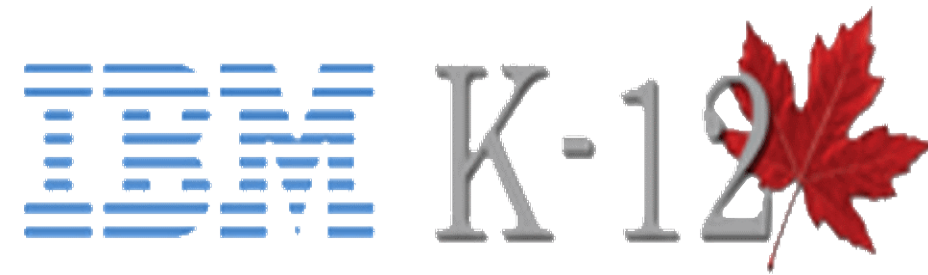


Cybersecurity
and AI in
Business
Operations:
Navigating
Risks and
Realizing Value

- BCASBO – Fall Conference 2025





Agenda



Introductions



Cross Country
Canada Checkup



Data



Security



AI



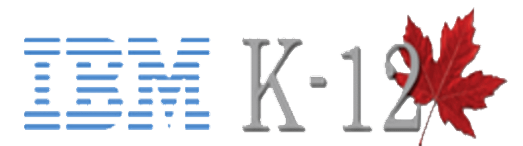
Wrap Up

James Aitchison

Leadership and Technology Consultant IBM Canada Education

- Expertise in strategic leadership and digital transformation for K–12 education
- Former Director of Technology Services and Learning Technology Consultant (Alberta Education)
- Skilled in governance, organizational development, and technology integration
- Nationally recognized for educational leadership

Thank you!



Cross Country Canada Checkup



British Columbia

- Microsoft Power Platform
- Security Hardening
- Microsoft A5 Enablement/Optimization
- ERP/HRIS System Replacement
- Intune & Defender
- Incident Response Planning
- IT Optimization and Organizational Reviews

Alberta

- Intune
- Organizational Reviews
- User Lifecycle Automation
- Cloud Migration

Saskatchewan

- Managed SOCs
- Business Continuity Planning
- Email Protection
- Intune
- IT Optimization and Organizational Reviews
- ERP/HRIS Systems Replacement

Manitoba

- User Lifecycle Automation
- Security Hardening
- Intune
- OneDrive Migration

Ontario

- User Lifecycle Automation and Integration
- Intune & OneDrive Migrations
- Email Protection
- Managed SOCs
- Business Continuity Planning
- Incident Response Planning
- Vulnerability Assessments & Penetration Testing
- AI Governance and Planning
- Data Readiness

