



掌握契機 迎向挑戰
AI時代的電視事業營運發展

《NCC廣電媒體專業素養培訓》

胡元輝

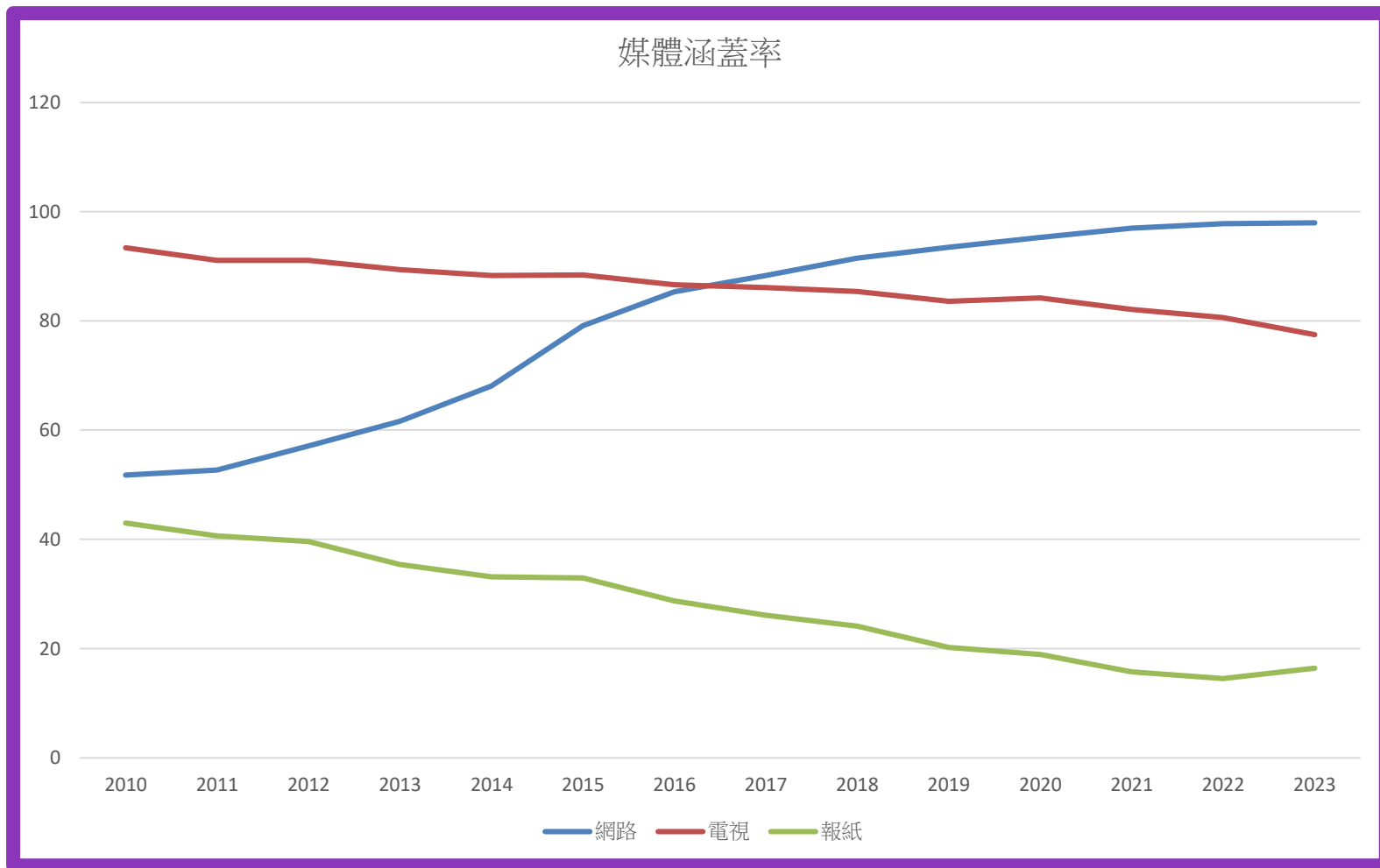
公視基金會董事長

台灣媒體產業生態



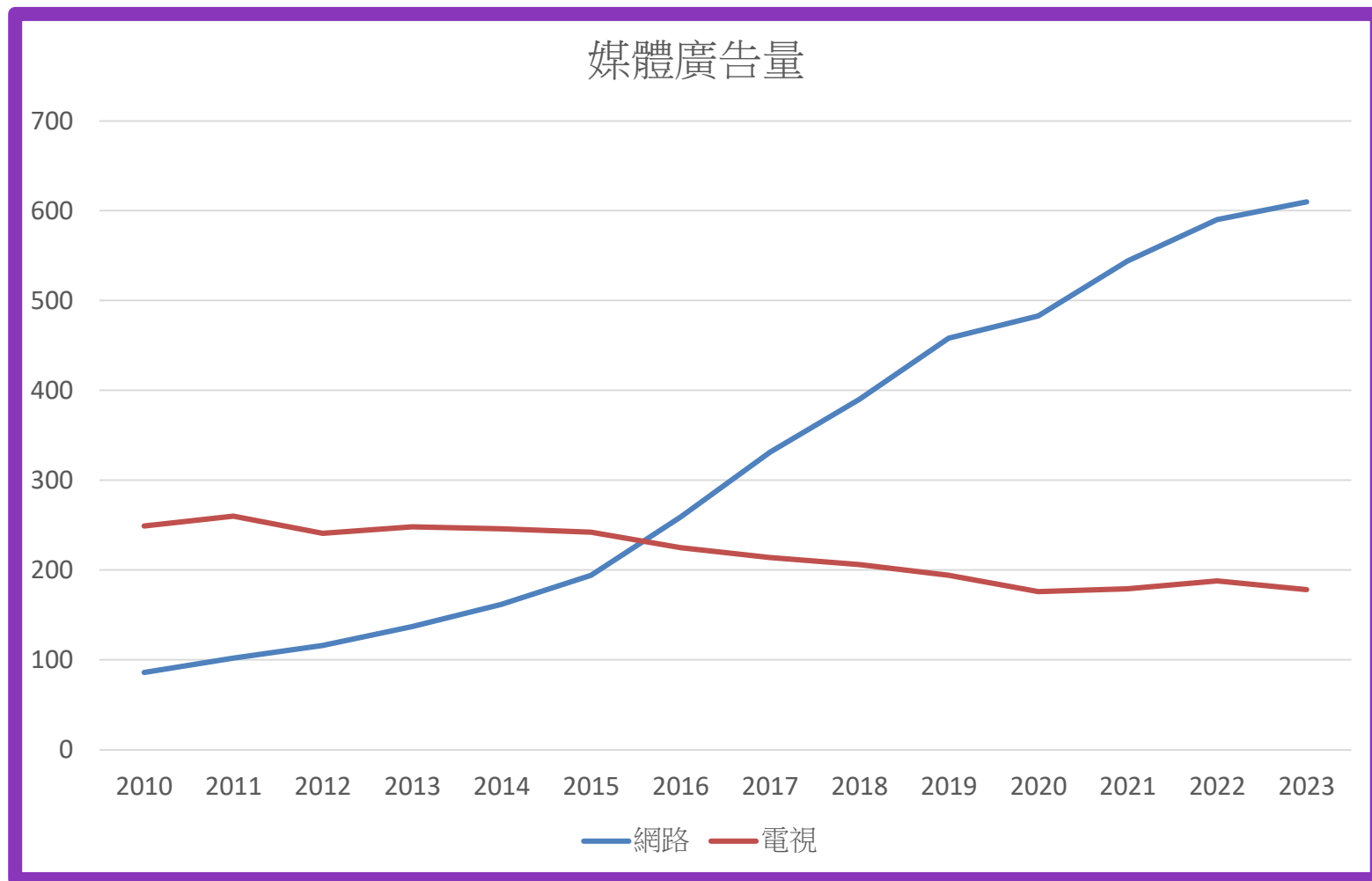


台灣媒體涵蓋率





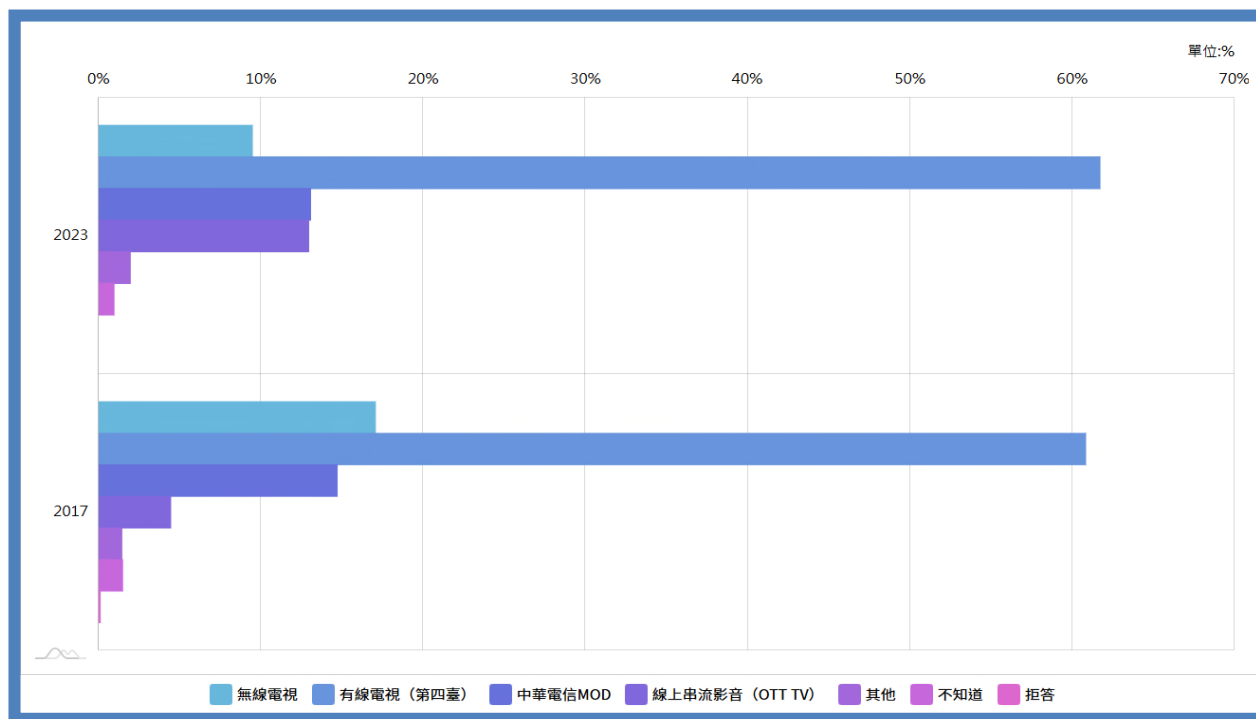
