LEARNERS LIVE



Expanded from Bill Attardi's EnergyWatch.com

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http://learnerslive.com/
https://www.youtube.com/@BillAttardi

When you stop getting better…You stop being good. **John Andrewes**

Something to Think About…

When Was the Last Time or Ever You Gave a Highly Memorable Speech? by Bill Attardi

Three (3) interlocking connections determine whether an audience listens, understands, remembers, or acts as you encouraged:

CREATIVE OPENING
MEANINGFUL CONTENT
COMPELLING CLOSE

Each element serves a distinct psychological and practical purpose in guiding an audience from passive listener to active participant. Whether an audience chooses to be there to listen to you or students come to one of my classes at Monmouth University by obligation, you have a responsibility to give them a good performance. All three elements then have to be covered!

Your Creative Opening – The first 60 seconds decide whether listeners lean in or tune out. Please, never start with: ***Thank you for having me today, I'm glad to be here.....*** Most are glad to be anywhere. Getting their attention is a scare resource. Pleasantries are nice but your opening is the first opportunity you have to connect with your audience. It's your FIRST IMPRESSION! If the beginning is dull or predictable, listeners may quickly lose interest. A creative opening, therefore, should immediately make the audience curious and encourage them to listen. You want to create an emotional and intellectual jolt and have your audience think:

Hey, this is going to be good, I should pay attention!

Some suggestions to connect with your audience at the jump:

- **A Provocative Question –** my favorite……. A specific question not looking for an answer until your Compelling Close. Push your audience to think about the answer to that question as you provide the information. The answer could be a great Close!
- **Surprising Statistics –** A stat or claim that disrupts assumptions, that anchors the topic in high-stakes reality.

Something you may not know!

- **Storytelling –** Listeners love good feeling stories…..A vivid story or personal anecdote that places the audience inside a concrete scenario. Create an emotional connection before you present logical arguments.
- **An Unexpected Visual –** A striking image, prop, or demonstration that engages multiple feelings and senses.
- **A Meaningful Quotation –** A brief, well-chosen quotation by someone well-known that frames the theme with authority or wit can be a powerful start to any presentation.
- **Applicable Videos –** lots of choices but be sure you establish relevance:
  - A dramatic activity or performance that leads to a learning lesson
  - An entertaining event that ties into your subject
  - A fun / humorous act that sets the tone of your presentation
- **A Pitfall to Avoid –** Opening with mundane pleasantries which signals to the audience that they can safely tune out.

Meaningful Content – Once attention is secured, the speech must deliver substance.
This is the essence of an outstanding speech, of a great speaker. You are sharing what you know with your audience. They are there for two basic reasons: (1) to learn what they do not know; (2) to confirm what they do know. Meaningful Content is the intellectual and emotional core—the part that justifies your audience's continued investment of their time to listen to you.

In this world of artificial intelligence, you need to be thoroughly knowledgeable about your subject and about the make-up of your audience. Do the hard work of intense preparation. No short cuts here. You have a responsibility to give a good performance. Athletes love playing the game but the practices have to be tough, as they should be if you want to win. Enjoy Game Day, that's your time to perform. At the same time, just as athletes know everything about the other team, do not underestimate the knowledge of your audience. They have access to AI too!

Key qualities of Meaningful Content include:

- **Know Your Audience –** Address your audience's interests or concerns. Offer insight, knowledge, or inspiration
- **Purpose –** Educate, persuade, or inspire by delivering clear, well-supported insights. Share what you know……..
- **Audience-Centered Relevance –** Continuous connection of your material to your listeners' values, needs, and/or aspirations.
- **Clarity of Purpose –** A memorable central idea that everything else supports. Present clear and organized ideas……..
- **Logical Structure –** A clear sequence that guides the audience without confusion. Misleading or overly complex structures cause mental fatigue.
- **Psychological Function –** Engages critical thinking, builds a coherent mental model, and establishes the "why" behind your message.
- **Evidence and illustration –** Facts, examples, stories, analogies, and data that make abstract claims concrete and credible. Include thought provoking facts, examples, and evidence.
- **Appropriate Depth and Pacing –** Enough detail to be persuasive, but not so much that your audience becomes overloaded.

Something you may not know!

- **The Signal-to-Noise Ratio –** Every point, data piece, or anecdote must directly serve the central premise. Strip away extraneous details.
- **A Pitfall to Avoid –** Overloading the presentation—saying fewer things with greater depth is always more effective.

Your Compelling Close – What do you want them to remember?
Understanding how the brain works here is essential. Memory…….what you want them to remember. No matter how good your Content, memory is heavily weighted toward your Creative Opening (FIRST IMPRESSION) and now your Compelling Close (LAST IMPRESSION). A weak close can erase much of your good work that preceded it.

