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AI IN CARE

A Practical Handbook for Caregivers of People with Disabilities

Simple Guidance for Using Artificial Intelligence to Support Independent Living and Quality of Care

AUTHORS

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AI in Care

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Contents

How to Use This Handbook

This handbook was written specifically for caregivers — people who support individuals with disabilities in their daily lives. You do not need any technical background to read and use it. Every chapter uses plain language, real-life examples, and step-by-step guidance.

Each chapter ends with a short list of references for those who wish to learn more, and a set of exercises to practise what you have learned. You can work through the handbook from beginning to end, or jump directly to the chapter that matters most to you today.

What You Will Find in Each Chapter

Introduction · A Short History of AI · How AI Compares to the Human Brain · AI as a Tool · Skills for Using AI · AI Chatbots · AI for Visual & Hearing Disabilities · Smart Homes · AI and Employment · Ethical Issues

> **Tip:** *Look for highlighted boxes like this throughout the handbook. They contain practical guidance you can act on immediately.*

> **Privacy:** *Think carefully before sharing personal information with any AI tool. Chapter 9 discusses this in detail.*
>
> **Check:** *AI can make mistakes. Always verify important medical or legal information with a qualified professional.*

Chapter 1 A Short History of Artificial Intelligence

Artificial Intelligence may feel like a very new idea, but humans have dreamed of creating thinking machines for a very long time. Understanding where AI came from helps us understand what it can — and cannot — do today.

1.1 Early Dreams: Thinking Machines

Long before computers existed, storytellers imagined artificial beings with human-like intelligence. In the 1800s, mathematician Ada Lovelace wrote about the possibility of machines that could follow complex instructions. In 1936, Alan Turing described a theoretical machine that could perform any calculation a human could. Turing later asked a famous question: 'Can machines think?' — and proposed the Turing Test, which checks whether a machine can hold a conversation indistinguishable from a human's.

1.2 The Birth of AI (1950s–1960s)

In 1956, a group of scientists met at Dartmouth College in the United States and coined the term 'Artificial Intelligence.' Early AI programs could play chess, solve algebra problems, and prove mathematical theorems. Researchers were optimistic —

some believed that within twenty years, machines would be able to do anything a human mind could do.

1.3 AI Winters (1970s–1980s)

Progress slowed dramatically. Computers were not powerful enough, and the real world proved far more complex than expected. Funding was cut, creating periods known as 'AI winters.' Despite setbacks, researchers continued — expert systems using human-written rules became popular in engineering and medicine.

1.4 The Rise of Machine Learning (1990s–2010s)

Machine learning changed everything. Instead of programming every rule by hand, researchers taught computers to learn from data. In 1997, IBM's Deep Blue defeated world chess champion Garry Kasparov. In 2011, IBM's Watson won the quiz show Jeopardy! against human champions.

1.5 The AI Revolution (2012–Present)

Deep learning — a technique inspired by the brain's structure — unleashed rapid progress. AI began to recognise speech, translate languages, identify objects in photographs, and

generate human-sounding text. In 2022, ChatGPT reached one hundred million users in two months — the fastest growth of any technology product in history.

Key Dates in AI History

1936 — Turing describes the universal computing machine 1956 — 'Artificial Intelligence' coined at Dartmouth 1997 — Deep Blue defeats world chess champion 2011 — Watson wins Jeopardy! 2012 — Deep learning revolutionises image recognition 2022 — ChatGPT reaches 100 million users in 2 months

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EXERCISES — CHAPTER 1

1. In your own words, explain to a colleague or family member what the 'Turing Test' is. Can they understand it from your explanation?
2. Think of a technology you use today. How many years ago do you think it was invented? Search online to find out.
3. What do you think was the most important moment in AI history described in this chapter, and why? Discuss with a colleague.

Chapter 2 The Human Brain and Artificial Intelligence

One of the most common questions people ask about AI is: 'Is it like a brain?' The honest answer is: partly yes, and partly no. Understanding how AI is similar to — and different from — the human brain will help you use AI tools more wisely.

2.1 What the Human Brain Does

The human brain contains approximately 86 billion neurons — nerve cells connected through synapses. The brain is remarkably good at learning from very few examples, understanding context and emotion, using common sense, adapting to new situations, and integrating all the senses into one experience.

