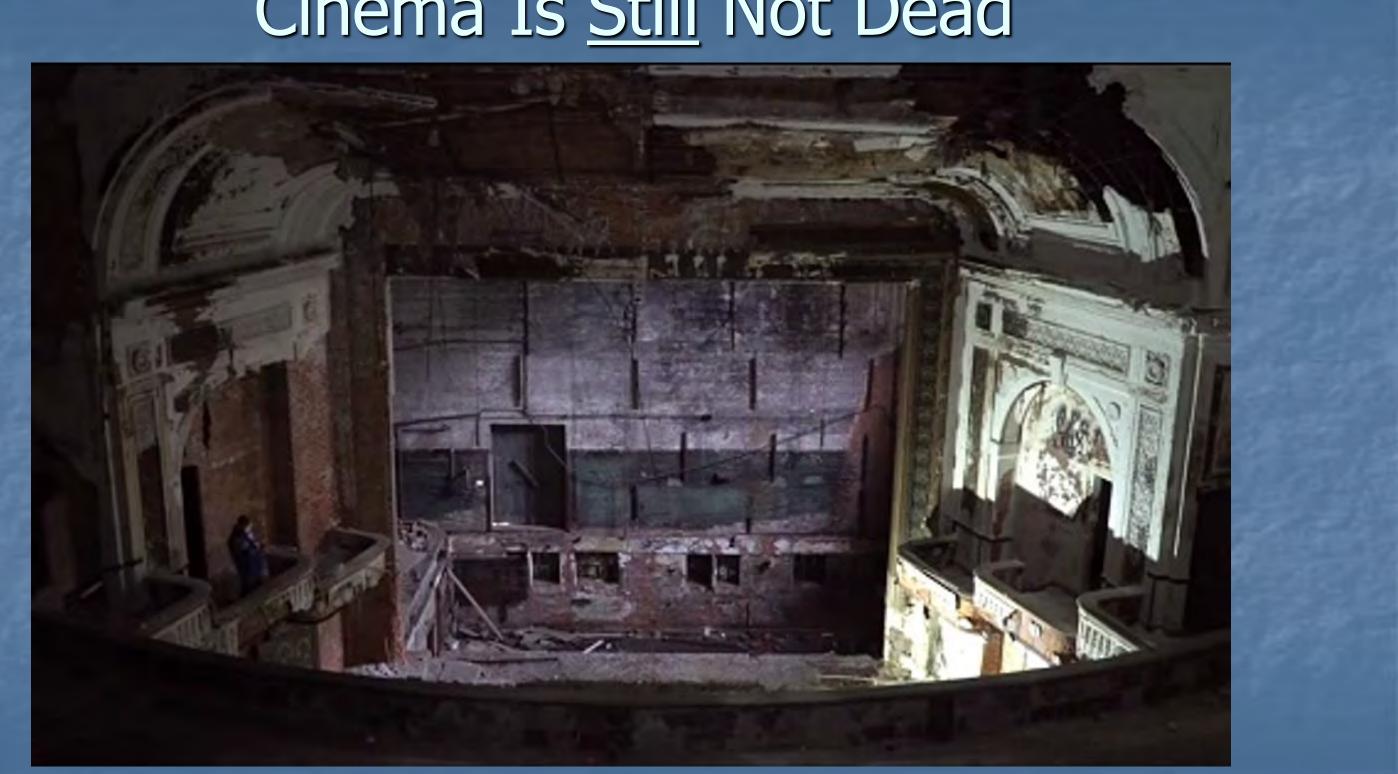
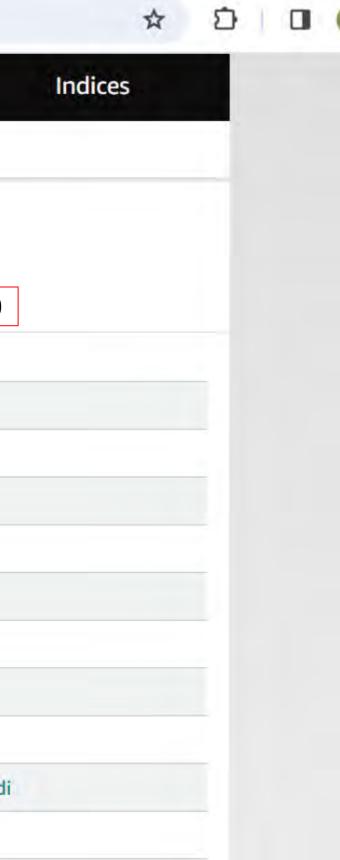
# Cinema Is <u>Still</u> Not Dead



boxofficemojo.com/year/?ref\_=bo\_nb\_hm\_secondarytab

Domest	ic Internationa	al Worl	dwide	Calendar	All Time	Showdowns
Daily Wee	ekend Weekly Mo	nthly Quarte	erly Yearly	Seasons Holi	days	
Domes	tic Yearly Box	Office				
Overview 🗸	Calendar grosses 😽	+18.3%	ío i	f based on same	# of release	s: \$15,015,877,03
Data as of Feb	7, 8:48 PST					
Year ~	Total Gross 🗘	%± LY \$	Releases \$	Average \$	#1 Release	
2024	\$565,146,507		105	\$5,382,347	Wonka	
2023	\$8,906,698,460	+20.9%	589	\$15,121,729	Barbie	
2022	\$7,369,505,492	+64.4%	498	\$14,798,203	Top Gun: Mav	erick
2021	\$4,482,808,453	+112.1%	440	\$10,188,201	Spider-Man: N	lo Way Home
2020	\$2,113,846,800	-81.4%	456	\$4,635,628	Bad Boys for I	Life
2019	\$11,363,364,796	-4.4%	910	\$12,487,214	Avengers: End	lgame
2018	\$11,892,160,011	+7.4%	993	\$11,975,991	Black Panther	
2017	\$11,075,387,520	-2.6%	854	\$12,968,837	Star Wars: Epi	sode VIII - The Last J
2016	\$11,375,225,455	+2%	855	\$13,304,357	Finding Dory	



# Super Bowl LVIII

https://www.youtube.com/watch?v=arUk2qurfNI

0:03

OT

40

U.S. viewers avg. 123.7M (includes out-of-house) most since 1969 moon landing CBS television 120.3M largest for single-network not highest rating but highest share (83) 1983 finale of M\*A\*S\*H much higher rating at least part: 202.4M unduplicated halftime show avg. 129.3M

Mute (m)





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Nielsen Solutions Insights Data Center About

Article: Streaming unwrapped: Streaming viewership goes to the library in 2023

# Streaming unwrapped: Streaming viewership goes to the library in 2023

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9 2

S minute read | January 2024

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#### Americans streamed 21 million years' worth of content last year

The growing bounty of content on streaming services has forever changed TV viewing behavior, with streaming consumption now consistently accounting for the biggest driver of TV usage<sup>1</sup>. And while the time we spend with TV is largely flat, our time spent streaming video continues to rise. In 2023, U.S. audiences streamed 21 million years' worth of video, an incredible 21% increase from the 17 million years worth<sup>2</sup> they streamed in 2022.