台灣媒體廣告量





台灣民眾收視來源

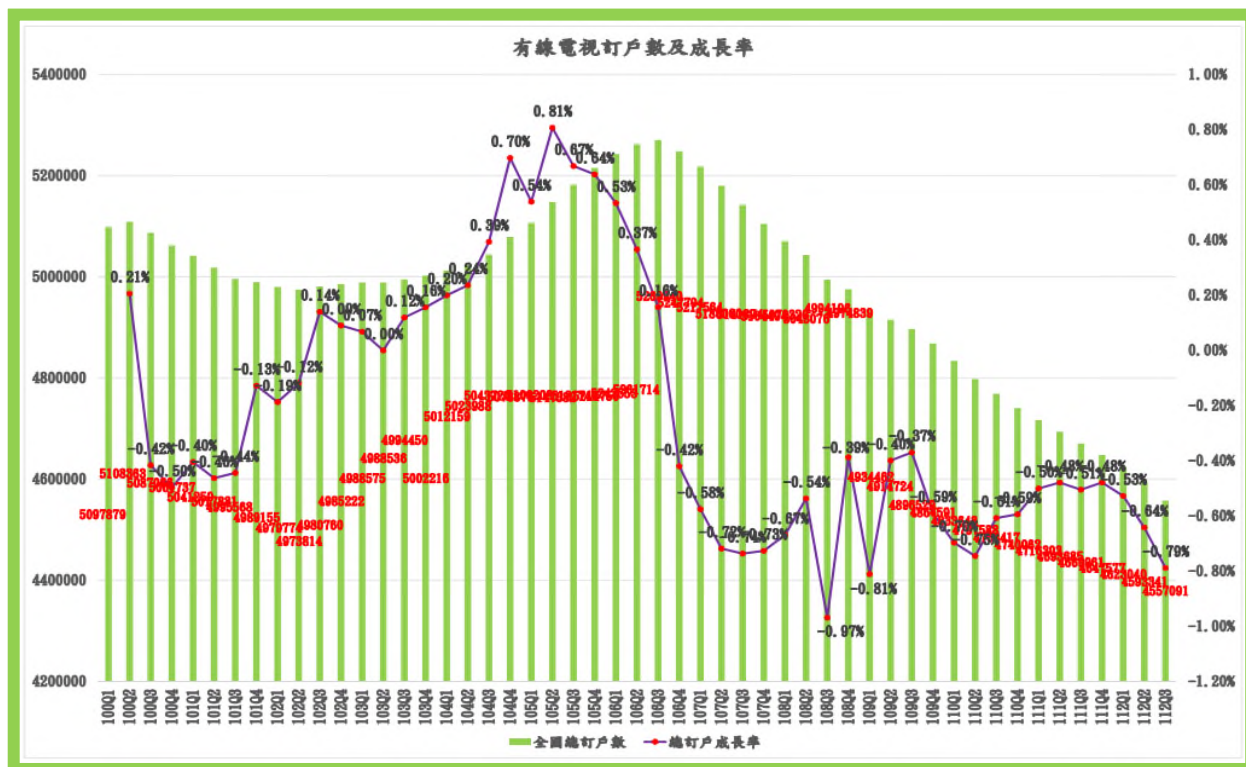
- NCC的112年傳播市場調查顯示，台灣民眾家中電視收視來源依序為有線電視（61.7%），中華電信MOD（17.2%）、OTT（12.9%）、無線電視（9.5%）。有付費訂閱OTT TV之比例自106年的19.8%大幅攀升至112年的53.2%。





