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Technology Times May 2024 Issue

“With over 20 years of experience providing remote support to clients that rely on technology, I know what it takes to deliver business continuity. Add to that another 20 years of support in the service industry you’ll not find another company that takes customer service to heart as I do. Find out for your business what a difference it makes.”



Dan Foote
Owner/President

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Industries Expected to Thrive in 2024

Here are some industries expected to do well in 2024 plus strategies to manage inflation and use technology as an advantage.

Even in the most favorable economic environments, some industries will thrive while others struggle. It’s the nature of the business game, and 2024 is likely to bring its fair share of “booming” and “busting” industry segments.

The industry sectors expected to thrive in 2024 include:

Travel operators. People are expected to spend money on personal experiences and invest in more domestic and international travel. This trend is likely to continue and it should put travel agents, tour guides, and other travel-related small businesses in a good position over the coming months.

Companies that make, sell, and support hybrid and electric vehicles. Makers and distributors of these eco-friendly vehicles are expected to stay busy regardless of the current economic conditions. Smaller entities that provide battery recycling, EV stations or EV diagnostic centers are likely to cash in on this trend.

Information technology companies. From social media consulting and web design services to laptop repair shops, the number of IT-related small business opportunities is expansive. This is a sector that is expected to expand as more companies and individuals use technology to manage tasks—from basic to the extremely complex.

Construction firms. This sector has seen its fair share of ups and downs over the last few years, but experts say organizations in the construction field are positioned to fare well over the coming year. The distributors, subcontractors, interior designers, and other providers that support the construction process will also likely benefit from this rising tide.

- *Continued on page 3*



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O.MG Cables—Hacking through USB



You probably already know it's dangerous to plug USB flash drives into your computer because a hacker could get into your personal data through a malicious program. What you may not know is that it's not just drives you need to be cautious about – even USB cables could be used to hijack your computer.

How it works: These USB cables look and function like the usual Lightning cable that comes with your iPhone, but they contain software and hardware inside the USB connector. This may include a wireless access point, which can be triggered remotely by a hacker to steal a user's login credentials or install infected software.

Hackers don't need sophisticated equipment to modify these Lightning cables. They can do the work at home, using an off-the-shelf Lightning cable and inserting a tiny circuit board. The software that runs on the cable can be developed easily, with only a small team of collaborators.

Hackers have also been known to modify Apple USB-C laptop chargers for hijacking purposes, or altering thumb drives to literally explode after they install malicious software.

Truth be told, the hacker who exposed this vulnerability by altering a Lightning cable is a security researcher and intends for the cable to be used by others in IT security. He sold a handful of these "O.MG cables" at the security conference DefCon and is working with an online store to sell a version of the Lightning-lookalike cable for around \$100. He hopes that by documenting his work and selling the cable at a store where security researchers shop, it will lead to further awareness for IT security teams.

Tech brands are forcing AI into your gadgets—whether you asked for it or not

Logitech announced a new mouse last week. A company rep reached out to inform Ars of Logitech's "newest wireless mouse." The gadget's product page reads the same as of this writing.

I've had good experience with Logitech mice, especially wireless ones, one of which I'm using now. So I was keen to learn what Logitech might have done to improve on its previous wireless mouse designs. A quieter click? A new shape to better accommodate my overworked right hand? Multiple onboard profiles in a business-ready design?

I was disappointed to learn that the most distinct feature of the Logitech Signature AI Edition M750 is a button located south of the scroll wheel. This button is preprogrammed to launch the ChatGPT prompt builder, which Logitech recently added to its peripherals configuration app Options+.

That's pretty much it.

Stay skeptical

AI will likely continue becoming a bigger part of tech gadgets' marketing points, especially devices targeting those who are eager to own the latest and greatest but have varied understandings of what AI can do and its relevance for them.

It's not just generative AI. Audio peripherals have relied on machine

learning to tout noise-canceling abilities for years. There are times when AI can improve a gadget. But over the next months and years, I expect that more devices that aren't necessarily better with AI integration will advertise questionable features related to the tech.

