A MONTHLY NEWSLETTER FROM AMERLUX®

Products - Building Automation - Delta

Building Automation

Delta develops cutting-edge building automation devices by leveraging the latest technologies to optimize building performance. In recent years, Delta has incorporated 5 world renowned product brands including Amerlux, Delta Controls, LOYTEC, March Networks and VIVOTEK that cover building management control systems, smart security monitoring and high-end professional lighting solutions, to provide our customers the most advanced building technologies to realize their low carbon vision.













Contact Us

Delta has a network of service and supports teams available for your inquiries. Please find a contact from the following menus for any information or materials you may require: <u>Services Support - Customer Service - Delta</u>

National LED Market Observer

- 1. Bill Introduced to Prevent Supply Chain Disruptions, Protect American Producers The bipartisan Promoting Resilient Supply Chains Act would authorize the Department of Commerce to strengthen American supply chains for critical industries and emerging technologies by working with the private sector and U.S. government partners to anticipate and prevent future supply chain disruptions before they happen. In the process, it will also identify opportunities to grow manufacturing capacity and jobs, and reduce costs for American consumers. Geopolitical conflicts, natural disasters and the pandemic have highlighted the fragility of supply chains. These events have already caused significant delays and shortages, impacting everything from critical medical supplies and driving up the costs of consumer goods. The U.S. is heavily reliant on single countries for critical supply chain segments, including manufacturing components, critical minerals, and active pharmaceutical ingredients. This concentration poses a significant risk of disruption. Bill Introduced to Prevent Supply Chain Disruptions, Protect American Producers tEDmag
- 2. **GE Vernova Outlines \$600M US Expansion** GE Vernova Inc. outlined a capital investment program for U.S. manufacturing and development operations totaling close to \$600 million through 2027. It projected the investments would address issues involving energy affordability, national security, and manufacturing growth, and would prompt the creation of more than 1,500 new jobs. GE Vernova, which is the former General Electric portfolio of businesses that manufacture industrial and alternative energy systems, pegged the new U.S. investments as part of its broader, \$9-billion global capital investment and research program. Among the planned U.S. investments:
 - Greenville, SC (\$160 million)
 - Niskayuna, NY (\$100 million)
 - Parsippany, NJ, Bangor, ME, Schenectady, NY (\$50 million each)
 - Clearwater, FL, Charleroi, PA (\$20 million each)
 - Also Pensacola, Grand Forks, Amarillo, Wilmington, Pittsburgh

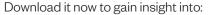
Energy Giant Outlines \$600M US Expansion | GE Vernova | American Machinist



A MONTHLY NEWSLETTER FROM AMERLUX®

MAR 2025

- 3. Lafayette College Partners with Sollum Technologies to Advance Precision Agriculture Research Lafayette College, under the leadership of Dr. Robert Elliott, is embarking on a groundbreaking research initiative to measure the effects of advanced LED lighting on the growth and quality of various crops. The lab, based in Easton, Pennsylvania, uses Sollum Technologies' dynamic LED lighting solution to tailor optimal growing conditions for each crop. The research area consists of 12 independent cells, each measuring 1m x 1m, equipped with advanced control and monitoring systems. These systems regulate temperature, humidity, vapour pressure deficit(VPD), light timing, CO levels, irrigation volume, substrate electrical conductivity (EC), and more. This design allows precise replication of varied growing conditions, and tests of ecosystem responses along environmental gradients, setting a new standard for agricultural research. [News] Lafayette College Partners with Sollum Technologies to Advance Precision Agriculture Research LEDinside
- 4. <u>Electrical Wholesaling: Bill Attardi Launches LearnersLive.com as Lighting Industry Training Resource and TED Magazine: Bill Attardi Launches New Website</u>
- 5. **Elon Musk Unveils Grok 3, Says It Outperforms All Al Rivals** Tesla CEO Elon Musk announced that Grok 3, the latest version of his Al chatbot developed by xAl, is in its final development stages and will be released in one to two weeks. Speaking at the World Governments Summit in Dubai, Musk claimed that Grok 3 surpasses all existing Al chatbots in reasoning capabilities. In the tests we've done so far, Grok 3 is outperforming anything that's been released, Musk stated, adding that the model analyzes its own mistakes to improve accuracy. The Al will compete with ChatGPT (OpenAl), Gemini (Google DeepMind), Claude (Anthropic), Mistral Al, and Meta's (META) Llama. This article first appeared on GuruFocus. Elon Musk Unveils Grok 3, Says It Outperforms All Al Rivals
- 6. **Demystifying Al by Oracle NetSuite** Al is no longer confined to the realms of science fiction or cutting-edge research labs. It is becoming increasingly pervasive in nearly all aspects of our lives, as businesses and governments harness the power of Al to streamline operations, enhance customer experiences, and solve complex problems. The time for action is now; understanding Al is no longer a luxury but a necessity as we strive to adapt, thrive, and shape the world around us. This guide written by author and CFO, Glenn Hopper, provides a comprehensive introduction to Al, shedding light on core concepts and technologies that fuel it. Demystifying Al



