

K2's ETHICS AND TECHNOLOGY

CONTINUING PROFESSIONAL EDUCATION SERIES



K2 ENTERPRISES
WWW.K2E.COM

K2E CANADA INC.
WWW.K2E.CA

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Introduction

Three Rules of this Seminar

1. **There Are No Dumb Questions.** Please ask questions if you need further explanation. We welcome your questions and will do our best to provide accurate and meaningful answers.
2. **Obtain the Information for Which You Came.** If you have a specific interest in a topic, please let us know. If your topic is not part of the course materials, we will do our best to accommodate your request. Your instructor is anxious to meet your needs.
3. **Share and Share-Alike.** Your instructor is here to share relevant information about the course. We hope that you will be willing to do the same. If you have helpful tips or experiences, please share them with the other participants and us.

Course Development

The shareholders, associates, and staff of K2 Enterprises and K2E Canada Inc. developed this course and the related course materials. We aim to deliver high-quality educational practices that help you use and understand the tools and concepts discussed in this session more effectively.

We designed our course presentation style for busy professionals. Through numerous short case studies and feature reviews, we deliver concise, easy-to-understand, easy-to-absorb information.

To maximize your time and the value of attending this course, we have carefully filtered out trivial and obscure features. Our goal is not to cover every keystroke and menu option, but to provide a fast-paced course that focuses on state-of-the-art information technology and how it can benefit you and your staff.

About K2 Enterprises

For over three decades, our team members have delivered more than 45,000 technology-focused seminars, webinars, and conferences worldwide. To stay on top of technology, our team members read numerous technology trade magazines, attend conferences, and speak with technology companies each year to stay current with the latest information for our courses. Also, we experience everything we teach and recommend to our audiences. Because our shareholders and associates are based in different states and provinces, using technology efficiently and appropriately is essential to our business's success and survival.

Our Mission Statement

K2 aims to develop and deliver the highest-quality technology seminars and conferences for business professionals. We work cooperatively with professional organizations such as state CPA societies, associations of Chartered Professional Accountants, and technology vendors. We make every effort to maintain high integrity, family values, and friendship among all involved.

Our Instructional Team

For a complete listing of instructors and bios, please visit:

K2 Enterprises

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The K2 Seminar Curriculum

Full-day Seminars

- K2's Advanced Excel
- K2's Business Intelligence, Featuring Microsoft's Power BI Tools
- K2's Case Studies In Fraud And Technology Controls
- K2's Excel Best Practices
- K2's Excel Essentials For Staff Accountants
- K2's Excel PivotTables For Accountants
- K2's Excel Tips, Tricks, And Techniques For Accountants
- K2's Next Generation Excel Reporting
- K2's QuickBooks For Accountants
- K2's Small Business Internal Controls, Security, And Fraud Prevention And Detection
- K2's Technology For CPAs – Don't Get Left Behind

Half-day Seminars

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- K2's Case Studies In Fraud And Technology Controls
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- K2's Excel Charting And Visualizations
- K2's Implementing Internal Controls In QuickBooks Online Environments
- K2's Improving Productivity With Microsoft 365Cloud Applications And Services
- K2's Mastering Advanced Excel Functions
- K2's Microsoft Teams
- K2's Securing Your Data: Practical Tools For Protecting Information
- K2's Technology Update
- K2's Top PDF Features You Should Know

Besides the seminars listed above, K2 also produces numerous one and two-day technology conferences annually. You can find a complete listing of our course offerings, including dates, locations, and course descriptions, on our website at:

K2 Enterprises

[Technology Conference - K2 Enterprises](#)



K2E Canada Inc.

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On-Site Training

Working cooperatively with state CPA organizations and associations of Chartered Professional Accountants, we are pleased to offer all our seminars and conference sessions as on-site training opportunities. On-site training provides companies of all sizes with numerous advantages, including the following.

- **Customization.** K2 can customize the content of all on-site training events to meet your organization's specific needs. For example, we can combine selected parts of existing courses into a focused learning experience to meet your team's needs. Likewise, we can develop custom content from the ground up and deliver it to your team members, ensuring we meet your training objectives.
- **Cost savings.** For organizations of all sizes, on-site training can provide significant cost savings compared to public training venues. In addition to potentially reduced registration fees, these cost savings materialize in the form of reduced travel costs and reducing the amount of time team members spend away from the office.
- **Convenience.** Because you select your on-site training event's date, time, and location, on-site training is more convenient for you and your team than traditional training options. Many organizations schedule on-site training with staff meetings, retreats, and customer/client events to leverage the value of all participants' time.

Customization, cost savings, and convenience are the three C's of "training to go." For more information on how you and your organization can experience these benefits or schedule an on-site training event, please visit:

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Web-Based Training

K2 offers web-based CPE and CPD to accounting and business professionals throughout the United States and Canada. K2's award-winning instructors deliver two-, four-, and eight-hour webinars on numerous technology-focused topics.

Additionally, K2 provides on-demand training. On-demand courses offer you the advantage of receiving top-quality training at a time and location that fits your busy schedule. You can start a class today and complete it in the future. For more information, please visit:

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K2 Internet Sites

K2 maintains multiple websites containing information and links relevant to CPAs and other business professionals as a service to the profession. Further, the content of these sites can enrich your experience during and after our seminars. In addition, our pages contain links to some of the top accounting and content management software solutions and even to a few sites that are just fun places to visit. If you have any comments or questions regarding our web pages, please email webmaster@k2e.com.

K2 has two primary websites. You can view information regarding CPE and CPD opportunities, access a library of technology tips and articles, and link to K2-related websites.

www.k2e.com



www.k2e.ca



www.cpafirmtech.com

CPA Firm Technology contains technology-related information explicitly targeted at public accounting firms. We include product reviews, hardware and operating system discussions, affinity programs for CPA firms, and Cloud computing resources.



www.accountingsoftwareworld.com

Accounting Software World provides information related to accounting and financial management solutions. Here, you can find software and service reviews, product comparisons, white papers, and other material of interest to those seeking information about accounting software and service solutions.



www.totallypaperless.com

For information about document management and paperless processes, please visit **Totally Paperless**. In addition, you will find reviews on hardware and software used by all types of businesses in document imaging and management processes.



Learning Objectives



Distinguish between ethics and morals

Define “technoethics” and identify examples of business ethics issues and how they are affected by technology

Recognize the influence of technology on ethics requirements in Codes of Conduct

List at least five examples of potential ethics issues associated with leading technologies today

Major Topics Covered



Differentiating between morals, ethics and laws

Examining key provisions of accountants’ Code of Conduct

Reviewing notable technoethics issues and cases

Creating a culture that advances ethics

Morals vs. Ethics vs. Laws



Ethics Definition



Lexico.com defines “ethics” as:

Moral principles that govern a person's behavior or the conducting of an activity

So, how is ethics like and different from morals and laws?

Ethics vs. Morals

(www.diffen.com)



	Ethics	Morals
What are they?	The rules of conduct recognized in respect to a particular class of human actions or a particular group or culture.	Principles or habits with respect to right or wrong conduct. While morals also prescribe dos and don'ts, morality is ultimately a personal compass of right and wrong.
Where do they come from?	Social system - External	Individual - Internal
Why we do it?	Because society says it is the right thing to do.	Because we believe in something being right or wrong.
Flexibility	Ethics are dependent on others for definition. They tend to be consistent within a certain context, but can vary between contexts.	Usually consistent, although can change if an individual's beliefs change.
The "Gray"	A person strictly following Ethical Principles may not have any Morals at all. Likewise, one could violate Ethical Principles within a given system of rules in order to maintain Moral integrity.	A Moral Person although perhaps bound by a higher covenant, may choose to follow a code of ethics as it would apply to a system. "Make it fit"
Origin	Greek word "ethos" meaning "character"	Latin word "mos" meaning "custom"
Acceptability	Ethics are governed by professional and legal guidelines within a particular time and place	Morality transcends cultural norms

Ethics vs. Laws



- Laws address only a subset of all the issues business professionals face daily
- For example, something might be legal while simultaneously being unethical in the eyes of many
 - As a partner in a company, you see great opportunity on the horizon. You don't want your other partner to share in these potential profits, of which they are not yet aware. You purchase your partner's interest before the profits materialize so that you are the only one to receive the forthcoming profits. Is this behavior *legal*? Probably so. Is it *ethical*? Maybe not.