台灣有線電視市場

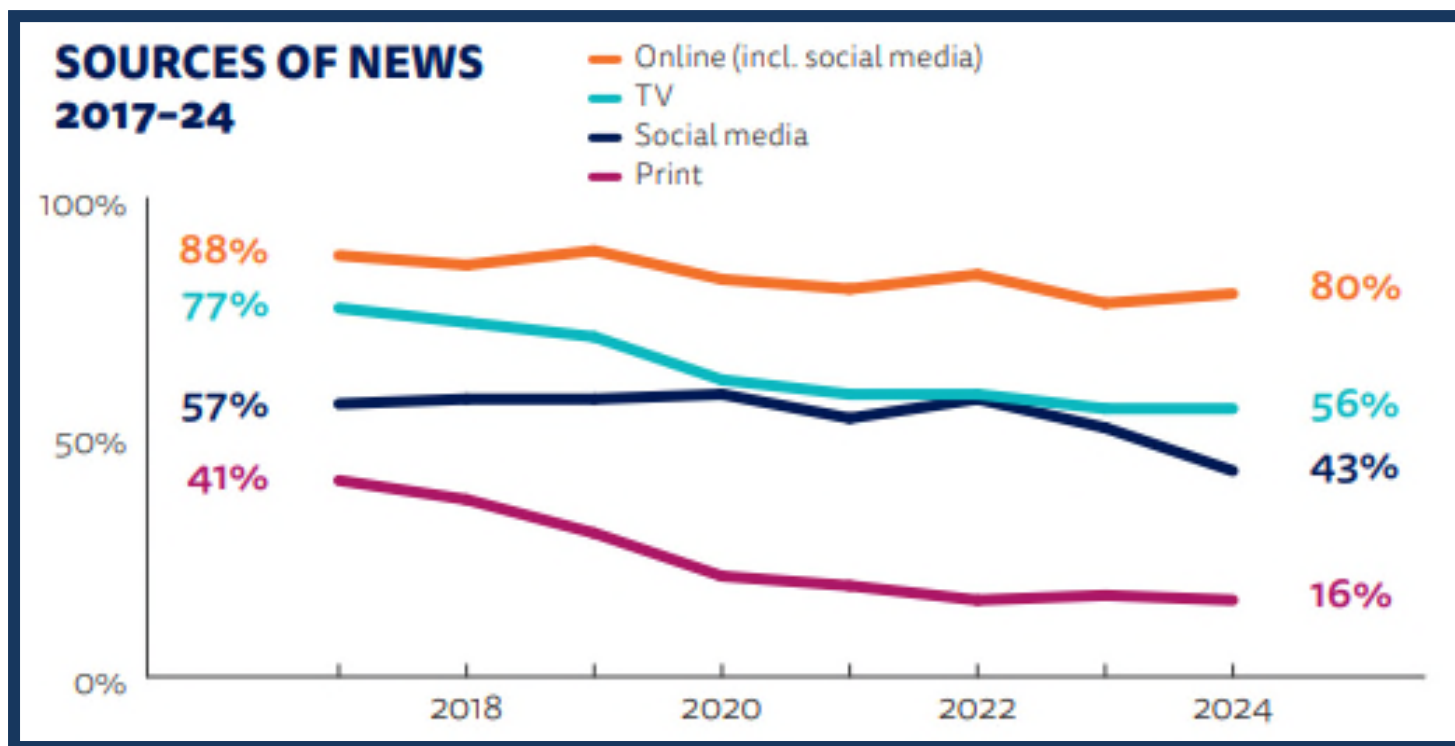
- 自2017年第3季524.8萬餘戶高峰後，呈現下降趨勢，已連續26季下滑。2024年第1季總訂戶數為447萬餘戶，再探調查以來新低，年減幅從去年第4季的2.81%擴大到3.31%。第3季戶數續降至438萬餘戶。





台灣民眾新聞來源

- 英國牛津大學路透新聞研究中心調查顯示，台灣民眾的新聞來源愈來愈不仰賴電視與印刷媒體，相對的，數位新聞的地位已經穩固。其中，YouTube (46%)是民眾取得新聞最重要的網路平台，Facebook (39%)居次。





媒體生態的大變遷

- 網絡化社會 / 隨選的時代
- 消費者(consumer)→創用者(prosumer)
- 消費者(consumer) → 策展者(curator)




AI 與媒體產業



AI專家看法

- OpenAI執行長山姆·阿特曼2023年底在一項演講中表示，我們正站在一個美麗新世界的門檻上。這是一個令人興奮但又不穩的地方。
- *Sam Altman : We stand on the threshold of a brave new world. It's an exciting yet precarious place to be.*


 英國劍橋大學
1,103,827 位關注者
10 個月 · 已編輯

With Sam Altman set to return as CEO of [OpenAI](#), what's next for generative AI? 🤖

Watch Sam's speech at [The Cambridge Union](#) from earlier this month, where he covered advice to young people in the face of an AI revolution and what differentiates OpenAI from other companies.