2.2 What AI Does

Modern AI systems consist of artificial neurons arranged in layers, trained on large amounts of data. AI is remarkably good at processing enormous amounts of data quickly, recognising patterns consistently, remembering everything it was trained on, and performing specific well-defined tasks with great accuracy — 24 hours a day without rest.

2.3 Key Similarities

Both the brain and AI learn from experience, recognise patterns, and improve with practice. Both use a network structure where many simple units connect to produce complex behaviour.

2.4 Key Differences

Brain vs AI — Key Differences

UNDERSTANDING vs PATTERN MATCHING The brain understands meaning. AI matches patterns. When AI answers a question, it produces plausible text based on what it has seen — not genuine comprehension. COMMON SENSE Humans have deep common sense. AI systems often fail at simple tasks any child could do. EMOTIONS AND CONSCIOUSNESS The brain feels emotions and experiences consciousness. AI has none of these — it does not feel, desire, or suffer. ENERGY A human brain runs on about 20 watts. Training a large AI model can consume as much electricity as several hundred homes use in a year. GENERALISATION Humans transfer learning across completely different situations. AI models trained on one task often perform poorly when the task shifts slightly.

2.5 What This Means for Caregivers

AI is a powerful assistant for well-defined tasks — but it cannot replace human judgment, emotional intelligence, or moral decision-making. Always apply your own professional judgment alongside any AI output.

> **In Practice:** *If an AI tool gives you an unexpected or worrying answer, trust your instincts. You understand the whole person you care for. AI only has access to what you share with it.*

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EXERCISES — CHAPTER 2

4. Ask an AI chatbot a simple common-sense question, then a question requiring emotional understanding. Compare the two answers. What do you notice?
5. Make a two-column list: three caregiving tasks AI could help with, and three it could never replace. Discuss with a colleague.

6. Describe in your own words the difference between 'pattern matching' and 'true understanding.' Why does this matter in care settings?

Chapter 3 AI as a Tool — How to Use It Efficiently

A hammer is a tool. So is a wheelchair, a pair of glasses, and a calendar app. AI is also a tool — one that can help you work more efficiently, find information faster, and support the people in your care more effectively.

3.1 What Kind of Tool Is AI?

AI tools can be thought of as intelligent assistants. The most useful categories for caregivers are:

- Conversational AI (chatbots): ask questions and get answers in plain language
- Voice assistants: speak commands and the device responds
- Translation tools: convert text or speech between languages
- Image recognition: identify objects, text, or environments through a camera
- Scheduling and reminder systems: manage appointments and routines
- Summarisation tools: condense long documents into clear, short points

3.2 How to Write Good Prompts

Be Specific

Vague prompts give vague answers.

Example

Vague: 'Tell me about wheelchairs.' Specific: 'I am a caregiver for a 65-year-old woman who uses a manual wheelchair and has difficulty pushing herself up slopes. What adaptations or accessories should I consider?'

Give Context

Tell the AI who you are, who you are asking for, and why. Try starting with: 'I am a caregiver for a person with [condition]. I need help with [task]. Please explain in simple language.'

Ask for a Specific Format

If you want a list, ask for a list. If you want a step-by-step guide, say so. AI follows formatting instructions precisely.

Follow Up

If the first answer is not quite right, ask a follow-up: 'Can you make this simpler?' or 'Can you give me an example?' or 'Can you focus only on communication?'

3.3 Practical Uses for Caregivers

Information and Research

- Looking up symptoms, medications, or conditions in plain language
- Finding local support services and resources
- Understanding medical letters or reports (always confirm with a doctor)

Communication

- Drafting letters or emails to doctors, schools, or government agencies
- Translating documents or conversations for people from other language backgrounds
- Simplifying complex documents into easy-read formats

Planning and Organisation

- Creating daily schedules and care plans
- Setting reminders for medications, appointments, and therapy sessions
- Generating activity ideas suited to the person's abilities and interests

3.4 Things to Always Check

> **Critical Rule:** *AI can make mistakes, especially with medical or legal information. Always verify important information with a qualified professional.*

- Medical advice — always confirm with a nurse, doctor, or pharmacist
- Legal information — always confirm with a qualified legal adviser
- Figures and statistics — AI may quote outdated numbers
- Names and contact details — AI sometimes generates incorrect information

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EXERCISES — CHAPTER 3

7. Write three prompts for an AI chatbot relevant to your caregiving role. Try each and compare the answers. Which gave the most useful response, and why?
8. Take a care-related document and ask an AI to 'summarise this in simple language.' Is the summary accurate and useful?