Laws, Morals, & Ethics



Laws

- *Created by others*
- *Influenced by us as citizens and voters*

Ethics

- *Created by others and by our chosen profession*
- *Influenced by us and our chosen profession*

Morals

- *Created by us*
- *Influenced by family, friends, teachers, others and, for many, faith*

Looked At It A Little Differently...



“Ethics is knowing the difference between what you have a right to do, and what is right to do.”

“Ethics is doing the right thing when no one else is looking.”

Eight Components Of A Mature Professional Infrastructure



1. Initial professional education
2. Accreditation
3. Skills development
4. Certification
5. Licensing
6. Professional development
7. Code of ethics
8. Professional society

As identified by Gary Ford and Norman Gibbs in "A Mature Profession of Software Engineering," 1996, Carnegie Mellon University



CODE OF PROFESSIONAL CONDUCT

Six Principles Of The AICPA Code Of Professional Conduct



Responsibilities
Principle

Public Interest
Principle

Integrity Principle

Objectivity and
Independence
Principle

Due Care
Principle

Scope And
Nature of
Services Principle

Code Of Professional Conduct



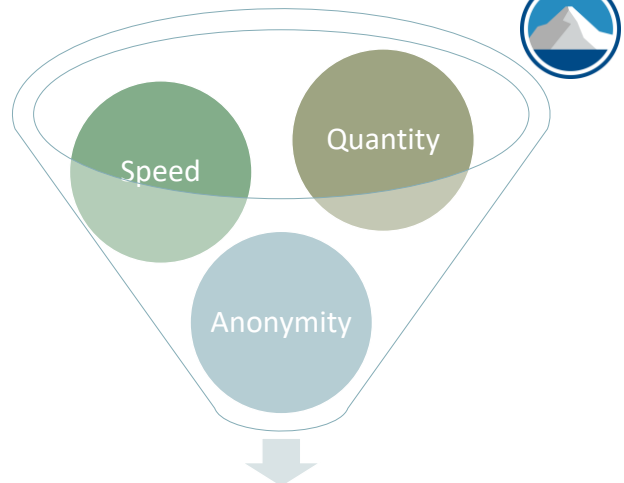
- AICPA's Code of Professional Conduct is applicable to **all** members of the organization, in performance their *professional responsibilities*, irrespective of whether they are in public practice, industry, governmental, or other organizations
 - Note the emphasis above on professional responsibilities...it does not apply to personal matters
- However, a large portion of the Code focuses on members in public practice, particularly when performing attest engagements
- The word **“technology”** is mentioned **only 4 times in the 218 page document** that codifies the standards and even then, it is not used in the context of “technoethics”

Code Of Professional Conduct



- AICPA's Code of Professional Conduct is applicable to **all** members of the organization, in performance their *professional responsibilities*, irrespective of whether they are in public practice, industry, governmental, or other organizations
 - Note: **Safe to say, we don't have a lot of authoritative guidance in this area** (not apply to pe)
- However, a large portion of the code focuses on members in public practice, particularly when performing attest engagements
- The word **"technology"** is mentioned **only 4 times in the 218 page document** that codifies the standards and even then it is not used in the context of "technoethics"

How Does Technology Impact Ethics?



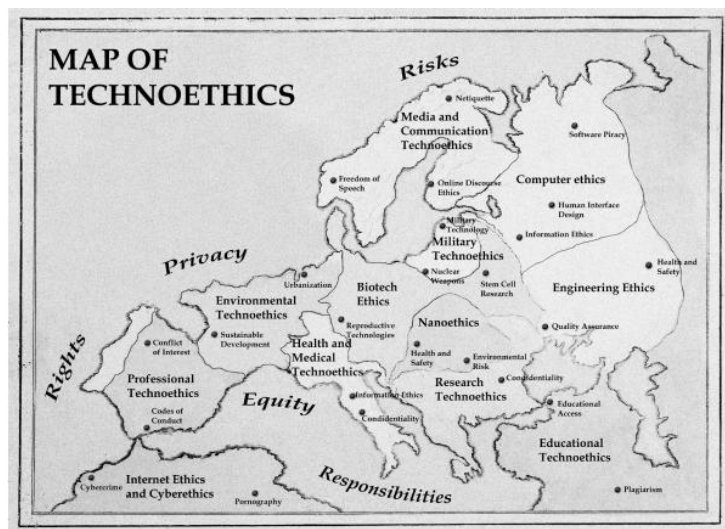
Greater Opportunity? Greater Temptation? Greater Reward From Potentially Unethical Actions?

Technoethics Definition



Using theories and methods from multiple domains, technoethics provides insights on ethical aspects of technological systems and practices, examines technology-related social policies and interventions, and provides guidelines for how to ethically use new advancements in technology.

https://en.wikipedia.org/wiki/Ethics_of_technology#Definitions



“The Emerging Field of Technoethics,” Rocci Luppigini, University of Ottawa

Jacobus Lentz, IBM, And The Nazis: *An Early Case In Technology Ethics*



- Inspector of Population Registries in Netherlands prior to World War II
- With leased IBM machines, he created forgery-proof ID cards
- After German invasion, cards were issued to all
- Lentz also created an alphabetical listing of Jews in the Netherlands, which was used beginning in 1942 to facilitate deportation of Jews to concentration camps
- 107,000 were deported and of these persons, 102,000 died



Napster: A Case In Technology Ethics



- Do you remember Napster, the online, peer-to-peer network that facilitated sharing music MP3s?
- Service operated between 1999 and 2001
- Metallica filed suit in March 2000 against Napster; Dr. Dre filed similar suit one month later
 - Napster settled both suits
- A&M Records through the RIAA sued Napster in 2000 for copyright infringement and Napster lost that case
- Napster shut down in 2001 and sold off assets in 2002

Consider What Sony Did In 2005



- *In an effort to be proactive rather than just litigious in limiting illegal online music swapping, the label late last year tried something new: music CDs that when placed in a customer's computer installed a program to prevent the copying of songs. Companies have been adding antipiracy features to products for years, so what's wrong with that? Everything, according to an outraged mass of music fans. Installing software programs--even (or perhaps especially) one aimed at protecting intellectual property--without explicit user permission turned out be crossing the line. Even worse, the software made computers vulnerable to viruses. Sony quickly backed down and offered a program to remove the first one. But it just ended up making things worse when the new program was found to have similar security flaws.*

<https://www.inc.com/magazine/20060301/column-freedman.html>

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- **Public information only.**

- Clearview AI searches the open web. Clearview AI does not and cannot search any private or protected info, including in your private social media accounts.

What Do The Cases Have In Common?