Your Compelling Close should feel inevitable yet have a sense of surprise, a sense of learning:

WOW, w***as that really the answer!***

Your Close, for it to be memorable / compelling, is where a speech transforms from an informative presentation into a memorable, influential event. The conclusion is the final opportunity for the speaker to influence the audience. Just as first impressions matter, last impressions are often what people remember most. As they leave the room, your Compelling Close should reinforce your main message and leave your listeners with a clear takeaway.

Importance of a strong Compelling Close:

- **Answer Your Creative Opening Question –** Now may be the time, after listening to your presentation, to ask your audience for the answer to that important opening question. This is very effective as it ties your opening and your close together, as stated, both heavily weighted to their memory.
- **Purpose –** Reinforces the main message, provides a sense of closure and inspires action.
- **A Call to Action –** If that's what you want…… Defines exactly what the listener should do next with the information provided.
- **Provides Emotional Resonance –** Hope, urgency, inspiration, resolve, or all of these.
- **A Resonant Final Statement:** A concise, powerful phrase designed to linger in the mind long after the speech ends. Ends on a high note of energy……
- **A Pitfall to Avoid –** Never end with "That's all I have" or open a Q&A session after the final concluding remark. The final words should be YOURS deliberate and memorable.

Final Comment – My Compelling Close!
In most cases, questions from your audience can be encouraged. Option is to have them ask during your presentation, normally a good way during an informal gathering; or, as comedian Dom Deluise used to say, ***Sava fer da end!*** Opening up for questions at the end could be very effective as it will show how your audience responded to the information you provided. Here is a pitfall: never end on someone else's question….especially if it is a question you cannot answer, or fumble with the answer…it happens. So what do you say?

Before I close, are there any more questions?

Then go to your Compelling Closing slides….Works every time. The final words must be yours!

Something you may not know!

Did you know…Home - Learners Live

Here's a little-known fact about the MLB World Series

First, let me congratulate the Milwaukee Brewers on their first World Series Championship. Well played the entire 2026 season…

The 1903 World Series was the first modern World Series, and the Boston Americans (now the Red Sox) defeated the Pittsburgh Pirates 5 games to 3. Do you believe it……..a team from Boston……. The surprising twist: The World Series wasn't played at all in 1904! The New York Giants refused to participate because their owner, John T. Brush, considered the championship unnecessary. The Series returned in 1905. So, baseball's biggest annual event actually skipped its second year! The team from Boston (Americans, then Red Sox) have a World Series record of 9 wins and 4 losses in championship appearances, for a 69.2% championship success rate. Their nine championships came in 1903, 1912, 1915, 1916, 1918, 2004, 2007, 2013 and 2018. Sad fact: The team from Bean Town waited 86 years between championships, from 1918 until its dramatic victory in 2004, when the Red Sox ended the famous Curse of the Bambino……just sayin!



Something you may not know!

Learning News

1. ***Sonepar Deploys Its First Data and AI Platform -*** A unique worldwide Data & AI platform enables the Group to modernize its supply chain, anticipate demand with unparalleled accuracy, and deliver a personalized customer experience.With Onepoint's support, Sonepar initiated the creation of a global, one-of-a-kind Data & AI platform to support its omnichannel strategy. This platform serves as the technological base for all Group subsidiaries. Designed to orchestrate data at scale, the platform continuously analyzes sales, customer histories, and logistics flows. Thanks to this new architecture, almost the whole Group —95% of revenue— now benefits from predictive models. This is a first in Sonepar's market, where few players have industrialized their use of AI. These models can precisely adjust stock levels, improve forecast reliability, and enhance product availability in a market where speed is a decisive competitive advantage. **Three use cases highlight the tangible value of AI at Sonepar at:** Sonepar Deploys Its First Data and AI Platform – tEDmag

2. ***PwC Maps $31.6 Trillion AI Data Center Buildout Through 2050 by Matt Vincent -*** PwC's inaugural Global Data Centre Outlook projects a multi-decade infrastructure cycle increasingly dominated by recurring GPU and server investment, with power availability, chip access and data sovereignty determining where trillions of dollars in data center capital ultimately land. The scale of the AI infrastructure buildout is becoming easier to describe in trillions than billions. PwC's inaugural Global Data Centre Outlook 2026–50 projects $31.6 trillion in cumulative global data center capital expenditure through 2050 under its central scenario, with annual spending rising from roughly $800 billion in 2026 to $1.1 trillion in 2030 and $1.8 trillion by 2050. There is also an enormous range around that central case. PwC, working with Oxford Economics, puts plausible cumulative investment at roughly $22 trillion to nearly $50 trillion, depending primarily on how quickly AI adoption progresses. But the most important finding may not be the $31.6 trillion headline.PwC Maps $31.6 Trillion AI Data Center Buildout Through 2050 | Data Center Frontier

