



When a data shortcut becomes the rule

How a quick fix turns into habit, how to judge data quality, who owns data and how to make a hidden step visible.

Ekalavya Academy by Almost Magic

Short Book 5 of 10 | Free to read and share

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BEFORE YOU START

How to read this book

1

Learn

A few slides explain one idea in full sentences.

2

See it

A short, made-up example gives the idea a face.

3

Try it

A ten-minute exercise in the tools you already use.

4

Check it

Three questions. Guidance is at the back, not next to the question.

5

Keep it

A four-sentence summary to come back to.

Two levels in every chapter. The main slides are written so a first-time reader can follow them. A "Going deeper" slide gives the same idea at the level an experienced reader would argue about.

This book works with any AI tool you already have. It never asks you to buy or sign up for a particular product.

THE PLAN

Where this book sits in the series

Book 1	What AI is, and what it is not	Foundations
Book 2	Productivity with AI: writing, summaries, research, meetings	Practical use
Book 3	From one task to a repeatable workflow, and AI deputies	Workflow automation, agents
Book 4	Handling data safely	Data handling
Book 5	When a data shortcut becomes the rule	Data quality and governance
Book 6	Staying secure with AI	Security
Book 7	Rules, risk and what you must know	Risk and compliance awareness
Book 8	Your AI rules on one page	Policy and accountability
Book 9	When AI gets it wrong	Recovering from AI mistakes
Book 10	When not to use AI, and who stays in charge	Judgement and oversight

Each book works on its own. Read them in order or pick the one you need.

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In this book

Chapter 1 How a shortcut becomes the rule

Chapter 2 Is the data any good?

Chapter 3 Who owns the data?

Chapter 4 Making the invisible visible

At the back Guidance and answers for every question and exercise

CHAPTER 1

How a shortcut becomes the rule

By the end of this chapter you will be able to:

Explain how a one-off fix becomes a standing habit.

Spot a shortcut that nobody decided to keep.

Ask of any number: where does it come from?

Decide whether to keep, document or retire a shortcut.

Time: about 40 minutes, including the exercise.

LEARN

A useful shortcut and a quiet habit

A shortcut starts as a good idea. A deadline is close, the data is messy and a quick fix works. The report goes out and nobody minds.

Next month someone reuses the file. The month after, that is simply how the numbers are made. At no point did anyone decide it should be permanent.

AI tools make this easier than ever. A messy column can be tidied in seconds, and nothing records what the tool changed.

IN PLAIN WORDS

Nobody decided. It just kept happening.

LEARN

Signs a shortcut has become the rule

No one remembers the origin

Ask who set it up. If the answer is "it was always like this", look closer.

No written steps

You cannot say exactly what was changed, or with what settings.

Checking is awkward

Reopening a number is possible but takes effort, so nobody does it.

It sets the pattern

People reuse the cleaned file rather than go back to the source.

LEARN

Four questions to ask of any number

Where does it come from?

Name the source and every step between the source and the figure.

Who changed it?

Name the person or tool that changed it, and when.

Can it be reproduced?

Could someone else get the same number from the same source?

Who would notice if it were wrong?

If nobody would, nobody is checking.

GOING DEEPER

Why speed hides doubt

Speed is visible, doubt is not

Time saved is easy to measure. A quiet loss of trust, such as more queries and more arguments about figures, shows up slowly.

Confidence is a claim

A tidy dashboard looks sure of itself. Its confidence is a claim, not evidence.

Persuasive output

AI can make weak data look neat and authoritative, which makes it harder to challenge.

Decision debt

Each month a shortcut runs undocumented, more decisions depend on it and it gets harder to unpick.

SEE IT

A short example

Mei runs the finance side of a small manufacturer. Two years ago she used an AI tool to tidy a supplier-name column for a board pack.

The file has been reused for every pack since. When a new accountant asks why two similar supplier names are merged, nobody can say whether that was deliberate.

Mei realises that one quick fix has set the way a whole report is built.

THE LESSON

A fix that is not written down is a rule nobody chose.

This is a made-up example for teaching.

TRY IT

Trace one number

1

Pick one report, sheet or dashboard you rely on.

2

Trace one figure back to its source, step by step.