Cutting-edge
technology
(at the time)

Volume of
data

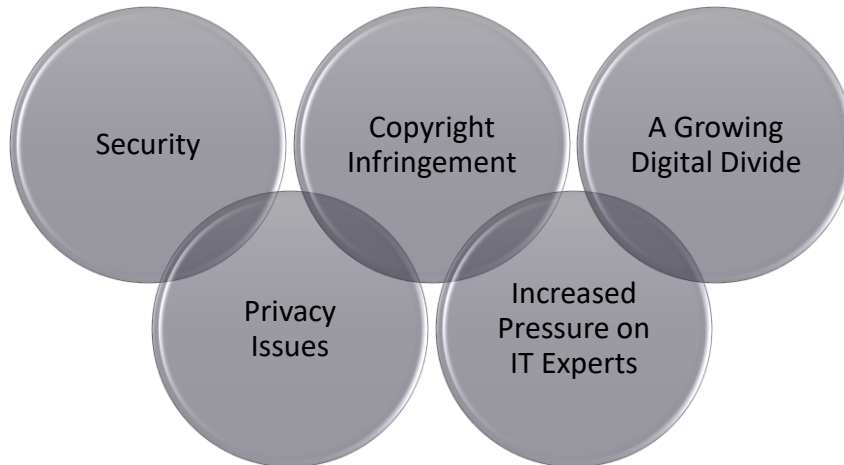
Speed of
processing

Privacy of data



***JUST AS TECHNOETHICS EVOLVED FROM 1940
TO 2000, IT CONTINUES TO EVOLVE TODAY,
BECAUSE OF CONTINUAL TECHNOLOGY
ADVANCEMENTS AND INITIATIVES...***

Technoethcis: Five Challenges



Karehka Ramey, <https://www.useoftechnology.com/5-ethical-challenges-information-technology/>



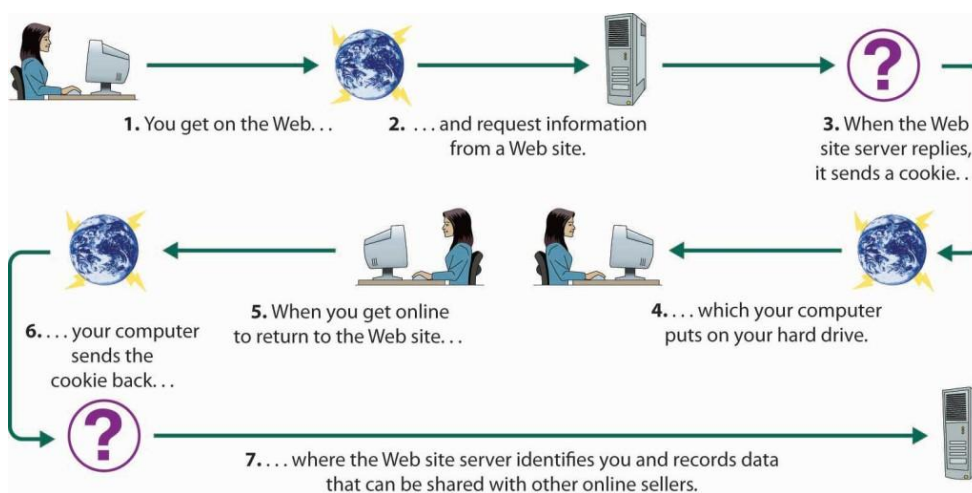
SOME EXAMPLES TO SEE WHAT TECHNOETHICS LOOKS LIKE...

What About Privacy Of Consumer Data?

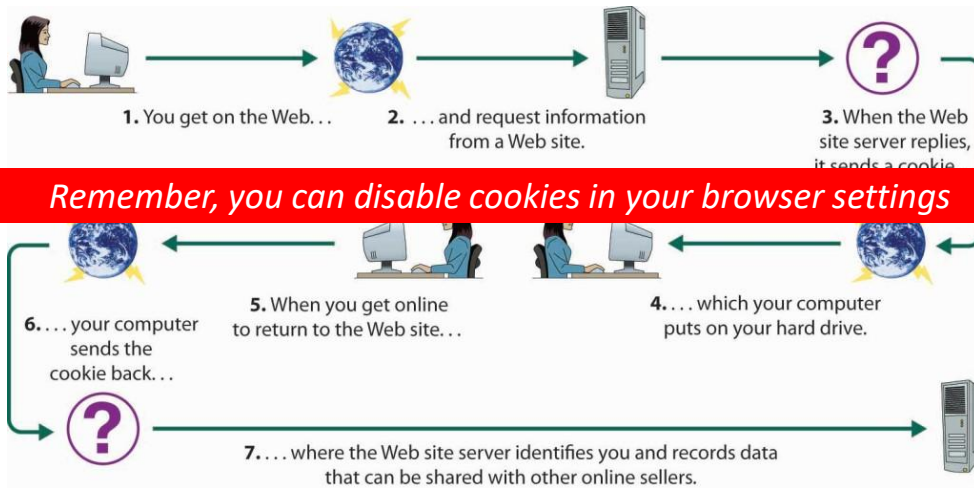


- How much does Google, Amazon, Microsoft, Facebook, and other companies know about you?
- How do they collect this info and what can you do about it?
- What about your choice of a search engine? Does it matter?
- Are these technology companies acting ethically when they collect data about you?

How Do Cookies Collect Your Info?



How Do Cookies Collect Your Info?

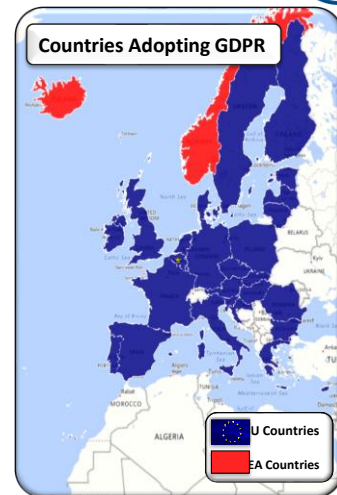


WHAT IS GDPR AND WHAT DOES IT MEAN TO ME?



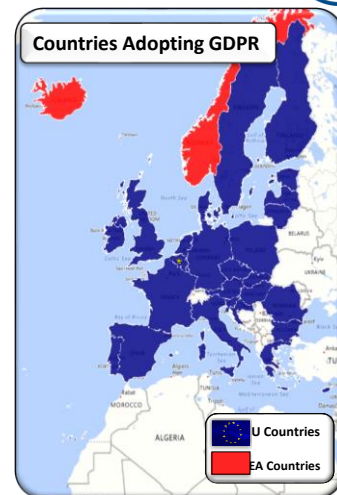
What Is GDPR?

- The General Data Protection Regulation (GDPR) of the European Union
- In effect as of May 25, 2018
- One of the first in an expected global wave of data governance laws which regulates how companies use your personal data
- Makes it unlawful to collect or transfer data on EU citizens unless the organization meets certain conditions and either submits to EU regulation or modifies its business processes
- Data collection and processing must be done by consent or for specific reasons permitted by law



What Is GDPR?

- Gives users rights to view, control, transfer, and demand erasure of their data, which will require organization and cataloging to determine what information your organization has and uses
- Imposes requirements and penalties for noncompliance on companies worldwide – depending on type/severity of violation, fines can be up to the higher of:
 - €10-20 million (depending on the type and severity of violation)
 - 2-4% of worldwide sales



GDPR's Major Requirements



- Processing of personal information must be done under one of six allowable reasons for data processing under the statute, and some types of data have more limitations
- When a subject consents to data processing, the consent must be
 - Clear about the information gathered, and
 - Explicitly state the purposes for which it is to be used
- Subjects can withdraw their consent to data processing at any time
- Subjects have the right to submitting corrections to data
- Organizations must name a Data Controller, a Data Protection Officer and potentially other employees to roles over data governance

GDPR's Major Requirements



- Data subjects have the right to receive a copy of all data retained by an organization on them upon request within 30 days
- Data subjects have the right to not be classified based on an automated processing
- Subjects have the right to erasure of their personal data upon request
- Any stored data must be portable and able to be transferred to another system upon request
- Data regulators must be notified within 72 hours of any data breach – even if the data is encrypted – but individuals may or may not have to be notified in that timeframe
- Documentation of the data stored and logs of the processing activities must be maintained if the company has over 250 employees

Six Allowable Reasons For Processing Data Under GDPR



1. The subject consents to processing of their personal data for one or more specific purposes – but the user can withdraw their consent at any time
2. Processing is necessary for the performance of a contract with the data subject
3. Processing is necessary for legal compliance reasons for the controller
4. Processing is necessary to protect the vital interests of the data subject or another person
5. Processing is necessary for a task performed in the public interest or the exercise of official authority by the controller
6. Processing is necessary for the purposes of the legitimate interests pursued by a controller and is not prohibited by personal privacy statutes

Who Is Covered By GDPR?



