Ode to E Pluribus Unum for Sunday August 4 2024



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The Tadpole Galaxy from Hubble



Image Credit: Hubble Legacy Archive, ESA, NASA; Processing: Harshwardhan Pathak

Why does this galaxy have such a long tail? In this stunning vista, based on image data from the Hubble Legacy Archive, distant galaxies form a dramatic backdrop for disrupted spiral galaxy Arp 188, the Tadpole Galaxy.

The cosmic tadpole is a mere 420 million light-years distant toward the northern constellation of the Dragon (Draco). Its eye-catching tail is about 280 thousand light-years long and features massive, bright blue star clusters.

One story goes that a more compact intruder galaxy crossed in front of Arp 188 - from right to left in this view - and was slung around behind the Tadpole by their gravitational attraction. During the close encounter, tidal forces drew out the spiral galaxy's stars, gas, and dust forming the spectacular tail. The intruder galaxy itself, estimated to lie about 300 thousand light-years behind the Tadpole, can be seen through foreground spiral arms at the upper right.

Following its terrestrial namesake, the Tadpole Galaxy will likely lose its tail as it grows older, the tail's star clusters forming smaller satellites of the large spiral galaxy.



Watch as a Drone Summits Mount Everest

A DJI Mavic 3, shows us the enormous scale of the mountain, and the absolute wild beauty of it as it slowly climbs to over 29,000 feet (8839 meters). @liulangCooki, July 29, 2024

Equipped with a <u>4/3 CMOS Hasselblad Camera</u>, the Mavic was able to fly multiple miles from the drone operator, and take cinema-quality footage the entire flight.

https://bit.ly/4c7F6Hj

Wow!

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Is Mauna Kea or Everest the Tallest from Base to Summit?



When you think of the tallest mountain in the world, Mount Everest probably comes to mind. But did you know that the actual tallest mountain from base to summit is Mauna Kea in Hawaii?

This incredible peak rises more than 10,200 meters (33,500 feet) from its base on the ocean floor to its summit, making it taller than Everest by a significant margin!

This mountain isn't just about impressive statistics. It's also a unique blend of natural

beauty and scientific wonder. The summit of Mauna Kea is home to some of the world's most powerful telescopes.

https://bit.ly/3UQvH01

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Venture Capital Cash Fuels Space Startup Dreams



Vertical takeoff and landing test of Stoke Space's Hopper 2 in September 2023. Source: Stoke Space

Fueled by new business cases for space and growing amounts of venture capital cash, space startups have proliferated. In the past decade, 1,779 firms worldwide have received investments of \$286 billion from private equity, according to data from Space Capital.

https://bit.ly/3K68l1F



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Sleek Origami Cabins Offer Easy Assembly





These origami cabins are delightfully unique, with a design that allows them to be erected quickly and easily.

https://mossandfog.com/sleek-origami-cabins-offer-easy-assembly/

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What Defines a Species Spurs Fierce Debate



Scientists have long debated whether the Florida panther is a North American cougar (Puma concolor couguar) or its own unique subspecies (P. c. coryi), ultimately settling on the former. The debate is part of a growing crisis in how scientists classify species. (Image credit: Maria Klos for Live Science)

The concept of a species is an ancient one. In 343 B.C., for instance, Aristotle wrote "History of Animals," in which he described differences between individual animals as well as between groups.

The question of what defines a species has vexed scientists across the ages, particularly in conservation, where decisions require a firm understanding of biodiversity.

There are species in which individuals look very different from one another, as well as "cryptic species" that appear identical but are genetically distinct. Hybridization is also common, leading to animals like the liger (a lion-tiger hybrid) and the beefalo (a cross between domestic cattle and the American bison). Evidence even suggests that humans once bred with two other ancient hominins that are usually considered separate species, the Neanderthals and the Denisovans, suggesting they might not have been so different from us after all.

https://bit.ly/3LbYaZQ

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Olympians Strive to Win—With a Little Help from Science



For many, four years of training culminate into mere hundredths of a second—possibly enough to set a new world record—so athletes and their coaches are turning to the latest research to get an edge.

Physiological advantages start on the inside. Some have taken to befriending their mitochondria, which benefit from alternating "stress-tests" of cold and heat, as well as adequate nutrition, meditation, and sleep. Olympians are also showing some love to their microbiomes, to help ensure their metabolism, immune system, and brain run smoothly. Studies have found that cardio athletes have different bacteria living in the gut, including species that boost a kind of short-chain fatty acid called butyrate, which can increase the amount of oxygen their body can consume during exercise. That could mean tiny tweaks to nutrition turn silver to gold this summer.