3. ***NEMA: Incandescent Bulb Bill Faces Tough Road in Senate -*** The National Electrical Manufacturers Association has expressed opposition to the Liberating Incandescent Technology Act, which recently passed a Senate committee and would allow incandescent bulbs back on the market. "Our members no longer make incandescent bulbs. That hasn't been the standard for a few years," says Eric Bursch, director of government affairs at NEMA. "US manufacturers have invested billions of dollars in a successful transition under the current standards to LED technology." The American Lighting Association also opposes the bill, citing safety concerns with using incandescent bulbs in fixtures designed for LEDs. US manufacturers unlikely to retool for incandescent bulbs: NEMA | Facilities Dive

4. ***President Trump Announces Massive Steel Plant in Iowa –*** President Donald Trump announced on Monday the plan to build a $15 billion steel plant in Iowa, in what is proposed to be the largest steel plant in the United States. Mesabi Metallics is a Minnesota company owned by India's Essar Group, an industrial conglomerate. The plant is expected to produce up to 10 million tons of steel a year after it's fully built out. Business News Today – tEDmag

Something you may not know!

5. ***U.S., China Agree to Reduce Tariffs by $30 Billion -*** On Monday, September 28, the United States and China released extensive lists of products that will see significant tariff cuts, from American hair products to Chinese toys, in a deal expected to boost bilateral trade and be worth about $30 billion. The details came days after Chinese President Xi Jinping met with President Trump in Washington D.C. late last week. The lists included 1,619 items of U.S. goods entering China, ranging from agricultural commodities, hair and personal care products to timber and medical equipment. Coal from the U.S. will also be included. For Chinese goods exported to the U.S., 77 categories were covered, including fireworks, tableware, toys like dolls and puzzles, glass and wooden Christmas ornaments and soccer balls. Tariff rates on over 90% of the products would be subject to "most-favored-nation" levels, the Chinese commerce ministry said, meaning that country-specific tariffs will effectively be eliminated. Business News Today – tEDmag

6. ***US Overtakes Japan as Second-Largest Industrial Robot Market by David Hutton –*** The United States surpassed Japan in 2025 to become the world's second-largest market for industrial robots, trailing only China in annual installations. US factories installed nearly 38,500 industrial robots last year, representing a 12% increase and marking the third-highest number recorded in the history of industrial robotics statistics. The milestone comes as global operational stock of industrial robots surged 9% to a record 5 million units in 2025, driven by an 11% jump in annual installations worldwide. Factories across the globe installed more than 600,000 new units over the year, demonstrating the accelerating adoption of automation technology in manufacturing operations spanning automotive production, electronics assembly, plastics processing, and other industrial applications. America Surges Past Japan in Global Robotics Race

7. ***AI Leaders Sign Safety Accord -*** President Donald Trump met with a large group of leaders from artificial intelligence companies on Tuesday, announcing they signed a voluntary accord that will include internal and external reviews during a meeting at the White House aimed at addressing fears about AI technology. The accord was signed by Trump, Anthropic CEO Dario Amodei, Google CEO Sundar Pichai, Meta CEO Mark Zuckerberg, OpenAI President Greg Brockman, Nvidia CEO Jensen Huang, and Elon Musk, founder of xAI, which is now part of SpaceX. The accord said the companies would implement "robust internal controls," partner with an "independent external auditor" to assess whether the controls were working, and establish a committee within each company's board of directors to evaluate reports from internal and external auditors. Business News Today – tEDmag

8. ***Registration Opens for Light + Intelligent Building - March 15-17 in Las Vegas -*** Registration is open for Light + Intelligent Building North America in Las Vegas. At the show, attendees can explore solutions for the spaces they design, specify, build, and operate.
   - Explore the show floor featuring lighting, building technology, accessories and components.
   - Learn from industry experts through keynotes, on-floor theatres, panels and case studies, with opportunities to earn CEUs through eligible sessions.
   - Experience technology in action with live demonstrations showcasing the systems shaping today's buildings. **Register here.**

Something you may not know!

9. ***FreFarm Succeeds with In-House Cucumber Propagation Using Philips LEDs -*** One year after introducing an in-house multi-layer cucumber propagation facility equipped with Philips horticulture LED production modules, FreFarm is reporting strong results in seedling quality, production reliability and operational flexibility. The facility has enabled FreFarm to produce high-quality cucumber seedlings year-round, with greater control over their quality and availability and less risk of introducing pests, diseases and viruses from external suppliers. FreFarm has grown cucumbers for the past four years in its 1.6-hectare greenhouse equipped with Philips GreenPower LED toplighting compact. The Philips GreenPower LED production module provides a light spectrum optimized for cucumber propagation, supporting efficient photosynthesis and healthy early-stage plant development. https://www.ledinside.com/news/2026/10/2026_10_07_01

