



# K2's Top Technology Trends Including AI Opportunities

*Randy Johnston, Exec VP*



# I. INTRODUCTION

## Learning Objectives



- Trends in AI and machine learning
- Applications of quantum computing in accounting and finance
- The growing role of blockchain and digital currencies in accounting
- Innovations in software and hardware



# What About Randy?



- 40+ years of technology experience, top-rated speaker for almost 40 years
- Top 25 Thought Leaders in Accounting 2011-2024
- 2004-2024 Accounting Today 100 Most Influential in Accounting for twenty-one years
- Inducted Accounting Hall of Fame, Feb 2011
- Monthly columns on technology in CPA Practice Advisor, weekly podcasts on technology
- Published author of six books, From Hutchinson, KS
- [randy@k2e.com](mailto:randy@k2e.com) or [randyj@nmgi.com](mailto:randyj@nmgi.com)
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## Who We Are

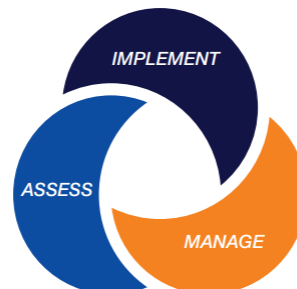


*Network Management Group Inc*



- Founded in 1984, CPA-centric from the beginning
- Highly rated customer service – immediate live phone support
- Top-rated Managed Service Provider (MSP) for CPA Firms
- Private company, family-owned
- Headquartered in Hutchinson, KS
- Data center in Lenexa, KS, redundancy available

### OUR APPROACH



# K2 Enterprises



## *Supercharge Your Professional Growth: Leading Provider of Tech-Focused CPE in North America*

- Maximize Your Learning Experience:
  - Engaging Live Events: Network with peers while earning CPE credits
  - Interactive Online Seminars: Learn from industry experts in real-time
  - Convenient Webinars: Stay current without leaving your desk
  - Customized On-Site Training: Bring expertise directly to your team
  - Flexible Self-Study Programs: Learn at your own pace, on your schedule
- Join Thousands of Successful Professionals: The Most Trusted Name in Technology-Focused CPE Across US & Canada
- Take the Next Step in Your Professional Journey: [www.k2e.com](http://www.k2e.com)

## K2 Websites – Connect with Us!



<https://www.k2e.com>

- Book a training, look at upcoming events, read a blog article and more!

<https://www.cpafirmtech.com>

- Everything you need to know about technology in a CPA firm

<https://www.accountingsoftwareworld.com>

- Excellent options for software to power financial and accounting professionals

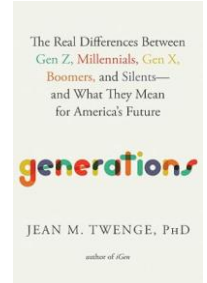
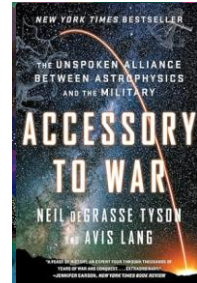
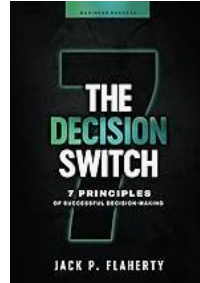
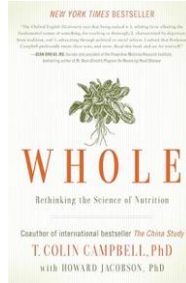
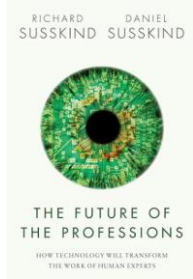
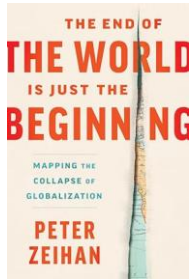
<https://www.totallypaperless.com>

- From hardware to software, everything to help your organization go paperless

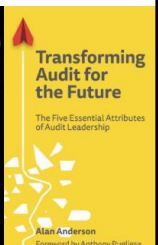
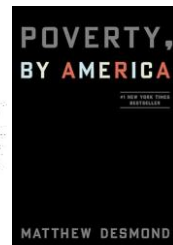
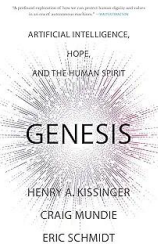
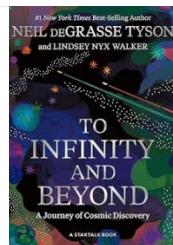
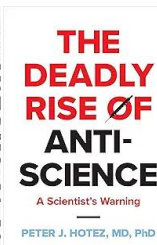
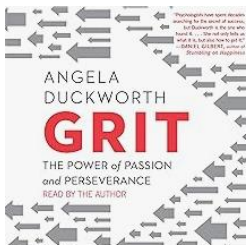
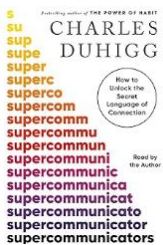
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- Accounting software YouTube videos to help you learn

# 2024 Recommendations



# 2025 Recommendations

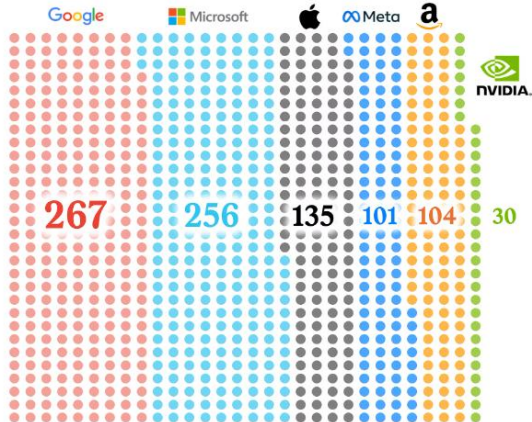


# These Are Wild Technology Times



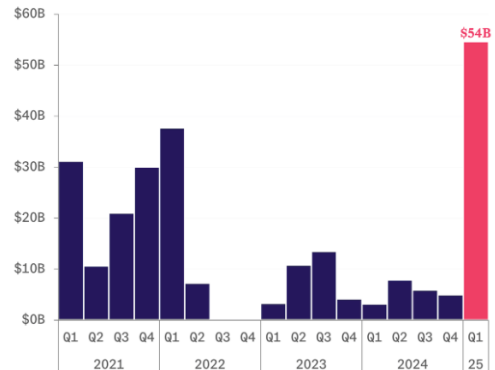
## WEB OF DEALS Big Tech Has Acquired 890+ Companies

Acquisitions by Selected Companies [Each dot = 1 acquisition]



## Corporate Giants Spent \$54+ Billion Acquiring Venture-Backed Startups In Q1

Acquisitions of VC-backed Startups [Total value of deals, deals over \$1 billion]



## II. KEY TECHNOLOGY TRENDS

# SuperHuman Or PolyMath?



## SuperHuman

- AI-powered enablement that aims to save users time by automating tasks and improving responsiveness
  - AI Medical Imaging
  - Autonomous Driving Technology
  - AI Phone Agents
  - Smart Grid Optimization
  - Intelligent Threat Detection
  - Turn ideas into an email
  - Type at the speed of thought
  - Research anything (Deep Research)
- Brain-Computer Interface (BCI)

## PolyMath

- Individuals whose knowledge spans multiple subjects, often drawing on complex bodies of knowledge to solve specific problems
- The term embodies the Renaissance humanism ideal that humans have limitless capacity for development
- Polymaths are known for their wide-ranging expertise and ability to explain knowledge abstractly and creatively
- Famous polymaths include Benjamin Franklin and Leonardo da Vinci, who excelled in various fields such as science, humanities, and arts

# 1. Artificial Intelligence And Machine Learning



- AI-Driven Accounting Applications
  - Automates data entry, reconciliation, and invoice processing
  - Reduces human error and enhances efficiency in financial reporting
  - Examples: Xero AI, Dext, Vic.ai, MakersHub.ai
  - Tools like ChatGPT, TaxGPT, 4ImpactData, and others tailored for accounting professionals
- AI for Analytics and Decision-Making
  - Predictive analytics for financial forecasting and fraud detection
  - AI-driven benchmarking tools for performance evaluation
  - Risk assessment models for investment and credit analysis
  - Use cases for automation, analytics, and decision support

# Challenges And Ethical Considerations



- Bias in AI models
- The need for human oversight, identifying hallucinations
- Data privacy concerns, particularly in cloud-based AI solutions
- Regulatory considerations (e.g., SEC, AICPA AI task force, EU AI Act)
- Again, follow the money

# Agentic AI And The Work Affect



- Three main benefits
  - Greater workforce specialization
  - Greater informational trustworthiness
  - Enhanced innovation
- Potential use cases
  - Managing complex IT
  - Customer service
  - Manufacturing
  - Supply chain reconfiguration
  - Sales support
  - Health and social care
  - Content creation

Agentic AI, which uses sophisticated reasoning and iterative planning to autonomously solve complex, multi-step problems

Imagine a future where AI systems can work and act intelligently and independently. Recent advances in agentic AI bring an autonomous future including to software engineering

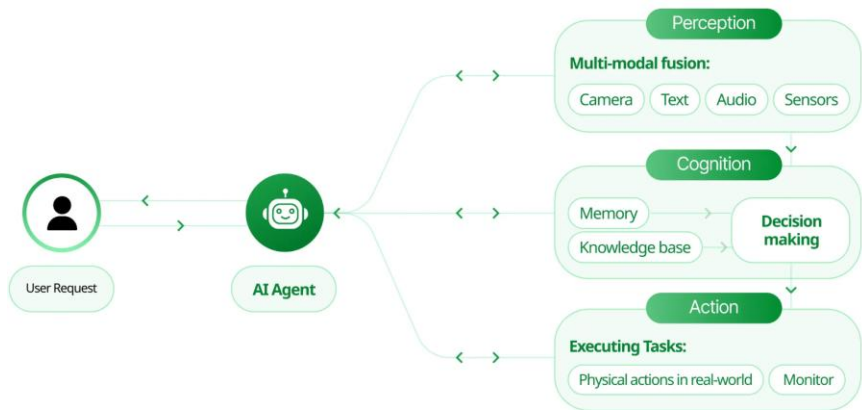


# How Does Agentic AI Work?



- Agentic AI uses a four-step process for problem-solving

- Perceive
- Reason
- Act
- Learn



# Agentic AI & Generative AI Differ In Their Autonomy And Scope



## Key attributes of agentic AI vs. generative AI

Agentic AI		Generative AI
Autonomous action and decision-making	MAIN PURPOSE	Content creation based on training data in response to user prompts
High; acts independently to set and pursue goals	AUTONOMY	Low; reacts to user input and cannot set its own goals
Can adjust its behavior in response to changing conditions of real-world or virtual environments	ADAPTABILITY	Shows some adaptability, but cannot independently adapt to fully new or unstructured environments
Capable of setting its own goals	GOAL SETTING	No independent goal setting; operates within predefined constraints
Minimal; able to function with little to no human intervention	HUMAN OVERSIGHT	Necessary; operates based on user-provided prompts

# LBM – Large Behavior Models



- Large behavior models (LBMs) promise to be even more impactful than large language models (LLMs) with application to robots
- Boston Dynamics has joined the **Toyota Research Institute** (TRI) in Massachusetts, US, one of the leading centers of LBM development
- Engineers are building robots capable of learning hundreds of separate, intricate skills using visual and tactile feedback systems
- Once a robot has developed an extensive LBM skillset, it can reconfigure those skills to generate new behaviors, from selecting components for a production line to picking complementary ingredients from your larder to make your dinner