For the first time, athletes from around the world will gather to debut Olympic breakdancing, or "breaking." To an outsider, the athletes will appear fluid, expressive, and masterful. But to reach that level of smooth, the competitors have to master physics. Their standing and spinning moves capitalize on the friction between their shoes and the dancefloor, pivoting and redirecting inertia across every axis. They practice balance, torque, and strength, freezing mid-pose and whirling around the floor. And they're not the only ones practicing hard science: With a little help from mathematicians and materials scientists, swimmers hope to capitalize on their body's biomechanics to fly past the competition. Meanwhile, track superstar Gabby Thomas will take her fine-tuned training and neurobiology degree to the starting line. During her Olympic training, Thomas and her coaches spent hours watching film of her body angle and the precise strike of her feet hitting the ground on a curve. Thomas says with the combination of the superfast track structure and her shoe spikes, "you really feel like you're getting a lot back from the track."



With science in her back pocket, Thomas hopes to break a 36-year standing world record for the 200m event, set by Florence Griffith-Joyner at Seoul in 1988.

Research shows the Olympic Games also triggers an uptick in papers, as scientists take advantage of a different kind of field research. Scientists on the ground at the Games bring in advanced technology to ensure athletes are competing clean, and many hope to conduct field experiments to optimize the wheelchairs of tennis players, measure ice consumption, or even offer a pill that records core temperature from the large intestine to monitor athletes' health.

But the elite athletes' greatest opponent might not be each other. These Games coincide with Paris's typical peak summer heat. The Olympic village, which will house the athletes, has been designed with a geothermal cooling system, but no air conditioning—an emissions-reducing move that not all athletes are happy about.

Good sleep, proper nutrition and hydration, and the most up-to-date science will all help propel these world-class athletes to the podiums, but acclimatization might be the most important training tool this summer. "If you're not acclimatized, you have no chance to perform on the day of your event," Franck Brocherie, a senior researcher in exercise and environmental physiology told NBC News.

Even with acclimatization, heat can dramatically limit athletes' performance, Jennifer Vanos, who studies the health impacts of heat and also happens to be a former collegiate distance runner, told the outlet. "I don't think you'll see many records broken."

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Inside Olympic Villages



A cardboard bed inside a bedroom at the Olympic Village in Saint Denis, France, on April 15. The 2024 Olympic Villages will be eco-friendly, featuring buildings made of wood and glass, as well as sustainably sourced energy. Nathan Laine / Bloomberg via Getty Images file

In recent weeks, NBC News spoke with decorated Olympians about life inside the sprawling residential complexes where thousands of athletes sleep, eat, train and socialize. They likened the villages to summer camps, college dorms, crowded hotels and — in the words of gold medalist swimmer Mark Spitz — a "gigantic cruise ship."



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For the First Time in the US, a Canal Is Going Solar

Tectonicus

Across the country, canals bask in the sun all day — a source of energy that currently isn't being harnessed for a bigger purpose. This may soon change, however, as tribal land in Arizona is about to become home to the first solar-covered canal in the nation.

"Canal solar allows for greater power production per land size, cleaner water, less power transmission losses, and significant reduction in evaporation," Ben Lepley, an engineer who made prototypes for the canal design based on a similar project in India, told Canary Media.

The pilot project is located south of Phoenix on the Casa Blanca Canal, which is part of a canal network owned by the Gila River Indian Community. It's estimated to boost solar power generation by 1.9% (equivalent to \$2.3 million per year), according to Lepley: "We've passed those savings on to the ratepayers and prevented a huge amount of CO2 from warming our atmosphere, all without bulldozing vast tracts of the Sonoran Desert."

Per the outlet, the project is set to connect to the distribution grid at the end of the summer — and looking ahead, it may serve as a model for the thousands of miles of other canals throughout the U.S.

Somewhere in the past I wrote an editorial in <u>Distributed Energy</u> on this idea.

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Which Continent Has the Most Animal Species?

A guanaco looks out at a vista in Torres del Paine National Park in Chile. (Image credit: nicolamargaret via Getty Images)

The diversity of even the largest animals depends on the smallest factors.

Estimates using museum and citizen science data, most scientists agree that South America has the highest number of animal species. From the Amazon rainforest, which has four tree story layers for animals to occupy, to the Andes mountains with dozens of different microclimates, South America has the winning blend of heat and geography.

https://bit.ly/3W872WE

Japan's Giant, Underground Conveyor Belt to Transport Stuff

A 310-mile automated distribution network could ease traffic, reduce CO_2 , and address a shrinking workforce.

