

Micro and Macro Ethics

In this Unit, one will learn about:

1. Ethics for IT Professionals
2. Ethics for IT Users

The topics of understanding will be Legal and ethical use of information resource, Right to privacy act, electronic surveillance, Software Piracy, Information Piracy, in appropriate use of computer resources and information.

Ethics and the IT Professional

Just because you *can* do something doesn't mean you *should* do it. Like any other profession, information technology benefits from a standard, accepted code of ethics that helps guide behavior in sometimes confusing contexts.



IT Professional???

- A IT Professional is a person having specialized knowledge who have undergone a intensive preparation on IT Skills and techniques.
- Who can be a IT Professional?

Many workers in the IT industry are considered to be professionals. A partial list includes:

- Programmers/Analysts
- Software engineers
- Database administrators
- Network administrators
- Computer Operators
- Computer Salesperson
- Computer Scientist
- Computer Technician
- Technical Writer
- Graphic Designer/Illustrator
- Web Developer
- Consultant
- Computer Trainer /Educator
- Computer Security Specialist
- Computer Forensic Specialist

Professional Relationships

IT professionals become involved in many different types of relationships.

- Professional-employer
- Professional-client
- Professional-supplier
- Professional-Professional (Peer-to-Peer)
- Professional-IT user
- Professional-society

Some of the ethical issues

- *Is it okay to read campus users' email?*
- *What if you believe that university policies are being violated?*
- *Would you tell the users that their email is being read?*
- *Is it okay to look through files on a user's laptop when you're troubleshooting a problem?*
- *What if the user is someone you think might be storing illegal content on the laptop?*

- If any of these questions caused you to stop and think about what *you* would do, you're not alone.
- Ethical choices often seem murky. We live in a human society, subject to less-than-complete information, societal pressures, and multiple interpretations of facts.
- More often than not, we need to apply *professional* judgment, which is guided by our own experiences as well as reliance on laws, policies, and culture.

- Professional ethics is becoming more important in the workplace. As professionals become more specialised in their professional occupation, professional bodies have increasingly been busy developing, revising and refining professional codes of ethics.

Code of Behaviour

- A Code of Behaviour is a set of conventional principles and expectations that are considered binding on a person who is a member of a particular group (such as a professional body). An ethical code generally implies documents at three levels:
 - Code of business ethics;
 - Codes of Conduct for employees; and
 - Codes of professional practice.

Let's consider somewhat more complex situations:

- *You're a system administrator with broad access to enterprise systems. Your supervisor has asked you to begin archiving all of the emails and web activity logs of one of your coworkers. Typically requests of this nature are initiated through a formal communication from your campus's legal office. You feel that this request is inappropriate and possibly at odds with standard campus procedure and processes.*
- *You raise your concerns with your supervisor, but are told that this is a sensitive matter, and details cannot be shared with you. After thinking more about the conversation you had with your supervisor, you are under the impression that you might lose your job if you persist in discussing the matter further or if you refuse to carry out the task.*

- What you would do???

- As IT professionals, what should we do when we encounter potentially murky situations like the ones described? Sometimes existing laws or institutional policy will guide ethical behavior; sometimes they won't. What many people often do not understand is that what is *legal* is not always *ethical*.

Sources of Ethical Guidance for IT Professionals provided by various committees/organizations

- Association for Computing Machinery has its own code of ethics
- PMI (Project Management Institute) has its own conduct and code of ethics
- IEEE has code of ethics for publishing information and accessing information.
- Association of Information Technology Professionals (AITP) has code of ethics and standards of conduct.
- SANS has published IT code and ethics

US Code of Federal Regulations

It defines a person employed in professional capacity as one who meets these four criteria:

- One's primary duty consist of the performance of work requiring knowledge of an advanced type in a field of science.
- One's instruction, study, or work is original and creative in character in a recognized field.
- One's work requires the consistent exercise of discretion and judgment in its performance.
- One's work is predominantly intellectual and varied in character.

In general these codes assert that IT professionals need to commit to:

- Integrity
- Competence
- Professional responsibilities
- Work responsibilities
- Societal responsibilities

Specific guidance stems from these general principles. Some common commitments between the three codes are to:

- Maintain technical competence
- Avoid injury to others, their property, reputation, or employment
- Reject bribes, kickbacks, etc.

Ethical behavior of IT Professionals

- Professional Code of Ethics
 - States the principles and core values that are essential to the work of a particular occupational group.

Code of conduct has two main parts:

- Aspirations of the organization
- Rules and/or principles

Benefits:

Improves ethical decision making

Promotes high standard of practice and ethical behavior.

Provides a evaluation benchmark

IT Professional Malpractice

- Negligence has been defined as not doing something that a reasonable man would do, or doing something that a reasonable man would not do.
- Duty of care refers to the obligation to protect people against unreasonable harm or risk.