- All data stored in EU countries and all personal data for EU nationals, regardless of location are covered
- All organizations which have a data controller, data processor, or a data subject in the EU are covered
- All organizations which collect or process data on EU citizens, regardless of location



Data Privacy & Security By Default



- GDPR recommends that those subject to GDPR limit the data they keep, and not keep certain sensitive data unless it is necessary
- Data controllers are required to implement processes which implement data privacy by design/default and data security by design/default
- These procedures require that processes like the anonymization of personal data are considered and implemented if appropriate into the organization's business processes and data stores

Privacy Laws

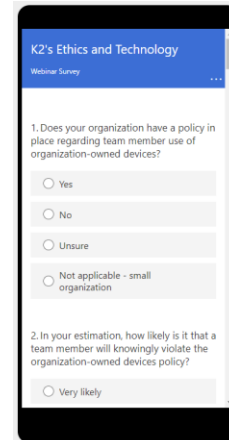


- Details on state privacy laws <https://www.varonis.com/blog/us-privacy-laws/#comparison>
- Details on provincial and territorial privacy laws and oversight <https://priv.gc.ca/en/about-the-opc/what-we-do/provincial-and-territorial-collaboration/provincial-and-territorial-privacy-laws-and-oversight/>

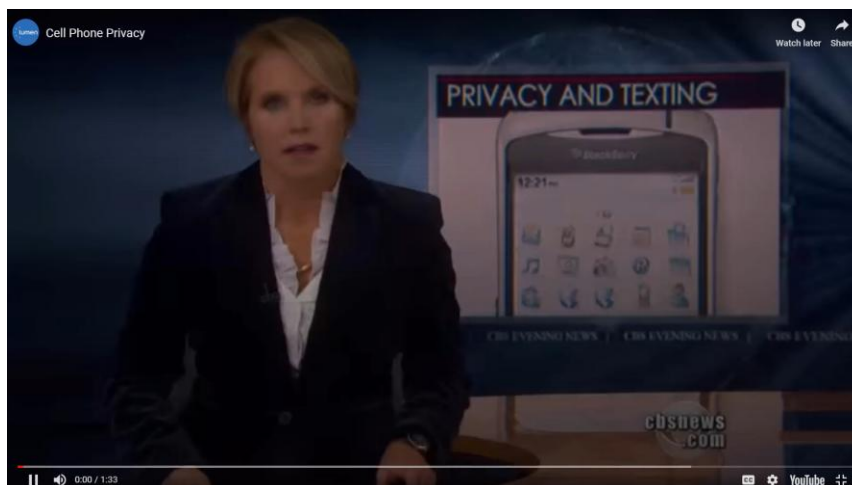
Use Of Company-Owned Devices



- Is it safe to say that almost all workers with access to company-provided technology use these tools for personal reasons?
- What if this is in violation of company-established policies?
- What if this causes inefficiencies and lost productivity and simultaneously increases risk?



Technology And A Right To Privacy



Use Of Company's Internet



- Virtually every business is connected to the Internet today
- Team members often take advantage of Company-owned Internet access for personal activities, perhaps in violation of Company-issued policies
- It's not just a *quantity* issue, it is also a *quality* issue – what types of sites are they visiting?

3. Does your organization have a policy in place regarding personal use of the organization's Internet services?

☐ Yes

☐ No

☐ Unsure

☐ Not applicable - small organization

4. In your estimation, how likely is it that a team member will knowingly violate the internet services policy?

☐ Very likely

☐ Somewhat likely

☐ Neither likely nor unlikely

Personal Texts And Social Media Posts



- Like it or not, social media is here to stay
 - In fact, many businesses have incorporated it as a major component of their communication and marketing strategies
- But how much time are team members spending *each day* texting and posting personal content?

5. How often do you send personal texts and/or social media posts while at work and during normal working hours?

☐ Daily

☐ Weekly

☐ Never

6. In your estimation, how likely is it that a team member will spend more than an hour each day engaging in personal texting and social media updates?

☐ Very likely

☐ Somewhat likely

☐ Neither likely nor unlikely

☐ Somewhat unlikely

☐ Very unlikely

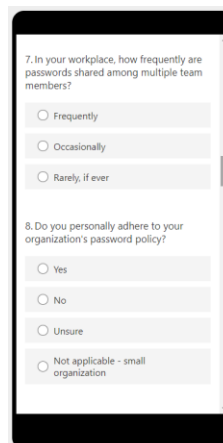
Can Employers Require Social Media Access?



Password And Access Policies



- No one likes passwords, but they remain a “necessary evil” today
- In far too many organizations, team members routinely share passwords with others
 - For example, during vacations
- Also, many team members do not follow password policies in organizations, potentially increasing risk to their employer



Company's Use Of Monitoring Tools



- How often, if ever, does your organization use monitoring tools to keep an eye on what team members are doing with their technology?
 - For example, what websites are being visited?
- What would be the benefit to the organization for doing so?

9. Does your organization monitor your use of technology?

☐ Yes

☐ No

☐ Unsure

☐ Not applicable - small organization

10. Have you or someone you work with ever been disciplined for improper use of technology in the workplace?

☐ Yes

☐ No

☐ Unsure

Copying And Pasting Information



- It's all too easy to copy-and-paste information from the Internet without proper attribution, perhaps in violation of copyright laws
 - Remember Napster?
- Similarly, scanning and running OCR on PDF documents could lead to the theft of someone's intellectual property

11. In the past year, have you knowingly copied and used copyrighted information from the Internet without appropriate attribution?

☐ Yes

☐ No

☐ Unsure

12. As an individual, how do you feel when a company you do business with is using your data to sell you more products/services?

☐ Very positive

☐ Somewhat positive

☐ Neutral

☐ Somewhat negative

Collecting Information About Customers And Potential Customers



- Privacy is a huge issue today
- What do companies such as Google, Microsoft, Amazon, and others know about you?
- What type of information is your company collecting about customers and what is being done with that data?
- Is this disclosed in your company's Privacy Policy?

12. As an individual, how would you feel if a company you did business with was harvesting personal data about you and using it to attempt to sell more products/services to you?

☐ I would be very upset, to the point I would cease doing business with that company

☐ I would be moderately upset, but would continue to do business with that company

☐ I would not care

13. How often do you work from home or other non-corporate locations?

☐ Daily

☐ Weekly

☐ Monthly

Issues Surrounding Remote Workers



- Large numbers of team members work from remote locations, for many reasons
- This leads to numerous potential ethical issues
 - Are they really working when they're supposed to be?
 - How are they using their technology?
 - Are they being treated fairly, and are their contributions valued?

13. How often do you work from home or other non-corporate locations?

☐ Daily

☐ Weekly

☐ Monthly

☐ Seasonal

☐ Never

14. When away from the office, how do you access organization information? (select all that apply)

☐ Smartphone

☐ Tablet

☐ Laptop

Internet Access In Remote Areas



- When working outside away from the office, how do you access the Internet?
 - Cellular data
 - Public Wi-Fi
 - VPN
- Do you comply with company-issued standards/best practices and, if not, what's the risk?

14. When away from the office, how do you access organization information? (select all that apply)

- ☐ Smartphone
- ☐ Tablet
- ☐ Laptop
- ☐ Desktop
- ☐ Not applicable

15. Is that access done in accordance with organization-issued standards, including firewalls, non-public connections, etc?

- ☐ Yes
- ☐ No
- ☐ Not applicable

Sensors And Cameras



- What type of sensors and cameras exist in your workplace, if any, in the name of security?
- Could these be used for unethical purposes?
- What about the potential benefits associated with using facial recognition in law enforcement situations?

16. How do you feel about sensors and cameras monitoring your actions in the workplace?

- ☐ Very positive
- ☐ Somewhat positive
- ☐ Neutral
- ☐ Somewhat negative
- ☐ Very negative

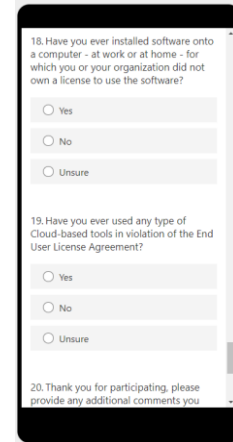
17. Away from work, how do you feel about sensors and cameras monitoring your actions in public places, such as when walking on a sidewalk?

