

EARNED · CHAPTER TEN

# Promises a Machine Has to Keep

*Chapter Ten of Earned*

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*Chapter Ten of Earned*

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## A NOTE BEFORE YOU READ

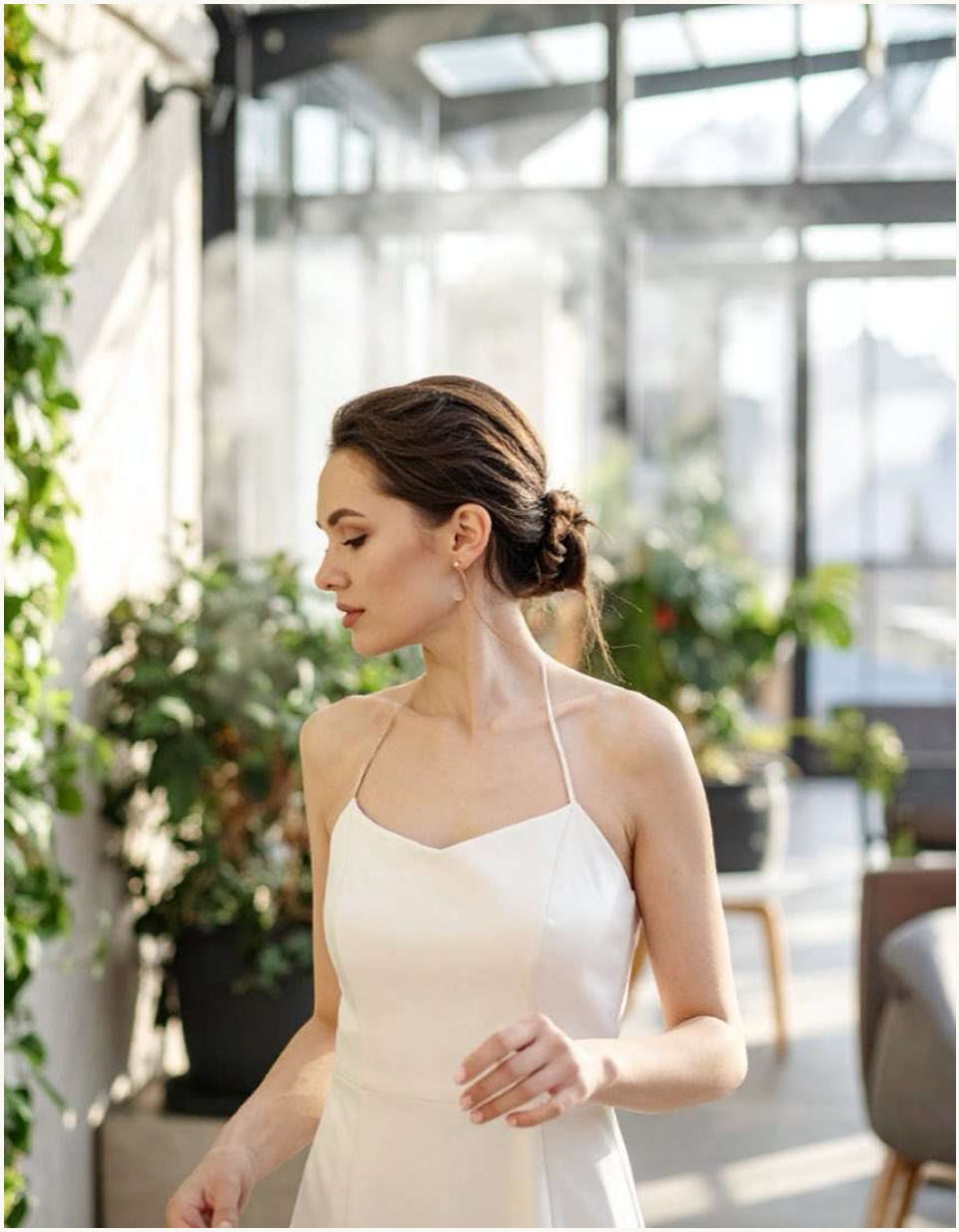
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## ABSTRACT

Human error is stochastic and local. A hundred agents making judgment calls produce a hundred slightly different outcomes, most acceptable, a few bad, and the bad ones arrive one at a time — which is not just a smaller problem but a differently shaped one. A single bad outcome is a complaint. It gets handled, sometimes generously, and it produces at most a story. The distribution of human error is also, importantly, illegible to customers: nobody can compare their refund to the refund the person before them got, so no one perceives a pattern, because there usually isn't one. Machine error is correlated. It is the same error, in the same direction, applied to everyone who hit the same input pattern, at the same instant, and it does not stop until someone notices and ships. This changes three things at once. The magnitude arrives before the detection does — you can be forty thousand wrong decisions deep before the first ticket escalates.