Sam Altman was at The Cambridge Union to accept the Stephen Hawking Fellowship, on behalf of the OpenAI Team upon whom it was bestowed.

[#AI](#) [#SamAltman](#) [#OpenAI](#)


CAMBRIDGE UNION
Sam Altman & OpenAI | 2023 Hawking Fellow | Cambrid...
复制链接
The Ch
Sam Altman
前往平台观看：[YouTube](#)

[Sam Altman & OpenAI | 2023 Hawking Fellow | Cambridge Union](#)
<https://www.youtube.com/>

來源：LinkedIn

物理學者看法

- 理論物理學家史蒂芬·霍金(Stephen Hawking)2016年於劍橋大學演講時表示，“簡言之，強大人工智慧的崛起將是人類有史以來發生過的最好事情，或是最糟糕的事。我們還不知道是哪個。”
- “In short, the rise of powerful AI will be either the best, or the worst thing, ever to happen to humanity. We do not yet know which.”



產業負責人看法

- 針對AI科技在新聞業的應用，新聞集團全球執行長羅伯特·湯姆森(Robert Thomson)於2023年9月指出，AI的來臨是「劃時代的」，並警告可能帶來失業「海嘯」。
- News Corp's global CEO, Robert Thomson, offered a stark warning against artificial intelligence in journalism, calling its arrival “epochal” and going on to warn against a potential “tsunami” of job losses that would come as a result.



Source : Sydney Morning Herald

新聞業的AI浪潮

- 改變遊戲規則的新科技(game changing technology)
- 新聞訊息的採集 / Newsgathering
- 新聞內容的製作 / News production
- 新聞產品的傳輸 / News distribution
- AI-assisted journalism / AI-assisted newsroom



Writing guidelines for the role of AI in your newsroom? Here are some, er, guidelines for that

What's the best way to follow how the news is changing?



新聞業的AI浪潮

Generative AI Applications in Film & TV Production

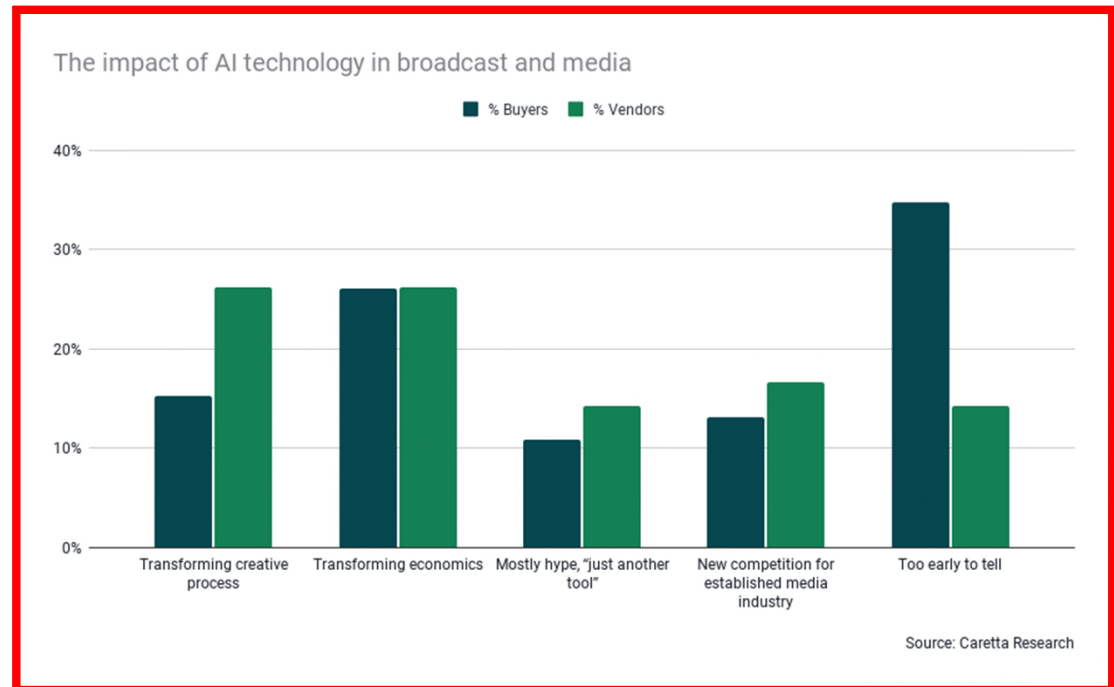
	Capability	Tools / Models	Description	Use Cases
Language	Text	ChatGPT (OpenAI), Claude 2 (Anthropic), LLaMA 2 (Meta), BLOOM (BigScience), Sudowrite	Generate, summarize, edit or translate text with multiple content purposes, styles and tones	Ideation (e.g., character, locations) or drafting script dialogue for screenplays and teleplays
	Conversational	Any LLM, Character AI	Develop interactive chatbots or agents capable of dynamic, personalized responses	Chatbots representing real actors or characters used as interactive agents in media applications, experiences or services
	Code	ChatGPT, Codex (OpenAI), Replit, Github Copilot, Tabnine, Amazon CodeWhisperer	Suggest or autocomplete relevant lines, functions or blocks of code across many different programming languages (e.g., Python, MEL) given natural language text prompts or development context	VFX development and pipeline scripting
Image	2D Image Generation & Editing	Midjourney, Stable Diffusion XL, DALL-E 3, Adobe Firefly, Nvidia Canvas	Generate or edit photorealistic or artistic images in multiple styles or variations from a natural language prompt or reference image (e.g., to blend or transfer style) and techniques such as in/outpainting	Concept art for storyboards with rapid iteration in VFX previsualization (e.g., environments, character design)
Video	Video Generation	Gen-2 (Runway), Pika Labs	Generate short digital videos from a text prompt, reference image or video	Creating animatics in VFX previsualization
	Video Editing*	Runway, Wonder Dynamics, Metaphysic, Vanity AI (MARZ), Charlatan (Digital Domain), TrueSync (Flawless), LipDub (MARZ)	Edit video with in/outpainting, style transfer and other techniques; faceswapping effects to replace or modify visages with other faces, facial features, expressions or articulations; "markerless" motion capture to seamlessly transfer actor movements to CG characters	VFX video editing tasks (e.g., rotoscoping, lighting, compositing), VFX digital face replacement for actor aging/de-aging, cosmetic changes; visual or lip dubbing to edit video footage for distribution in multiple languages or ratings; removing the need for on-set mocap hardware and bodysuits
	Avatar*	Synthesia, HeyGen, Soul Machines, DeepBrain AI	Create hyperrealistic talking avatar of a specific person (digital double or twin) or synthetic virtual beings	Creating digital doubles of actors or personalities as brand spokespeople, presenters or interactive applications
3D Model	3D Model Creation	GET3D (Nvidia), LDM3D (Intel), Genie (Luma AI), Instant NeRF (Nvidia)	Create 3D models from text prompt or from 2D images or video into neural radiance fields (NeRF) that produce realistic 3D representations of static objects and scenes	3D modeling of characters, objects or environments during previs or VFX production; with NeRFs, capturing "impossible" camera angles or creating 3D environments displayed in LED volumes for use in virtual production
Audio	Speech	Deepdub, ElevenLabs, Resemble AI, Papercup, Sonantic, Respeecher	Replicate (clone) a specific voice, including its unique natural speech patterns, pronunciation and emotional range; modify vocal tone or directly edit diction or inflection, including converting a voice (e.g., different age, gender, species); generate an entirely new synthetic voice	Voiceover narration or voice replacement; replicating actor voice or changing for studio effect (e.g., de-aging, posthumous use or if actor is unavailable); dubbing in multiple languages or accents while retaining original tone and expressiveness; editing, correcting or fine-tuning speech or actor delivery in post without need for reshoots
	Music	Stable Audio (Stability AI), Harmonai, MusicLM (Google), MusicGen (Meta), MuseNet (OpenAI), Jukebox (OpenAI), Amper (Shutterstock), Boomy	Generate, blend, autocomplete or refine music samples of melodies, instrumentation or other sonic elements in various musical genre styles, moods and lengths	Sounds, musical phrases or vocals used to produce songs, themes or scores
	Sounds	AudioGen (Meta)	Generate realistic sounds specific to objects (e.g., footsteps) or ambient environments (e.g., café)	Sound effects or foley adapted for onscreen events in scenes