- ☐ Very positive
- ☐ Somewhat positive
- ☐ Neutral

Illegal/Unlicensed Computer Software



- Just because someone bought a license to an application doesn't give them the right to install it onto an unlimited number of devices
- Likewise, subscription services may have restrictions on sharing of the service



What About A Digital Divide?



- High-speed data connections are taken for granted in most metropolitan areas
- But what ethical issues are in play when considering the notion of a "digital divide," where the availability of high-speed connections have direct impact on one's opportunity to generate income?
- Does society have a responsibility to ensure that all who want affordable, high-speed connections have access to them?
 - We've been down this path before to provide phone service in rural areas
- It's not just internet access...what about availability of computing devices in low-income households?

What About Competing Interests?



- Technology can have profound, disparate impacts on different groups
- For example, consider the automation of routine tasks...great benefit to organizations at the risk of displacing workers
- Government and law enforcement agencies requesting access to encrypted communications and devices
 - Apple's policy to never undermine the security features associated with its products
 - National security versus individual/corporate rights...an ethical dilemma of immense proportions!

Ethical Pressures On Tech Experts



- Tech experts, including programmers and security officers, face mounting pressure today
- Consider a scenario where a programmer is under pressure to complete a project with an impending due date, but the programmer knows that serious security flaws exist in the application, flaws that cannot be corrected before the deadline
 - What is the ethical course of action for the programmer?
- Expect these types of situations to mount as more privacy regulations are put into place



ETHICAL LAPSES IN THE DIGITAL AGE OFTEN RESULT IN FRAUD AND SECURITY BREACHES

An Example...



Medical bills and lost time away from work caring for a critically ill child have created a financial hardship for Tim and his family; they face enormous financial hardships. With his back to the wall, Tim sees no way out and he decides to steal from his employer. Because the Controller keeps their passwords on a sticky note on the side of their monitor, Tim is able to use those credentials to log-in to the Company's accounting system and begin committing a billing scheme fraud. Eighteen months later, the fraud is discovered after Tim has stolen more than \$100,000 from the Company. Sure, Tim had an ethical lapse and committed a crime, ***but what can we say about the Controller's ethics in this case?***

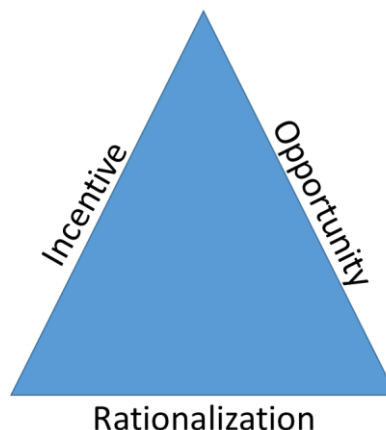
When Does Fraud Occur?



- According to Donald Cressey, occupational frauds occur when three conditions come together to create **The Fraud Triangle**

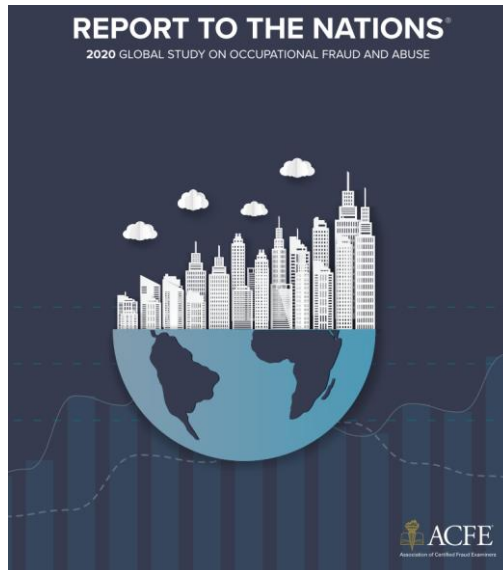
1. Incentive
2. Opportunity
3. Rationalization

- How can technology influence each of these three factors?



CAN WE AGREE THAT ALL CASES OF FRAUD REPRESENT ETHICAL LAPSES?

Association of Certified Fraud Examiners



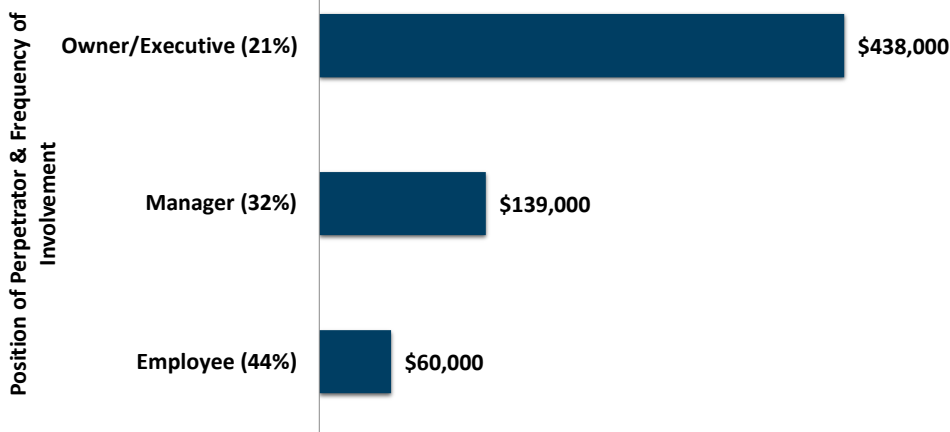
Findings From The ACFE



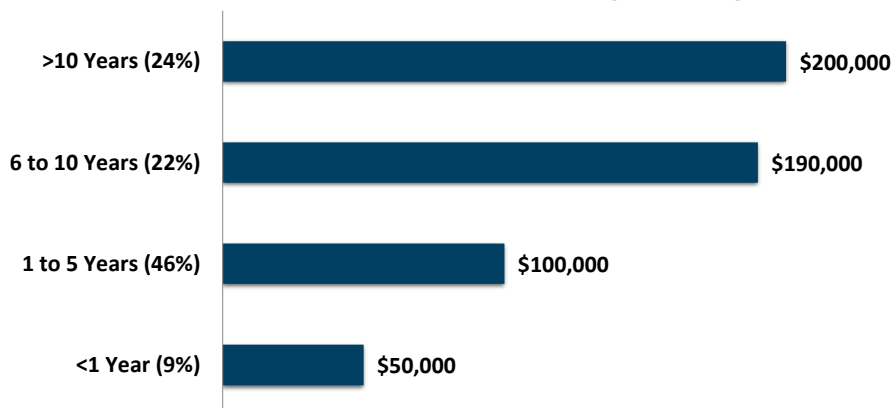
- Occupational fraud consumes 5% of all business revenues
- Annual occupational fraud losses approximate \$4.5 trillion worldwide and \$1.08 billion in the United States
- On a per-employee basis, fraud costs on average \$8,244 per full-time worker, per year in the US and \$5,859 per full-time worker, per year in Canada
- The median loss for an occupational fraud in the US and Canada is \$120,000 (USD)