- · Making informed decisions around Al.
- Harnessing the potential of Al-driven solutions.
- Navigating the ever-changing landscape.
- And so much more!



es lineup with fresh offerings under both the Oakley and Ray-Ban brands—two labels united under Luxottica. Ray-Ban Meta smart glasses offer hands-free photo and video capture and voice-activated Al assistance. The new Oakley smart glasses esigned with athletes and fitness enthusiasts in mind, feature a reconfigured camera mounted at the center of the frame to improve balance and tracking accuracy during high-intensity activities like cycling or running. Introducing Hypernova: The Premium Upgrade: Hypernova will feature a display on the bottom of the right lens, where information is directly



projected into the wearer's field of view, nudging the device closer to being a lightweight, wearable computer that might one day rival smartphones. While standard Ray-Ban Meta glasses are priced at around \$299, Hypernova could fetch nearly \$1,000 due to its advanced features. https://www.ledinside.com/news/2025/2/2025_02 17_02





A MONTHLY NEWSLETTER FROM AMERLUX®

MAR 2025

- 8. Apple Will Spend More Than \$500 Billion in the U.S. Over the Next Four Years Today, Apple supports more than 2.9 million jobs across the country through direct employment, work with U.S.-based suppliers and manufacturers, and developer jobs in the thriving iOS app economy. As part of its new U.S. investments, Apple teams and facilities to expand in Michigan, Texas, California, Arizona, Nevada, Iowa, Oregon, North Carolina, and Washington, and hire 20,000 people.
 - Opening a New Manufacturing Facility in Houston
 - · Doubling Apple's U.S. Advanced Manufacturing Fund
 - Growing R&D Investments Across the U.S.
 - Supporting American Businesses with a New Manufacturing Academy in Detroit

Apple will spend more than \$500 billion in the U.S. over the next four years - Apple

- 9. Your Guide to LEDucation 2025 and the EdisonReport Media Network As LEDucation 2025 approaches, attendees can look forward to an exciting lineup of virtual sessions, in-person events, and special recognitions. Below is everything you need to know, including schedules and registration details. 13–14 March: Virtual Sessions LEDucation 2025 offers 15 virtual sessions over two days, covering a diverse range of lighting industry topics. Attendees can register for individual sessions (\$20 per session) or purchase a full virtual pass (\$50) for access to all. Register here. Your Guide to LEDucation 2025 EdisonReport
- 10. Why The 'Redheaded Stepchild' of Renewable Energy Is Poised to Rise Under Trump by Saul Elbein Even as President Trump slashes support for wind and solar energy, another renewable energy source is finding unexpected favor under his second administration. In early February, newly confirmed Secretary of Energy Chris Wright named geothermal energy, which uses underground heat to generate clean heat and electricity, as one of the prime areas for department research and development. With bipartisan political support behind its efforts and skyrocketing energy demand from data centers bolstering the potential market for its offerings, the geothermal industry is getting excited. Geothermal energy finds favor under Trump administration
- 11. **Positioning American Energy for the Next Century** On February 14, President Donald J. Trump signed an Executive Order establishing the National Energy Dominance Council.
 - The National Energy Dominance Council will be established within the Executive Office of the President, chaired by the Secretary of the Interior Doug Burgum and vice-chaired by the Secretary of Energy Chris Wright, and comprised of members of President Trump's cabinet and key government agencies.
 - The Council will advise President Trump on strategies to achieve energy dominance by improving the processes for permitting, production, generation, distribution, regulation, and transportation across all forms of American energy.
 - It will recommend a National Energy Dominance Strategy to the President aimed at cutting red tape, enhancing private sector investments, and advancing innovation.

