

Social Media Security (23CY717)

UNIT – IV

Risks of Social Media

4.1 Introduction

Social media provides many benefits but also creates risks related to privacy, data, and reputation.

4.2 Public Embarrassment

Personal posts may become public and cause embarrassment.

Causes

- Sharing inappropriate content
- Posting without thinking
- Viral spreading of posts

Effects

- Reputation damage
- Career problems
- Emotional stress

Prevention

- Think before posting
- Use privacy settings
- Avoid offensive content

4.3 Once It's Out There, It's Out There

Information shared online can remain permanently.

Explanation

Even deleted posts may exist through screenshots or archives.

Risks

- Permanent digital footprint
- Future reputation damage

Prevention

- Share carefully
- Avoid posting personal details

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4.4 False Information

False information spreads quickly on social media.

Types

- Fake news
- Rumors
- Manipulated images

Effects

- Confusion
- Public panic
- Misunderstanding

Prevention

- Fact-check information
- Use trusted news sources

4.5 Information Leakage

Sensitive information may accidentally become public.

Examples

1. Company Secrets

Definition

Company secrets are confidential pieces of information belonging to an organization that provide a competitive advantage and are not meant for public disclosure.

Examples

- Business strategies and future plans.
- Product designs and prototypes.
- Research and development reports.
- Customer databases.
- Marketing campaigns before official launch.
- Source code and software algorithms.
- Internal financial reports.
- Trade secrets and patents.

Risks of Sharing Company Secrets

- Loss of competitive advantage.

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- Financial losses to the organization.
- Breach of confidentiality agreements.
- Legal action against employees.
- Damage to the company's reputation.
- Increased risk of cyberattacks.

Example

An employee posts a picture of their workplace on social media, unintentionally revealing confidential project documents visible in the background. Competitors may misuse this information.

Preventive Measures

- Educate employees about information security.
 - Implement social media usage policies.
 - Restrict access to sensitive information.
 - Conduct regular security awareness programs.
 - Avoid posting workplace-related confidential content online.
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2. Personal Data

Definition

Personal data is information that can identify an individual directly or indirectly. It is often targeted by cybercriminals for malicious purposes.

Examples

- Full name.
- Date of birth.
- Residential address.
- Phone number.
- Email address.
- Aadhaar number or Social Security Number.
- Passport details.
- Educational records.
- Photographs and videos.
- Medical information.

Risks of Sharing Personal Data

- Identity theft.
- Cyberstalking and harassment.
- Unauthorized access to accounts.
- Social engineering attacks.

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- Loss of privacy.
- Reputation damage.

Example

A user publicly shares their date of birth, address, and family details on Facebook. Cybercriminals may use this information to answer security questions and gain unauthorized access to accounts.

Preventive Measures

- Limit the amount of personal information shared online.
- Use strict privacy settings.
- Avoid accepting requests from strangers.
- Regularly review account permissions.
- Think carefully before posting personal content.

3. Financial Details

Definition

Financial details include information related to a person's or organization's monetary assets, banking transactions, and payment systems.

Examples

- Bank account numbers.
- Credit card and debit card information.
- UPI IDs and payment screenshots.
- Internet banking credentials.
- PIN numbers.
- OTPs (One-Time Passwords).
- Income details.
- Tax records.
- Investment information.

Risks of Sharing Financial Details

- Financial fraud.
- Unauthorized transactions.
- Credit card misuse.
- Banking scams.
- Identity theft.
- Monetary loss.

Example

A person posts a screenshot of a successful online payment on social media without hiding their account details and transaction reference numbers. Fraudsters may exploit this information for phishing or scam activities.

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Preventive Measures

- Never share OTPs or PINs with anyone.
- Avoid posting payment receipts containing sensitive information.
- Enable two-factor authentication for banking applications.
- Monitor bank statements regularly.
- Use secure and trusted payment platforms

Causes

- Careless posting
- Weak security
- Hacking

Prevention

- Limit data sharing
- Use encryption
- Employee awareness training

4.6 Retention and Archiving

Organizations store social media data for future reference.

Importance

1. Legal Compliance

Definition

Legal compliance means following the laws, regulations, and industry standards that govern how organizations manage and store information. Many organizations are legally required to retain electronic communications, including social media content, for a specified period.

Importance

- Ensures that organizations operate according to government regulations.
- Helps avoid legal penalties and fines.
- Demonstrates accountability and transparency.
- Protects organizations during legal investigations and audits.
- Supports adherence to industry-specific standards.

Examples

- Financial institutions may be required to preserve communication records for several years.
- Government organizations often maintain archives of official social media announcements.
- Healthcare organizations retain records to comply with privacy and documentation regulations.

Benefits

- Reduces the risk of legal disputes.

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- Builds trust with customers and stakeholders.
- Ensures compliance during inspections and audits.
- Protects organizational reputation.

Consequences of Non-Compliance

- Heavy fines and penalties.
 - Legal action against the organization.
 - Loss of licenses or certifications.
 - Damage to public image.
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2. Record Keeping

Definition

Record keeping is the systematic process of storing and maintaining important information for future use and reference.

Importance

- Preserves organizational history and achievements.
- Maintains documentation of communications and decisions.
- Supports administrative and operational activities.
- Helps monitor customer interactions and feedback.
- Facilitates future planning and analysis.

Examples

- Maintaining records of customer complaints received through social media.
- Preserving marketing campaigns for performance evaluation.
- Storing announcements and organizational updates.
- Keeping records of employee communications related to official activities.

