



# 電視事業經營實務

胡元輝

公視基金會董事長

A top-down view of a wooden desk. In the upper left, a newspaper is partially visible with the word 'NEWS' in large black letters. Below it, a tablet displays a news article with the headline 'GLOBAL ECOLOGY: IT'S NOT TIME TO FALL BACK' and a photograph of a large industrial structure. To the right of the tablet is a blue pen. In the upper right corner, a white cup filled with dark coffee sits on a matching saucer. The background is a light-colored, textured surface.

# 從AI繪圖談起











# Sony世界攝影大賽得獎AI作品



## Photographer admits prize-winning image was AI-generated

German artist Boris Eldagsen says entry to Sony world photography awards was designed to provoke debate





AllYourTech 

@blovereviews



Breaking: Elon Musk is now dating GM CEO Mary Barra 



下午9:52 · 2023年3月26日 · 1,422.7萬 次查看

1,910 則轉推 733 引用 2.9萬 個喜歡 538 個書籤



**Eliot Higgins**

@EliotHiggins



Making pictures of Trump getting arrested while waiting for Trump's arrest.

[翻譯推文](#)



上午5:22 · 2023年3月21日 · **652.2萬** 次查看

**5,468** 則轉推   **2,368** 引用   **4萬** 個喜歡   **3,252** 個書籤

 **Illia Ponomarenko**   @IAPonomarenko

Meanwhile, Russian Z-channels, for the lack of a better idea, are spreading this AI-generated image as **BREAKING NEWS EXPLOSIONS AT THE PENTAGON RIGHT NOW.**



12:34 AM · May 23, 2023



# Photoshop新版本可輕鬆生成假圖像



● 您擔心AI繪圖以假亂真嗎？



請看看哪裡有問題？



# 請看看哪裡有問題？

## AI製圖破綻



1. 缺乏葉子或花瓣的紋路等實體細節



2. 主體異常清晰，比起照片更像是繪畫



3. 前後兩朵花同樣清晰，景深不自然

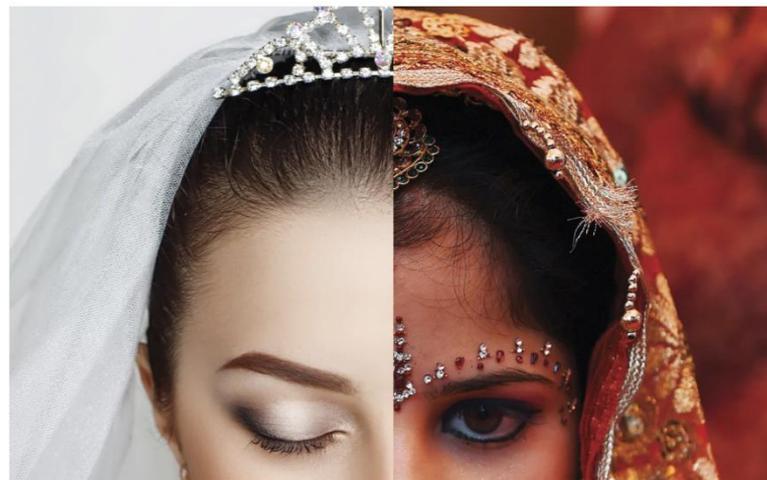
# AI繪圖的資料庫問題

- AI可能造成性別歧視與種族主義問題。如在ImageNet之類的大型影像資料庫上傳穿著白紗的美國新娘照片，會得到新娘、婚禮、禮服等描述。若上傳印度傳統新娘禮服照片則會得到表演藝術、戲服等描述。
- 45%資料來自美國，中國與印度資料僅佔3%。

## AI can be sexist and racist – it's time to make it fair

Computer scientists must identify sources of bias, de-bias training data and develop artificial-intelligence algorithms that are robust to skews in the data, argue James Zou and Londa Schiebinger.

[James Zou](#) & [Londa Schiebinger](#)



Algorithms trained on biased data sets often recognize only the left-hand image as a bride. Credit: Left: iStock/Getty; Right: Prakash Singh/AFP/Getty

來源：Nature官網

# AI繪圖的資料庫問題

- 運用Stable Diffusion作圖，描述詞分別為Tsai Ing-wen、Taiwan president 及 Joe Biden、U.S. president



# 辨識AI作圖的數位工具

HIVE MODERATION

Home Products Insights Case Studies Documentation

Go To Dashboard Request a Demo

They said it couldn't be solved. We solved it.

Automated content moderation solutions with human-level accuracy

CONTACT US



The screenshot shows the Hive Moderation website interface. It features a navigation bar with 'Home', 'Products', 'Insights', 'Case Studies', and 'Documentation'. There are two buttons: 'Go To Dashboard' and 'Request a Demo'. The main content area displays the headline 'They said it couldn't be solved. We solved it.' followed by a sub-headline 'Automated content moderation solutions with human-level accuracy' and a 'CONTACT US' button. Below this, there are three image examples with AI moderation overlays: 1. A group of people sitting on a bench with a label 'general\_not\_nsfw 0.98'. 2. A woman working at a desk with a label 'no\_hate 0.99'. 3. A hand holding a smartphone with a label 'gun\_in\_hand 1.00'.

optic AI or Not Blog

SIGN IN SIGN UP

## AI or Not

Determine whether an image has been generated by artificial intelligence or a human

Drag and drop  
or **upload** your image

We support jpeg, png, webp, gif, tiff, bmp.  
10Mb of maximum size.

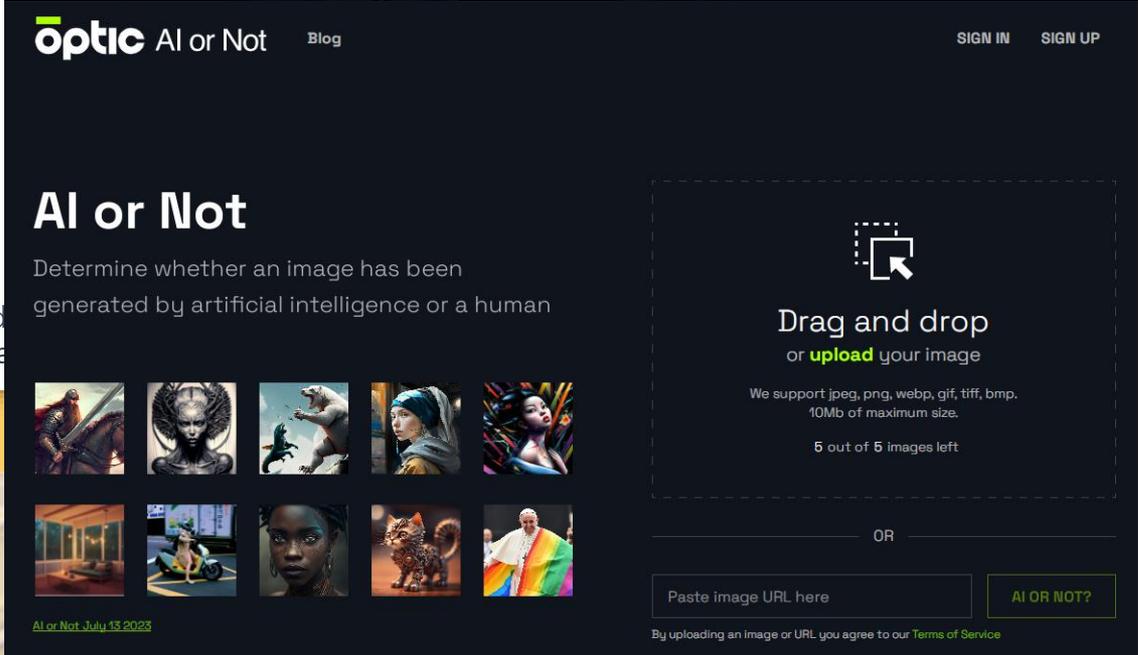
5 out of 5 images left

OR

Paste image URL here

AI OR NOT?

By uploading an image or URL you agree to our [Terms of Service](#)



The screenshot shows the Optic AI or Not website interface. It features a navigation bar with 'optic AI or Not' and 'Blog'. There are two buttons: 'SIGN IN' and 'SIGN UP'. The main content area displays the headline 'AI or Not' followed by a sub-headline 'Determine whether an image has been generated by artificial intelligence or a human'. Below this, there is a large dashed box containing a 'Drag and drop or upload your image' instruction. The supported image formats are listed as 'jpeg, png, webp, gif, tiff, bmp' with a '10Mb of maximum size' limit. A progress indicator shows '5 out of 5 images left'. Below the dashed box, there is an 'OR' separator and a 'Paste image URL here' input field. To the right of the input field is a button labeled 'AI OR NOT?'. At the bottom, there is a footer with the text 'By uploading an image or URL you agree to our Terms of Service'.