# 2023 Top 10 Original Streaming Programs

	Program Name	Originator	Episodes	Mins viewed (Billions)
1	Ted Lasso	Apple TV+	34	16.9
2	The Night Agent	Netflix	10	14.4
3	Ginny & Georgia	Netflix	20	13.8
4	Virgin River	Netflix	54	13.7
5	Love Is Blind	Netflix	70	13.1
6	Tom Clancy's Jack Ryan	Prime Video	30	12.8
7	Gabby's Dollhouse	Netflix	58	12.8
8	The Mandalorian	Disney+	27	12.3
9	Outer Banks	Netflix	30	12.0
10	The Lincoln Lawyer	Netflix	20	11.8

Copyright @ 2024 The Nielsen Company 12/25/2022-12/31/2023 Rank based on Persons 2+ Minutes Viewed In Billiona

Source: Nielsen Streaming Content Ratings (Amazon Prime, AppleTV+, Disney+, Hulu, Max, Netflix, Paramount+ and Peacock), Nielsen National TV Panel, U.S. Viewing through Television



# 2023 Top 10 Acquired Streaming Programs

	Program Name	Originator	Episodes	Mins viewed (Billions)
1	Suits	Netflix / Peacock	141	57.7
2	Bluey	Disney+	145	43.9
3	NCIS	Netflix / Paramount+	443	39.4
4	Grey's Anatomy	Netflix	421	38.6
5	Cocomelon	Netflix	22	36.3
6	The Big Bang Theory	Max	281	27.8
7	Gilmore Girls	Netflix	153	25.2
8	Friends	Max	243	25.0
9	Heartland	Hulu / Netflix / Peacock	233	22.8
10	Supernatural	Netflix	328	22.8

Copyright @ 2024 The Nielsen Company 12/25/2022-12/31/2023 Rank based on Persons 2+ Minutes Viewed In Billions

Source: Nielsen Streaming Content Ratings (Amazon Prime, AppleTV+, Disney+, Hulu, Max, Netflix, Paramount+ and Peacock), Nielsen National TV Panel, U.S. Viewing through Television

Nielsen

advanced-television.com/2023/08/29/nielsen-viewers-facing-content-discovery-challenges/

# **ADVANCED TELEVISION**

# Nielsen: Viewers facing content discovery challenges

August 29, 2023

According to Gracenote data analysis, there were 1.9 million video titles available to viewers in the US, UK, Canada, Mexico and Germany in July 2021. This number had swelled to 2.7 million titles by June 2023. Of the total count, a whopping 86.7 per cent were available on streaming services. Compounding complexity, many popular shows appear in multiple streaming catalogues, highlighting an industry pivot away from content exclusivity to broader distribution in search of better monetisation.



# **ADVANCED** TELEVISION

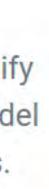
## Data: DDoS attacks up 16% in 2023

February 15, 2024

"What we're seeing is that cybercrime is only getting savvier," said Anna Claiborne, Senior VP of Network Connectivity at Zayo. "Al is presenting itself as a doubleedged sword in this space. On one side of the blade, criminals are using AI to increase the sophistication of attacks and circumvent traditional defence mechanisms; on the other, mitigation platforms are using AI to dynamically identify and defend against new and emerging threats. As DDoS remains a profitable model for cybercriminals, attacks will continue to be a brutal inevitability for businesses. But luckily, DDoS protection is also rising to the occasion."

#### Key Findings by Industry:

 Telecommunications companies experienced the most frequent attacks, comprising about 40 per cent of total attack volume with nearly 13,000 attacks in H2 2023.



C S mediapost.com/publications/article/391143/linear-tv-maintains-strong-sports-news-viewing-sh.html

## MediaPost

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# **Television**NewsDaily

# Linear TV Maintains Strong Sports, News Viewing Share

by Wayne Friedman , Yesterday

For all the gains that streaming TV has made with viewers, those platforms are still far behind with sports and news program content -- which remain strong in live, linear TV programming segments.

New research from Vizio's Inscape says cable, satellite, and over-the-air platforms combined posted a nearly 77% share of sports TV and video viewing and nearly 82% of all news TV and video viewing in the third quarter of 2023.

The data came from Vizio's Inscape TV data unit of 22 million opt-in users through Vizio smart TV devices.



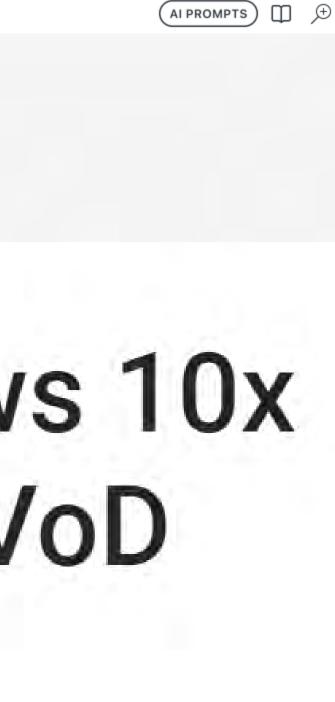
# ADVANCED TELEVISION

88

С

# Study: Local US TV news 10x larger audience than SVoD

Mark Schubin, HPA Tech Retreat, 2024 February 21



nytimes.com/2023/08/17/technology/personaltech/subtitles-streaming-shows-speech-enhancers.html

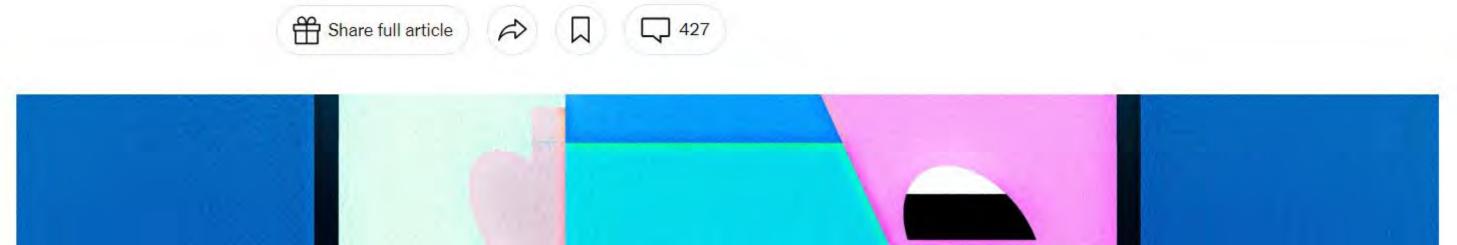
#### PERSONAL TECH

#### The New York Times

#### **TECH FIX**

# Can't Hear the Dialogue in Your Streaming Show? You're Not Alone.

Many of us stream shows and movies with the subtitles on all the time — and not because it's cool.