Fact Sheet: President Donald J. Trump Establishes the National Energy Dominance Council - The White House



A MONTHLY NEWSLETTER FROM AMERLUX®

MAR 2025

Industry Resources:

12. America's Tech Giants Are Taking Over! The \$15 Trillion Power Shift Explained - Technology isn't just shaping the future—it is the future. And at the top of the global market? American tech giants. Apple, Microsoft, NVIDIA, Amazon, Alphabet, and Meta now dominate the global economy with a combined market cap of over \$15 trillion—more than the GDP of most countries! In this video, we break down the power shift, the rise of AI, cloud computing, and digital ecosystems, and what this means for the future. Will tech dominance continue, or will new industries rise to challenge these giants?

America's Tech Giants Are Taking Over! The \$15 Trillion Power Shift Explained https://www.youtube.com/watch?v=kyqnjTnt8rE



13. Free Learning Opportunities for Electrical Professional - With a special focus for electrical professionals, the Facilities Expo has solutions for any building challenges you might face. Here you will learn from industry experts, network, and explore our solution packed exhibitor floor—all for free! The Facilities Expo is a premier destination for facility managers, maintenance managers, and energy managers seeking innovative solutions, industry insights, and networking opportunities to optimize facility operations, enhance sustainability, and drive business success. Register at events throughout 2025 at: EXPOS | Facilities Expo2025

14. **Commercial Lighting Rebate Trends for 2025 by BriteSwitch** - Despite concerns of LEDs reaching market saturation and legislation restricting fluorescent lamp sales passed in 15 states, commercial lighting rebates are still as strong as ever. Programs may have evolved to adapt to current market conditions, but overall, these incentives remain widely available across North America and continue to be an important tool for improving the payback of lighting upgrades. Now that most programs have been updated for 2025, we take a look at the biggest trends, how rebate programs are evolving, and how to take advantage of them.

- Lighting Rebates Cover Most of the US
- Rebate Amounts Increase By A Modest 3%
- Lighting Controls Get a More Prominent Role
- Bonuses Available As Programs Try to Increase Participation
- Rebate Applications Streamlined, But Challenges Remain

Commercial Lighting Rebate Trends for 2025

15. What to Know About Al Agents and Their Impact on Lighting by David Shiller - Al agents differ significantly from traditional Al systems in terms of functionality. Al agents possess higher autonomy, making independent decisions without constant human oversight. Al agents are poised to reshape the lighting industry, bringing next levels of intelligence, efficiency, and personalization to lighting systems. Here's how Al agents will transform various aspects of the lighting industry:

- 1) Intelligent Lighting Control
- 2) Personalized Lighting Experiences
- 3) Automated Commissioning and Maintenance
- 4) Energy Optimization
- 5) Enhanced Design and Planning
- 6) Integration with Smart Building Systems
- 7) Market Growth and Innovation

More information is available here. What To Know About Al Agents And Their Impact On Lighting | LightNOW



A MONTHLY NEWSLETTER FROM AMERLUX®

MAR 2025

Monthly Feature:

Al in Education: Process Over Product by Thomas G. Farrell, M.B.A., Ed.D. - Don't let Al steal the learning process. The role of Artificial Intelligence (AI) in Education should be about prioritizing the learning PROCESS over the end product or rote knowledge acquisition. Al is transforming industries worldwide, and education is no exception. From personalized learning to data-driven insights, Al offers tools to enhance learning experiences. However, unlike the private sector, where outcomes and products often drive innovation, education emphasizes the learning process itself—an essential distinction. I would argue that true learning involves exploration and mistake-making—essential components of the process-oriented nature of education (Zhao, 2020). Al in schools should support this ethos by encouraging inquiry-based learning and providing formative feedback, rather than just rewarding final products.