3

Note every step you cannot explain or that nobody wrote down.

4

Mark each one: keep, document or retire.

YOUR TOOLS

Use your own report. You do not need an AI tool for this exercise.

GUIDANCE

What to look for is on slide 45.

CHECK IT

Check yourself

Question 1

How does a one-off fix become a standing habit?

Question 2

Name two signs that a shortcut has become the rule.

Question 3

Why is a confident-looking dashboard not evidence?

Answer in your own words before you turn to slide 45.

KEEP IT

Chapter 1 in four sentences

KEEP THIS

A shortcut starts as a good idea and becomes the rule when nobody decides otherwise. Signs: no known origin, no written steps, awkward checking and reuse of the cleaned file. Ask of any number: where does it come from, who changed it and can it be reproduced? Confidence is a claim, not evidence.

CHAPTER 2

Is the data any good?

By the end of this chapter you will be able to:

Name five qualities of good data.

Run quick checks on a data set.

Explain why AI cleaning needs a record.

Decide how good is good enough.

Time: about 40 minutes, including the exercise.

LEARN

Five questions about quality

Accurate

Does it match what really happened?

Complete

Is anything missing?

Consistent

Is the same thing written the same way everywhere?

Current

Is it up to date?

Traceable

Can you tell where it came from?

LEARN

Quick checks you can do by eye

Count

Does the number of rows match what you expect?

Range

Look for impossible values, such as negative quantities or dates in the future.

Duplicates

Look for the same record twice, or one thing spelled two ways.

Totals

Do the totals match another source you trust?

LEARN

What AI cleaning changes

Asking an AI tool to tidy a column is quick. The tool may fix real errors, but it may also merge things that should stay separate, drop values it does not understand or change formats.

It does not tell you every change it made, and it may not make the same changes next time.

Keep the original, record what you asked for and compare before and after.

RULE OF THUMB

Never overwrite the original.

LEARN

Good enough for what?

Data does not need to be perfect. It needs to be good enough for the decision it supports.

A rough count may be fine for planning a roster. The same data may be too weak for a price change or a payroll run.

Say what the data will be used for, and let that set how much checking it needs.

REMEMBER

Quality depends on the use.

GOING DEEPER

Sampling and silent errors

Spot-check a sample

You cannot read every row. Check a random sample each time and record the error rate you find.

Errors that look right

A wrongly merged name or a shifted date still looks like valid data. Checks must compare against something outside the cleaned file.

Drift

Source data changes over time, such as a new supplier format or a renamed field. A cleaning step that worked last year may quietly fail.

Bias in what is missing

If some customers or periods are missing more often than others, summaries lean toward the ones that remain.

SEE IT

A short example

Dev runs a small wholesaler. He asks an AI tool to standardise the product codes in a price list. The new list looks tidy.

Before using it he compares 30 random rows with the original. Four codes have changed in ways that point to a different product.

He keeps the original, fixes those four by hand and writes down the request he used, so he can repeat and check it.

THE LESSON

Compare a sample against the original.

This is a made-up example for teaching.

TRY IT

Run four quick checks

1

Pick a small data set you use, such as a customer list or price list.

2

Run the four checks: count, range, duplicates, totals.

3

Write down what you found and what the data is used for.

4

Say whether it is good enough for that use.

YOUR TOOLS

Use your own data, kept in your own tools. Do not paste private data into an AI tool for this exercise.

GUIDANCE

What to look for is on slide 46.

CHECK IT

Check yourself

Question 1

Name the five quality questions.

Question 2

Why must you keep the original when an AI tool cleans data?

Question 3

Why can the same data be good enough for one decision and not another?

Answer in your own words before you turn to slide 46.

KEEP IT

Chapter 2 in four sentences

KEEP THIS

Good data is accurate, complete, consistent, current and traceable. Run quick checks: count, range, duplicates and totals. AI cleaning is quick but can change things silently, so keep the original and compare a sample. Good enough depends on the decision the data supports.

CHAPTER 3

Who owns the data?

By the end of this chapter you will be able to:

Explain what data governance means in a small business.

Name an owner, a fixer and the users.

Write a simple record of where a data set comes from.

Decide who may change it.