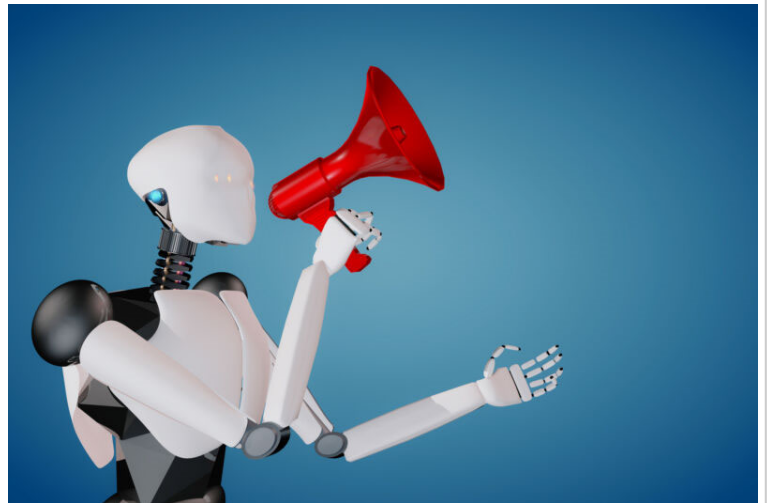
In the gaming world, for example, MSI announced this year a monitor with a built-in NPU and the ability to quickly show League of Legends players when an enemy from outside of their field of view is arriving.

MSI told PCWorld that it plans to release an app that lets users train the monitor with any game (it's unclear where the monitor would store training data). But some may think this feature is in the realm of cheating, especially since on-device AI processing and image generation means that standard anti-cheating methods wouldn't detect it.

Another example is AI Shark's vague claims. This year, it announced technology that brands could license in order to make an "AI keyboard," "AI mouse," "AI game controller" or "AI headphones." The products claim to use some unspecified AI tech to learn gaming patterns and adjust accordingly. The AI keyboard and AI game controller can suggest key bindings (presumably through some software) based on how the owner uses the peripherals.

Despite my pessimism about the droves of AI marketing hype, if not AI washing, likely to barrage the next couple of years of tech announcements, I have hope that consumer interest and common sense will yield skepticism that stops some of the worst so-called AI gadgets from getting popular or misleading people.

The Humane AI Pin, for example, has already lost favor, especially compared to rival Rabbit R1... that is if you've bought into the idea of carrying around a standalone AI assistant device at all.



Shiny Mini PC Of The Month

- "Industries Expected to Thrive in 2024"
continued from page 1



Beelink Mini PC N100 N100 for \$185

Beelink Mini PC N100 Intel 12th Gen (up to 3.4GHz), Mini S12 Pro 16GB DDR4 RAM 500GB SSD, W11, Dual 4K Display

High-capacity Storage: The Mini PC n100 built-in 16GB DDR4, 500GB M.2 SSD, has two Internal Connector, one is M.2 SATA SSD 2280, the other one is a 2.5in-7mm SATA HDD which support up to 500GB~2TB large expandable storage. And also you can add a USB 3.0 hard drive port to expand 2T memory.

Dual Screen Display: is equipped with Dual HDMI 2.0 Ports. Supports 4K FPS video playback, high-definition visual experience, you can connect two monitors at the same time.

WiFi6 & Bluetooth5.2: Using the WiFi 6 (802.11ax) & Bluetooth 5.2 technology. The coverage is more comprehensive, the communication capacity is stronger, the transmission speed is faster.

Support Auto Power On: The computer Support WOL (Wake On LAN) and Auto Power On functions, you can watch our demo video for operation, if you have any questions, please feel free to contact [Beelink](#).

Easy To Carry - Beelink Mini PC measures 4.52 x 4.01 x 1.54 inches and weighs as low as 280g. You can hold it in your hand or put it in your business.

E-commerce retailers. The total percentage of retail sales that happen online will rise to 16.6% -- a number that's risen steadily over the last five years. Small business owners should pay attention to shifts in shopping habits as essential categories like grocery, health, and personal displace home improvement and large appliance purchases in the virtual shopping space.

At the other end of the spectrum, iron and steel manufacturing; natural gas distribution; paper wholesaling; sewer and pipeline rehabilitation; invoice factoring; and conveyance services that help people transfer property ownership are currently experiencing declines. The latter has been particularly hit hard by high interest rates that could keep buyers out of the market—a trend that's expected to last for as long as the Federal Reserve continues to bump up the federal funds rate.