NOTE: *SEVERAL SOFTWARE SYSTEMS IN VIDEO EDITING AND AVATAR CREATION OPERATE WITH A NUMBER OF AI MODELS TO OFFER CAPABILITIES THAT SPREAD ACROSS MORE THAN ONE AI MODALITY OR ABILITY AND THEREFORE PRESENT CHALLENGES FOR NEAT CATEGORIZATION



媒體與廣電產業調查 (1)

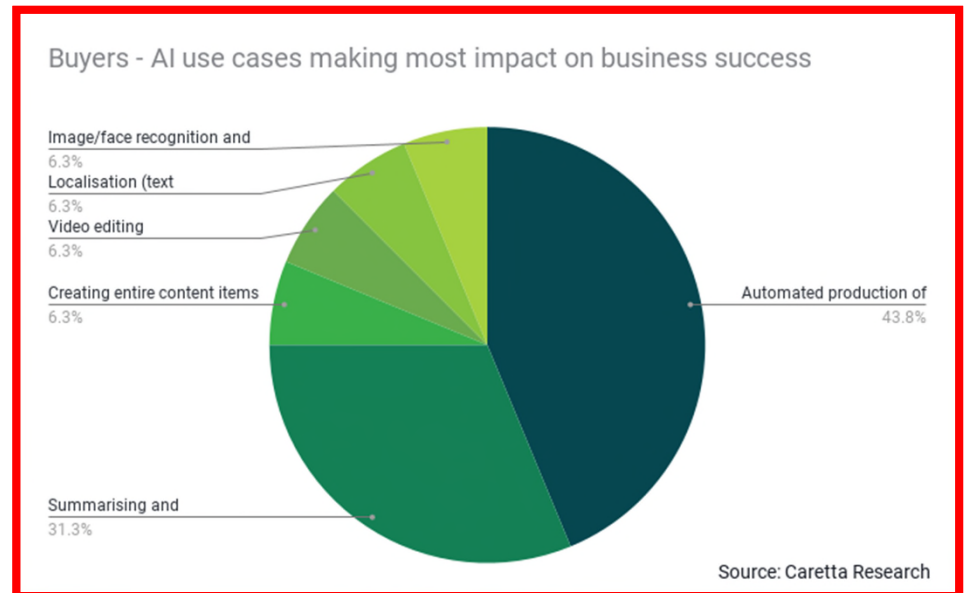
- 根據TVBEurope及TV Tech委託Caretta Research所進行的最新研究顯示，大多數媒體與廣電產業正面看待AI的應用，但對其實施尚採取「觀望」(“wait and see” approach)。
- 許多廣電產業目前在行政後勤作業中使用AI，85%的受訪者表示他們相信AI將對產業產生「重大影響」，特別是在企業轉型方面。





媒體與廣電產業調查 (2)

- 購買方認為AI將產生最大影響的業務依序是: 精彩片段與提要的自動化製作(44%)、摘要與轉錄(語音轉文字)(33%)。
- 61%的買家和賣家表示, AI會取代日常營運工作, 而18%的買家認為AI會取代或協助複雜的創意工作。
- 約69%的買方受訪者表示, AI可以將員工從例常、重複或平凡的工作中解放出來, 而63%的受訪者表示AI將使工作變得更輕鬆、更快速。