10. ***Global Smart Street Light Installations Growing at 18% CAGR by David Shiller -*** The global smart street lighting market is moving beyond isolated pilots and becoming a mainstream element of municipal LED modernization. Berg Insight estimates that the worldwide installed base of individually controlled smart streetlights reached 38.5 million units at the end of 2025 and will grow to 87.6 million units by 2030, representing a 17.9% compound annual growth rate (CAGR). That forecast signals a market that is no longer defined solely by the conversion from legacy lamps to LEDs. The next value proposition is networked control: the ability to monitor, meter, dim, schedule and diagnose individual luminaires—or groups of luminaires—remotely. For municipalities, utilities and roadway operators, smart controls can turn an LED retrofit into an operational platform with continuing value over the asset life of the lighting system. More information is **here**. Global Smart Street Light Installations Growing At 18% CAGR | LightNOW

11. ***DOE Invests $4.2 Billion to Boost Nuclear in Pennsylvania and Ohio -*** DOE today announced a conditional loan commitment of up to $4.2 billion to finance nuclear uprates and modernization across Vistra's nuclear fleet in Pennsylvania and Ohio. Today's announcement will deliver more reliable American energy, strengthen the grid, lower costs, and meet growing power demand across the 13-state PJM Interconnection, L.L.C. (PJM) region. The projects will preserve nearly 4 gigawatts (GW) of reliable baseload power—enough to power more than 3 million homes—and add 433 megawatts (MW) of new nuclear capacity, helping meet growing electricity demand in Pennsylvania, Ohio, and across the PJM region. DOE Invests $4.2 Billion to Boost Nuclear in Pennsylvania and Ohio – tEDmag

12. ***Maintenance at an MLB Stadium is a Year-Round Job by Dave Lubach -*** Milwaukee Brewers' maintenance staff relies on a fleet of MEWPs (Mobile Elevated Work Platforms) to keep American Family Field in big-league shape. The stadium contains 1.2 million square feet with a seating capacity of 41,900. American Family Field also includes two restaurants, gift shops, luxury suites, 38 concession stands, 66 restrooms, and 392 sports light fixtures. The Milwaukee Brewers' facilities team uses four scissor lifts and an 85-foot boom lift to handle daily maintenance tasks, including HVAC and electrical work, lighting repairs, painting and window replacement. MEWPs provide safer, more efficient access to elevated work areas than ladders, while a third-party contractor handles most routine lift maintenance and repairs to keep the equipment reliable. From the Archives: Maintenance at an MLB Stadium is a Year-Round Job - Facilities Management Insights

Something you may not know!

13. ***DOE Invests Nearly $2B to Keep US Power Grids Working -*** The U.S. Department of Energy's (DOE) Office of Electricity (OE) today announced its intention to help fund 31 grid-improvement projects across 26 states. The projects will receive $5.25 billion in total, $1.9 billion in federal funding from DOE and $3.35 billion in recipient cost-share funding, to improve grid reliability and lower electricity costs for approximately 100 million Americans. A full list of selected projects is available here. DOE Invests Nearly $2B to Keep US Power Grids Working

14. ***Nippon Steel to Invest Additional $3 Billion on U.S. Production -*** United States Steel Corporation ("U. S. Steel"), a wholly owned subsidiary of Nippon Steel Corporation ("Nippon Steel"), has decided to construct a new hot strip mill at the company's Edgar Thomson Plant, part of its Mon Valley Works in western Pennsylvania. This investment represents one of the concrete steps toward Nippon Steel's committed $11.0 billion investment plan across the U. S. Steel footprint, with total capital expenditures for the hot strip mill project at Mon Valley Works amounting to approximately $3.0 billion. The investment will replace aging equipment with modern steelmaking technology, increasing annual production capacity from approximately 2.2 million tons to approximately 3.5 million tons. This will enable the establishment of a product supply system capable of meeting a wide range of demand, including in the automotive, home appliance, and energy sectors. Business News Today – tEDmag

15. ***Sonepar Announces Plans to Invest $560 Million in AI -*** Sonepar announced a $560-million investment to accelerate AI integration across its operations, aiming to enhance customer service, supply chain resilience, and sustainability efforts, building on its $4 billion transformation since 2021. Through these investments, Sonepar said in the press release that it aims to combine commercial performance and operational excellence in support of its customers' energy transition. The company said this AI investment builds on its "long-standing commitment to transformation," and that since launching its transformation in 2021, it has committed nearly $4 billion to reshaping its business model, including nearly $3 billion in the modernization and automation of its global supply chain, and $1 billion for its digital transformation, including the development of Spark, its global omnichannel platform. Deployed at scale across the company, artificial intelligence is now at the heart of its operating model. Sonepar to Invest $560 Million in AI | Electrical Wholesaling

16. ***Lighting Upgrades That Support Long-Term Facility Resilience by Lauren Brant -*** Smart lighting upgrades can reduce maintenance demands, simplify access, limit operational disruptions, and help facility teams plan for changing needs. A lighting upgrade can solve more than an energy-efficiency problem. For facility teams, lighting technology also affects maintenance, access, downtime, labor, and a system's ability to adapt to changing needs. Smart lighting upgrade strategies consider every stage, from specification to maintenance, helping Facility Managers run operations that support long-term building performance and resilience. Lighting Upgrades That Support Long-Term Facility Resilience | Buildings

Something you may not know!