IT Users

- Common ethical issues of IT users
 - Software Piracy
 - Information Piracy
 - Inappropriate use of computing resources
 - Inappropriate sharing of information

Supporting Ethical Practices of IT Users

- Define and limit the appropriate use of IT resources.
- Establish guidelines for the use of company software.
- Structure information systems to protect data and information.
- Install and maintain a corporate firewall.

Setting Your Own Professional Ethics

- **Proactively establishing a set of professional ethics can help you navigate the complex interactions and relationships encountered in the workplace.**
- After all, at work you have relationships with co-workers, employers, customers, clients, users, and the community. In order to navigate this complexity, all of us need to understand the ethics for each of these relationships.
- **In all, we need professional ethics because of the impact that our actions have on society as a whole.**

Professional Ethics



Legal and ethical use of information

- Ethical use of information means using information ethically.
- Actually there are two ways that very clearly deal with this concept. They are plagiarism and copyright.
- Both deal with giving credit where credit is due and using other people's work correctly. Even though information, words, and ideas are not concrete, they still can be stolen and those that do that can still get in trouble.

Ethical & Security Issues in Information System

Cyber-crime

- Cyber-crime refers to the use of information technology to commit crimes. Cyber-crimes can range from simply annoying computer users to huge financial losses and even the loss of human life.



Information system Security

- An example of a Code of Ethics for MIS professionals can be found on the British Computer Society (BCS) website.

Information Communication Technology (ICT) policy

An ICT policy is a set of guidelines that defines how an organization should use information technology and information systems responsibly. ICT policies usually include guidelines on:

- Purchase and usage of hardware equipment and how to safely dispose them
- Use of licensed software only and ensuring that all software is up to date with latest patches for security reasons

Information Communication Technology (ICT) policy

- Rules on how to create passwords (complexity enforcement), changing passwords, etc.
- Acceptable use of information technology and information systems
- Training of all users involved in using ICT and MIS

Right to Privacy Act



- The right to privacy is an element of various legal traditions to restrain governmental and private actions that threaten the privacy of individuals.
- Section 72 of the **Information Technology Act** imposes a penalty on “any person” who, having secured access to any electronic record, correspondence, **information**, document or other material using powers conferred by the **Act** or rules, discloses such **information** without the consent of the person concerned.

Software Piracy

- What is Software Piracy?



Software piracy is the illegal copying, distribution, or use of **software**. It is such a profitable "business" that it has caught the attention of organized crime groups in a number of countries. According to the Business **Software** Alliance (BSA), about 36% of all **software** in current use is stolen.

Types of Software Piracy

Softlifting

- The most common type of piracy, softlifting, (also called softloading), means sharing a program with someone who is not authorized by the license agreement to use it.
- A common form of softlifting involves purchasing a single licensed copy of software and then loading the software onto several computers, in violation of licensing terms.
- On college campuses, it is rare to find a software program that has *not* been softloaded.

People regularly lend programs to their roommates and friends, either not realizing it's wrong, or not thinking that it's a big deal.

Softlifting is common in both businesses and homes.

Hard disk loading

- Often committed by hardware dealers, this form of piracy involves loading an unauthorized copy of software onto a computer being sold to the end user.
- This makes the deal more attractive to the buyer, at virtually no cost to the dealer. The dealer usually does not provide the buyer with manuals or the original CDs of the software.
- This is how operating systems, like Windows are often pirated.



Renting

- Renting involves someone renting out a copy of software for temporary use, without the permission of the copyright holder.
- The practice, similar to that of renting a video from Blockbuster, violates the license agreement of software.

OEM unbundling

- Often just called "unbundling," this form of piracy means selling stand-alone software originally meant to be included with a specific accompanying product. An example of this form of piracy is someone providing drivers to a specific printer without authorization.

Counterfeiting

- Counterfeiting means producing fake copies of a software, making it look authentic. This involves providing the box, CDs, and manuals, all designed to look as much like the original product as possible.
- Microsoft products are the ones most commonly counterfeited, because of their widespread use. Most commonly, a copy of a CD is made with a CD-burner, and a photocopy of the manual is made.
- Counterfeit software is sold on street corners, and sometimes unknowingly sold even in retail stores. Counterfeit software is sold at prices far below the actual retail price.



I ELECTRONICALLY
TRANSFERRED FUNDS
INTO SOME PHANTOM
ACCOUNTS IN EUROPE.

I DUPLICATED
CD-ROMS AND
SOFTWARE.

YOU GUYS
WON'T UNDERSTAND
WHAT I DO...
BUT I ROBBED
A LIQUOR STORE.

CARTOONSTOCK

Search ID: shrn5067

CALL
CENTER

ATTENTION— TODAY
WE'RE USING BRITISH
ACCENTS, AND WE'RE DOING
THE BANK SCAM.





"Do you still refuse to run pirated software?!"



"You know, you can do this just as easily online."



"Software pirates! Run for your lives!!"

© 1997 Mick Stevens from The Cartoon Bank. All rights reserved.





By the way: If you
like this game, buy it or die.

Consequences of Software Piracy

- The losses suffered as a result of software piracy directly affect the profitability of the software industry.
- Consequently, software publishers, developers, and vendors are taking serious actions to protect their revenues.