CHAPTER TEN

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HAUTE LUMIÈRE · EARNED · CHAPTER TEN

## Errors that arrive all at once

Human error is stochastic and local. A hundred agents making judgment calls produce a hundred slightly different outcomes, most acceptable, a few bad, and the bad ones arrive one at a time — which is not just a smaller problem but a differently shaped one. A single bad outcome is a complaint. It gets handled, sometimes generously, and it produces at most a story. The distribution of human error is also, importantly, illegible to customers: nobody can compare their refund to the refund the person before them got, so no one perceives a pattern, because there usually isn't one.

Machine error is correlated. It is the same error, in the same direction, applied to everyone who hit the same input pattern, at the same instant, and it does not stop until someone notices and ships. This changes three things at once. The magnitude arrives before the detection does — you can be forty thousand wrong decisions deep before the first ticket escalates. The error is legible, because identical outputs across many customers are trivially comparable and, in the era of screenshots, comparable in public within the hour. And the intent reading flips: one clerk who denies your claim is a clerk; a system that denies your claim and everyone else's in the same category, in the same words, reads as policy. Customers are not wrong to read it that way. It is policy. It is just policy nobody admitted to writing.

There's a version of this the industry keeps rediscovering. The pattern of automated eligibility and enforcement systems making the same wrong determination at scale — in benefits administration, in fraud scoring, in account suspension — has a consistent shape: the system is deployed to reduce cost and inconsistency, it works, the error rate is genuinely low, and the harm nonetheless dwarfs anything the human process produced, because a two-percent error rate applied uniformly and quickly to a large population is a mass event, while a five-percent error rate applied haphazardly by people who could be argued with is background noise. The instinct to compare accuracy rates before and after automation is the right instinct pointed at the wrong quantity. What changed is not the rate. It is the correlation, the speed, and the absence of anyone at the edge with standing to say *this one is wrong*.

So the first thing to understand about promises a machine keeps is that the machine multiplies the consequences of the promises you were already breaking casually. If your policy is slightly unfair and your people were softening it, automation is a decision to stop softening it. That is a decision. It should be made on purpose, at the level where policy is set, by someone who has looked at what the exceptions actually were.

## The promises hiding in your data

Long before a model touches a customer, the company has made a set of commitments about data that almost nobody in the building could recite. They live in the privacy policy, which is a legal artefact drafted to maximise permission, and in the customer's actual expectation, which is set by the product's behaviour and the company's marketing and is very much narrower. The gap between those two is a promise surface

— chapter three's argument arriving in a new place — and it is the least inspected promise surface most companies have.

Three questions cut through it, and I would put money on the third one being unanswerable at any company reading this.

*Why do you collect this field?* Not what it enables in principle. Who wanted it, for what decision, and is that decision still being made. Most schemas are archaeological. A field was added in 2019 for an experiment that ended in 2020, and it has been collected on every signup since, because removing it requires a migration and nobody's bonus depends on it. That field is an outstanding promise you're paying interest on: you are holding something about a customer for a reason that no longer exists, and if it leaks, the honest version of the disclosure is *we had been collecting this for six years for no purpose we can reconstruct*. That sentence has ended careers, and it should.

*When does it get deleted?* Retention with no clock is not a policy, it is a habit. The clock is the substance of the promise; "we retain data as long as necessary for our legitimate business purposes" is a sentence engineered to contain no clock at all. A real retention policy is a number and a job that runs, and the test of whether you have one is whether you can name the number and point at the last run.

*Who else has it?* Read your own subprocessor list. Not skim — read it, and for each entry, say what it does and when someone last looked at it. The list is a public document at most enterprise vendors and a genuine disclosure in chapter four's sense: it costs something to publish, because it tells sophisticated buyers exactly which fourteen companies now have their data and gives competitors a map of your stack. Which is why it is usually accurate and usually unread, including internally. The interesting failure is not the malicious subprocessor. It is the one that was appropriate when it was added at ten thousand users and is not appropriate now, and no one revisited it because nothing in the calendar says to.