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#### HOW TO / TECH / DISNEY

# Quick fixes: When Disney Plus is so dark you can barely see anything

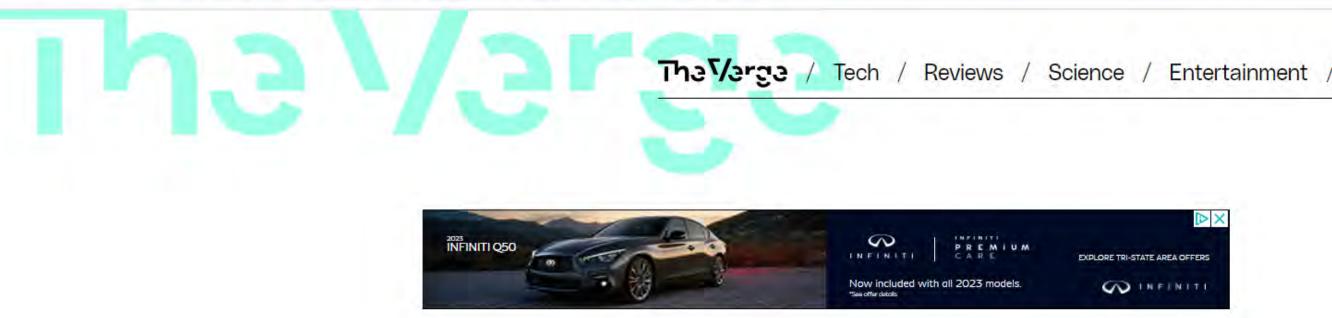


this.

**By SEAN HOLLISTER** Mar 31, 2023, 7:27 PM EDT | D 15 Comments / 15 New

Image: Disney

#### / Don't stay in the dark about



#### AMAZON / TECH / STREAMING

## Amazon Prime Video drops Dolby Vision and Atmos unless you pay extra



/ Confirmed: they're now only available on the ad-free tier that costs an extra \$2.99 per month.

#### More -

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THE MEDIA PROFESSIONAL'S INSIDE PERSPECTIVE



#### Hisense to Debut 'World's Brightest' 110-Inch TV at CES 2024

By Paula Parisi November 27, 2023

The Hisense 110UX TV, a 110-inch diagonal screen said to have 10,000 nits of peak brightness — five times greater than that of the best OLEDs — will make its official debut at the 2024 Consumer Electronics Show in Las Vegas. With more than 40,000 backlight zones for local dimming and high levels of color volume, Hisense says it achieves 95 percent of the BT.2020 color palette, or about 20 percent better than the top OLEDs. Developed on Hisense's ULED X platform, the preview photo showed it on a console-style stand that appeared to house its own audio system.

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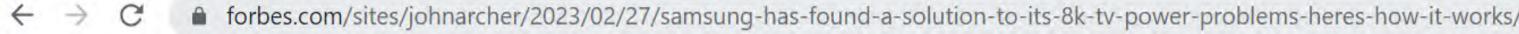
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Nvidia Sales Surge as Rivals **Circle and China Sanctions** Loom

Stability Introduces GenAl Video Model: Stable Video Diffusion

Hisense to Debut 'World's



#### Forbes

FORBES > INNOVATION > CONSUMER TECH

# **Samsung Has Found A Solution To Its 8K TV Power Problems.** Here's How It Works

John Archer Senior Contributor ①

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Feb 27, 2023, 06:29pm EST

After months of uncertainty surrounding their ability to meet new EU TV power consumption regulations, Samsung has finally confirmed that it will

still be launching a range of 8K TVs in 2023.

Mark Schubin, HPA Tech Retreat, 2024 February 21

Fortunately there's good news to go alongside the new power limiting pain. In particular, while the EU's power diktats require Samsung's 2023 8K TVs to ship running in a new low-power, low-brightness picture mode Samsung has helpfully labelled Eco, they don't prevent users from simply switching to another preset - Standard, Dynamic, Movie etc - that isn't bound by the same brightness limiting rules.

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# Walmart buys Smart TV company VIZIO in \$2.3bn deal

FEBRUARY 20, 2024 13:11 EUROPE/LONDON BY JULIAN CLOVER

Mark Schubin, HPA Tech Retreat, 2024 February 21



# Stan originals.

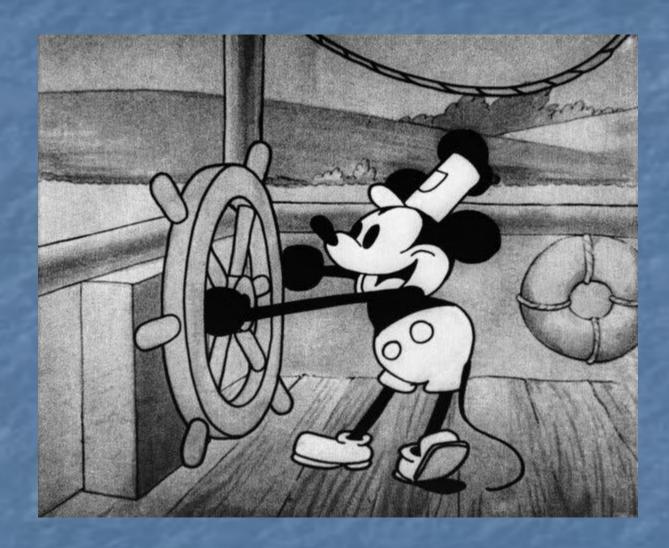
# FAR NF.

# IP

not information processing not internet protocol intellectual property

#### THIS AIN'T NO BEDTIME STORY

# Copyright Expiration



# WINNIE -THE-POOH

BLOOD AND HONEY





tedium.co/2023/09/27/atsc-3.0-lg-patent-lawsuit

## **Next-Gen Roadblock**

A patent holder successfully gets one of the biggest advocates of next-gen television to retreat, and other companies could be next.

The problem comes down to a group of patents developed by Dr. Christopher R. Jones and Dr. Maged Barsoum, former employees at NASA's Jet Propulsion Laboratory who developed a technology to optimize non-uniform constellations for bit-interleaved coded modulation—which, for the layperson, essentially means they developed a method to optimize data transmission in broadcast



technologies such as television or satellite. In 2008, the men launched a company, Constellation Designs, that

Tedium.



largely engages in patent licensing—a stakeholder in the firm, David Bailey, is a prominent patent attorney—and in 2021, they sued LG on grounds that their four patents were violated. By winning this case, they have shown that they have something of a stranglehold over the ATSC 3.0 standard. Hence why LG is taking its ATSC 3.0-enabled TVs off the market.

# No More LG **ATSC-3.0** Receivers

# NextGen TV's DRM puts future of the over-the-air DVR in

# doubt

Broadcasters want to dictate where and how you can watch free overthe-air TV.