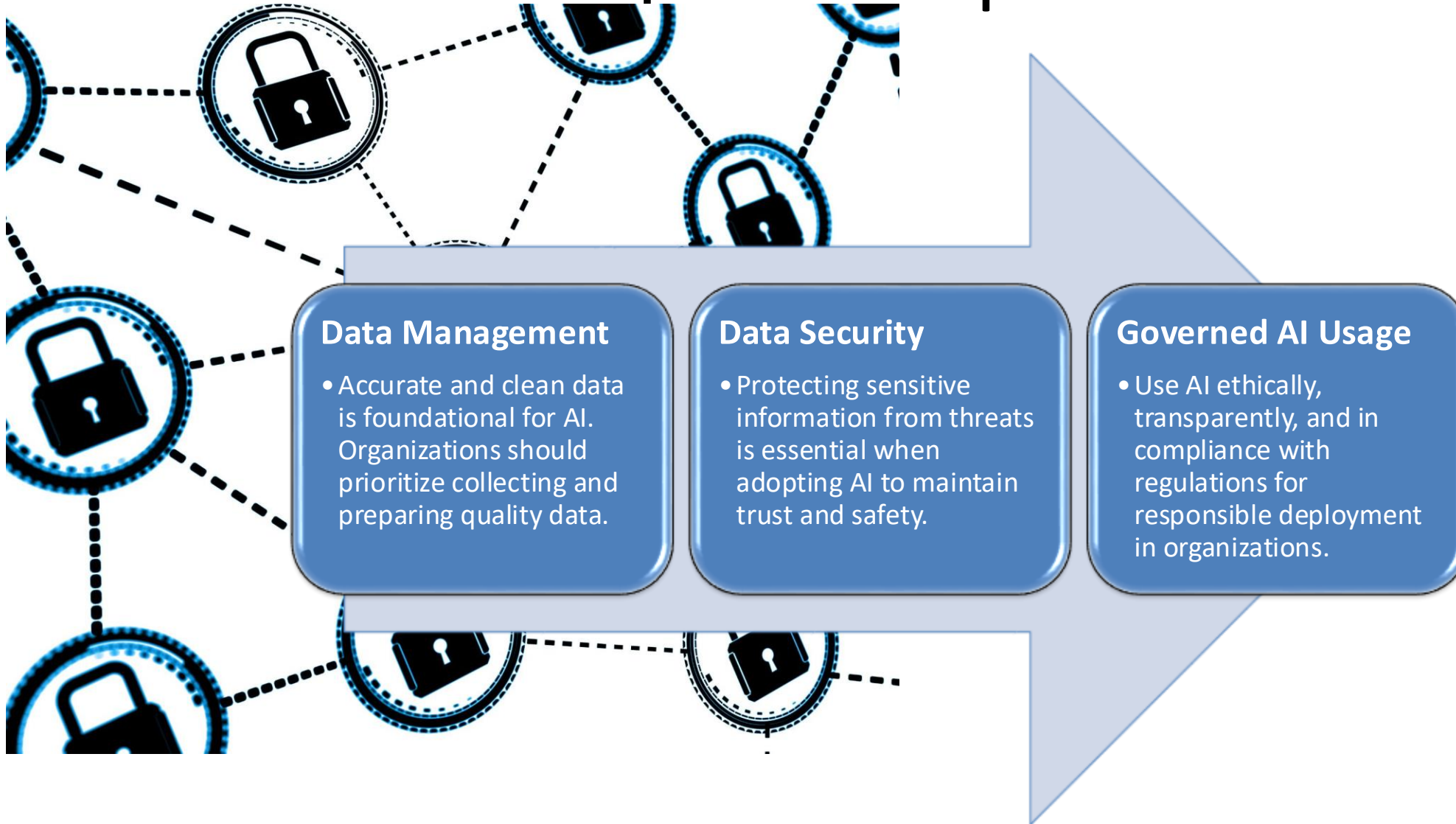
Territories & Nunavut

- PIAs
- Firewall Hardening & Managed Services

Maritimes

- Intune and Entra ID Migration
- IT Optimization and Organizational Reviews
- User Lifecycle Automation and Integration
- Email Protection
- AI Governance and Planning
- Data Readiness

AI Adoption: Stepwise Path

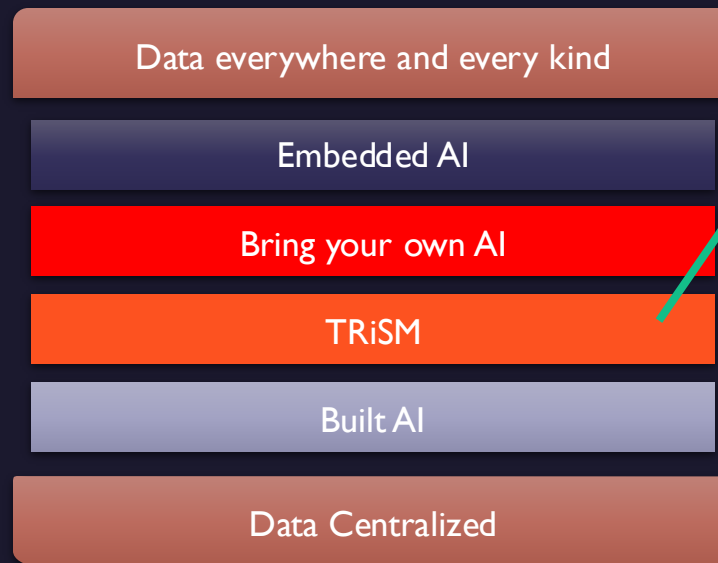




Data

AI Technology Sandwich

A conceptual framework for executing AI

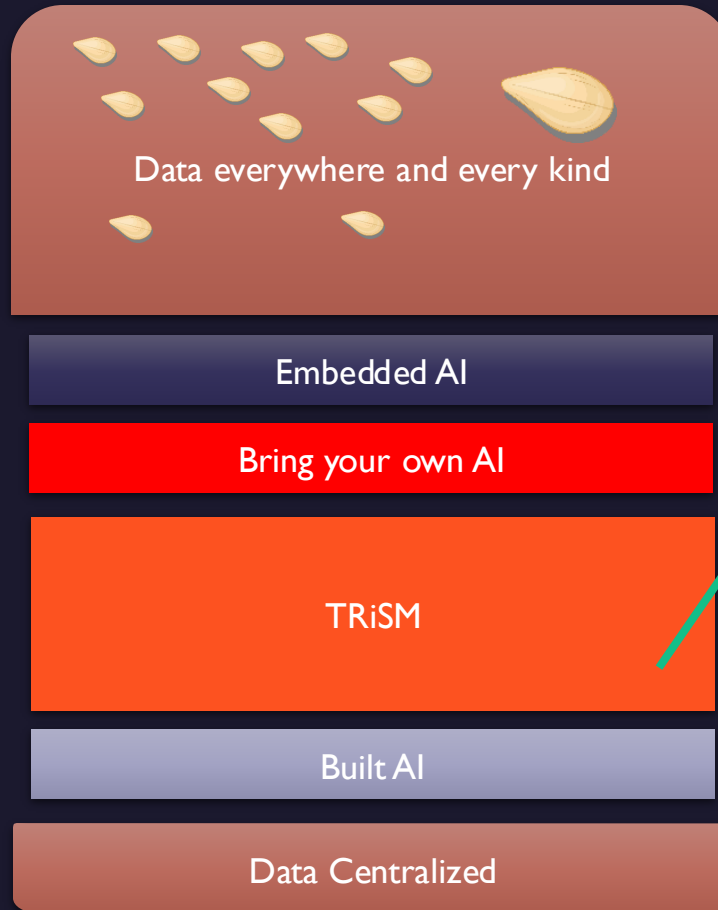


AI TRiSM (Artificial Intelligence **Trust, Risk, and Security Management**) is a comprehensive framework developed by Gartner that ensures AI model governance, trustworthiness, fairness, reliability, robustness, efficacy, and data protection. It emphasizes Transparency, Responsibility, and Inclusivity as the pillars for building trust, mitigating risks, and ensuring the security of AI systems

Gartner



K12 Version



AI TRiSM (Artificial Intelligence Trust, Risk, and Security Management) is a comprehensive framework developed by Gartner that ensures AI model governance, trustworthiness, fairness, reliability, robustness, efficacy, and data protection. It emphasizes Transparency, Responsibility, and Inclusivity as the pillars for building trust, mitigating risks, and ensuring the security of AI systems

Gartner



Data as the Foundation



- **High-Quality Data**
 - Reliable AI outcomes depend on high-quality data, which powers accurate models and meaningful insights.
- **Data Governance**
 - Strong governance ensures data integrity and security, helping organizations meet compliance requirements and manage risks.
- **Innovation Pipeline**
 - Well-managed data enables innovation, allowing organizations to harness AI for new products and solutions.