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Getty

The Japanese Transport and Tourism Ministry has a crazy idea to increase logistics efficiency, reduce road traffic, and avoid the increasingly dramatic labor shortage crisis the Asian nation is experiencing: build a 310-mile fully automated underground transportation system designed to move packages from Tokyo to Osaka and back. Looking at their plan and similar schemes around the world, this oversize sushi conveyor actually makes a lot of sense.

https://bit.ly/3xLxiwQ

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Continuing Research Sheds Light on 2000-Year-Old Computer

Andy Montgomery / Flickr

Researchers used Bayesian analysis and gravitational wave research to help identify the purpose of one of the computer's mysterious 'calendar rings'.

A new study published last week in the Horological Journal reveals fresh details about the ancient Antikythera mechanism, a sophisticated hand-operated mechanical computer <u>discovered</u> in 1901 near the Greek island of Antikythera.

Now, recent research by scientists at the University of Glasgow (UG) has provided new insights into the mechanism's so-called 'calendar ring'. Utilizing statistical analysis techniques, the researchers determined that the ring most likely contained 354 holes, aligning with the lunar calendar rather than the Egyptian or other 360-day calendars.

https://bit.ly/3S0TI3W

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Russian Dance "Summer"



ocregister

From The Igor Moiseyev Ballet. In his many arrangements of traditional Russian folk songs, Moiseyev reflects on different aspects of the Russian national character. This dance from the suite "The seasons" depicts the humor, mischief, romance and lyricism, so often ascribed to the people of the countryside. The setting is a harvest festival, and villagers of all ages have gathered to cheer on a young couple.

https://youtu.be/aXaQpvfWe9Y

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How to Do Integrated Training, Marine Corps Style



mcasyuma.Marines.com

In this op-ed from Robbin Laird, he takes a look at the importance of the Marine Aviation Weapons and Tactics Squadron One in training and readiness.

In 1978, the US Marine Corps stood up MAWTS-1, the Marine Aviation Weapons and Tactics Squadron One, at Marine Corps Air Station Yuma. The goal: to train the trainers to go to USMC squadrons to enhance the ability of Marines to fight as an integrated Marine Corps.

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https://bit.ly/46fGzKn

I wrote the book <u>Marine Air, First to Fight</u>, based on scenarios provided by Lt. Col. Randy Brinkley, then the squadron's Commanding Officer.

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Inflatable Bike Helmet is Stronger Than Current Ones



Ventete

Carrying helmets can be cumbersome, especially when traveling. Renting a bike-share bike in a different city often means riding without a helmet. What if your helmet condensed down to 10% its full size for easy portability?

That's the idea behind Ventete, a Swiss-made helmet that inflates in 30 seconds, and provides strong, safe crash protection. Using a patented pneumatic structural system, the helmet uses pressurized air instead of foam for protection. The result is a design that was tested to be even stronger than traditional foam-filled helmets.

https://bit.ly/4bRBJEq

I'm not sure about the £350 price tag but I think it will succeed in our bike-crazy world

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The Strange Brain of the World's Greatest Solo Climber



J.B. MacKinnon

Alex Honnold doesn't experience fear like the rest of us.

Alex Honnold has his own verb. "To honnold"—usually written as "honnolding"—is to stand in some high, precarious place with your back to the wall, looking straight into the abyss. To face fear, literally.

The verb was inspired by photographs of Honnold in precisely that position on Thank God Ledge, located 1,800 feet off the deck in Yosemite National Park. Honnold sideshuffled across this narrow sill of stone, heels to the wall, toes touching the void, when, in 2008, he became the first rock climber ever to scale the sheer granite face of Half Dome alone and without a rope. Had he lost his balance, he would have fallen for 10 long seconds to his death on the ground far below. One. Two. Three. Four. Five. Six. Seven. Eight. Nine. Ten.

https://bit.ly/4dbu5pi

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Robot Dog Cleans Up Beaches



bright.nl

Researchers at the Italian Institute of Technology have developed VERO, an innovative robot dog equipped with foot-mounted vacuums designed to clean up beaches and other public spaces, addressing the pervasive issue of cigarette butt litter in coastal environments.