- For DVR, broadcasters can set expiration dates on recordings or even block them outright. It's unclear if broadcasters will do this, but ATSC 3.0 gives them the capability.
- ATSC 3.0's DRM has latency restrictions that effectively block out-of-home viewing from networked tuners such as the HDHomeRun Flex 4K.
- Users will need an internet connection to stream local broadcasts around the home, for instance from an HDHomeRun tuner to a Roku player, and an occasional internet connection might be required for external tuner boxes.
- Recordings won't work without the original tuner that captured the programming, effectively preventing users from transferring programs they've recorded on a DVR to other devices, such as a laptop or tablet for away-from-home viewing.
- With an HDHomeRun tuner, third-party apps must get independently certified to play encrypted ATSC 3.0 content. It's unclear if programs such as Channels and Plex will do so.



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#### CORD-CUTTER CONFIDENTIAL

TechHive

By Jared Newman, TechHive | JUL 28, 2023 3:00 AM PDT



#### **DRM Protected ATSC 3.0 Channels**

#### Unable to play channel: **Content Protection Required**

- - Used to authenticate devices to broadcasters

#### community.getchannels.com/t/drm-protected-atsc-3-0-channels/35710

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Device Certificates for Receivers and other ATSC 3.0 Devices

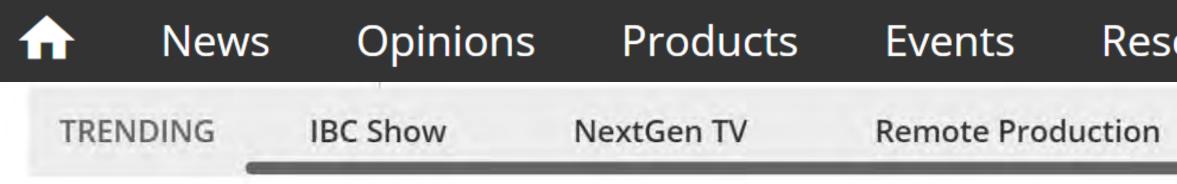
www.tvtechnology.com/news/pearl-tv-responds-to-critics-of-30-encryption



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Home > News > NextGen TV

# Pearl TV Responds to Critics of 3.0 Encryption

By Tom Butts published 28 days ago

Pearl TV managing director cites importance of protecting signals and content

Mark Schubin, HPA Tech Retreat, 2024 February 21



#### **Resource Center**

#### July 2023 Issue

22

# Create an image of an animated sponge wearing pants



#### ChatGPT

"We Asked A.I. to Create the Joker. It Generated a Copyrighted Image." New York Times January 25







today.com/food/news/jack-daniels-dog-toy-supreme-court-decision-rcna88875

# TODAY ON THE SHOW SHOP WELLNESS PARENTS

June 12, 2023, 5:00 PM EDT

## By Joseph Lamour

The Supreme Court has come to a decision in a case involving two very unusual opponents: one of America's oldest whiskey brands and a company specializing in chew toys for dogs.

On June 8, the highest court in the land decided in favor of Jack Daniel's Properties Inc., the company that owns the famous Tennessee

## unanimous decision

A bottle of Jack Daniel's Tennessee Whiskey is displayed next to a Bad Spaniels dog toy in Arlington, Va. Jessica Gresko / AP



Mark Schubin, HPA Tech Retreat, 2024 February 21







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OCTOBER 26, 2023 BY SHELLY PALMER

# **Nightshade: Poison Pictures That Trick Al**



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A.I. and Chatbots >

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Meet the New ChatGPT

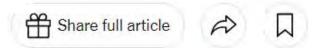
Meta's A.I. Characters

ChatGPT's Image Generator

Google's Bard Extensions

# **IBM Tries to Ease Customers' Qualms** About Using Generative A.I.

The company will assume the legal risk of businesses that use its A.I. systems and will publish the technology's underlying data.





A T

#### How Schools Can Survive A.I.

shellypalmer.com/2023/09/microsoft-will-indemnify-its-ai-customers/

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> Generative AI for Executives – Free Online Course NEW

#### SEPTEMBER 8, 2023 BY SHELLY PALMER

# **Microsoft Will Indemnify its Al** Customers

Mark Schubin, HPA Tech Retreat, 2024 February 21





C Slashfilm.com/1399308/james-bond-goldeneye-legal-battle-delay/

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# The James Bond Legal Battle That Delayed GoldenEye For Nearly Half A Decade

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#### TV COOL STUFF

#### nothing to do with AI

https://www.nytimes.com/2023/08/21/arts/design/copyright-ai-artwork.html

# The New York Times

# As Fight Over A.I. Artwork Unfolds, Judge Rejects Copyright Claim

A federal judge dismissed an inventor's attempt to copyright artwork produced by an image generator he designed. But more legal challenges are on the way.





# tcentric»

THE MEDIA PROFESSIONAL'S INSIDE PERSPECTIVE



#### USPTO Says Only Humans Can Patent, Although Al May Assist

By Paula Parisi February 14, 2024

The U.S. Patent and Trademark Office has issued revised guidance on patents for inventions created using artificial intelligence, a fast-developing category of intellectual property law. The advisory says patents may cover Al-assisted inventions in cases where "a natural person provided a significant contribution." Insofar as what constitutes appropriately significant input, the agency is looking for the "right balance" between "awarding patent protection to promote human ingenuity and investment for AI-assisted inventions while not unnecessarily locking up innovation for future developments," according to a USPTO blog post.



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#### **TOP STORIES**

**USPTO Says Only Humans** Can Patent, Although Al May Assist

IAB and MRC Join Forces to **Develop AR Advertising** Guidelines

**Government Announces** 

C thehill.com/business/4476307-air-canada-must-pay-refund-promised-by-ai-chatbot-tribunal-rules/

News

BUSINESS

# Air Canada must pay refund promised by AI chatbot, tribunal rules

Policy

**Business** 

Health

BY NICK ROBERTSON - 02/18/24 11:05 PM ET

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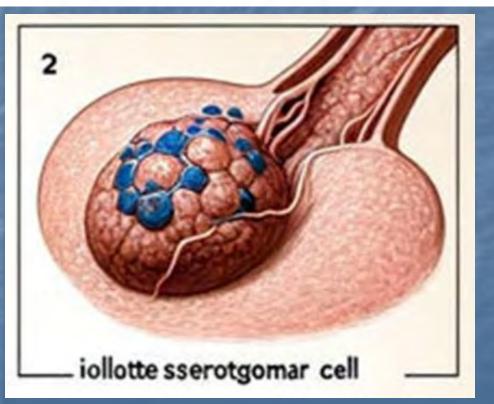


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# GIZMODO 'Rat Dck' Among Gibberish Al Images Published in **Science Journal**

Bizarre, clearly inaccurate imagery created by Midjourney skated past peer-review at a well-known journal.