Using pirated software is also risky for users. Aside from the legal consequences of using pirated software, users of pirated software forfeit some practical benefits as well. Those who use pirate software:

- Increase the chances that the software will not function correctly or will fail completely;
- Forfeit access to customer support, upgrades, technical documentation, training, and bug fixes;
- Have no warranty to protect themselves;
- Increase their risk of exposure to a debilitating virus that can destroy valuable data;

- May find that the software is actually an outdated version, a beta (test) version, or a nonfunctioning copy;
- Are subject to significant fines for copyright infringement; and
- Risk potential negative publicity and public and private embarrassment.

Main scenario

A California man, Nathan Peterson, has been sentenced to more than seven years in prison and ordered to pay \$5.4 million in restitution for selling pirated software online.



1. Pleaded guilty
2. Sold pirated software through his website.
3. Two charges of criminal copyright infringement.

Software Piracy Persists in the Cloud

4 NEW TYPES OF
COPYRIGHT INFRINGEMENT...



1

**Abusing licenses for public cloud services
by sharing log-in credentials**

2

**Using a public "dark cloud" to sell software
as a service without legal licensing**

3

**Using a private "dark cloud" to distribute
pirated software to employees**

4

**Using a private "gray cloud" to share
legal software with too many users**

Source: Business Software Alliance

Design: Graphicacy Symbols: CC by 3.0, thenounproject.com collection



Disney

PIXAR

MARVEL

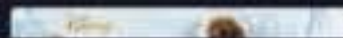
STAR WARS

NATIONAL GEOGRAPHIC

Recommended For You



Originals



Home



Search



Downloads

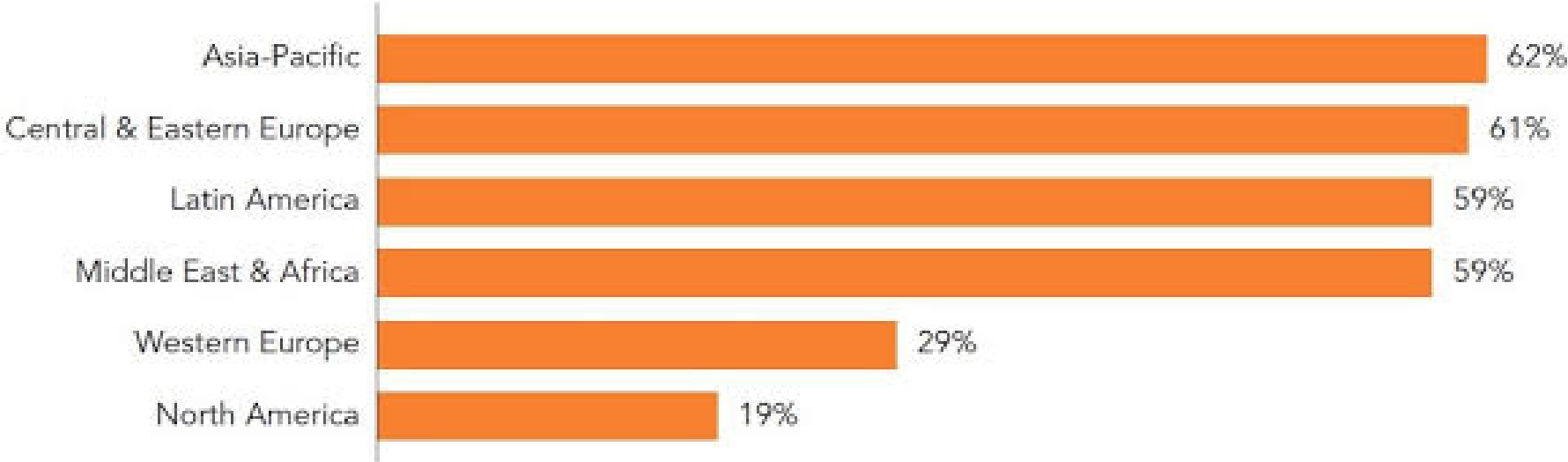


Sarah

UAE ranked among lowest software pirated countries



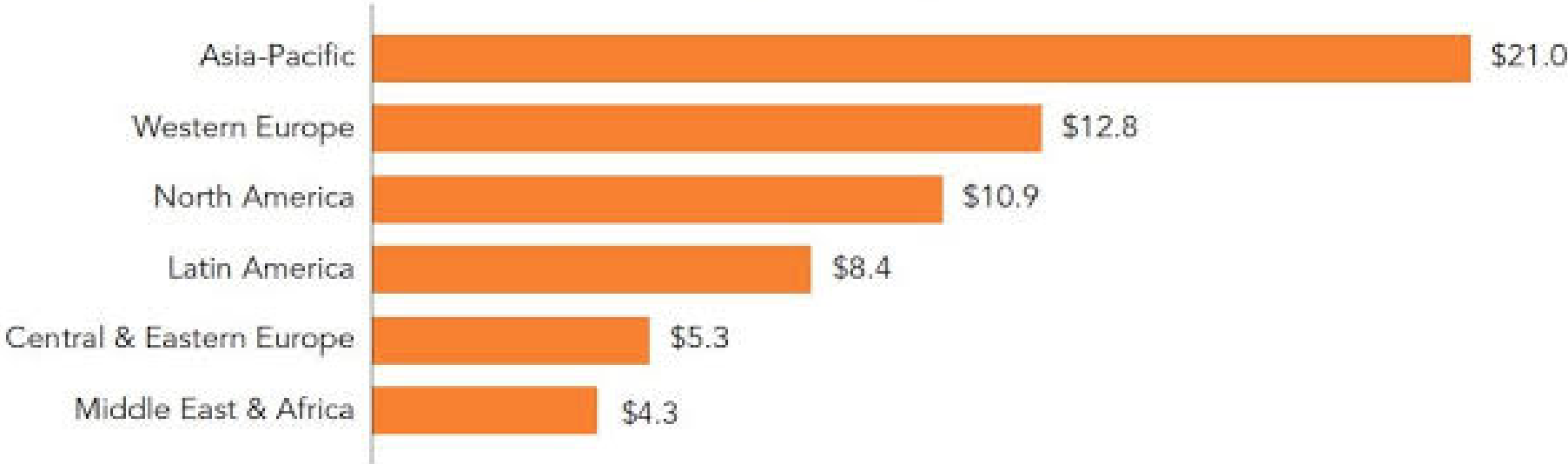
Average Rate of Unlicensed Software Use



Source: BSA

Patently Mobile

Commercial Value of Unlicensed Software Use (in Billions)