9. Ask an AI a health question, then verify the answer on an official website. Are they the same? If not, what differs?

Chapter 4 Skills for Using AI Effectively

Artificial Intelligence has given us a remarkable new kind of tool. But like any tool, it works best in the hands of someone who knows how to use it. A paintbrush does not make you an artist. A scalpel does not make you a surgeon. And an AI chatbot does not automatically give you useful answers.

This chapter is about the human skills that make the difference — the abilities that allow you to get real, reliable, meaningful value from AI. These skills are not technical. They are deeply human: the ability to communicate clearly, to think critically, to ask good questions, and to know when to trust and when to doubt.

4.1 A New Kind of Interface

Over the course of human history, enormous amounts of knowledge have been written down and saved in digital form — in books, research papers, medical guidelines, encyclopaedias, websites, care manuals, and legal documents. For most of history, accessing that knowledge required an expert: a doctor, a lawyer, a librarian. The expert acted as an

intermediary — translating stored knowledge into useful, personalised guidance.

AI language models change this. They are trained on vast amounts of digitally stored knowledge, and they make it accessible through a single interface: natural, everyday language. You simply say — in your own words — what you need to know.

AI as a Knowledge Interface

Traditional path: Knowledge in books & databases → Expert (doctor, lawyer, librarian) → You With AI: Knowledge in digital form → AI language model → You (in your own language, any time, anywhere) The AI is a bridge. Your skills determine how well you can cross it.

4.2 Skill One: Prompt Building

A prompt is the message you send to an AI. The quality of your prompt is the single biggest factor in the quality of the response you receive. Prompt building is a new kind of literacy — closer to briefing a capable colleague than to typing a search query.

The Four Elements of a Strong Prompt

Role — Tell the AI who it is helping

'I am a caregiver supporting a 45-year-old man with a spinal cord injury who uses a manual wheelchair.' This context shapes everything that follows.

Task — Say exactly what you need

'Give me five gentle upper-body exercises suitable for a person who uses a wheelchair and has limited grip strength.' Specific tasks produce specific, useful answers.

Format — Say how you want it presented

'Give me a numbered list.' 'Explain this in simple language a teenager could understand.' 'Keep your answer to five sentences.' AI follows these instructions precisely.

Constraints — Tell it what to avoid

'Do not use medical jargon.' 'Do not suggest activities requiring standing.' 'Focus only on free resources.'

> **Putting It Together:** *'I am a caregiver for a 70-year-old woman with dementia. Give me five simple, enjoyable activities she can do at her kitchen table. Use plain language, give each a short name, and do not suggest anything requiring reading or complex instructions.'*

4.3 Skill Two: Critical Thinking

AI language models are extraordinarily fluent. They produce well-written, confident responses. This fluency can be

misleading — a response that sounds authoritative may be partially or wholly incorrect. The AI does not experience doubt.

Why AI Can Be Wrong

- Training data has a cutoff date — AI may not know about recent guideline changes
- AI can 'hallucinate' — generating plausible-sounding but incorrect facts or references
- AI may reflect biases from its training data
- AI cannot examine a person or apply judgment from professional training

The Verification Habit

Whenever AI gives you information you might act on, verify it from a trusted source. Ask yourself: Does this match my training? Can I find this on a trusted website? Would I be comfortable telling a colleague I acted on this?

> **Golden Rule:** *Use AI to find and understand information. Use a qualified professional to make decisions based on that information.*

4.4 Skill Three: Dialogue

Most people use AI like a search engine: ask one question, read the answer, close the window. The real power lies in dialogue — an extended, iterative conversation that refines and deepens

the response. Think of it as briefing a very knowledgeable colleague over several exchanges.

Techniques for Effective Dialogue

- Ask for clarification: 'Can you explain what [term] means in simple language?'
- Push back: 'I am not sure that is correct for someone with [condition]. Can you reconsider?'
- Ask for alternatives: 'Can you give me three different ways to approach this?'
- Request a different format: 'Can you present this as a table?' or 'Make this shorter — just the three most important points.'
- Go deeper: 'Tell me more about the second point.' or 'What might go wrong with this approach?'

A Dialogue in Practice

Caregiver: 'What communication strategies work for people with aphasia?' AI: [gives a general overview] Caregiver: 'The person I support has non-fluent aphasia and understands more than she can say. Which strategies are most relevant?' AI: [gives a targeted response] Caregiver: 'She becomes frustrated when conversations take too long. Give me three techniques as a short checklist for the fridge.' AI: [produces a practical, personalised checklist] The first question produced general information. The dialogue produced something genuinely useful.