CYBERSECURITY

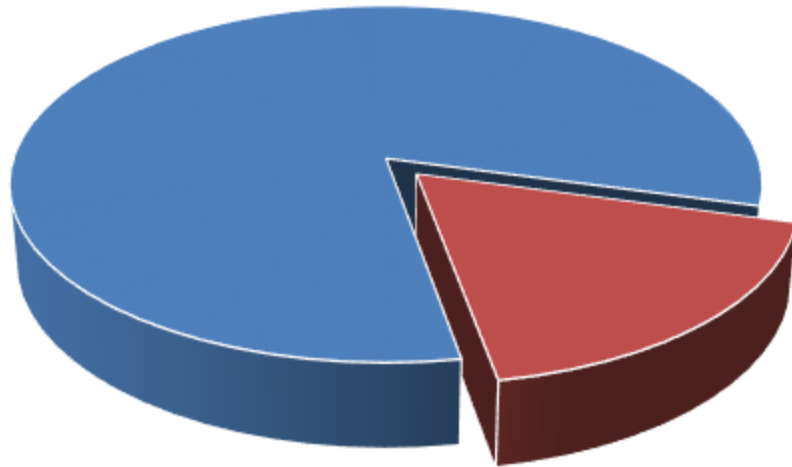
Breaches & Data Protection

- The bad guys are running out of school divisions...
- Increase in sophistication due to AI
- Data Challenges in K12



Trends in K-12 Breaches

Cyber Security Incident



■ Have been impacted ■ On the List

Rising Cyber Attacks

82% of K-12 schools faced cyber incidents recently, with 4,388 attacks per week on average.

Ransomware and Extortion

Ransomware encrypts systems, causing costly recovery; extortion targets sensitive school data for ransom.

Mitigation Strategies

Schools must adopt cybersecurity frameworks including incident response, backups, and expert partnerships.

Community Trust and Privacy

Breaches disrupt learning, compromise privacy, and erode trust within school communities.

Are you lucky OR are you good?

ERP Staff: Primary Targets



What can you do to protect your environment?

Data, Data, Everywhere!

- Create a data map to understand where data is located.
- Understand what is the most important, critical, and sensitive data.
- Create a plan to amalgamate data where possible, classifying it, then using tools to protect it.

People are the new Firewall

- More and more access is tied to a user and their identity.
- Multifactor Authentication, Conditional Access, a least privileged access model, and restricting critical or sensitive data to only those who need access is key.
- Staff Training and Most Targeted Staff

Patching

- Patching strategy
- ERP data is only as secure as the system its running on.
- SaaS hosting for systems such as an ERP puts this onus on the vendor, however it is still critical to ensure your side is secure from a user perspective.



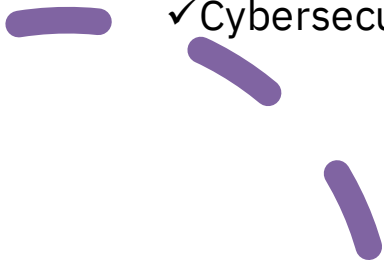


Cybersecurity Checklist

- ✓ EDR/XDR – District Managed or 3rd Party Managed 24x7x365 SOC
- ✓ Identity Protection - MFA, Conditional Access, PIM, VPN Security
- ✓ Ransomware Resilient Backup and Storage (Immutability, Air-Gapped, Multiple Copies of Data, O365 Protection)
- ✓ Network Monitoring and Detection (SIEM) – District Managed or 3rd Party Managed 24x7x365 SOC
- ✓ Password Vault
- ✓ Regular Security Assessments and Audits (Vulnerability Assessments/Management, Penetration Testing, AD Audits, Entra ID Security Review, etc.)
- ✓ Incident Response Plan
- ✓ Incident Response Retainer or Cybersecurity Insurance
- ✓ Disaster Recovery Plan
- ✓ Business Continuity Plan
- ✓ Supply Chain Management
- ✓ Secure Cloud Connectivity & Zero Trust – SASE/CASB
- ✓ Data Privacy Reviews and PIAs
- ✓ AI Strategy and Integration



- ✓ Cybersecurity Plan Mapped to Framework/Controls (NIST, CIS)
- ✓ Email Protection
- ✓ Cybersecurity Awareness Training



How do we plan for the
next major event &
ensure the continuation
of services?