As the current economic environment persists, there are several strategic moves that companies can make to help offset the impacts of inflation. A good first move is to examine your current costs and ferret out inefficient, unused, unnecessary, or obsolete aspects of your business.

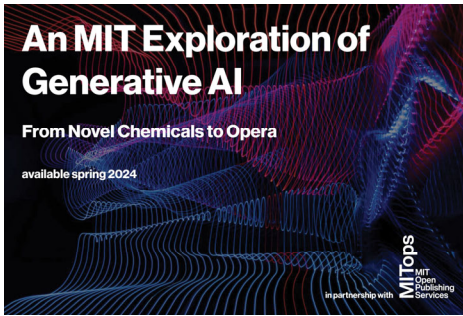
Here are 6 actions to take now:

- Review the contracts that you have in place with your suppliers. There may be an opportunity to incorporate some "win-win" negotiations into these deals. For instance, you may agree to order more frequently in exchange for a price break.
- Check your payroll and see if there's any opportunity to cut back by eliminating excess staff.
- Do a similar check of your physical inventory, sell any off any merchandise that may be stagnating and see if your suppliers will take back any unused inventory that's languishing in your stockroom or warehouse.
- Keep close tabs on your accounts receivables and collect outstanding invoices quickly (don't wait until they're 30 or 60 days past due).
- To boost your cash reserves, try offering your customers discounts for early payments (e.g., 1% discount for net 10 day payment terms).
- Use technology to cut costs, improve efficiencies, be more productive, and even create new revenue streams. For example, retailers can use automation and analytics to ensure that they offer competitive prices and stock products that are in demand. Manufacturers and distributors can also use automation and robotics to optimize their warehouses without hiring more employees. And service companies can use chatbots to address their customers' questions and concerns on a 24/7 basis.

What's Next?

As the global economy slows, new uncertainties are likely to continue to surface. And, the economic situation isn't expected to settle much over the next few months. Business owners can best prepare for these variables by staying current on market conditions, talking to customers about the challenges they face (and, considering they can provide solutions and support), and using technology as a pathway to improve efficiency, cost savings, and new revenue-generating opportunities.

MIT Research on Generative AI



MIT students and faculty published their analysis of Generative AI -- looking at its potential risks and rewards, providing advice for its smooth incorporation into our daily lives, and exploring the most effective methods for its success.

In the Fall of 2023, the President and provost of MIT issued a call for research proposals on how AI technology will dramatically change people’s lives and work.

In the resulting papers, researchers discuss the benefits and challenges of using generative AI in a variety of fields, such as medicine, engineering, and even social equality. They also examined ways to mitigate the risks involved. They looked at areas where AI might show up, and in which of those areas AI might be most effective.

Since AI is evolving so rapidly, experts are stating that these documents need to be shared widely and rapidly. These research papers, currently open-access, are extremely useful as a catalyst for further research and discussion about how we can safely and successfully incorporate AI into our future.

You can view the papers here: An MIT Exploration of Generative AI (pubpub.org)

Zero trust strategy

Security experts consider the term “Zero trust” too vague, saying it should include a qualifier to clearly define it -- something like zero-trust strategy, zero-trust architecture or zero-trust network access is much clearer.

Within the next decade, they expect that organizations will be recognizing the benefits of the zero-trust strategies they’ve put in place.

Contrary to its name, zero trust makes systems more complex, not less. There’s a lot involved when it comes to maintaining a set of least privileged access rules for all the different accounts and resources in a system.

The zero-trust principle is an IT security strategy that works by continually assessing risk and trust levels, granting access based on identity and context.

Organizations are advised to build zero trust into their existing security plans. Currently, many companies are not utilizing zero trust across their entire environment, and those wanting to adopt this zero-trust strategy get confused as vendors overpromise and under-deliver on zero-trust solutions.

The ever-changing nature of cybersecurity necessitates a multi-layered approach, including thorough planning and enactment of architectural design, implementation, configuration, metrics to measure risk, and continuous alerting, among other steps.

To implement particular products into the zero-trust strategy, these questions should be asked:

- Does this product grant network access only after the user’s identity is established?
- Does it limit network access only to needed applications and resources?
- Does the product continuously and dynamically adjust access based on context and behavior?

Still have questions? Call DanTech Services at 907-885-0501