The robot's primary mission is to combat the pervasive issue of cigarette butt litter, which accounts for over *4 trillion of the approximately 6 trillion cigarettes smoked annually worldwide.* By combining advanced robotics with environmental conservation efforts, VERO represents a novel approach to maintaining cleaner beaches and public spaces.

https://bit.ly/3YijRiK

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Chords & Riffs

Louis-Hector Berlioz (1803-1869)



Berlioz never received classical musical training, and thus it was easy for him to break the rules of music composition since he didn't know them.

The leading French composer of Romantic music, best known for his innovative Symphonie fantastique and use of large-scale orchestras and choruses in works like The Trojans opera, his innovative style brought successes and failures in equal measure, but his lasting legacy is that he dramatically changed what was thought possible in orchestral music.

He created the expanded, modern orchestra. He "was the first to express himself autobiographically in music, bringing a new dimension to the psychology of the art."

Berlioz had a particularly individual musical style, but he perhaps most directly influenced the Czech composer Bedrich Smetana. Berlioz's innovations were certainly studied by others, notably Franz Liszt, Richard Wagner, Richard Strauss, and Gustav Mahler.

Symphonie Fantastique - March To The Scaffold <u>https://youtu.be/QwCuFaq2L3U</u> Symphonie Fantastique 5th Movement <u>https://youtu.be/cao6WyF-61s</u> Symphonie Fantastique; the whole thing <u>https://youtu.be/5HgqPpjIH5c</u>

Requiem (Grande Messe des Morts) <u>https://youtu.be/HofoFYxqIgU</u>

Hungarian March from The Damnation of Faust <u>https://youtu.be/7okulqWTP2Q</u>



Lokiceratops, a Newly Discovered Dinosaur with Amazing Horns



Mossandfogg

Lokiceratops rangiformis is a newly discovered species of dinosaur, relative of the triceratops, found in the badlands of northern Montana.

Living in the Late Cretaceous period, this large dinosaur would have used its horns to signal mates, and warn or challenge rivals. An exciting and important discovery that shows our knowledge and history of the era of dinosaurs is still being written.

https://bit.ly/4cxn1mM

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How IBM Invented the Smartphone, Then Abandoned It



[Photo: Bcos47/Wikimedia Commons]

1994's Simon was the first rough draft of a device that would change the world. But it was also a dead end.

A collaboration between IBM and wireless carrier BellSouth Simon was a mobile phone. Like all 1994 cellphones, it was a brick-like behemoth. But the reason InfoWorld cared about it was because it was also a handheld computer. Its tiny touchscreen interface let you access and send email, manage your calendar, take notes, and—whoop-de-doo! send faxes. It represented the commercialization of a tech demo created by IBMer Frank Canova, first shown publicly at the COMDEX trade show in Las Vegas on November 24, 1992.

https://bit.ly/3RF7v02

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Mathematicians Attempt to Glimpse Past the Big Bang

By studying the geometry of model space-times, researchers offer alternative views of the universe's first moments.



Nico Roper/Quanta Magazine

About 13.8 billion years ago, the entire cosmos consisted of a tiny, hot, dense ball of energy that suddenly exploded.

That's how everything began, according to the standard scientific story of the Big Bang, a theory that first took shape in the 1920s. The story has been refined over the decades, most notably in the 1980s, when many cosmologists came to believe that in its first moments, the universe went through a brief period of extraordinarily fast expansion called inflation before settling into a lower gear.

But if inflation is responsible for all that can be seen today, that raises the question: What, if anything, came before?

https://bit.ly/4cotkcI

Is Fred Hoyle once again standing in the wings?

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The Next Characters to Enter the Public Domain



Voronoi

Copyright is a type of intellectual property right that protects authors' original works, meaning that their art cannot be used without approval. However, copyright protections do not last forever—eventually, all original work will enter the public domain.

In this graphic, we visualize the popular characters that are set to enter the public domain in the next 15 years, using data compiled from several sources.

https://bit.ly/4eCSJAP

What Happens in the First Moments of Butterfly Scale Formation

New findings could help engineers design materials for light and heat management.



Series shows the Painted Lady butterfly (Vanessa cardui); an optical micrograph of its *scales; electron micrographs of a single scale; and the ridges on that scale. Scale bars 200µm, 20µm, and 2µm. Image: Courtesy of the researchers*

A butterfly's wing is covered in hundreds of thousands of tiny scales like miniature shingles on a paper-thin roof. A single scale is as small as a speck of dust yet surprisingly complex, with a corrugated surface of ridges that help to wick away water, manage heat, and reflect light to give a butterfly its signature shimmer.