# 小玉製作深偽影片

## 小玉無所不在！公開自己臉書照片就可能被Deepfake？

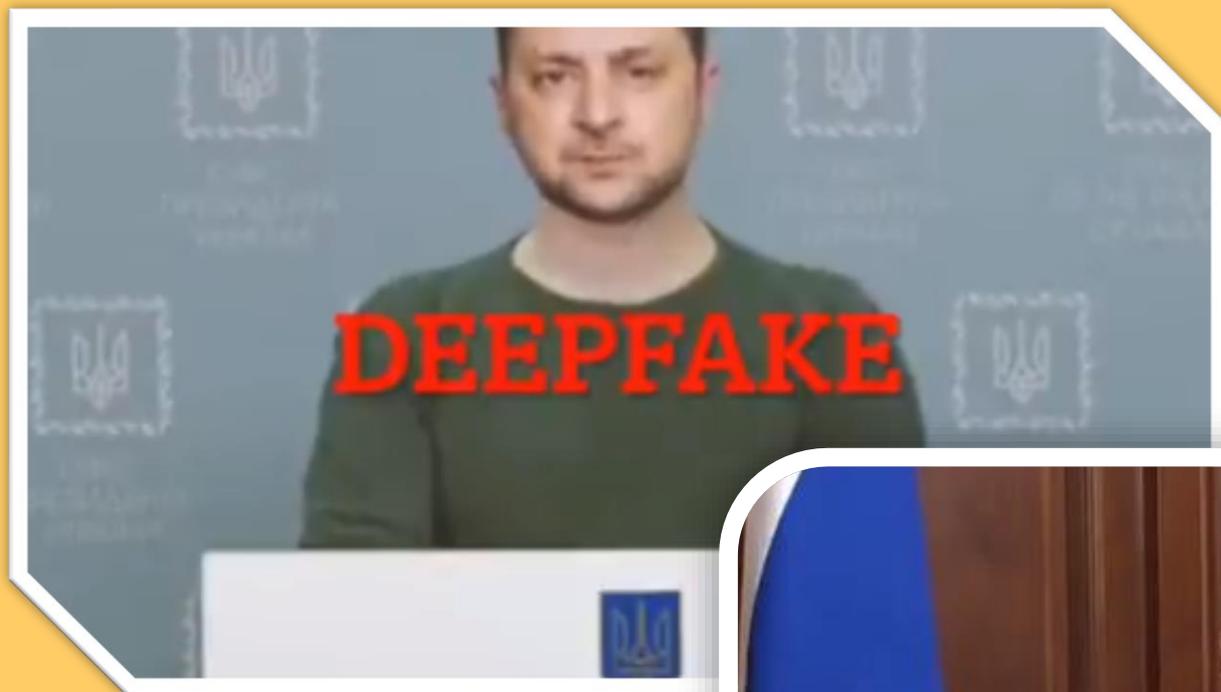
網紅小玉以Deepfake將女性公眾人物「換臉」至色情影片，而遭到警方逮捕。近年來，Deepfake技術已不是新聞，金融犯罪、假新聞、民主崩潰都與它有關。專家透露，現在許多色情群組裡的苦主已不僅限名人，只要有臉書、IG，就可能成為下一個受害者？



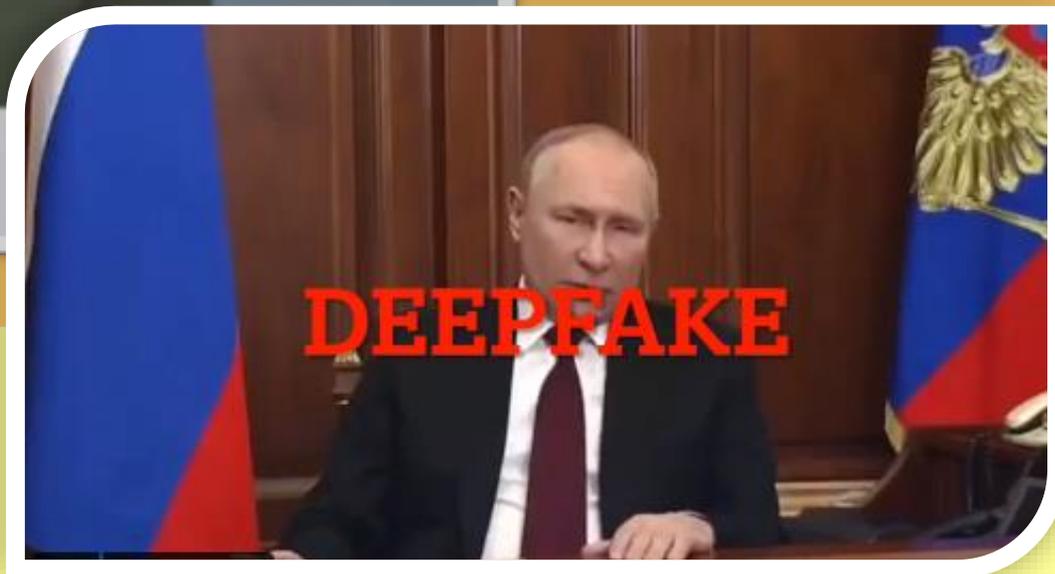
圖片來源：犯罪者網紅小玉與受害者之一的高雄市議員黃捷。

# 深偽(Deepfake)影片問題

澤倫斯基命令部隊投降



普丁呼籲俄軍投降



# 新科技與媒體

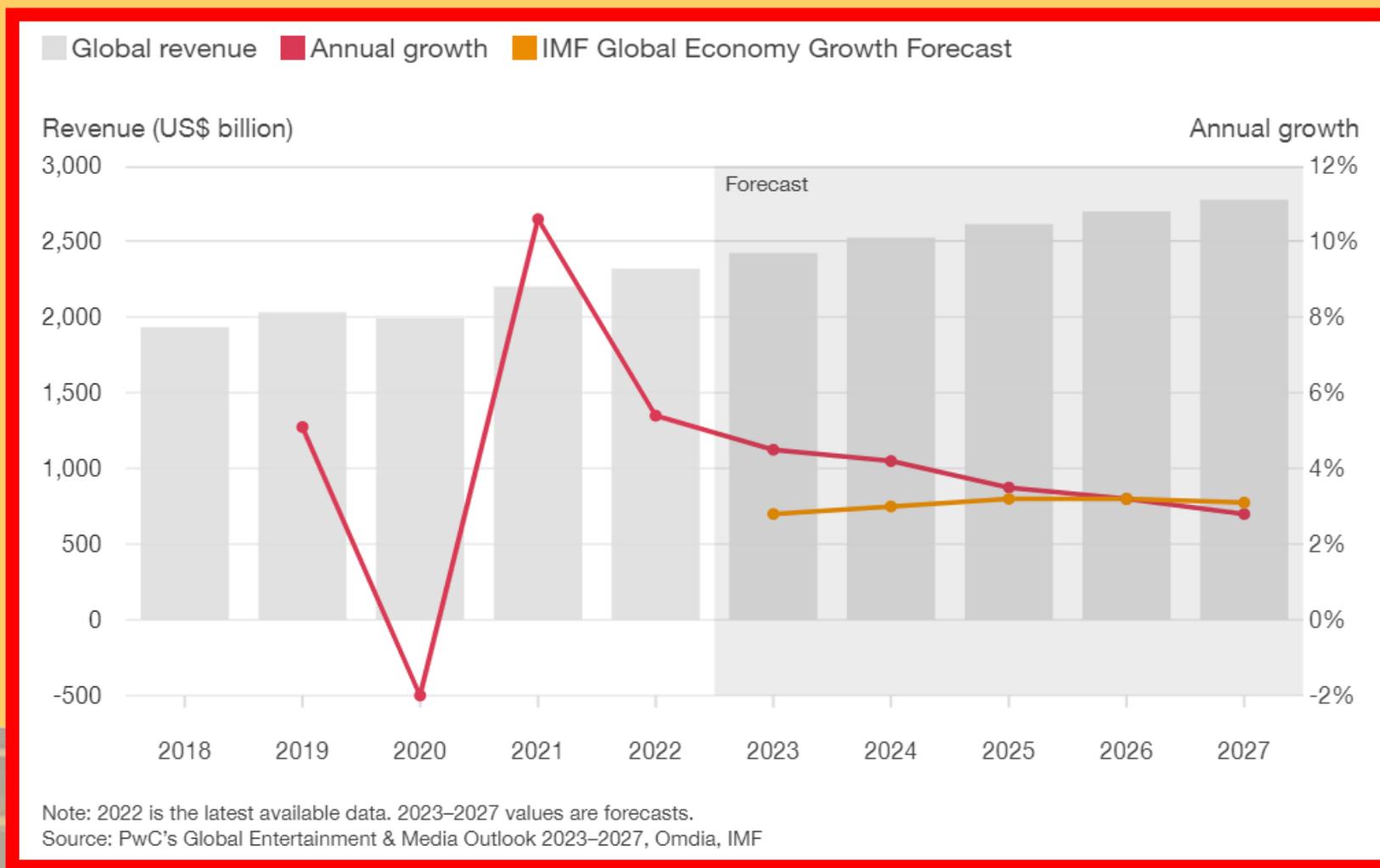
- 媒體業向來與科技變革關係密切，既承受衝擊，亦從中取利，AI只是最新的科技衝擊之一而已。
- 創新科技往往正負面作用俱存。例如AI可以幫助新聞工作者搜尋與發現故事、分析與消化材料、加速與精準傳播；可以協助新聞業提高生產力，讓新聞工作者有更多時間專注於採訪與報導原創內容，但也可以被用來簡化查證、複製偏見、扭曲事實，以及貶低勞動價值、壓抑人的尊嚴。
- 我們可以從過往經驗中得到何種啟示，來降低科技運用的負面作用？