Data promises are the ones that come due last and hurt most, because the breach or the disclosure or the acquisition surfaces all of them at once, retroactively, in front of an audience. And they're the promises most amenable to structural fixing, because unlike a model's behaviour, a schema is finite and enumerable. You can literally count the fields.

## A structural move with a price on it

In April 2021, Apple shipped App Tracking Transparency with iOS 14.5: an operating-system-level prompt requiring apps to ask permission before accessing the device identifier used to track users across other companies' apps and websites. The default became no. Opt-in rates on that prompt came in low — the widely reported figures clustered well under half of users, with early US numbers far lower than that — and the consequence landed on the ad-funded businesses that had been assuming the identifier. Meta said

publicly, in early 2022, that the change would cost it roughly ten billion dollars in revenue that year, and its stock fell hard on the guidance.

Take the structure seriously before taking the motives seriously. This is chapter two's costly signal in an operating system. Apple did not run a campaign about caring for privacy; it changed a default in a way that removed capability from its own platform, that it could not quietly walk back, and that a company with the opposite intentions could not have imitated — because a company whose revenue depends on that identifier would have been destroying its own business model to send the same signal. The signal carried information precisely because of who could not afford to send it.

And it was self-interested. Apple's revenue does not depend on cross-app tracking, and its own advertising business sits inside its walls, where the rule bites differently. The move raised rivals' costs while imposing modest direct cost on Apple, and regulators in several jurisdictions have examined exactly that asymmetry. Both things are true, and the honest reading is that the market priced both: Apple gained genuine trust with users, drew genuine antitrust scrutiny, and did not have to choose which one to receive.

The lesson executives usually extract from this — *find the privacy move that also hurts your competitors* — is the wrong one, and it's wrong in an instructive way. The reason ATT worked as a signal is not that it was clever positioning. It is that it was *structural and irreversible*: a default, in the OS, enforced by review, applying to everyone including Apple's partners. Had Apple published a privacy manifesto and a settings page three menus deep, nothing would have moved, because a settings page costs nothing and therefore says nothing. The transferable move is: find the place where you can change a default in the customer's favour, where the change costs you measurable revenue, and where you cannot silently reverse it. Then let the self-interest be whatever it is. Mixed motives don't weaken a costly signal. Only cheapness does.

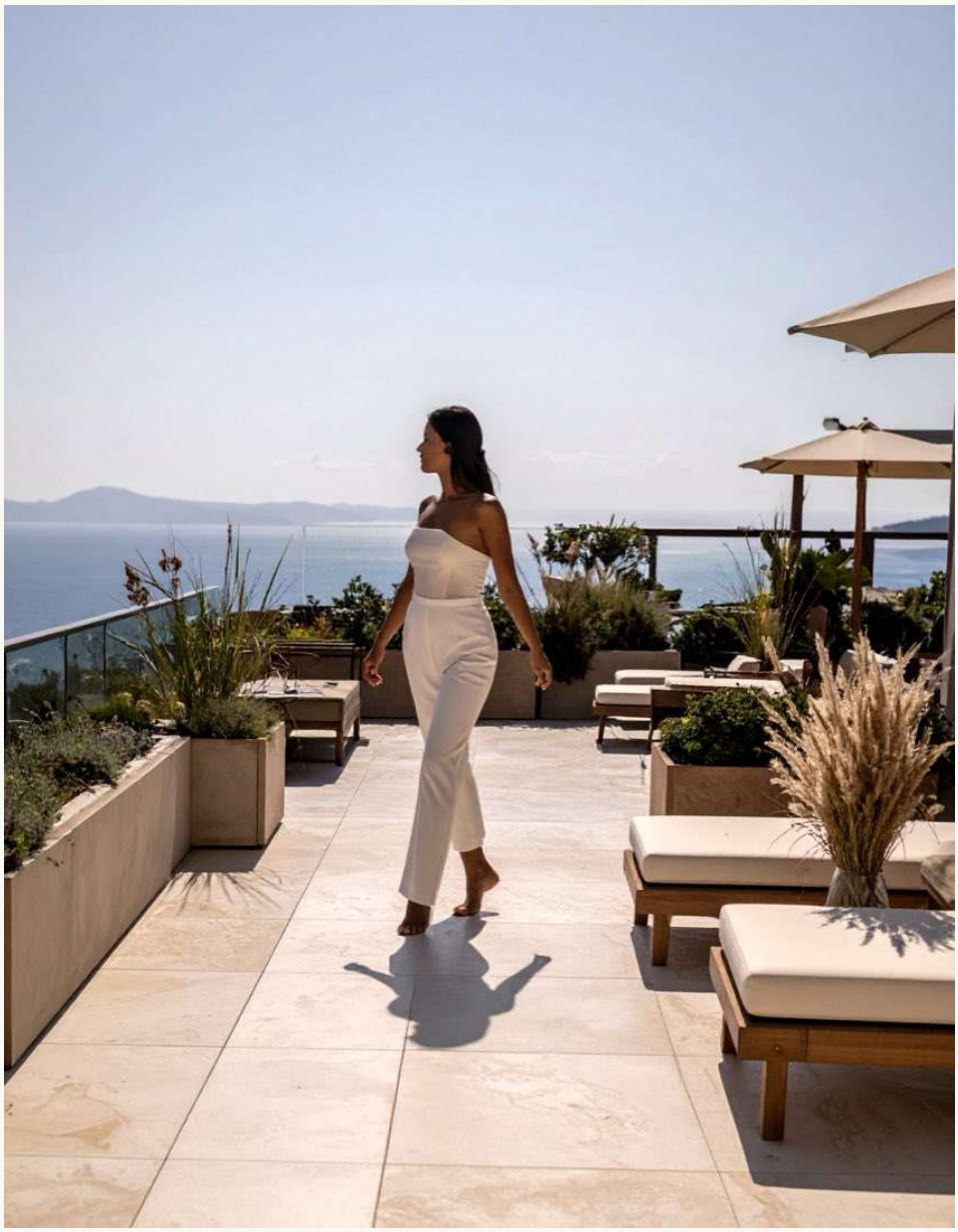
## The difference between a claim and a capability

