Your First Rung

AI from Early Rules to Agents, and How to Use It Safely

Companion figures for the audiobook

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MIND BLOOM

ABOUT THIS PDF

This PDF holds every figure in the book, in the order you hear them. The narration names each figure by its number, so you can find it here while you listen. Each page shows the figure, its caption and a full description.

Figure 1.51: Three AIs before lunch



Three AIs before lunch, and not one of them the same.

Description

A cartoon of a puzzled woman holding a seed packet shopping list, while three small sparkles fly at her from a radio, a bank letter and her phone keyboard.

Figure 1.1: AI is an umbrella word

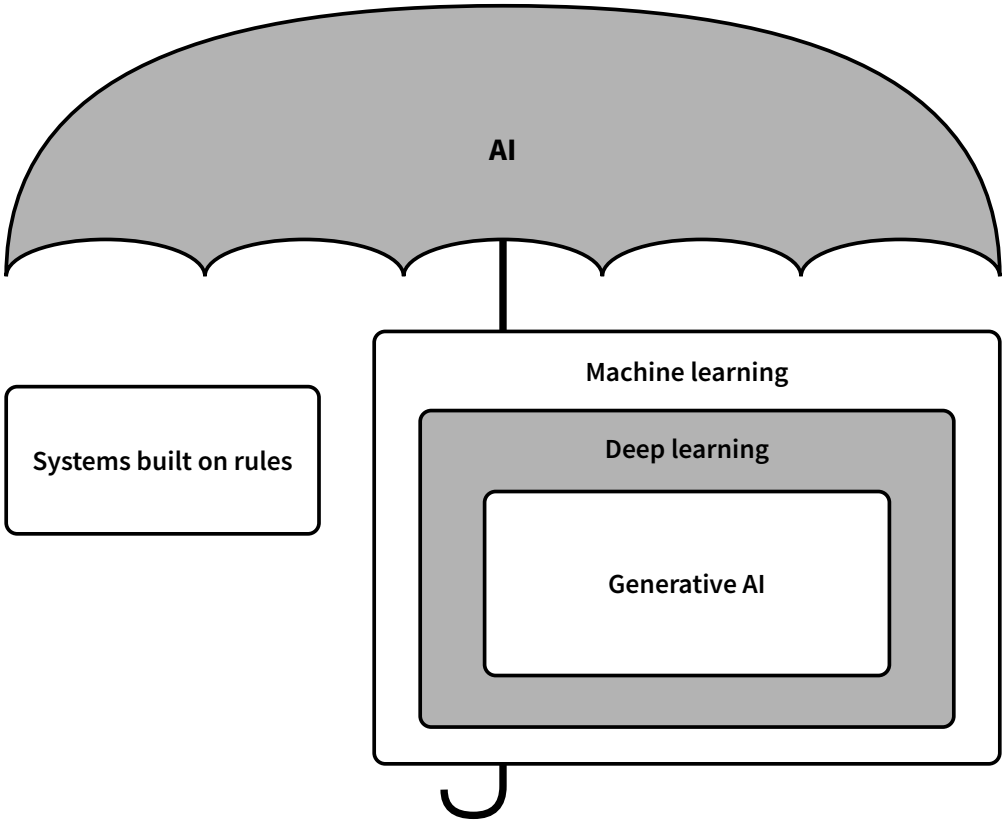


Figure 1.1: AI is one word for many techniques.

Description

An umbrella labelled AI covers the whole picture, and four groups shelter under it. Systems built on rules are one group, drawn beside machine learning. Machine learning is the second group, with deep learning drawn inside it. Generative AI is drawn inside deep learning. The point: AI is one word for many techniques, so it helps to ask which kind is meant.

Figure 1.2: Maeve's morning: four everyday uses

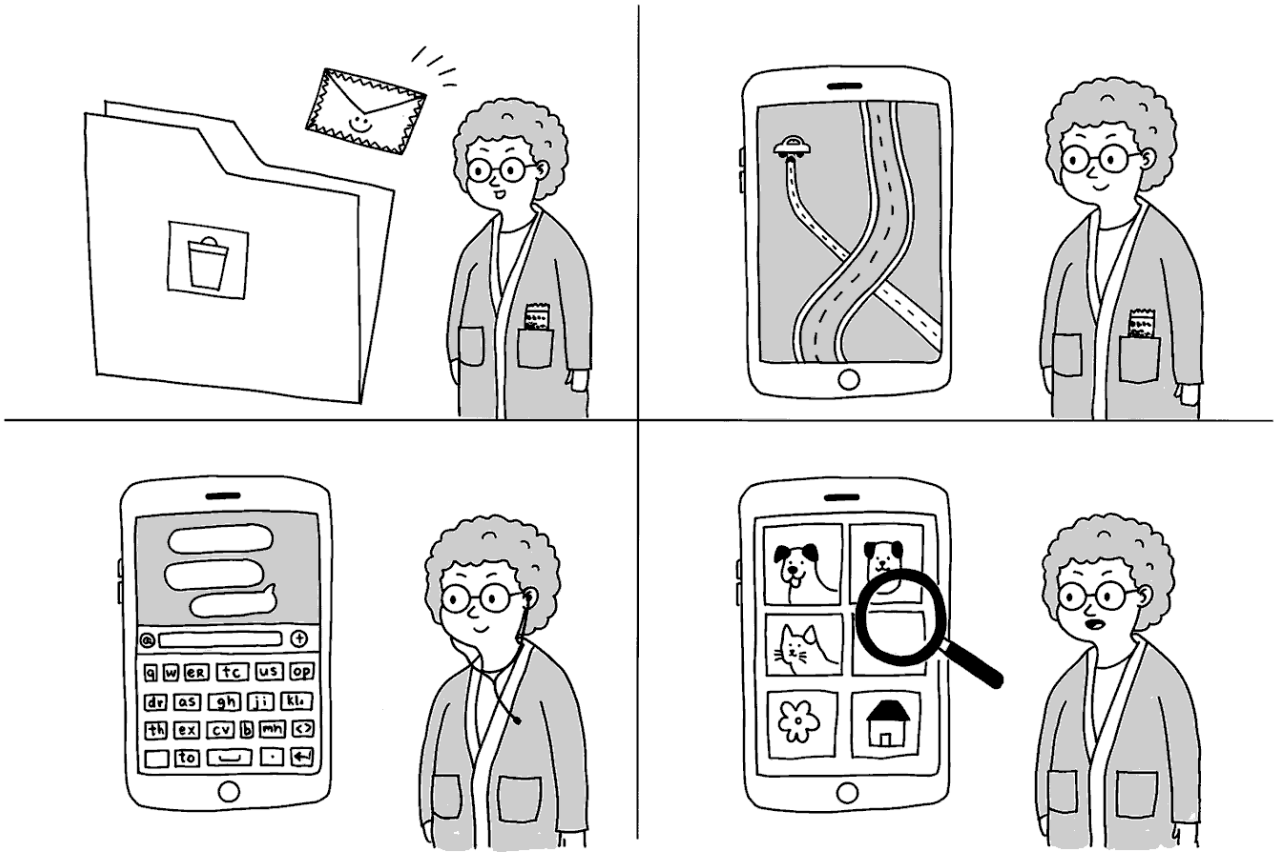


Figure 1.2: AI you already use, before breakfast.

Description

Four small panels, in a two-by-two grid, show one ordinary morning in Maeve's kitchen. A junk mail folder catches a spam message. A map chooses a route. A phone keyboard suggests the next word. A photo search finds pictures of a dog. The point: each does a single, narrow job, none carries an AI label, and all four are the kind of AI that learns from examples.

Figure 1.52: Dear Sir or Madam



You can skip the Dear Sir or Madam.

Description

A cartoon of a man in a tie typing a very long formal letter into a tiny chat box, the letter spilling over the desk and onto the floor.

TAB-01-01: FIVE QUESTIONS, THREE MARKS

Table 1.1: Mark each answer right, wrong or unsure.

DESCRIPTION

Table 1.1: Mark each answer right, wrong or unsure.

Figure 2.51: Speak to an agent



The menu knows three choices. 'Please' is not one of them.

Description

A cartoon of a man in a car park, a tray of tomato plants on the car roof, shouting into his phone while a blank speech bubble comes back from it.

FIGURE 2.1: THE AI STORY, PART 1 OF 2

Part 1 of 2

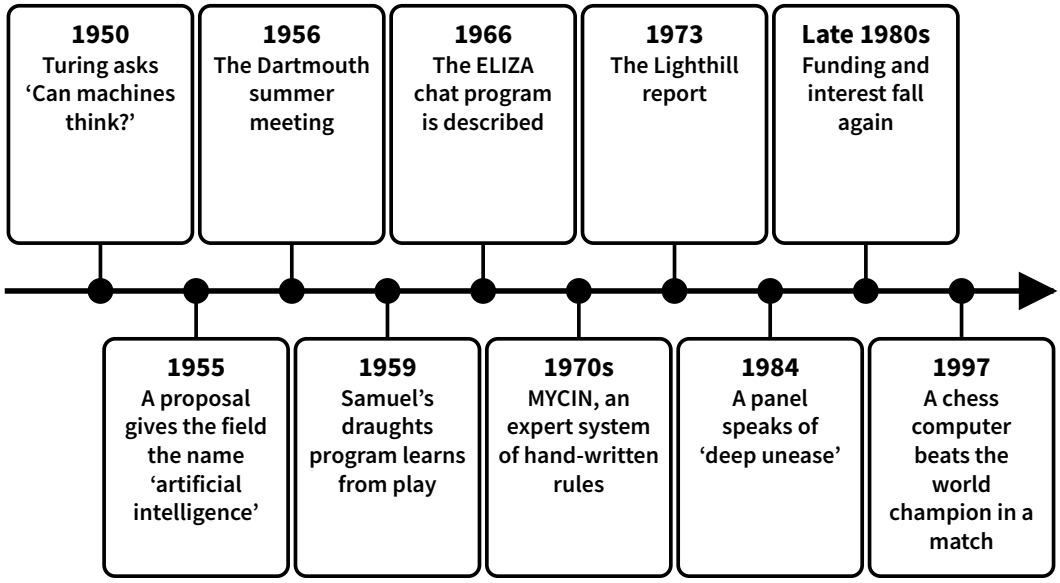


Figure 2.1: The AI story, part 1 of 2: from a question about thinking machines to a chess win.

DESCRIPTION

A timeline runs from left to right in date order, with 10 dated milestones from the first half of the AI story, starting in 1950 with Turing's question, 'Can machines think?' A 1955 proposal gives the field its name, 'artificial intelligence', and the Dartmouth summer meeting follows in 1956. A draughts program that learns from play comes in 1959, the ELIZA chat program in 1966, and MYCIN, an expert system of hand-written rules, in the 1970s. The Lighthill report appears in 1973, a panel speaks of 'deep unease' in 1984, and funding and interest fall again from the late 1980s. The line ends in 1997 with a chess computer beating the world champion in a match. The point: you do not need the dates by heart, only which idea came first and why the next one followed.

FIGURE 2.2: IF THIS HAPPENS, DO THAT

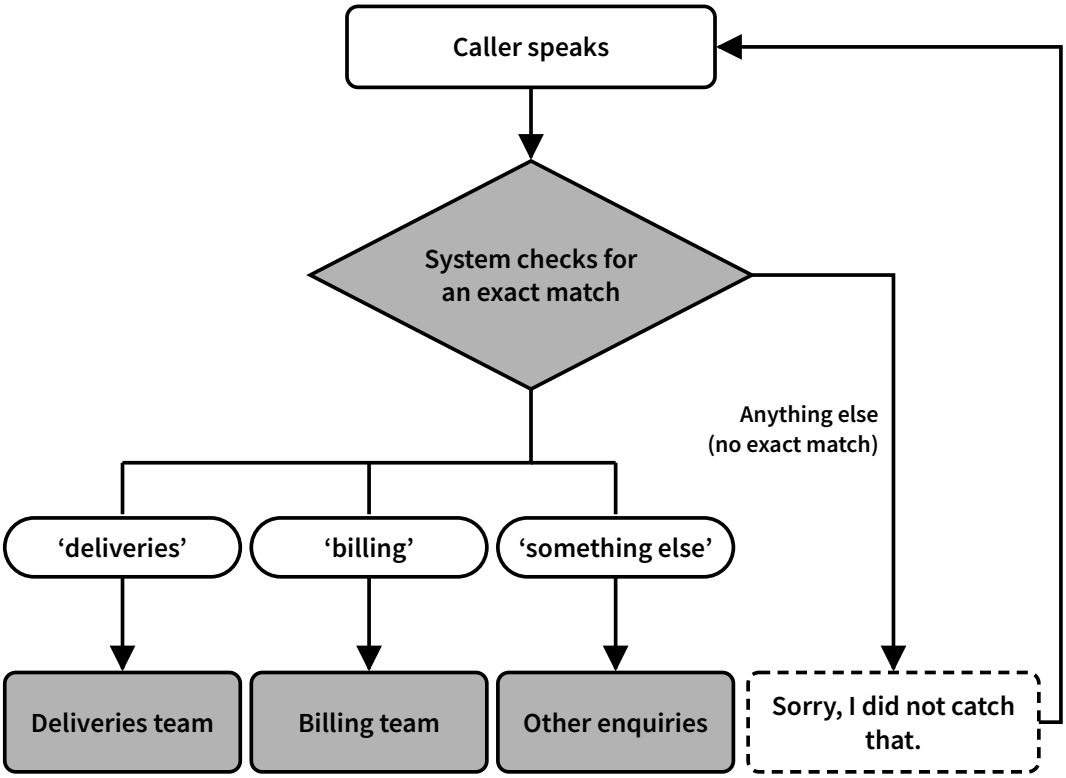


Figure 2.2: A phone menu follows rules someone wrote by hand.

DESCRIPTION

A flowchart starts with a caller speaking to a phone menu. The system checks whether what was said is one of three exact choices. Each exact choice, such as 'deliveries' or 'billing', is sent to its matching department. Anything else goes back to the start with the message 'Sorry, I did not catch that.' The point: a rule-based system follows rules someone wrote by hand, so it fails on anything they did not cover.

Figure 2.3: Why rules break

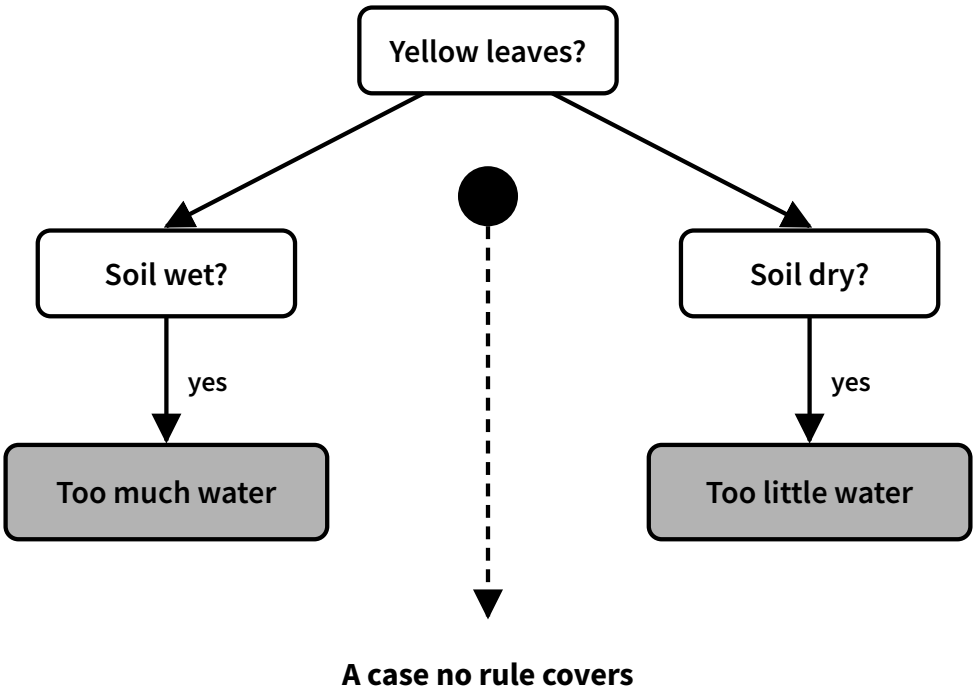


Figure 2.3: Real life brings cases no rule expected.

Description

A tree of rules splits into branches, each branch a rule someone wrote by hand. One unexpected case drops between the branches, where no rule catches it. The point: real life brings cases that no list of rules expected, and a missing bench was one for Declan's menu.

FIGURE 2.4: RULES AGAINST EXAMPLES

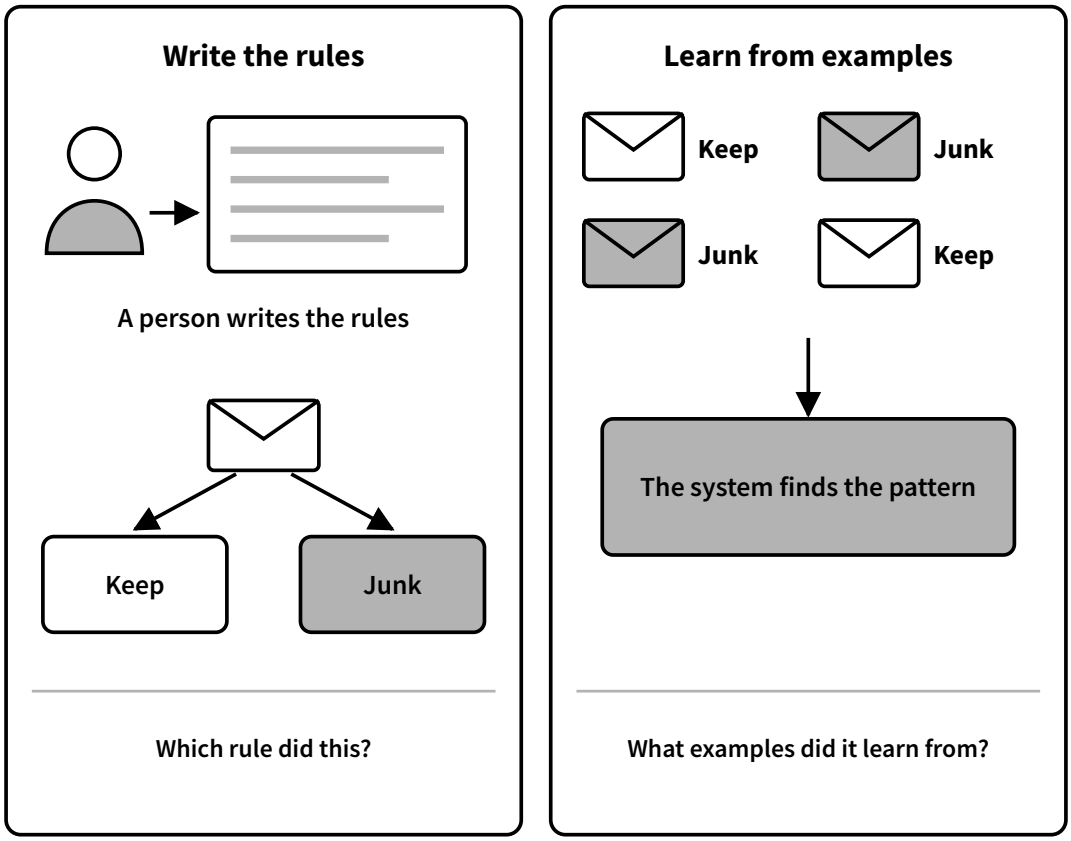
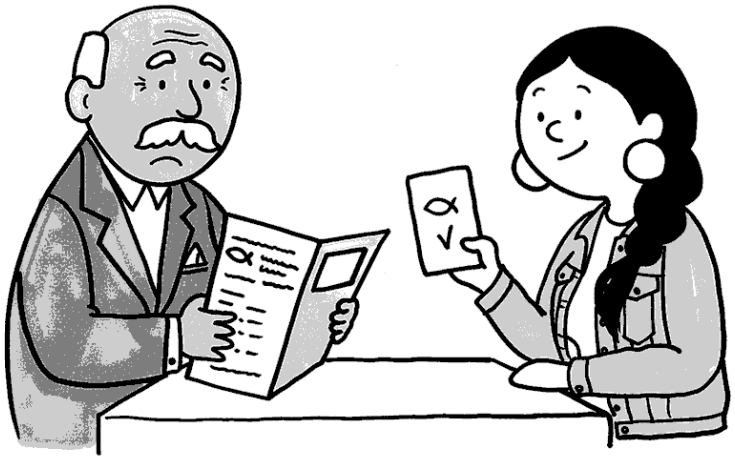


Figure 2.4: Write the rules, or learn them from examples.

DESCRIPTION

Two panels sit side by side with equal weight. On the left, a person writes rules that sort mail into keep and junk. On the right, a pile of messages marked keep or junk goes into a system that finds the pattern for itself. Each panel comes with its own question: for the rules, 'Which rule did this?', and for the system that learns, 'What examples did it learn from?' The point: you can write the rules yourself, or let a system learn them from examples.

Figure 3.51: Word salad



He ordered the fish he had caught today. He had not caught any.

Description

A cartoon of an older man frowning at a menu in a small restaurant, while his daughter smiles beside him and holds up her phone.

FIGURE 3.1: A SMALL NETWORK IN THREE LAYERS

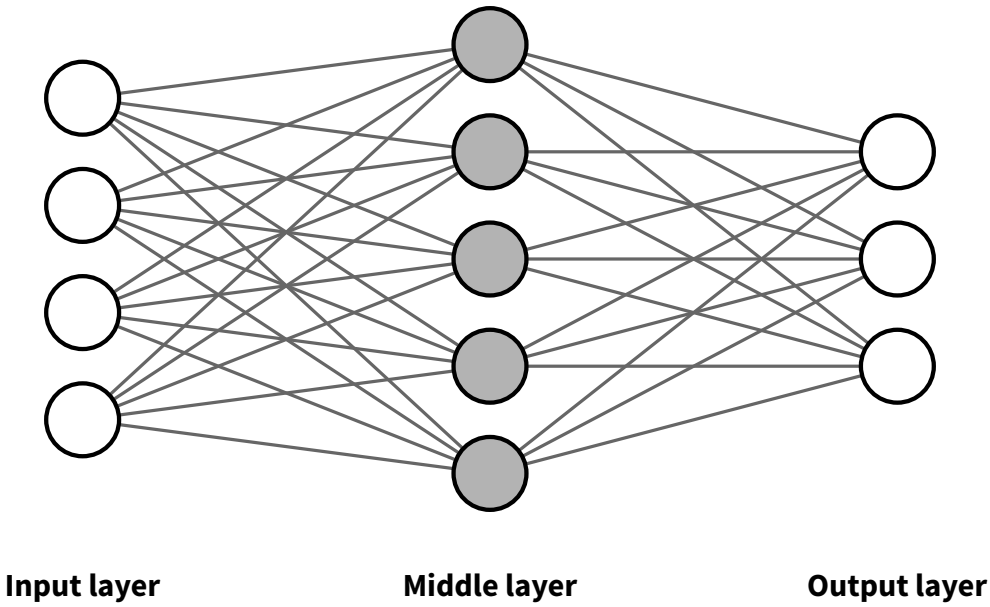


Figure 3.1: A neural network is many simple units in layers.

DESCRIPTION

Three columns of circles, joined by lines, stand for a small network. The left column is the input layer, the middle column is the middle layer and the right column is the output layer. Numbers go in on the left, pass through the middle layer and come out on the right, and every circle in one column is linked to every circle in the next. The point: a neural network is many simple units in layers, and the middle layer is where it combines the clues.