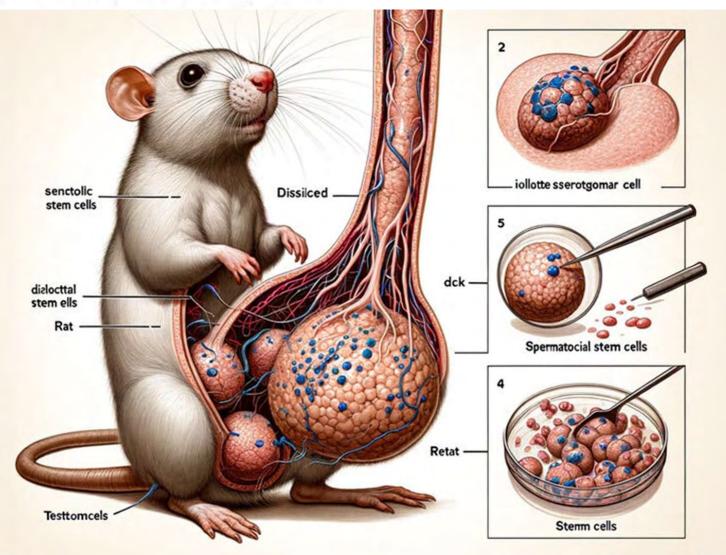
By Isaac Schultz Published Thursday 3:47PM | Comments (24)



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Frontiers in Cell and Developmental Biology

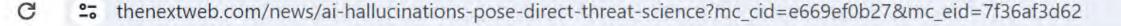
> identified as generated by Midjourney in the paper





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DEEP TECH

# Al hallucinations pose 'direct threat' to science, Oxford study warns

The scientific community shouldn't use LLMs as a source of knowledge

November 20, 2023 - 4:00 pm

Yes, and, in just the last week, I've found <u>non-AI-related</u> glaring errors by a research library containing the papers of the subject a historical museum the author of a university-press book

Mark Schubin, HPA Tech Retreat, 2024 February 21

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engadget.com/what-did-an-iphone-camera-do-to-this-poor-womans-arms-201507227.html

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# engadget

Sections 😪

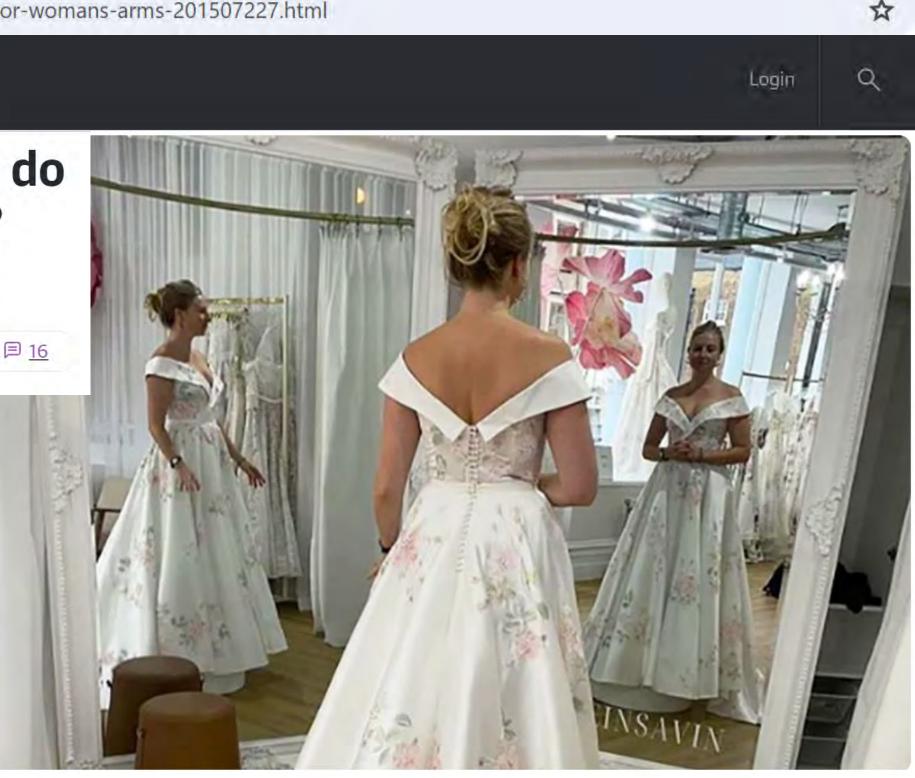
# What did an iPhone camera do to this poor woman's arms?

Computational photography has its limits.



Lawrence Bonk Contributing Reporter Fri, Dec 1, 2023, 3:15 PM EST · 2 min read





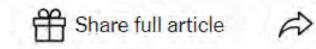
Instagram/Tessa Coates

BOOKS

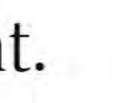
#### The New Hork Times

# A Celebrity Dies, and New Biographies Pop Up Overnight. The Author? A.I.

Books — often riddled with gross grammatical and factual errors — are appearing for sale online soon after the death of wellknown people.



#### TRY NYT COOKING







ww.theguardian.com/books/2023/sep/20/amazon-restricts-authors-from-self-publishing-more-than-three-books-a-day-after-ai-concerns

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Amazon restricts authors from selfpublishing more than three books a day after AI concerns



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#### Most viewed



Lost Michigan toddler found asleep in woods using family dog as furry pillow

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ww.theguardian.com/books/2023/sep/20/amazon-restricts-authors-from-self-publishing-more-than-three-books-a-day-after-ai-concerns

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Amazon restricts authors from selfpublishing more than three books a day after AI concerns

- - - C 25 nbcnews.com/tech/tech-news/openai-sora-video-artificial-intelligence-unveiled-rcna139065

OpenAl teases 'Sora,' its new text-to-video Al model

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ARTIFICIAL INTELLIGENCE

**MBC NEWS** 

# OpenAl teases 'Sora,' its new text-to-video Al model

The model can take simple text prompts and generate original video, such as woolly mammoths walking through snow.





## **Shelly Palmer**

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DECEMBER 12, 2023 BY SHELLY PALMER

# Is ChatGPT Getting Lazy?



Q \$

## **arxiv** > cs > arXiv:2307.09009

#### Computer Science > Computation and Language

[Submitted on 18 Jul 2023 (v1), last revised 31 Oct 2023 (this version, v3)]

## How is ChatGPT's behavior changing over time?

## Stanford & UC Berkeley

#### Lingjiao Chen, Matei Zaharia, James Zou

GPT-3.5 and GPT-4 are the two most widely used large language model (LLM) services. However, when and how these models are updated over time is opaque. Here, we evaluate the March 2023 and June 2023 versions of GPT-3.5 and GPT-4 on several diverse tasks: 1) math problems, 2) sensitive/dangerous questions, 3) opinion surveys, 4) multi-hop knowledge-intensive questions, 5) generating code, 6) US Medical License tests, and 7) visual reasoning. We find that the performance and behavior of both GPT-3.5 and GPT-4 can vary greatly over time. For example, GPT-4 (March 2023) was reasonable at identifying prime vs. composite numbers (84% accuracy) but GPT-4 (June 2023) was poor on these same questions (51% accuracy). This is partly explained by a drop in GPT-4's amenity to follow chain-of-thought prompting. Interestingly, GPT-3.5 was much better in June than in March in this task. GPT-4 became less willing to answer sensitive questions and opinion survey questions in June than in March. GPT-4 performed better at multi-hop questions in June than in March, while GPT-3.5's performance dropped on this task. Both GPT-4 and GPT-3.5 had more formatting mistakes in code generation in June than in March. We provide evidence that GPT-4's ability to follow user instructions has decreased over time, which is one common factor behind the many behavior drifts. Overall, our findings show that the behavior of the "same" LLM service can change substantially in a relatively short amount of time, highlighting the need for continuous monitoring of LLMs.