Zoom's 2020 was the sharpest available demonstration of what happens when the promise outruns the machine. As usage exploded during the pandemic, the company's marketing and documentation described its meetings as end-to-end encrypted. Researchers and journalists established that they weren't — in the sense the term means to anyone who uses it seriously, which is that the provider cannot access the content. Zoom held the keys. The traffic was encrypted in transit; the company could decrypt it. In November 2020 the FTC announced a settlement over the security claims, alleging Zoom had misled users about the encryption and about other security specifics, and requiring a security programme with outside assessments.

Then the part that matters. Zoom acquired Keybase in May 2020, published a cryptographic design publicly for review, and shipped genuine end-to-end encryption as a user-selectable feature starting in late 2020 — with the honest trade-offs stated plainly, since turning it on disabled features that require server-side access to the stream. The company built the capability it had claimed, and in doing so made visible ex-

actly what the claim had always cost: the features you give up are the features the provider's access was buying you.

Set the two halves against each other and the mechanism is unmistakable. A claim is free and reversible. A capability is expensive, and the expense shows up as things the product can no longer do. That asymmetry is the whole test. When a vendor tells you a system is private, secure, unbiased, or auditable, the diagnostic question is not *do you have a policy about this* — it's *what does this cost you*. If the answer is nothing, you have been shown a values page. If the answer is a feature list that got shorter, a market you exited, or a set of engineering constraints that make certain roadmap items impossible, you have been shown a capability. And it is worth naming that Zoom ended in a better trust position than a company that had merely never made the claim, because it had now paid — in a regulatory settlement, in engineering years, in shipped functionality it had to give up — for a claim it once made for free. The payment is the evidence. Claims are not evidence, even true ones.



*What the system refuses to say*

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## What the system refuses to say

Which brings us to the thing that is actually new, and it is not scale or speed. It is that the current generation of automated systems produces fluent, confident, well-formatted output whether or not it has any basis for it, and the person relying on it cannot tell the difference from the artefact alone. A model's wrong answers look exactly like its right ones. That is not a bug in a particular product; it is a property of systems trained to produce plausible continuations. Every previous machine failed legibly — the calculator threw an error, the form rejected the input, the search returned nothing. This one fails by answering.