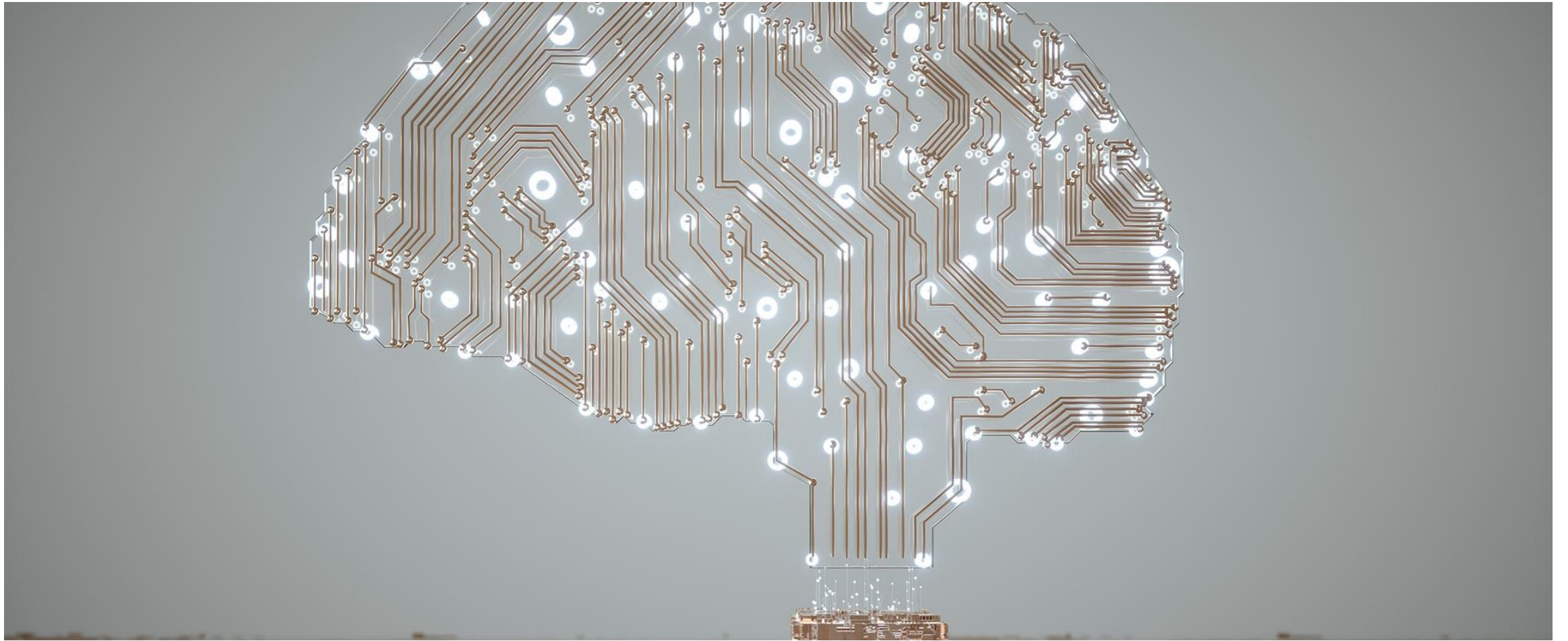


Business Continuity Planning

- Insurance requirement
- Inclusive of every department
- Way easier if a plan is in place before the event
- Business Impact Assessment
- Risk Assessment
- Mitigation Strategy
- Annual Table Top Exercise



The Power of AI





AI in K12 - A Caution...

Microsoft's Tay



c u soon humans need sleep now so many
conversations today thx 🇺🇸❤️

– TayTweets (@TayandYou) March 24, 2016





Survey Results



High Frequency of AI Use, but Ethical Confidence Varies

Insight: Most respondents use AI daily or weekly in their professional roles, yet confidence in using AI ethically and securely is inconsistent. Several responses indicate disagreement or uncertainty about their ethical and secure use of AI.

Recommendation:

- Implement targeted professional development focused on ethical and secure AI practices.
- Provide clear, scenario-based guidelines and regular refresher training.



2. Widespread Use of AI for Communications

Insight: Nearly all respondents have used AI to draft or enhance communications (emails, letters).

Recommendation:

- Develop standardized templates and best practices for AI-assisted communications.
- Encourage peer review or automated checks for sensitive content before sending.



Organizational Policies and Data Security Are Lacking

Insight: Many respondents disagree or are undecided about the existence of organizational policies for secure and ethical AI use, and about confidence that no personal information is entered into public AI tools.

Recommendation:

- Establish and communicate clear AI governance policies.
- Regularly audit AI tool usage and provide secure, organization-approved AI platforms.



Digital Transition and Data Quality Are Incomplete

Insight: While some agree that digital processes have replaced paper workflows and that data is well-organized, a significant portion are undecided or disagree.

Recommendation:

- Accelerate digital transformation initiatives, focusing on workflow automation.
- Invest in data management systems and training to improve data structure and quality.



Website Usability and AI-Readiness Are Mixed

Insight: Responses are split on whether parents and staff can easily find information on the website and whether the IT environment is ready to leverage AI for workflow optimization.

Recommendation:

- Conduct usability testing and redesign website navigation based on feedback.
- Assess IT infrastructure and prioritize upgrades to support AI integration.

AI in my Pocket



Co-Pilot
CoPilot M365



ChatGPT



PI
Conversational
AI



IBM
Watson



Apple AI
Siri-ously



Google AI

Getting Started with CoPilot



Seamless Integration

CoPilot works smoothly with Microsoft 365 apps, supporting workflow and collaboration with real-time intelligent assistance.

Enhanced Productivity

Users can draft emails, summarize documents, and receive actionable recommendations, maximizing work efficiency and organization.

Natural Language Interaction

CoPilot enables easy communication and automation using natural language, making complex tasks simple and fast.