FIGURE 3.2: THREE WAYS TO TEACH A COMPUTER LANGUAGE

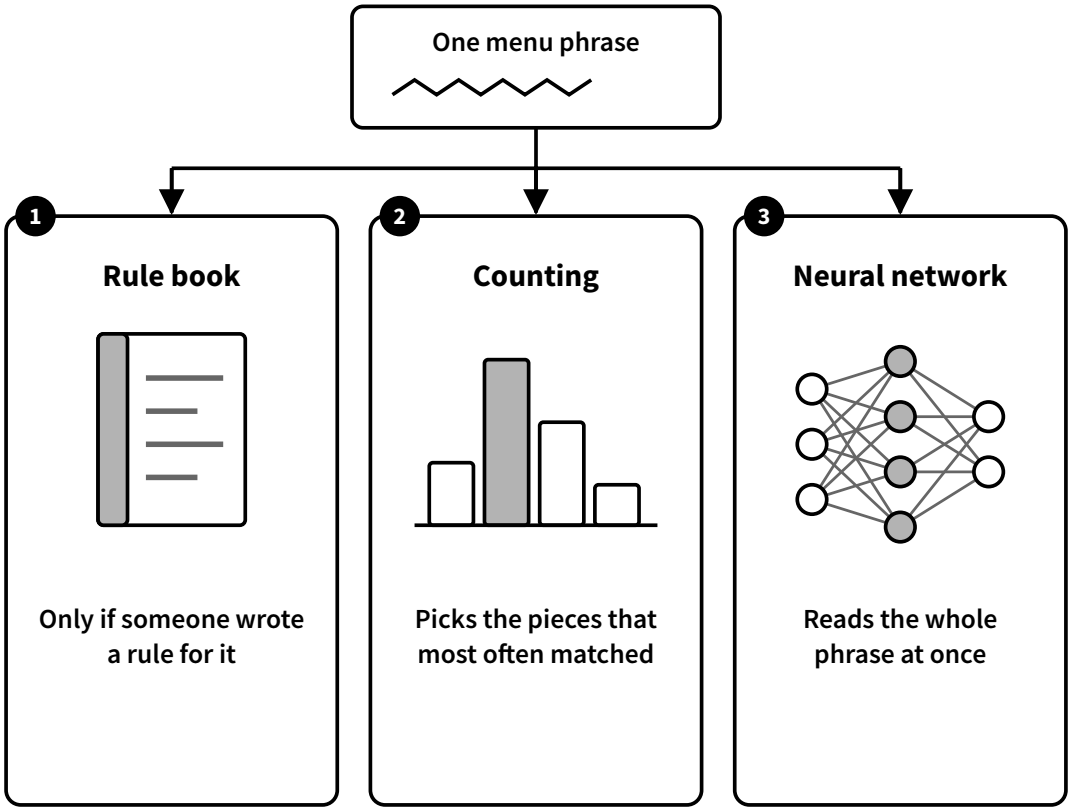


Figure 3.2: Rules, then statistics, then neural networks.

DESCRIPTION

Three panels in a row show one menu phrase translated three ways. In the first, a rule book handles the phrase only if someone wrote a rule for it. In the second, counting picks the pieces that most often matched in translated text. In the third, a neural network works on the whole phrase at once. The point: language tools moved from rules, to statistics, to neural networks, and each way handles the same phrase differently.

Figure 3.3: Attention in one picture

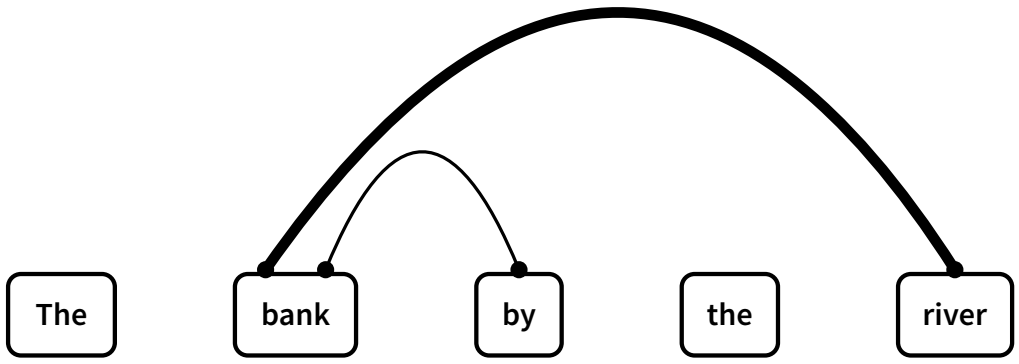


Figure 3.3: Each word looks across at the words that matter to it.

Description

A short sentence is written across the page: the bank by the river. Curved lines run from one word to the other words it pays most attention to, and thicker lines show stronger links. The word 'bank' links strongly to 'river', which settles the riverside meaning. The point: attention lets each word look across at the words that matter to it.

FIGURE 3.4: THE AI STORY, PART 2 OF 2

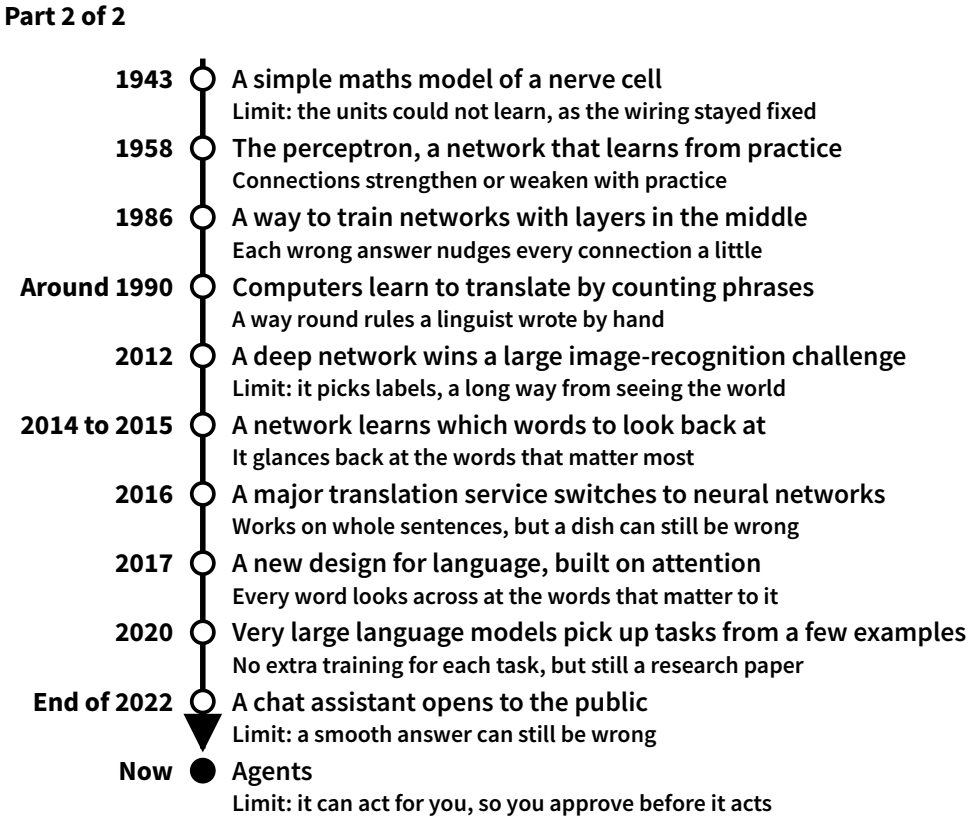


Figure 3.4: The AI story, part 2 of 2: the neural network strand, from 1943 to agents.

DESCRIPTION

A timeline of the neural network side of the story, in date order, shows 11 labelled milestones from 1943 to now, each with a short note on the new limit it brought. It starts in 1943 with a simple mathematical model of a nerve cell, whose units could not learn, then the perceptron in 1958, which could learn from practice, and a way to train networks with layers in the middle in 1986. Around 1990 computers learn to translate by counting phrases, in 2012 a deep network wins a large image-recognition challenge, and in 2014 and 2015 a network learns which words to look back at. A major translation service switches to neural networks in 2016, and a new design for language, built on attention, follows in 2017. Very large language models pick up tasks from a few examples in 2020, a chat assistant opens to the public at the end of 2022, and agents mark now. The point: each step fixed a limit of the one before and brought limits of its own.

TAB-03-01: MY TIMELINE

Table 3.1: Eight milestones and a date from your own life.

DESCRIPTION

Table 3.1: Eight milestones and a date from your own life.

Figure 4.51: Last year's champion



Right race, right duck, wrong year. Said with total confidence.

Description

A cartoon of a rubber duck in a knitted scarf on a winner's podium wearing a sash, while a woman reads a long, very sure answer on her phone.

Figure 4.1: From a library of text to learned patterns

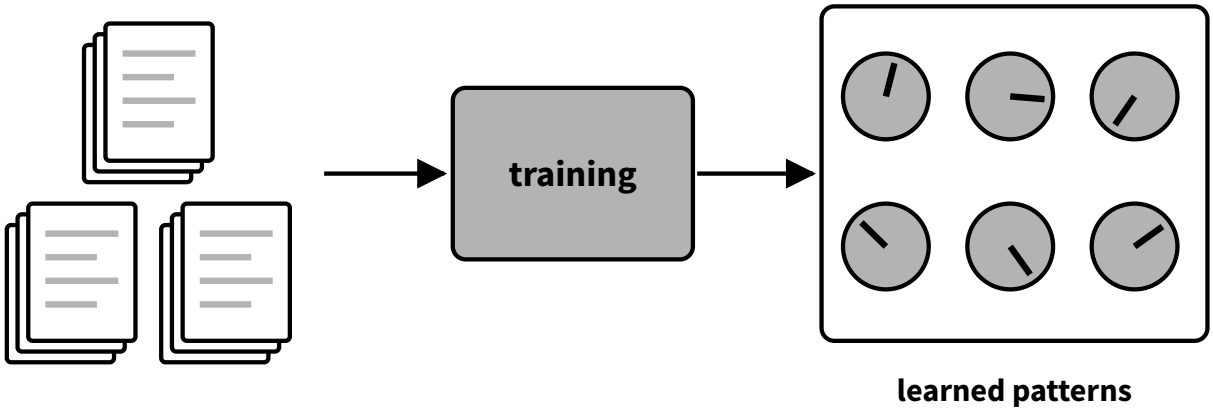


Figure 4.1: Training turns a great deal of text into learned patterns.

Description

Stacks of pages flow into a box labelled training. Out of the box comes a panel of dials labelled learned patterns. The point: what comes out of training is a very large set of learned numbers, the settings of the dials, rather than a copy of the pages.

FIGURE 4.2: TOKENS, THE PIECES IT READS

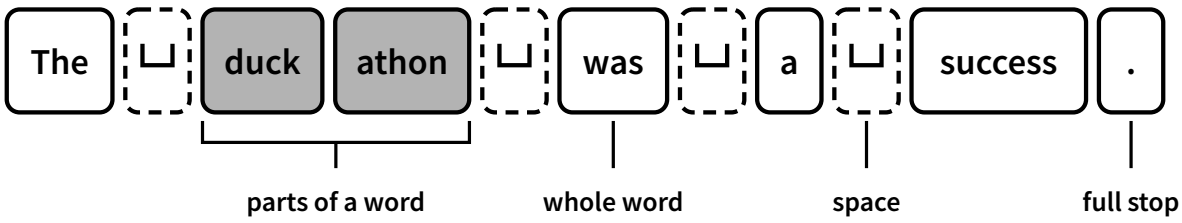


Figure 4.2: A model reads text in small pieces called tokens.

DESCRIPTION

One sentence is shown as a row of boxes, each box holding one piece. Some pieces are whole words, and some are parts of a word. Spaces and full stops get pieces of their own. The point: a model reads text in small pieces called tokens, and each system cuts text in its own way, so this split is only an example.

FIGURE 4.3: THE NEXT LIKELY WORD

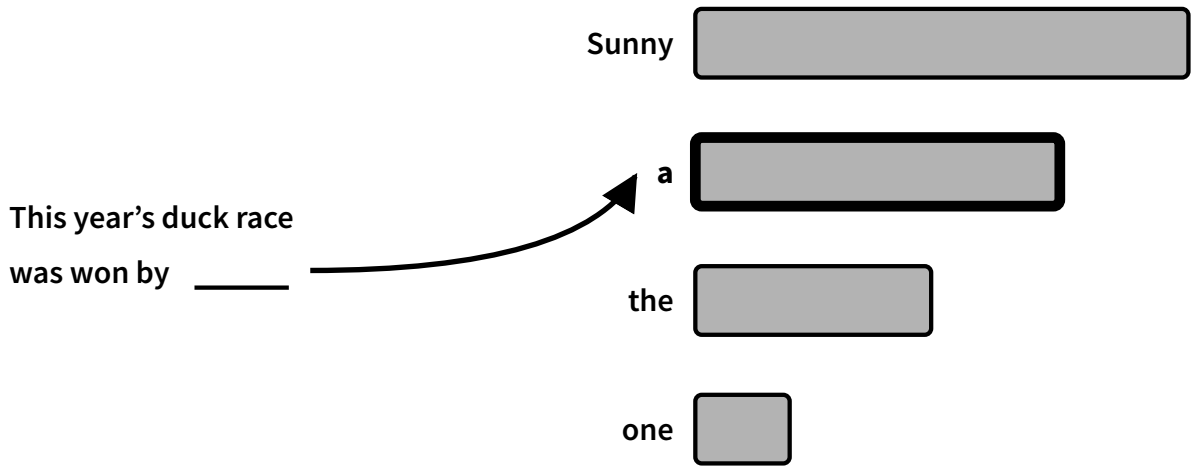


Figure 4.3: It writes the next likely word, again and again.

DESCRIPTION

A part sentence ends in a gap. Beside it stand four candidate words, each shown as a bar, and a longer bar means a more likely word. An arrow picks one of the longer bars, though not always the longest. The point: the model writes one likely next word at a time, which is why the same question can get two different answers.

Figure 4.52: Beautifully wrong



Smooth, polite and completely wrong.

Description

A cartoon of a woman at a desk staring, stunned, at her phone as it finishes a complaint letter to her landlord with a party popper where the sign-off should be.

FIGURE 4.4: WHAT IT KNOWS HAS AN EDGE

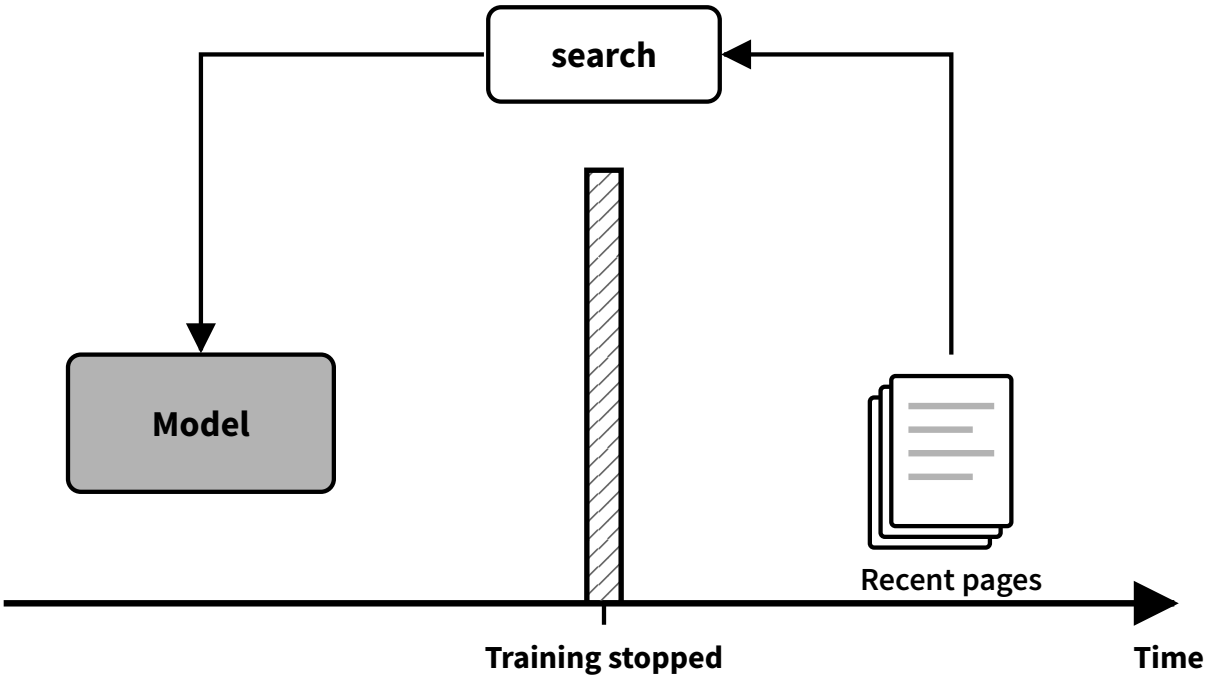


Figure 4.4: What a model knows stops where its training stopped, unless a tool fetches more.

DESCRIPTION

A line runs left to right in time. A wall across the line marks the point where training stopped, and everything to the left of it could go into training. A box labelled search reaches over the wall to recent pages and brings them back to the model. The point: what a model knows stops where its training stopped, unless a tool such as search carries more across.

Figure 4.5: The context window

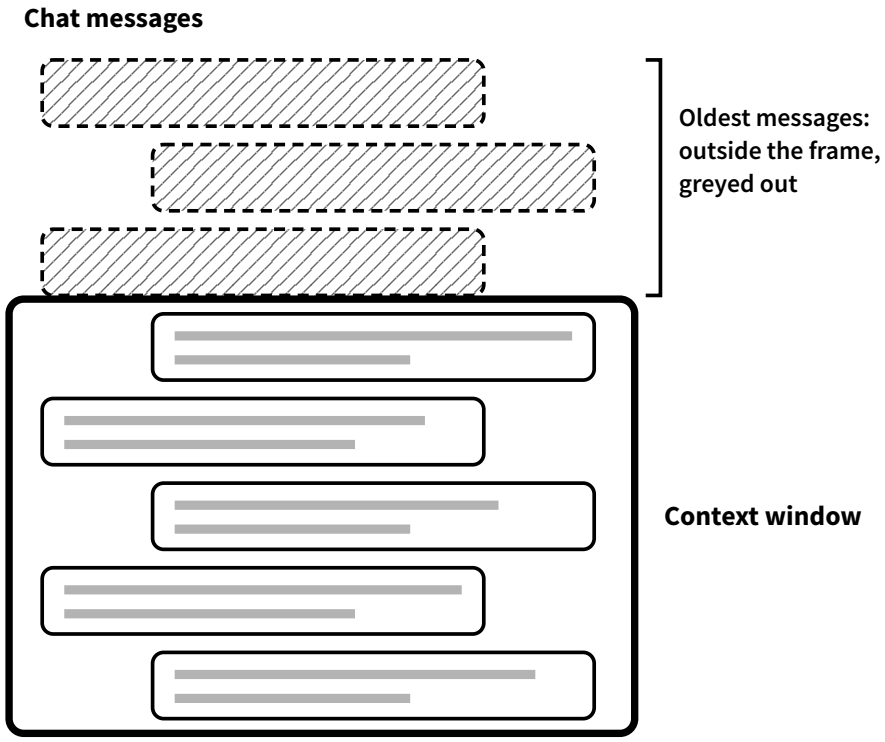


Figure 4.5: In a long chat, the earliest details slide out of view.

Description

A long column of chat messages runs down the page, with a frame around the most recent ones. The oldest messages at the top sit outside the frame and are greyed out. The frame is the context window, and it moves down the chat as the conversation grows. The point: in a long chat the earliest details slide out of view, so a detail you gave at the start can go missing.

Figure 5.51: The AI agent that was a timer



Same timer, new sticker.

Description

A cartoon of a man on an allotment holding a kitchen timer with a large blank sticker on its front, while his watering can sits empty and dry.

FIGURE 5.1: ONE MODEL, MANY PRODUCTS

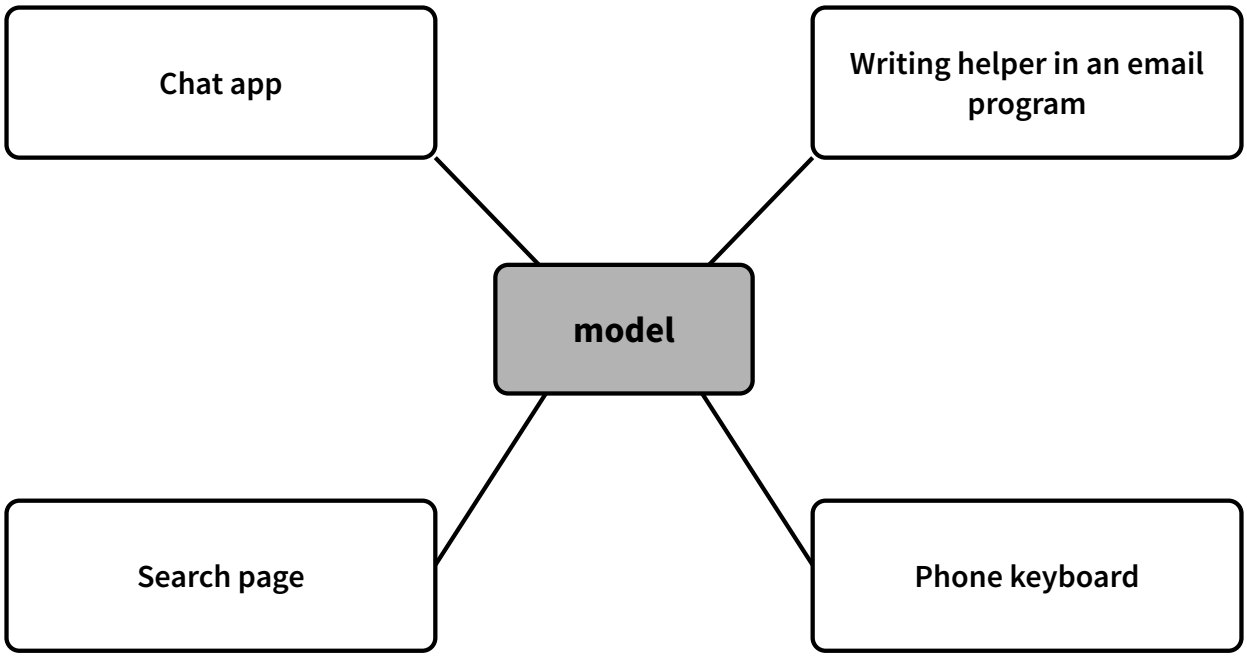


Figure 5.1: The same model can sit inside many products.

DESCRIPTION

One box labelled model sits in the middle. Lines run out from it to four boxes around it: a chat app, a writing helper in an email program, a search page and a phone keyboard. The point: a model is not a product, and the same model can sit inside many different products.

Figure 5.2: Prompt and context

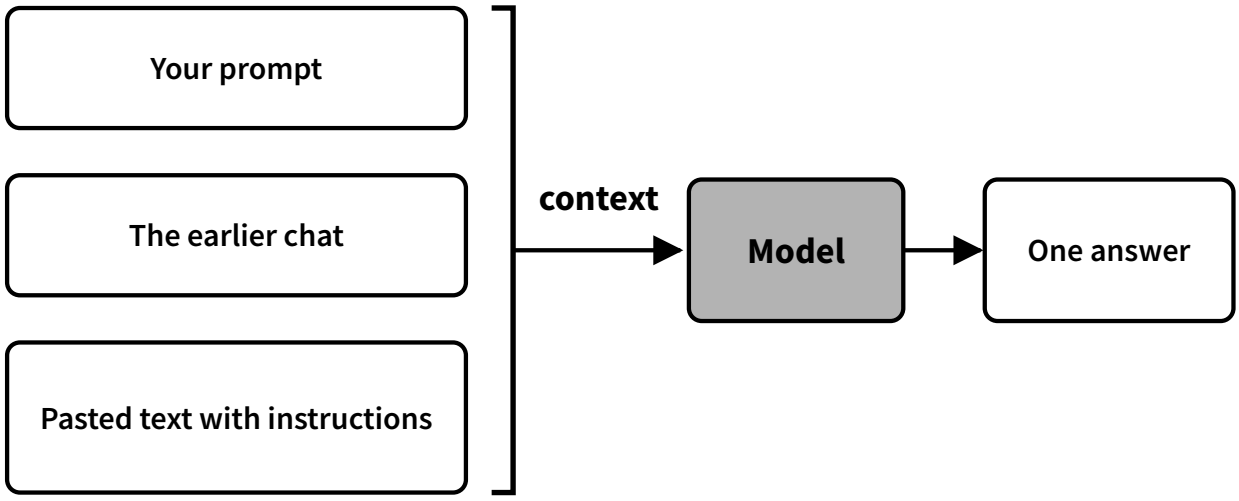


Figure 5.2: The answer depends on your prompt and everything else in the context.