Position Of Fraud Perpetrator In The United States And Canada



Perpetrator's Tenure Median Loss And Frequency

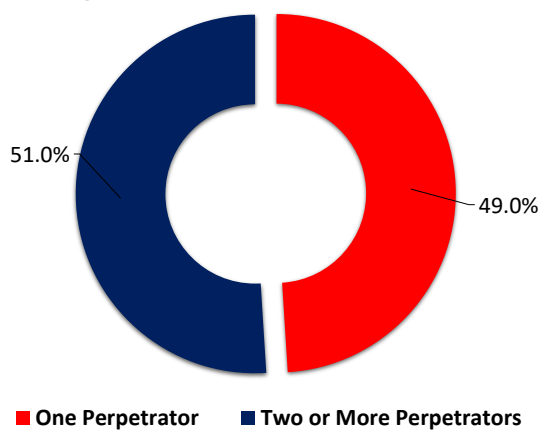




Number Of Months To Detect Fraud, By Position

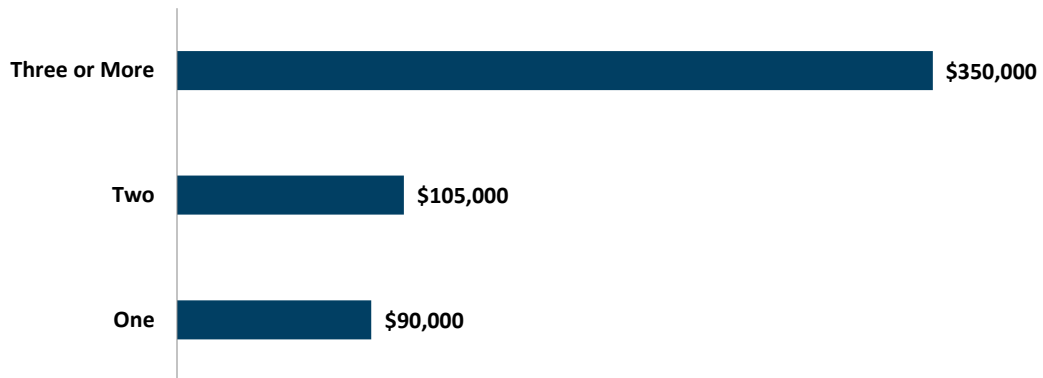


Collusion Is Involved In Over Half Of Reported Fraud Cases

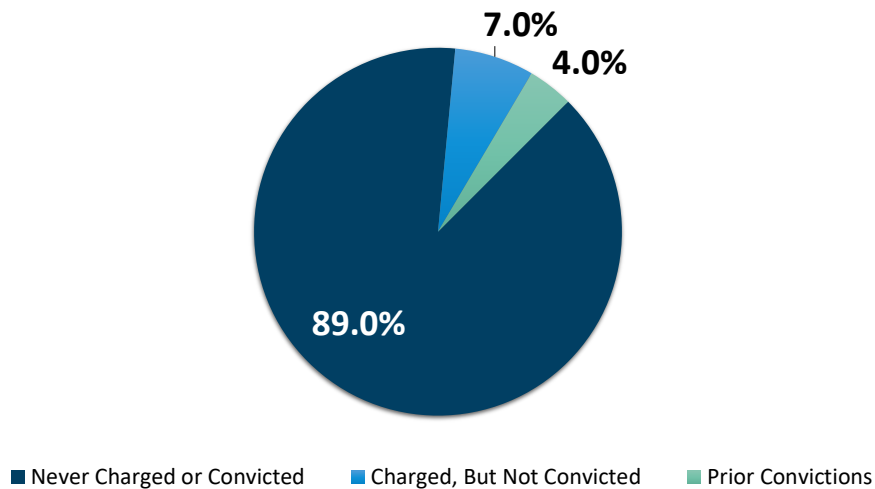




Fraud Losses Are Higher With Multiple Perpetrators



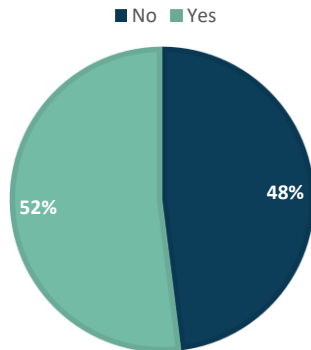
Who Is Committing Fraud?



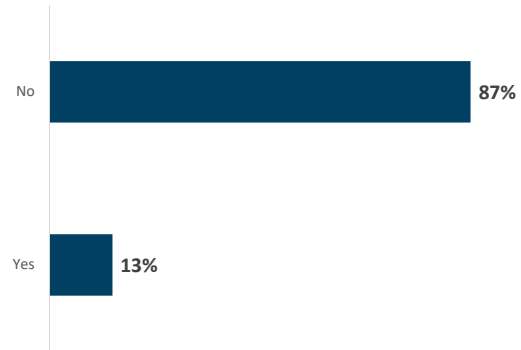
Background Checks



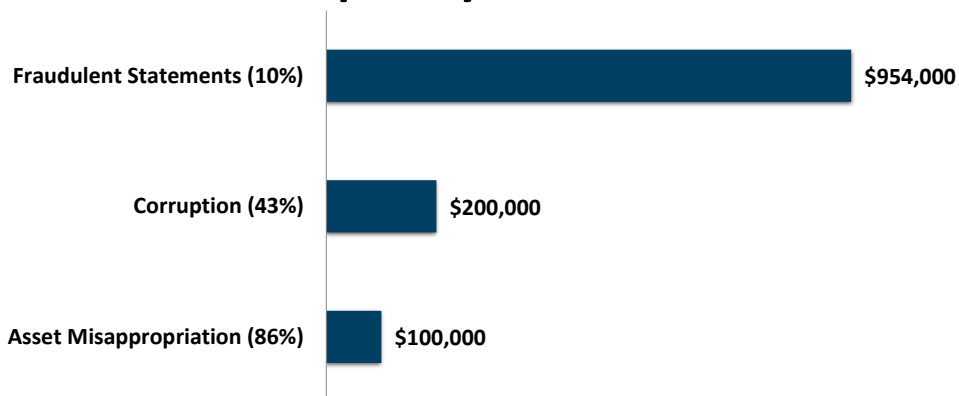
Were Background Checks Run Prior To Hiring The Perpetrator?



Did The Background Checks Reveal Red Flags?