Time: about 40 minutes, including the exercise.

LEARN

Governance in plain words

Data governance sounds grand. In a small business it means a few simple answers: who owns this data, who may change it, who uses it and who fixes it when it is wrong.

Without those answers, data tends to be everyone's problem and nobody's job.

Good governance is not a thick policy. It is a short page that people actually use.

IN PLAIN WORDS

Governance is knowing who is responsible.

LEARN

Three roles

In a small business one person may hold more than one role. The point is that each role has a name next to it.

Owner

Decides what the data is for and who may use it. Answers for it.

Steward, or fixer

Looks after quality day to day and fixes errors.

User

Relies on the data and reports problems, but does not change it alone.

LEARN

A one-line record for each data set

Name

What the data set is called.

Source

Where it comes from, such as a system, a supplier or a form.

Steps

What is done to it before it is used, including any AI tool step.

Owner

The person who answers for it.

Last checked

When someone last tested it against a source.

LEARN

Who may change it?

Changes to important data should be visible. A change note says what changed, when, who did it and why.

When AI changes data, the same rule holds. A person asks for the change, a person checks it and the note says a tool was used.

Keep change rights narrow. Fewer people who can edit means fewer silent changes.

REMEMBER

Every change leaves a note.

GOING DEEPER

Governance without bureaucracy

Start with what matters

Write the record first for the data behind big decisions, such as pricing, payroll and customer lists.

Review rhythm

Pick a regular time to review the records, such as every quarter, and put it in the calendar.

Accountability, not blame

An owner answers for the data. That does not mean they caused every error.

Link to rules

Some data comes with legal duties, such as privacy rules. Note any that apply, and ask an adviser if unsure.

SEE IT

A short example

Chloe runs a small events company. Her customer list sits in three places and is edited by four people.

After a mailing goes to the wrong person twice, she names the office manager as owner, limits editing to two people and writes a one-page record: source, steps, owner and last checked.

The next time an error appears, everyone knows whom to tell.

THE LESSON

A name next to the data is half the fix.

This is a made-up example for teaching.

TRY IT

Write a data record

1

Pick your most important data set.

2

Write its one-line record: name, source, steps, owner, last checked.

3

Name an owner, a fixer and the users.

4

Decide who may change it, and how a change is noted.

YOUR TOOLS

A table in a document is enough. Use any tool you like, or paper.

GUIDANCE

What to look for is on slide 47.

CHECK IT

Check yourself

Question 1

What are the three roles in a simple data governance setup?

Question 2

What should a change note say?

Question 3

Why keep the number of people who can edit small?

Answer in your own words before you turn to slide 47.

KEEP IT

Chapter 3 in four sentences

KEEP THIS

Governance in a small business means knowing who owns the data, who fixes it, who uses it and who may change it. Keep a one-line record for each important data set. Every change leaves a note, including changes made with an AI tool. A name next to the data is half the fix.

CHAPTER 4

Making the invisible visible

By the end of this chapter you will be able to:

Document a shortcut so someone else can run it.

Give it a name, an owner and a change log.

Reproduce a number from its source.

Decide to keep, change or retire it.

Time: about 40 minutes, including the exercise.

LEARN

Name it, write it down

The first step with a hidden shortcut is not to remove it. It is to make it visible.

Give it a name. Write down what it does, step by step, and with what settings. If an AI tool is involved, record the request wording and the tool.

Once it is written, anyone can see it, test it and improve it.

REMEMBER

Make it visible before
you change it.

LEARN

What a documented step needs

A name

Something people can refer to, such as "Supplier name clean-up".

Steps

Exactly what is done, in order, with settings.

An owner

A person who looks after it.

A change log

A short list of changes, with dates and reasons.

LEARN

Rebuild and compare

To test a hidden step, rebuild it from the written description and compare the result with the existing numbers.

Where they match, you have confidence. Where they differ, you have found something to explain, and sometimes an old error.

Do this for a handful of important figures first, not everything at once.

RULE OF THUMB

Reproduce before you
rely.

LEARN

Keep, change or retire

Keep

The step works, is understood and is documented. Give it a review date.

Change

The step is useful but unclear or risky. Fix and document it, then test again.