A system that cannot say *I don't know* therefore cannot be trusted with anything consequential, and the reason is a matter of information, not manners. If a system always answers, its answers carry no information about their own reliability. Every output is at the same nominal confidence, so the user must apply a single global discount rate — verify everything, or verify nothing and absorb the errors. Neither is a working relationship. Calibration is what converts a system from an oracle you must audit into a colleague you can rely on: if it declines when it should decline, then when it does answer, the answering itself is a signal. Confidence becomes information only when it varies with actual reliability, and it only varies if the system is permitted, sometimes, to pay the price of admitting the limit.

The forms this takes in a product are unglamorous. The system that cites, so the user can check the claim against the source rather than against their impression of the tone. The system that declines an out-of-scope question rather than generating a fluent answer about a domain it has no coverage of. The system that flags — *this is outside the data I was trained on*, *this document was ambiguous on this point*, *I found two conflicting figures* — rather than silently resolving the conflict in favour of whichever it saw last. The system that routes to a human at a threshold rather than at a customer's insistence. None of these is technically hard. All of them are commercially painful in the same specific way.

And here is the argument the chapter has been walking toward. The honesty of an automated system lives not in what it says but in what it refuses to say — and refusal is expensive precisely because it looks like incapacity to every buyer comparing demos. Put the calibrated system next to the confident one in a procurement bake-off and the calibrated one loses. It loses on the hardest questions, which are the ones the evaluators use to differentiate, because on those questions it declines while its competitor produces a fluent answer that nobody in the room has the domain knowledge to falsify in the meeting. The buyer experiences the refusal as a gap and the fabrication as a capability. This is chapter two's problem arriving inside the product itself: the market cannot distinguish a system that knows its limits from a system that has fewer of them, in the short window where the purchase is decided, and so the signal only works if the vendor keeps paying after it has cost them a deal.

That is why calibration is a trust asset rather than a feature. Anyone can add a hedging disclaimer; disclaimers are free and everybody has one. What cannot be faked is a demonstrated history of declining — visible, logged, and costly. A vendor who can say *here is our refusal rate by query category, here is how it changed last quarter, here are the deals we lost in bake-offs because we declined* has done something a competitor with the opposite intentions could not afford to imitate. The refusal is the signal. The fluent answer is the noise.

## Publishing something unflattering about your own machine

Model cards, system cards, evaluation results, enumerated failure modes: the machinery of disclosure for automated systems now exists as a genre, and most of it is marketing. You can tell because of what it con-

tains. A document that reports a system's accuracy on benchmarks it was optimised for, lists its intended uses, and gestures at limitations in the abstract has told you nothing that costs anything. Chapter four's test applies without modification: disclosure is the deliberate surfacing of the fact that costs money to surface. The question for any model card is *what does this document tell a buyer that would make them less likely to buy*.

The answers that qualify are specific. The population subgroup where accuracy drops and by how much. The query categories where the system is known to fabricate. The failure mode discovered in production, with a date, that you fixed and are reporting anyway. The evaluation your system failed. The known attack that works. The performance degradation since the last version, on the axis where you regressed to gain something elsewhere.

The first time a company publishes one of those, the internal experience is memorable and worth predicting accurately, because the prediction is what determines whether you do it twice. Sales will discover that the disclosure is now in a competitor's battlecard within about a fortnight, quoted accurately and without context. Legal will observe, correctly, that you have created a document a plaintiff can cite. Somebody senior will ask why you're doing the regulator's work unprompted. And a small number of sophisticated customers — the ones who were already probing, whose own risk teams had questions you'd been answering in circles — will move from evaluation to contract, because you told them the thing they'd been trying to find out, and the telling was evidence about everything else you'd said.

That trade is worth making, and it's worth being honest that it is a trade rather than pretending the costs are illusory. What you're buying is a specific and durable asset: you become the vendor whose claims can be believed without verification, in a market where nobody else's can. That is worth a great deal precisely because it is expensive, and it stops being worth anything the moment you publish a disclosure that costs nothing. The half-life of a company's model-card credibility is exactly as long as the interval since the last unflattering thing it published.

## Who can reverse the machine, and what it costs to reach them

There is one more question, and it is the one customers actually ask when the system gets it wrong. Not *how was this decided*. They ask: *can a person undo this, how fast, and what do I have to do to reach them.*

Three numbers answer it, and they should be knowable inside your company today. What fraction of automated decisions get reversed on review — which tells you your real error rate, as opposed to your measured one, and which will be uncomfortably higher than whatever the model evaluation says. How long the reversal takes from the customer's first complaint to the corrected outcome. And what the customer had to spend to get there: how many messages, how many days, how many times they had to re-explain, whether they had to find a public channel to be heard.