A top-down view of a wooden desk with various items: a newspaper with 'NEWS' and 'GLOBAL ECOLOGY: IT'S NOT TIME TO FALL BACK' headlines, a tablet displaying the same headline, a smartphone, a blue pen, and a white cup of coffee. A central text box is overlaid on the scene.

# 全球電視產業生態

# 全球娛樂與媒體總營收統計及預測



來源: PwC's Global Entertainment & Media Outlook 2023–2027

# 全球娛樂與媒體總營收統計及預測

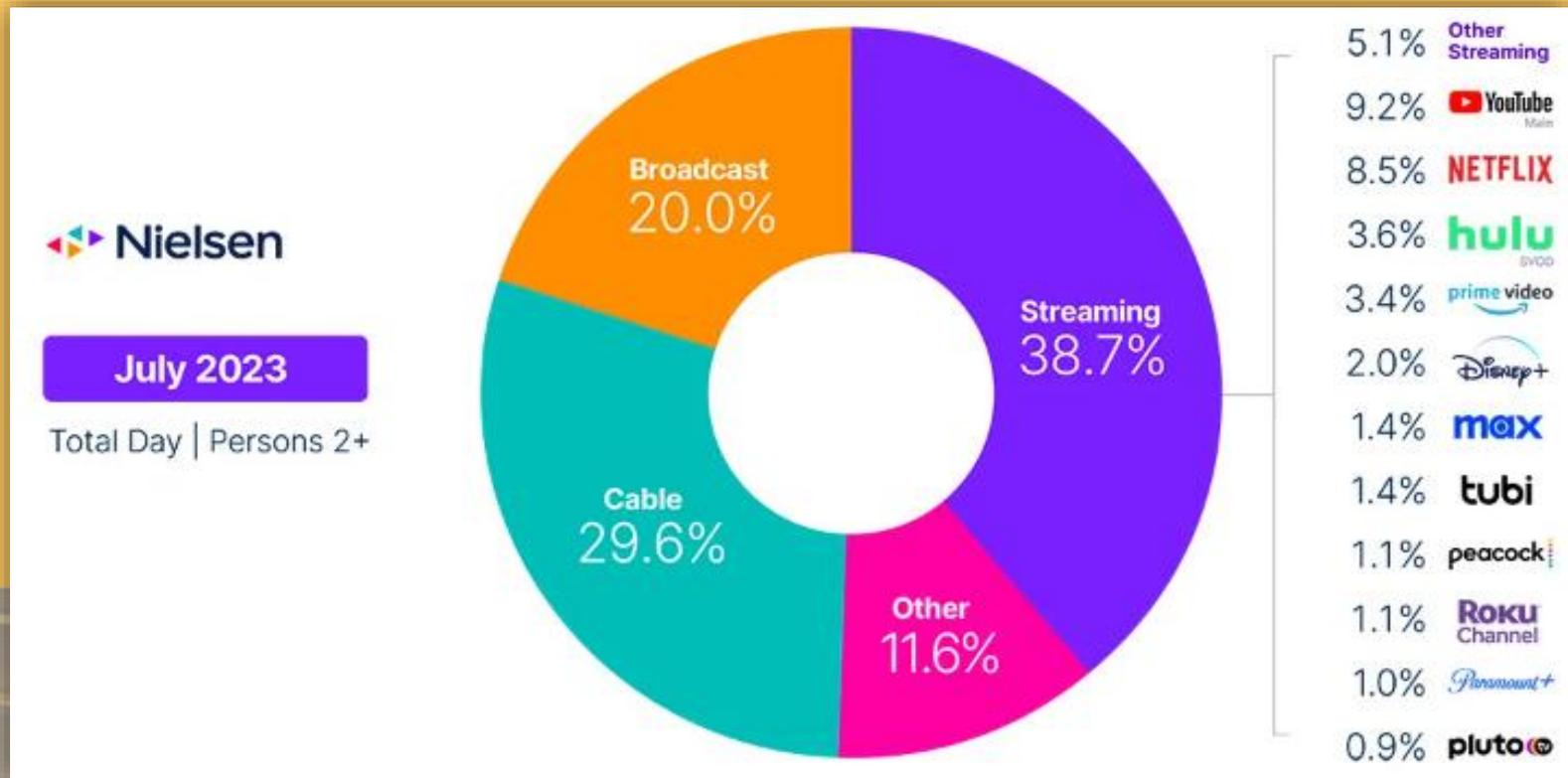
- 2022年全球娛樂暨媒體業(E&M)營收年增5.4%，總額2.3兆美元，即使全球經濟和各大產業逐漸從疫情中復原，但2022年E&M產業營收年增率仍較2021年的10.6%明顯收斂。
- 全球E&M產業未來五年營收將持續成長，並於2027年站上2.8兆美元。不過，受消費者支出縮水影響，未來五年E&M的營收年增率仍有逐年下滑趨勢。
- E&M業者開始透過新興科技的使用來探索新機會，其中又以運用人工智慧（AI）作為提升娛樂、媒體內容創作效率的工具，為最主要的突破之一