4.5 Skill Four: Context-Setting

AI knows nothing about you or the person you care for unless you tell it. Useful context includes: the person's condition and communication style; their living situation; what has already been tried; and your own role and experience level.

> **Privacy Reminder:** *Provide context in general terms. You do not need to share real names or identifying details. 'A 58-year-old woman with Parkinson's who lives alone' gives the AI everything it needs.*

4.6 Skill Five: Knowing When Not to Use AI

Perhaps the most underrated skill is knowing the limits of AI. Do not rely primarily on AI for:

- Medical diagnosis or treatment decisions — always involve a qualified health professional
- Legal advice about a specific person's rights — always involve a qualified solicitor
- Crisis situations — if someone is in immediate danger, call emergency services
- Decisions requiring knowledge of the whole person — only you and their support network can know this

- Emotional support for the person in your care — human warmth cannot be replaced

4.7 Building Your AI Skills Over Time

- Set aside 15 minutes a week to try using an AI tool for one caregiving task
- Keep a note of prompts that worked well — reuse and adapt them
- Share effective prompts and approaches with colleagues
- When an AI response is poor, ask yourself why — use it as a learning opportunity
- Stay curious about new tools; the field is developing rapidly

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EXERCISES — CHAPTER 4

10. Take a real caregiving task from this week. Write a prompt applying all four elements: Role, Task, Format, and Constraints. Try it and evaluate the response.

11. Ask an AI a health question relevant to your care work. Identify two specific claims and verify each on a trusted website. Did the AI get it right?

12. Have a five-turn dialogue with an AI on a topic relevant to your work. Compare the fifth response with the first. How much more useful did the information become through dialogue?

13. Reflect on your caregiving work. List three situations where you would use AI, and three where you would not. For each 'would not,' explain in one sentence why human judgment is essential.

Chapter 5 AI Chatbots — What They Are and How to Use Them

AI chatbots are software programs that can hold a conversation with you in plain, everyday language. They can answer questions, help you write things, explain complex topics, and brainstorm ideas. You interact with them by typing or, in some cases, speaking.

5.1 How Chatbots Work

Modern AI chatbots are powered by large language models trained on billions of pages of text. Through this training, they learn the patterns of language well enough to generate responses that sound natural and helpful. It is important to understand that chatbots do not 'know' things the way a person does — they predict the next word based on learned patterns.

> **Hallucination:** *When an AI chatbot states something incorrect with great confidence, this is called a hallucination. Always check important facts from a reliable source.*

5.2 Popular AI Chatbots

Common AI Chatbots

ChatGPT (OpenAI) — chat.openai.com One of the most widely used chatbots. Free version available. Strong at writing, summarising, and explaining. Claude (Anthropic) — claude.ai Known for thoughtful, nuanced responses and safety. Free tier available. Good at careful reasoning and longer documents. Gemini (Google) — gemini.google.com Integrated with Google tools. Useful for research, linked to current web information. Microsoft Copilot — copilot.microsoft.com Built into Windows and Microsoft 365. Helpful for documents, emails, and spreadsheets.

5.3 Step-by-Step: Having Your First Conversation

1. Go to the chatbot's website or open its app on your device.
2. Create a free account if required — usually just an email address.
3. Click in the text box at the bottom of the screen.
4. Type your question or request clearly.
5. Press Enter or click the Send button.
6. Read the response. If you need clarification, type a follow-up question.
7. Start a new conversation if you want to begin fresh.

5.4 Chatbots in Caregiving — Practical Examples

Explaining a Diagnosis

Paste a medical term or a passage from a report and ask: 'Please explain this in simple language that I can share with the person I care for.'

Writing a Complaint or Request

'Help me write a polite but firm letter to a local authority requesting an assessment for [person's name].'

Creating an Easy-Read Document

'Please rewrite the following information in easy-read format with short sentences and simple words.' Then paste the text you want simplified.

Generating Activity Ideas

'Give me five low-energy, sensory-friendly activity ideas for a person with [condition] who enjoys music and nature.'