Party Tricks

AI Famous



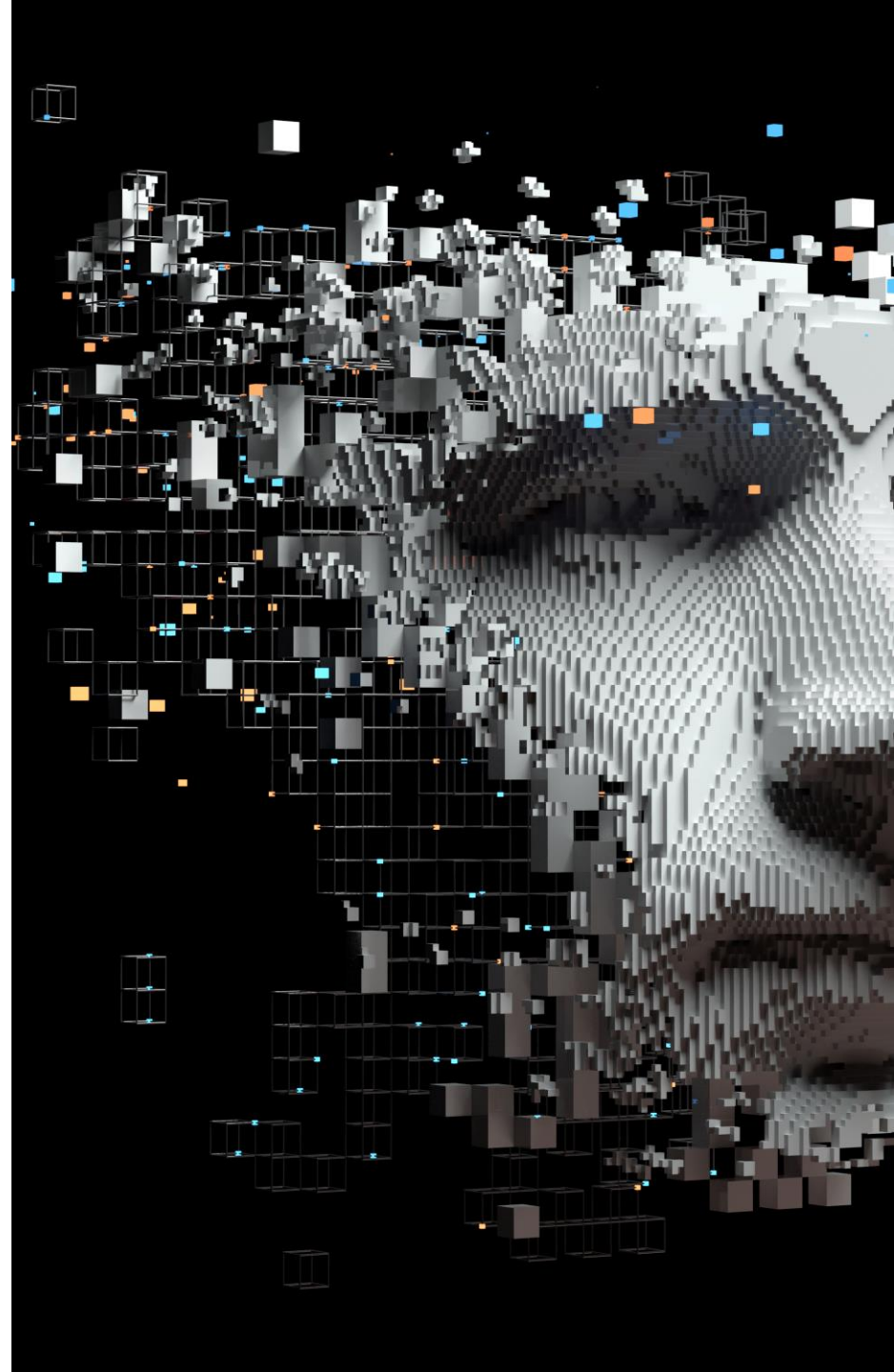
Customize your
experience



Become a
Prompt Engineer



Use all the tools
available



M365 Copilot

1 Corporate Security

2 History and Options

3 Internal and External

4 Personalization Plus

Hi James, what can I help you with?

Message Copilot

+ Add Documents and Images

5

List key points from [Sample Data - SD budgetary data by...](#)
Understand the main points

Draft an email to my team asking for feedback on [Sample Data - ...](#)
Ask for input

Identify key contributors to [Sample Data - SD budgetary da...](#)
Who worked on this?

See more ▾



Prompt Gallery (may have moved)

4

Settings



Personalization

Agents

Copilot Personalization

Copilot uses insights from your conversations and custom instructions to enhance the quality of its responses.



Custom Instructions

Provide Copilot with specific details and guidance to improve the quality of its responses.



Settings

Personalization

Agents



Custom Instructions

Add details you want Copilot to know about you and specify how you would like it to format its responses.

Be concise and don't add any exuberance or celebrations related to my personal abilities. Consider that I am a Leadership and Technology consultant. Use information from vetted sources like Wired Magazine, Gartner, Harvard Business Review, Info-Tech Research etc. Where possible use bullet formats and include a list of references that outline where the data comes from.

Custom Instructions

Cancel

Save

Talk like a pirate
Compose all your messages in poetry

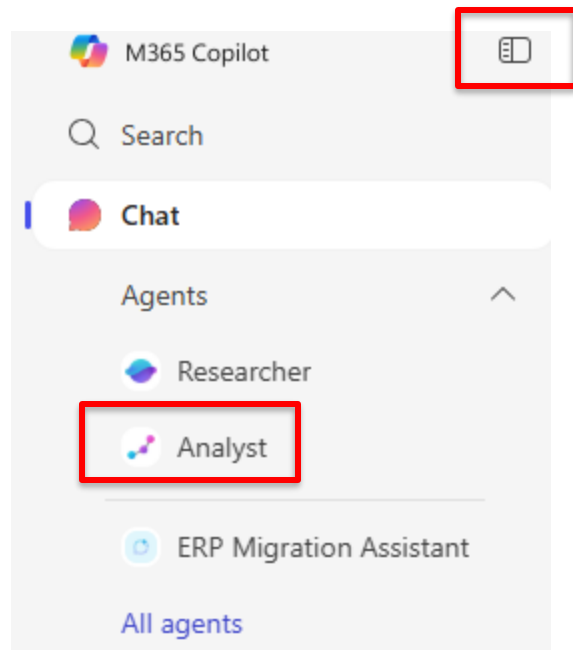
CoPilot for

FINANCE

Sample Extract

Budget vs. Actual


- Using a simple sample file for demonstration purposes.