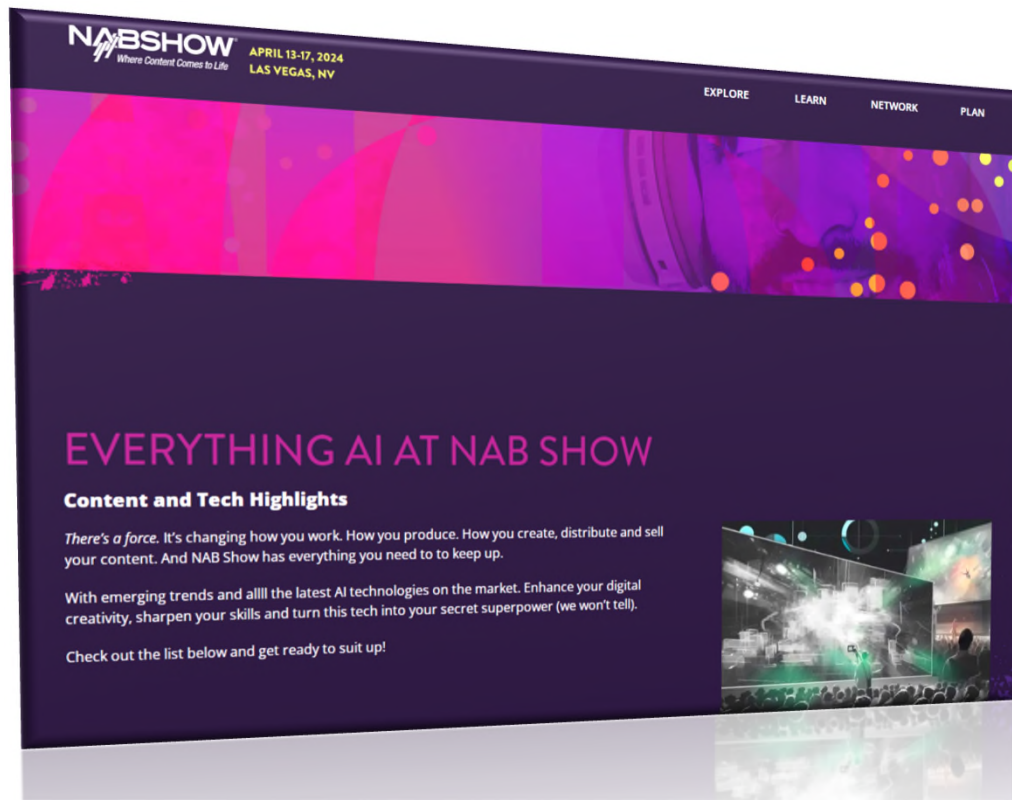


NAB Show 2024



NAB Show 2024

- 近200家廠商展示人工智慧/機器學習工具和技術，超過150個會議以人工智慧為主題。
- 人工智慧及創作者經濟(Creator Economy)成為2024年NAB展會的焦點。



NABSHOW Where Content Comes to Life

APRIL 13-17, 2024
LAS VEGAS, NV

EXPLORE LEARN NETWORK PLAN

EVERYTHING AI AT NAB SHOW

Content and Tech Highlights

There's a force. It's changing how you work. How you produce. How you create, distribute and sell your content. And NAB Show has everything you need to to keep up.

With emerging trends and allll the latest AI technologies on the market. Enhance your digital creativity, sharpen your skills and turn this tech into your secret superpower (we won't tell).

Check out the list below and get ready to suit up!

Source : NAB Show

NAB Show 2024

- 今年的主題：**擁抱人工智慧的未來。**
- **創造**。我們如何釋放 GenAI 在內容創作上的潛能，重新想像我們所知道的創意？
- **連結**。我們如何利用混合智慧重新定義內容傳送的未來，以實現更為快速、高品質的串流和廣電服務？
- **變現**。我們如何充分開發 GenAI 和智慧科技的潛能來推動廣告中閱聽眾參與和互動的新時代？

TRENDS & INSIGHTS ABOUT ALL THINGS BROADCAST & DIGITAL

Q&A Series

Co-located with NAB Show, the RTDNA Leadership Lab is centered around leadership skills that can be applied to your newsroom. President, Dan Shelley, chatted with us about what the radio industry is facing and what important conversations to have at NAB Show.

Learn more about the [RTDNA Leadership Lab](#), taking place on Saturday, April 13.



應用1: Octopus 12

➤ Octopus 12 是一個新聞編輯室系統，將新聞製作統合在單一平台。結合 ChatGPT 及 Octopus 12 的改良版，可在創紀錄的時間內撰寫、編輯、事實查核與總結文章。此外，可支援第三方 AI 引擎，包括臉部辨識和語音轉文字功能。

The image displays the Octopus 12 News Production System interface. At the top, the text "OCTOPUS 12" is prominently displayed in white on a dark blue background, with "News Production System" written below it. A green button labeled "REQUEST AN ONLINE DEMO" is centered. Below this, three panels illustrate the system's capabilities: "Octopus Client" shows a laptop screen with a news management interface; "AI Assistant" shows a tablet displaying a chat interface with a news article snippet; "On-Prem or Cloud Implementation" shows a person working at a desk with a laptop and a potted plant.

Source :
Octopus 12



應用2: Twelve Labs

➤ Twelve Labs 是一個 AI 影片分析工具，它是像人類一樣理解影片的多模態 AI，可為任何應用程式帶來類似人類的視訊理解。包含搜尋、標記與分類等三大功能。

The screenshot displays the Twelve Labs website. At the top, the navigation bar includes the Twelve Labs logo, menu items for Product, Research, Developers, Blog, and Company, and buttons for Log In and Try on Playground. The main content area features the headline "Multimodal AI that understands videos like humans" and a sub-headline "Bring human-like video understanding to any application, whether you have terabytes or petabytes of video." A "Try on Playground" button is positioned below the text. On the right side, a video analysis interface is shown, featuring a search bar with the text "Receiver catches deep ball for touchdown", a video player with a "High" label, and a code editor at the bottom.