來源:資誠聯合會計師事務所

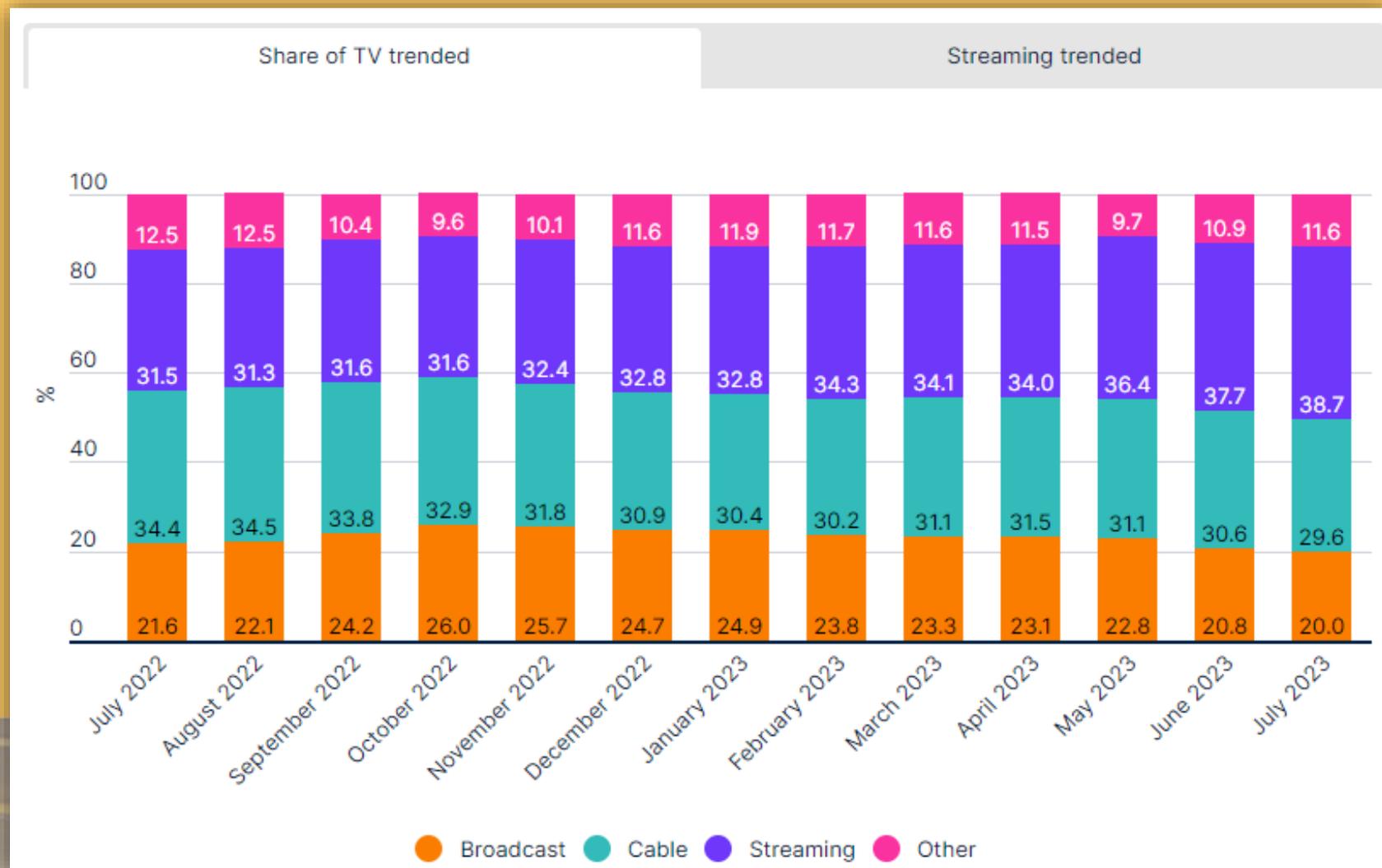


# 美國電視市場

- 根據尼爾森市調公司統計，美國串流媒體(streaming)在今年7月已佔美國人電視總觀看時間的38.7%，創歷史新記錄，而聯播網及有線電視的收視佔有率則首次跌破50%。

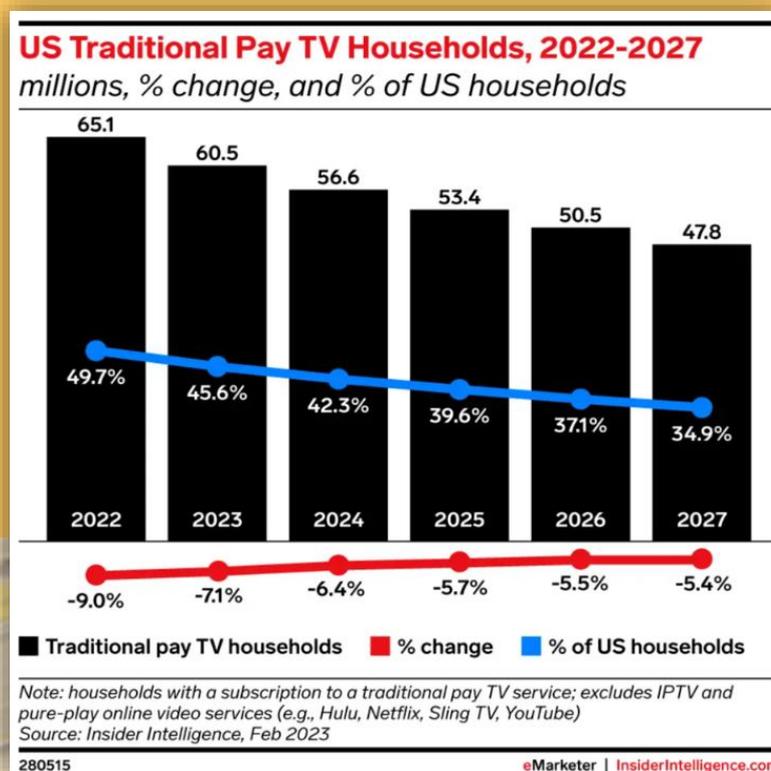


# 美國電視市場



# 美國有線電視衰退情形

- 2016至2021年間，美國有線電視失去超過25%的美國家庭。2022年，訂閱傳統付費電視服務的美國家庭比例首次降至一半以下。根據Insider Intelligence預測，2027年底，比例將下降至三分之一稍多。



A top-down view of a wooden desk with various items: a newspaper with 'NEWS' and 'GLOBAL ECOLOGY: IT'S NOT TIME TO FALL BACK' headlines, a tablet displaying the same headline, a smartphone, a blue pen, and a white cup of coffee. A central text box is overlaid on the scene.

# 台灣電視產業生態

# 台灣娛樂與媒體總營收統計及預測

- 2022年臺灣娛樂暨媒體市場營收年增5.3%，總額186億美元，比2021年11.1%的年增率降溫許多。
- 2022年臺灣規模最大的E&M產業為網際網路服務，占整體E&M營收31.5%，其他依序為電玩遊戲與電競(18.0%)、網路廣告(15.1%)、傳統電視(14.6%)及OTT影音(9.1%)，這五大E&M產業合計貢獻臺灣整體E&M營收近90%。
- 2022年臺灣成長最快的E&M產業為OTT影音(營收年增51.5%)。展望未來，2023年臺灣娛樂暨媒體業營收預估將年增4.1%，未來五年的年複合成長率為3.1%。

來源:資誠聯合會計師事務所



# 台灣娛樂與媒體總營收統計及預測

臺灣娛樂暨媒體市場營收 (單位：百萬美元)

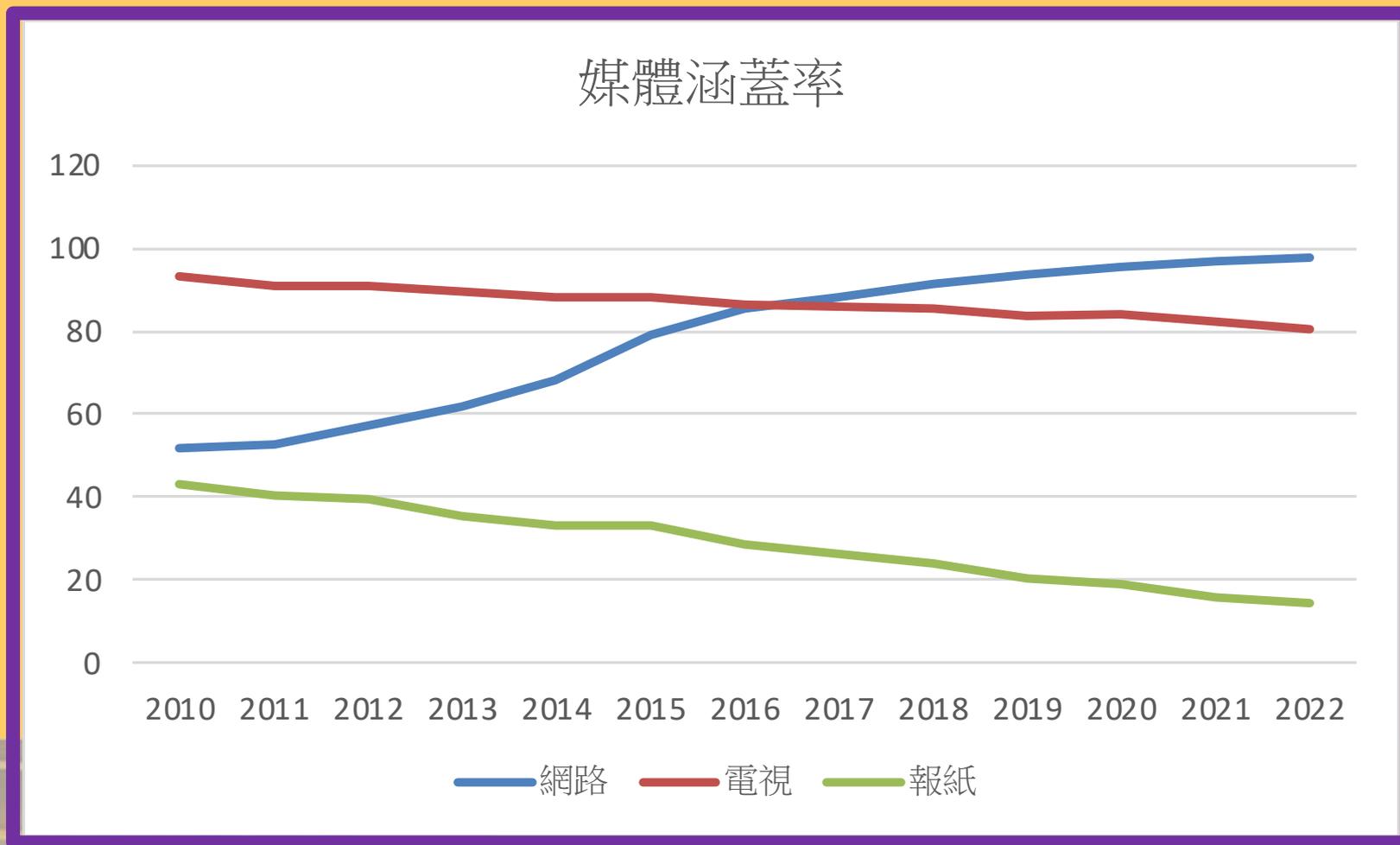
產業類別	2018	2019	2020	2021	2022E	2023F	2024F	2025F	2026F	2027F	2022-27 CAGR
B2B 中介媒體	307	312	251	261	296	310	322	331	339	345	3.1%
電影	368	348	176	170	196	249	285	310	321	324	10.6%
網際網路服務	6,083	5,860	5,812	6,230	6,160	6,299	6,444	6,576	6,702	6,823	2.1%
網路廣告	1,494	1,866	2,219	2,726	2,955	3,157	3,364	3,564	3,749	3,903	5.7%
音樂與廣播	287	303	247	252	289	319	337	350	360	367	4.9%
報紙、消費性雜誌和圖書	1,436	1,388	1,240	1,272	1,273	1,269	1,269	1,270	1,272	1,276	0.1%
OTT 影音	522	627	856	1,179	1,787	2,044	2,222	2,347	2,442	2,521	7.1%
家外廣告	172	181	165	185	211	221	230	237	244	249	3.4%
傳統電視	2,795	2,749	2,609	2,798	2,863	2,847	2,850	2,820	2,806	2,763	-0.7%
電玩遊戲與電競	2,302	2,723	3,038	3,474	3,528	3,694	3,886	4,093	4,295	4,464	4.8%
<b>臺灣娛樂暨媒體市場總營收</b>	<b>15,767</b>	<b>16,356</b>	<b>16,613</b>	<b>18,547</b>	<b>19,557</b>	<b>20,410</b>	<b>21,210</b>	<b>21,897</b>	<b>22,529</b>	<b>23,035</b>	
<b>扣除重複計算後的總數</b>	<b>15,280</b>	<b>15,718</b>	<b>15,871</b>	<b>17,627</b>	<b>18,562</b>	<b>19,330</b>	<b>20,044</b>	<b>20,651</b>	<b>21,207</b>	<b>21,673</b>	<b>3.1%</b>