Description

Three inputs flow into a model: your prompt, the earlier chat, and pasted text with instructions. Together the three are labelled context. One answer comes out of the model. The point: the answer is shaped by your prompt and everything around it, so the same prompt in a richer context can give a better answer.

TAB-05-01: SIX WORDS, THREE PLACES

Table 5.1: Six words, as news stories, product pages and formal texts use them, and as this book does.

DESCRIPTION

Table 5.1: Six words, as news stories, product pages and formal texts use them, and as this book does.

FIGURE 5.3: THREE WAYS A SYSTEM CAN ACT

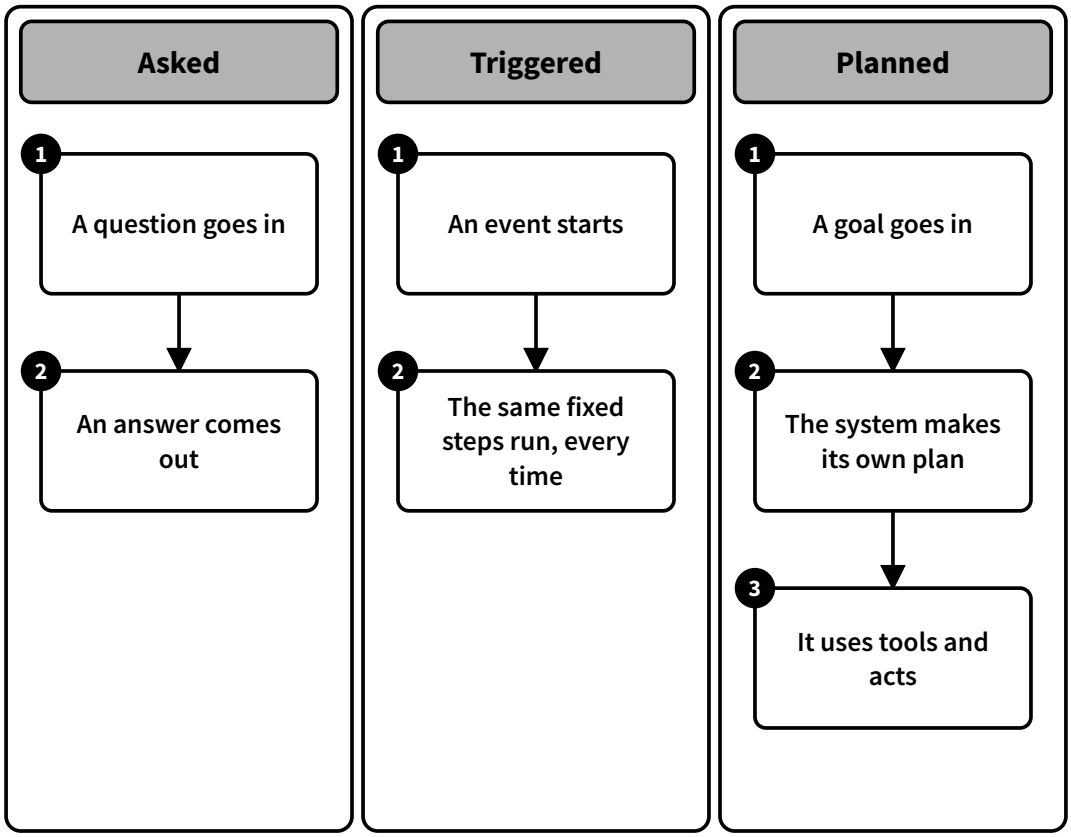


Figure 5.3: Asked, triggered or planned: three ways a system can act.

DESCRIPTION

Three lanes stand side by side. In the first, Asked, a question goes in and an answer comes out. In the second, Triggered, an event starts the same fixed steps every time. In the third, Planned, a goal goes in, the system makes its own plan, uses tools and acts. The point: a chat assistant answers when asked, an automation runs fixed steps when something happens, and an agent plans its own steps.

FIGURE 5.4: THREE QUESTIONS FOR ANY TOOL

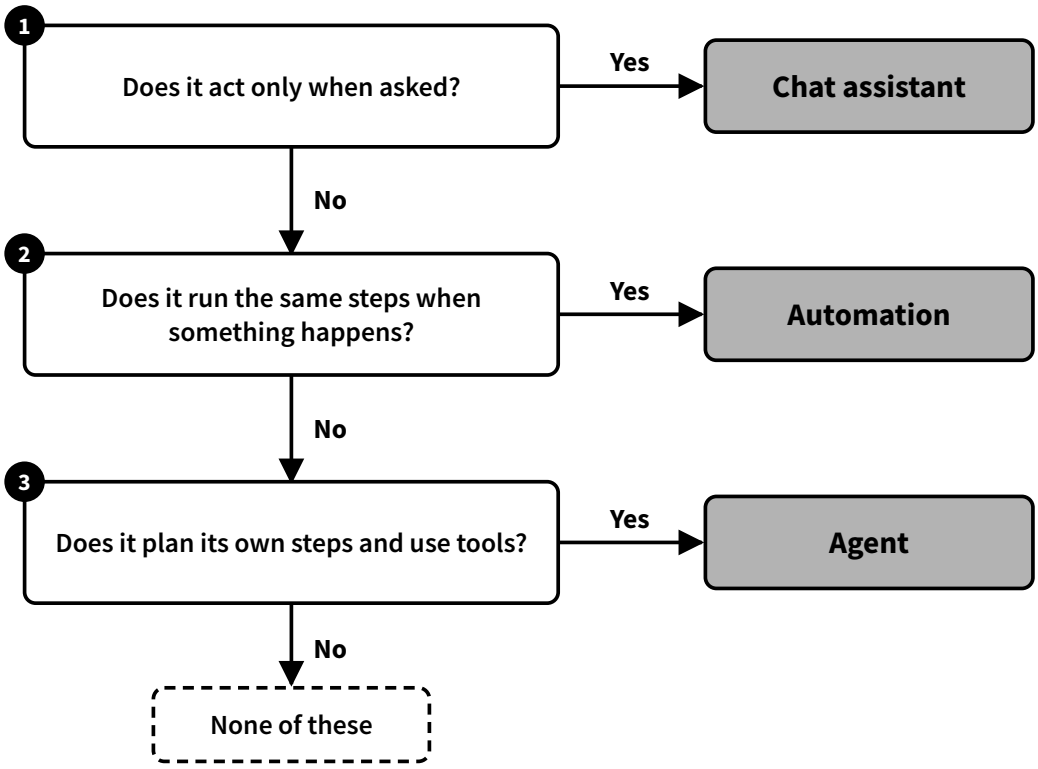


Figure 5.4: Three questions tell the kinds apart.

DESCRIPTION

A flowchart of three yes or no questions is asked in a chain. The first is whether it acts only when asked, and a yes leads to chat assistant. If not, the second is whether it runs the same steps when something happens, and a yes leads to automation. If not, the third is whether it plans its own steps and uses tools, and a yes leads to agent. The point: three questions are enough to tell the three kinds apart.

Figure 6.1: The Ladder Loop

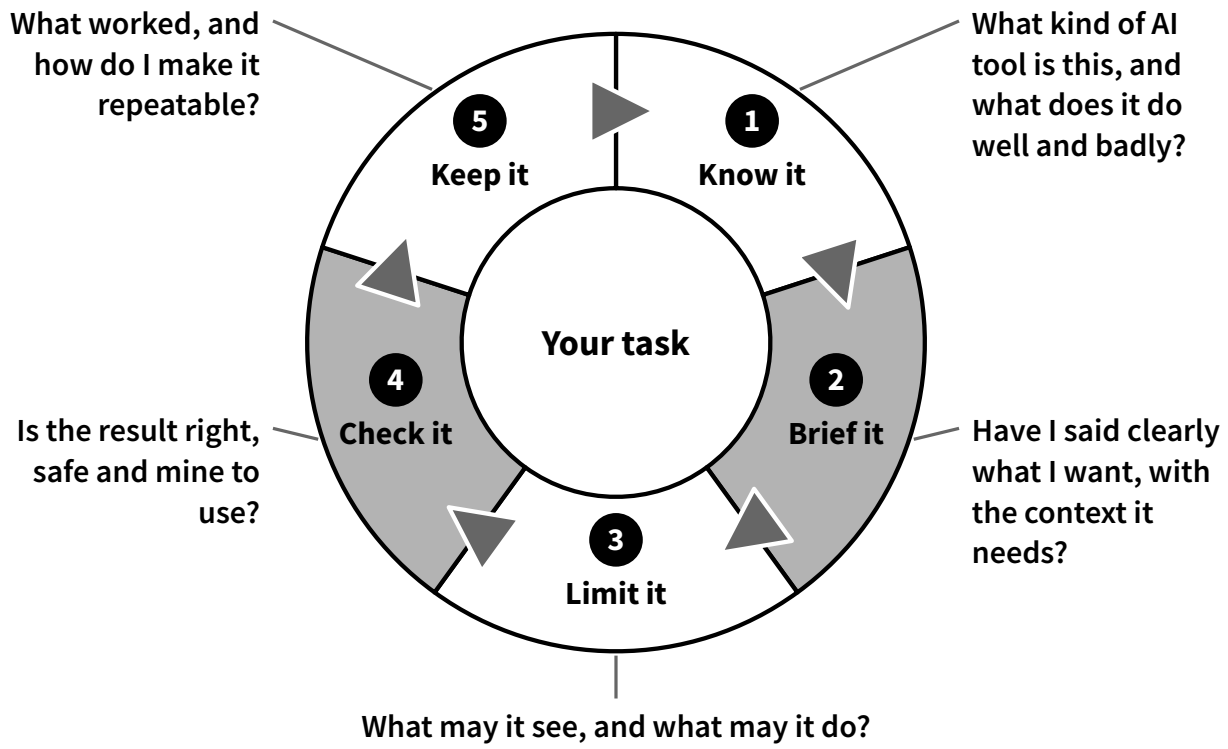


Figure 6.1: The Ladder Loop: five steps, and Keep it leads back to Know it.

Description

A ring of five equal steps is read clockwise from the top: 1 Know it, 2 Brief it, 3 Limit it, 4 Check it and 5 Keep it. Each step has its question outside the ring. Know it asks what kind of AI tool this is and what it does well and badly, and Brief it asks whether you have said clearly what you want, with the context it needs. Limit it asks what it may see and what it may do, Check it asks whether the result is right, safe and mine to use, and Keep it asks what worked and how to make it repeatable. Your task sits in the middle, and an arrow from Keep it leads back to Know it. The point: the ring has no end, so each task starts a little better than the last.

Figure 6.51: Right tool, first time



The timetable was right there all along.

Description

A cartoon of a woman with a cello case at a bus stop reading a vague answer on her phone, while a bus timetable on the shelter wall shows the real times.

TAB-06-01: KINDS OF AI TOOL

Table 6.1: The main kinds of AI tool and what each is for.

DESCRIPTION

Table 6.1: The main kinds of AI tool and what each is for.

Figure 6.2: What a tool can see

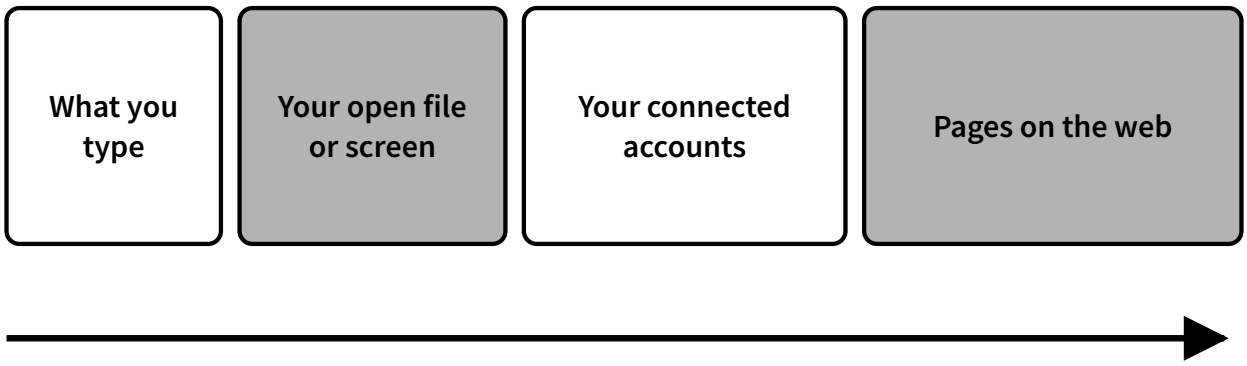


Figure 6.2: Different kinds of tool can see different amounts.

Description

Four boxes stand in a row, each wider than the last: what you type, your open file or screen, your connected accounts, and pages on the web. The point: the reach grows from left to right, and the further right a tool reaches, the more care you need over what it can open.

Figure 6.3: Match the job to the tool

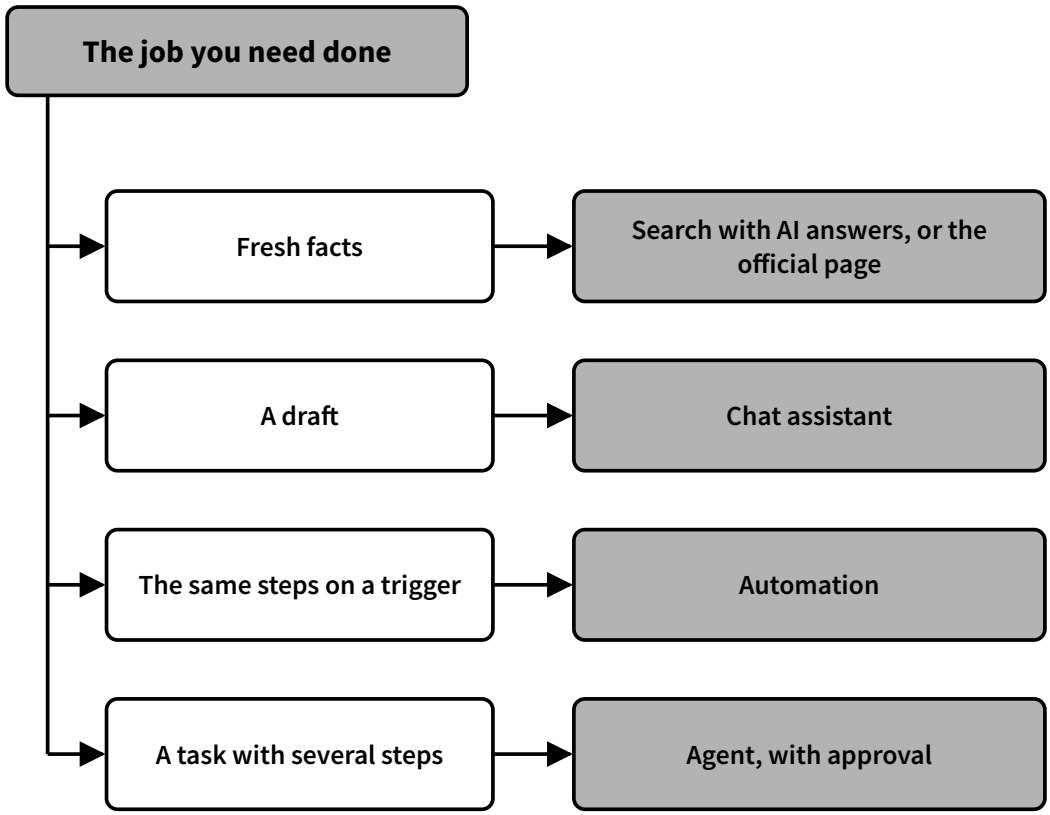


Figure 6.3: Start from the job, then pick the kind of tool.

Description

A flowchart starts from the job you need done. Fresh facts lead to search with AI answers, or straight to the official page. A draft leads to a chat assistant. The same steps on a trigger lead to an automation. A task with several steps leads to an agent, used with your approval at each important step. The point: start from the job, then pick the kind of tool.

TAB-06-02: MY TOOL CARD

Table 6.2: A tool card to fill in for one tool.

DESCRIPTION

Table 6.2: A tool card to fill in for one tool.

Figure 7.51: To whom it may concern



Regarding water. Firmly.

Description

A cartoon of a man beside a blue saucepan catching drips from the ceiling, frowning at a stiff printed letter with blank lines where the words would be.

Figure 7.1: The four parts of a brief

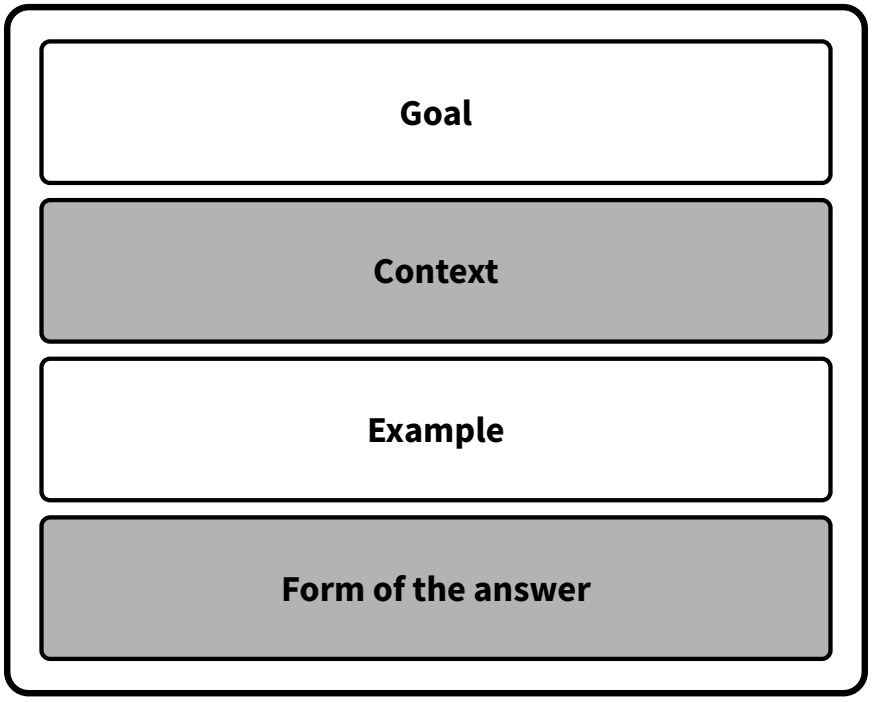
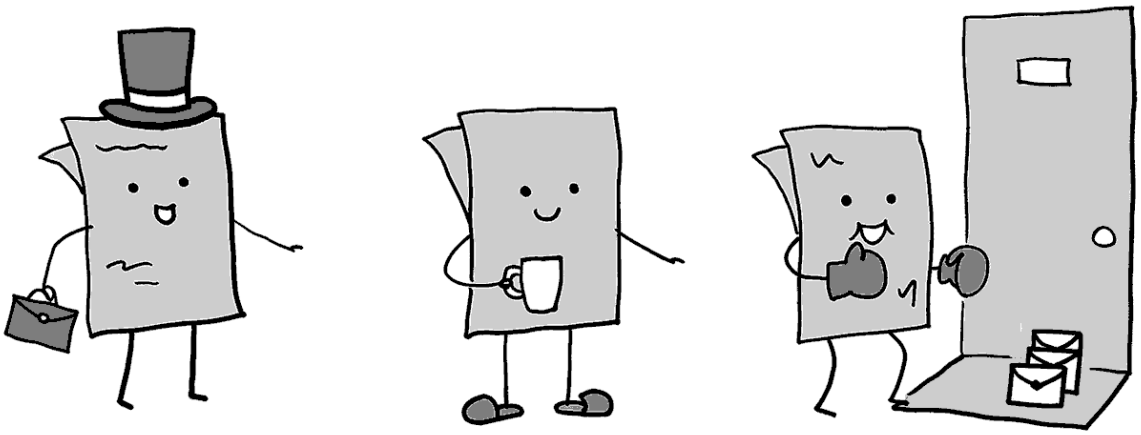


Figure 7.1: A brief has four parts: goal, context, example and form.

Description

Four labelled blocks are stacked into one card: goal, context, example and the form of the answer. The goal is what you want done. The context is the background it needs. The example shows what you are after, and the form is the shape of the answer, such as a short letter or five bullet points. The point: a brief has four parts, though you do not need all four every time.

Figure 7.52: Who is it for?



Same leak, three readers.

Description

A cartoon of one letter shown three times, dressed in a top hat for a solicitor, in slippers for a neighbour and in boxing gloves for a landlord who has ignored three emails.

Figure 7.2: When the first answer misses

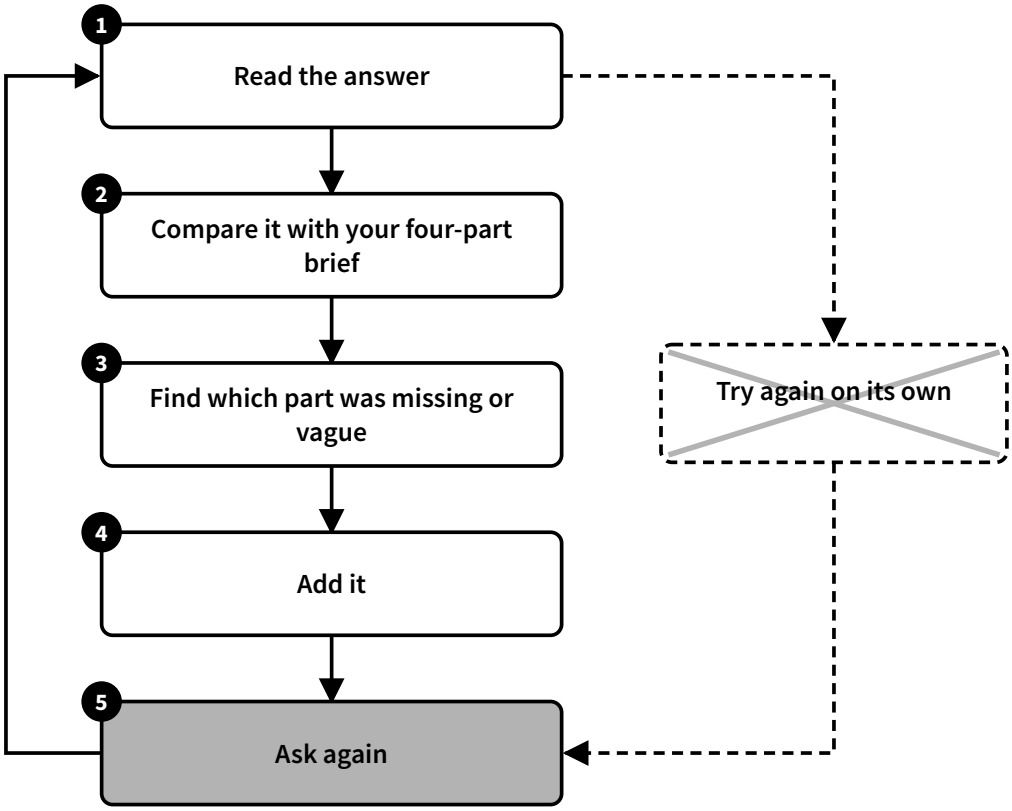


Figure 7.2: Fix the brief, not just the answer.

Description

A flowchart shows how to ask again. You read the answer, compare it with your four-part brief, find which part was missing or vague, add it, and ask again. A crossed-out box shows 'try again' on its own. The point: fix the brief, not just the answer, because another roll of the dice is a poor bet.

TAB-07-01: FEMI'S LETTER, BEFORE AND AFTER

Table 7.1: The bare request against the full brief.

DESCRIPTION

Table 7.1: The bare request against the full brief.

TAB-07-02: A PROMPT NOTEBOOK PAGE

Table 7.2: The five fields of a prompt notebook page.

Description

Table 7.2: The five fields of a prompt notebook page.

TAB-07-03: SAME TASK, THREE BRIEFS

Table 7.3: One task, three briefs.

DESCRIPTION

Table 7.3: One task, three briefs.