# AI-Driven Search Costs Vs. Google



## AI-Driven Search Costs

- Computational Cost. Typically, running an AI search query requires multiple GPU/TPU cycles, costing \$0.01–\$0.10 per query, depending on the model complexity
- Cloud & Infrastructure Costs
- Data Processing & Training
- Response Speed & Energy Consumption
- Subscription Fees

## Traditional Google Search Costs

- Computational Cost. A Google search query costs fractions of a cent due to efficient indexing and caching, their PageRank algorithm, minimalist interface, & continuous improvement
- Infrastructure Efficiency
- Ad Revenue Offsets Costs
- Lower Energy Use
- Paid for with your data privacy

# Search Cost Comparison Summary



Cost Factor	AI-Driven Search	Traditional Google Search
Computational Cost	\$0.01–\$0.10 per query	A fraction of a cent per query
Infrastructure	High (cloud GPUs, TPUs)	Low (optimized indexing)
Business Model	Subscription-based or premium	Ad-supported (free for users)
Energy Consumption	High	Low
Response Speed	Slower due to generation	Faster (pre-indexed results)

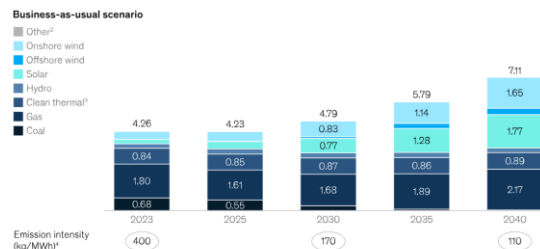
## Power Needed In US Data Centers



- To keep pace with the current rate of adoption, the power needs of data centers are expected to grow to about three times higher than current capacity by the end of the decade, going from between 3 and 4 percent of total US power demand today to between 11 and 12 percent in 2030
- This calculation excludes power consumption for cryptocurrency

The intensity of carbon emissions from grid power is set to drop rapidly in the next ten years but is still far from hyperscale's clean-power target.

US power generation<sup>1</sup> mix by technology, petawatt-hours



# Nuclear Is Back

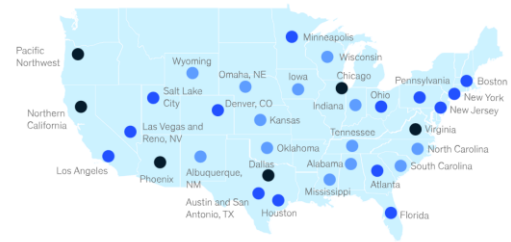


- Nuclear power is emerging as a viable solution for data centers, particularly in the context of increasing energy demands driven by artificial intelligence and the need for sustainable energy sources
- Small Modular Reactors (SMRs): These are being considered as a promising technology to meet energy demands while reducing carbon emissions
- Players: Meta, Amazon, Google, and Microsoft (Three Mile Island)

As power transmission becomes constrained in primary markets, leading players are moving to secondary and emerging markets.

## Three tiers of US energy markets

- Primary markets: Large existing demand of more than ~600 MW
- Secondary markets: Relatively smaller demand but typically high growth
- Emerging markets: Recent hyperscale activity because of cheap and sustainable or cleaner power, with negligible co-location presence



McKinsey & Company

# AI Hardware



- Nvidia remains the leader with H-100, H-200, B-200
  - Blackwell ramp-up weighs on profit, with gross margins shrinking from 72.2% to 71%
  - Now makes \$2,300 profit/second
  - Blackwell 50% of data center revenue in Q4 2025
  - Shares up 400% in two years, with a \$43B/qtr. run rate
  - H20 in demand for DeepSeek
- Microsoft has \$80B, and Meta has \$65B earmarked for AI
- Others competing
  - Amazon – [Inferentia/Graviton4](#)/ Trainium2
  - AMD RDNA4 [Navi 48](#) is 25% denser than Nvidia Blackwell GPUs – 53.9 billion transistors
  - Cerebras – [Giant chip](#), 900,000 cores, 44GB Memory, with 7,000 times the memory bandwidth of a GPU
  - Google Tensor Processing Units (2015), [Cypress/Maple/Axion](#)
  - Intel [Gaudi 3](#)
  - Microsoft [Maia 100](#)/Cobalt 100
  - Meta – Meta Training and Inference Accelerator ([MTIA](#)) & Research SuperCluster ([RSC](#)) and [Artemis](#)
  - [GroqChip](#) – Language Processor Unit (LPU), clusters for memory access, 230 MB, with 80TB of memory bandwidth for 16 chip-to-chip interconnects
  - 7 of the 10 most valuable companies make chips

# NVIDIA Is Not Conceding Leadership



- Blackwell Ultra: NVIDIA GB300 NVL72 and Vera Rubin-3/18/25
  - 70x more AI FLOPS for GB300 NVL72 compared to HGX H100
  - 288 GB of HBM3e memory per GPU and up to 40 TB of high-speed GPU and CPU coherent memory per GB300 NVL72 rack
  - PCIe Gen6 connectivity with NVIDIA ConnectX-8 800G SuperNIC, improving available network bandwidth to 800 Gb/s

	GB300 NVL72	vs. GB200 NVL72	vs. HGX H100
FP4 Inference <sup>1</sup>	1.4 I 1.1 ExaFLOPS	1.5x	70x
HBM Memory	20 TB	1.5x	30x
Fast Memory	40 TB	1.3x	65x
Networking Bandwidth	14.4 TB/s	2x	20x

Table 1. NVIDIA Blackwell Ultra specifications compared to NVIDIA GB200 NVL72 and NVIDIA HGX H100

# ASML Losing Out To Canon?



- ASML's latest creation is a 150-ton colossus, around the size of two shipping containers and priced at around \$350m
- The Dutch company is the only manufacturer of equipment that can reliably etch the most advanced semiconductors, as required for everything from artificial intelligence (AI) accelerators to smartphone chips. Even for less sophisticated processors—the type found in cars and washing machines—its machines account for over 90% of global sales
- America has barred ASML from selling its most advanced gear to Chinese chipmakers
- China is pouring billions of dollars into building homegrown alternatives
- Meanwhile, Canon, a Japanese rival, is betting on a simpler, cheaper technology to loosen ASML's grip-Nanoimprint lithography (NIL)
- NIL stamps circuit patterns directly onto wafers, much like a printing press
- Canon estimates that its approach costs around 40% less than a comparable machine from ASML
- ASML EUV makes 180 wafers per hour, with some older models reaching nearly twice that. In contrast, Canon's latest NIL system manages only 110 wafers per hour

## 2. Quantum Computing In Accounting



- Understanding Quantum Computing
  - Uses quantum bits (qubits) for faster and more complex calculations
  - Potential for solving computational problems exponentially faster
  - Still in early development, but major players include IBM, Google, and Microsoft
- Potential Applications in Finance and Accounting
  - Optimizing large-scale financial models, portfolio management, and tax planning
  - Enhancing encryption and cybersecurity for sensitive financial transactions (Y2Q!)
  - Real-time fraud detection and audits using advanced probability calculations
- Current Limitations and Industry Roadmap
  - High cost and limited accessibility of quantum computing
  - Ongoing research into error correction and stability of qubits
  - Expected impact on financial markets within the next decade

## Microsoft Majorana 1 Quantum



- Powered by topological qubits, called topoconductors to build a topocore
- “Our leadership has been working on this program for the last 17 years. It’s the longest-running research program in the company,” explains Zulfi Alam, corporate vice president of quantum at Microsoft. “we are showcasing results that are not just incredible, they’re real. They will fundamentally redefine how the next stage of the quantum journey takes place”
- Microsoft has already built an eight-qubit proof of concept, which it has submitted to the Defense Advanced Research Projects Agency (DARPA). DARPA has now selected Microsoft as one of two companies that will advance to the final phase of its Underexplored Systems for Utility-Scale Quantum Computing (US2QC)

# What Is Microsoft Majorana 1?



- Microsoft isn't using electrons for the compute in this new chip; it's using the Majorana particle (a half electron) that theoretical physicist Ettore Majorana described in 1937
- New material is made from indium arsenide and aluminum
- Microsoft has placed eight topological qubits on a chip that it hopes can eventually scale to 1 million
- Majorana 1 takes its name from the Majorana zero mode (MZM), a tiny and mysterious form of matter that is a quasiparticle that acts like half of an electron and, unlike matter and antimatter, is its own antiparticle. (Imagine a pair of shoes: a Majorana zero mode is like a left and right shoe simultaneously)

# How Microsoft Majorana 1 Works



- The elements for the topological superconductor are then cooled to 50 millikelvins. That's colder than outer space: -273.15 degrees Celsius or -459.58 degrees Fahrenheit
- The special thing about topological superconductors is that they are perfectly fine with possessing uneven numbers of electrons, unlike any other kind of superconductor. Microsoft found a way to "hide" these odd-man-out single electrons on nano-scale wires forming Majorana zero modes. Essentially, instead of storing quantum information in a single particle, a Majorana-based qubit has two of these tiny wires and four Majorana zero modes. And that odd-man-out extra electron forms the basis for quantum computations.
- Microsoft can measure them in microseconds using a quantum dot--a nanometer-sized piece of semiconductor material that can trap and control electrons--resulting in an essentially stable element of a quantum computing "chip"



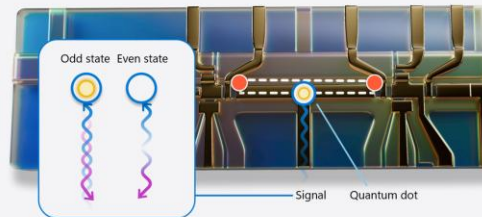
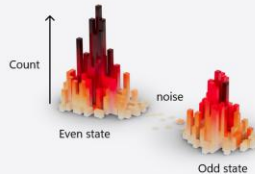
# Reading A Topoconductor



## Reliably reading quantum information

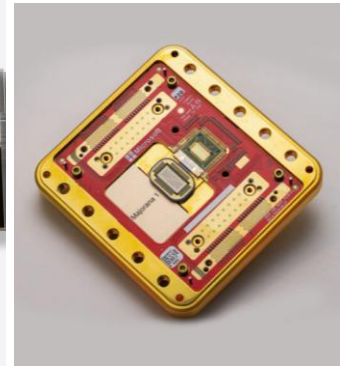
### Ease of measurement

We read our qubit's state by reflecting microwaves off a quantum dot. The way they reflect tells us the state of the qubit, which is the number of electrons, even or odd.



### Distinct results

A high signal with low noise levels means we can measure our qubit accurately.