Education Resources

17. ***BriteSwitch: How the DLC V6.0 Transition Could Affect Your Lighting Rebates*** **-** When you're quoting a commercial lighting project, the last thing you want is a surprise when it's time to collect the rebate. On December 15, 2026, the DesignLights Consortium (DLC) will remove products that haven't transitioned to its new SSL V6.0 requirements. As of October 12, more than 248,000 products were still listed under V5.1. With approximately **65% of commercial lighting rebate offerings requiring DLC-qualified products**, this transition could have an major impact on projects extending into 2027. But losing DLC qualification doesn't necessarily mean losing rebate eligibility. Some utilities will require V6.0 starting January 1, while others are allowing older products to remain eligible for a period of time. **We took a closer look at how specific rebate programs are handling the transition and how you can avoid costly mistakes.** How the DLC V6.0 Transition Could Affect Your Lighting Rebates

18. ***PNNL/ASHRAE/NEMA AI Data Center Energy Performance Framework*** **-** PNNL, ASHRAE, and NEMA conducted an industry survey that revealed the need for collaboration, clear direction, standardization, ongoing engagement, knowledge sharing and education. To address these needs, the three organizations, in conjunction with several industry partners, created the AI Data Center Energy Performance Framework with the following objectives:
    - Deliver a scalable framework for the efficient design, commissioning, retrofit, and operation of AI data centers
    - Enhance energy and water efficiency through adoption of advanced technologies and best practices
    - Support grid reliability and resilience by promoting load flexibility and grid-interactive operations

    The Framework presents the guiding principles for building and operating energy-efficient AI data centers. With sections covering all stages of planning, design, construction, operation, and retrofit, this framework guides AI data center development toward optimized and energy-efficient performance. PNNL/ASHRAE/NEMA AI Data Center Energy Performance Framework

19. **WHITE PAPER:** ***BAS: Five Global Trends That Will Define Your Strategy*** **-** By leveraging advanced building automation system (BAS) technologies today, organizations can reduce costs, streamline workflows and create healthier, more adaptive environments for occupants.

    Johnson Controls

    Building automation systems are already helping organizations reduce costs, streamline workflows, and create healthier, more responsive environments for occupants. But with AI rapidly advancing, the next generation of BAS technology is set to deliver even greater performance through faster optimization, smarter decision making, and more adaptive building operations. Industry forecasts estimate that by 2028, AI agents will make 15% of daily decisions in smart buildings. Organizations that embrace AI driven BAS technologies now will be better positioned to improve efficiency, enhance occupant experiences, and stay ahead in an increasingly connected future. The Future of BAS is here – are you ready?

Something you may not know!

20. **WHITE PAPER:** ***Navigating the Journey to AI-Ready Buildings -*** How AI Is Transforming Commercial Buildings. This Schneider Electric paper explores how AI systems can be implemented and operated in commercial buildings to address the significant challenges that facility managers and building owners face today and in the immediate future. It also considers the wide range of benefits and new opportunities presented by the adoption of AI-enabled technologies and platforms, as well as all the key requirements for implementing AI in commercial buildings and across real estate portfolios. Navigating the Journey to AI-Ready Buildings | Buildings

21. **WHITE PAPER:** ***Solar is Lighting the Future of Electrical Contracting -*** For Electrical Contractors, the days of relying on AC power to light streets, paths, parks and even parking lots are numbered. Local governments are now realizing that an investment in solar lighting is one that pays dividends over its extended life, which has translated into a greater demand for Electrical Contractors to install solar lights. Municipalities are calling upon Electrical Contractors to install solar lights to provide their citizens with consistently safe, well-lit streets even during inclement weather and power outages. The ability to collect, store and generate energy while withstanding hurricane winds, extreme temperatures and snow has led municipalities to gravitate toward solar power as the preferred energy source. To learn more about how solar technology is transforming the commercial outdoor lighting industry, visit: Solar Lighting Technology | First Light Technologies

Publications of Learning

22. ***U.S. Manufacturing Is Adding Jobs Again, but the Hiring Rules Have Changed by Konrad Putzier -*** While factory employment is on the rise, a shift toward high-tech automation is creating roles with greater barriers to entry. The U.S. is adding manufacturing jobs again. The catch: You might need a college degree to get one. That shift has big ramifications for the U.S. economy. Higher-skill jobs tend to pay better and create greater profits for their employers, boosting growth. But because these roles require more education, companies risk a skilled-worker shortage if training programs don't keep pace. Between 2015 and 2025, U.S. manufacturers shed 244,000 jobs in so-called production occupations like assemblers and machine operators, according to Labor Department data. Over the same period, they added 358,000 jobs in management and business and financial operations. One factor driving the change is automation: Robots have replaced many shop-floor workers, but not managers and engineers, increasing their share of the workforce. U.S. Manufacturing Is Adding Jobs Again, but the Hiring Rules Have Changed - WSJ