FIGURE 8.51: THE MARMALADE KNOWS



Even the marmalade thinks that is too much detail.

DESCRIPTION

A cartoon of a letter held flat under a jar of marmalade, a finger hovering over a paste button, and the jar looking worried.

Figure 8.1: What happens to what you type

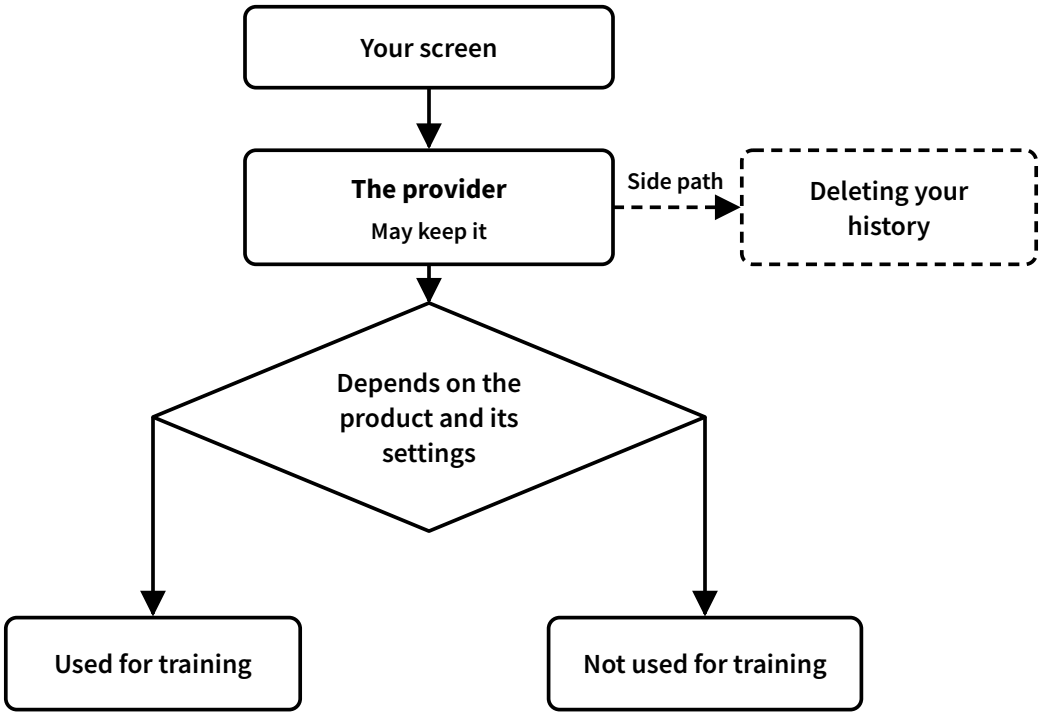


Figure 8.1: What happens to a message depends on the product and its settings.

Description

A flowchart follows one message. It goes from your screen to the provider, which may keep it. A fork marked 'depends on the product and its settings' leads to two outcomes: used for training or not used for training. A side path leads to deleting your history. The point: what happens to a message depends on the product and its settings, so check yours.

TAB-08-01: TAKING THE NAMES OUT

Table 8.1: Private details and what to write instead.

DESCRIPTION

Table 8.1: Private details and what to write instead.

Figure 8.2: May see and may do

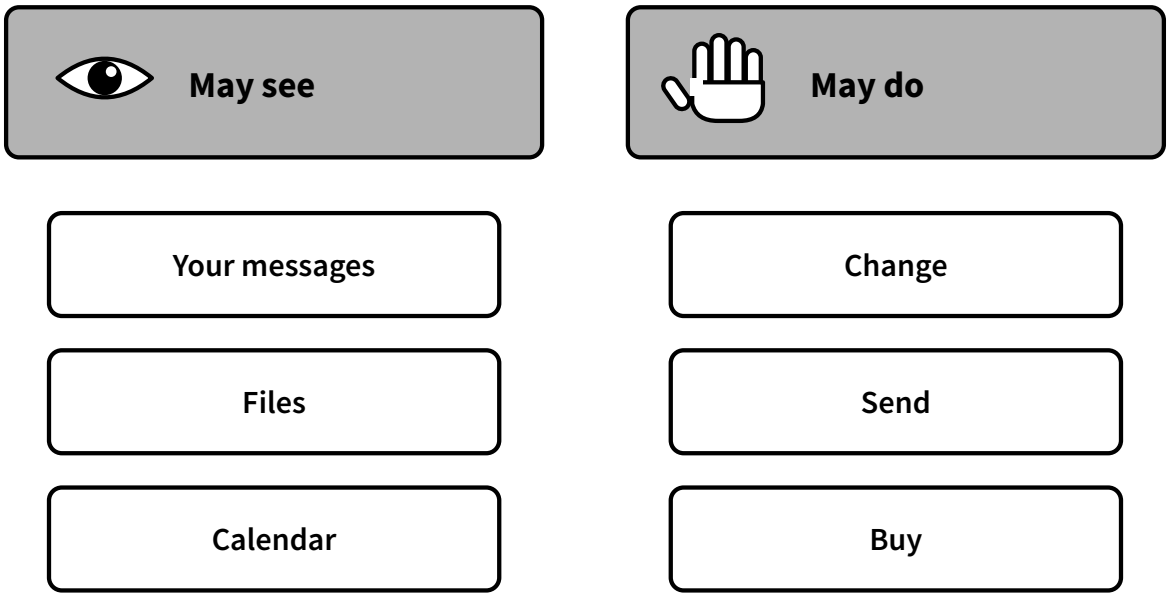


Figure 8.2: Permissions come in two kinds: what it may see and what it may do.

Description

Two columns sit side by side. The first, May see, is marked with an eye and lists examples: your messages, files and calendar. The second, May do, is marked with a hand and lists examples: change, send and buy. The point: permissions come in two kinds, what a tool may see and what it may do, and some connections only let the assistant look while others let it act.

tab-08-02: Every change and its undo

Table 8.2: Write the undo before you change anything.

Description

Table 8.2: Write the undo before you change anything.

FIGURE 8.3: APPROVE BEFORE IT ACTS

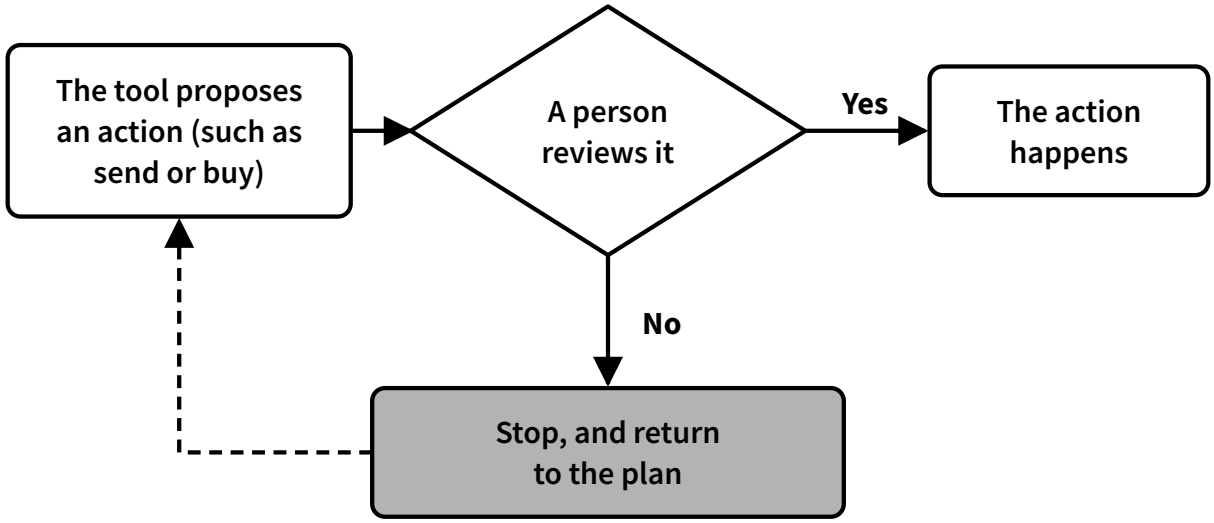
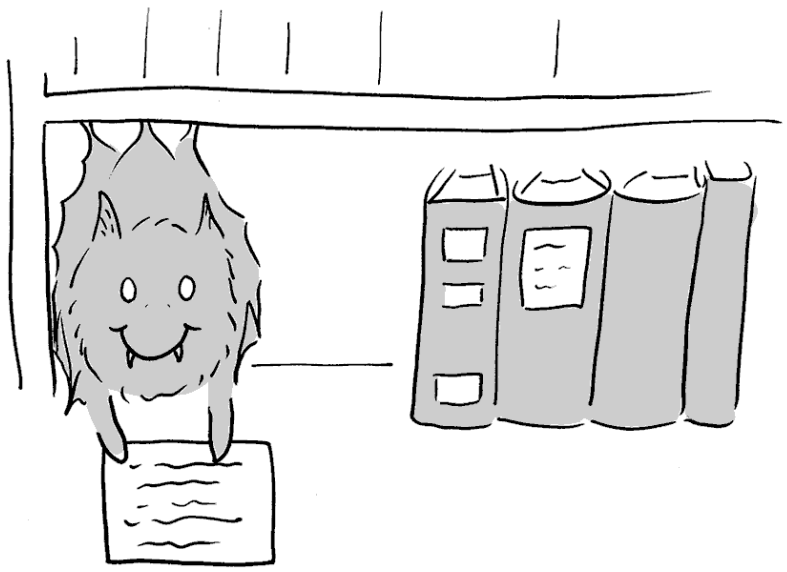


Figure 8.3: Approve before it acts: the tool proposes, you decide.

DESCRIPTION

A flowchart starts with the tool proposing an action, such as send or buy. A person reviews it. A yes arrow lets the action happen, and a no arrow stops it and returns to the plan. The point: approve before it acts, so the tool proposes and you decide.

Figure 9.51: The missing references



The reference looked perfect. So did the empty shelf.

Description

A cartoon of a bat hanging upside down beside a library shelf, holding a reference card for a book that is not on the shelf.

FIGURE 9.52: THE CONFIDENT GUIDE



He has never been more certain, or more wrong.

DESCRIPTION

A cartoon of a cheerful tour guide pointing a group firmly towards the sea, while a sign behind him points the other way to the castle.

Figure 9.1: What a confident mistake looks like

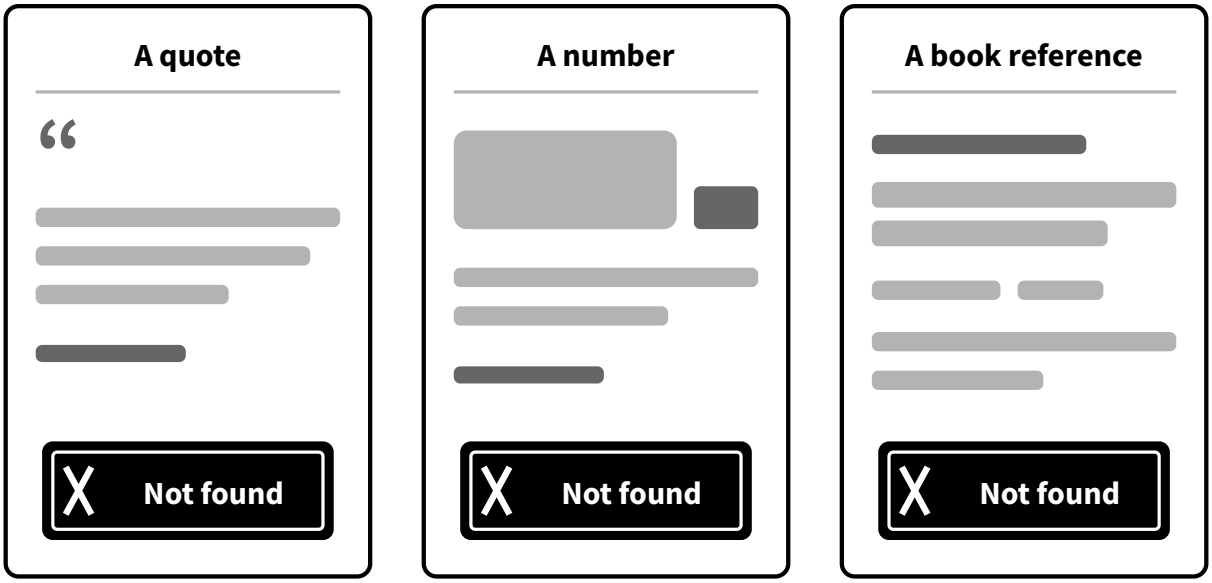


Figure 9.1: Invented quotes, numbers and references look as neat as real ones.

Description

Three cards stand side by side: a quote, a number and a book reference. Each is neatly set out, as tidy as a real one. A stamp on each card reads 'not found', which is what you get when you check. The three cards are made up for this book, so none of them exists. The point: an invented quote, number or reference looks as neat as a real one, so you cannot tell by looking and have to check.

FIGURE 9.2: MATCH THE CHECKING TO THE STAKES

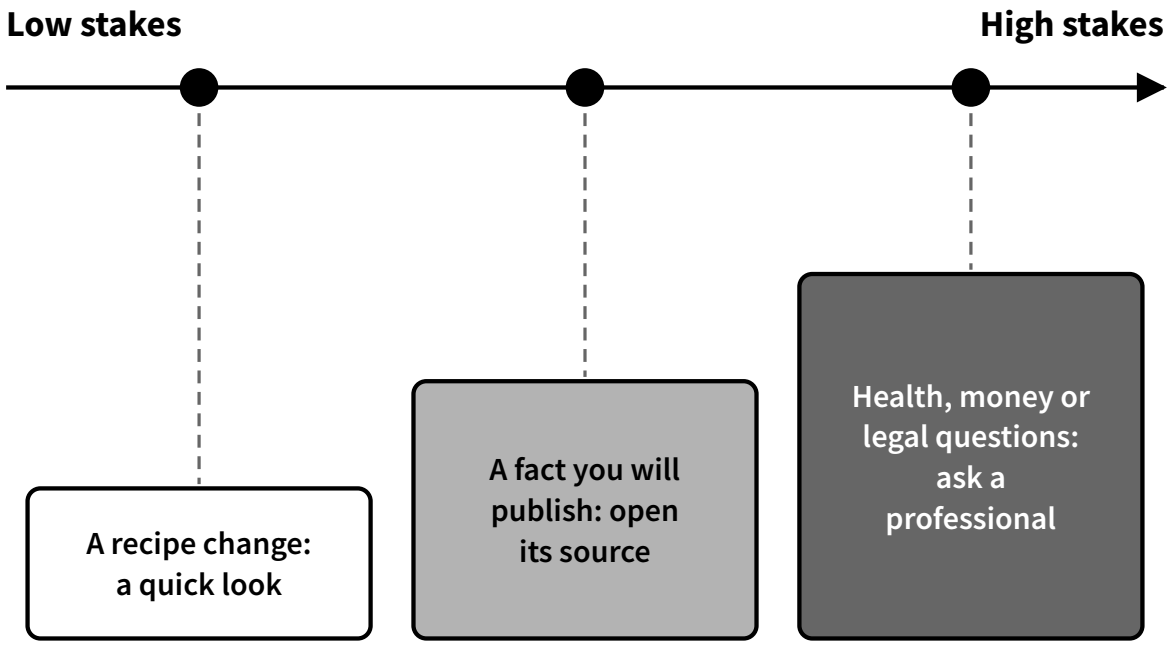


Figure 9.2: The higher the stakes, the further you check.

DESCRIPTION

A scale runs from low stakes to high stakes, with three marked points. A recipe change gets a quick look. A fact you will publish gets its source opened. Health, money or legal questions go to a professional. The point: the higher the stakes, the further you check.

FIGURE 9.3: OPEN THE SOURCE

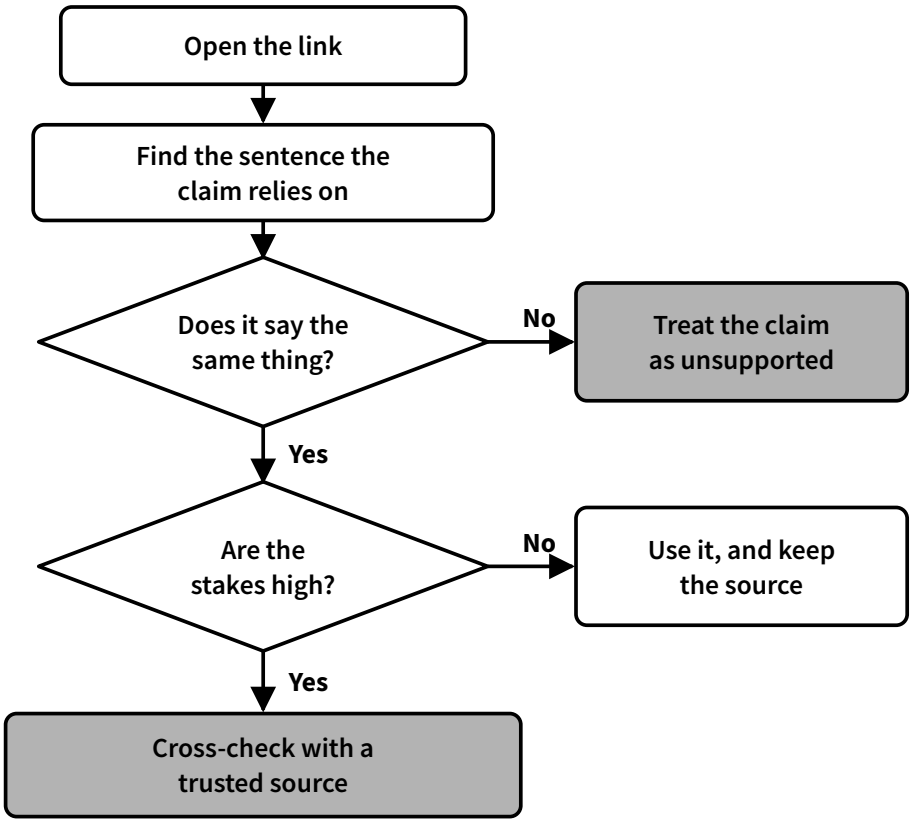


Figure 9.3: A link is not proof until you have read what it says.

DESCRIPTION

A flowchart begins with opening the link. Next you find the sentence the claim relies on and ask whether it says the same thing. If it does not, you treat the claim as unsupported. If it does, a further question asks about the stakes, and when they are high you cross-check with a trusted source. The point: a link is not proof until you have read what it says.

TAB-09-01: THREE MARKS FOR A SOURCE

Table 9.1: Three marks for every source.

DESCRIPTION

Table 9.1: Three marks for every source.

TAB-10-01: A FILLED NOTEBOOK ENTRY

Table 10.1: A filled-in notebook entry.

DESCRIPTION

Table 10.1: A filled-in notebook entry.

Figure 10.1: How the loop goes round

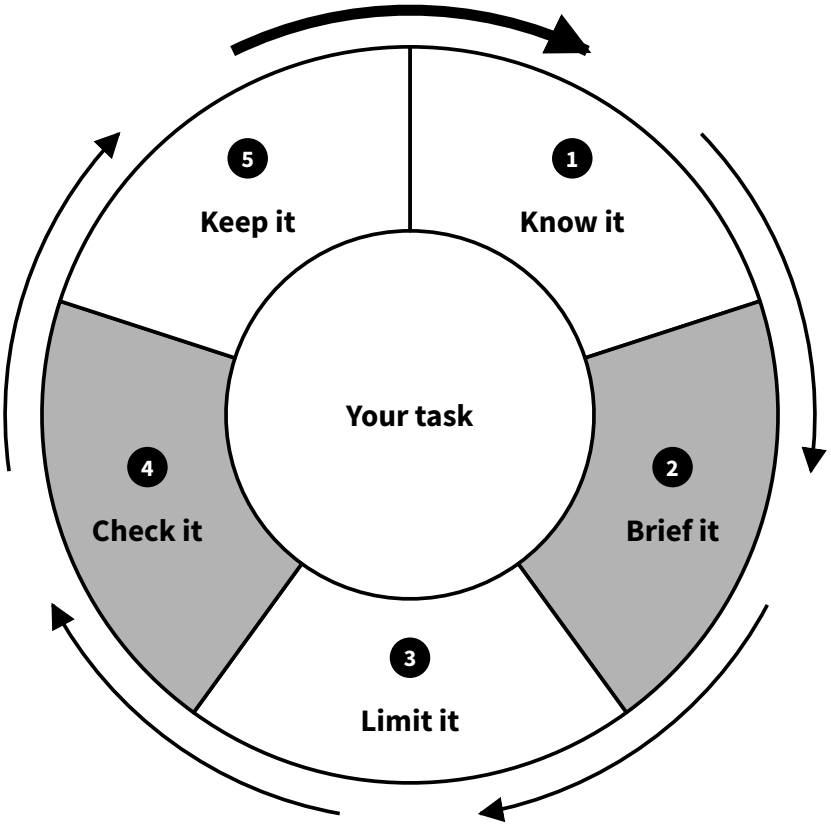


Figure 10.1: The same ring, with the arrow from Keep it back to Know it drawn heavier.

Description

The Ladder Loop ring appears again, with its five steps, Know it, Brief it, Limit it, Check it and Keep it, and Your task in the middle. The arrow from Keep it back to Know it is drawn heavier than the other four. The point: that arrow carries what you learned into the next task, so each task starts a little better than the last.

Figure 10.2: From one good result to a routine

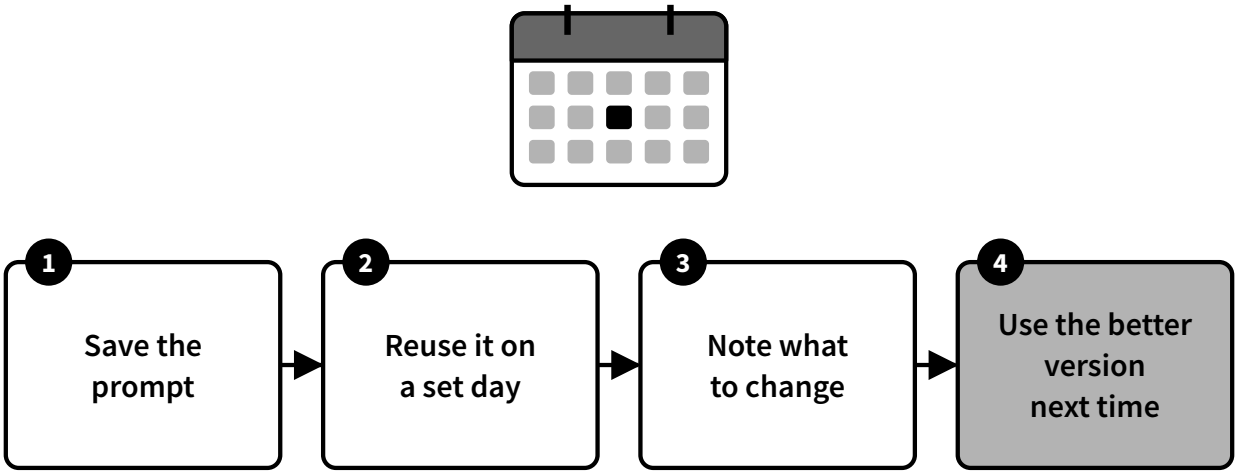
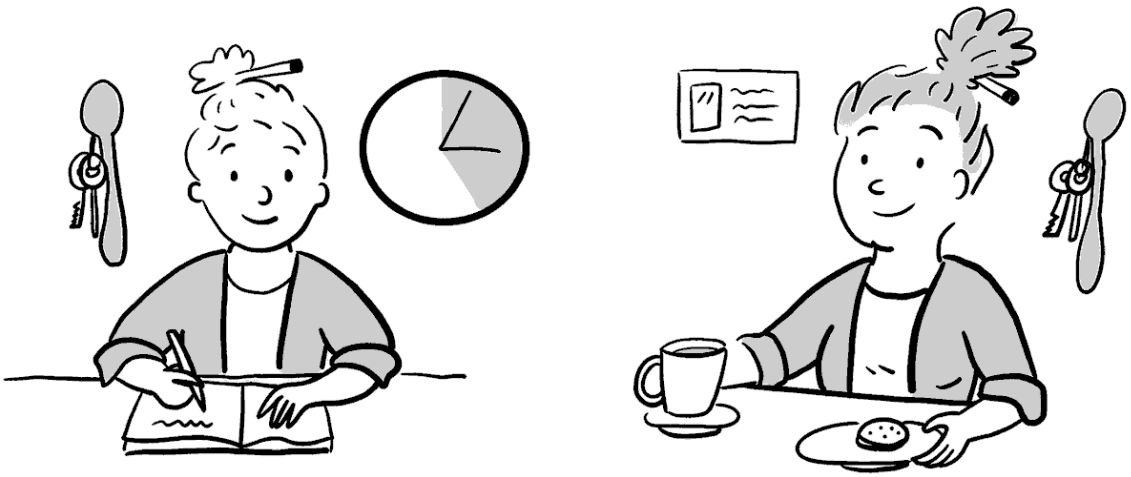


Figure 10.2: One saved prompt can become a weekly routine.