MIT researchers have now captured the initial moments during a butterfly's metamorphosis, as an individual scale begins to develop this ridged pattern. The researchers used advanced imaging techniques to observe the microscopic features on a developing wing, while the butterfly transformed in its chrysalis.

https://bit.ly/3XKs2nx



This Sound-Suppressing Silk Can Create Quiet Spaces

MIT news; istock

Researchers engineered a hair-thin fabric to create a lightweight, compact, and efficient mechanism to reduce noise transmission in a large room.

By using common materials like silk, canvas, and muslin, the researchers created noisesuppressing fabrics which would be practical to implement in real-world spaces. For instance, one could use such a fabric to make dividers in open workspaces or thin fabric walls that prevent sound from getting through.

https://bit.ly/3L6djfj

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Chart Showing Who is Older and Younger than You

Everyone seems old when you're a kid. People tower over you and do things you can't even fathom, like walk on just your feet. In high school, elementary school students look like babies, and college kids seem way more mature than they actually are. After college, the ideas of old and young start to get kind of fuzzy, especially a decade out, as I can tell you first-hand.

https://bit.ly/4diDBqV

My Walking Thoughts



For Sunday August 4 2024

My Walking Thoughts for Sunday August 4 2024

Last week I advised you that in the lack of response to my ramble through flight training experiences, I would drop it and get on to other subjects. As it turned out, I received a heavy response for continuing the series, which since I was caught off guard, I won't be able to revive until next week.

Actually, the reprieve is a blessing because a couple of things that came up this week that need attention

For openers:

Shelly Palmer's Discourse on Google's "Dear Sydney" Ad;

"It makes me want to scream."

(Here in its entirety)

Have you seen Google's "Dear Sydney" Olympic ad featuring a father using Gemini AI to help his young daughter write a fan letter to Sydney McLaughlin-Levrone? It is one of the most disturbing commercials I've ever seen. To be clear, I love the idea of a young aspiring athlete inspired by an Olympic athlete. That's awesome.

But after the exposition, the father decides that rather than coach his daughter to express herself honestly and then assist her by helping her use her own words, he will write the following prompt into Gemini: "Help my daughter write a letter telling Sydney McLaughlin-Levrone how inspiring she is and be sure to mention that my daughter plans on breaking her world record... one day. (She says sorry, not sorry.)"

This is exactly what we do not want anyone to do with AI. Ever.

Parenting 101

A parent's most important job is to educate their children. The father in the video is not encouraging his daughter to learn to express herself. Instead of guiding her to use her own words and communicate authentically, he is teaching her to rely on AI for this critical human skill.

The idea that the father is so insecure with his own language skills that he believes AI will do a better job, "I'm pretty good with words, but this has to be just right," makes me sad. Google should be ashamed of this messaging. And just to fuel the flames – why did Google reinforce the stereotype of a minority parent being undereducated and insecure about their communicative skills? Everything about the premise of this commercial makes my blood boil.

Our Reality Is Shaped by Our Language

Our reality is profoundly shaped by our use of language. At its best, language is a form of data compression that attempts to distill complex experiences. This lossy compression inevitably leaves out nuances, leading to different interpretations of the same experiences.

For instance, you or I might describe a color as "red." But that same color might be labeled "scarlet" by an artist or "dark rose" by an interior designer. Each term, while correct within its context, carries different connotations and associations, shaping the user's perception and understanding. Thus, language not only conveys information but also frames our reality, highlighting the subjective nature of perception and interpretation. Google would have us believe that this young girl doesn't need to learn to articulate and describe her reality. This is criminally negligent.

Misleading Promises of AI's Capabilities

The commercial suggests that a poorly worded prompt, processed by a patternmatching autocomplete algorithm, can empower an LLM to articulate a person's feelings better than the person themselves. This portrayal is misleading, as it overestimates AI's ability to understand and convey the nuances of human emotions and thoughts. While the use of generative AI for this task may appear valuable at first glance, the results lack the emotional depth that comes from personal expression. Give me a heartfelt message over a grammatically correct, AI generated message any day.

I received just such a heartfelt message from a reader years ago. It was a single line email about a blog post I had just written, "Shelly, you're to [sic] stupid to own a smart phone." I love this painfully ironic email so much, I have it framed on the wall in my office. It was honest, direct, (and probably accurate).

AI's Threat to Cultural and Linguistic Diversity

If this approach to communication becomes widespread (and Google is saying it will work hard to make it so), it will lead to a future dominated by homogenized modes of expression – a monocultural future where we see fewer and fewer examples of original human thoughts. As more and more people rely on AI to generate their content, it is easy to imagine a future where the richness of human language and culture erode.