That third number is the one that gets manipulated, and it is where most automated-decision trust is actually destroyed. Companies rarely say *there is no appeal*. They build an appeal that technically exists, sitting behind a chatbot that loops, a form with no confirmation, a queue with no service level, and an outcome delivered as a template with no reasoning. The appeal is real in the sense that a determined customer with time and leverage will eventually get through — which is to say it is available to the customer with a lawyer or an audience, and not to anyone else. That is not a recourse system. It is a filter that selects for the customers who can hurt you, and every customer who has been through it knows exactly what it was.

Genuine recourse has three properties, each of which costs money, which is the point. A human being with the authority to reverse the machine's output without the machine's agreement — not to explain it, not to escalate it, to *reverse* it. A stated time within which that happens, published, so the customer isn't waiting in a void. And a route to that human that a distressed person can find in under a minute without knowing the magic word. Companies that publish an appeal-response time are making a costly commitment; companies that publish reversal rates are making a much more costly one, because that number is an admission of error volume. Almost nobody does the second thing. The first company in your industry to do it will find it very difficult to compete with on trust, because the disclosure is self-authenticating: only a company confident in its recourse machinery would show you how often it needs it.

## The failure mode: a publication programme

The predictable way all of this goes wrong is not neglect. It's a responsible-AI function that exists, is staffed by sincere people, produces documents of genuine quality, and cannot stop anything.

The shape is consistent enough to be diagnostic. There are principles — usually five to seven, usually including fairness, transparency, and accountability, usually indistinguishable from any other company's. There is a review process that produces recommendations. There is a report published annually. There is a leader with a title and a small team, reporting somewhere in legal or policy, whose budget is roughly one senior engineer's salary and whose relationship with the product organisation is entirely persuasive. And there is a launch date, set by a business unit that does not report to them, that will not move.

Test the function with one question: *has a launch ever been delayed, or a feature killed, over this team's objection, and can you name it with a date?* If the answer is no, you don't have a governance function. You have a publication programme. Its principles document is a values page, which chapter two already established carries no information, and its annual report is a disclosure that costs nothing, which chapter four already established is not disclosure. It absorbs criticism, occupies the ground where a real function would have to be built, and — this is the part that should worry an executive — generates a paper record of stated commitments that the company is demonstrably not structurally able to keep. That is worse than silence, because it converts a gap in capability into a documented gap between claim and practice, which is the exact shape of an FTC action and the exact shape of the Zoom sequence.

What makes it real is unpleasant and simple, and it is chapter twelve's argument arriving early: a veto that costs something to override. Not an advisory seat. A specific gate that a specific named person can hold closed, with an override path that requires a signature from someone senior enough that using it is a career event, and a log of every override that goes to the board. The budget matters less than the authority; a two-person team with a hard gate outperforms a twenty-person team with a newsletter, every time. And the tell that you have built the real thing is the same tell as everywhere else in this book: it hurts. If your governance function has never cost you a quarter's revenue or a launch you wanted, it is not exercising judgment, it is producing content.

Start with one field.

Pick a single piece of customer data your systems collect — not the obvious one, one of the fields in the middle of the schema that nobody mentions in meetings — and go find the person who can tell you why you collect it. Give it a week. Ask the product manager who owns the surface where it's captured, ask the analytics team whether anything queries it, ask the engineer who wrote the migration if they're still around. What you are looking for is not a plausible justification, which anyone can generate in thirty seconds; you are looking for a live decision that consumes it. A named use, a system that reads it, a person who would notice if it went away.

Most of the time you will find one, and the exercise will have cost you a few hours and taught you something about your own product. Some of the time you will not, and then you have a choice that is much smaller and much more consequential than it appears. The field costs almost nothing to keep. Keeping it is free, forever, until the day it isn't. Deleting it takes an engineering ticket, a migration, and a conversation with whoever is nervous about deleting things.

Delete it. This week, while the question is still live and before somebody constructs a reason.