5.5 Privacy and Chatbots

Never enter the following information into a public AI chatbot:

- Full names combined with addresses or date of birth
- NHS or health insurance numbers
- Bank or financial information

– Passwords or login details

> **Safe Practice:** *Describe a situation without naming the person. Use 'the person I care for' or a placeholder name.*

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3. Woebot Health. (2024). How conversational AI is used in mental health support.
4. Information Commissioner's Office. (2023). Guidance on AI and data protection.

EXERCISES — CHAPTER 5

14. Open a free AI chatbot and ask: 'What are five things I should know about caring for someone with [condition]?' Evaluate the response: Is it accurate? Helpful? Anything missing?
15. Use a chatbot to rewrite a paragraph from a care plan in 'easy-read' format. Share it with a colleague and ask if they find it clearer.
16. Test a chatbot's honesty: ask it a question to which you already know the answer. Does it get it right? Does it show uncertainty?

Chapter 6 AI for People with Visual and Hearing Disabilities

Artificial Intelligence has opened remarkable possibilities for people with visual and hearing disabilities. Tools that would have seemed miraculous ten years ago are now available on a standard smartphone. This chapter explains the most useful AI-powered tools and how to introduce them to the people you care for.

6.1 AI Tools for People with Visual Disabilities

Screen Readers with AI

Modern AI-powered screen readers describe images, charts, and visual content — not just text. NVDA (free) and JAWS are widely used on computers. VoiceOver is built into Apple devices; TalkBack into Android devices. Both are free.

AI Image Description

- Microsoft Seeing AI (free, iPhone) — describes scenes, reads text, recognises faces, reads barcodes and documents
- Google Lookout (free, Android) — similar features including food label reading and document scanning

- Be My Eyes — connects users with sighted volunteers or an AI that answers visual questions

AI Text-to-Speech

Any written text — a menu, a letter, a book — can be read aloud using AI-powered text-to-speech. Natural-sounding voices are now available in dozens of languages, built into most smartphones via accessibility settings.

Navigation and Wayfinding

Apps such as Google Maps and Apple Maps provide spoken turn-by-turn directions. Specialist apps like Blindsquare describe surroundings using GPS, identifying nearby businesses, intersections, and points of interest.

> **Introducing These Tools:** *Start with the tool that addresses the most pressing daily challenge. Allow plenty of time to practise in a familiar environment before using it in public.*

6.2 AI Tools for People with Hearing Disabilities

Real-Time Captions

- Google Live Transcribe (free, Android) — real-time speech-to-text during conversations
- Apple Live Captions (built into iOS and macOS) — captions for calls, videos, and in-person conversations

- Otter.ai — records meetings and produces a text transcript

Video Calls with Captions

Microsoft Teams, Zoom, and Google Meet now offer live AI captions — helpful for work meetings, medical appointments, and family video calls.

Sound Alerts

Apps such as Google Sound Notifications and iOS Sound Recognition detect important sounds — a doorbell, smoke alarm, baby crying, or someone calling a name — and alert the user through vibration or a visual notification.

Sign Language Support

AI-powered translation between sign language and spoken or written language is an active research area. Some apps can already recognise a limited vocabulary of signs, and this technology is improving rapidly.

6.3 Supporting the Person to Use These Tools

- Start with the person's own goals — ask what they want to be able to do, not what you think they should use
- Practise in short sessions — 15 minutes at a time is better than an overwhelming hour-long introduction

- Use real-life situations — practise reading the morning post or navigating to a local shop
- Celebrate progress — any step forward builds confidence
- Connect with peer support — disability organisations often have members who use these tools and can share tips

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EXERCISES — CHAPTER 6

17. Download Microsoft Seeing AI (iPhone) or Google Lookout (Android) and photograph a page of text. How accurately does it read it? Try a handwritten note. What do you notice?

18. Enable Live Captions on your smartphone (Accessibility settings). Turn on a TV and watch the captions. How accurate are they? What challenges might a deaf person face?

19. Write a three-session plan for introducing the Google Live Transcribe app to a person who has been deaf from birth. What would you focus on in each session?

Chapter 7 Smart Homes — AI Technology in the Home

A smart home uses connected devices and AI to automate tasks, improve safety, and increase independence. For people with disabilities, smart home technology can be life-changing — enabling people to control their environment using their voice, a smartphone, or even eye movements.

7.1 What Is a Smart Home?

A smart home is a home where electronic devices are connected to the internet and can communicate with one another and be controlled remotely. AI powers the intelligence — learning routines, anticipating needs, and responding to commands. Smart home devices do not all need to be installed at once; most people start with a single device and expand gradually.