備註：統計總數為含重複計算的初步加總，因此可能不等同個別次產業的總和。

資料來源：PwC 全球娛樂暨媒體業展望報告 2023-2027, Omdia

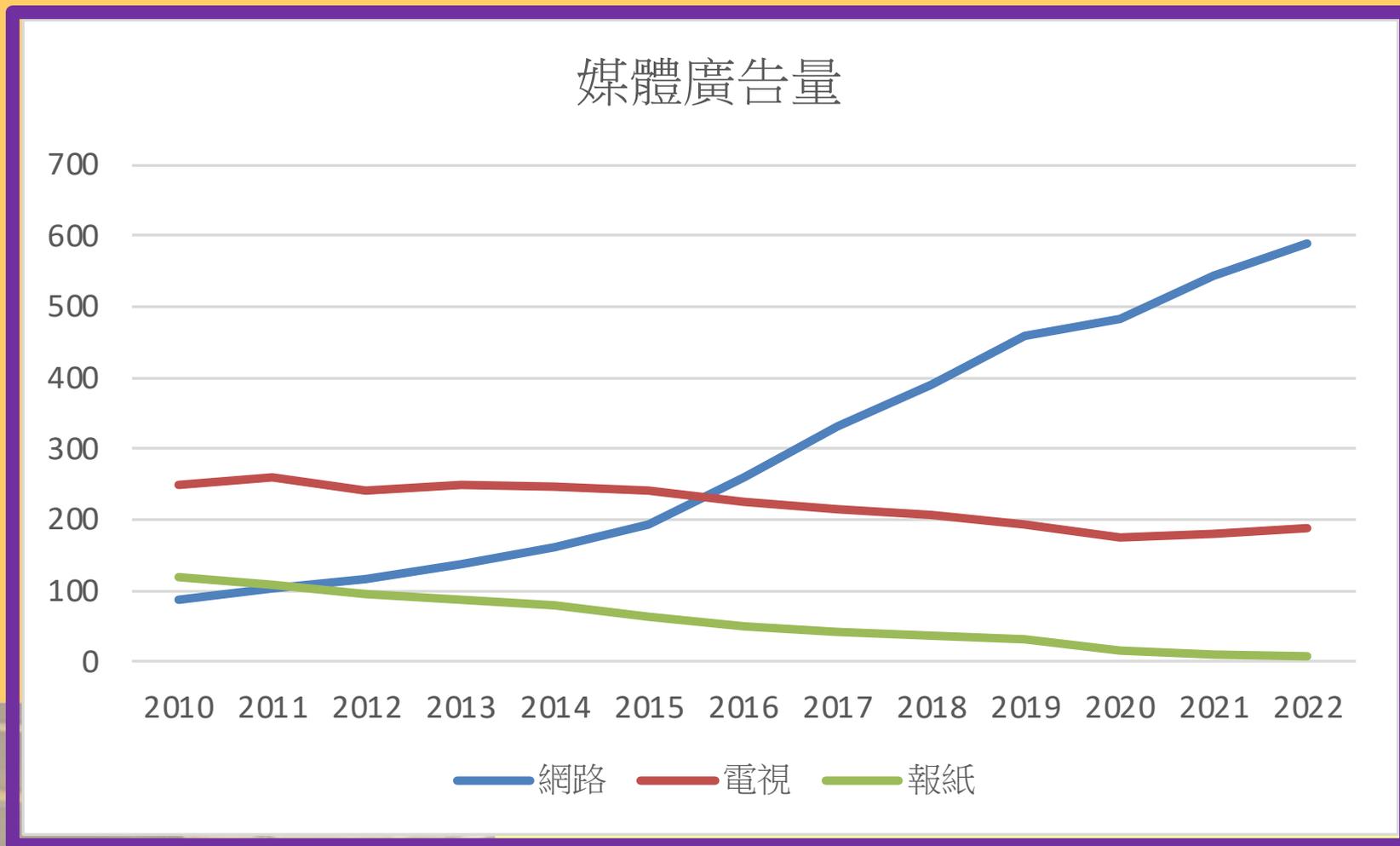
來源:資誠聯合會計師事務所

# 台灣媒體涵蓋率變化



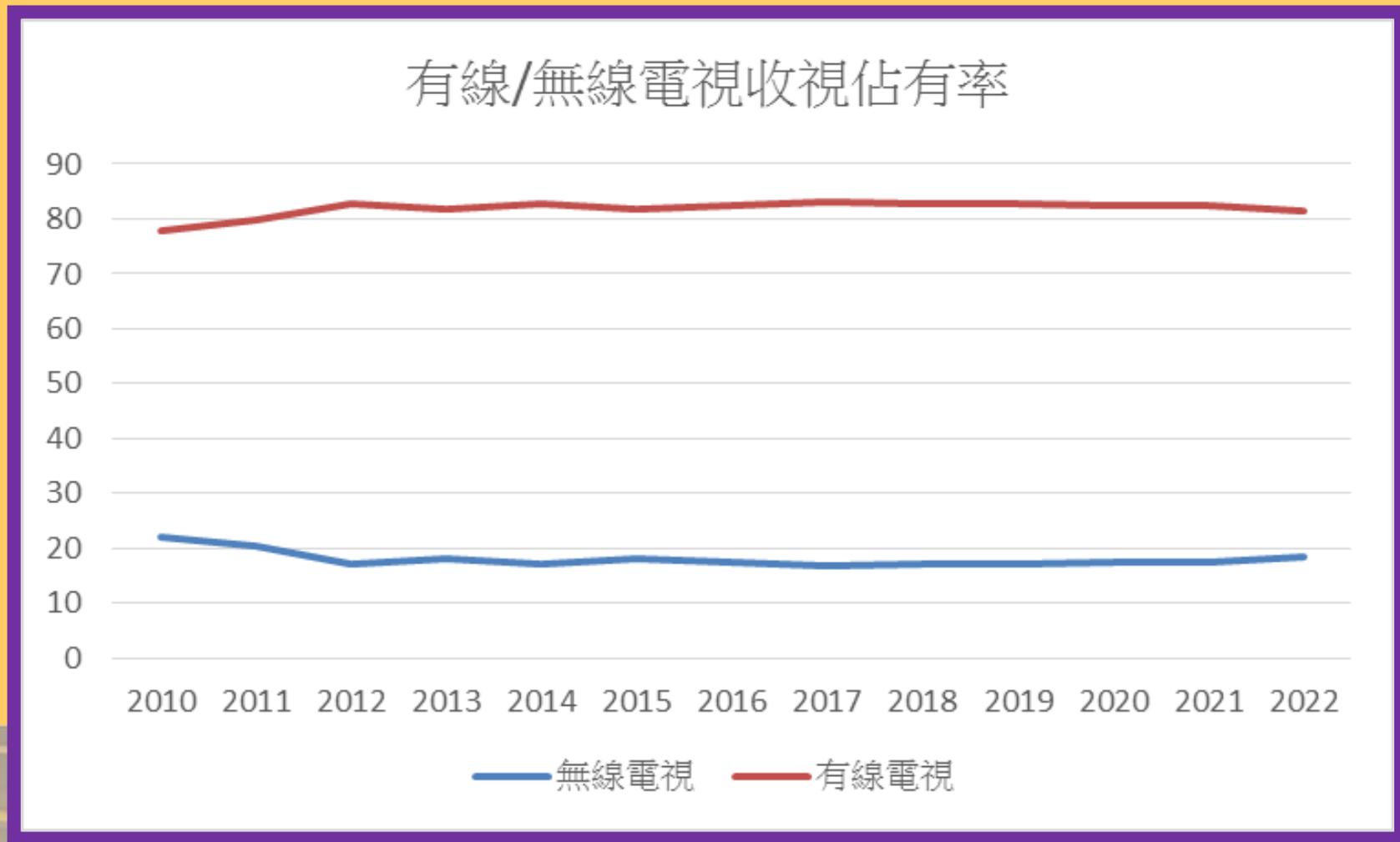
來源：MAA 台灣媒體白皮書

# 台灣廣告量變化



來源: MAA 台灣媒體白皮書

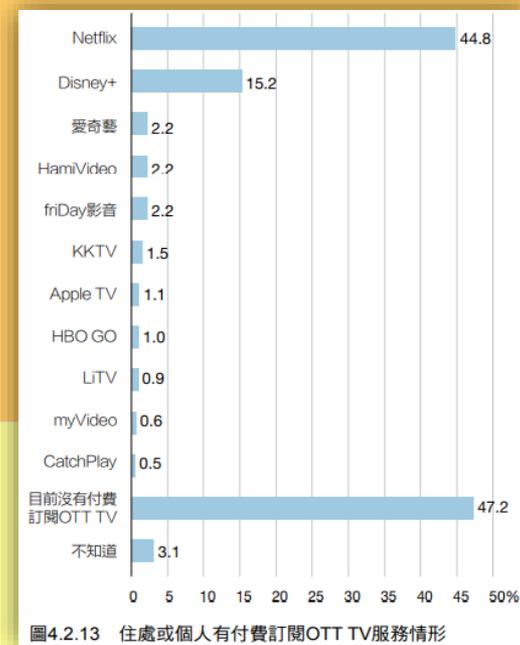