Comments: add more evaluations on instruction following

Subjects: Computation and Language (cs.CL); Artificial Intelligence (cs.AI); Machine Learning (cs.LG)

arXiv:2307.09009 [cs.CL] Cite as: (or arXiv:2307.09009v3 [cs.CL] for this version) https://doi.org/10.48550/arXiv.2307.09009



#### Help | Advanced

## The Chatbot Formerly Known As Bard

(1)

-

Different populations of killer whales have different dialects, hunting techniques, and social structures. Killer whales can live for up to 100 years in captivity, and up to 80 years in the wild. 퍞 ſЪ

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OCTOBER 11, 2023 BY SHELLY PALMER

# Adobe Introduces "Icon of **Transparency**" for GenAl Content



Mark Schubin, HPA Tech Retreat, 2024 February 21

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#### **Content Credentials**

Issued by Edit Suite on Oct 4, 2023

This image combines multiple pieces of content. At least one was generated with an Al tool.

Produced by Jane Smith

Caption Penguins seen in the desert.

App or device used Edit Suite

Al tool used Edit Suite 1.0

Additional history Yes

Inspect

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**Generative AI for Executives – Free Online Course** NEW

NOVEMBER 16, 2023 BY SHELLY PALMER

# **Adobe's Sound Lift Isolates** Individual Sounds from a Single **Audio File**

Mark Schubin, HPA Tech Retreat, 2024 February 21







#### THE MEDIA PROFESSIONAL'S INSIDE PERSPECTIVE

## MoviePass Reaches 1 Million Tickets Sold and Turns First Profit By ETCentric Staff

February 20, 2024

MoviePass says it has sold more than 1 million tickets since relaunching last spring, and has also announced the first profitable year in the company's 13-year history. Co-founder and CEO Stacy Spikes, who purchased the company out of bankruptcy in 2021, is giving artificial intelligence much of the credit for the turnaround. The MoviePass Cinematic Marketplace is an aggregator for the theatrical industry that uses AI and machine learning to improve attendance engagement and ticket sales. Spikes says hitting the milestones "highlights the powerful impact" the technology enhancements have had "from the previous business model."

MoviePass uses a proprietary algorithm to allocate credits to movies based on a variety of factors, including days of the week and volume of business at participating theaters. MoviePass members pay to subscribe, then purchase tickets using the credits that come with their selected membership level.



Q



The servers on which AI models run need a sh\*t tonne of juice



October 11, 2023 - 2:38 pm

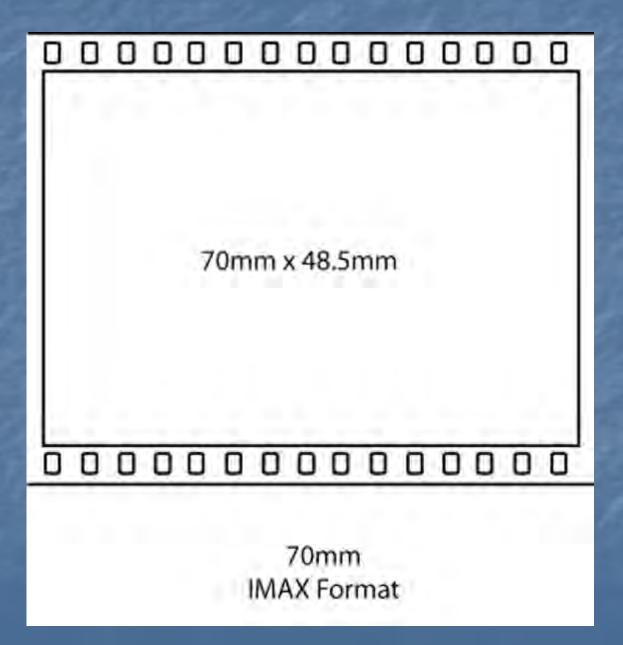
A new study published this week suggests that the AI industry could consume as much energy as a country like Argentina, Netherlands, or Sweden by 2027. What's more, the research estimates that if Google alone switched its whole search business to AI, it would end up using 29.3 terawatt-hours per year – equivalent to the electricity consumption of Ireland.

The paper was published by Alex de Vries at the VU Amsterdam School of Business and Economics.





Mark Schubin, HPA Tech Retreat, 2024 February 21



79.1mm x 76.2mm 77.5mm x 75.6mm active

Mark Schubin, HPA Tech Retreat, 2024 February 21

petapixel.com/2023/10/20/darren-aronofsky-says-it-takes-12-people-to-use-the-18k-sphere-camera/ C

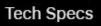
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## **Apple Vision Pro**

Overview Guided Tour







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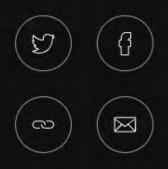
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## THE\_\_\_BYTE.

## YESTERDAY, 5:00 PM EST by MAGGIE HARRISON DUPRÉ

**VIRTUALITY** 



EXPENSIVE MISTAKES

## **PEOPLE ARE ALREADY RETURNING THEIR APPLE VISION PRO HEADSETS**

"WELL AFTER TWO DAYS I AM SAD TO REPORT THAT I WILL BE RETURNING APPLE VISION PRO..."



☆

## Why?

main reasons: weight & cost • other: not as many apps just as easy to use other devices real world not as clear not a complaint I've seen: image quality



Power. The external battery supports up to 2 hours of general use and up to 2.5 hours of video playback.1

Apple Vision Pro web page

apnews.com/article/nobel-prize-chemistry-stockholm-cabca0d16dc33427799886a1f012effe



## WORLD NEWS

# Trio wins Nobel Prize in chemistry for work on quantum dots, used in electronics and medical imaging

Mark Schubin, HPA Tech Retreat, 2024 February 21



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# NewScientist





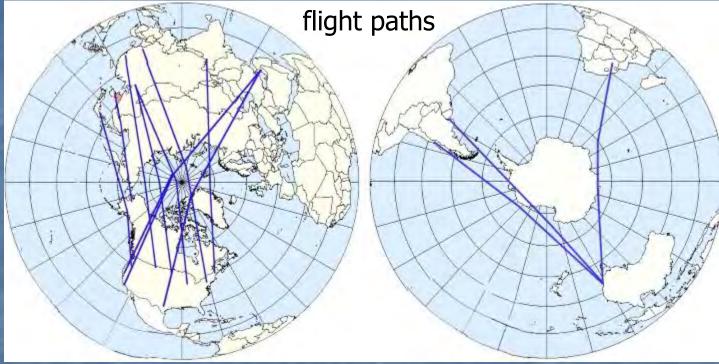
# **Mystery of the quantum lentils: Are** legumes exchanging secret signals?