Benefits

- Easy retrieval of past information.
- Improved organizational efficiency.
- Better decision-making based on historical data.
- Enhanced accountability and transparency.

Best Practices

- Establish clear retention policies.
 - Categorize records according to importance.
 - Use secure storage systems.
 - Define retention periods for different types of records.
 - Periodically review archived information.
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3. Evidence Collection

Definition

Evidence collection involves preserving digital information that may be required to support investigations, legal proceedings, or dispute resolution.

Importance

- Provides proof of events and communications.
- Assists in identifying cybercriminal activities.
- Supports internal investigations.
- Helps resolve disputes and complaints.
- Enables digital forensic analysis.

Examples

- Preserving screenshots of cyberbullying incidents.
- Collecting evidence of phishing attacks conducted through social media.
- Maintaining records of defamatory posts.
- Retaining threatening messages for law enforcement investigations.
- Archiving fraudulent communications used in online scams.

Benefits

- Strengthens legal cases.
- Protects victims of cybercrime.
- Supports disciplinary actions.
- Facilitates accurate investigations.
- Ensures authenticity of digital evidence.

Best Practices for Evidence Collection

- Preserve the original content without modification.
- Record the date and time of collection.
- Maintain a proper chain of custody.
- Use secure and tamper-proof storage methods.
- Involve authorized personnel during investigations.

Risks

1. Data Misuse

Definition

Data misuse refers to the unauthorized, unethical, or improper use of personal or organizational information for purposes other than those originally intended or permitted.

In simple terms, it means using someone's data without their knowledge, consent, or authorization.

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Examples of Data Misuse

1. Identity Theft

Cybercriminals collect personal details such as names, addresses, dates of birth, and identification numbers to impersonate victims.

2. Unauthorized Sharing of Information

Organizations may share customer information with third parties without obtaining proper consent.

3. Targeted Advertising Abuse

Social media companies may analyze users' browsing habits and preferences to display personalized advertisements excessively.

4. Financial Fraud

Bank account details, credit card information, or payment credentials can be misused to conduct fraudulent transactions.

5. Employee Data Exploitation

Confidential employee records may be accessed and used improperly within or outside an organization.

6. Selling User Data

Some companies may sell user information to advertisers or data brokers without adequately informing users.

Causes of Data Misuse

- Oversharing personal information online.
- Weak passwords and poor security practices.
- Lack of awareness about privacy settings.
- Insider threats within organizations.
- Data breaches caused by cyberattacks.
- Granting unnecessary permissions to mobile applications.

Effects of Data Misuse

Financial Loss

Victims may lose money through unauthorized transactions and fraud.

Identity Theft

Attackers may create fake identities using stolen information.

Reputation Damage

Misused information can affect a person's social and professional image.

Loss of Trust

Customers may lose confidence in organizations that fail to protect their information.

Emotional Distress

Victims often experience stress, anxiety, and fear.

Legal Consequences

Organizations responsible for misuse may face penalties and lawsuits.

Preventive Measures for Data Misuse

- Avoid sharing unnecessary personal information.
- Use strong and unique passwords.
- Enable two-factor authentication.
- Review application permissions regularly.
- Read privacy policies carefully.
- Monitor financial transactions frequently.

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- Educate employees about data protection practices.
- Use secure and updated software.

2. Privacy Violations

Definition

Privacy violation occurs when an individual's personal information is accessed, collected, disclosed, or used without consent, thereby infringing upon their right to privacy.

It involves interference with a person's control over their own information.

Examples of Privacy Violations

1. Unauthorized Access to Accounts

Hackers gain access to social media accounts without permission.

2. Sharing Personal Information Without Consent

Posting someone else's photographs, videos, or private details without approval.

3. Location Tracking

Social media applications may reveal users' real-time locations without their awareness.

4. Data Collection Without Knowledge

Applications collecting contacts, messages, and browsing behavior without explicit consent.

5. Cyberstalking

Repeated monitoring and harassment using personal information gathered online.

6. Publishing Private Conversations

Sharing screenshots of private chats publicly without permission.

Causes of Privacy Violations

- Weak account security.
- Poor privacy settings.
- Clicking malicious links.
- Excessive information sharing.
- Insecure applications and websites.
- Lack of awareness regarding digital privacy.

Effects of Privacy Violations

Loss of Personal Security

Exposure of sensitive information increases vulnerability to attacks.

Emotional and Psychological Impact

Victims may experience embarrassment, fear, anxiety, and stress.

Reputation Damage

Private information made public can harm personal and professional relationships.

Harassment and Cyberbullying

Personal data can be used to threaten or intimidate individuals.

Financial Risks

Privacy breaches often lead to fraud and monetary losses.

Legal Problems

Both victims and organizations may become involved in legal disputes.

Preventive Measures for Privacy Violations

- Adjust social media privacy settings appropriately.
- Accept friend requests only from trusted individuals.
- Avoid posting sensitive information publicly.

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- Use strong passwords and multi-factor authentication.
- Update software and applications regularly.
- Be cautious while granting app permissions.
- Review account activity frequently.
- Educate users about online privacy risks.

Best Practices

- Secure storage
- Access control
- Regular monitoring

4.7 Loss of Data and Equipment

Data and devices may be lost or stolen.

Causes

- Device theft
- Hardware failure
- Malware attacks

Effects

- Loss of important information
- Financial damage

Prevention

- Regular backups
- Password protection
- Device tracking