Description

A row of four steps sits under a small calendar: save the prompt, reuse it on a set day, note what to change, and use the better version next time. The point: one saved prompt can become a routine.

Figure 10.51: Twelve minutes saved



Twelve minutes saved. All of them spent wisely.

Description

A cartoon of a woman writing in a notebook, then sitting back with a cup of tea and a biscuit.

TAB-10-02: YOUR SAFE-USE CHECKLIST CARD

Table 10.2: Your safe-use checklist.

DESCRIPTION

Table 10.2: Your safe-use checklist.

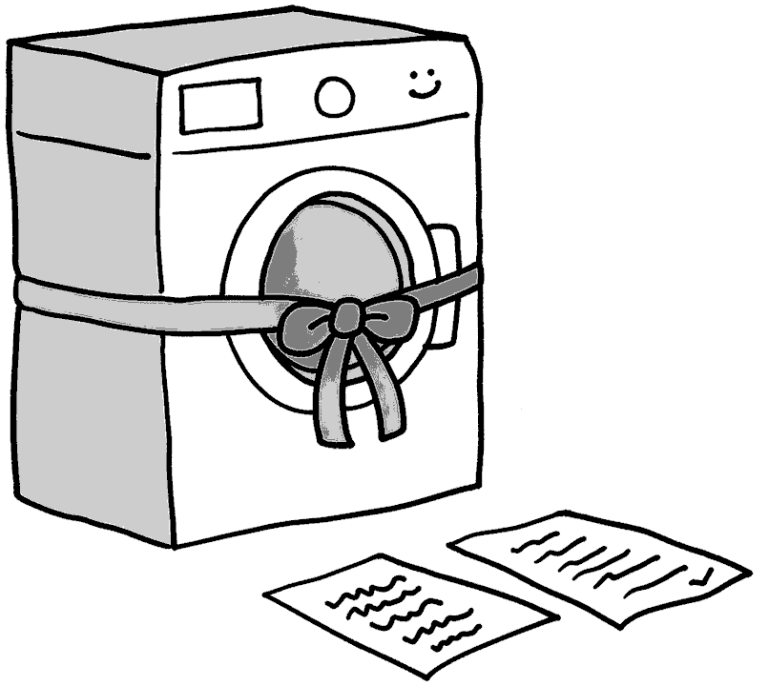
TAB-10-03: WHAT EACH LATER RUNG ADDS

Table 10.3: Every rung adds detail under the same five steps.

DESCRIPTION

Table 10.3: Every rung adds detail under the same five steps.

Figure 11.51: Angry notes, calm letter



Three weeks of fury, one calm page.

Description

A cartoon of a washing machine tied shut with a dressing-gown belt, beside a page of furious scribbled notes and a neat calm letter.

Figure 11.1: From your notes to a letter you send

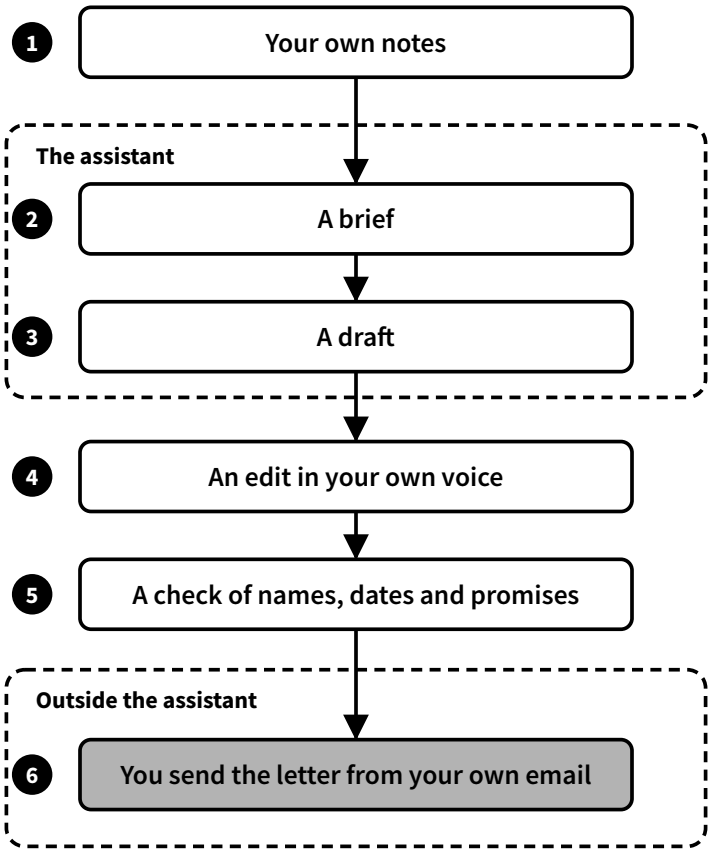


Figure 11.1: Your notes first; you send it, not the assistant.

Description

A flowchart runs from your own notes to a brief, then to a draft, then to an edit in your own voice, and then to a check of names, dates and promises. The last step sits outside the assistant: you send the letter from your own email. The point: your notes come first, and you send the letter, not the assistant.

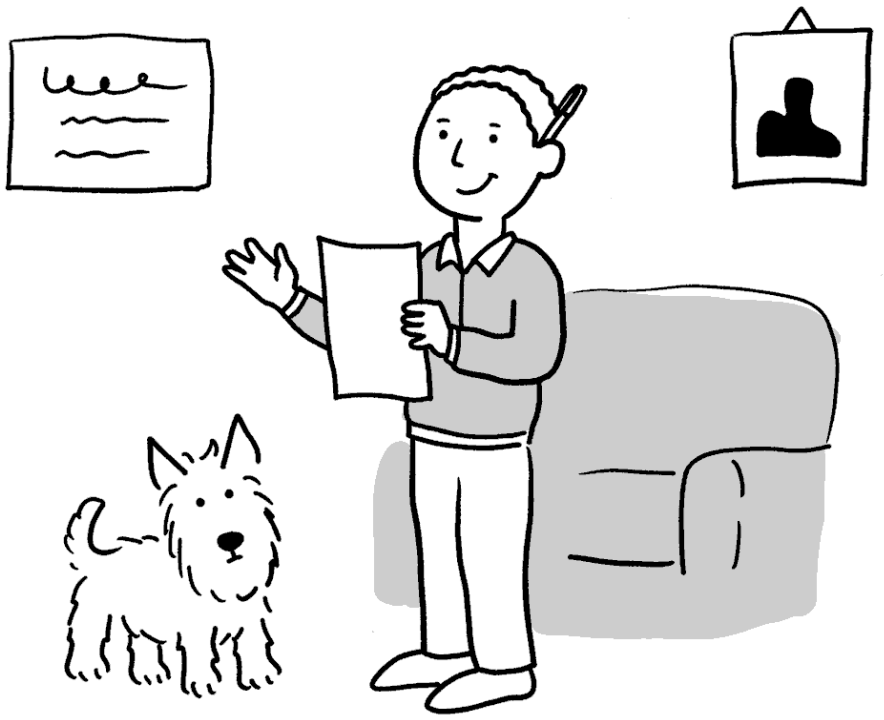
TAB-11-01: DONE BADLY, DONE WELL: WRITING

Table 11.1: Four faults and their fixes.

DESCRIPTION

Table 11.1: Four faults and their fixes.

Figure 11.52: Not like you at all



Even the dog knows you would never say 'I trust this finds you well'.

Description

A cartoon of a man reading his polished letter aloud while his dog tilts its head as if it does not recognise him.

Figure 12.51: Notes on the back of a hand



Parents' evening is at 7pm. The word is on her hand.

Description

A cartoon of a mother squinting at a school report, with a squiggle of pen ink on the back of her hand.

TAB-12-01: WHICH TOOL FOR LEARNING

Table 12.1: Two kinds of tool for learning.

DESCRIPTION

Table 12.1: Two kinds of tool for learning.

FIGURE 12.1: EXPLAIN, QUIZ, CHECK

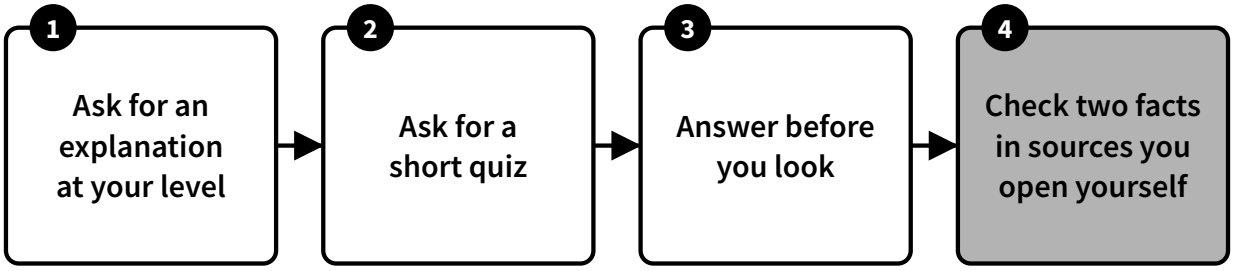


Figure 12.1: Explain, quiz yourself, then check.

DESCRIPTION

A flowchart shows a learning routine in four steps. Ask for an explanation at your level. Ask for a short quiz. Answer before you look. Then check two facts in sources you open yourself. The point: explain, quiz yourself, then check, because the quiz comes from the same assistant, so a wrong answer can sit in its answer key too.

Figure 12.2: A linked answer and its links

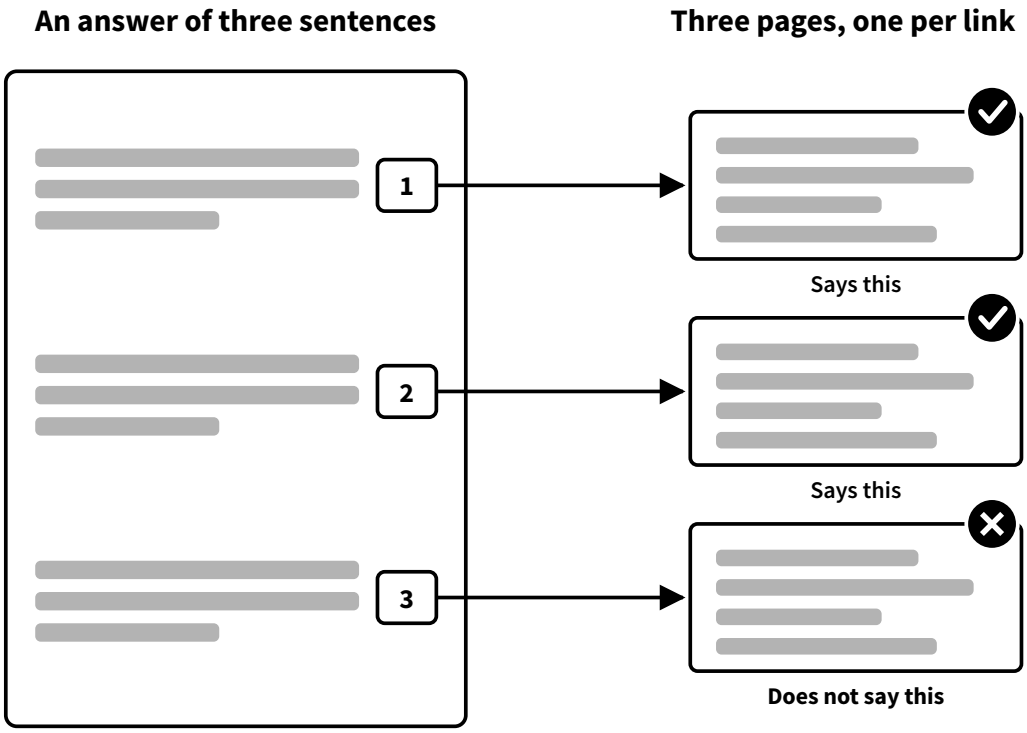


Figure 12.2: A linked answer still needs its links opened.

Description

An answer of three sentences is drawn, each sentence ending in a small numbered link. Arrows lead from the three links to three pages. The first two pages say what the answer says. The third is a real page on the right topic that never makes the claim its sentence makes, and it is marked with a cross. The point: from the answer alone you cannot tell which link is which, so a linked answer still needs its links opened.

FIGURE 12.52: QUESTIONS FOR THE EXPERT

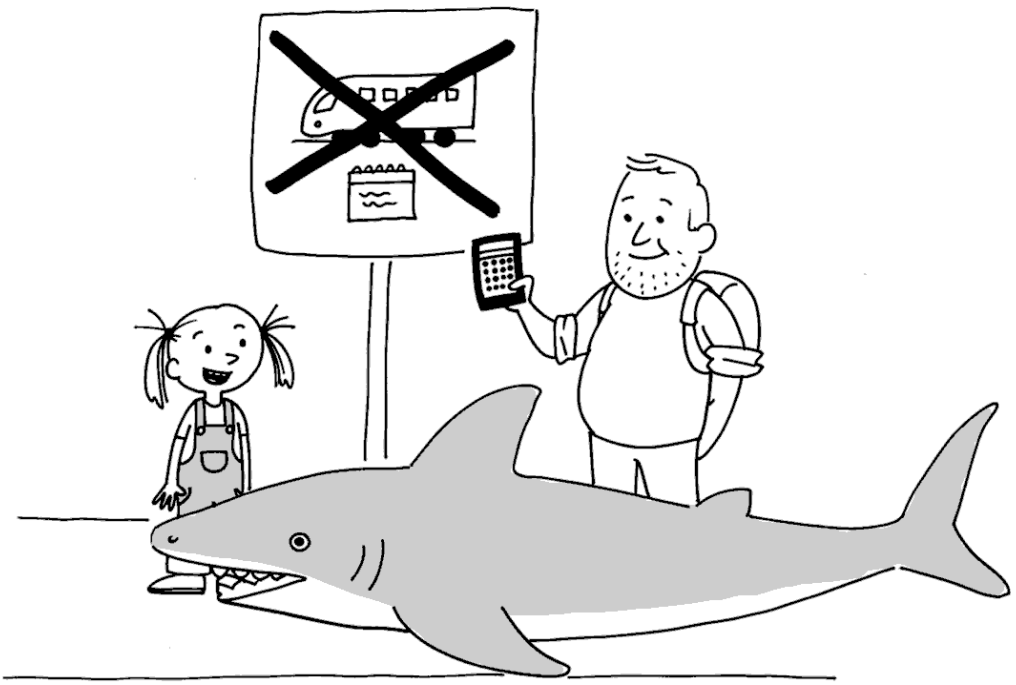


It helped with the questions. The answers are the doctor's job.

DESCRIPTION

A cartoon of a woman handing a doctor a neat list of questions, while a blank speech bubble rises from the phone in her bag.

Figure 13.51: The shark is coming



The plan said 4.15pm on Sunday. The line ran no trains on Sundays.

Description

A cartoon of a father and daughter on a station platform with an inflatable shark, looking at an empty track and a blank notice board.

Figure 13.1: Which part of the plan, which tool

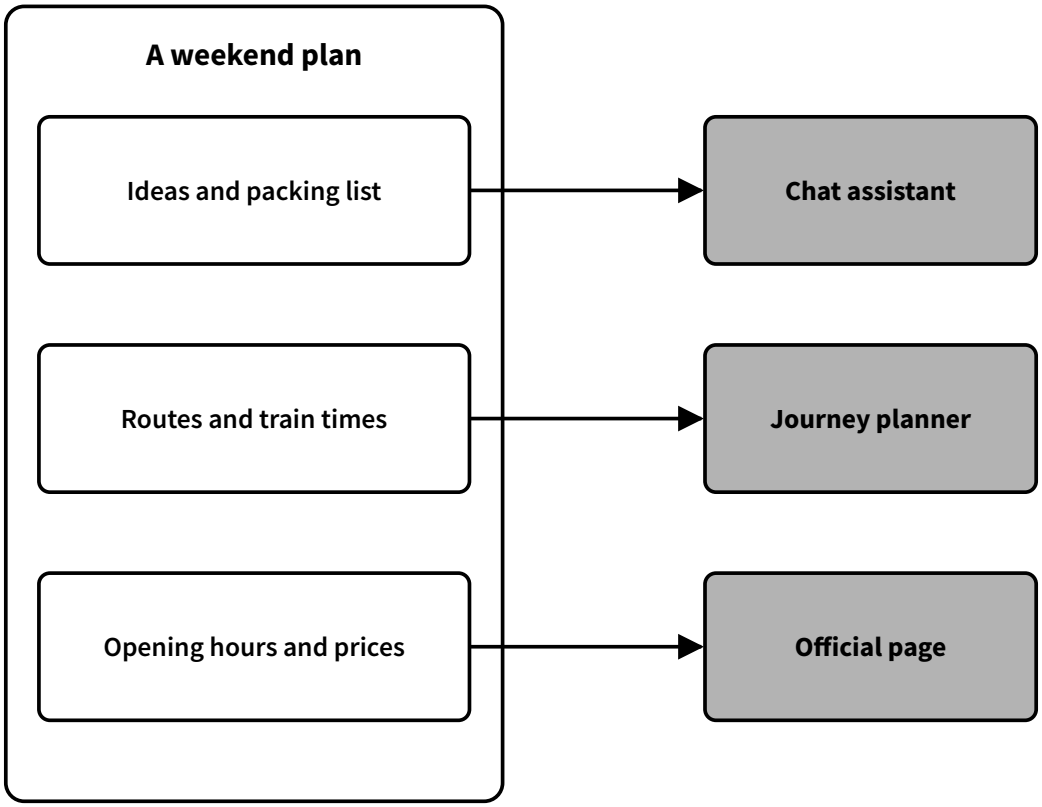


Figure 13.1: Each part of a plan has its best tool.

Description

A weekend plan is split into three parts, with an arrow from each part to a kind of tool. Ideas and a packing list go to a chat assistant. Routes and train times go to a journey planner. Opening hours and prices go to the official page. The point: each part of a plan has its best tool, and the part you need to trust, such as a train time, should not rest on a chat assistant alone.

tab-13-01: Three weekend options

Table 13.1: Three invented weekend options, compared.

Description

Table 13.1: Three invented weekend options, compared.

TAB-13-02: DONE BADLY, DONE WELL: PLANNING

Table 13.2: What to catch in a plan.

DESCRIPTION

Table 13.2: What to catch in a plan.

Figure 13.2: Check it on the official page

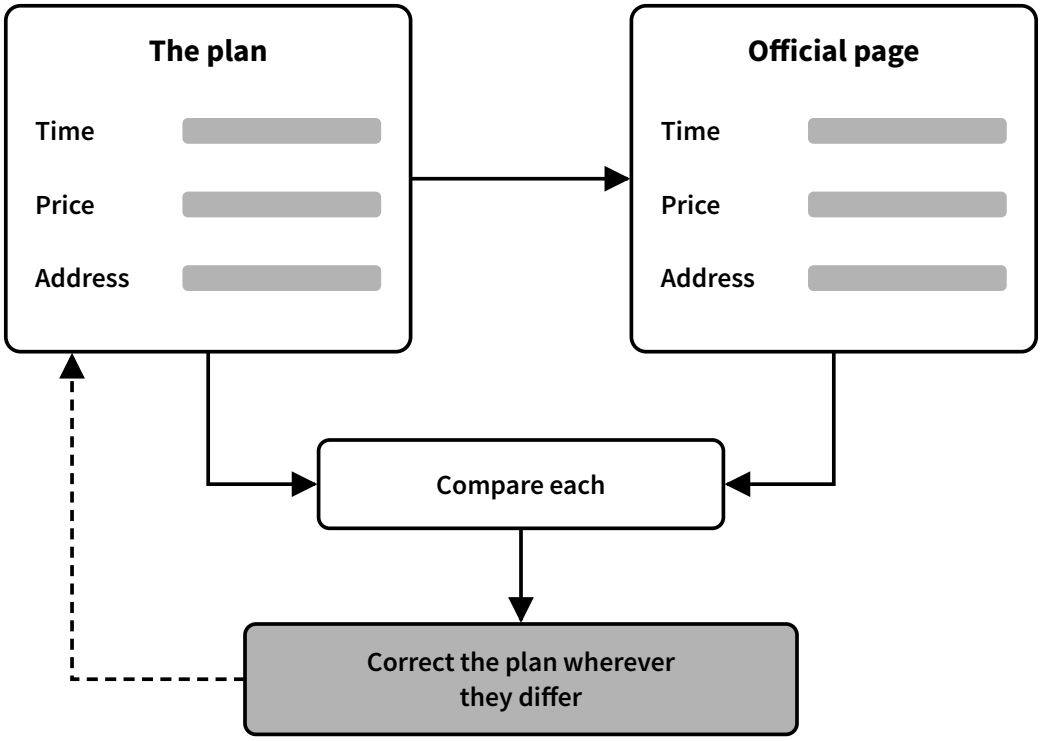


Figure 13.2: Times, prices and addresses change, so check the official page.

Description

A flowchart takes three details from the plan: a time, a price and an address. Each goes to the official page, where it is compared with the plan. Wherever the two differ, the plan is corrected. The point: times, prices and addresses change, so the official page wins.

FIGURE 14.1: THREE KINDS OF PICTURE AND VOICE TOOL

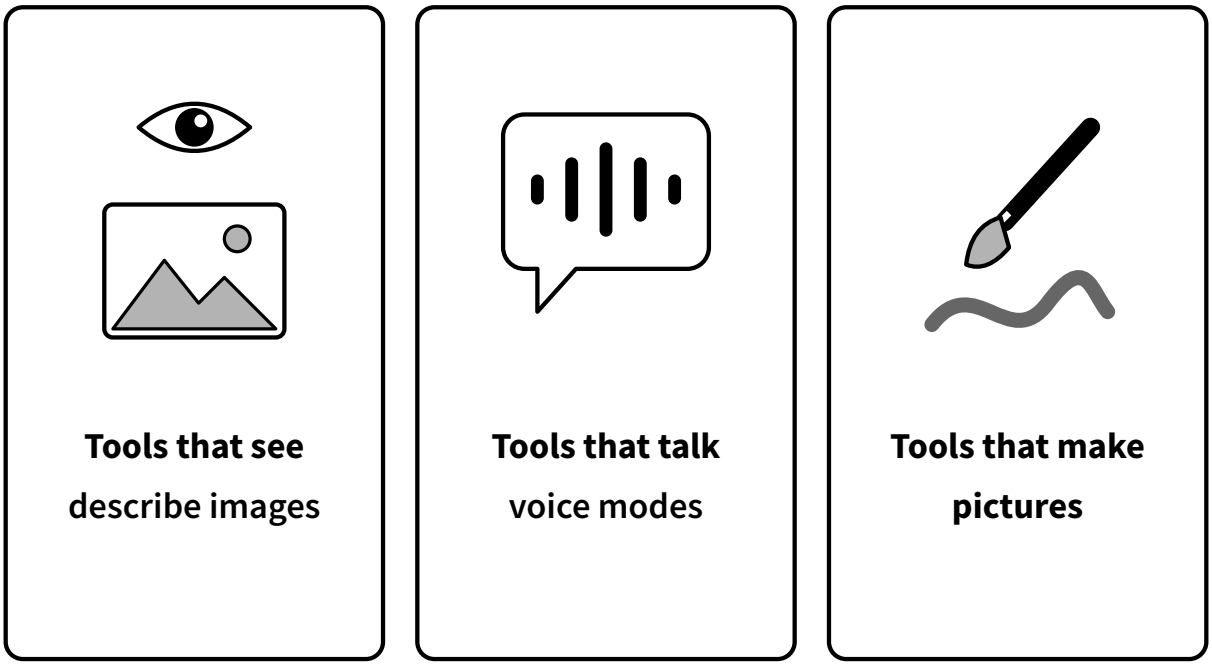


Figure 14.1: Tools that see, tools that talk and tools that make pictures.