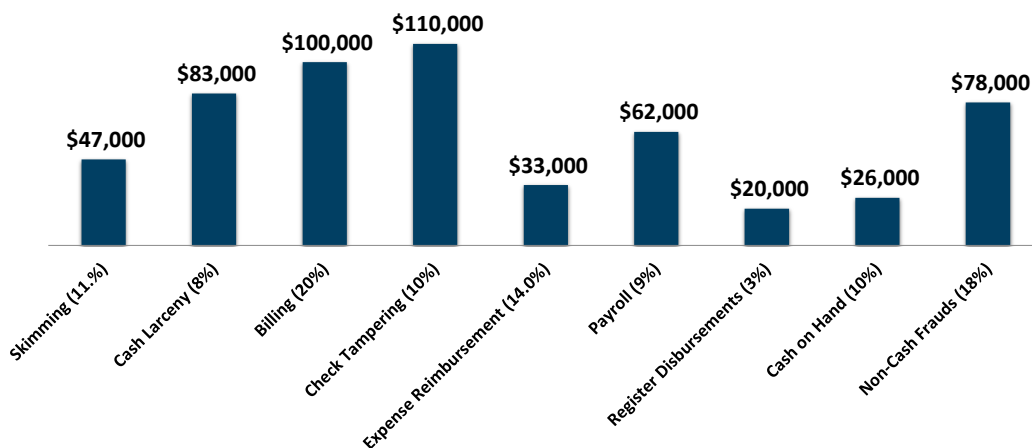


Types Of Frauds Committed, Frequency And Losses





Relative Risks Of Asset Misappropriation Frauds

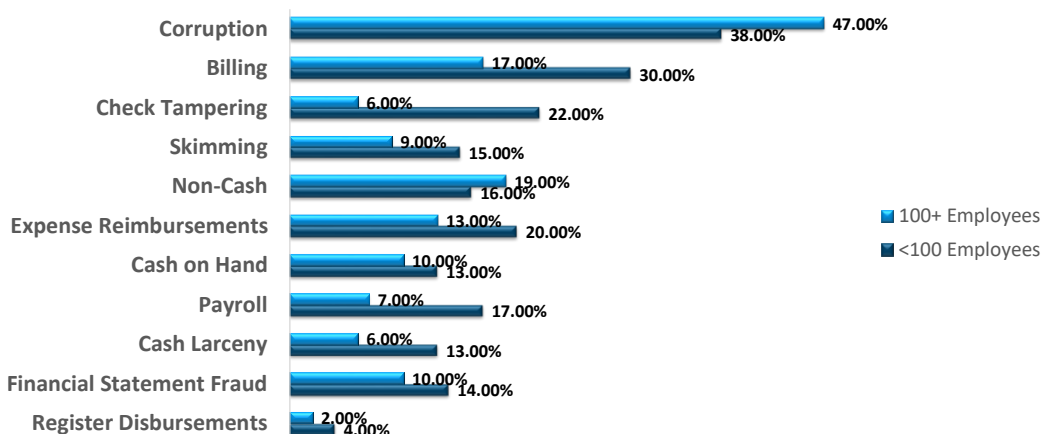


Fraud Impacts Small Businesses Disproportionately

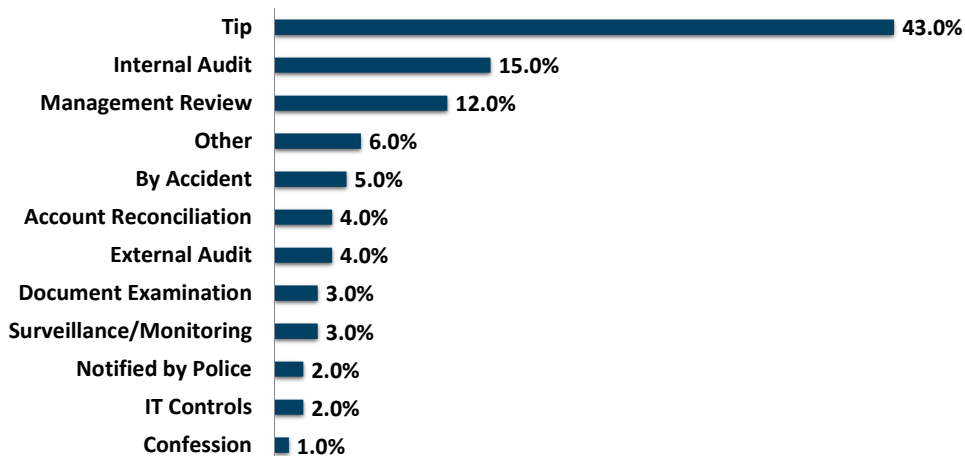




Small Businesses Face Different Fraud Risks

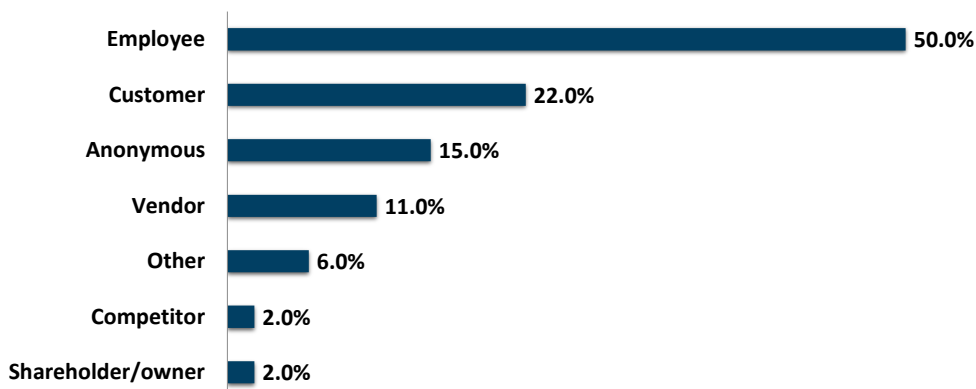


How Frauds Are Detected

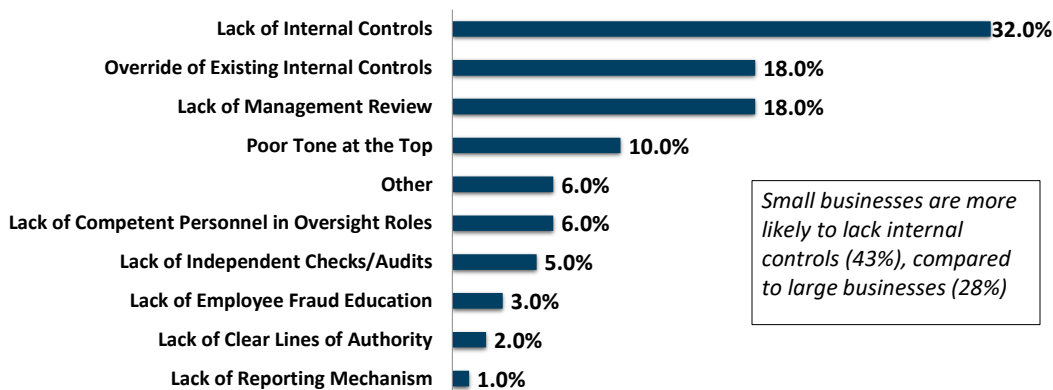




Sources Of Tips For Occupational Fraud



Internal Control Weaknesses That Contribute To Occupational Fraud



Other Concerning Issues



- Should we consider the preceding example of Tim stealing from his employer differently than installing software that is licensed on a per computer basis onto multiple computers?
- Should team members have unfettered access to the Internet before, during, and after work hours?
- What is our duty to protect sensitive information about team members, customers, and others and what are the implications of not doing so?



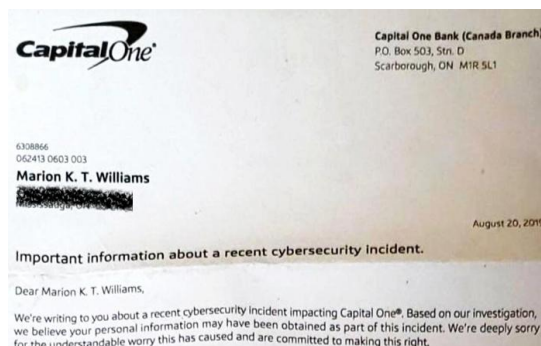
TECHNOETHICS & CYBERSECURITY

Cybersecurity – A Case Study



Capital One

- Capital One was hit with a data breach, affecting an estimated 100 million US individuals and 6 million in Canada
- Misconfiguration of a firewall allowed hacker access to the system



Ethical Issues



Integrity and Due Care

- Was the firewall rules reviewed by anyone and was any testing completed?

Professional Competence

- Did Capital One employ people with the correct skill set?
- Was consultation or referral required?

Objectivity

- Are you bias toward cloud and believed this was a cloud issue? This could be any office with a misconfigured firewall.



EMAIL



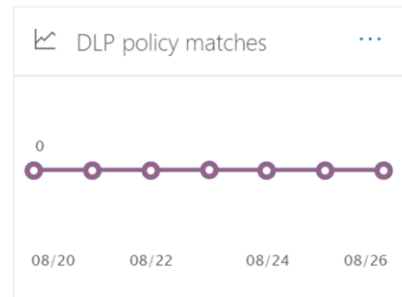
Email

- Email remains one of the most used means of communicating amongst business professionals
- It's quick, easy, and widely accepted, so what are the ethical issues associated with this communication platform?
- Likely, the most significant of these issues is the security and privacy of the data transmitted in a message
- Absent encryption, we should assume that email messages are not secured, creating a risk for potentially exposing data

Data Loss Prevention



- Data Loss Prevention (DLP) can help identify, monitor, and automatically protect sensitive information
- DLP is available in many Microsoft 365/Office 365 plans, yet many organizations have not enabled it



DLP Notification Email



no-reply@sharepointonline.com

Tue 8/27/2019 5:04 PM

Ward Blatch ✓

This item is protected by a policy in your organization. Issues:

- Item is shared with people outside your organization
- Item contains the following sensitive information: Canada Driver's License Number

[Open the item](#) to fix the issues.



Policy tip for 'WCS1437 and
WCS1438 receipts.pdf'

This item is protected by a policy in your
organization.