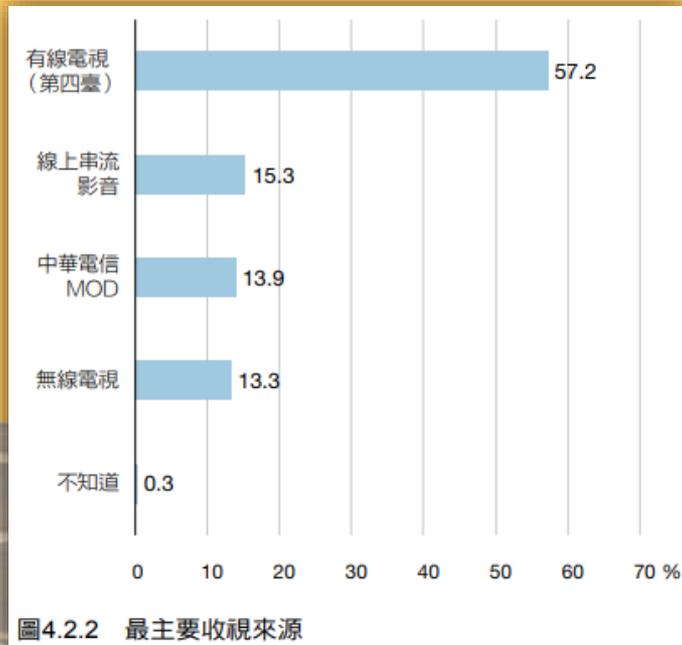
# 台灣有線與無線電視占有率變化



來源: MAA 台灣媒體白皮書

# 台灣民眾收視來源

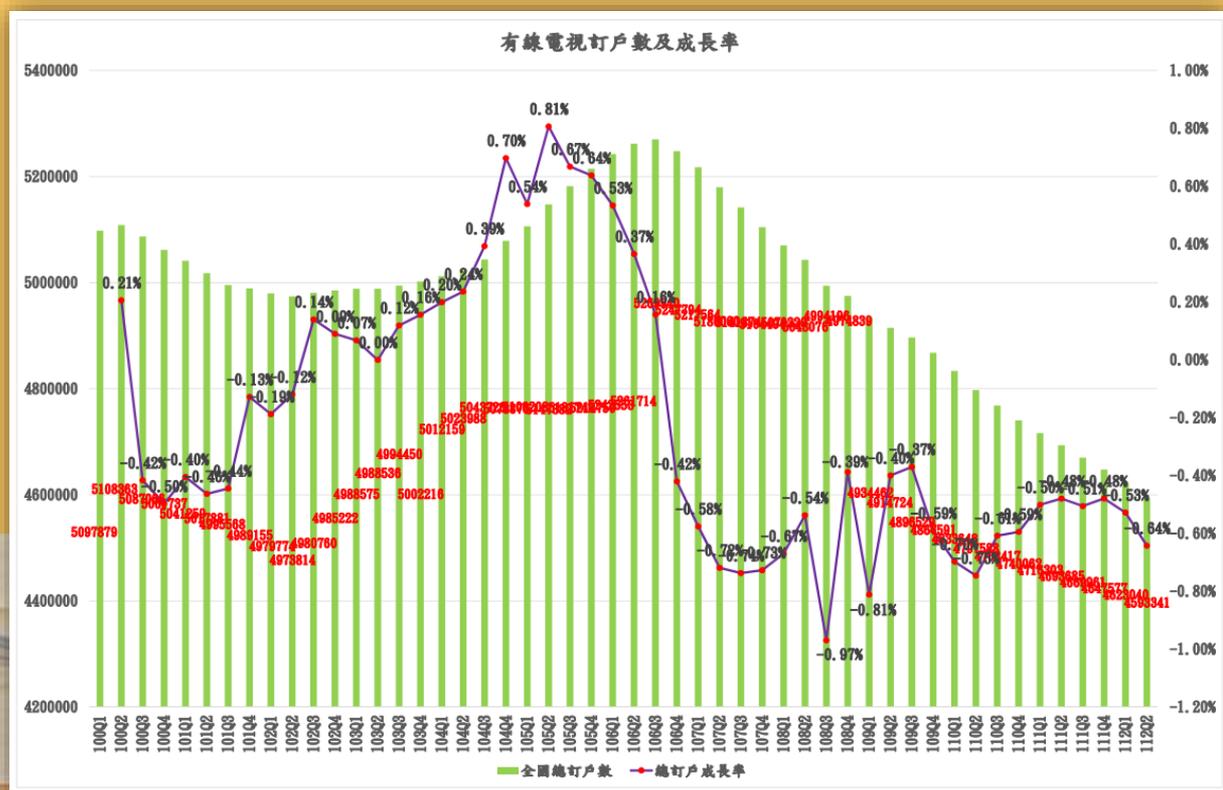
- NCC「111年傳播市場調查結果報告」顯示，台灣民眾收視來源最大宗為有線電視（57.2%），OTT（15.3%）則首度超過中華電信MOD（13.9%）、無線電視（13.3%），成為第二大收視來源。OTT平台付費訂閱上，前2名分別為Netflix（44.8%）與Disney+（15.2%）。