Source :
Twelve Labs



應用3: Opus Clip

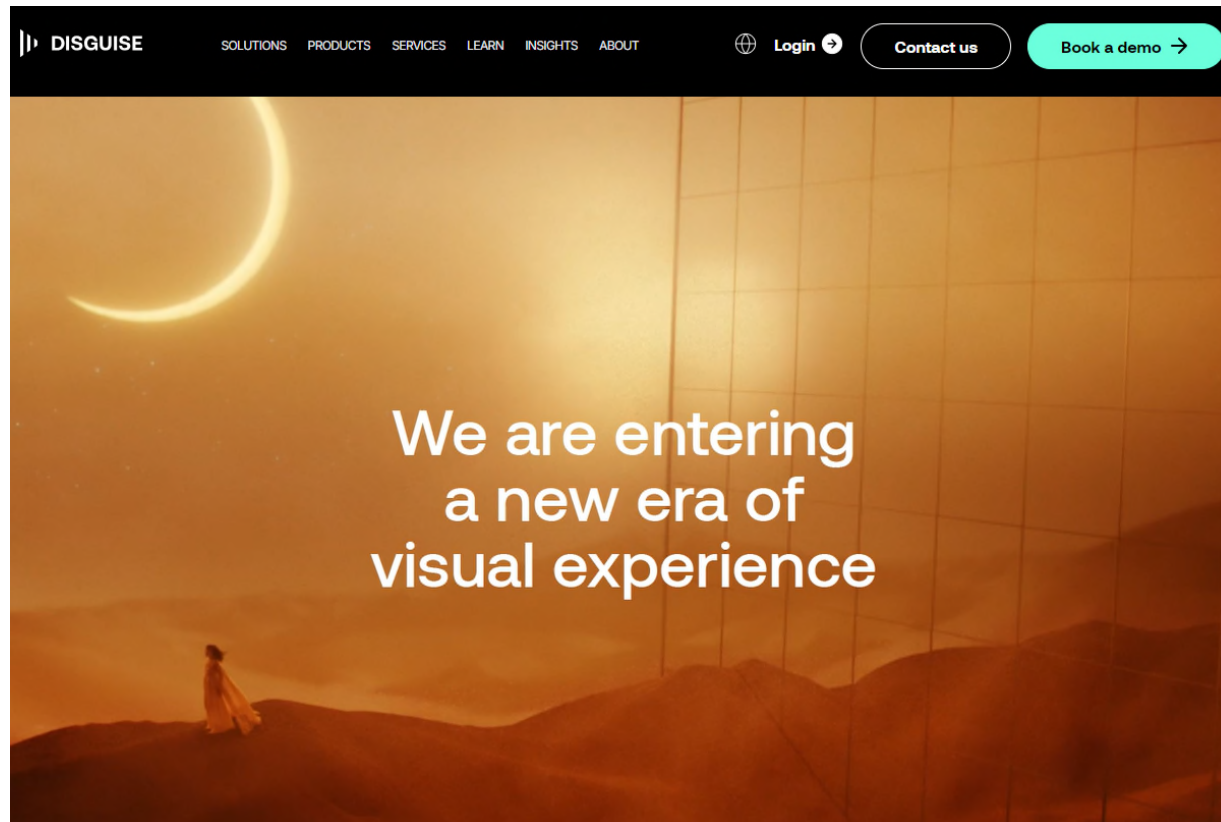
➤ Klap與Opus Clip都是AI驅動的影片編輯工具，可將長版影片自動生成許多病毒式短片，提供AI生成的字幕，並擴大觸及範圍，將Youtube影片自動轉換為Reels、TikTok 與 Shorts。

The screenshot shows the Klap website interface. At the top left is the Klap logo, followed by 'Resources' and 'Pricing' links. At the top right is a 'Log in' link. Below the navigation is a testimonial bar with three profile icons and the text 'Trusted by 650k+ happy users'. The main headline reads 'Turn videos into viral shorts', with 'viral' in black and 'shorts' in purple. Two video thumbnails are shown: one with a '2h49' duration and another showing a woman speaking. Below the headline is the subtext 'Create TikToks, Reels, Shorts from your long videos in just one click.' At the bottom is a large input field with a placeholder 'Paste YouTube link or drop a file' and a 'Generate' button. Below the input field is the text 'Try for free. No credit card required.'



應用4: Disguise

➤ Disguise 是一個由軟體、硬體和服務高度整合的虛擬製作平台，可在電影、電視和廣告中實現即時的、沉浸式的視覺體驗。



應用5: ARwall



ABOUT US

We're an award-winning XR technology and services company, leaders in virtual production (VP), XR software development and immersive AR experiences. Our diverse multi-disciplinary team comes from TV, VFX, design, mobile, games, and advertising. ARwall Productions, our production division, incorporates our tech into a full range of VP resources, offering co-production, creative direction, project management, virtual/real set design,

ARFX STUDIOBOX

Create high-quality professional productions from the comfort of your own home or small studio, at a fraction of the cost. Step into your next movie scene with the ARFX StudioBox.

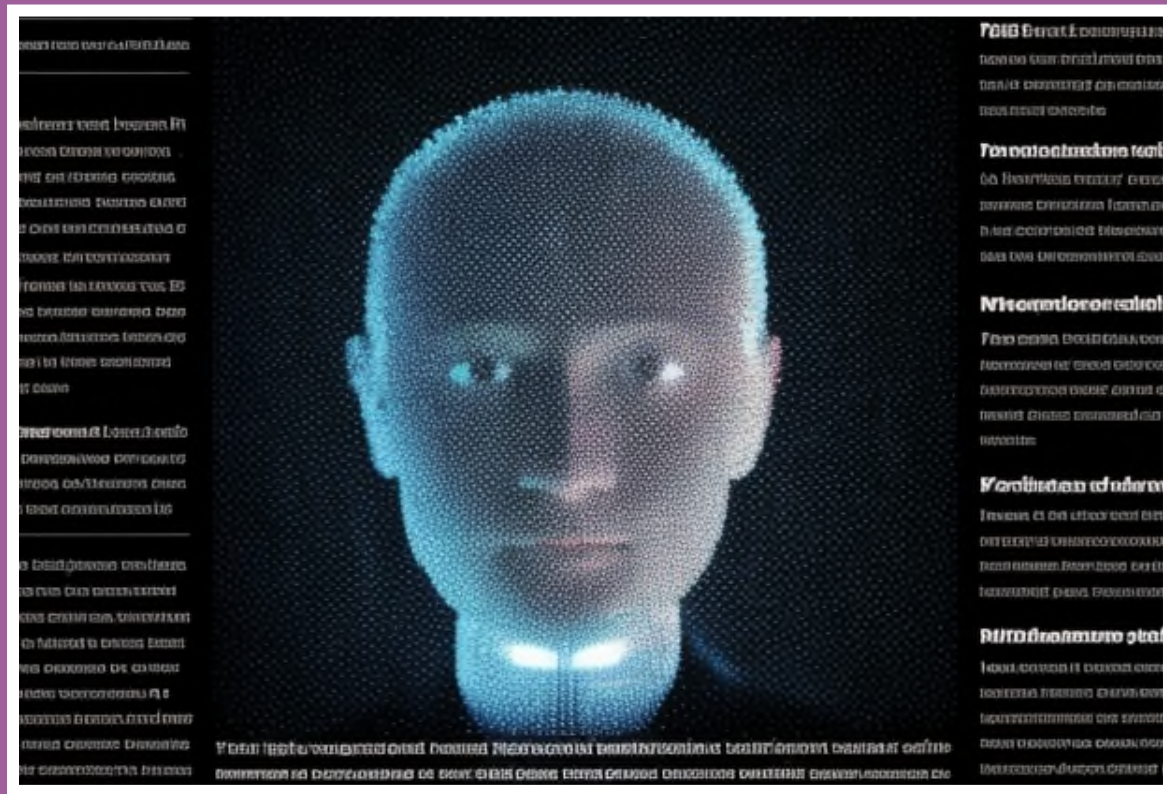
[Learn more](#)

Bragging Rights

As pioneers and first movers in real-time XR filmmaking and in-camera effects, ARwall's award-winning patented tech has shaken an industry.