# Another Schrödinger's Cat Quantum Breakthrough



- Breakthrough could usher in the 'Holy Grail' of quantum computing, making them error-proof
- Nature Physics January 14, 2025
- The new method encodes quantum information onto an **antimony atom**, which has eight possible states that enable data to be more safely stored than in a standard two-state qubit, or quantum bit



# Quantum On New Silicon



- Quantum computing company **Equal1** has created a quantum processing unit (QPU) built on conventional semiconductor manufacturing processes with silicon germanium (SiGe)
- The SiGe 6-qubit array quantum controller chip developed to date can operate at ultra-low temperatures using “spin qubits” and paves the way for millions of qubits on a single chip
- Single-qubit gate fidelity of 99.4% at 84 nanoseconds, and two-qubit gate fidelity of 98.4% at 72 nanoseconds
- By contrast, the most powerful quantum chips today only house qubits in the thousands and are built with superconductors, all requiring cooling to near absolute zero in order to perform quantum computations

# New Superconductive Materials



- In 2024, superconductivity—the flow of electric current with zero resistance—was discovered in three distinct materials
  - A twisted honeycomb arrangement of two types of atoms, called a transition metal dichalcogenide (**TMD**) can be antiferromagnetic and superconduct. Discovered by Liang Fu of MIT and Constantin Schrade of Louisiana State University, proved by Cory Dean at Columbia
  - Untwisted TMD by Jie Shan and Kin Fai Mak at Cornell University
  - Chiral graphene staircases (CGS) by Long Ju of MIT
- All seem to produce superconductivity at room temperature

# IBM Quantum System Two



- The last generation of IBM's quantum computing system architecture, currently has a processor (Condor) with 1,121 qubits
- [IBM Quantum System Two](#) is a scalable quantum computer and is now operational at the IBM lab in Yorktown Heights, NY. It is 22 feet wide, 12 feet high, and today features three IBM Quantum Heron processors
- Hardware has a modular layout, designed to scale up significantly over the next ten years
- Combines quantum communication and computation, assisted by classical computing resources
- New API – Qiskit – released Q1 2024
- Generative AI tools on classical computers (WatsonX) will help it program its quantum computers



## Quantum Hardware



- Amazon enters the race 2/27
  - Ocelot, can cut the “costs of implementing quantum error correction by up to 90%, compared to current approaches,” according to Amazon’s cloud computing platform Amazon Web Services
  - Ocelot is "still" a prototype
- Others competing
  - IBM [Heron](#), Osprey(433) & others
  - Intel [Tunnel Falls](#), Tangle Lake(49)
  - Google [Sycamore](#) (49), Bristlecone(72), [Willow](#) (105)
  - Microsoft [Azure Quantum](#)
  - China Jiuzhang(76)
  - Honeywell

# Quantum Storage? Half and Half!



- US Department of Energy's Brookhaven National Laboratory discovered a new state of matter
- "Finding new states with exotic physical properties – and being able to understand and control the transitions between those states – are central problems in the fields of condensed matter physics and materials science, Weiguo Yin and his colleague Alexei Tsvelik explain
- "Solving those problems could lead to great advances in technologies like quantum computing and spintronics"
- Highly ordered "cold" spins coexist with disordered "hot" spins, giving materials the ability to sharply switch phases at finite temperatures
- Using the magnetic compound  $\text{Sr}_3\text{CuIrO}_6$  or "half-fire, half-ice" could form the basis of qubits for data storage

# The Net Impact Of Quantum



- Quantum annealing for optimization
- Existing AI will run orders of magnitude faster
- Problems that can't be solved today using all computers available will run on a single quantum machine
- Some applications will not need to be recompiled
- "Come to the lab with a problem, and quantum will calculate the solution" for materials, supply chain, and other complex calculations

### 3. Blockchain And Digital Currencies



- Blockchain as a Secure Ledger
  - Provides an immutable record for transactions and financial audits
  - Reduces fraud by ensuring transparency and traceability
  - Used in smart contracts to automate compliance and payment settlements
- Growth of Cryptocurrencies in Accounting
  - Increasing adoption of Bitcoin, Ethereum, and stablecoins in business transactions
  - Accounting for crypto-assets under evolving standards (GAAP, IFRS)
  - Taxation challenges and reporting obligations for digital assets
- Emerging Trends in Digital Currencies
  - Central Bank Digital Currencies (CBDCs) and their impact on financial institutions
  - Rise of decentralized finance (DeFi) and new audit requirements
  - Regulatory outlook from agencies such as the IRS and SEC

### Regulatory Challenges & Future



#### *Trends Of Blockchain and Digital Currencies*

- Blockchain as a secure ledger for audits and financial records
- Growth of cryptocurrency adoption and its impact on taxation and reporting standards
- Emerging trends in digital currencies, including central bank digital currencies (CBDCs)
- Executive Order to create a Crypto Reserve or “U.S. Digital Asset Stockpile” including Bitcoin, Ethereum, XRP, solana and cardano



Attribute	Bitcoin (BTC)	XRP (XRP)	Solana (SOL)	Cardano (ADA)	Ethereum (ETH)
Launch Year	2009	2012	2020	2017	2015
Founder(s)	Satoshi Nakamoto	Ripple Labs	Anatoly Yakovenko	Charles Hoskinson	Vitalik Buterin
Regulatory Concerns	Subject to general crypto regulations	SEC lawsuit (Ripple case)	Some concerns over decentralization	Considered regulatory-friendly	Potential future regulation due to high DeFi and NFT activity
Main Strengths	Security, decentralization, network effect	Fast transactions, low fees	High speed, low fees, scalability	Strong academic foundation, research-driven development	Strong smart contract ecosystem, large developer community
Main Weaknesses	Slow transactions, high fees, energy-intensive	Centralization concerns, legal issues	Network congestion risk, past outages	Slower development, adoption challenges	High gas fees, scalability issues (being addressed with Layer 2 solutions)
Consensus Mechanism	Proof of Work (PoW)	Federated Consensus	Proof of Stake (PoS)	Proof of Stake (PoS)	Proof of Stake (PoS) (formerly PoW)



Attribute	Bitcoin (BTC)	XRP (XRP)	Solana (SOL)	Cardano (ADA)	Ethereum (ETH)
Blockchain Type	Public, decentralized	Permissioned & public hybrid	Public, decentralized	Public, decentralized	Public, decentralized
Transaction Speed	~10 min/block	~3-5 seconds	~400 milliseconds	~20 seconds	~12-15 seconds
Scalability	Low (~7 TPS)	High (~1,500 TPS)	Very High (~65K TPS)	Medium (~250 TPS)	Medium (~30 TPS, scaling with L2 solutions)
Smart Contract Support	No	Limited	Yes (via Rust & C)	Yes (via Plutus & Marlowe)	Yes (via Solidity)
Energy Consumption	High (PoW mining)	Low	Low	Low	Low (after PoS transition)
Use Cases	Digital gold, store of value, payments	Cross-border payments, remittances	DeFi, NFTs, dApps	DeFi, dApps, digital identity	DeFi, NFTs, dApps, DAOs



## HARDWARE STRATEGIES

## Hardware Strategies



- Select a single vendor for PCs – HP, Dell, Lenovo, or ???
- Select a single vendor for printers and peripherals
- Acquire commercial grade devices with 3- to 5-year warranties
- Specify two or more standard configurations based on the needs of end users
  - Clerical
  - Data analysis workstation
  - Graphical workstation
- Use multiple monitors (Laptop PC with docking station or Desktop PC) and a pointing device (Mouse)

# Fundamental Computer Technology



## PC Buyer

- Windows 11, Microsoft 365
- Intel Core Ultra & AMD Ryzen 5-9
- Dedicated GPU (ARC, Radeon)
- 32-64GB of RAM, DDR5
- PCIe Gen 4 128GB-1TB of NVM Express Solid-State drive (NVMe)
- Thunderbolt 5, for HDMI/USB

## Mac Buyer

- MacOS, Microsoft 365
- M3/M4 PRO/MAX ARM
- Dedicated ProRes graphics
- 8-128GB of RAM (DDR5 Unified)
- PCIe Gen 4 128GB-2TB of NVM Express Solid-State drive (NVMe)
- Thunderbolt 5, for HDMI/USB

# AI-Enabled PC vs. Standard PC



- **Neural Processing Unit (NPU):** AI-enabled PCs come equipped with an NPU, which is specifically designed to handle AI and machine learning tasks efficiently
- **Copilot+ PCs:** These PCs often include Microsoft Copilot, which provides AI-driven assistance and features like image generation, real-time translation, and more
- **Enhanced Performance:** AI PCs are optimized for tasks like data analysis, training AI models, and running complex simulations. They have powerful CPUs, GPUs, and ample RAM
- **Local Processing:** AI-enabled PCs can process AI tasks locally, reducing the need to send data to cloud-based servers. This enhances security and allows offline operation
- **Adaptability:** AI PCs can learn, adapt, and make decisions autonomously, thanks to machine learning algorithms and neural networks

# Consider The Form Factor



## Mini Better Than Laptop?

- Last longer
- Greater security
- Lower cost
- Less desk clutter
- No docking stations
- Two cost less than one laptop
- Faster

## Supporting Hardware

- Monitors can last 10 years
- Wireless becoming common
  - Mice
  - Keyboards
  - Monitors?
- Cameras more capable
- Lighting and sound controlled



## END-USER HARDWARE AND O/S



# HP Dragonfly G4 Specifications



- CPU - 13th Gen Intel i7-1355U (10 cores, 12 threads) with integrated Intel Iris X Graphics
- Display - 13.5-inch, 3:2, 3K2K OLED, 400 Nits,
- RAM - Up to 32 GB
- Storage - Up to 2 TB
- Camera - 5MP IR
- Audio - Bang & Olufsen, dual mics
- 2 - Thunderbolt 4 with USB C, 2 - SuperSpeed USB Type-A, HDMI 2.0, Nano-SIM, Audio jack
- Wi-Fi 6E, Bluetooth 5.3, 5G (optional)
- Weight - Starting at 2.2 lbs.
- \$2,009



# HP ProBook 460 G11 – 16"



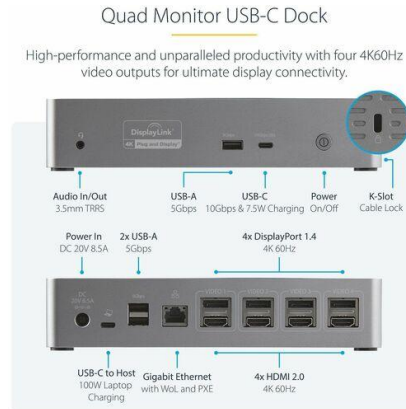
- Windows 11 Pro
- Intel Core Ultra 7 155U (12core) with NPU
- 32 GB RAM, 1TB NVMe SSD
- 2 – 20Gbps USB-C ports
- 2 – USB-A port
- \$2,700
- Recommend upgrading support to 3-year next business day onsite support from HP covering parts, labor, and accidental damage



# Recommended Docking Station



- StarTech 100-watt power delivery via USB-C (will power laptop without need for laptop a/c cable)
- Supports up to 4 external displays via
  - HDMI
  - DisplayPort
  - Any Combination of HDMI & Display Port
- \$202



# HP Elite Mini 800 G9



- Windows 11 Pro
- Intel i7-14700T (20 core)
- 32GB RAM
- 512GB NVMe Storage
- 2 Display Ports
- 1 HDMI Port
- 1 USB-C & 2 USB-A Ports
- 3-year next-business-day onsite support included
- \$2,600



# Dell Names From PC Magazine Base, Plus & Premium, P 12, 13, 14, Etc.



## Dell's 2025 PC Rebranding Explained

Current Dell Product Line	New Dell Product Line	Full Product Names With Tiers
XPS	Dell	Dell Premium
Inspiron Plus	Dell	Dell Plus
Inspiron	Dell	Dell (base, but no additional identifier)
Latitude	Dell Pro	Dell Pro, Dell Pro Plus, Dell Pro Premium
Precision	Dell Pro Max	Dell Pro Max, Dell Pro Max Plus, Dell Pro Max Premium

## Dell



### LATITUDE 13-16

- 13th Gen Intel
- Integrated GPU
- 1900x1200 250 Nits
- \$1,000-2,300



### XPS 13-17

- 13th Gen Intel
- Dedicated GPU (Nvidia)
- OLED 3200x2000
- \$1000-2,700



# Lenovo



## X1 2-in-1 Gen 9

- Think 2-in-1 as a form factor = laptop and tablet in one device
- Laptop, tablet, & tent modes
- \$1,500-3,400



