

Chapter 3: Information and Communication Technology Skills – IV

Introduction

In today's rapidly evolving digital world, Information and Communication Technology (ICT) is the backbone of personal, academic, and professional communication. This chapter extends the foundational ICT skills acquired in earlier classes and dives deeper into the tools, platforms, and etiquettes that govern the use of technology in professional environments. It covers advanced topics such as word processing, spreadsheet manipulation, presentation tools, online collaboration, and digital citizenship. Mastery of these skills is not only essential for working with AI tools but is also a prerequisite for thriving in the modern workplace.

3.1 Word Processing Tools – Advanced Features

Word processors like Microsoft Word, Google Docs, and LibreOffice Writer are widely used in both academic and professional environments. This section teaches:

3.1.1 Table Creation and Formatting

- **Inserting tables:** Rows and columns can be added using the toolbar.
- **Merging/Splitting cells:** For layout customization.
- **Formatting tables:** Border styles, shading, alignment, and text direction.

3.1.2 Using Styles and Templates

- **Styles:** Predefined formats for headings, titles, subtitles.
- **Templates:** Ready-made documents for resumes, reports, etc.

3.1.3 Track Changes and Comments

- Enables collaborative editing:
 - Track changes shows edits made by different users.
 - Comments allow feedback without altering content.

3.1.4 Inserting Hyperlinks, Bookmarks, and Cross-references

- **Hyperlink:** Link to a web page or section of a document.
 - **Bookmark:** Helps navigate large documents.
 - **Cross-reference:** Dynamically refers to figures, tables, or sections.
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3.2 Spreadsheet Tools – Advanced Features

Spreadsheets are essential for data analysis and visualization. This section focuses on advanced spreadsheet techniques:

3.2.1 Using Formulas and Functions

- **Logical Functions:** IF, AND, OR, NOT
- **Mathematical Functions:** SUM, AVERAGE, ROUND
- **Text Functions:** CONCATENATE, LEFT, RIGHT, LEN
- **Date/Time Functions:** TODAY(), NOW(), DATEDIF

3.2.2 Data Validation

- Restricts the type of data entered (e.g., numbers only).
- Dropdown lists for consistent input.

3.2.3 Conditional Formatting

- Automatically formats cells based on conditions.
- Useful for highlighting low/high values, deadlines, etc.

3.2.4 Pivot Tables

- Summarizes large datasets dynamically.
- Can group, filter, and aggregate data for reports.

3.2.5 Charts and Graphs

- Bar, Line, Pie, Column charts.
 - Customizing colors, legends, titles, and axes.
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3.3 Presentation Tools – Advanced Features

Tools like PowerPoint, Google Slides, and Keynote are used to communicate ideas visually.

3.3.1 Master Slides

- Templates for consistent design across slides.
- Header/footer, logo placement, background design.

3.3.2 Animations and Transitions

- Animations: Element-level movement (text, images).
- Transitions: Effects between slides.

3.3.3 Embedding Multimedia

- Audio/video insertion.
- Embedded YouTube links or locally stored files.

3.3.4 Hyperlinking Slides

- Navigation buttons to jump between slides or open websites.

3.3.5 Collaboration

- Tools like Google Slides allow real-time multi-user editing.
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3.4 Internet and Digital Services

Understanding how to use the internet effectively and safely is critical.

3.4.1 Cloud Computing

- **Definition:** Using remote servers for storage and computing.
- Examples: Google Drive, Dropbox, OneDrive.
- **Advantages:** Scalability, accessibility, reduced cost.

3.4.2 Online Collaboration Tools

- Tools like Google Docs, Microsoft Teams, Zoom.
- Real-time chat, video conferencing, shared file editing.

3.4.3 Email Etiquette

- Proper subject lines.
 - Polite greetings and signatures.
 - Avoiding slang, proofreading before sending.
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3.5 Cyber Safety and Digital Citizenship

This section aims to build responsible digital behavior and awareness of threats.

3.5.1 Cyber Threats

- **Phishing:** Fake emails/websites to steal data.
- **Malware:** Viruses, trojans, ransomware.
- **Identity Theft:** Misuse of personal information.

3.5.2 Password Hygiene

- Strong password tips: Use of uppercase, lowercase, numbers, symbols.
- Two-factor authentication (2FA) for added security.

3.5.3 Digital Footprint

- Everything you post or share online is permanent.
- Employers often review online behavior.

3.5.4 Responsible Use of Technology

- Avoiding plagiarism.
 - Respecting privacy of others.
 - Reporting cyberbullying.
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3.6 Careers Using ICT Skills

ICT is foundational in almost every modern career. A few examples:

- **AI Developer:** Uses cloud and code editors.
 - **Data Analyst:** Works with spreadsheets, pivot tables, and charts.
 - **Content Creator:** Uses word processors, image and video tools.
 - **Project Manager:** Uses collaboration tools and spreadsheets.
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Summary

In this chapter, we delved into the advanced features of word processing, spreadsheets, and presentation tools. You've learned how to manipulate and analyze data efficiently, present information in engaging formats, and collaborate in real-time using cloud services. We also discussed essential cyber safety practices and the importance of being a responsible digital citizen. These ICT skills not only support your journey in AI but also equip you with tools that are indispensable in any 21st-century career.