What is Al? Al is software that can perform tasks that would typically require human intelligence. Ideally, it is a tool/assistant that allows the world's information (knowledge) and makes it universally accessible. Al Chatbots are based on a data set [LLM – Large Language Models] and it trains itself on that data set; constantly looking for patterns and connections. This, in turn allows it to make predictions, while learning and improving with practice. Tasks include understanding and processing language, recognizing patterns, making decisions, and solving problems. Al has actually been around for a while; spell check, "Turnitin.com", "Grammarly", "Siri", "Alexa", etc.

How will Al affect productivity (The Brookings Institute) [What else can Al do?]

Al will not hinder the education process, nor is it a zero-sum game. Al's potential is limitless and we need to adapt to it. How does Al impact how we prepare students for their future? Al tools like adaptive learning platforms, automated assessment systems, and virtual tutors are reshaping traditional learning environments. Applications such as ChatGPT, Google Gemini, Gamma, NotebookLM, or Khan Academy's Al-driven tutors help personalize instruction by identifying individual student needs and tailoring content accordingly. These tools empower teachers by automating administrative tasks, enabling them to focus on deeper, student-centered instruction.

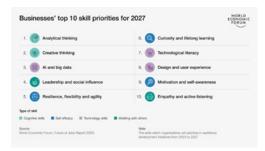
In Brick Schools, we utilize AI as a tool for delivery of instruction that promotes our District's vision and mission. Our District Vision is "Student-Centered, Teacher-Led, Community-Connected". Our hope is that we, as an organization, can make all decisions that are "student centered", implement those decisions through our faculty with fidelity, and connect / communicate those decisions with our community – we will be successful. Student-Centered instruction implies that differentiation and personalized learning is a priority and AI can support teaching in helping create dynamic lessons tailored to students' individual needs. By automating routine administrative tasks, teachers are afforded with more time to build stronger relationships with their students and focus on increased student engagement. Community-Connected education can utilize AI to promote digital citizenship and support project-based/service-learning initiatives, as well as strengthen home-school connections through more efficient communication (i.e., multilingual support, etc.). Organizational policies can ensure the ethical and legal use of AI, and policymakers must remain vigilant about the ethical use of AI.

True learning has always been a process. While AI in the private sector often prioritizes measurable outcomes, such as increased efficiency or revenue, or profit maximization; education values the learning journey. The emphasis in education is on fostering critical thinking, creativity, collaboration, and resilience—skills that are not easily quantified. For instance, in teaching and learning, a student's ability to reflect on their thought process when solving a problem or iteratively improve a project is as crucial as arriving at the correct answer. Al's role in education is not to mimic the private sector's focus on products and outcomes but to enrich the journey of learning. By leveraging AI tools to support the learning process, educators can nurture students' growth, adaptability, and curiosity—skills essential for thriving in a rapidly changing world.



A MONTHLY NEWSLETTER FROM AMERLUX®

What skills are relevant? Businesses' top 10 skill priorities for 2027 (World Economic Forum).



The private sector can benefit from Al as a superior marketing research tool, information gathering, data synthesizing, and much more. Before Al, you had to have the data existing, mine the data, and create a database, in order to synthesize the information. Now with Al, the entire Internet is your data and Al can synthesize and correlate the information for you in an instant. Engaging all stakeholders with constant and creative communication mechanisms will not only connect an organization but help improve the bottom line as well. To strike a balance, Al needs to align with the goals of education and the future of industry; ensuring equitable access and preventing over-reliance on automation that might detract from the human connections. Implementation should focus on enhancing the teaching and learning process in education, rather than replacing it with rote knowledge. Tools that offer dynamic feedback, foster collaboration, and allow for student agency can complement educators' efforts to cultivate lifelong learners. When used thoughtfully, Al can amplify the process-oriented goals of education, preparing students not just for jobs but for a lifetime of learning.

The learning process helps students to grow academically, socially, and emotionally. For all the hype about AI replacing teachers, the reality is that teachers/instructors/coaches/mentors are irreplaceable. It is a deeply human endeavor. The great ones who can leverage this human element through authentic learning and relationship-building will ultimately prepare students for an unpredictable world forged by AI. **References provided on request**

About the author: Dr. Farrell is currently the Superintendent of Schools for the Brick Township Public Schools District in New Jersey. He has served in this capacity for six years and is in his thirteenth year overall as a Superintendent. He received his Doctorate of Education Degree in Leadership from Monmouth University.