DESCRIPTION

Three panels stand side by side. The first shows an eye over a photo, for tools that describe images. The second shows a speech bubble, for voice modes. The third shows a brush, for tools that make pictures. The point: each kind needs its own check, since you check a description against the real thing, a spoken answer like any typed one, and a new picture against your brief.

Figure 14.51: Talking to the kitchen



Two of them were listening. Only one of them keeps notes.

Description

A cartoon of a man chatting to his phone propped against a teapot, while his cat listens closely from the worktop.

Figure 14.2: The usual mistakes in a made picture



Figure 14.2: Check hands, text and counts in every picture.

Description

A drawn birthday card carries three marked mistakes. A hand has six fingers. The greeting reads 'Happy Brithday', spelt wrong. A cake that was meant to have five candles has seven. The point: check hands, text and counts in every picture, because image tools often slip on these three.

FIGURE 14.3: WHAT A PHOTO CAN CARRY

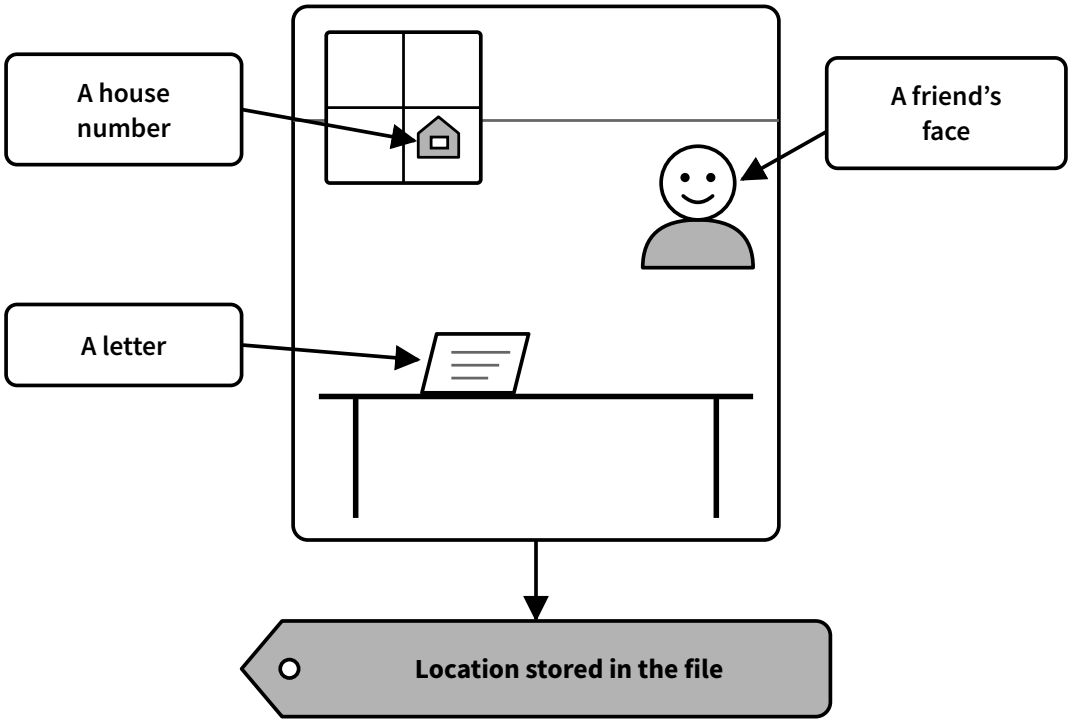


Figure 14.3: A photo can carry more than you meant to share.

DESCRIPTION

A line drawing of a kitchen photo carries four callouts. The first points to a friend's face in the corner. The second points to a house number seen through the window. The third points to a letter on the table. The fourth is a tag showing that the file itself holds the place where the photo was taken. The point: a photo can carry more than you meant to share, and none of the four is the thing the photo was meant to show.

Figure 15.51: Sort out the dentist



He meant 'find me a number'.

Description

A cartoon of a man holding his jaw, a toffee apple on the table, as his phone opens a booking page by itself and he reaches out, palm raised, in alarm.

FIGURE 15.1: GOAL, PLAN, TOOLS, ACTIONS AND A STEP LOG

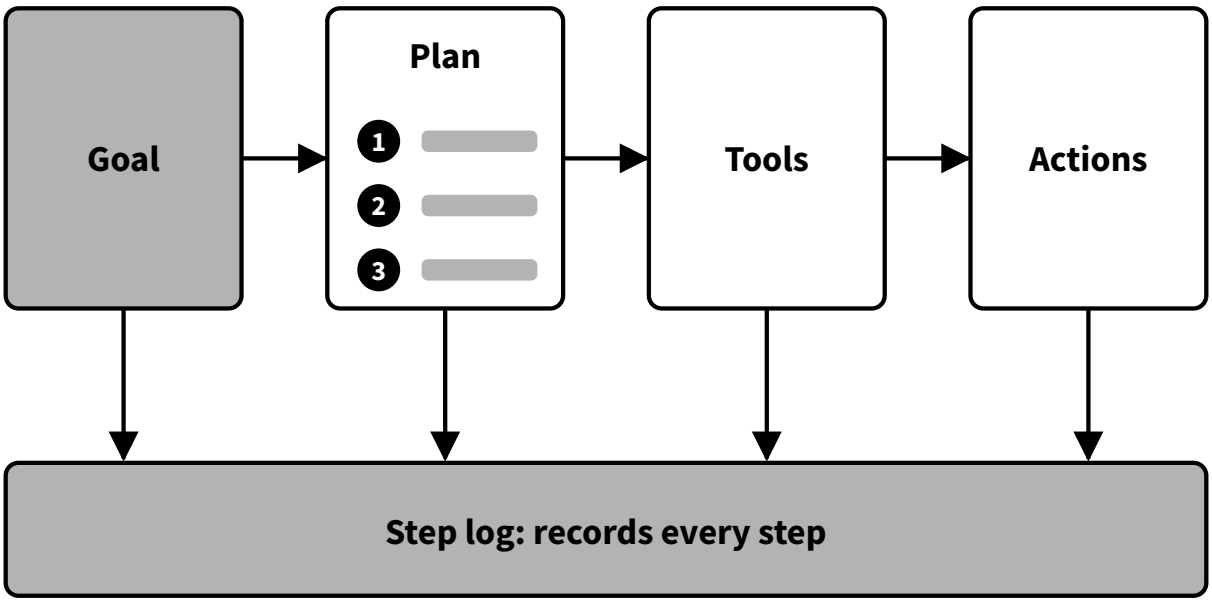


Figure 15.1: An agent works from a goal to a plan to actions, and logs each step.

DESCRIPTION

A straight flow runs from left to right: a goal, a numbered plan, tools, and actions. A step log sits underneath and records every step. The point: an agent works from a goal to a plan to actions, and logs each step.

TAB-15-01: GOOD JOBS AND BAD JOBS FOR AGENTS TODAY

Table 15.1: Jobs to give an agent, and jobs to keep.

DESCRIPTION

Table 15.1: Jobs to give an agent, and jobs to keep.

FIGURE 15.2: HOW MUCH INDEPENDENCE

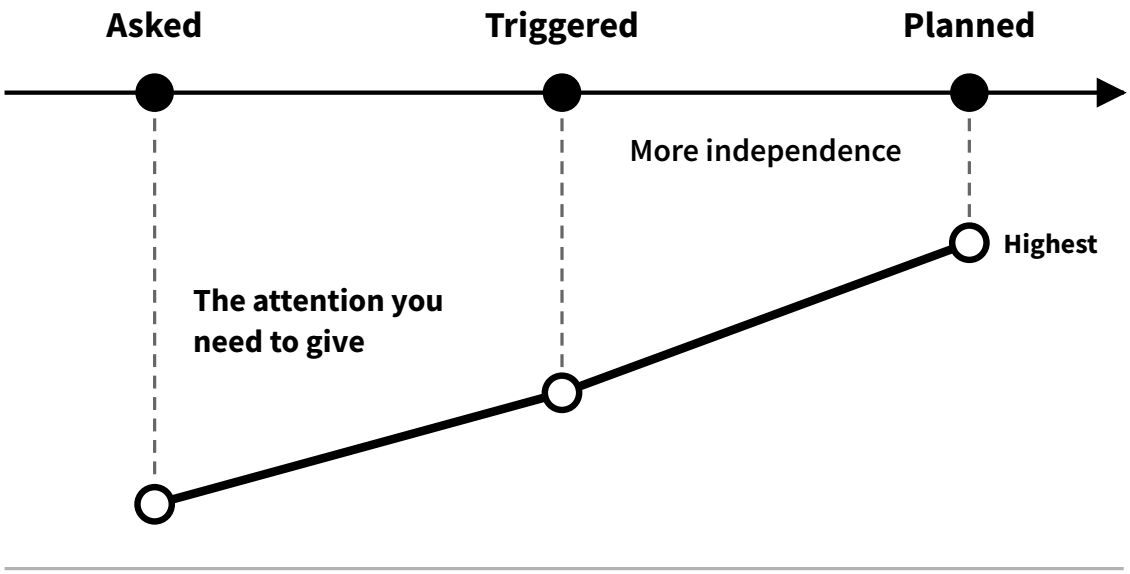


Figure 15.2: The more a system does on its own, the more attention it needs.

DESCRIPTION

A scale runs from left to right with three marks: asked, triggered and planned. A second line under it shows the attention you need to give, rising to its highest at planned. The point: the more a system does on its own, the more attention it needs from you.

Figure 16.51: Still reading your diary



She forgot it was connected. It did not forget.

Description

A cartoon of a woman scrolling photos of her greyhound while, in a small window on her phone, an assistant is still leafing through her diary.

FIGURE 16.1: THE MODEL AND ITS HARNESS

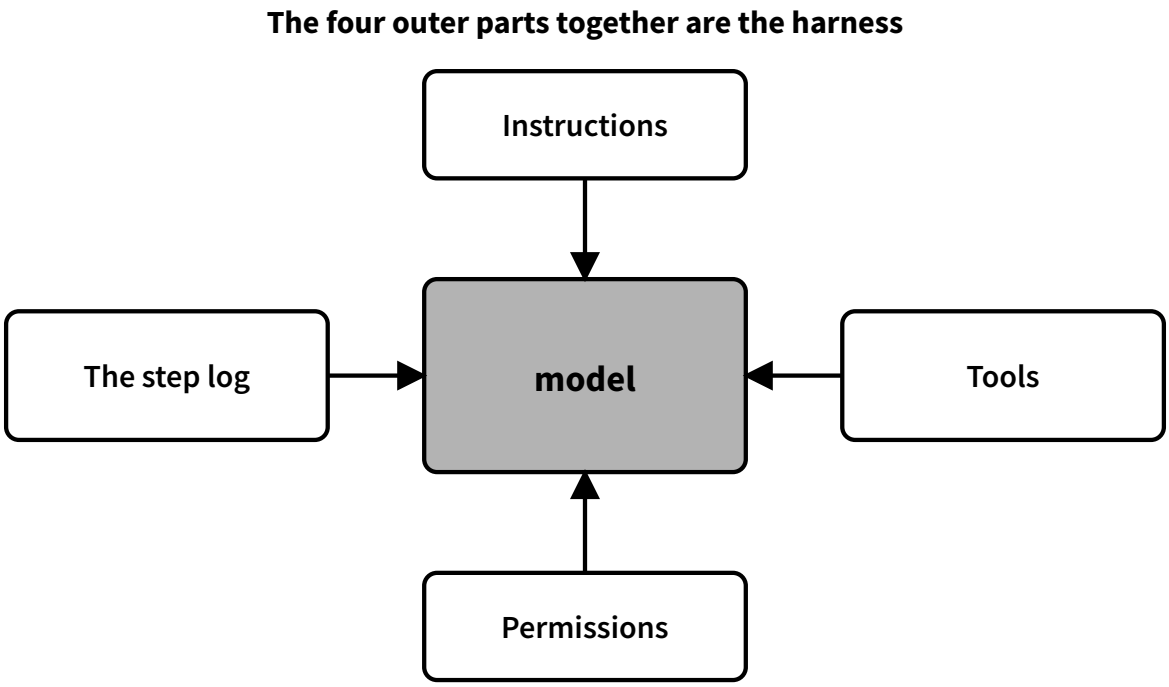


Figure 16.1: Around the model, the harness holds the instructions, tools, permissions and log.

DESCRIPTION

A box labelled model sits at the centre. Four labelled parts hold it from around, and together they make the harness: instructions, tools, permissions and the step log. The point: the harness around the model is what turns it into a working agent.

Figure 16.2: How an agent reaches tools and data

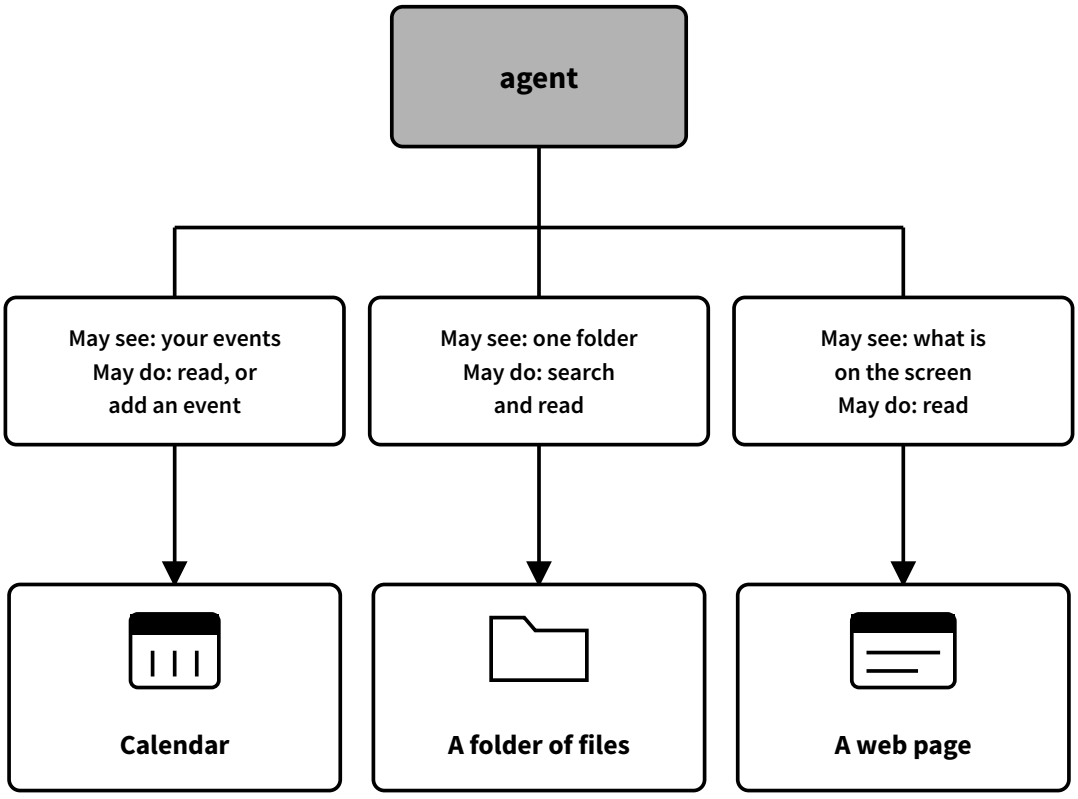


Figure 16.2: Every connection is a way in, with its own permissions.

Description

An agent box has three lines running out of it: to a calendar, to a folder of files and to a web page. Each line carries a small tag saying what the agent may see and what it may do there. The point: every connection is a way in with its own permissions, and a calendar connection that only reads is a small door, while one that can add, move and delete your plans is a much bigger one.

Figure 16.3: Approval settings

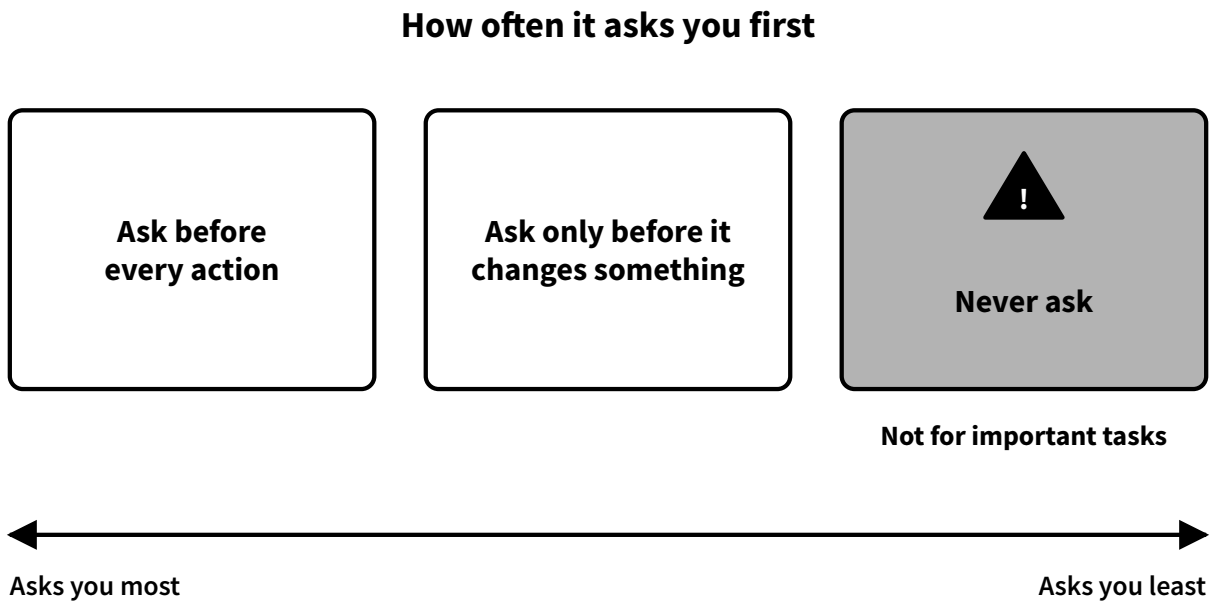


Figure 16.3: Approval settings decide when it waits for your yes.

Description

A row of three settings runs from least to most freedom: ask before every action, ask only before it changes something, and never ask. A warning mark sits on never ask. The point: the setting decides when the agent waits for your yes, and for anything that sends, buys, deletes or publishes you should choose the setting that asks first.

Figure 16.4: MCP: one standard way to connect

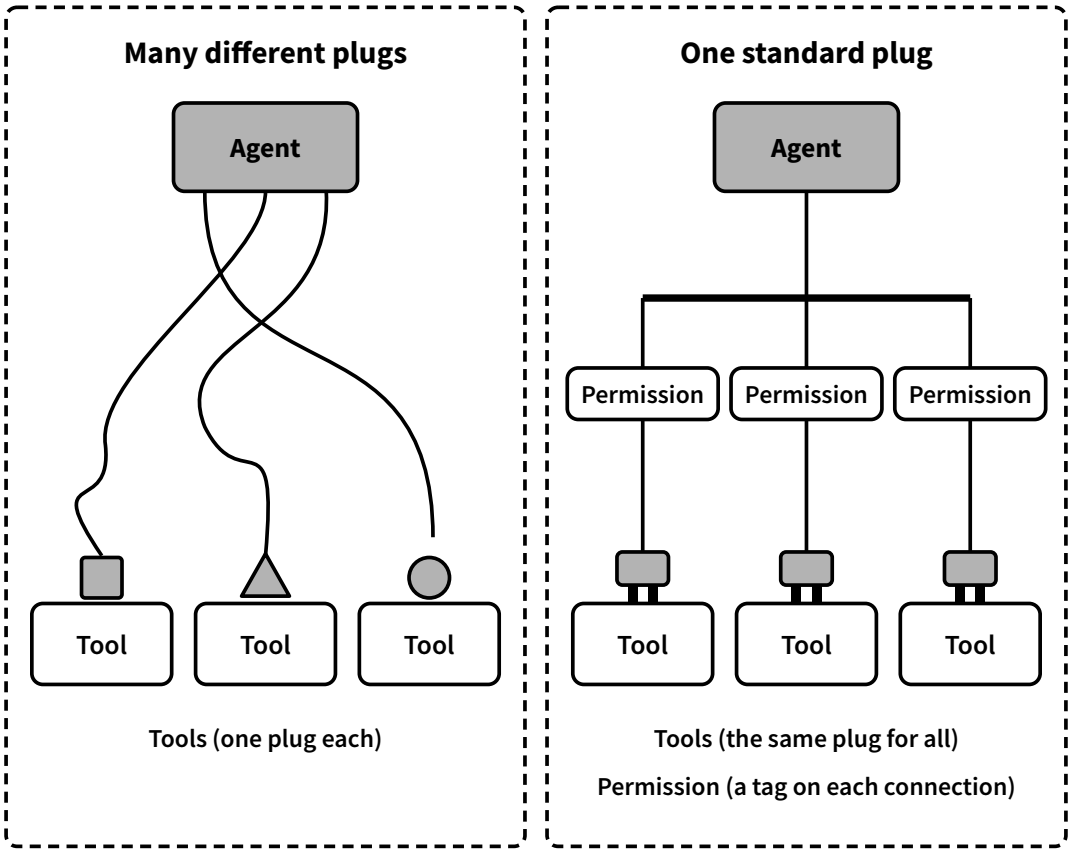


Figure 16.4: One standard way to connect, and every connection is still a permission.

Description

Two panels sit side by side. On the left, an agent is tangled in many different plugs, one for each tool. On the right, one standard plug shape connects the agent to every tool, with a permission tag on each connection. The point: one standard way to connect means more tools can be offered, but every connection is still a permission.

TAB-16-01: PERMISSIONS CHECK

Table 16.1: A permissions check: one row for each connected app.

DESCRIPTION

Table 16.1: A permissions check: one row for each connected app.

Figure 17.51: The old address

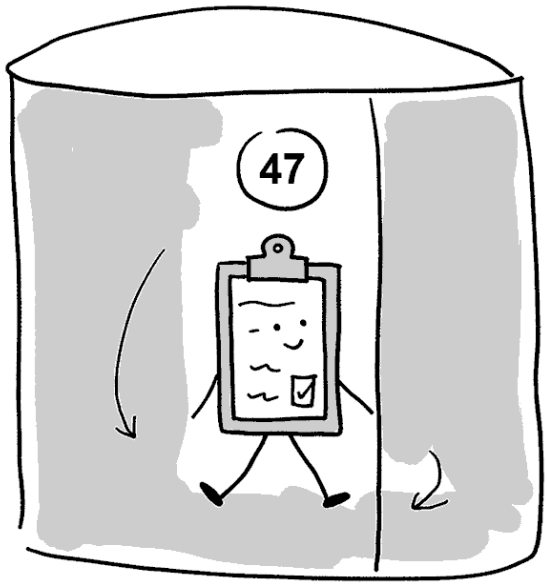


Very helpful. Very fast. Very wrong flat.

Description

A cartoon of an eager agent drawn as a small busy clipboard filling in a form with the old address of a flat over a chip shop, while a woman runs towards it.

Figure 17.52: Round in circles



Step 47: try the door again.

Description

A cartoon of a small clipboard agent stuck going round and round in a revolving door, with a blank counter over its head.