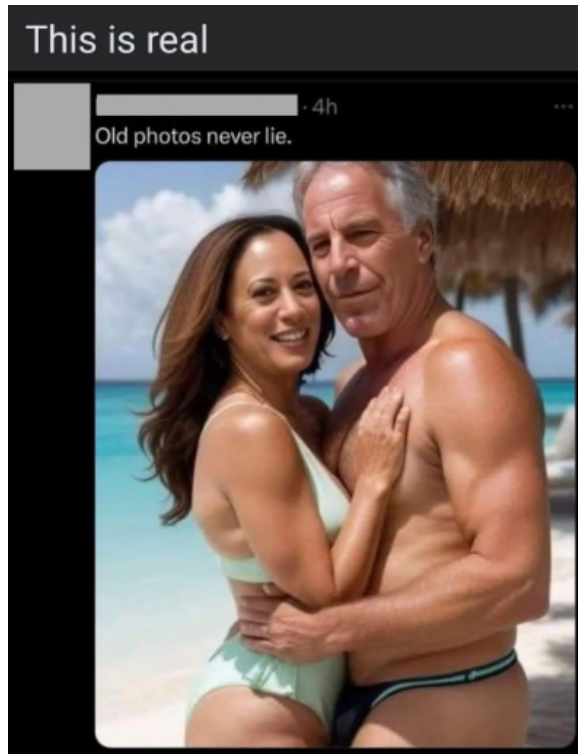
[Learn more](#)

如何面對AI時代





案例1：美國大選中的假訊息



@amuse

SHOCK: After the cancellation of the Taylor Swift concert being targeted by ISIS, Swifties have determined they want a strong leader in the White House. The Swifties For Trump movement is real!

This is real

Old photos never lie. 4h

SATIRE

SWIFTIES TURNING TO TRUMP AFTER ISIS FOILED TAYLOR SWIFT CONCERT

sponsored by
JOHN MILTON ALL FREEDOM FOUNDATION
johnmiltonfreedomfoundation.com

SUBSCRIBE TO AMUSE ON X

11:26 AM · Aug 17, 2024 · 364K Views



案例2: 俠盜一號的數位分身

'Rogue One': How Visual Effects Made the Return of Some Iconic 'Star Wars' Characters Possible

The movie's visual effects mark a further evolution in the use of digitally created actors.

BY CAROLYN GIARDINA DECEMBER 16, 2016 6:40PM



How 'Rogue One' Brought Back Familiar Faces

Share full article 17



來源 : The Hollywood Reporter/The New York Times

AI帶來的影響

● 正面

- 增強創意與創新
- 降低成本與可近性
- 品質改進與效率
- 消費者個人化服務
- 創造營收與業務創新

● 負面

- 對真實與原創的威脅
- 倫理與法律影響
- 媒體價值鏈的破壞
- 資料與演算法的誤用及濫用
- 觀眾的疏遠

How AI Can Change the Media, Film and TV Industry

ILARIA GNAGNARELLA 21 FEB 2024

Share this article on:



來源：mediamatch / Ilaria Gnagnarella



邁入AI時代的三個取向

公視基金會AI使用準則

AI的應用日趨廣泛與穩定，有鑒於AI科技的應用可能對公眾與社會造成負面影響，並衍生
別，以為各單位同仁運用AI技術與工具之基礎，進而有助於負責任(responsible)及可信賴(tru
存標本目的在於提升傳播品質，健全資訊生態，讓媒體更有效地達成告知、教育與娛樂等功能，
技能以可互補、負責任的方式開發及使用。

AI科技互動時，必須能保有充分而有意義的自主空間，意味人與AI之間的功能分配應更
過程中的決策與監督地位。

等對人類健康產生不利影響，因此操作必須安全可靠，技術必須強勁穩健，
以開發與使用。

的公正分配，讓個人及群體免於偏見、歧視和

制訂準則
Develop
guidelines



實際應用
put into
practice



外部創業
launch new
ventures





我國的經驗：準則

公視AI創新不斷，與NHK合作研究手語公共服務 同時推出AI使用準則，避免科技誤用帶來傷害
2023-09-01



迎向科技浪潮 中央社發布生成式AI使用規範與指南

2023/9/1 09:19 (9/1 09:38 更新)



《報導者》 AI 使用守則

www.twreporter.org



我國的經驗：創業





AI轉型(AI Transformation)

- IBM：AI轉型是一種策略性作為，企業採用AI並將其整合到其營運、產品與服務之中，以推動創新、效率與成長。AI轉型透過使用一系列AI模型和其他技術來優化組織工作流程，以創建持續演進與敏捷反應的業務。
- 一般而言，AI轉型是一項更全面的工作，而不是利用新技術簡單複製現有業務流程。精心設計的AI轉型策略能夠創造全新的經營方式、提高生產力並促進永續成長。為了實現和擴展該技術，AI轉型通常需要企業改變其策略和文化。





AI在數位轉型中的角色

The Role of AI in Digital Transformation

01

Facilitating more effective decision-making processes

Enhanced profitability

02

03

Having a holistic view of the customer

Enhanced analytics

04



數位轉型的原則

- 數位優先，以人為本

(digital first / people first)

- 有溫度的轉型：不為轉型而轉型
- 有共識的轉型：由下而上的轉型
- 無落隊的轉型：全事業體的轉型
- 無英雄的轉型：分享協作的轉型

It's time for a change

公視VTuber



換個腦袋：數位思維



繫乎人心之所向

- 機器人將接管新聞業嗎？AI是純粹的美好科技嗎？顯然不能那麼樂觀。AI若要為惡，似乎具備更大的破壞力。
- 美國皮優研究中心專家意見調查結論；人類使用科技時選擇為善或為惡，將大大改變世界。
- 如何讓AI為人類帶來更好的新聞業，而非換來一場災難，顯然必須慎之於始，以AI倫理駕馭AI科技。

AI and journalism: What's next?

Expert David Caswell on why generative AI may transform the news ecosystem and how journalists and news companies should adapt



敬請指教