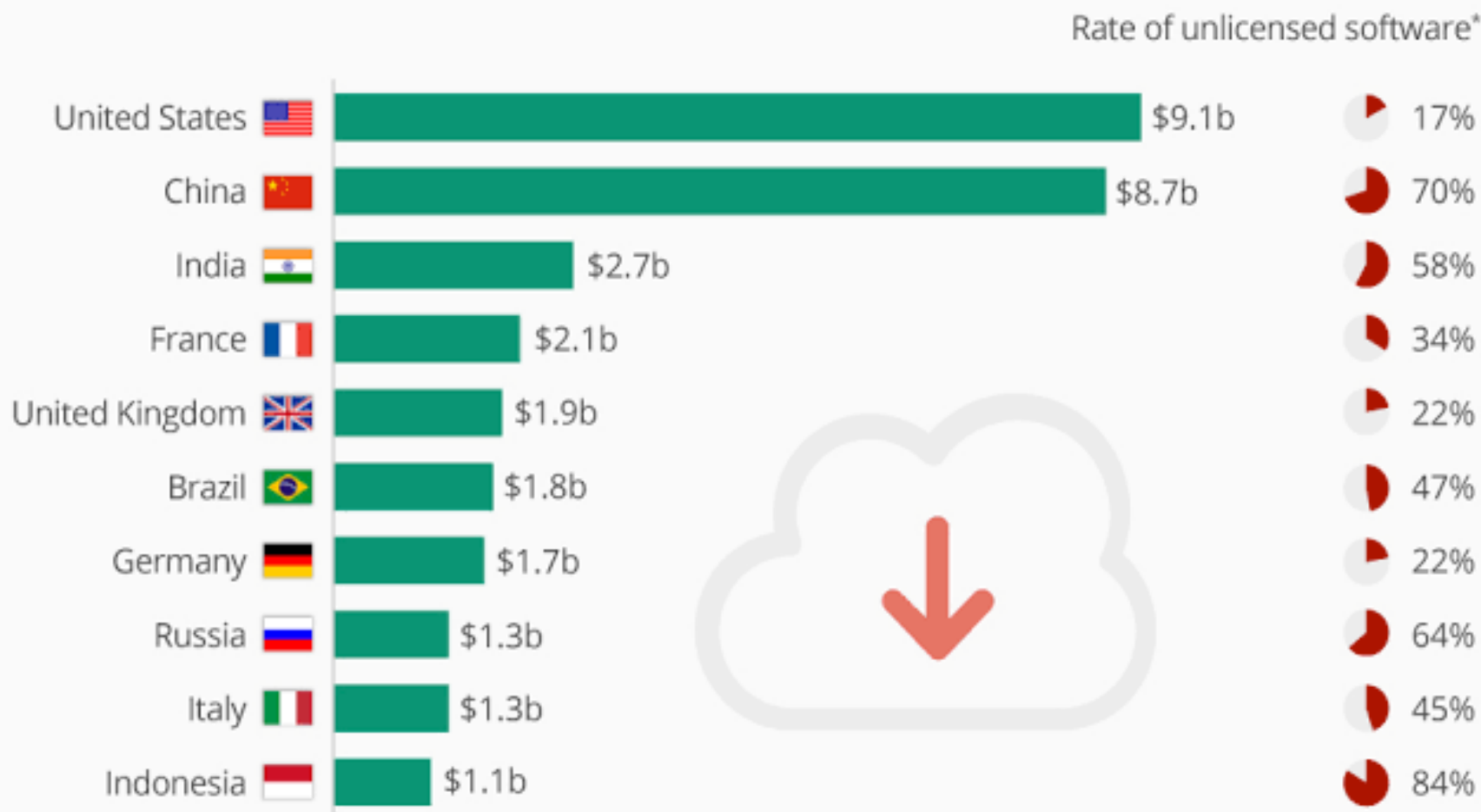


Source: BSA

Patently Mobile

The Cost of Software Piracy

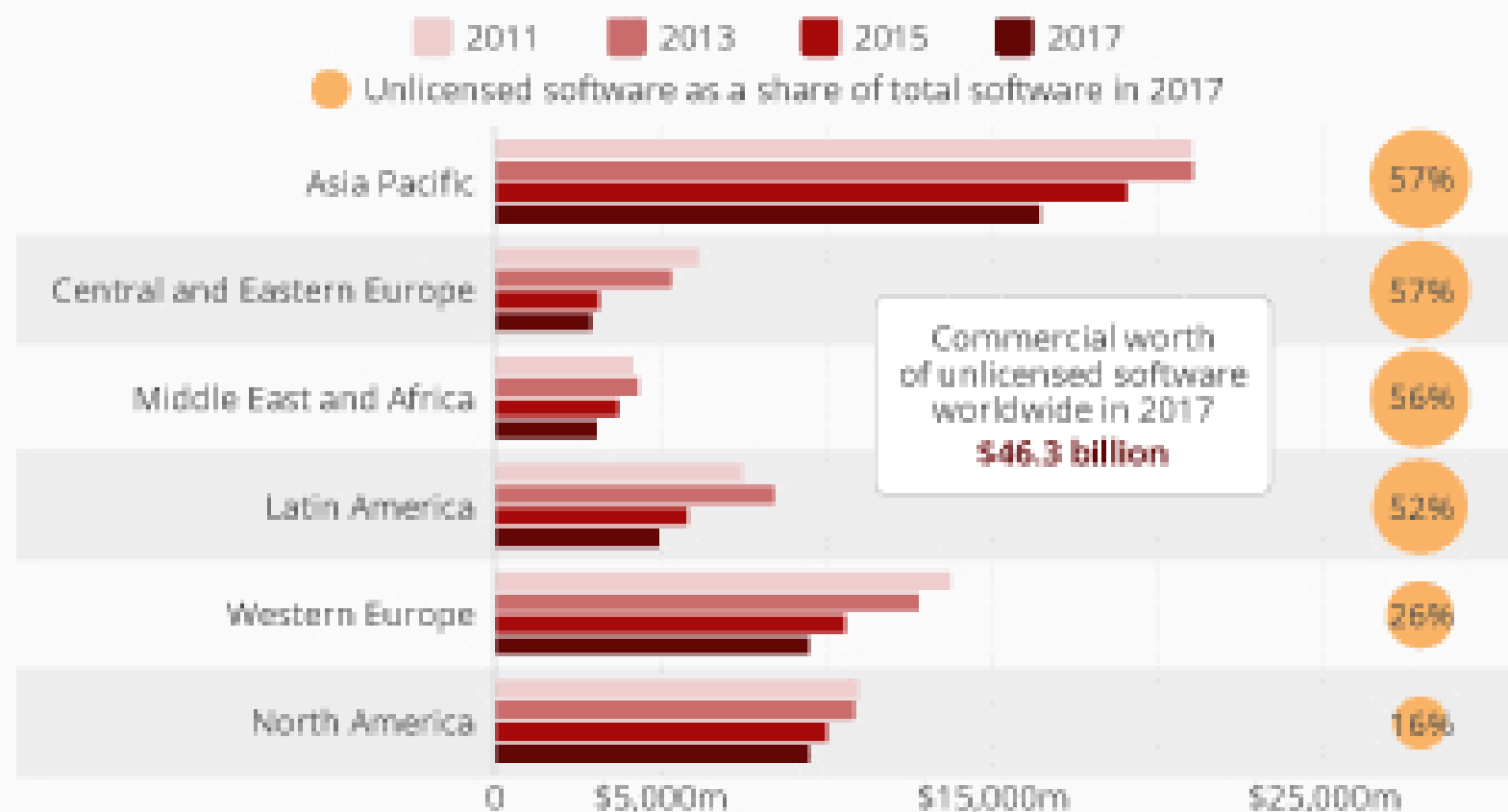
Commercial value of unlicensed software installations in 2015



* Rate of unlicensed software defined as the percentage of total software units installed that are unlicensed

46 Billion Dollars Worth of Software Remains Unlicensed

Commercial value of unlicensed software installed on PCs by world region



@statistaCharts Source: Business Software Alliance

statista

Software Piracy: Actions To Take Once Discovering your Software and Content Was Illegally Copied