For 100 years, we have puzzled over the purpose of biophotons, low-level radiation emitted by all plants. Precision studies of lentils now hint that it could be a form of guantum communication

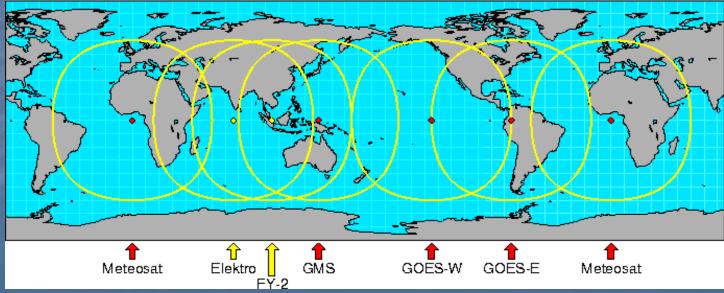
By Thomas Lewton

12 December 2023

# Polar Internet



#### Global Geostationary Satellite Coverage



advanced-television.com/2024/02/07/intelsat-signals-cover-the-arctic-circle/

## ADVANCED TELEVISION

# Intelsat signals cover the Arctic Circle

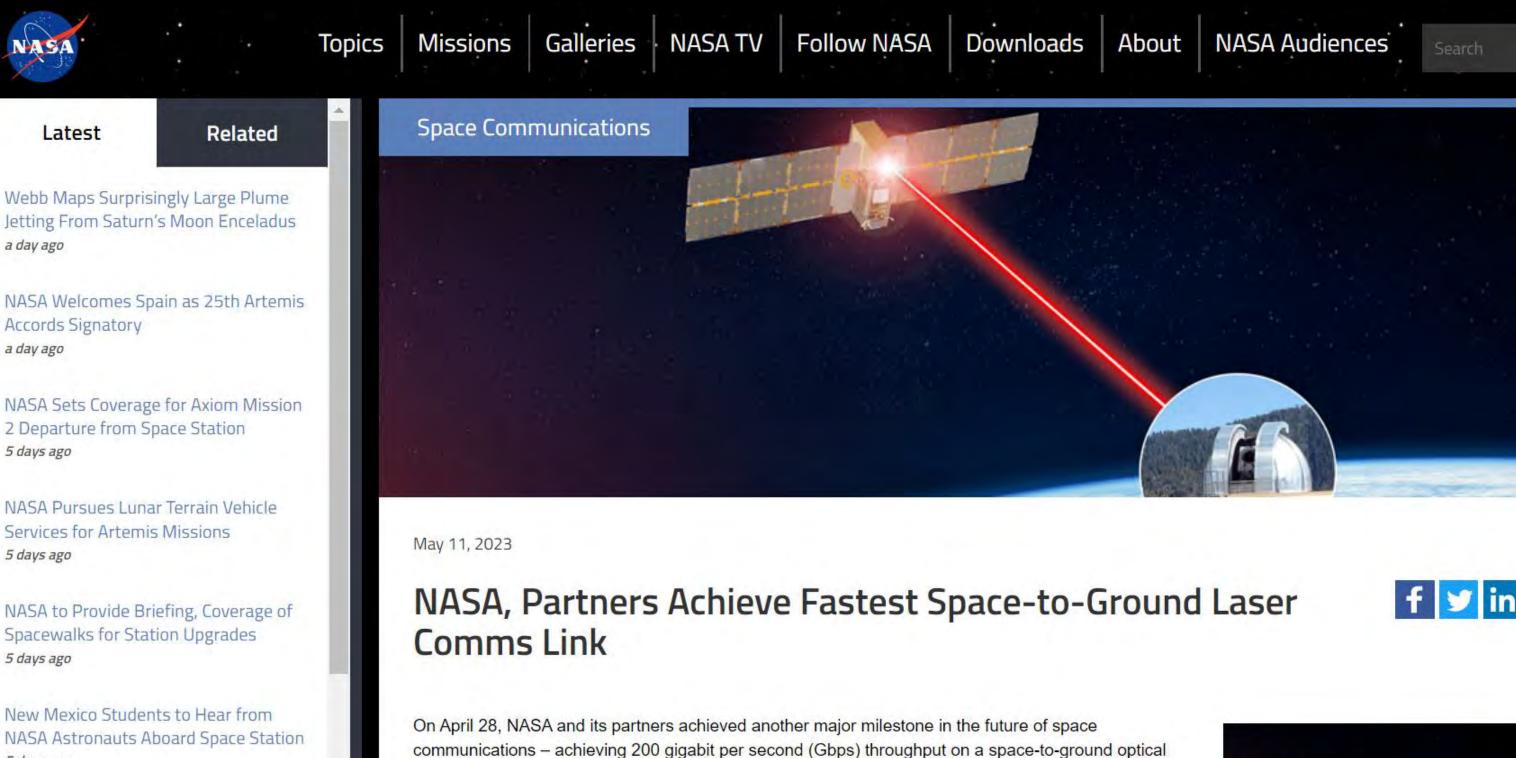
February 7, 2024 By Chris Forrester

On December 18th 2023, Intelsat operated a roundtrip flight from Anchorage to Utqiaġvik, Alaska (formerly Barrow, AK). Utqiaġvik is situated at a latitude of 71° north, the same as many polar routes connecting Asia, North America and Europe. This flight was operated using OneWeb's fleet of low Earth orbit satellites and demonstrated that high-speed, low latency performance is available even in a challenging geographic region that previously never had inflight internet service.

Mark Schubin, HPA Tech Retreat, 2024 February 21

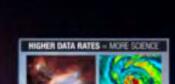
# ver the Arctic

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link between a satellite in orbit and Earth, the highest data rate ever achieved by optical communications technology.

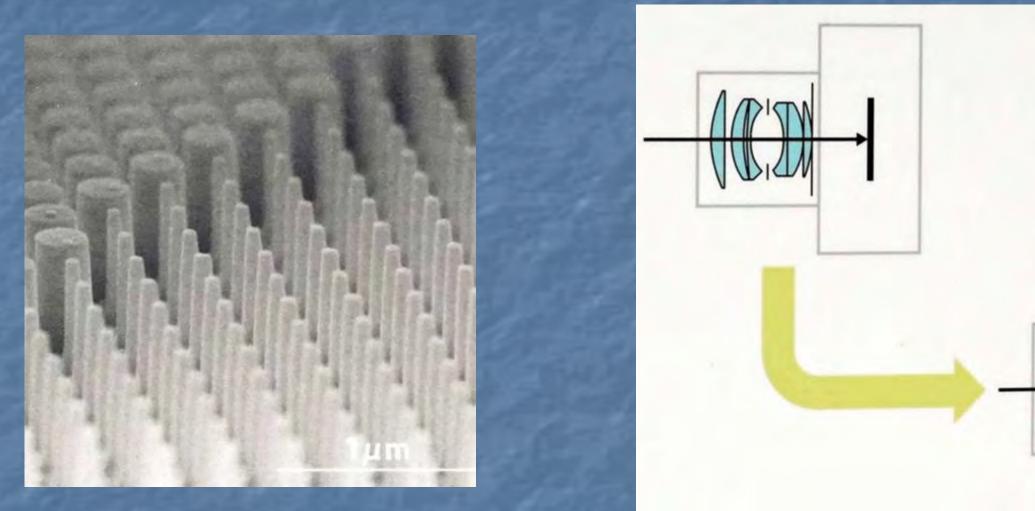
5 days ago



Θ



# Canon Metalens





# Displace Landing Gear



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# Korea Institute of Science & Technology