Retire

The step is no longer needed or cannot be explained. Replace it with something simpler.

GOING DEEPER

Keeping it alive

Review dates

Documentation goes stale. Put a review date on each step and keep to it.

The exceptions queue

A growing list of unexplained exceptions is a warning sign. Track it and read it for patterns.

Make questions cheap

If reopening a number is awkward, people stop asking. Make it easy to ask where a figure came from.

Teach the habit

New staff learn how things are really done. Teach them to name and note a shortcut when they make one.

SEE IT

A short example

Back at Mei's manufacturer: she writes down the supplier clean-up step, names it, adds herself as owner and starts a change log.

She rebuilds the step from her description and compares it with the old file. Most figures match. Two do not, and one turns out to come from two suppliers merged by mistake.

She fixes it, notes it in the log and sets a review for three months ahead.

THE LESSON

Writing it down is how you find what was hiding.

This is a made-up example for teaching.

TRY IT

Document one step

1

Take the step you found in chapter 1, or another hidden step.

2

Write its name, steps, owner and change log.

3

Rebuild it and compare a few figures.

4

Decide: keep, change or retire, and set a review date.

YOUR TOOLS

Use your own data and tools.
The written description is the
main output.

GUIDANCE

What to look for is on slide 48.

CHECK IT

Check yourself

Question 1

Why make a shortcut visible before removing it?

Question 2

What does a documented step need?

Question 3

What does a growing exceptions list tell you?

Answer in your own words before you turn to slide 48.

KEEP IT

Chapter 4 in four sentences

KEEP THIS

Make a hidden shortcut visible before you change it: give it a name, write the steps, name an owner and keep a change log. Rebuild it and compare the numbers. Then decide to keep, change or retire it, and set a review date. Make it cheap to ask where a figure comes from.

AT THE BACK

Guidance and answers

Questions and exercises stay in the chapters, on their own slides.
Guidance lives here, so you can try first and look afterwards.

Try the task or question in your own words, then compare. Where your answer differs, that is worth a note, not a correction.

WHERE TO FIND IT

Slides 45 to 48: answers
and exercise guidance, one
slide for each chapter.

GUIDANCE

Chapter 1: answers and guidance

Answer 1

Someone reuses it, then it becomes normal. At no point does anyone decide it should be permanent.

Answer 2

Any two of: nobody remembers the origin, the steps are not written down, checking is awkward, or people reuse the cleaned file instead of the source.

Answer 3

Looking sure is a claim. Evidence is knowing where the figures come from and being able to reproduce them.

Exercise

Most people find at least one step they cannot explain. That step is the shortcut. Do not fix it yet. First write down what it does.

GUIDANCE

Chapter 2: answers and guidance

Answer 1

Accurate, complete, consistent, current and traceable.

Answer 2

The tool may change things in ways you cannot see. The original lets you compare before and after, and go back.

Answer 3

The cost of a mistake differs. A rough count may do for a roster but not for pricing or payroll.

Exercise

Most small data sets have at least one duplicate or odd value. The useful part is your note on what the data is used for, which tells you how much more checking it needs.

GUIDANCE

Chapter 3: answers and guidance

Answer 1

Owner, steward or fixer, and user.

Answer 2

What changed, when, who did it and why. If a tool was used, it says so.

Answer 3

Fewer people who can edit means fewer silent changes, and it is easier to see who did what.

Exercise

Most people cannot fill in the Steps or Last checked lines at first. Those gaps are the work to do next.

GUIDANCE

Chapter 4: answers and guidance

Answer 1

You cannot judge or fix what you cannot see. Writing it down shows what it really does and lets others test it.

Answer 2

A name, the steps with settings, an owner and a change log.

Answer 3

People are arguing about figures that the process cannot explain. It is a warning sign to read for patterns.

Exercise

If the rebuilt numbers match, you have confidence in the step. If they differ, you have found something worth explaining, which is a good result.

FIND OUT MORE

About Ekalavya Academy

Ekalavya Academy is a learning series from Almost Magic Tech Lab. The books are written for people who teach themselves, using the tools they already have.

Almost Magic builds tools that help people check and govern their AI use. The books never depend on those tools.

LINKS

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