## X1 Carbon Gen 12

- Continues to be leading edge
- Intel 13th Gen Core Ultra
- OLED 2880x1800, 500 nits
- \$1,375-3,400



# Microsoft Surface Laptop 7th Edition



- 13.8-inch or 15-inch 1080p HDR Display
- Snapdragon X Plus (10 core) or X Elite (12 core) ARM CPU
- Qualcomm Hexagon NPU at 45 TOPS
- 16 GB - 64 GB DDR5 RAM
- 256 GB - 1 TB SSD
- 2 USB-C and 1 USB-A ports
- Wi-Fi 7
- Weight 2.96 lbs. – 3.67 lbs.
- \$799 - \$1,699



# Microsoft Surface Pro 11th Edition



- 13-inch OLED HDR Display
- Snapdragon X Plus (10 core) or X Elite (12 core) ARM CPU
- Qualcomm Hexagon NPU at 45 TOPS
- 16 GB - 64 GB DDR5 RAM
- 256 GB - 1 TB SSD
- 2 USB-C
- Wi-Fi 7 + 5G
- Weight 1.97 lbs.
- \$799 - \$2,499



# Apple MacBook Pro



- CPU - M4 Pro 12, 14 or Max 14, 16 Core
- GPU - Pro 20, 32, or 40 Cores, 16-core Neural Engine
- RAM - Up to 96 GB // SSD - Up to 8 TB
- 14 or 16-inch Liquid Retina XDR Display, 1600 nits
- Camera - 1080p FaceTime HD camera
- Audio - High-fidelity six-speaker sound system with force-cancelling woofers
- Ports - Three Thunderbolt 4 ports, HDMI port, SDXC card slot, headphone jack, MagSafe 3 port
- Connectivity - Wi-Fi 6E, Bluetooth 5.3
- Dimensions - 12.31 in x 8.71 in x 0.61 in
- Weight - Starting at 3.6 lbs.
- \$1,599-6,199



# Framework



- We've been a fan of this company and their products since inception
- In 2025, they introduced both a smaller laptop and a new desktop model
- Laptop 12, 13, 16, \$700-\$2,000
- Future upgrades to new technology will be around \$400
- Replacing the computer becomes a thing of the past



# TCL NXTPAPER 11 VS. Remarkable OR iPad



- NXTPAPER preserves its original color with a glare-free and eye-care blue light-reduction display
- The 8000mAh battery is designed for a full day of streaming
- You can fit more into the frame with an 8MP front wide-angle lens (FOV 100°)
- A dual-mic system with noise cancellation makes your voice clear
- Quad speakers for a truly dynamic audio and cinematic experience
- Up to 256GB of internal memory, expandable up to 1TB via MicroSD™ card (sold separately)
- Up to 2.0 GHz octa-core processor for fast performance and multitasking
- Runs on Android 13
- Optional TCL T-Pen stylus makes drawings, notes, and ideas come to life
- \$229





# WINDOWS 10 END-OF-LIFE

## Windows 11 System Requirements



- **Processor:** 1 gigahertz (GHz) or faster with two or more cores on a compatible 64-bit processor or system on a chip (SoC)
- **RAM:** 4 gigabytes (GB) or greater
- **Storage:** 64 GB or greater available storage
- **Graphics card:** Compatible with DirectX 12 or later, with a WDDM 2.0 driver
- **System firmware:** UEFI, Secure Boot capable
- ★ • **TPM:** Trusted Platform Module (TPM) version 2.0
- **Display:** High definition (720p) display, 9 inch or greater monitor, 8- bit color required
- **Internet connection:** Internet connectivity is necessary to perform updates, and to download and use some features

# Windows 10 End-Of-Life



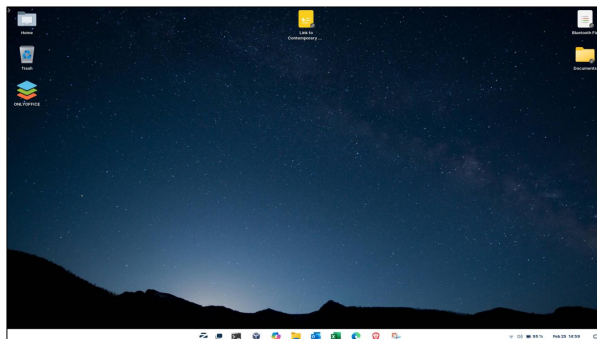
- Windows 10 will reach end of life on October 14, 2025
- In many cases, otherwise serviceable Windows 10 PCs will not meet the minimum system requirements for Windows 11
- Several strategies exist to preserve PC functionality:
  - Abandon existing hardware and acquire a Windows 11 capable PC
  - Maintain existing hardware and continue to run Windows 10 without support (no tech support, bug fixes, or security updates)
  - Maintain existing hardware and continue to run Windows 10 with ESU
  - Maintain existing hardware and install Linux

# Windows 10 ESU Program



- [Extended Security Updates](#) program
- Available to individuals and organizations of all sizes
- ESU program enables Windows 10 PCs to continue to receive critical and important security updates through an annual subscription service after support ends on October 14, 2025
- Device must be using latest version of Windows 10 (22H2)
- ESU can be purchased through Microsoft Volume Licensing Program at \$61 for the first year with a single license minimum
- Price doubles each year for up to three years (\$61/\$122/\$244)



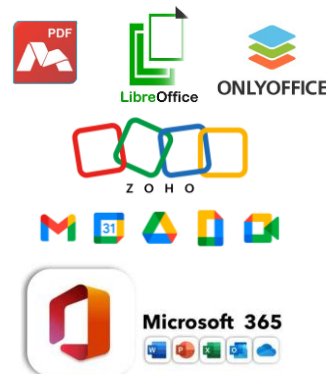


## LINUX ON THE DESKTOP

## Linux On The Desktop



- Existing PCs that do not meet Windows 11 requirements can be maintained using Linux on the desktop
  - With non-Windows office productivity apps (LibreOffice, OnlyOffice, Master PDF, Foxit Reader)
  - With cloud-based office productivity apps (Office Online, Google Workplace, ZOHOO)
  - With a Windows 11 VM and traditional Windows office productivity apps
  - Or some combination of all three



# Linux On The Desktop



- Numerous Linux distributions (distros) are available
- Most are highly customizable and offer multiple GUI environments

## Beginners

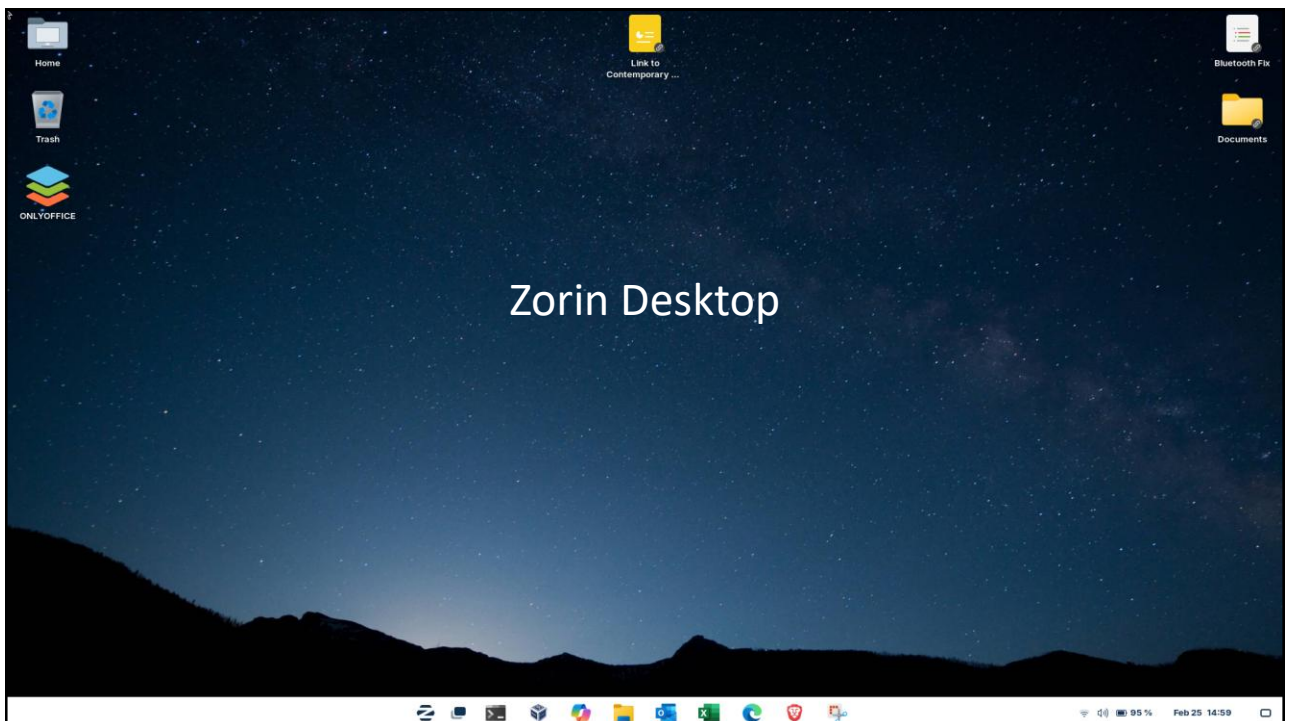
- Zorin
- Ubuntu
- Mint
- Manjaro
- Pop! OS