23. ***Navigating the Journey to AI-Ready Buildings by Schneider Electric -*** This paper explores how AI systems can be implemented and operated in commercial buildings to address the significant challenges that facility managers and building owners face today and in the immediate future. It also considers the wide range of benefits and new opportunities presented by the adoption of AI-enabled technologies and platforms, as well as all the key requirements for implementing AI in commercial buildings and across real estate portfolios. Download the paper: Navigating the Journey to AI-Ready Buildings | Buildings

24. ***How Smart Lighting Is Becoming a Digital Layer of Campus Infrastructure by Sean Grasby -*** Lighting is no longer a basic building system—it's part of a building's digital infrastructure. Here's what you need to know about evaluating lighting upgrades as part of a modernization. **Key Highlights**
    - Lighting is evolving from a simple building system to a key digital infrastructure layer that supports electrification, ESG reporting, and smarter campus operations.
    - Modern lighting enhances safety by improving visibility in high-traffic areas and supports security measures, while also creating adaptable learning environments with adjustable controls.
    - Integrated sensors and smart controls enable predictive maintenance, energy optimization, and remote management, reducing operational costs and resource use.
    - Retrofitting projects, like the university case study, show substantial savings and environmental benefits, emphasizing the importance of strategic planning and audits.
    - Starting with a campus lighting audit helps identify priorities, safety concerns, and integration opportunities, guiding investments that deliver long-term value.

    Beyond Energy Savings: How Smart Lighting Is Becoming a Digital Layer of Campus Infrastructure | Buildings

25. ***Tiered Approach Can Hold Down Energy Efficiency Upgrade Costs by Robert Freedman -*** Staging work over time enables each level of upgrades to pay for the next, say executives at the National Electrical Manufacturers Association. By starting with the savings from relatively low-cost upgrades, like a new occupancy-based LED lighting system, operators create a starting point for funding a capital stack that they can apply in stages to more impactful upgrades, Todd Sims, NEMA's senior director of regulatory and industry affairs, told Facilities Dive in an interview. Staging improvements in this way enables each level of upgrades to pay for the next one, he said. Tiered approach can hold down energy efficiency upgrade costs | Facilities Dive

26. ***Lighting Upgrades That Support Long-Term Facility Resilience by Lauren Brant -*** Smart lighting upgrades can reduce maintenance demands, simplify access, limit operational disruptions, and help facility teams plan for changing needs. **Key Highlights**
    - Lighting upgrades can significantly reduce maintenance costs and operational disruptions, especially in high-ceiling spaces with difficult access.
    - Retrofitting existing infrastructure with modern LED fixtures and plug-and-play adapters minimizes installation costs and preserves valuable building components.
    - Accurate measurements, current drawings, and detailed planning are crucial to avoid costly errors during retrofit projects.
    - Considering future reconfiguration and accessibility in lighting design enhances system longevity and ease of maintenance.
    - Facility managers should treat lighting upgrades as lifecycle decisions, balancing energy performance with operational needs like access, maintenance, and adaptability.

    Lighting Upgrades That Support Long-Term Facility Resilience | Buildings

Something you may not know!

27. ***Leverage AI to Overcome Data Chaos and Optimize Facility Operations by David Homola -*** Buildings' operational data is often contained in multiple places that don't talk to each other, which prevents facilities teams from using them to optimize operations. Here's how you can clean up the chaos. **Key Highlights**
    - Data fragmentation and inconsistent documentation hinder AI's ability to provide accurate insights in facility management.
    - AI enhances operational efficiency by automating data retrieval, surfacing recurring issues, and supporting proactive decision-making.
    - Standardizing data collection—categories, locations, and outcomes—is essential for AI to function effectively and build trust in automated insights.
    - Creating AI-ready facilities involves disciplined workflows, shared digital resources, and clear naming conventions to ensure data quality.
    - Implementing structured digital processes today prepares facility teams to leverage AI for predictive maintenance, compliance, and strategic planning in the future.