FIGURE 17.1: INSTRUCTIONS HIDDEN IN PAGES

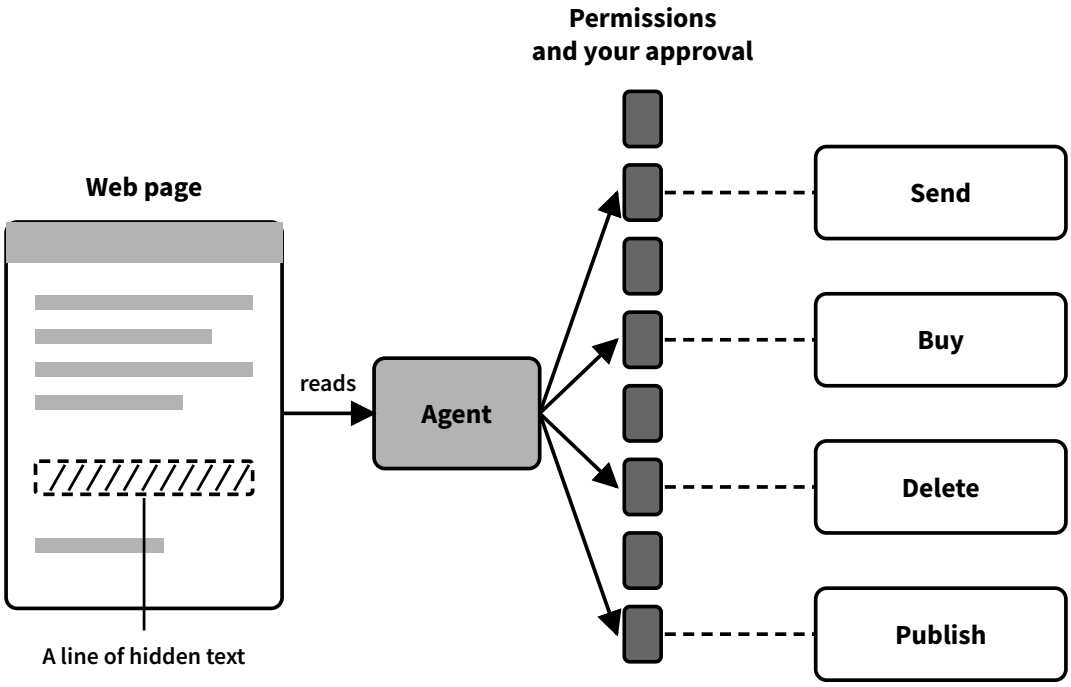


Figure 17.1: Limits stand between what an agent reads and what it may do.

DESCRIPTION

A web page holds one line of hidden text, and an agent reads the page. A fence labelled permissions and your approval stands between the agent and the actions send, buy, delete and publish. The point: you cannot spot hidden instructions by looking, so limit what the agent can reach and make anything important wait for your yes.

FIGURE 17.2: THE STOP BUTTON AND THE UNDO PLAN

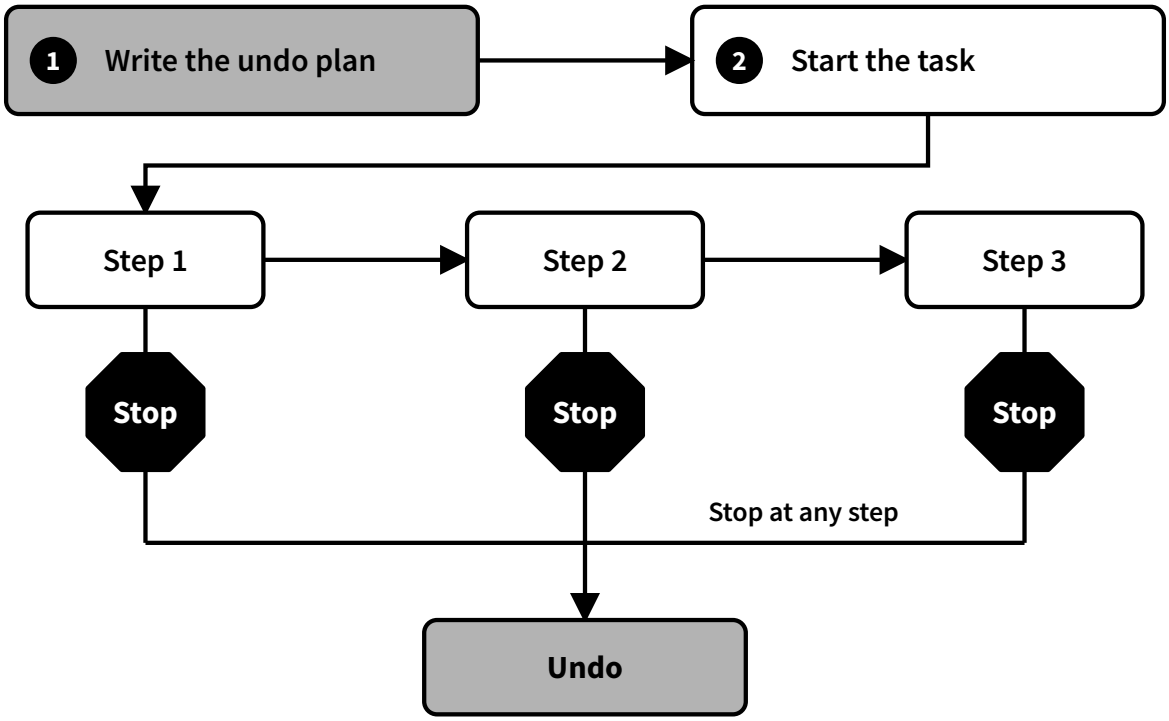


Figure 17.2: Know how to stop and how to undo before you start.

DESCRIPTION

A flowchart starts with writing the undo plan. Next you start the task, with a stop button beside every step. A path leads from stop to undo. The point: know how to stop and how to undo before you start.

Figure 17.3: Joan's step log, annotated

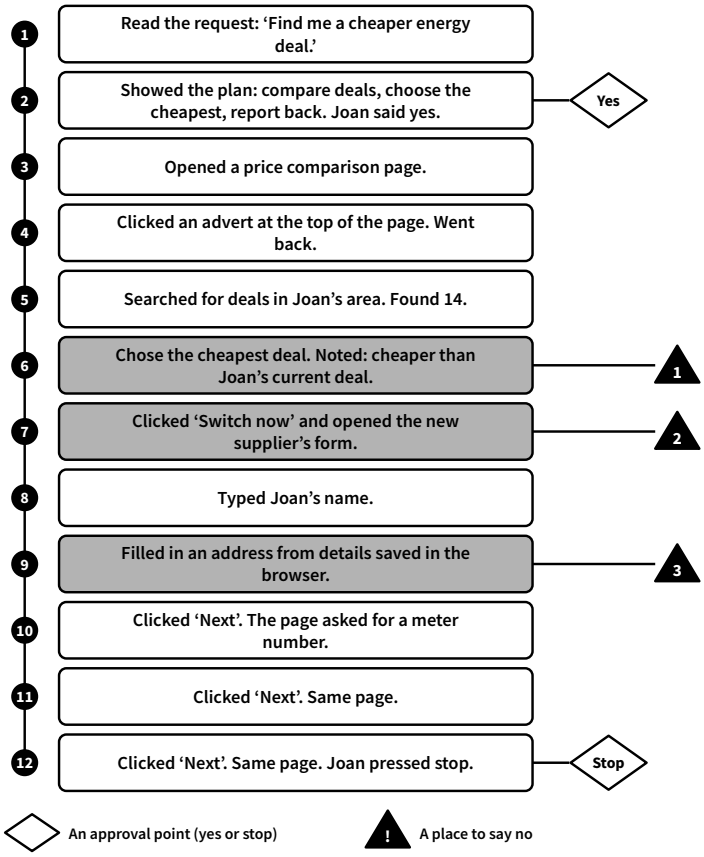
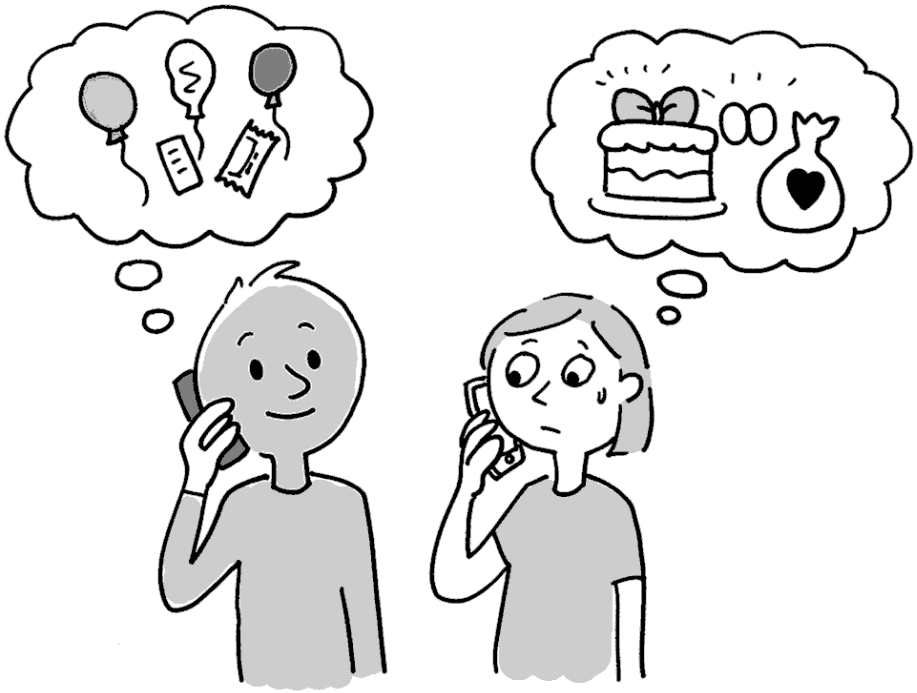


Figure 17.3: A sample step log, with the places to say no marked.

Description

A column of 12 numbered steps shows an agent's log for finding Joan a cheaper energy deal, with approval points marked as yes or no. Step 1 reads the request and step 2 shows the plan, which is to compare deals, choose the cheapest and report back, and Joan says yes. Steps 3 to 5 open a price comparison page, click an advert and go back, and search for deals in her area, finding 14; step 6 chooses the cheapest deal, flagged as warning 1. Step 7 clicks 'Switch now' and opens the new supplier's form, flagged as warning 2; step 8 types Joan's name; step 9 fills in an address from details saved in the browser, flagged as warning 3. Steps 10 to 12 click 'Next' on the same page three times, because it asked for a meter number, and Joan presses stop. The point: warning 1 is a claim with nothing behind it, warning 2 goes beyond the plan she said yes to, and warning 3 is an address she never gave, so these are the places to say no.

Figure 18.51: A safe first task



Start with the free events. Not the wedding.

Description

A cartoon of two friends speaking into their phones: one relaxed and smiling, thinking of balloons and tickets, the other wide-eyed and sweating, thinking of a wedding cake, two rings and a money bag.

TAB-18-01: THE SAMPLE TASK BRIEF

Table 18.1: A sample task brief: the parts Eamon wrote.

DESCRIPTION

Table 18.1: A sample task brief: the parts Eamon wrote.

Figure 18.1: What it may see and do for this task

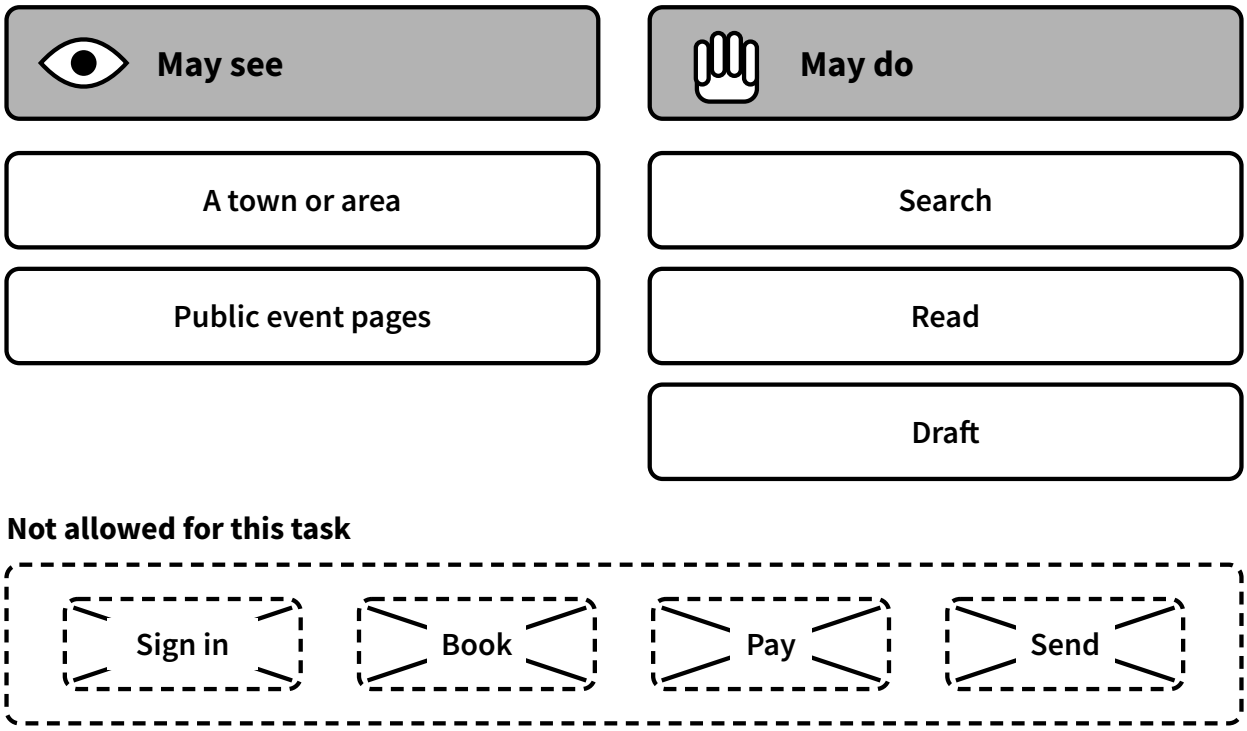


Figure 18.1: For this task it may search and draft, and nothing more.

Description

The two-column layout from Figure 8.2 appears again. Under May see are a town or area and public event pages. Under May do are search, read and draft. A crossed-out row underneath lists sign in, book, pay and send. The point: for this task the agent may search and draft, and nothing more.

Figure 18.2: The supervised task, step by step

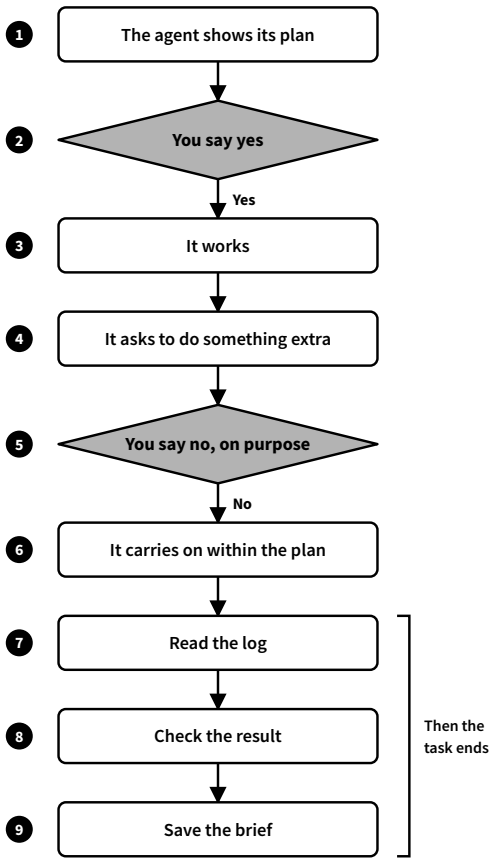


Figure 18.2: Yes to the plan, no on purpose, then read the log.

Description

A flowchart shows the whole supervised task. The agent shows its plan and you say yes. It works, then asks to do something extra, and you say no on purpose. It carries on within the plan. The task ends with reading the log, checking the result and saving the brief. The point: say yes to the plan, no on purpose, then read the log.

Figure 18.3: The walk-through sample log

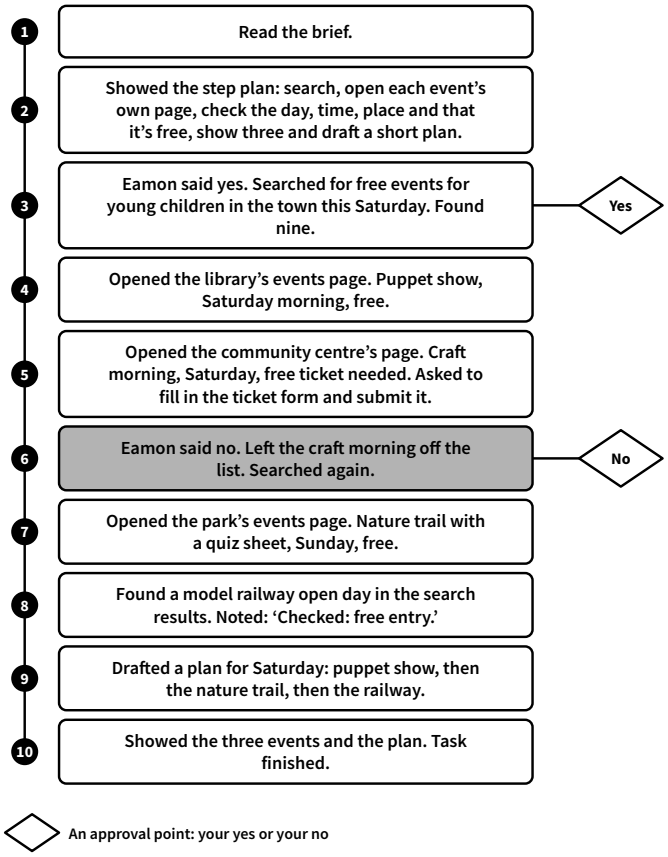


Figure 18.3: A walk-through log, with every yes and no recorded.

Description

A column of 10 numbered steps shows an agent's log for finding three free events in an invented town. Step 1 reads the brief. Step 2 shows the step plan: search, open each event's own page, check the day, time, place and that it is free, show three and draft a short plan. At the start of step 3 Eamon says yes, and the agent searches for free events for young children in the town this Saturday and finds nine. Step 4 opens the library's events page: a puppet show, Saturday morning, free. Step 5 opens the community centre's page: a craft morning, Saturday, free ticket needed, and the agent asks to fill in the ticket form and submit it. At the start of step 6 Eamon says no, and the agent leaves the craft morning off the list and searches again. Step 7 opens the park's events page: a nature trail with a quiz sheet, Sunday, free. Step 8 finds a model railway open day in the search results and notes 'Checked: free entry.' Step 9 drafts a plan for Saturday: the puppet show, then the nature trail, then the railway. Step 10 shows the three events and the plan, and the task is finished. The point: every yes and no is recorded, and the one request Eamon declined is the ticket form at step 5.

Figure 19.51: Gran rings back



The cake can wait. The call-back cannot.

Description

A cartoon of a grandmother holding an icing bag in one hand and calmly dialling a number from a list on her fridge, while a phone on the counter plays an urgent message.

Figure 19.1: The call back

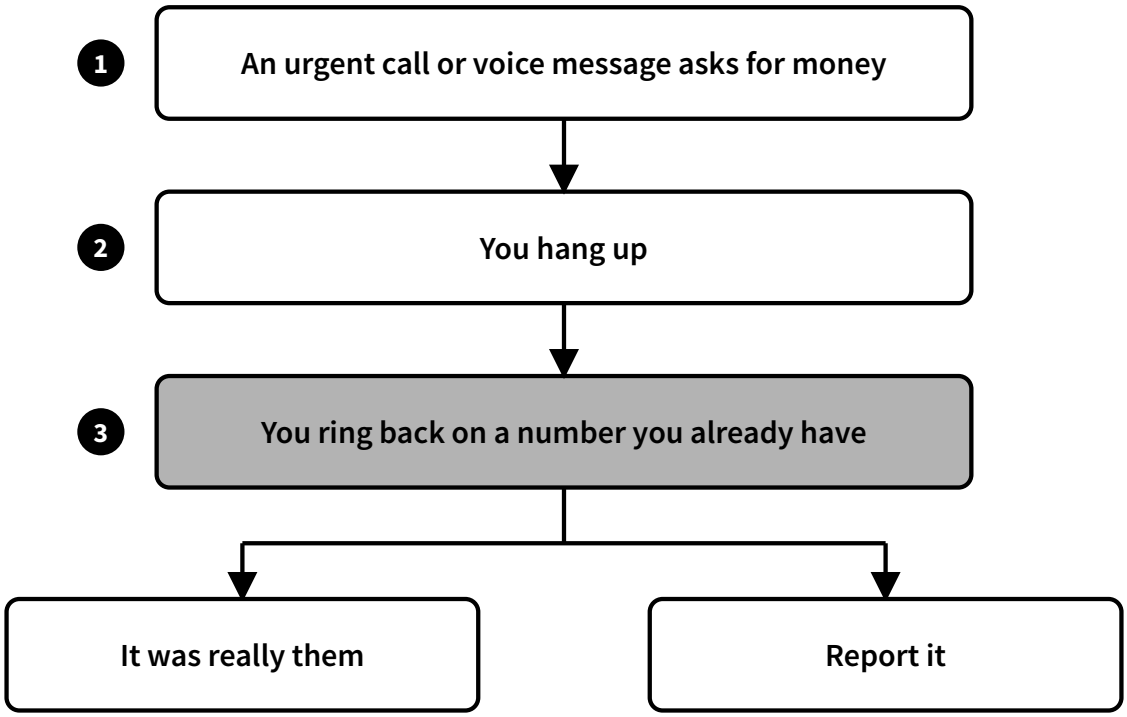


Figure 19.1: Ring back on a number you already have.

Description

A flowchart begins with an urgent call or voice message that asks for money. You hang up. You ring back on a number you already have. The path then splits in two: it was really them, or you report it. The point: ring back on a number you already have, never one the caller gives you.

Figure 19.2: An annotated scam message

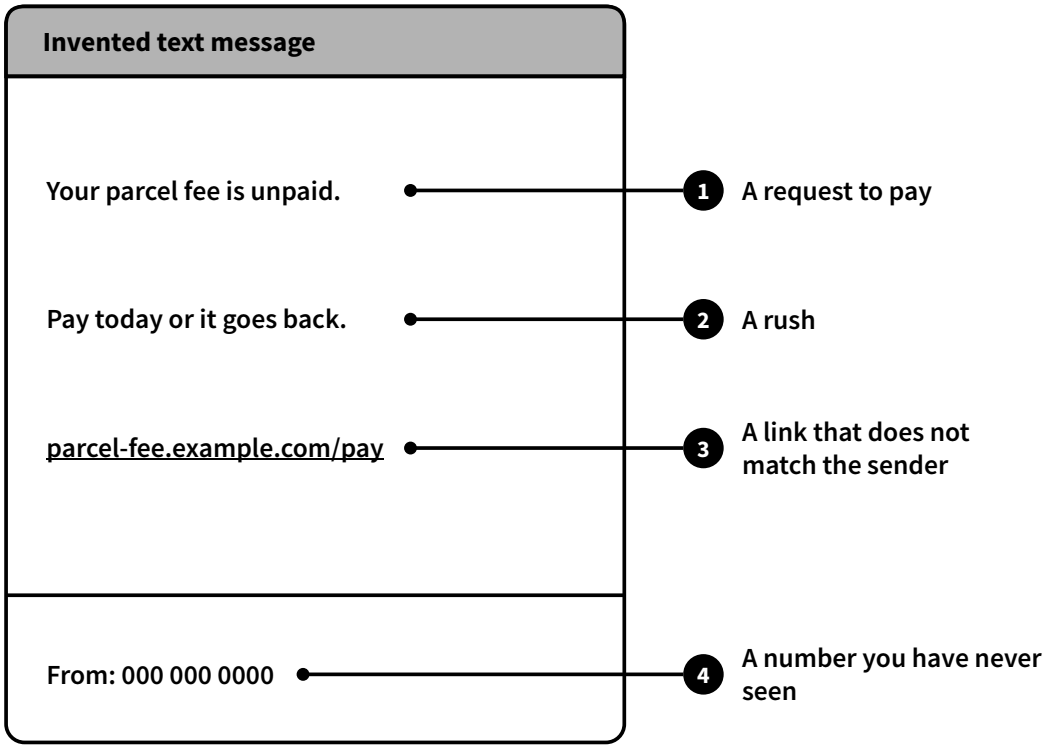


Figure 19.2: The signs a scam message still gives away.