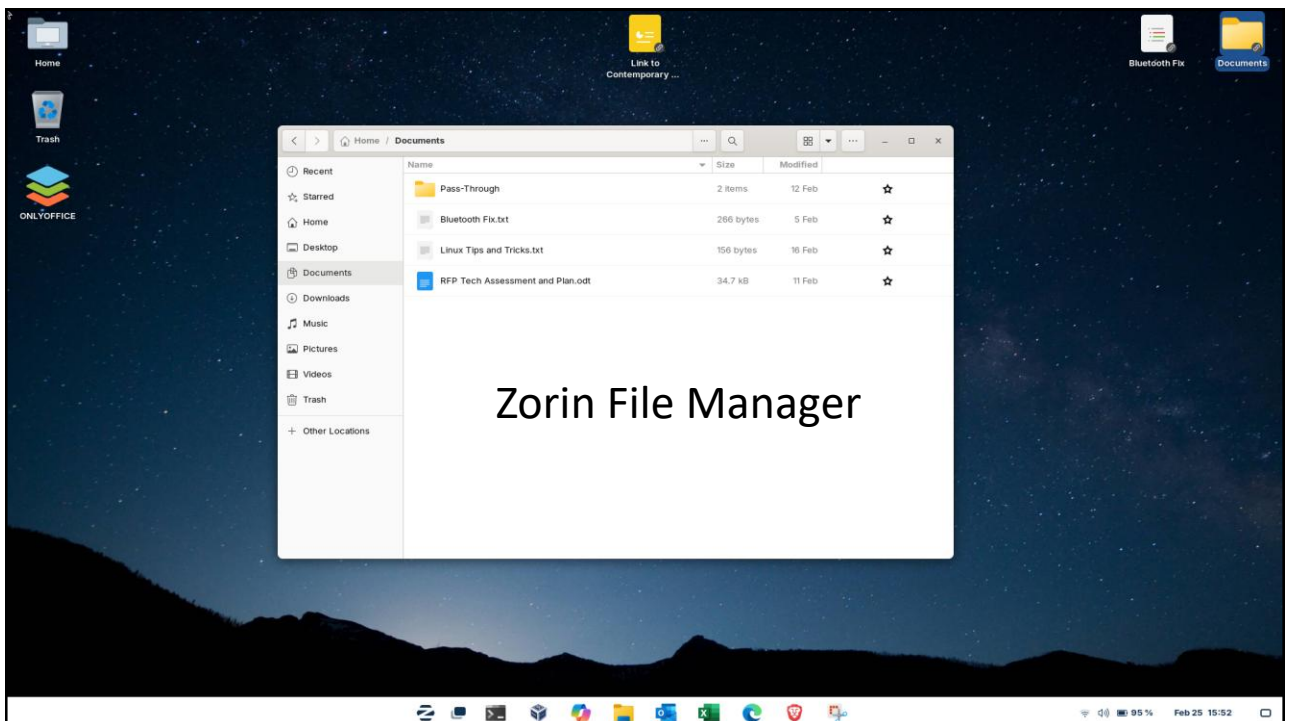
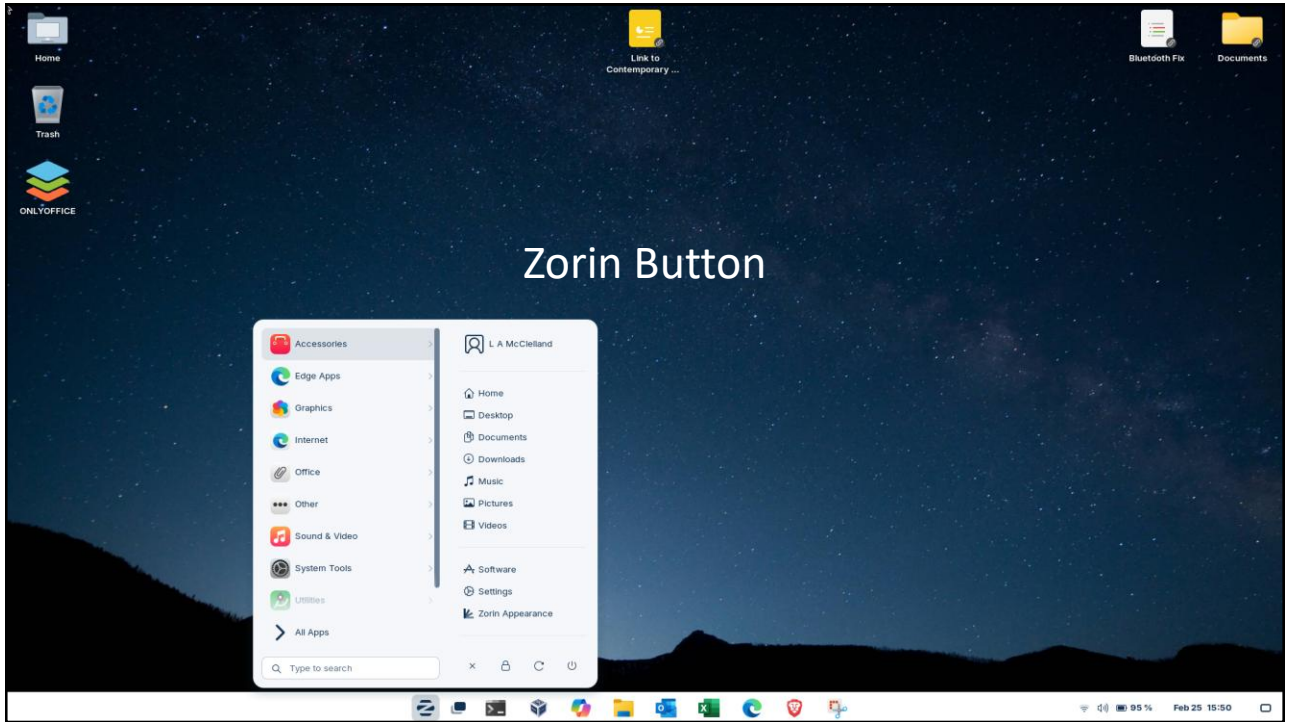
## Experienced Users

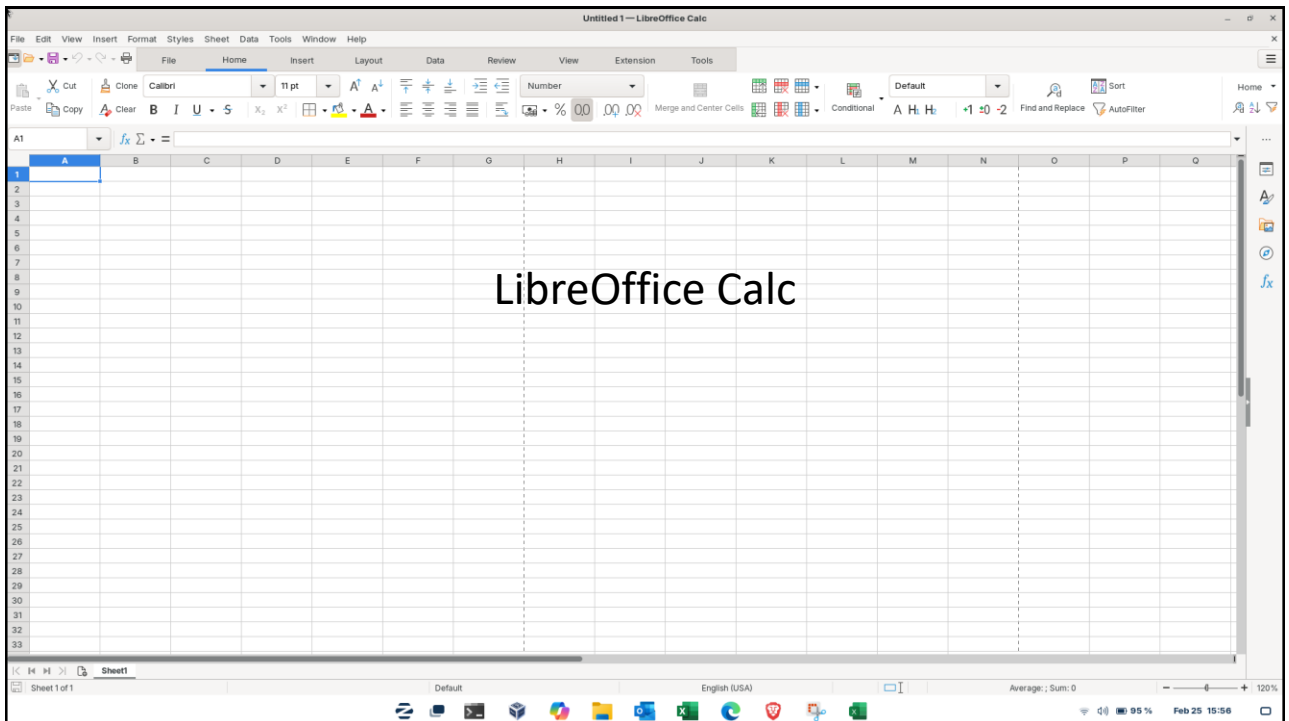
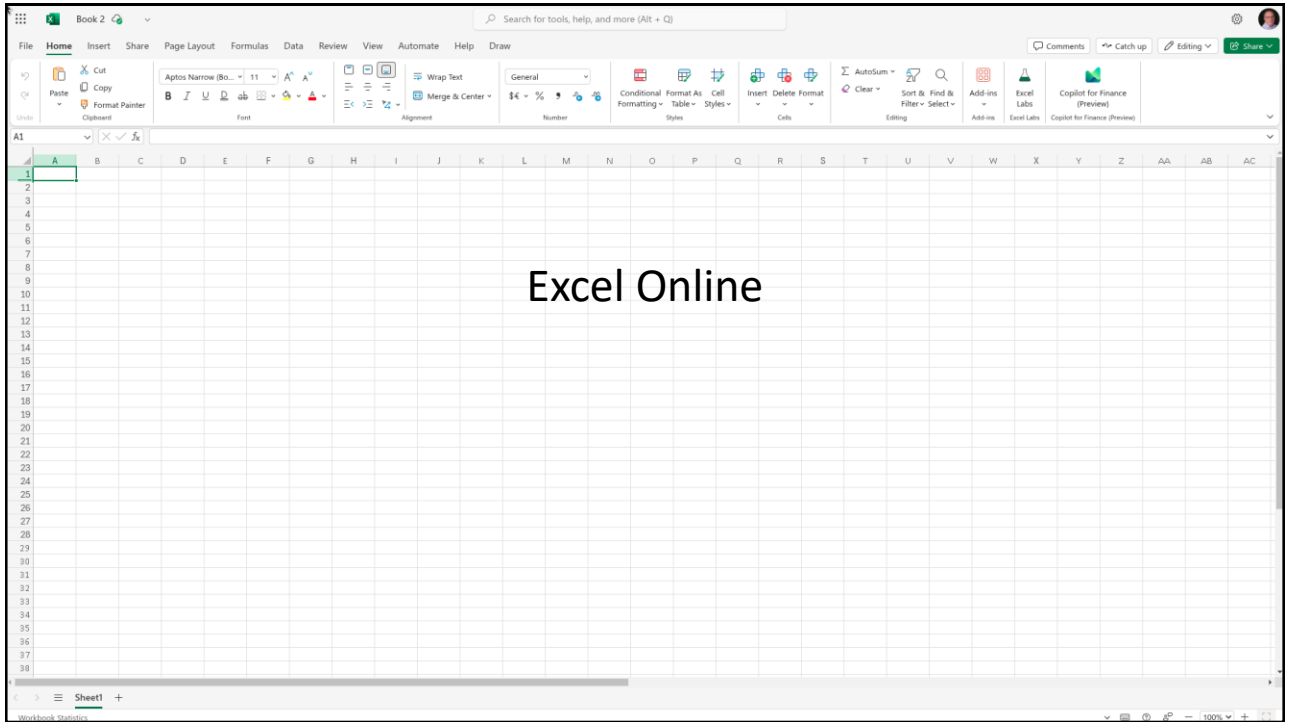
- Fedora
- Debian
- openSUSE
- Solus
- Fedora Asahi Remix

