to a significant extent on its ability to attract and retain key employees, particularly technology talent. The loss of key personnel may affect the company's ability to develop its products.
- Regulatory risk: There is a risk that regulations (existing regulations and potentially new regulations) may impact Crowd Media's business practices. It may cause customers to reduce their usage of the company's product and/or for potential customers to not be attracted. It may also require increased company resources dedicated towards regulatory compliance and away from core operations.
- Capital risk: There is the possibility that Crowd Media will need further capital to grow its existing businesses' reach. This will dilute existing shareholders and lead to a lack of confidence by investors that the company can achieve profitability.



Appendix II – Analyst certification

Nick Sundich, lead analyst on this report, is an equities research analyst at Pitt Street Research.

- Nick obtained a Bachelor of Commerce/Bachelor of Arts from the University of Sydney in 2018. He has also completed the CFA Investment Foundations program.
- He joined Pitt Street Research in January 2022. Previously he worked for over three years as a financial journalist at Stockhead.
- While at university, he worked for a handful of corporate advisory firms.

Marc Kennis has been an equities analyst since 1996.

- Marc obtained a Master of Science degree in Economics from Tilburg University, Netherlands, in 1996 and a post-graduate degree in investment analysis in 2001
- Since 1996, he has worked for a variety of brokers and banks in the Netherlands, including ING and Rabobank, where his focus has been on the technology sector, including the semiconductor sector
- After moving to Sydney in 2014, he worked for several Sydney-based brokers before setting up TMT Analytics Pty Ltd, an issuer-sponsored equity research firm
- In July 2016, with Stuart Roberts, Marc co-founded Pitt Street Research Pty Ltd, which provides issuer-sponsored research on ASX-listed companies across the entire market, including technology companies

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