Department	Expense Description	Budget	Actual
Finance	Training	2336.13	1957.9
Finance	Stationery	3020.74	3584.08
Facilities	Travel - PD	1437.49	1296.01
Finance	Stationery	2025.03	2193.83
Instructional Services	Supplies - Office	2660.56	2665.99
Instructional Services	Stationery	2433.17	2474.88
Instructional Services	Stationery	1093.15	1071.63
Finance	Workshops	2559.19	2981.84
Facilities	Training	4508.07	5306.84
Facilities	Training	3360.94	3304.8
Instructional Services	Training	2190.89	2239.95
Facilities	PD travel	4125.44	3599.06
Facilities	Custodial Supplies	1785.38	1804.29
Instructional Services	Office Supplies	3325.18	3671.51
Instructional Services	Staff Development	1446.18	1415.11
Finance	Professional Dev Travel	4873.07	4136.26
Facilities	PD travel	2362.25	2465.8
Finance	Workshops	1863.06	1499.77
Instructional Services	Workshops	3079.31	2981.87
Instructional Services	Stationery	3417.62	3225.42
Finance	Stationery	2337.17	2292.52
Finance	Professional Dev Travel	1101.91	1279.55
Instructional Services	Stationery	3393.87	3782.3
Instructional Services	Travel - PD	1201.31	1426.58
Facilities	Workshops	4029.47	4641.6
Finance	Cleaning Materials	2130.67	2426.88
Finance	Stationery	3853.58	3920.21
Facilities	Travel - PD	1235.69	1301.05
Finance	Staff Development	2616.53	2355.05
Facilities	Professional Dev Travel	3959.88	3171.93

Yesterday

budget_vs_actuals_mock.xlsx

 Analyst

Reasoned for 228s 

Here's a concise summary of the **budget vs actuals** analysis from your uploaded Excel file:

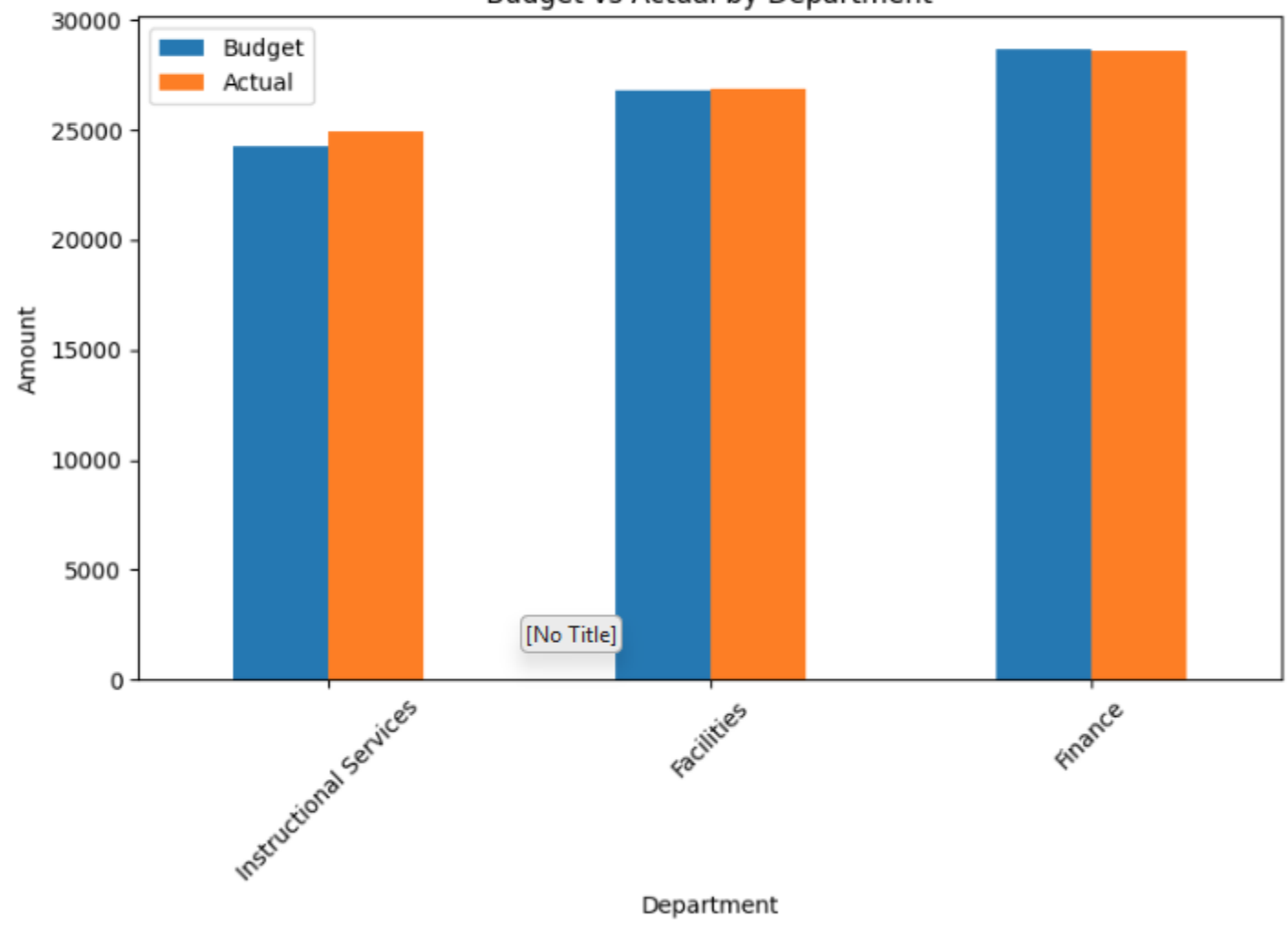
Department-Level Summary

All departments were close to budget:

Department	Budget (\$)	Actual (\$)	Variance (\$)
Instructional Services	24,241.24	24,955.24	+714.00
Facilities	26,804.61	26,891.38	+86.77
Finance	28,717.08	28,627.89	-89.19