Echoes of "Wall-E"

It's probably cliché to say the thesis of "Dear Sydney" echoes the dystopian themes of the movie "Wall-E," where technology leads to a decline in human engagement and self-sufficiency. What really got me going is Google's apparent belief that technology's control over essential aspects of our humanity is inevitable. It is not!

Ultimately, We Have a Choice

What are the ethical implications of using AI to simulate human emotions and relationships? Does this fan letter accurately represent the sender's intentions or is it simply perceived by the sender as a more appropriate (but far less representative) form factor? This is a television commercial, so we have no idea what a young girl in a real world situation would actually write – but this prequel to a dystopian future raises some broad ethical questions.

Suffice it to say, I hate everything about the underlying idea that democratized, homogenized skills are the highest, best use of AI. I don't want to live in Generica, where every human experience is continually devolving into cookie cutter templates that "work."

We have a choice. We can be mindful of the dangers of democratized mediocrity and reject it in favor of education, subject matter expertise, and skills amplification.

I flatly reject the future that Google is advertising. I want to live in a culturally diverse world where billions of individuals use AI to amplify their human skills, not in a world where we are used by AI pretending to be human.

Shelly Palmer is the Professor of Advanced Media in Residence at Syracuse University's S.I. Newhouse School of Public Communications and CEO of The Palmer Group, a consulting practice that helps Fortune 500 companies with technology, media and marketing.

My Belief

Me too, and if I could express the thoughts better or even half as well, I would. But it's too important to leave the task to my mediocrity.

Suffice it to say that I feel the same way about emojis, the unbridled use of the 'fword,' and shortcut letters used to convey what in proper context express complex and totally specific undercurrents.

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And in Closing

The death of a friend whose accomplishments in genuine environmental reform stand as a monument to his resolute and unselfish efforts.

Lanier (Lanny) Hickman (d. July 21, 2024)



N.C. Vasuki and Lanny at the Latter's last birthday N.C. Vasuki

This brief look at his contribution to municipal solid waste management was written by Nuggehalli Vasuki, founder of the Delaware Solid Waste Authority and past president of both the Solid Waste Association of America (SWANA) and the International Solid Waste Association (ISWA).

"Lanny along with William Ruckelshaus, was recruited from the US Public Health Service by USEPA when it was formed in 1970 during the Nixon administration. A result he took the responsibility for cleaning up the nation's garbage mess--there were over 40,000 open dumps operating in the USA at the time--and in doing so he initiated the National Dumpsite Inventory.

"When Lanny retired from USEPA, he was recruited by the Government Refuse Collection and Disposal Association (GRCDA), California Chapters to lead its program. Despite a miserly salary and the uncertainty of signing up with association that had only enough money to pay him for six months, he accepted the challenge and proceeded to build GRCDA step by step.

"He talked me (*NCV*) into joining GRCDA as an at large member; Tim Hunt (Palm Beach County Solid Waste Authority) was an early member as well. Another, Steve Lippy was leading the effort to create the Mid-Atlantic chapter of GRCDA. Thus drawing together waste management talent from around the country was the way Lanny went about business.

"Lanny and his wife Kay were tireless workers building GRCDA into an influential and vibrant organization. After many new chapters were added, it was time to change the name to the Solid Waste Association of America (SWANA). One reason given was GRCDA sounded a little too much like the Grand Rapids Cab Drivers Association!

"He and Tim Hunt from Florida created the "Training Courses for MSW management" The first such course on landfills was in Wilmington DE. Lanny was also the person who made SWANA the National member of the International Solid Waste Association (ISWA)."

NCV

I met Lanny in 1992 when I became editor of <u>MSW Management Magazine</u>, initiating a somewhat strained relationship while he overcame his concern of my lack of firsthand knowledge of the waste business. (He was spot-on of course, but as a 60-year-old convinced no task was beyond me, all things seemed possible). Eventually things thawed, the magazine became SWANA's official publication, and he and I achieved a somewhat collegial relationship in which we agreed to confine the bulk of our communications to tales of woe and glee in our alma maters' football pursuits of fame and fortune.

I intend to do a much more complete coverage of Lanny's many accomplishments and his visions of solid waste management in the future, but for the moment I'll leave it at a heartfelt "Godspeed my friend, and may your beloved Oklahoma University football team bring home the national championship in your honor this fall."

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