A MONTHLY NEWSLETTER FROM AMERLUX®

MAR 2025

And there are some professional interactions for which the human physical touch is a hard prerequisite. Care workers, chefs, athletes, nurses, waste collectors, hairdressers, and craftspeople have to be somewhere, doing something in the real world, to add their much-needed value. Human skills that remain valuable (for now) include: dexterity, body language, physical strength, balance, coordination, tactile sensitivity, poise, and hand-eye coordination.

Creativity

If we're training our Als on data the world has already seen, isn't it hard for the technology to generate anything truly novel? Of course, gen Al can produce a sentence, paragraph, or image the world has never seen before. But can it bring about authentic creativity — output that is new in a way that stirs us and feels important to us? Despite the fanfare surrounding the launch of new Al media-generating technologies, we don't care much for it as consumers. Spotify now includes Al music in its catalog, but all the big hits are by flesh-and-blood musicians. Very few people are watching Al-generated films, nor do they want to. And although an Al-generated painting recently sold for \$1 million, it's a long way off the \$450 million paid for da Vinci's Salvator Mundi. We value history and scarcity, and these two qualities are beyond Al.

High-quality writing is safe, too — for now. Trained substantially on a couple of decades of web-based content marketing, gen Al can't help but produce undistinguished prose. Articles on this very website are still written and edited by human experts. I wrote a book in 2023, the year ChatGPT captured the world's attention, and for a week or two (around the time GPT-4 was released), I became concerned that my effort, along with all future human literary endeavors, would be rendered futile. That worry was short-lived as the actual quality of gen Al writing became apparent. Nicholas Thompson, The Atlantic's CEO, describes the challenge and opportunity for journalism: to "...make and create the stories that are hardest for LLMs to create...stories with new facts, based on human reporting, that are written with style and that are complex."

Collaborating with Al

How humans and machines can best work together. Notice that human creativity often draws on the other three categories — emotion, complexity, and physicality. Our proudest achievements in science, music, architecture, engineering, and other essential fields have always demanded a depth of feeling and thought, along with dexterity and industry. What could be more human? John Ruskin, the nineteenth-century English polymath, once defined fine art — arguably the epitome of human creativity — as "that in which the hand, the head, and the heart of man go together." Human skills that remain valuable (for now) include: imagination, ideation, aesthetic judgment, lateral thinking, artistic expression, and curiosity.

How Humans and Al Can Complement Each Other

Taking your skills in one or more of the directions above will help make sure that your contributions are not replicable by gen Al. But there's a nuance that should bring further comfort and success. The choice between us and Al is not binary. Al can augment human capability, and vice versa. That's a more precise and productive way of viewing what's possible already. For example, a government advisor may use meteorological data from Al systems as an input for a complex geopolitical decision. A care worker might use Al-based language translation to better connect with their patient. Al can also help augment human creativity and idea exploration: the 2024 Nobel Prize in Chemistry went to Demis Hassabis and John Jumper for their and their Al model's (Alpha-Fold2) ability to predict proteins' complex structures.

The potential of this fusion of human and Al capabilities becomes clearer when we take a more forensic view of skills. It's mostly at the task or sub-task level where human contribution may become obsolete. Al can't yet replace whole skills (let alone whole jobs). Take, for example, the writing of a blog. We can prompt gen Al to write the entire piece and achieve a certain, limited standard of output. But expert bloggers will use gen Al for much smaller legs in the writing journey — for example, to provide a selection of examples to evidence a point, to find the word on the tip of their tongue, to prompt us into an epiphany. Al is often still at its best when carrying out micro-tasks for us, alongside us. . . . Much work and many skills, then, remain in our purview. We'll do better ourselves in the coming years by being more aware of what skills are still hard for Al while we nurture our own curiosity. Try picking one of the two dozen skills listed here and generate a learning pathway for yourself. Set dedicated time aside to follow that path and develop that skill. And all the while, consider when and how to utilize gen Al for sub-skills and sub-tasks, as help for the exploits of hands, head, and heart.