Description

An invented text message about an unpaid parcel fee is drawn as a phone message from an unknown number. It reads: 'Your parcel fee is unpaid. Pay today or it goes back.' Under that line sits a link, parcel-fee.example.com/pay, which goes nowhere. Four numbered callouts point to the signs of a scam: 1, a rush; 2, a request to pay; 3, a link that does not match the sender; and 4, a number you have never seen. The point: a scam message may have no spelling mistakes at all, but it still has to ask you for something, so each sign is a reason to stop and check another way.

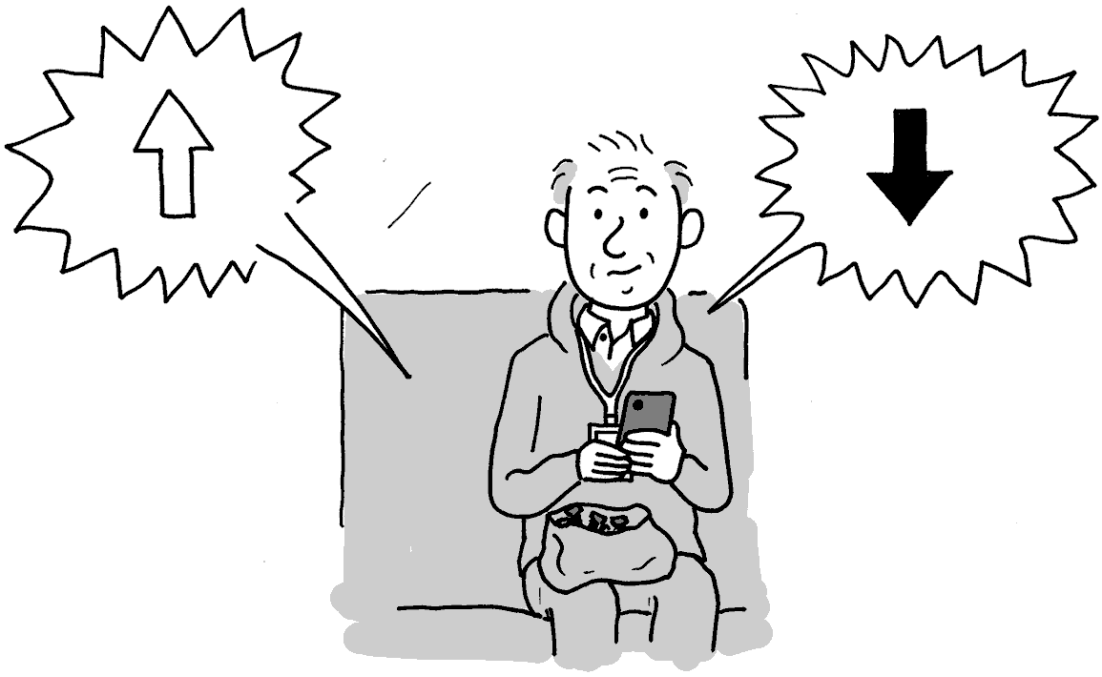
TAB-19-01: OUR FAMILY SAFE WORD CARD

Table 19.1: A family call-back card.

DESCRIPTION

Table 19.1: A family call-back card.

Figure 20.51: Two headlines



Both headlines were very sure. Neither had a source.

Description

A cartoon of a man on a bus with a bag of shelf screws on his knee, while two blank banners burst out of his phone, pulling in opposite directions.

FIGURE 20.1: BIAS IN, BIAS OUT

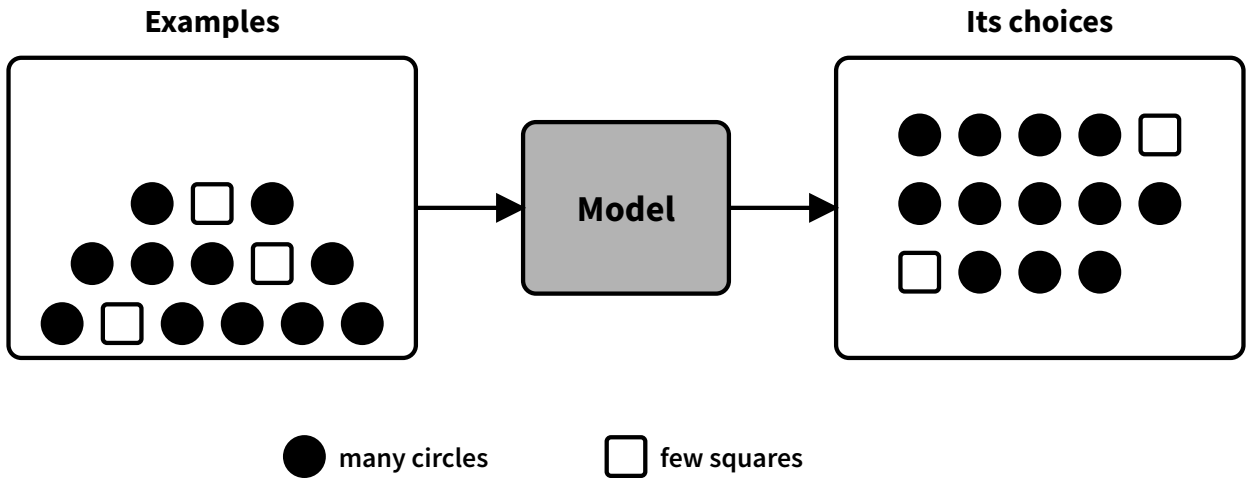


Figure 20.1: Lopsided examples teach lopsided results.

DESCRIPTION

A pile of examples holds many circles and few squares. The pile goes into a model, and the model's choices come out favouring circles too. The point: lopsided examples teach lopsided results, so a model can learn unfairness from its examples without ever being told.

FIGURE 20.2: EVIDENCE, FORECAST OR ESTIMATE

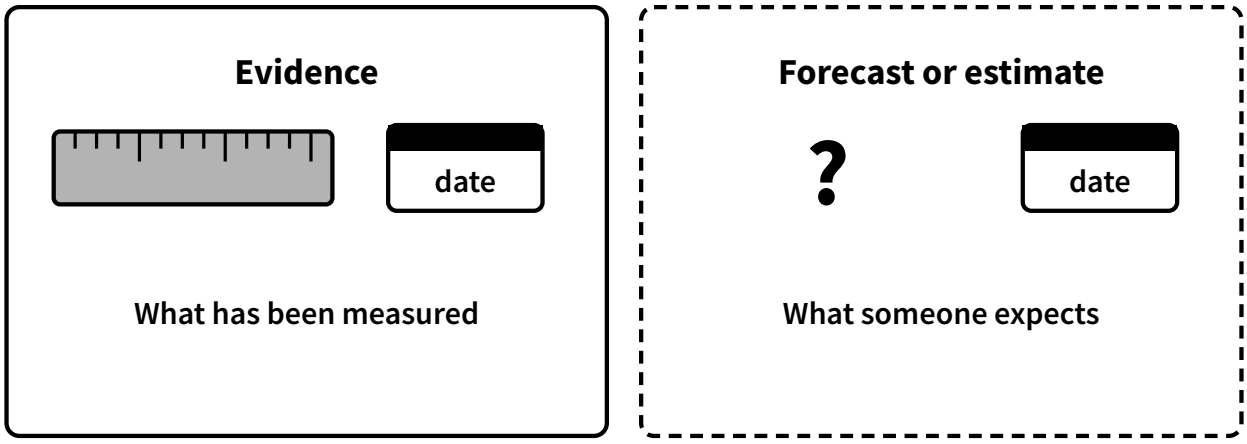


Figure 20.2: Evidence is measured; a forecast or estimate is someone's expectation.

DESCRIPTION

Two labelled boxes sit side by side. The first, evidence, carries a ruler and a date and stands for what has been measured. The second, forecast or estimate, carries a question mark and a date and stands for what someone expects. The point: when you meet a number in a jobs story, ask whether it is something measured or something expected.

FIGURE 20.3: READING AN AI HEADLINE

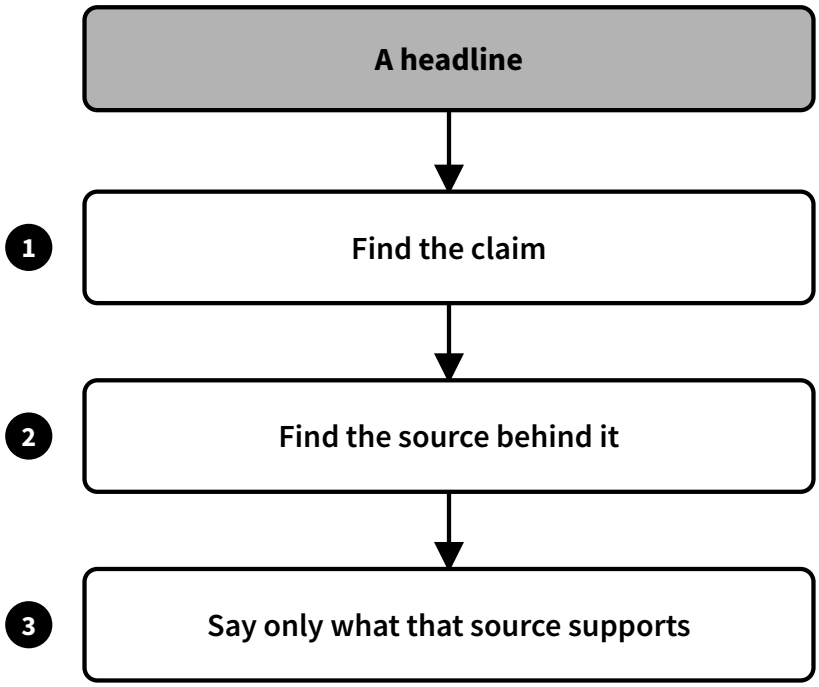


Figure 20.3: Find the claim, find the source, say only what it supports.

DESCRIPTION

A flowchart of three moves sits under a headline. First, find the claim. Second, find the source behind it. Third, say only what that source supports. The point: a calm reading of any AI headline takes these three moves.

Figure 21.51: The pizza box rota



Where to start? Somewhere small.

Description

A cartoon of a man at a kitchen table with a laptop full of emails, a long form and a pizza box lid with a rota grid scribbled on it.

Figure 21.1: What stays true when the tools change

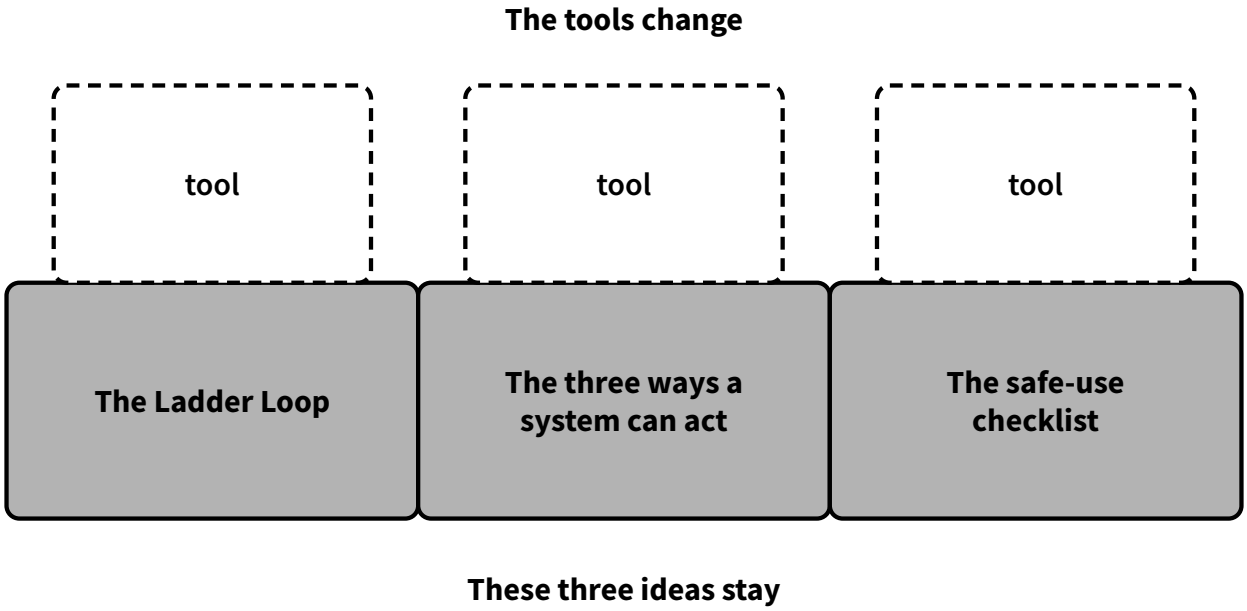


Figure 21.1: The tools change; these three ideas stay.

Description

A row of tool boxes sits on top, and they are the part that changes. They rest on a solid base made of three blocks: the Ladder Loop, the three ways a system can act, and the safe-use checklist. The point: the tools change, but these three ideas stay.

Figure 21.2: Keeping up without overload

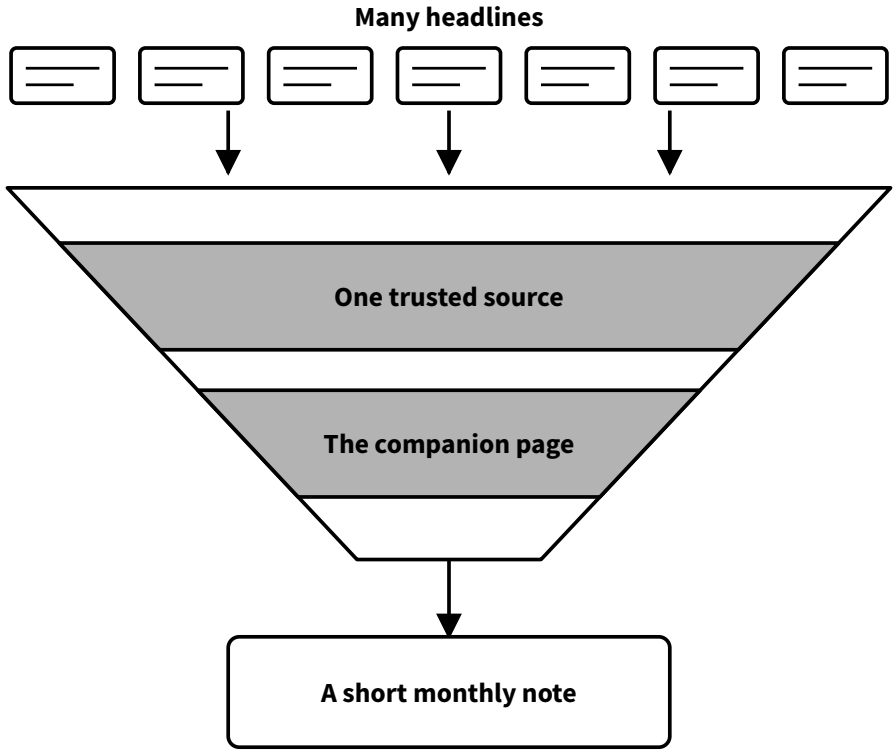


Figure 21.2: One trusted source, once a month, is enough.

Description

A funnel takes many headlines in at the top. In the middle it is labelled one trusted source and the companion page. A short monthly note comes out at the bottom. The point: one trusted source, once a month, is enough to keep up without overload.

tab-21-01: One-week Monday plan

Table 21.1: A one-week plan.

Description

Table 21.1: A one-week plan.

Figure 21.3: Where the series climbs next

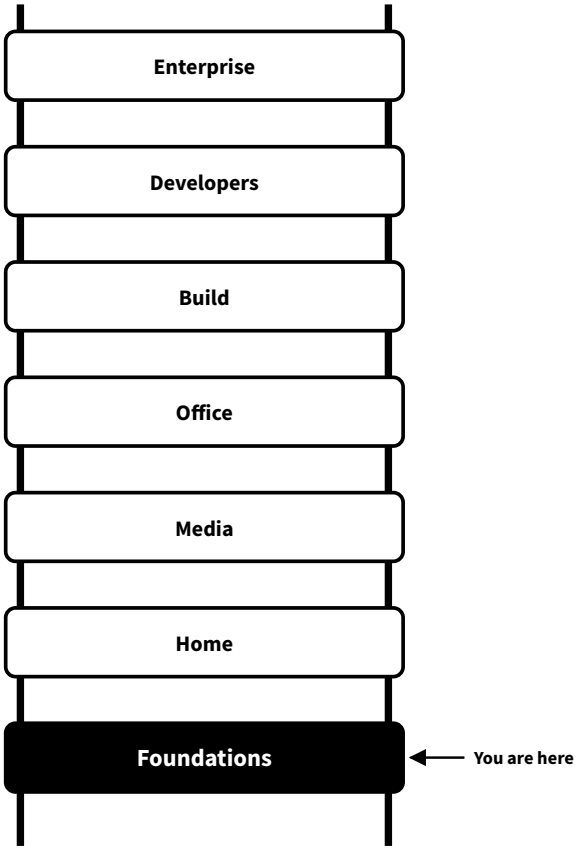


Figure 21.3: Seven rungs, and you are standing on the first.

Description

A ladder of seven rungs is labelled from the bottom: Foundations, Home, Media, Office, Build, Developers and Enterprise. The bottom rung, Foundations, is drawn solid. The six higher rungs are drawn in outline. The point: Book 1 is the first rung, and you are standing on it.

Figure 22.51: Before the cake is cut



Three myths before the cake. A calm answer for each.

Description

A cartoon of guests at a christening party, three of them each holding forth with a blank speech bubble, while a woman holding a cake knife waits patiently.

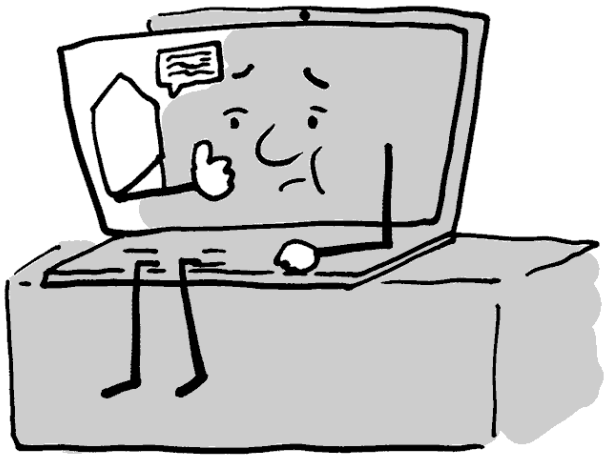
TAB-22-01: MYTH OR TRUE?

Table 22.1: Myth or true? Mark each before you read on.

DESCRIPTION

Table 22.1: Myth or true? Mark each before you read on.

Figure 22.52: Not thinking, posing



It looks thoughtful. It is predicting the next word.

Description

A cartoon of a laptop sitting on a plinth in the pose of a famous thinking statue, chin on a hinge.

Figure 22.53: Left alone with the shopping

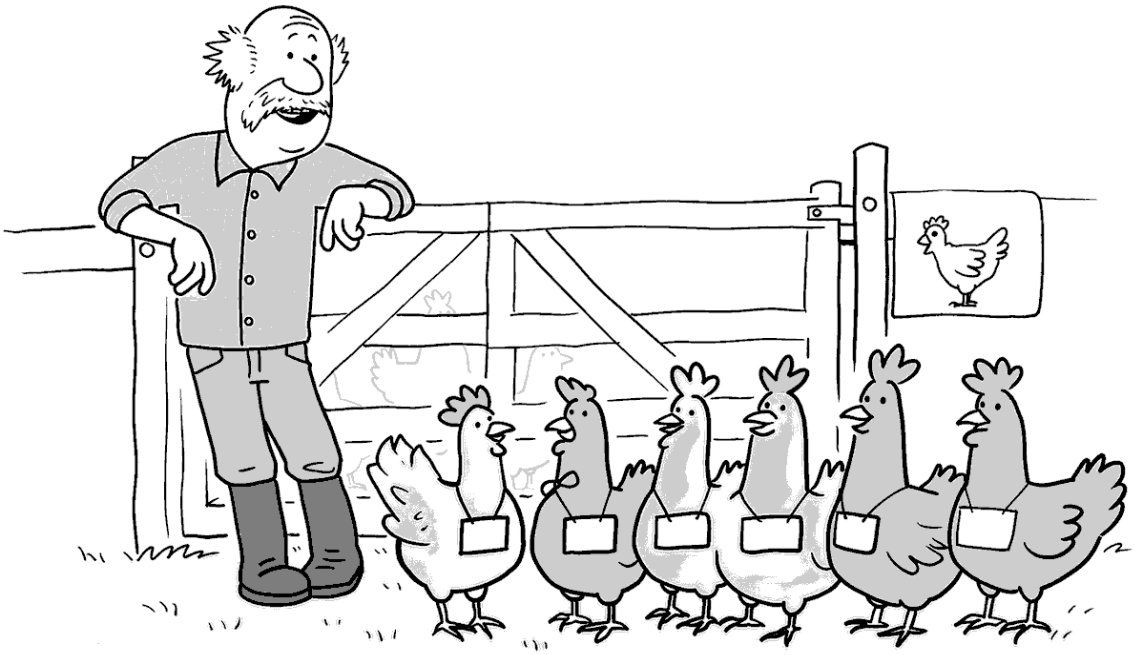


You asked for beans. You did not say how many.

Description

A cartoon of a small clipboard agent pushing an overflowing shopping trolley piled high with tins of beans.

Figure 23.51: Six hens, six names



Best thing he ever asked it. Nothing private, nothing to undo.

Description

A cartoon of a man leaning on a garden gate beside six hens, each wearing a blank name tag.

Figure 23.1: Sign in with two steps

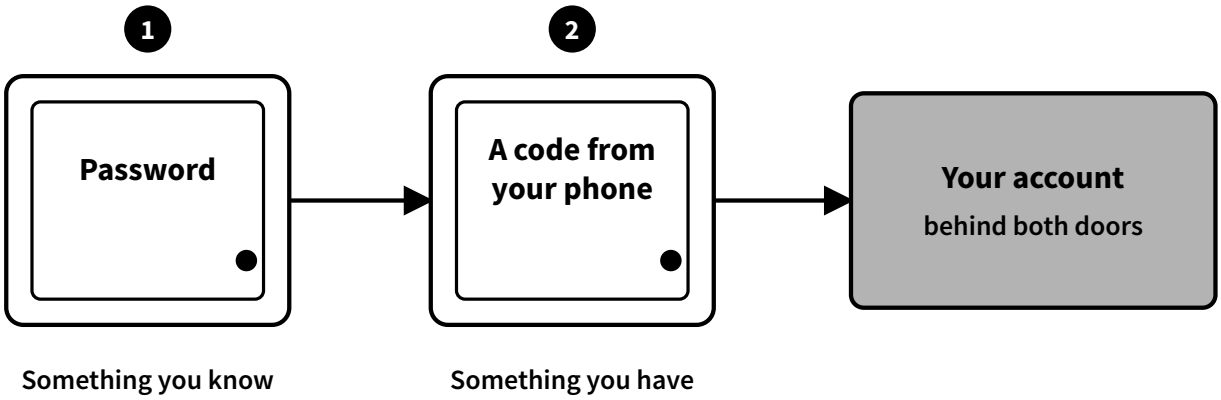


Figure 23.1: Two steps to sign in: something you know, then something you have.

Description

Two doors stand in a row. The first opens with a password, which is something you know. The second opens only with a code from your phone, which is something you have. The account sits behind both doors. The point: a stolen password is not enough on its own.

TAB-23-01: TEN HABITS AND THE STEP EACH ONE SERVES

Table 23.1: Ten habits and where each one fits on the loop.

DESCRIPTION

Table 23.1: Ten habits and where each one fits on the loop.

TAB-23-02: PICK THREE HABITS

Table 23.2: Three habits for this month.

DESCRIPTION

Table 23.2: Three habits for this month.