- Making Sure your Digital Assets are Not Used by Software Pirates
- What We Found Out and How
- Basing Our Case: Proof of Stealing
- Finding Out The Companies Behind This (Using Google)
- Asking Google to Remove The Content

Example of Multi Users for same software – Online Piracy

- The eScorpien website listed seven extensions, six of which we sell with identical or similar names:
- FAQ (CM: [M2 Fancy FAQ](#))
- Store Credit Line (CM: [Store Credit Line](#))
- Free Gift (CM: [Free Gift Discount](#))
- Multi User Account (CM: [M2 Multi User Account](#))
- Sales Reps and Dealers (CM: [Sales Rep Commission](#))
- True Edit Order (CM: [True Edit Order](#))

This is a screenshot of a search engine result for the extension 'Multi User Account for Magento 2'. It is an advertisement for the page as it appeared on 7/26/2016 10:10:10 AM. The current page content may change in the meantime. [Learn more.](#)

[Full version](#) [Text-only version](#) [View source](#)

Tip: To quickly find your search term on this page, press **Ctrl+F** or **⌘-F** (Mac) and use the find bar.

escOrpien

Search...



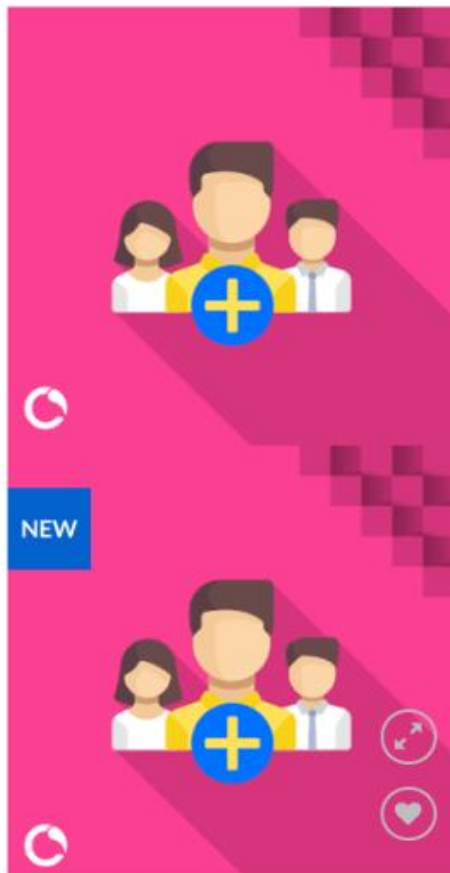
STORE ▾

LOGIN / REGISTER

CART / \$0.00



MAGENTO EXTENSIONS



Multi User Account for Magento 2

★★★★★

The Multi User Account Magento 2 extension helps you to configure multiple users and sub-users account under the same master account with separate permission as needed. It's allow to setup users roles and responsibility and define it's access base on that.

[Front Demo](#)

[Back Demo](#)

[User Guide](#)

Magento Supported Version : 2.1.X, 2.2.X, 2.3.X

CLEAR

Edition

Community ▾

Support *

3 Month (FREE)

Additional Domains *

1 Domain

Category: [Magento Extensions](#)

SCREENSHOT

Real-Life examples of Piracy

- <https://www.siiia.net/Divisions/IP-Protection-Services/About/Real-Life-Examples-of-Piracy>

Internet Piracy

- **Auction Site Piracy**
- **Classified Ads Sites**
- **Newsgroups Piracy**
- **FTP (File Transfer Protocol) Sites**
- **P2P (Peer-to-Peer)**
- **Torrent Sites**
- **Sharehosting Sites**
- **IRC (Internet Relay Chat)**
- **Cracks/Serials Sites**