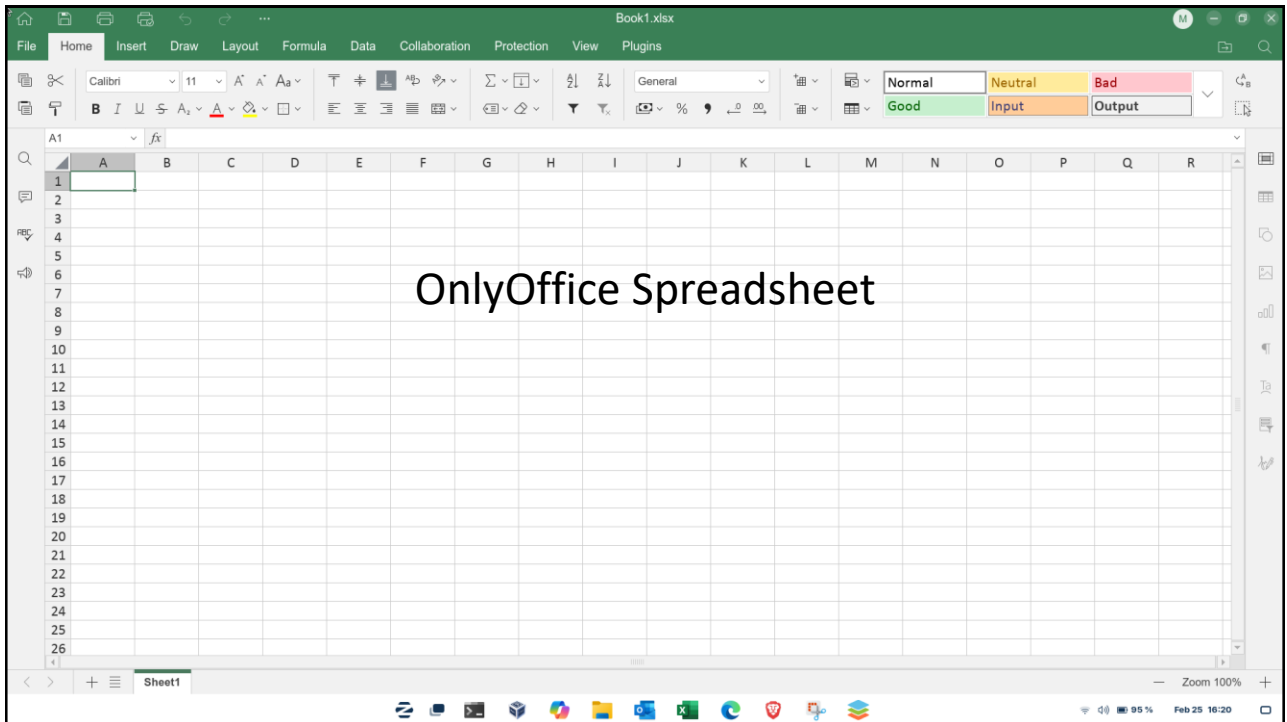
## Experts

- Arch
- Gentoo
- Slackware
- Kali









# Windows 12?



## Features

- [Windows 11 version 24H2](#) is unique, based on a new version of the Windows platform underneath, codenamed [Germanium](#)
- AI Integration: Windows 12 is expected to heavily integrate AI features, building on the AI capabilities introduced in Windows 11
- New UI Design: A redesigned user interface is anticipated, potentially offering a more modular and customizable experience
- System Requirements: Windows 12 may require newer hardware, including PCs with neural processing units (NPUs) for advanced AI features

## Release Timeline

- The earliest potential release for Windows 12 is in late 2025, with an announcement possibly in early summer 2025
- With the “bewitching date” of October 14, 2025, reached for Windows and Office, that’s my call



## 4. Hardware And Software Innovations



- Accounting-Specific Software Advancements
  - AI-powered ERP systems such as NetSuite and Microsoft Dynamics
  - Cloud-based accounting solutions for real-time collaboration
  - Automation in accounts payable/receivable and expense management
- Hardware Trends for Accounting Professionals
  - Laptops optimized for multitasking: Apple M-series, Dell XPS, Lenovo ThinkPad
  - Docking stations, multiple monitor setups, and high-speed storage for efficiency
  - Advancements in biometric security and encrypted hardware
- ROI Considerations for Hardware and Software Investments
  - Total cost of ownership (TCO) vs. productivity gains
  - Subscription-based SaaS models vs. on-premise licensing
  - Strategies to maximize ROI by integrating automation and analytics

## Apple iPhone 17 “Air”



- About a fifth thinner than current devices
- The Pro models, meanwhile, will get major camera system upgrades, including 48-megapixel sensors across the back trio of cameras, a single expanded and larger island across the back of the iPhone
- Planning a new AirPods feature that allows the earbuds to live-translate an in-person conversation into another language
- Dual tone aluminum and glass
- MagSafe for wireless charging

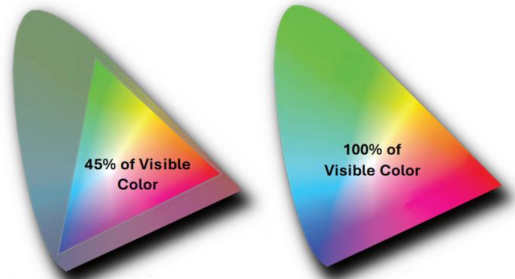




# The Future Of Color: 6P Color



- From televisions and gaming monitors to medical imaging and digital billboards, the need for precise, accurate color has never been more apparent
- Enter 6P Color's Full Color Range (FCR) technology, a highly advanced color management system that ensures color accuracy is maintained across displays, regardless of the hardware in use through Colorsistency™
- Gaming, medical, military, accessibility, media, AR/VR



6P Visible Range Image



## CES 2025





SK Hynix  
Had Best  
Display  
Again  
This Year

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## HP Laptops



## HP Workstation



## HP Docking Station



## Lenovo ThinkBook Plus

### *Gen 6 Rollable Laptop*

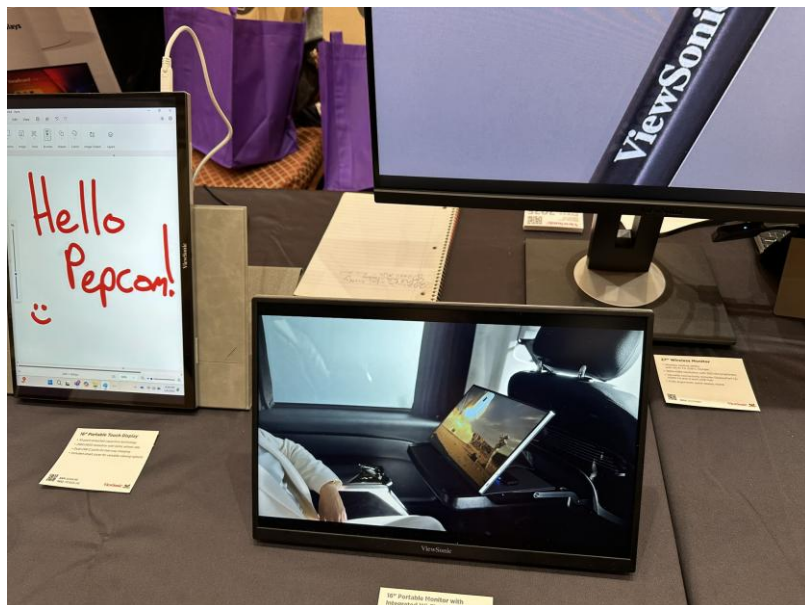


# Matias Ergonomic Wireless Keyboard



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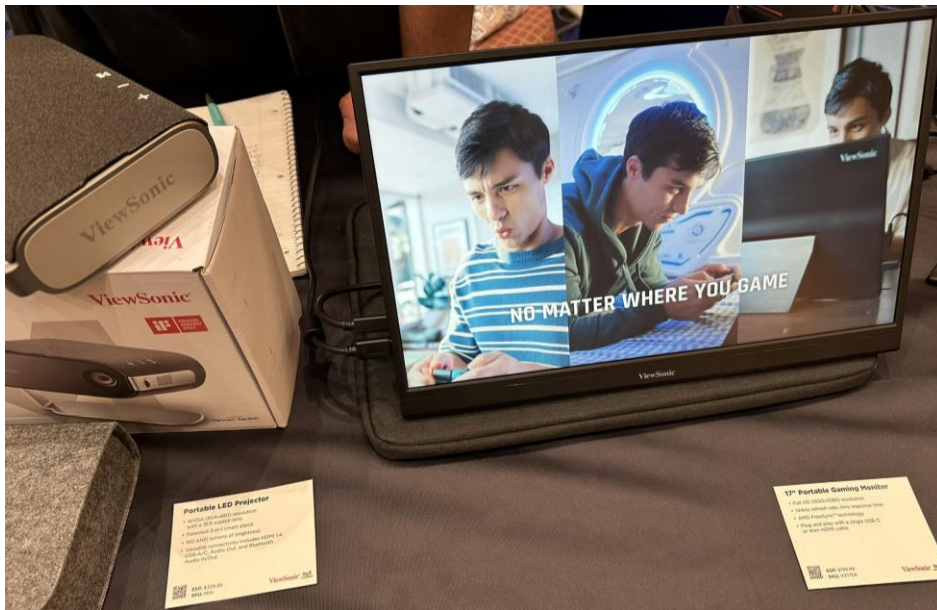


## ViewSonic Secondary Monitor

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ViewSonic  
M1+  
Projector  
\$399

VX1754 17"  
Gaming  
Monitor \$199



Aurzen  
Zip  
Projector



# Ricoh Meeting 360



# Ricoh ScanSnap Receipt





BUBL

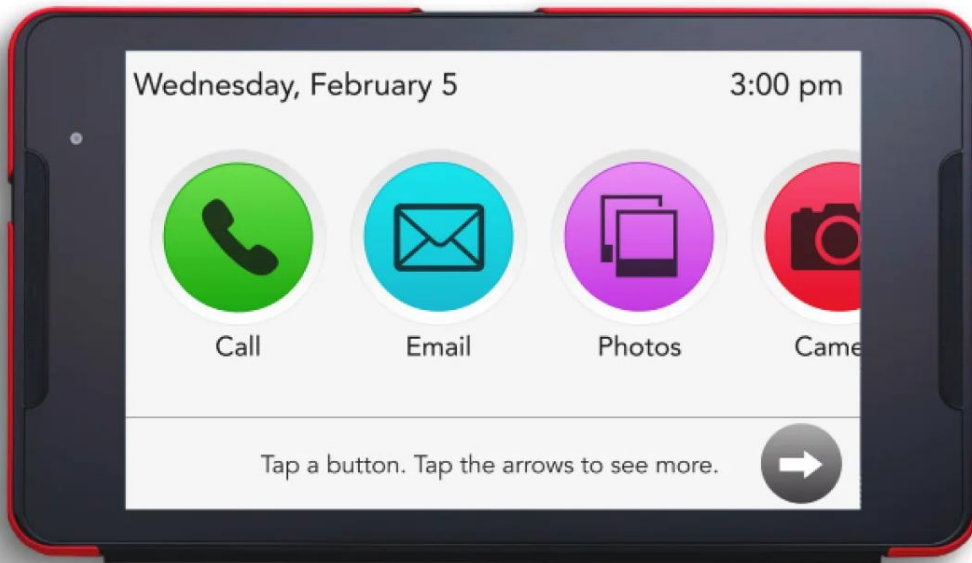


Alphonix  
Noise  
Cancelling  
Microphone






## Samsung Meeting Room, Canon CR-N500




## GrandPad



**Upgrade Accessory Receiver**

- Get the Best of Free TV and Streaming Together with the MyVelo Premiere NEXTGEN Smart TV box, combining Broadcast TV Reception with Internet Streaming of Netflix, YouTube, Prime Video, Disney+ & more in one package!
- Cinematic Home Theater Picture and Sound with 4K Ultra HD, HDR+, Dolby Vision and immersive Dolby Atmos audio
- Wireless MIMO WiFi 6 and Wired Connectivity plus Enhanced Bluetooth Voice Remote
- \$100, suggested retail price (Amazon)



**NEXTGEN TV CERTIFIED**



## Hyviva Hydrogen Dry Power Storage



# VW Self Driving Van – Uber LA 2026



## III. PRACTICAL APPLICATIONS IN ACCOUNTING

# 1. Integration Of Tools Daily



- Enhancing Workflows with Microsoft 365
  - Automating repetitive tasks in Excel with Power Query and AI formulas
  - Leveraging Power BI for data visualization and financial reporting
  - Using Teams for collaboration and document management
- Combining SaaS Accounting Platforms
  - Seamless integration between QuickBooks, Xero, and payroll/tax software
  - API-driven automation to reduce manual data entry
  - Best practices for syncing financial data across multiple platforms
  - Provisioning ASC 740 for FASB Accounting Standards Update (ASU) 2023-09 8 categories of tax reporting (2025 for public companies, 2026 for private)
- Real-world Use Cases of Technology Integration
  - Mid-size firms adopting cloud-based accounting for scalability
  - Large firms leveraging AI for risk assessment and fraud detection
  - Small businesses using automation to streamline bookkeeping

## Happy 40<sup>th</sup> Birthday Excel!



- Microsoft Excel was first introduced in 1985 for Apple Inc.'s Macintosh computer
- It was initially introduced as Multiplan, a very popular CP/M, but lost popularity on MS-DOS systems to Lotus 1-2-3
- By 1988, Excel began to outsell Lotus 1-2-3 and the emerging QuatroPro
- Excel has evolved from a basic spreadsheet tool to a complex business intelligence and data analytics tool, introducing features such as 3D charts, VBA for macros, PivotTables, and improvements in interface and calculation functions
- The modern spreadsheet was introduced in VisiCalc, created by Doug Klunder in 1979



In the late 1970s, personal computers were primarily seen as devices for hobbyists, with limited use in professional settings. During this period, Dan Bricklin, an MBA student at Harvard University, and Bob Frankston, a software engineer, conceived the idea of a computer program that could replicate the functionality of a financial ledger on a computer screen.