7.2 Smart Speakers and Voice Assistants

- Amazon Echo (Alexa) — 'Alexa, turn off the kitchen light.' 'Alexa, call Mum.' 'Alexa, what time is my appointment?'
- Google Nest (Google Assistant) — integrates with Calendar, Gmail, and other services

- Apple HomePod (Siri) — works closely with other Apple devices

For people who cannot easily use a keyboard or touchscreen, voice control provides access to music, news, calls, reminders, audiobooks, timers, and much more.

7.3 Smart Lighting and Plugs

Smart bulbs and plugs can be controlled by voice, app, or schedule. For a person who has difficulty moving safely in the dark, lights that come on automatically can significantly reduce fall risk. Smart plugs can also cut power automatically — useful for someone who may forget to turn off the kettle.

7.4 Smart Locks and Security

Smart locks allow a door to be locked or unlocked via a phone app, voice command, or code — useful for people who cannot manage a traditional key. Smart doorbells with cameras allow the person inside to see and speak to visitors without going to the door.

7.5 Health Monitoring at Home

- Fall detection systems — wearable devices or room sensors that detect falls and alert a carer or emergency service

- Medication dispensers — remind the person when to take medication, dispense the correct dose, and alert carers if a dose is missed
- Activity monitors — track movement patterns and alert a caregiver if daily routines are disrupted
- Smart mattresses and chair sensors — detect pressure and monitor sleep quality

> **Key Message:** *Before purchasing any smart home device, speak with an occupational therapist or assistive technology specialist. They can advise on what is most appropriate for the specific person.*

7.6 Environmental Controls

For people with significant physical disabilities, smart home technology can extend to controlling heating, air conditioning, curtains, and door entry — all through a single voice command or switch. This Environmental Control system can dramatically increase independence.

7.7 Setting Up Safely

- Always set a strong, unique password for your Wi-Fi router
- Keep device software updated — updates often include security fixes

- Only purchase devices from reputable manufacturers
- Review privacy settings and turn off data collection features you do not need

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EXERCISES — CHAPTER 7

20. Walk through the home of the person you care for and identify three tasks a smart home device could automate or simplify. Research which device could help and what it costs.
21. If you have access to a smart speaker, set three reminders using only your voice. How easy was this? How might it benefit a person with limited mobility?
22. Look up one fall detection system available in your country. Write a 5–8 sentence summary of what it does, what it costs, and who would benefit most.

Chapter 8 AI and Employment — Opportunities and Concerns

The rise of AI is changing the world of work. For people with disabilities — and for those who support them — this brings exciting new opportunities and real concerns. This chapter looks at both sides honestly.

8.1 How AI Is Changing Work

AI is automating many routine tasks — writing reports, answering emails, analysing data, scheduling meetings. Some jobs are being transformed; others are being replaced. At the same time, AI is creating new roles: organisations need people to develop, supervise, correct, and make ethical decisions about AI systems.

8.2 AI as an Equaliser for Workers with Disabilities

Communication Barriers

AI-powered communication tools mean that a person who cannot speak can participate fully in a meeting using text-to-speech. A person who is deaf can read real-time captions. Workers who previously could not attend in-person events can now participate via technology.

Cognitive Support

AI tools can help workers with cognitive disabilities by structuring tasks, breaking complex instructions into smaller steps, providing reminders, and summarising long documents.

Remote Working

The growth of remote work has benefited many people with disabilities by removing physical barriers, reducing transport needs, and allowing flexible schedules.

8.3 Risks and Concerns

Automation of Care Jobs

Some tasks in the care sector are being automated. If implemented poorly, these tools can reduce human contact — which is often precisely what people with disabilities most need.

Bias in AI Hiring Tools

Many employers use AI systems to screen job applications. Research has found some of these systems disadvantage applicants with disabilities — for example, by screening out non-linear career histories common among people who have experienced illness or rehabilitation.

Digital Exclusion

Not everyone has equal access to AI tools. People who lack internet access, cannot afford devices, or have not received digital skills training are at risk of being left behind.

> **Advocacy:** *If the person you support is seeking employment, help them access specialist employment support services. In many countries, workplace adjustments that include assistive AI tools are a legal right.*

8.4 AI in the Care Workforce

- AI-assisted rostering and scheduling
- Documentation and care plan management
- Training through AI-powered learning platforms
- Risk assessment tools that flag concerns about a person's wellbeing

Engage with these tools actively — understand how they work, provide feedback when they are inaccurate, and advocate for the people you support when AI systems make decisions that affect them.