    Leverage AI to Overcome Data Chaos and Optimize Facility Operations | Buildings

28. ***Maintenance Meets AI: A Proven Approach for Asset-Heavy Industries -*** Embedding the latest AI and technology within day-to-day operations is transforming maintenance from a cost center into a significant driver of value. I is rewriting an operational playbook that for decades has governed the way asset-heavy industries manage maintenance. New technology and approaches are advancing the frontier of what is possible in asset management, increasing efficiency at every step of the maintenance and reliability process and improving the availability of mission-critical equipment. The transformation opportunity is significant. Maintenance is one of the largest controllable cost buckets in manufacturing and capital-intensive organizations such as airlines, mining, energy, and rail. And with a direct impact on operational continuity, the maintenance function has a critical influence on revenue generation and customer experience. Every day that a critical piece of equipment is unavailable, or that an airplane can't fly, can represent millions of dollars in revenue and production losses. AI-driven maintenance: An approach for asset-heavy industries | McKinsey

29. ***AHB: The Reality of AI in Residential Construction -*** The influence of artificial intelligence is gradually proliferating across the modern workforce. But specifically for the construction industry, AI's impact isn't as significant as many might expect — at least, not yet. According to the National Association of Home Builders (NAHB) and the U.S. Bureau of Labor Statistics, 45 of 47 construction-related occupations are classified as having "low" or "moderate" relative AI exposure. The remaining two occupations were classified as having "high exposure," with no fields claiming to have "very high" exposure. AI is still likely to change the way construction work is completed. But in its current form, it doesn't yet have as big an impact in frontline construction work as it does in other occupations. Managers and building inspectors are likely using AI more frequently because their roles include more planning, documentation, scheduling, compliance, and communication than hands-on work. NAHB: The Reality of AI in Residential Construction – tEDmag

New Technologies

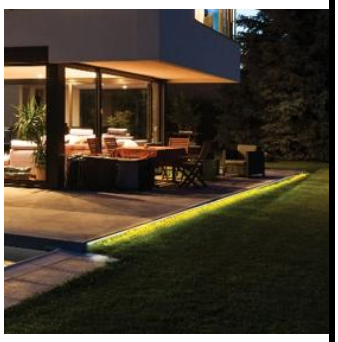


30. ***Hollowcore Element Luminaires by Luminis Illuminate Indoors or Outdoors -*** This lighting family features a circular form built around a luminous ring, as well as a distinctive interior core. Luminis introduces its Hollowcore Element luminaire family, featuring an open-core form and controlled illumination that brings focus to indoor or outdoor spaces. The clean, circular form is built around a luminous ring and a distinctive interior core. The optical system delivers even, controlled illumination, and the semi-opaque, double-layer lens creates a soft, wide distribution. Specifiers can choose from two optical configurations: an open distribution with a broader ambient presence or a metal shade configuration with more direct downward illumination. Multiple mounting types and two sizes are also available. Hollowcore Element features a Color Rendering Index (CRI) rating of 90 and color temperatures of 2700K, 3000K, 3500K, or 4000K. Architects of Modern Lighting | Luminis

31. ***Hongshi XC6 MicroLED Light Engine in Skynea AI Glasses -*** Hongshi Intelligent's XC6 full-color MicroLED light engine is used in Skynea's binocular full-color AI glasses, unveiled at New York Fashion Week in September 2026. Skynea, a brand under Shenzhen CDL Precision Technology, introduced the glasses in collaboration with New York fashion label The Blonds. High brightness, low power consumption and consistent full-color performance are central to Hongshi's MicroLED light engines for AI glasses. Hongshi's quantum-dot photoresist (QDPR) color-conversion technology delivers bright red emission and vivid color for three-color optical combining. Optimizing brightness, power and image quality together gives eyewear designers more flexibility to balance clear visuals, battery life and wearing comfort. This supports dependable display operation in customers' AR glasses. [News] Hongshi XC6 MicroLED Light Engine in Skynea AI Glasses - LEDinside



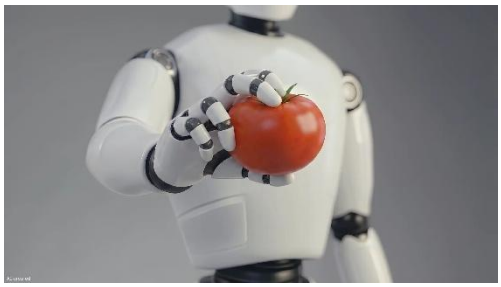
32. ***Explore WAC Lighting Tape Light -*** Tape Light That Works Where the Job Takes You! Corners. Cabinets. Coves. Shelves. Stairs. Outdoor spaces. When conventional fixtures don't fit the application, WAC Lighting Tape Light gives you another way to get the job done. With solutions for indoor and outdoor applications, multiple color temperatures and lighting options, plus the components you need to complete the installation, WAC Lighting makes it easier to bring continuous, professional-quality illumination to virtually any project. Clean, continuous illumination exactly where the design calls for it. Indoor or outdoor. Accent or task. Subtle or statement-making. One flexible lighting platform. Tape Lighting | LED Lights | WAC Lighting
Video: WAC Lighting Tape Light Solutions | Videos & Movies on Vimeo





Something you may not know!