## 2. Improving Collaboration And Communication



- **Best Collaboration Tools for Accounting Firms**
  - Slack, Microsoft Teams, and Zoom for real-time communication
  - Secure client portals for document sharing and approvals
  - Cloud-based project management tools such as Asana and Trello
- **Enhancing Client Relationships Through Technology**
  - Secure messaging for real-time client engagement
  - Automating client notifications and appointment scheduling
  - Implementing chatbots for basic client inquiries and support
- **Remote Work and Hybrid Office Strategies**
  - Best practices for cybersecurity in remote work settings
  - Cloud storage solutions: Google Drive, OneDrive, and Dropbox
  - Ensuring compliance with data privacy laws when working remotely

## Top Small Business Products



SaaS	More Sophistication (SaaS/DT)
1. <a href="#">Accounting Power</a>	1. <a href="#">AccountEdge</a>
2. <a href="#">FreshBooks</a>	2. <a href="#">CustomBooks (was AccountingSuite)</a>
3. <a href="#">Kashoo</a>	3. <a href="#">CYMA</a>
4. <a href="#">Momenteo</a>	4. <a href="#">QuickBooks Enterprise</a>
5. <a href="#">OneUp</a>	5. <a href="#">Sage 50 Accounting</a> (Canada)
6. <a href="#">QuickBooks Online</a>	6. <a href="#">Sage 50 US</a>
7. <a href="#">Patriot Software</a>	7. <a href="#">Spire Systems</a>
8. <a href="#">Xero</a>	8. <a href="#">Xledger</a>
9. <a href="#">Wave</a>	9. <a href="#">ZarMoney</a>
10. <a href="#">ZipBooks</a>	10. <a href="#">Zoho Books</a>

# Current Mid-Market Technology



## SaaS

1. [Acumatica Cloud ERP](#) ([more](#))
2. [Certinia](#) (formerly Financial Force)
3. [Dynamics 365 Business Central](#) ([more](#))
4. [Dynamics 365 Supply Chain](#)
5. [IFS Cloud](#)
6. [NetSuite](#) ([more](#))
7. [Odoo](#)
8. [Sage Intacct](#) ([more](#))
9. [Unit4 Cloud](#)
10. [Workday](#)

## Hosted

1. [Aptean Industrial Manufacturing ERP](#) (formerly Open Systems TRAVERSE)
2. [Deltek](#)
3. [ECI Macola](#)
4. [Exact Globe+](#) ([more](#))
5. [Epicor](#)
6. [Hansaworld](#)
7. [Infor CloudSuite Financials](#)
8. [Sage Business Cloud X3](#)
9. [SAP Business One](#)
10. [SYSPRO ERP](#)

# Best Of Breed Or Best Of Suite (Zoho One)



## Best of Breed



Expensify

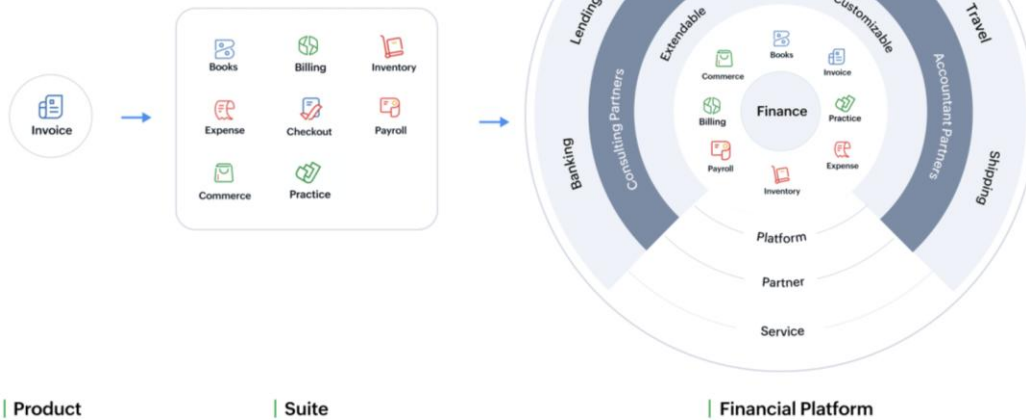
vs.



## Best of Suite



## Powerful Financial Platform



## Meet Zoho Payroll



### Automate

Automate repetitive manual work throughout the payroll cycle: **salary calculation**, benefits management, pay slip distribution, and accounting.

### Customize

From custom compensation structures to flexible pay schedules, make Zoho Payroll work the way you want.

### Digitize

Take all your payroll data to the cloud, access your data from anywhere, and solve pay slip-related queries while ensuring security.



## Run payroll for all 50 states in the US



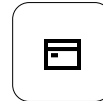
Compliant to Federal, State and Local laws with automated tax filing and returns



Dedicated employee self-service (ESS) portal to keep employees informed of all things payroll.



Customizable salary components.



Online salary payments to employees in just a few clicks



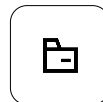
## Run payroll for all 50 states in the US



Manage healthcare, retirement, and time off benefits



Handle all the forms – I-9, W-4, W-2, 940, 941, 944



Automated payroll reports - Salary registers, compliance reports, etc.



# Intuit Enterprise Suite



## Targeted Fit

- Operate multiple US-based entities
  - Generate over \$3 million in annual revenue
  - Multi-entity (but all must be service & project-based businesses)
  - Single-entity, requiring multi-dimensional reporting
- Industries: Construction, Non-profit, Service, originally stated manufacturing

## Intuit's Selling Points

- Accountant access
- Multi-entity
- Dimensions
- Industry Customization
- Project Management
- FP&A

## 3. Ensuring Data Security And Compliance



- Protecting Sensitive Financial Information
  - Multi-factor authentication (MFA) and zero-trust security models
  - End-to-end encryption for financial transactions and document storage
  - AI-driven threat detection and monitoring systems
- Overview of Key Compliance Regulations
  - GDPR, CCPA, and their implications for financial data management
  - IRS security standards for handling taxpayer information
  - Industry frameworks such as SOC 2 and ISO 27001 for accounting firms
- Developing a Robust Cybersecurity Strategy
  - Implementing role-based access control (RBAC)
  - Educating employees on phishing and social engineering threats
  - Regularly updating software and conducting penetration testing



## IV. DATA ANALYTICS AND VISUALIZATION

## Iv. Data Analytics And Visualization



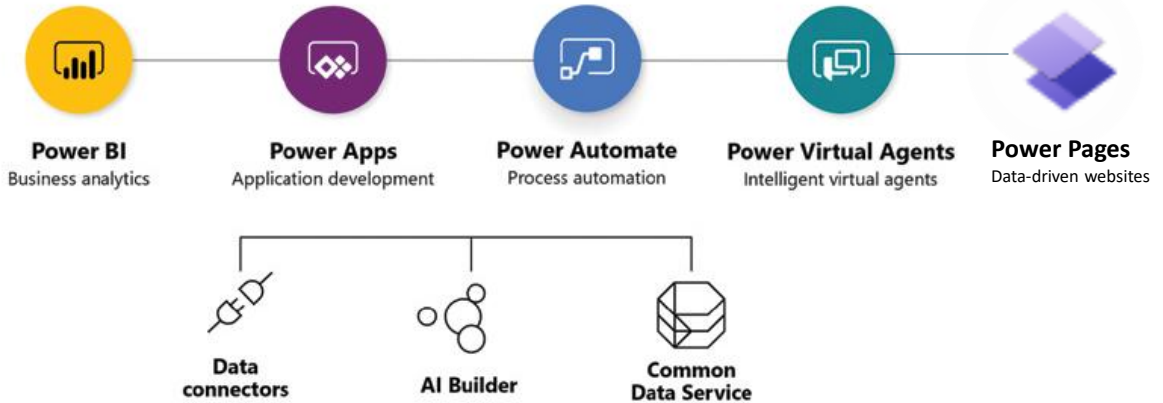
- **Enhanced Decision-Making with Real-Time Data**
  - Interactive dashboards provide real-time financial insights for better business strategy
  - AI-driven analytics detect trends and anomalies in financial reports
  - Predictive modeling improves revenue forecasting and risk assessment
- **Automated Reporting and Compliance Monitoring**
  - Machine learning automates data aggregation, reducing manual reporting errors
  - Regulatory compliance tools ensure adherence to tax and financial laws
  - Customizable visualization tools enhance financial presentations and client reports
- **Integration with Business Intelligence Systems**
  - Seamless data imports connect accounting platforms with enterprise systems
  - Cloud-based analytics allow access to insights from multiple locations
  - Advanced filtering enables deeper analysis of operational and financial metrics



# Microsoft's Power Platform



The low-code platform that spans Office 365, Azure, Dynamics 365, and standalone applications



Source: Microsoft

## V. CYBERSECURITY MEASURES

## V. Cybersecurity Measures



- Advanced Threat Detection and Prevention
  - AI-powered monitoring detects suspicious activity in accounting and financial data
  - Multi-factor authentication strengthens login security for sensitive records
  - End-to-end encryption protects client communications and transactions
- Regulatory Compliance and Risk Management
  - Compliance frameworks ensure adherence to data protection regulations (e.g., GDPR, CCPA)
  - Automated security audits identify vulnerabilities in accounting systems
  - Secure backup solutions prevent data loss from cyberattacks or system failures
- Employee Awareness and Training
  - Phishing simulation programs educate staff on recognizing security threats
  - Role-based access controls minimize unauthorized exposure to financial data
  - Secure file-sharing protocols prevent data leaks in remote work environments

## Apple Oopsy OR Intent?



- The Cupertino corporation released iOS 18 and macOS 15 (code-named Sequoia) on September 16, 2024, with no mention of Apple's Enhanced Visual Search (EVS)
- Lost privacy lawsuits
  - CSAM (child sexual abuse materials)
  - iPhones, iPads, MacBooks, Apple watches, Apple TV, etc. — recorded conversations that Apple employees then shared with contractors and advertisers to assist them in marketing their products
  - Ending encryption when ordered to by governments