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techxplore.com/news/2024-01-advanced-full-image-sensor-technology.html

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Latest news

Unread news

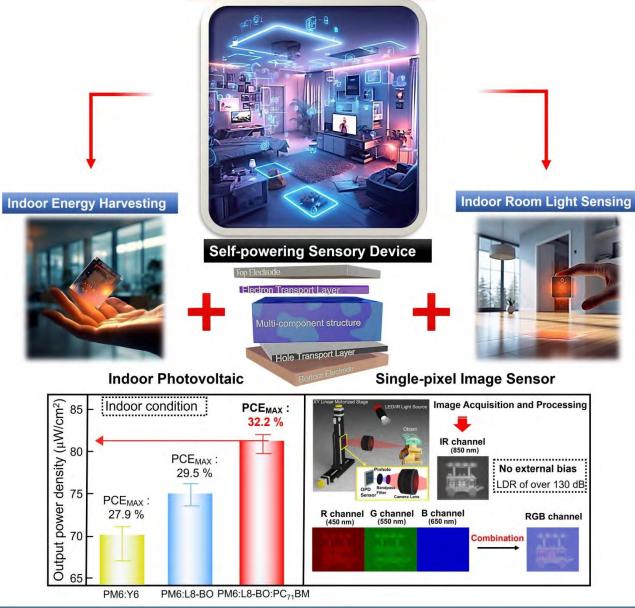
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**JANUARY 25, 2024** 

Editors' notes

Advanced full-color image sensor technology enables simultaneous energy harvesting and imaging

by National Research Council of Science and Technology



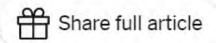
#### Smart Indoor Environment

## The New York Times

MEDIA | The Dream Was Universal Access to Knowledge. The Result Was

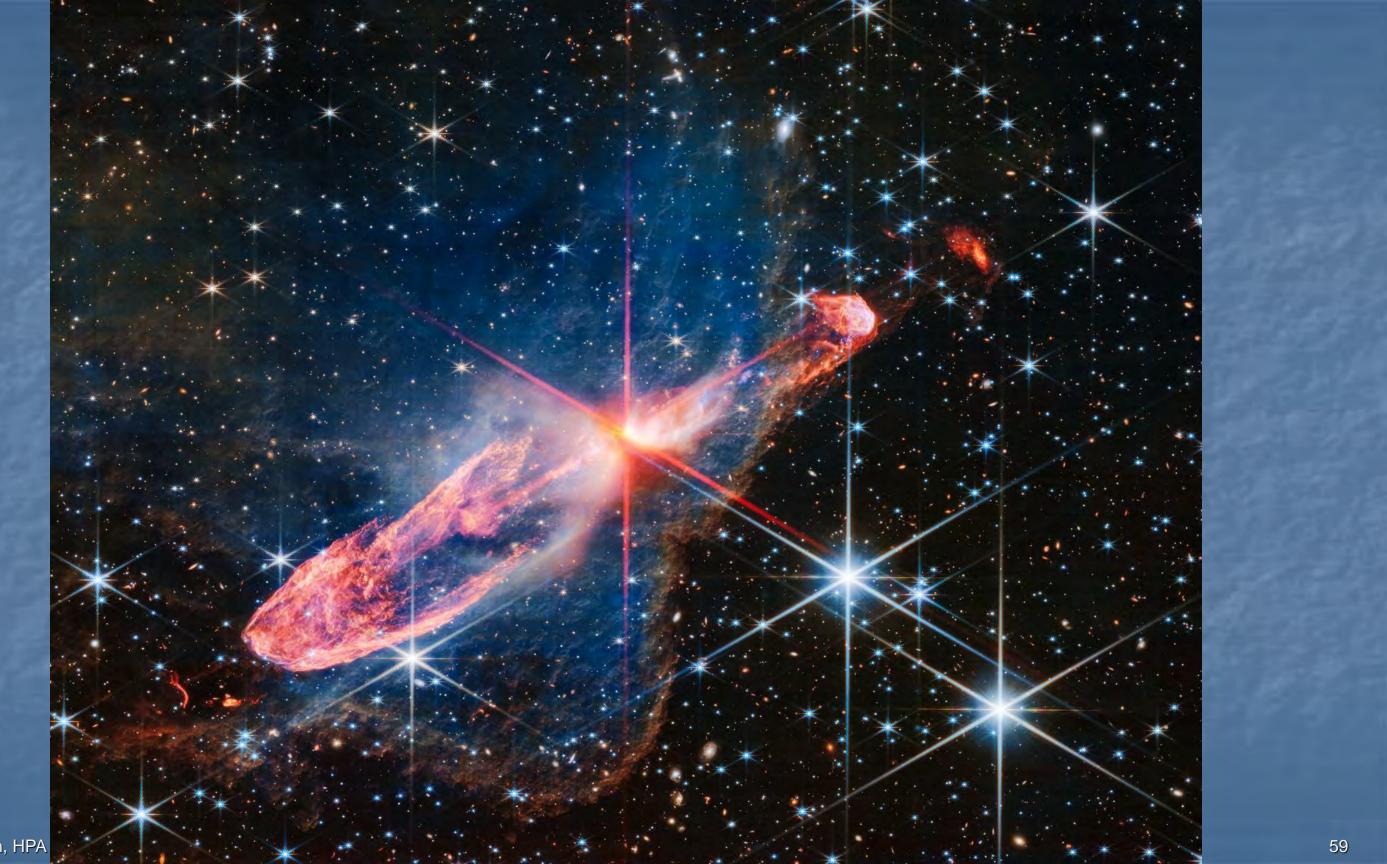
The Internet Archive lost its court battle at a moment of rising concern about whether tech, entertainment and media companies are up to the job of maintaining the public's access to a wideranging culture. Warner Bros. Discovery, for example, wanted to <u>scale back its Turner Classic Movies cable channel</u>, a citadel of cinema history and art. It was stopped by an uproar.

New technology means culture is delivered on demand, but not all culture. When Netflix shipped DVDs to customers, there were about <u>100,000 to choose from</u>. Streaming, which has a different economics, has reduced that to about 6,600 U.S. titles. Most are contemporary. Only <u>a handful of movies on Netflix</u> were made between 1940 and 1970.



Q A

A





## Questions? (if time allows)

## A pdf of these slides is at bit.ly/tr24-year