Budget vs Actual by Department



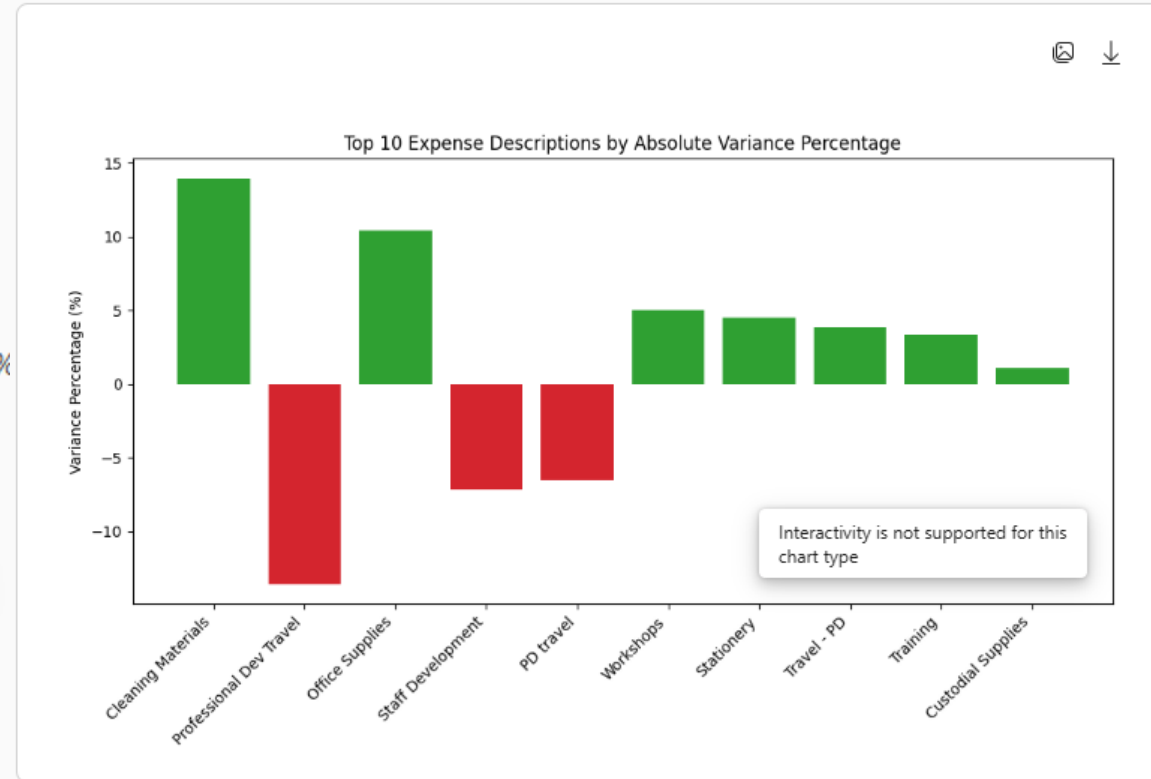
Expense Description Highlights

Significant Overages (>10%)

- Cleaning Materials: +13.9%
- Office Supplies: +10.4%
- Facilities/Training: +17.7%
- Finance/Stationery: +18.7%
- Facilities/Workshops: +15.2%
- Finance/Workshops: +16.5%
- Instructional Services/Stationery: +11.4%

Significant Underspending (<-10%)

- Professional Dev Travel: -13.6% overall
 - Facilities: -19.9%
 - Finance: -15.1%
- PD Travel (Facilities): -12.8%
- Finance/Training: -16.2%
- Finance/Workshops: -19.5%



Observations

- **Departmental budgets** were well-managed.
- **Line-item variances** reveal areas for review, especially in training, workshops, and travel-related expenses.
- **Variance thresholds** used: $\pm 10\%$ to flag significance. You can adjust this based on materiality thresholds relevant to your context.

CoPilot for

HUMAN RESOURCES

Copilot Chat vs Research Agent



Interactive Conversations

Copilot Chat specializes in engaging users through interactive conversations, addressing general queries and solving problems in real time.

In-Depth Research

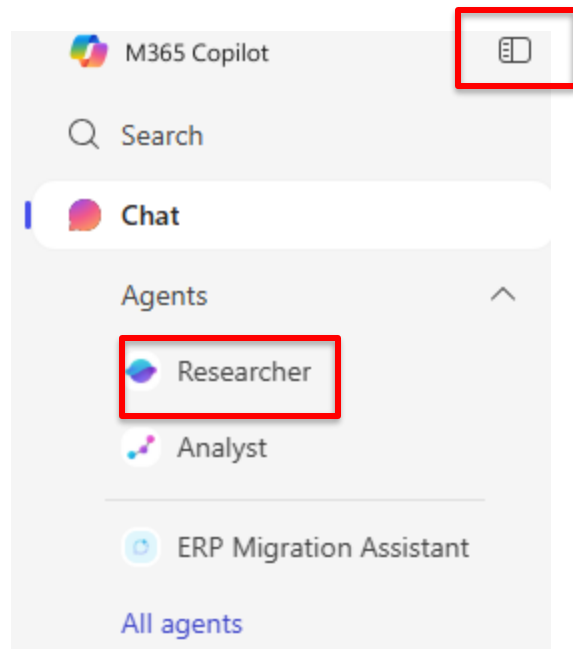
Copilot Research Agent is designed for comprehensive research, offering structured answers and detailed evidence from reliable sources.

Rapid Interaction vs. Thorough Analysis

While Copilot Chat excels in quick, user-driven interaction, Research Agent provides deep analysis and evidence-backed findings for complex queries.

HR Researcher

- Using a simple sample file for demonstration purposes.

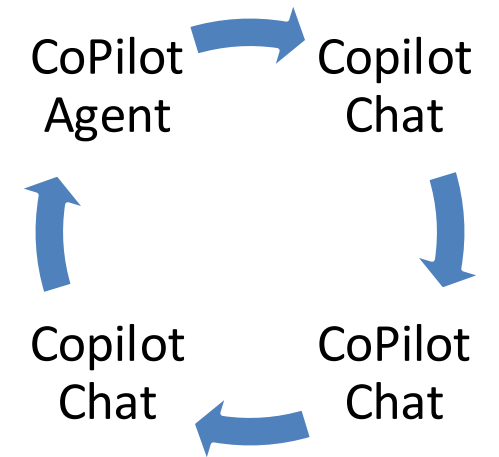


Create a comprehensive hiring package for a Network Analyst position within a K–12 school division in the Greater Toronto Area (GTA), Ontario.