來源:NCC官網

# 台灣有線電視衰退情形

- 自2017年第3季524.8萬餘戶高峰後，逐年呈現下降趨勢，已連續23季下滑。2023年第2季總訂戶數為459.3萬餘戶。
- NCC表示，下滑幅度約年減2到3%，跟其他國家的剪線潮(cord-cutting)相比，下滑不算特別明顯。



來源：NCC

# 科技與電視業

- 串流服務(Streaming services)
- 聲控遙控器(Voice-activated Remotes)/智慧型電視(Smart TV)
- 8K/5G/VR/AR
- 全IP化(All-IP)
- 人工智慧(AI)
  - 科技改變消費者與內容的互動方式，並讓閱聽眾享有更為沉浸式的觀賞體驗。
  - 閱聽眾享有愈來愈大的主動性，呈現選擇自由(freedom-of-choice)的趨勢。



# 變遷中的電視業商業模式

- 傳統以廣告為基礎的商業模式面臨衝擊
- 訂閱模式的多元運用成為重要經營策略
- 智慧型廣告(smart advertising)/第二屏廣告(second-screen advertising)
- 合作、聯盟、多角化經營 (Joint production、joint distribution models、joint platforms ...)
- 國際/全球市場的開展
  - 原創性、具吸引力內容乃市場競爭的利器
  - 個性化產品能提供差異化價值



# 科技掛帥、數位轉型中的媒體生態

無冕王



文化流氓

信任商品



信任重建

# 變遷中的電視業商業模式

- 數位科技崩解商業模式的時代，許多媒體業者高呼不轉型就滅亡，甚至為了轉型，不惜貶抑媒體提供公共服務的角色。.....數位轉型就不能兼顧公共服務？追求信賴就不能永續經營？
- 面對市場競爭的挑戰，信任商品的媒體特質並非過時概念，相對的，利字掛帥，短視近利，才是媒體被大眾捨棄的關鍵。新聞媒體要克服種種挑戰誠然不易，但展現新聞服務的專業，贏得閱聽大眾的信賴，終究是新聞媒體永續經營的王道。

2021年社會公器獎

評審團召集人的話

報導者：追求數位轉型的參考座標

胡元輝



來源：卓新基金會官網

A top-down view of a wooden desk. In the upper left, a newspaper is partially visible with the word 'NEWS' in large black letters. Below it, a tablet displays a news article with the headline 'GLOBAL ECOLOGY: IT'S NOT TIME TO FALL BACK' and a photo of a construction site. To the right of the tablet is a blue pen. In the upper right corner, a white cup filled with dark coffee sits on a matching saucer. The background is a light-colored, textured surface.

# AI與媒體

# AI主播好嗎？

## 人民日報AI虛擬主播首亮相 中國網友

2023/3/13 13:54 (3/14 09:45 更新)



中國官媒人民日報推出AI主播任小融。(

人民日報AI主播

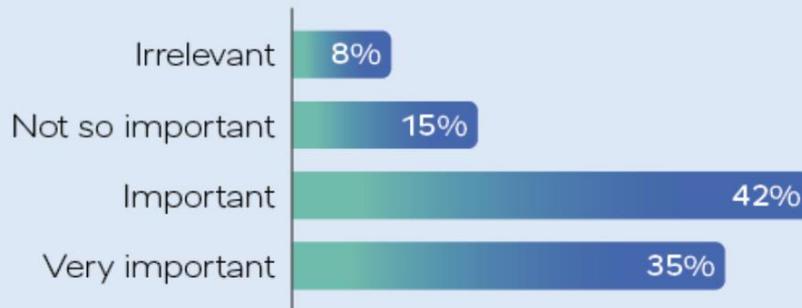


台灣媒體AI主播

# AI與新聞業

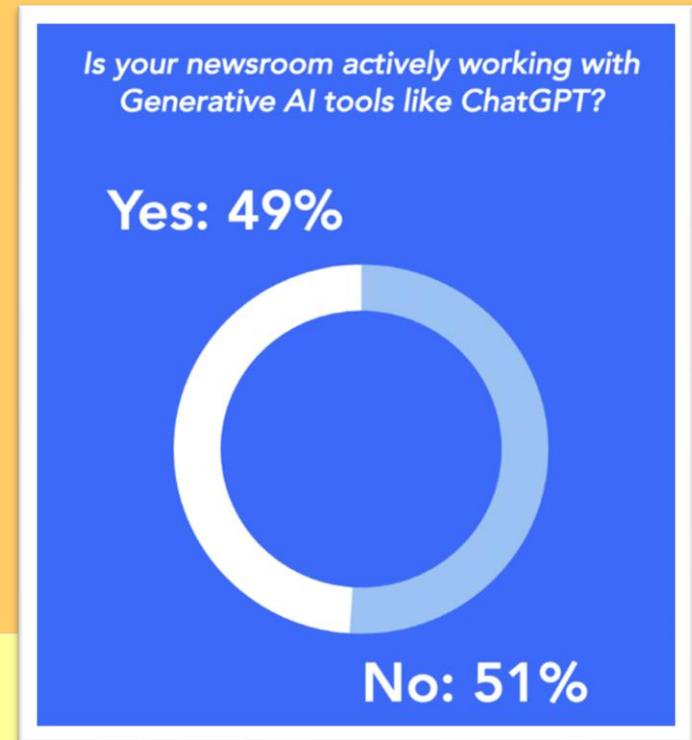
- 近年來各項調查都顯示，新聞業負責人及高階主管都將AI視為影響新聞發展的最重要元素之一。OpenAI 的 ChatGPT 在 2022 年底崛起之後，AI及生成式人工智慧 (Generative AI, GenAI) 更被越來越多的新聞業者視為改變遊戲規則的科技 (game-changing technology)。
- 世界新聞出版協會 (WAN-IFRA) 於2022年發布的調查顯示，超過 75% 的出版商表示，AI將在未來三年對其業務的成功扮演至關重要的角色。

How important will AI be for the success of your business in 2024?



# AI與新聞業

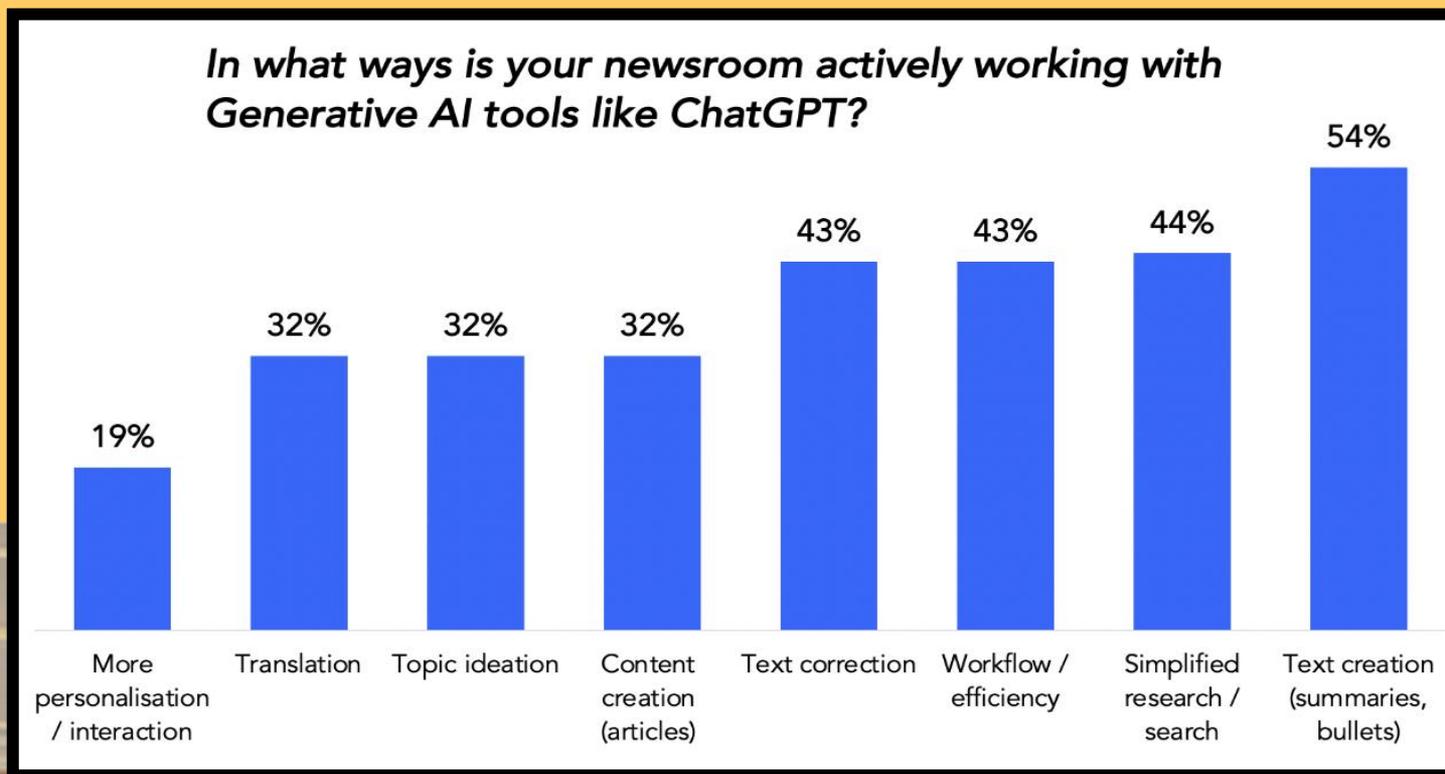
- 世界新聞出版協會於今年4月底至5月初所進行的一項全球性調查則顯示，已經有半數左右的新聞媒體使用生成式人工智慧工具（如ChatGPT）。
- 這項與SCHICKLER Consulting 合作進行的調查亦發現，業界對生成式AI的態度非常積極。七成受訪者希望生成式AI工具對他們有所幫助，僅2%的人認為短期內沒有價值，10%的人不確定，另有18%的人認為該技術還需要進一步發展才能真正發揮作用。