REFERENCES — CHAPTER 8

1. World Economic Forum. (2023). Future of Jobs Report 2023. WEF.
2. Accenture. (2023). Getting to Equal: The Disability Inclusion Advantage.

3. Schur, L. et al. (2020). Is disability disabling in all workplaces? Industrial Relations, 56(3), 381–410.

4. Eurofound. (2022). Telework and ICT-based mobile work. Publications Office of the EU.

5. Dastin, J. (2018). Amazon scraps secret AI recruiting tool that showed bias against women. Reuters.

EXERCISES — CHAPTER 8

23. Speak with the person you care for about their employment aspirations. Are there AI tools that could help them access or maintain work? Research two options and present them.

24. Which parts of your own caregiving role have been affected by technology changes in the past five years? Do you think AI will change your role further in the next five years?

25. Research employment laws in your country regarding workplace adjustments for people with disabilities. Summarise in a short paragraph how AI tools might be included in a reasonable adjustment plan.

Chapter 9 Ethical Issues in AI — What Caregivers Need to Know

Ethics is about what is right and wrong, fair and unfair. As AI becomes more widely used in care settings, it raises important ethical questions. Caregivers are often the person who decides which AI tools are used, how they are used, and whether the rights and dignity of the person in their care are being respected.

9.1 Privacy and Data Protection

Many AI tools collect data about a person's voice, behaviour, health, and routines. Before using any AI tool with a person in your care, ask:

- What data does this tool collect?
- Where is the data stored, and who can access it?
- Can we opt out of data collection?
- Does the person in our care consent to this data being collected?

> **Legal Right:** *In many countries, people have a legal right to know what personal data is collected about them and to request its deletion. In the EU, this is called the GDPR.*

9.2 Consent and Autonomy

A core principle of disability rights is autonomy — the right of each person to make decisions about their own life. When introducing AI tools, always: explain what the tool does in plain language; explain how data will be used; give a genuine choice about whether to use it; and let the person decide. Consent should be ongoing — not just a one-time agreement.

9.3 Bias and Fairness

AI systems learn from data, and data reflects the world — including its inequalities. AI systems have been found to perform less accurately for people from ethnic minority backgrounds, for women, for older people, and for people with disabilities. Notice if an AI tool seems to perform less well for the person in your care and report this feedback to the provider.

9.4 Over-reliance on AI

There is a risk that AI tools are seen as a way to reduce human contact and cut costs. Research is clear that human relationships are central to wellbeing, especially for people with disabilities.

> **Watch For:** *If AI technology is being used to reduce — rather than enhance — human contact in care settings, this is an ethical concern to raise with management and, if necessary, with regulatory bodies.*

9.5 Transparency

People have a right to know when they are interacting with an AI system rather than a human. If AI is used to make or inform decisions about a person's care, the person should be told, and a human professional should be responsible for reviewing and approving those decisions.

9.6 The Human Value of Care

Perhaps the most important ethical principle is this: care is a fundamentally human activity. The compassion, understanding, and relationship that a good caregiver provides cannot be replaced by any AI system. Technology should always be used to support and enhance human care — never to replace it.

Core Ethical Principles for AI in Care

1. RESPECT FOR AUTONOMY — The person in your care makes decisions about technology used in their life. 2. PRIVACY — Collect only necessary data. Protect it carefully. Allow the person to opt out. 3. FAIRNESS — Be alert to bias

and report it. Advocate for equitable AI tools. 4. TRANSPARENCY — People should know when AI is involved in their care. 5. HUMAN PRIMACY — AI supports, but never replaces, the human relationship at the heart of care.

REFERENCES — CHAPTER 9

1. Floridi, L. et al. (2018). AI4People — An ethical framework for a good AI society. Minds and Machines, 28(4), 689–707.
2. European Commission. (2021). Proposal for a Regulation on Artificial Intelligence (AI Act).
3. Jobin, A., Ienca, M., & Vayena, E. (2019). The global landscape of AI ethics guidelines. Nature Machine Intelligence, 1, 389–399.
4. United Nations. (2021). Report of the Special Rapporteur on the rights of persons with disabilities: AI and disability.
5. Buolamwini, J., & Gebru, T. (2018). Gender shades. Proceedings of Machine Learning Research, 81, 1–15.