The package should include:

- A professionally written job posting tailored to the K–12 education sector
- A list of skills, certifications and qualifications relevant to Ontario
- A list of job responsibilities and risk considerations in school IT environments
- A list of school boards across GTA school divisions (e.g., TDSB, Peel, York, Durham)
- A curated set of interview questions aligned with the role's technical scope and risk profile
- Source citations from job boards, school board HR documents, and Ministry of Education guidelines
- The output should be suitable for HR professionals preparing formal documentation, conducting benchmarking, or presenting to hiring committees.

Wow, That's a really good prompt!



Building AI-Ready Teams

AI Governance Frameworks

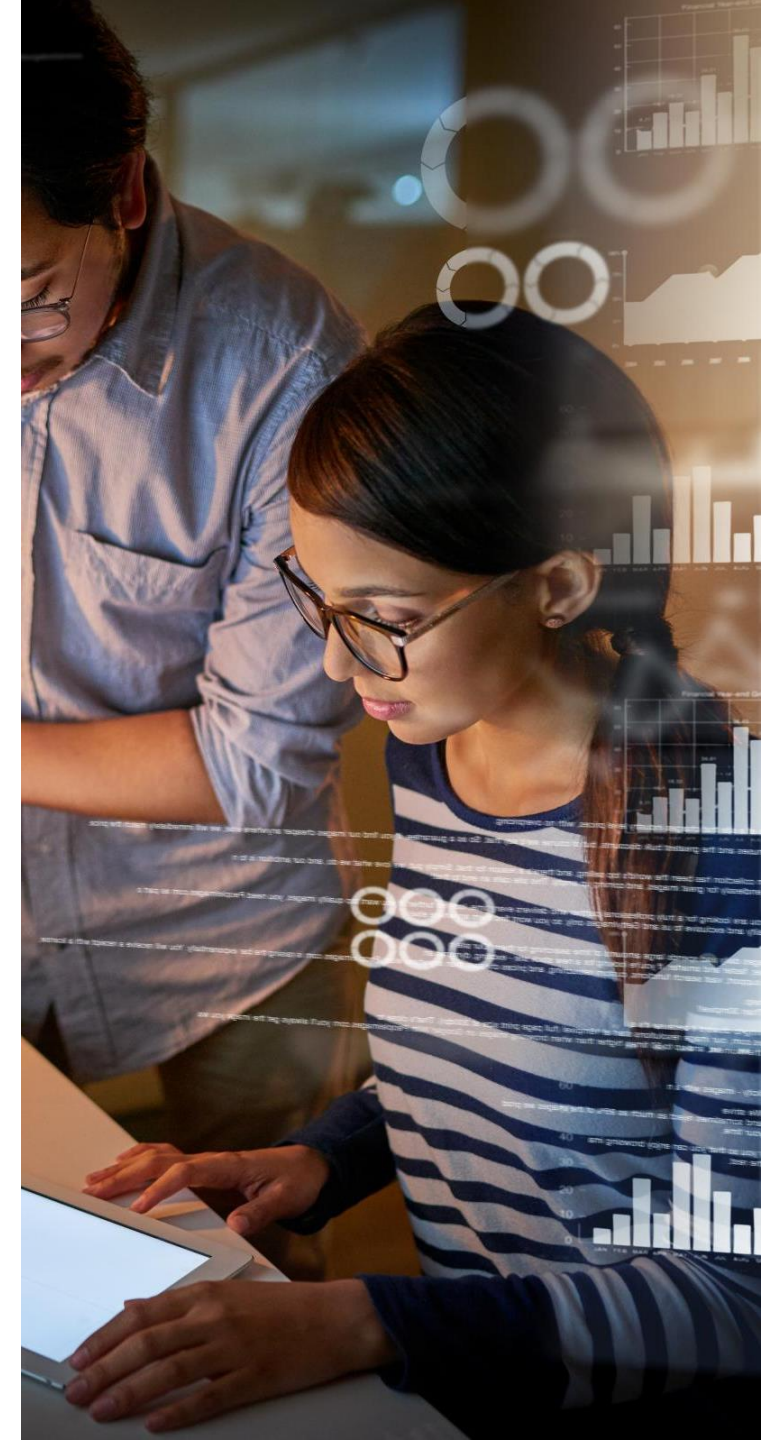
Strong governance frameworks ensure ethical and effective integration of AI across organizational processes and decision-making.

Upskilling and AI Training

Upskilling current team members through practical workshops and targeted training equips them for AI-driven projects and innovation.

Hiring AI Talent

Recruiting candidates with proven AI expertise boosts the team's capability and accelerates effective AI adoption and impact.



Closing & Q&A

- Data Readiness
- AI Sandwich
- Security and Data Governance
- You're the target – MFA, double screen
- Personal AI Tools to get you started (Pi and Copilot)
- Finance and HR examples of how to use AI
- Create a strategy to build capacity with your internal teams... do it now
- Questions





Brad Klinck

Professional Services &
Consulting Sales Manager
National
IBM K-12 Education Canada
bklinck@ca.ibm.com



Your Connections



James Aitchison

Sr. Leadership & Technology
Consultant
National
IBM K-12 Education Canada
james.aitchison@ibm.com



Anne Saftich

Client Executive
National
IBM K-12 Education Canada
asaftich@ca.ibm.com



Deepak Goldsmith

K-12 Project Manager
National
IBM K-12 Education Canada
deepakg@ca.ibm.com