來源:世界新聞出版協會

# AI與新聞業

- 調查發現，新聞工作者使用GenAI工具主要是借助其消化與濃縮資訊的能力，例如協助做摘要及要點。其他則包括簡化研究/搜尋、文本校正和改善工作流程。實際上使用GenAI工具創作文章的情形相對較少。



# AI與新聞業

- 世界新聞出版協會的調查也發現，只有二成左右新聞單位對於如何使用GenAI制定了指導準則。具體顯示，AI，特別是GenAI雖然「勢不可擋」，但是新聞業所須要的AI素養卻還沒準備好。



One out of five of survey participants say that there are guidelines from management on when and how to use Generative AI tools.

# AI準則：BBC/Machine Learning Engine Principles

BBC

Machine



The principles:



The checklist:



# AI準則：BBC/Machine Learning Engine Principles

## 價值

- 體現BBC的信任、多樣性、品質、物有所值及創造力的價值

## 閱聽眾

- 代表閱聽眾保有他們創建的資料，並使用它來改進閱聽眾對BBC的體驗。
- 清楚解釋資料搜集與使用方式

## 責任

- 符合BBC編輯價值，拓展閱聽眾視野
- 定期審查，確保資料安全與演算法公正運作
- 由人負責內容監督

# AI準則: CBC / guidance on journalism

News Editor's Blog · Editor's Note

## How CBC News will manage the challenge of AI



Bottom line: you will never have to question whether a CBC News story is AI-generated



Brodie Fenlon · CBC News · Posted: Jun 12, 2023 8:59 AM EDT | Last Updated: Jun 12, 2023 8:59 AM EDT



### Commitment to trust and transparency

At the heart of the CBC/Radio-Canada approach will be the principles of trust, transparency, accuracy and authenticity that are already core to our [journalistic standards and practices \(JSP\)](#).

The bottom line: you will never have to question whether a CBC News story, photo, audio or video is real or AI-generated.

Here's what that means in practice:

- No CBC journalism will be published or broadcast without direct human involvement and oversight.
- We will never put to air or online content that has not been vetted or vouched for by a CBC journalist.
- We are mindful of the significant increase in deep-faked audiovisual and text content, requiring a heightened level of skepticism and verification in our journalism.
- We will not use or present AI-generated content to audiences without full disclosure. No surprises: audiences will be made aware of any AI-generated content *before* they listen, view or read it.
- We will not use AI-powered identification tools for our investigative journalism (i.e. facial recognition, voice matching) without advance permission of our standards office, acting on my behalf.
- We will never rely solely on AI-generated research in our journalism. We always use multiple sources to confirm facts.
- We will not use AI to recreate the voice or likeness of any CBC journalist or personality except to illustrate how the technology works, and only then in exceptional circumstances and only with the advance approval of our standards office and the approval of the individual being "recreated."

# AI準則：CBC / guidance on journalism

- 底線：閱聽眾永遠不必懷疑CBC的新聞報導、照片、音檔或影片是真實的或AI生成的。
- 具體實踐準則，例如：
  - 我們絕不會傳播未經CBC新聞人員審查或擔保的廣電或網路內容。
  - 在未完全揭露的情況下，我們不會使用或向閱聽眾展示AI生成的內容。
  - 未經新聞標準辦公室的事先同意，我們不會在調查報導中使用AI驅動的識別工具（即臉部識別、聲音配對）。
  - 我們不會使用AI來重新創建任何CBC記者或知名人士的聲音或畫像，除非是為了說明該科技的運作原理，而且只有在特殊情況、獲得標準辦公室事先批准，以及被創建者同意下才會使用。
  - 我們不會使用AI來為試圖保護其身份的機密消息來源生成聲音或畫像。
  - 我們不會以任何理由將保密或未發布的內容輸入生成式AI工具。



# AI準則：英國衛報、路透社、美聯社

The Guardian website header includes links for "Print subscriptions", "Sign in", "Search jobs", "Search", and "International edition". A prominent banner asks to "Support the Guardian" with a "Support us" button. The main article is titled "Reuters editor in chief Alessandra Galloni and ethics editor Alix Freedman sent out the following to the staff about using artificial intelligence:". The author is identified as "Katharine Viner and A Bateson" with a date of "Fri 16 Jun 2023 10.50 BST".

Reuters editor in chief Alessandra Galloni and ethics editor Alix Freedman sent out the following to the staff about using artificial intelligence:

Colleagues,

As you know, artificial intelligence (AI) is transforming the world of work, including in the field of journalism, presenting both opportunities and challenges. We want to ensure that Reuters journalists will use AI technology effectively while maintaining our reputation as the world's most trusted news organization.

This memo reflects our preliminary thinking about the role of AI in the newsroom. We intend to be updating this guidance regularly, understanding that the technology is changing quickly. As we gain more experience, we also will issue formal guidelines.

Our four pillars

First, Reuters regards AI technology, including generative text-based models like ChatGPT, as a breakthrough that offers the potential to enhance our journalism and empower our journalists. From its founding, Reuters has embraced new technologies to deliver information to the world, from pigeons to the telegraph to the Internet. More recently, we have used automated systems to find and extract vital economic and corporate data at the speed of our customers demand. The idea of autonomous news content may be new for some news companies, but it is a longstanding and essential practice at Reuters News.

Second, Reuters reporters and editors will be fully involved in – and responsible for – greenlighting any content we may produce that relies on AI. A Reuters story is a Reuters story regardless of who produces it or how it's generated, and our editorial ethics and standards apply. If your name is on a story, you are responsible for ensuring that story meets those standards; if a story is published in an entirely autonomous fashion, that will be because Reuters journalists have determined that the underlying technology can deliver the quality and standards we require.

Third, Reuters will make robust disclosures to our global audience about our use of these tools. Transparency is an essential part of our ethos. We will give our readers and customers as much information as possible about the origin of a news story, from the specificity of our sourcing to the methods used to create or publish it. This does not mean that we will disclose

The AP article is titled "Standards around generative AI" and is dated "Aug. 16, 2023, by Amanda Barrett". The sub-header is "THE DEFINITIVE SOURCE". The article text states: "Accuracy, fairness and speed are the guiding values for AP's news report, and we believe the mindful use of artificial intelligence can serve these values and over time improve how we work." The author's bio identifies Amanda Barrett as "Vice President for Standards and Inclusion". A link to the full article is provided: "blog.ap.org/\_dec7".

來源: The Guardian, Reuters, AP官網

A top-down view of a wooden desk. In the upper left, a newspaper is partially visible with the word 'NEWS' in large black letters. Below it, a tablet displays a news article with the headline 'GLOBAL ECOLOGY: IT'S NOT TIME TO FALL BACK' and a photo of a construction site. To the right of the tablet is a blue pen. In the upper right corner, a white cup filled with dark coffee sits on a matching saucer. The background is a light-colored wooden surface.

**AI時代來臨，您準備好了嗎？**