EXERCISES — CHAPTER 9

26. Choose one AI tool described in this handbook. Research its privacy policy. What data does it collect? Is the information easy to find and understand?
27. Discuss with a colleague: A care home is considering AI monitoring cameras in communal areas to detect falls. What are the benefits? The ethical concerns? What safeguards should be in place?

28. Write your personal 'Code of Ethics for AI in Care' — five principles you will follow when using AI tools in your caregiving work. Compare with a colleague's list.

Conclusion: Moving Forward

Artificial Intelligence is not a distant future — it is here today, and it is changing care. You do not need to become a technology expert to benefit from it. What you do need is curiosity, common sense, and the commitment to put the person in your care at the centre of every decision.

- Start small. Choose one tool that addresses one real need. Learn it well before trying the next.
- Involve the person. Technology is most effective when the person who uses it has chosen it and been supported to learn it.
- Keep checking. AI is not always right. Always apply your own professional judgment.
- Speak up. If AI tools are being used in ways that harm or reduce the dignity of people in your care, raise concerns.
- Keep learning. AI is changing rapidly. Stay curious, read widely, and connect with colleagues and disability organisations.

The future of care is human — enriched by technology. You are at the heart of that future.

Glossary of Key Terms

The following terms are used throughout this handbook. Here is a plain-language explanation of each one.

Algorithm

A set of step-by-step instructions that tells a computer how to complete a task — like a recipe for a computer.

Artificial Intelligence (AI)

Computer systems that can perform tasks that normally require human intelligence, such as understanding language, recognising images, or making decisions.

Assistive Technology

Any device, software, or equipment that helps a person with a disability to function more independently.

Automation

Using machines or software to perform tasks that humans previously did manually.

Bias (in AI)

When an AI system produces unfair results for certain groups because of imbalances in the data it was trained on.

Chatbot

A software program that can hold a conversation with a person using text or speech.

Deep Learning

A type of machine learning that uses artificial neural networks with many layers to learn from large amounts of data.

Environmental Control

A system that allows a person to control devices in their home (lights, heating, TV) without needing to use their hands.

GDPR

The General Data Protection Regulation — European Union law that protects people's personal data and gives them rights over how it is used.

Hallucination (AI)

When an AI chatbot states something incorrect with great confidence — it 'makes up' information.

Large Language Model (LLM)

The type of AI that powers most modern chatbots. Trained on vast amounts of text, it generates human-sounding language responses.

Machine Learning

A type of AI in which computers learn from data rather than following manually written rules.

Neural Network

An AI system loosely inspired by the human brain, made up of interconnected artificial neurons that learn from experience.

Prompt

The question or instruction that a person types or speaks to an AI chatbot.

Smart Home

A home in which devices are connected to the internet and can be controlled automatically or remotely.

Speech Recognition

Technology that converts spoken words into written text or commands.

Text-to-Speech

Technology that converts written text into spoken audio.

Turing Test

A test proposed by Alan Turing in 1950 to assess whether a machine can behave indistinguishably from a human in a conversation.

Useful Resources and Further Reading

The following organisations and websites provide reliable, up-to-date information on AI, assistive technology, and disability support.

Disability and Assistive Technology

- World Health Organization: Assistive Technology — https://www.who.int/health-topics/assistive-technology
- Assistive Technology Industry Association (ATIA) — https://www.atia.org
- Royal National Institute of Blind People (RNIB) — https://www.rnib.org.uk
- Royal National Institute for Deaf People (RNID) — https://rnid.org.uk
- AbilityNet — https://abilitynet.org.uk

AI and Technology

- MIT Technology Review — https://technologyreview.com
- OpenAI (ChatGPT) — https://openai.com

- Anthropic (Claude) — https://claude.ai
- Google AI — https://ai.google

Ethics and Rights

- AI Ethics Lab — https://aiethicslab.com
- Centre for AI Safety — https://www.safe.ai
- European AI Act — https://eur-lex.europa.eu

Books for Further Reading

- Mitchell, M. (2019). Artificial Intelligence: A Guide for Thinking Humans. Farrar, Straus and Giroux.
- Topol, E. (2019). Deep Medicine. Basic Books.
- Mollick, E. (2023). Co-Intelligence: Living and Working with AI. Portfolio/Penguin.
- Noble, S. U. (2018). Algorithms of Oppression. New York University Press

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