33. ***ams OSRAM's Optical Force Sensing is Transforming Human-Machine Interaction -*** A robotic hand that can sense touch. A sleek oven front panel with no visible controls. A smartwatch whose housing itself becomes an input surface. In all of these applications, the surface takes on a new role. It no longer serves merely as a housing but becomes part of the interaction itself. Whenever a robotic hand lifts a tool, it must detect how the forces are distributed across several of its fingers and how those forces change during the gripping process. Only by combining multiple contact points can a complete picture of the interaction be created. This is exactly where the ams OSRAM's Analog Frontend AS7160 comes in. It controls up to eight optical frontends simultaneously and captures data from multiple sensor points in parallel. This enables robotic hands, for example, to analyze pressure information across multiple contact points to obtain a more accurate picture of the gripping process. Products are increasingly developing a digital sense of touch, enabling them to interact with their surroundings in more differentiated ways. Optical force sensing is transforming human-machine interaction | ams OSRAM



34. ***Meta-Optic Mirror: Bringing Smart Glasses into Everyday Life -*** Smart glasses are generating considerable excitement as a next-generation information device that could one day replace the smartphone. Working in tandem with AI, they have the potential to bring new value to everyday life, from navigation to real-time translation. Yet, it is still rare to see anyone wearing smart glasses on the street. TDK's newly developed meta-optic mirror uses nanoscale structures to manipulate light with remarkable flexibility. This innovative device could fundamentally alter our understanding of smart glasses. As AI data centers and robotics continue to advance rapidly, smart glasses are emerging as a promising interface for physical AI, bridging the physical and digital worlds. Smart glasses could eventually become as ubiquitous as smartphones. Allowing stylish designs to coexist with clear fields of view, the technology offers significant potential for smart glasses and future photoelectric conversion devices alike. [News] Meta-Optic Mirror: Bringing Smart Glasses into Everyday Life - LEDinside



35. ***Genlyte Solutions Introduces Stonco Keene RWP Dual Select -*** This fixture delivers wall mount lighting in stairwells, hallways, common areas, and more. Genlyte Solutions, a Signify business, has launched the Stonco Keene Residential Wall Pack (RWP) fixture, which delivers general-purpose wall mount lighting in light commercial and multifamily residential settings. It provides reliable and efficient lighting and is ideal for illuminating stairwells, hallways, or common areas. The discreet, yet sleek design complements any building exterior. Choose from three color temperatures (which can be selected at installation) and three wattages. A dusk-to-dawn photocell automatically turns the light on at dusk and off at dawn. Stonco Keene RWP Wall Pack dual select | RWP0824 | Genlyte Solutions



Something you may not know!

LearnersLive Special Feature

The AI Build-Out Is Becoming the Biggest Economic Bet in U.S. History by Konrad Putzier and Justin Lahart - The AI build-out is on track to become the biggest economic bet in U.S. history, dwarfing the investments made to fund other huge U.S. infrastructure projects such as the railroads, the highway system and the plumbing for the internet. Total investment in data centers and related artificial-intelligence infrastructure is projected to total $10.3 trillion from 2025 to 2032, according to new estimates by economist Stijn van Nieuwerburgh published by the Brookings Institution. That is a staggering 3.6% of gross domestic product a year, on average. Never before has the U.S. economy been so dependent on the build-out of a single industry.

The investment is transforming every corner of the economy, creating hundreds of thousands of jobs and minting new billionaires. It is also creating significant risk, as much of it is built on debt. An abrupt slowdown could ignite shock waves throughout the U.S. economy.

Projecting investment is tricky, and total spending might well end up substantially lower. Still, the money poured into data centers this year already represents an investment unprecedented in recent history. AI investment in the U.S. is projected to hit 1.9% of GDP in 2026, according to new estimates from Goldman Sachs. The railroad boom of the late 19th century marked the last time the build-out of one new industry accounted for a larger share of the economy. Here are some important impacts all that money is having on the economy: The AI Build-Out Is Becoming the Biggest Economic Bet in U.S. History - WSJ

Average annual infrastructure spending as a percentage of GDP

Canals	Railroads	Electrification	Highways	Telecom and fiber	AI
1836-41	1870-90	1905-25	1956-73	1996-2003	2025-32
0.66%	2.24%	0.5%	1.13%	1.1%	3.63%

Economists are divided over whether AI is now meaningfully hurting employment among white-collar workers. What is clear, however, is that the build-out is putting some workers in very high demand. AI was behind more than 750,000 new jobs in the U.S. from 2023 through 2026 to-date, according to LinkedIn estimates. And those jobs pay well: The median salary for AI-related job listings on LinkedIn is around $180,000, compared with $80,000 for all jobs.

Number of New U.S. AI-Related Jobs Created 2024-2026

- Data annotator 282,000
- Data center 117,000
- AI engineer 105,000
- Head of AI 29,000
- Forward deployed engineer 15,000