To Stay Safe Online

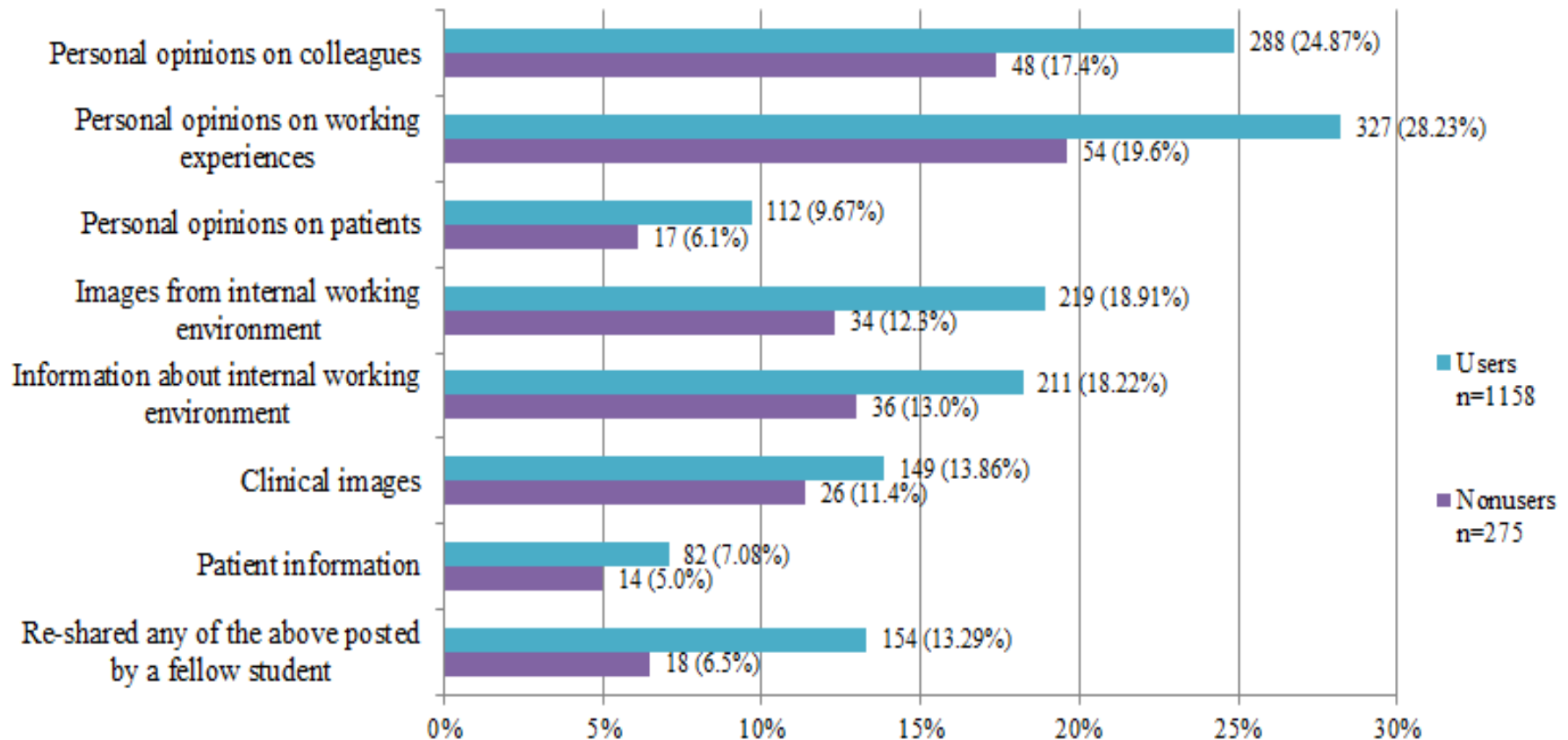
Avoiding phishing scams:

- Don't reply to emails, text messages, or pop-ups that ask for personal information.
- Don't respond if you get a message - by email, text, pop-up or phone - that asks you to call a phone number to update your account or give your personal information to access a refund.
- Only disclose personal information to trusted or secure websites.
- Change your passwords regularly.

Inappropriate use of Information/Technology resources

- <https://sites.allegheny.edu/lits/policies/policies-2/reporting-inappropriate-use/>
- <https://sites.allegheny.edu/resources/copyright-information/>
- <https://durhamtech.edu/policies-and-procedures/appropriate-use-of-computing-resources>
- <https://www.hamilton.edu/offices/lits/rc/policies-responsible-use-of-networks-and-computer-facilities>

Inappropriate use of sharing information



- Inappropriate sharing of information by users and nonusers on social media.

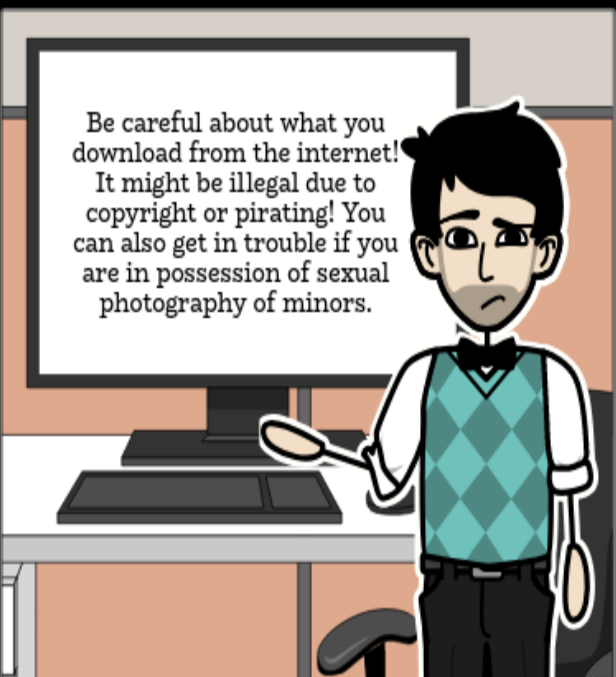
Concerns About Data Sharing

Concern	Solution
inappropriate use due to misunderstanding of research purpose or parameters	provide rich <i>Abstract, Purpose, Use Constraints</i> and <i>Supplemental Information</i> where needed
security and confidentiality of sensitive data	<ul style="list-style-type: none"> the metadata does NOT contain the data <i>Use Constraints</i> specify who may access the data and how
lack of acknowledgement / credit	specify a required data citation within the <i>Use Constraints</i>
loss data insight and competitive advantage when vying for research dollars	create second, public version with generalized <i>Data Processing Description</i>