⊖ Issues

Item is shared with people outside
your organization

Item contains the following sensitive
information: Canada Driver's License
Number

Last scanned: 2 hours ago

[Report an issue](#) to let your admin know that this
item doesn't conflict with your organization's
policies.

Report an Issue



8 Tips For Managing Emails

1. The complete story
2. Keep personal messages separate
3. Use descriptive subject lines
4. Move official record emails from mailboxes
5. Limit duplication
6. Delete transitory emails regularly
7. Training and education are essential
8. Review compliance

https://www.oipc.ab.ca/media/993378/Infographic_Managing_Email_Mar2019.pdf



DATA



Confidential Client Information

Per the AICPA Code of Conduct:

“... regulations concerning confidentiality of client information may be more restrictive than the requirements in the code.”⁽¹⁾

Consult your federal, state, provincial, and local privacy regulations.

Data Protection – An Example



- Dropbox files at rest are encrypted using 256-bit Advanced Encryption Standard (AES)
- Dropbox uses Secure Sockets Layer (SSL)/Transport Layer Security (TLS) to protect data in transit between Dropbox apps and our servers
- SSL/TSL creates a secure tunnel protected by 128-bit or higher Advanced Encryption Standard (AES) encryption
- Dropbox applications and infrastructure are regularly tested for security vulnerabilities and hardened to enhance security and protect against attacks
- [Two-step verification](#) is available for an extra layer of security at login
- If you use two-step verification, you can choose to receive security codes by text message or from any Time-Based One-Time Password ([TOTP](#)) app, such as [those listed here](#)
- Public files are only viewable by people who have a link to the file(s)

Does Your Password Matter?

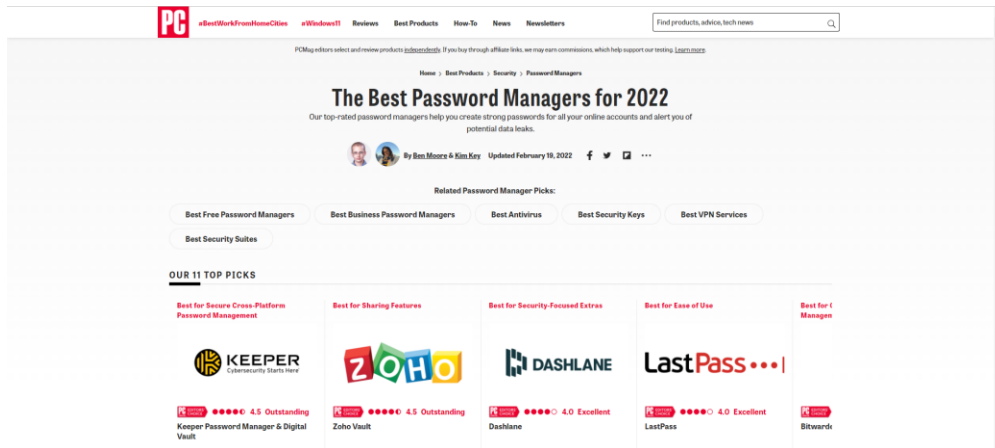


According to Microsoft:

“ – your password, in the case of breach, just doesn’t matter – unless it’s longer than 12 characters and has never been used before – which means it was generated by a password manager ”

- What do you use to prevent access to your data – a password
- Do you use a password manager to provide due care and confidentiality of your data?

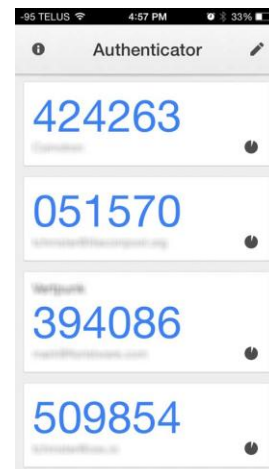
Strong Password Managers



Also, Per Microsoft



“your account is more than 99.9% less likely to be compromised if you use MFA”



Cloud Storage Privacy



Processing of Customer Data; Ownership

Customer Data will be used or otherwise processed only to provide Customer the Online Services including purposes compatible with providing those services. Microsoft will not use or otherwise process Customer Data or derive information from it for any advertising or similar commercial purposes. As between the parties, Customer retains all right, title and interest in and to Customer Data. Microsoft acquires no rights in Customer Data, other than the rights Customer grants to Microsoft to provide the Online Services to Customer.

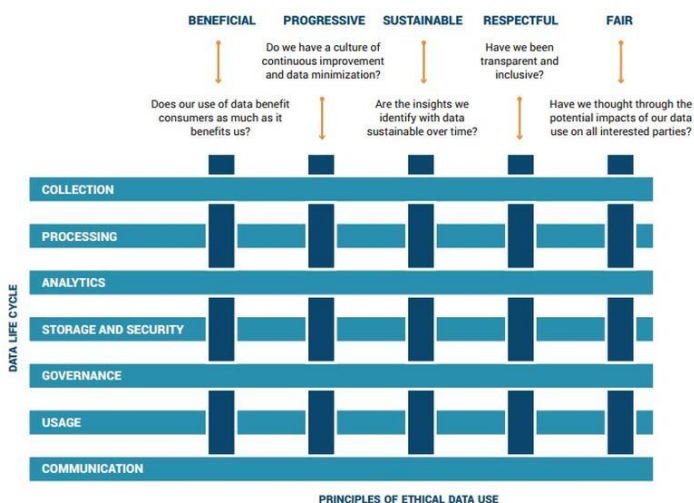
Power BI Row-Level Security



- Used to restrict data access for given users
- Filters restrict data access at the row level, and you can define filters within roles
- Define roles and rules in Power BI Desktop
 - You can define roles and rules within Power BI Desktop
 - When you publish to Power BI, it also publishes the role definitions
- You can add a member to the role by typing in the email address, or name, of the user, security group or distribution list you want to add



5 Ethics Principles Data Analysts Should Follow Per TechRepublic



Ethics PLUS



- **P**rofessional/trade-related/company codes of conduct
- **L**egal requirements: are any laws being broken, e.g. the Prevention of Bribery Ordinance, Theft Ordinance, Criminal Procedure Ordinance, etc.?
- **U**ncompromising self values; e.g. honesty, fairness, trustworthiness, etc.
- **S**unshine test; i.e. whether the issue can be discussed openly, and the final decision disclosed without any sense of misgiving

Where Did Data Originate?



- In an increasingly connected world, can we trust all the data we see? As an example, can we trust the data provided through Excel's Data Types feature?
- This feature in Excel for 365 subscribers provides access to geography and stocks data, supplying up-to-date information directly from the Web...but how do we know the data is accurate and trustworthy
- Ethical considerations include
 - Integrity of the data
 - Due care

Excel Data Types- Stock Data Sources



About our data sources

When you use the Stocks data type to obtain [stock prices and other company information](#), that information is provided by another company.

Data Providers

Fundamental company data, historical data, real-time and delayed prices, fund summary and performance data are provided by [Refinitiv](#).

Use of Refinitiv data must be in accordance with the [Microsoft Service Agreement](#).

Product Details

Supported Exchanges and Delay Times

Software Updates And Due Professional Care



- Equifax Breach
 - Hackers were able to access personal data of 143 million Equifax customers
- What Happened
 - **System update not installed**
 - “Equifax admitted it was aware of the security flaw a full two months before the company says hackers first gained access to its data” ⁽¹⁾



SO, WHAT ARE WE TO CONCLUDE ABOUT ETHICS IN AN AGE OF TECHNOLOGY?

Summary



- The issue of ethics in business is as old as business itself
 - Technoethics just takes it to another level
- With widespread deployments of technology, the ability to act can, in some cases, be more readily accessible and more easily concealable, leading to larger losses
- Who's to blame? **The perpetrator, always the perpetrator!**
- But we must accept the responsibility to act ethically and to promote ethics to reduce the risk to our companies
- Remember, we get to make choices too!



THANK YOU!