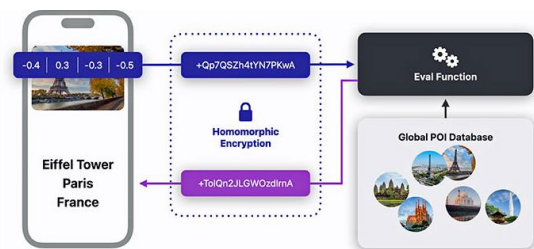


Figure 2. An Apple device locally handles the left and middle steps. The blue arrow shows a device sending an encrypted description of its photos to Apple. On the company's server, an evaluation function identifies the subject of each photo by consulting a global point-of-interest database. Keyword descriptions are then returned to the originating device. Source: Apple October 24, 2024, [scientific.aqaer](#)

# Chinese And Space X Satellite Risk



- Experts warn of China threatening U.S. military satellites in orbit
- America's military satellites built using decades-old architectural norms make for "fat, juicy targets in geosynchronous orbit" that lie vulnerable to attack by China and other adversaries, warned retired Space Force Lt. Gen. John Shaw
- As a warning, he referenced China's January launch of the Shijian-25 satellite. He said this satellite may attempt to rendezvous with — and try to refuel — the Shijian-21 satellite
- Satellites play a crucial part in connecting people, including bringing Internet to remote communities and emergency responders
- Musk acknowledges he turned off Starlink internet access last year during Ukraine's attack on the Russian military
- Solar storm knocks 40 SpaceX satellites out of orbit
- In a sky full of satellites, astronomers find creative ways to observe the stars

# Use ARIN's RPKI



- ARIN = American Registry for Internet Numbers
- RPKI = Resource Public Key Infrastructure – [arin.net/rpki](https://arin.net/rpki)
- Why RPKI?
  - Enhance the security and integrity of your network infrastructure
  - Empowers network operators to make informed routing decisions
  - Establishes a level of trust in the network – verifiable encrypted information about IP address and route legitimacy
  - Can minimize the risk of configuration errors and malicious activities
- Routing hijacks and misconfigurations can **disrupt** your internet connection and **detour** your internet traffic

# How To Poison The A.I. Machine



- When computer scientist Ben Zhao learned that artists were having their work stolen by AI models, he invented a tool to thwart this at the SAND labs at Univ. of Chicago
- Two poisoning tools: one called [Glaze](#), the other [Nightshade](#)
- Fights Clearview AI, too
- [Bracelet](#) of Silence
- Fawkes image "Cloaking" for Personal Privacy

FREAKONOMICS RADIO NETWORK

FREAKONOMICS  
RADIO

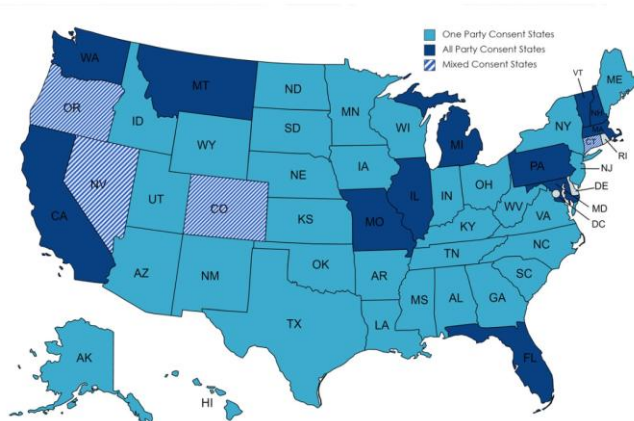
STEPHEN J. DUBNER



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# States With One-Party Consent



- There are 37 states (+DC) that are considered one-party consent states. In addition, Connecticut can also, at times, be regarded as a one-party consent state
- Keep in mind while using Teams, Zoom, Otter, Fathom, and others

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# AI Assists Bad Actors



- Spear Phishing is more accurate
- LinkedIn is a primary source of business information
- AI helps bad actors exploit zero-day CVE, reverse engineer, and exploit the same day. There are now quadruple the number of exploits on the day of the announcement of a CVE
- Between April 2024 and April 2025, Microsoft:
  - Thwarted \$4 billion in fraud attempts
  - Rejected 49,000 fraudulent partnership enrollments
  - Blocked about 1.6 million bot signup attempts per hour

# What's Being Done With Your Data?



- Sold or given away
- Used to build new AI models
- Used by bad actors for identity theft and ransomware
- Used by bad actors to create malware
- Spoofing/creating voice and video (Fake AI)
- Social media posts
- Sub-Processors – review for the "naughty" and "nice" list

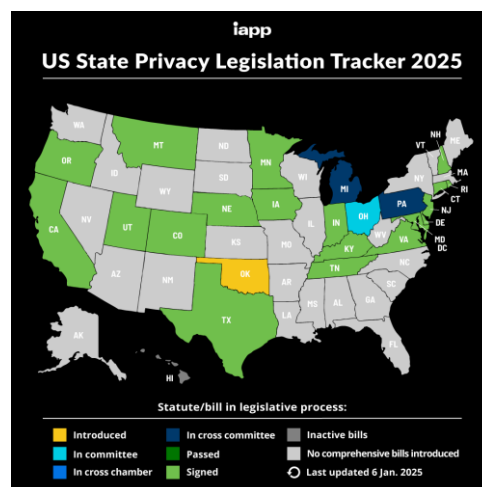


# State Privacy Regulations (14 Now)



1. California Consumer Privacy Act (Oct 1, 2020, amended Jan 1, 2023)
2. Colorado Privacy Act (Jul 1, 2023)
3. Connecticut Personal Data Privacy and Online Monitoring Act (Jul 1, 2023)
4. Delaware Personal Data Privacy Act (Jan 1, 2025)
5. Indiana Consumer Data Protection Act (Jan 1, 2026)
6. Iowa Consumer Data Protection Act (Jan 1, 2025)
7. Kentucky Consumer Data Protection Act (Jan 1, 2026)
8. Maryland Online Data Privacy Act (Oct 1, 2025)
9. Minnesota Consumer Data Privacy Act (Jul 31, 2025)
10. Montana Consumer Data Privacy Act (Oct 1, 2024)
11. Nebraska Data Privacy Act (Jan 1, 2025)
12. New Hampshire SB 255 (Jan 1, 2025)
13. New Jersey SB 332 (Jan 15, 2025)
14. Oregon Consumer Privacy Act (Jul 1, 2024)
15. Rhode Island Data Transparency and Privacy Protection Act (Jan 1, 2026)
16. Tennessee Information Protection Act (Jul 1, 2025)
17. Texas Data Privacy and Security Act (Jul 1, 2024)
18. Utah Consumer Privacy Act (Dec 31, 2023)
19. Virginia Consumer Data Protection Act (Jan 1, 2023)

# US State Privacy Legislation 2025



# Watch Data Sub-Processors



- EU Artificial Intelligence Act was passed in 2021 in response to the advent of generative AI systems like ChatGPT, in force since August 2024
- Classifies applications into four categories (“unacceptable”, “high”, “limited”, and “minimal”) based on their risk of causing harm, plus an additional category for general-purpose AI
  - Unacceptable risks in apps are banned
  - High-risk apps must comply with more rigorous requirements for security, transparency, and quality and must have conformity assessments
  - Limited risk apps only have transparency obligations
  - Minimal risk apps are unregulated
  - General purpose AI has transparency requirements and must be evaluated when risks are above the “limited” level



# Data Sub-Processor Resources



- EU AI Act list of [authorities](#)
- The European Commission (EC) is considering banning all high-risk Sub-Processors and applications
- Build your own table of risks - Minimal (M), Limited (L), High (H), Unacceptable (U)

Application	Function	Risk
Kred	Social scoring system that measures an individual's influence and outreach on social media	U
HireVue	Uses AI to analyze video interviews, assessing candidates' facial expressions, word choice, and speech patterns to help recruiters identify the best candidates for a job	H
Botkeeper	Combines machine learning and human oversight to automate bookkeeping tasks, such as transaction categorization, reconciliation, and financial reporting	M



## VI. REMOTE WORK AND COLLABORATION TOOLS

## VI. Remote Work And Collaboration Tools



- Cloud-Based Accounting and Document Management
  - Secure cloud platforms enable remote access to financial records from any device
  - Automated document categorization improves organization and retrieval efficiency
  - Digital signatures streamline approval processes for financial transactions
- Virtual Meeting and Communication Solutions
  - Encrypted video conferencing ensures secure discussions of financial data
  - AI-powered transcription tools enhance meeting documentation and accessibility
  - Integrated scheduling tools optimize time management for remote teams
- Workflow Automation and Task Management
  - AI-driven chatbots handle repetitive inquiries, improving client response times
  - Task automation tools reduce manual workload in financial reconciliation
  - Collaborative dashboards provide visibility into accounting project progress





## VII. ASSESSING VENDOR CLAIMS VS. REALITY



### Understanding Vendor Hype

- Recognizing Overpromised Capabilities
  - Identifying common exaggerations in AI and automation solutions
  - Separating marketing buzzwords from real-world functionality
  - Evaluating claims of “full integration” with existing systems
- Evaluating New Technologies Effectively
  - Importance of independent reviews and peer recommendations
  - Trial periods and sandbox testing before firm-wide deployment
  - Assessing customer support and long-term vendor stability
- Lessons from Past Tech Failures
  - Examples of overhyped technologies that didn’t deliver
  - Understanding the risks of early adoption vs. proven solutions
  - How to phase in new technology to mitigate disruptions

# Assessing Vendor Claims



- Importance of independent reviews
- Learn to differentiate between realistic claims and marketing exaggerations
- Evaluation Framework
- Criteria for assessing new technologies: scalability, ROI potential, and reliability
- Careful contract review – use AI to summarize terms, then read

# IT Governance



- Assess Business Objectives and Needs
  - Identify Relevant Standards and Regulations
  - Review Available Frameworks
  - Consult with Experts and Peers
  - Assess Compatibility and Scalability
  - Evaluate Resource Availability
  - Conduct a Pilot Implementation
  - Measure Success and Continuous Improvement
- Types of IT Governance Frameworks
    - Value Delivery Frameworks
    - IT Strategic Alignment
    - Performance Management Frameworks
    - Resource Management Frameworks
    - Risk Management Frameworks



## VIII. ACTIONABLE TAKEAWAYS

### 1. Strategic Planning For Technology Adoption



- Developing a Technology Roadmap
  - Aligning tech investments with firm growth and strategy
  - Prioritizing security and scalability in software selection
  - Conducting annual tech reviews to assess effectiveness
- Budgeting for Technology Investments
  - Cost-benefit analysis of automation and AI adoption
  - Reducing software redundancy and overlapping subscriptions
  - Leveraging tax incentives for technology upgrades
- Training and Change Management
  - Ensuring firm-wide adoption of new tools
  - Addressing employee resistance to technology changes
  - Developing internal training programs for tech proficiency

## 2. Tactical Implementation Strategies



- Best Practices for Immediate Efficiency Gains
  - Automating routine bookkeeping and financial reporting tasks
  - Setting up dashboards for real-time insights into firm performance
  - Integrating AI assistants for client inquiries and scheduling
- Ensuring ROI on Technology Investments
  - Measuring KPIs before and after software implementation
  - Conducting periodic cost-benefit reviews
  - Avoiding common pitfalls such as underutilized software



## IX. CONCLUSION

## IX. Conclusion



- Consider the emerging tech trends presented and their anticipated impact on the accounting profession – AI, Quantum, blockchain & crypto, hardware, software, security & privacy
- Apply the concepts learned in
  - **Strategic Planning.** Develop a tech roadmap tailored to firm size and goals
  - **Tactical Implementation.** Immediate steps to adopt or optimize tools for efficiency
  - **Achieving ROI.** Strategies for measuring and maximizing returns on technology investments



## QUESTIONS?