Consent

- The sharing of information should be controlled and justified
 - Remember – the consequences of NOT sharing information with other agencies could be far worse than inappropriate sharing
- There are some circumstances in which sharing confidential information without consent will normally be justified in the public interest:
 - When there is evidence that the child/vulnerable adult is suffering or is at risk of suffering harm; or
 - Where there is reasonable cause to believe that a child may be suffering or at risk of significant harm; or
 - To prevent significant harm arising to children/vulnerable adult including through the prevention, detection and prosecution of serious crime

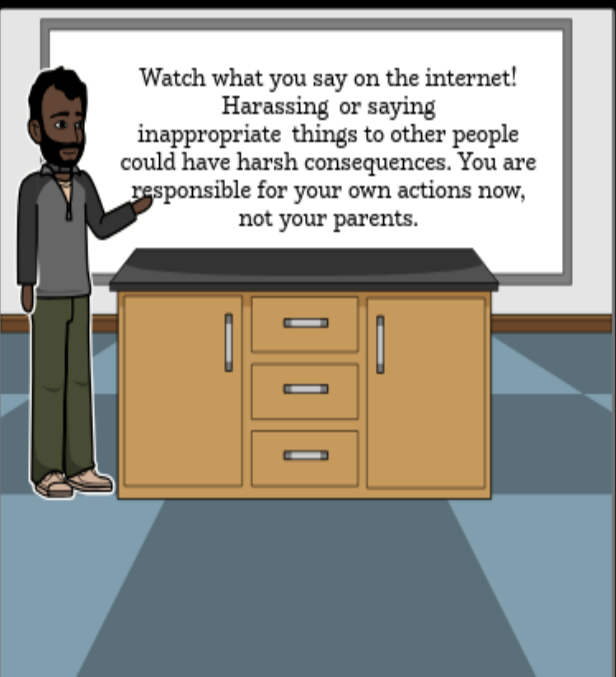





Be careful about what you download from the internet! It might be illegal due to copyright or pirating! You can also get in trouble if you are in possession of sexual photography of minors.



Don't give your private information out on the internet! You never know who is out there.



Watch what you say on the internet! Harassing or saying inappropriate things to other people could have harsh consequences. You are responsible for your own actions now, not your parents.




Location-sharing services can be nice to see where your friends are at, but they can be used in malicious ways by dangerous people. Keep and eye on who your location is available to.



CONGRATS! YOU'VE WON A BRAND NEW 4K TV. CLICK HERE TO CLAIM YOUR PRIZE!

Messages like that one are usually scams or viruses meant to take your private information. **Never** click on these messages.



You might think your text messages are private, but there is no law protecting the privacy of what you send. Anyone can take screenshots of what you send, so what what you say.

Implications of sharing of inappropriate information

- **Facebook data scandal: Social network fined \$5bn over 'inappropriate' sharing of users' personal information**
- The [FTC](#) has been investigating allegations Facebook inappropriately shared information belonging to 87 million users with the now-defunct British political consulting firm [Cambridge Analytica](#).
- The probe has focused on whether the sharing of data and other disputes violated a 2011 consent agreement between Facebook and the regulator.



Golden Rules for Information Sharing

- 1** Remember that the General Data Protection Regulation and the Data Protection Act 2018 and human rights laws are not barriers to justified information sharing information, but provide a framework to ensure that personal information about living individuals is shared appropriately.
- 2** Be open and honest with the individual (and/or their family where appropriate) from the outset about why, what, how and with whom information will, or could be shared, and seek their agreement, unless it is unsafe or inappropriate to do so.
- 3** Seek advice from other practitioners, or your information governance lead, if you are in any doubt about sharing the information concerned, without disclosing the identity of the individual where possible.
- 4** Where possible, Share with consent, and where possible, respect the wishes of those who do not consent to having their information shared. Under the GDPR and Data Protection Act 2018 you may share information without consent if, in your judgement there is a lawful basis to do so, such as where safety may be at risk. You will need to base your judgement on the facts of the case. When you are sharing or requesting personal information from someone, be clear of the basis upon which you are doing so. Where you do not have consent, be mindful that an individual might not expect information to be shared.
- 5** Consider safety and well-being: base your information sharing decisions on considerations of the safety and well-being of the individual and others who may be affected by their actions.
- 6** Necessary, proportionate, relevant, accurate, timely and secure: Ensure that the information you share is necessary for the purpose for which you are sharing it, is shared only with those individuals who need to have it, is accurate and up to date, is shared in a timely fashion and is shared securely (Practitioners must always follow their organisation's policy on security for handling personal information).
- 7** Keep a record of your decision and the reasons for it – whether it is to share information or not. If you decide to share, then record what you have shared, with whom and for what purpose.