Then do the part that turns an internal hygiene task into a deposit: tell your customers. Not a press release — a line in a changelog, a note in the next product email, an entry in whatever you use to talk to the people who use your product. *We were collecting X. We couldn't find a good reason. We've stopped, and we've deleted what we had.* It will feel disproportionate, like announcing that you cleaned a room. Send it anyway. What the customer learns is not that one field is gone. They learn that somewhere inside your company there is a process that goes looking for data you can't justify, and that the process has teeth, and that it reported on itself when the finding was unflattering. That inference is worth vastly more than the field was, and it is available for the price of an email — but only once you have actually deleted something, because the sentence is only load-bearing if the deletion is real.

Do it every quarter and you have built the first machine in this chapter that keeps a promise without anyone present to make an exception. Start with one field. There will be more; there always are.

YOUR PAGE

Chapter Ten, carried forward. *Which decision in front of you this week is a deposit, and what will it cost you to make it?*

The Briefs

*Chapter Ten, in instruments*

BRIEF 10.1

## Data Inventory as Promise Register: What You Hold Against What You Said You Held

Your privacy policy is a document written by a lawyer eighteen months ago from a description given by a product manager who has since left. Your database is a thing that grew. Nobody has ever put the two side by side, field by field, and asked whether the second is a subset of the first.

The move is to build a single table with two columns of provenance. Left column: every field your systems actually persist, enumerated from schemas, log sinks, analytics payloads, model training sets, and vendor exports — not from memory, from `information_schema` and equivalents. Right column: the specific sentence in your published policy, contract, or in-product disclosure that authorises holding it. Every row without a right-hand entry is either an undisclosed collection you must stop or disclose, or a promise you did not know you had broken.

The mechanism is that promises decay asymmetrically. Collection is added by engineers at feature velocity; disclosure is edited by counsel at legal velocity. The gap opens silently and only in one direction, because nobody ships a policy update announcing a field they *removed*. A register works because it converts an invisible drift into a countable list of exceptions, and lists of exceptions get closed. It requires one condition to work at all: the inventory must be generated from the systems, not surveyed from the teams. Survey-

based inventories reliably miss the debug logs, the support tooling, the analytics vendor, and the model prompt cache — which is to say, they miss where the real exposure lives.

The failure mode is the register that becomes a compliance artifact rather than an operating one. Once it is a spreadsheet maintained quarterly by someone in GRC, it reports on a system it no longer tracks, and its green status becomes worse than no status, because it licenses everyone else to stop looking. A register that is not regenerated automatically is a document about the past wearing the costume of a control. The second failure is quieter: a register that resolves every gap by widening the policy language rather than narrowing the collection. That closes the list and breaks the promise more thoroughly than the drift did.

The first action: run a schema dump of your primary production database and your analytics warehouse, paste the column names into one sheet, and spend an hour marking every one you cannot immediately point to a disclosure for. Do not fix anything yet. Count them. The number is the finding.



*Retention Clocks: Putting an Expiry Date on Every Field You Collect*

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BRIEF 10.2

## Retention Clocks: Putting an Expiry Date on Every Field You Collect

The default retention period in almost every company is forever, arrived at by nobody deciding. Storage is cheap, deletion is scary, and no engineer has ever been promoted for removing data. So the support tran-

script from 2019, complete with the customer's account number read aloud, is still sitting in an S3 bucket that four teams can read.

The move is to make retention a required, non-nullable property of every field at the moment it is created. No new table, log stream, or event schema ships without a TTL declared in the same commit — and the TTL is enforced by a job that actually deletes, not by a policy document that describes deletion. Where the value must be `indefinite`, that is a named exception with an owner and a review date, not a blank.

The mechanism is that retention limits convert a growing liability into a bounded one, and the bound is what makes the promise credible. A company that holds nothing after ninety days cannot be breached for year-four data, cannot be subpoenaed for it, cannot have an employee browse it, and cannot quietly repurpose it for a model in 2028 under a policy nobody read. This is why deletion is a trust deposit and not just a hygiene task: it removes your own future optionality. You are giving up the thing you might have wanted later, which is precisely what makes it expensive and therefore worth something. It works on one condition: deletion must be verified against backups, replicas, warehouses, and vendor copies. Deleting the primary row while the fan-out copies persist is theatre with a paper trail.

The failure mode is retention discipline applied to the customer's data and not to the derived data — the embeddings, the aggregates, the model fine-tune, the feature store. The row is gone; the vector built from it and the model weights that memorised it remain, and you will tell a regulator in good faith that you deleted it. Name derived artifacts in the clock or the clock is decorative. The second failure: deletion that also destroys the customer's own record, so that honouring your promise erases their invoice history. Offer export before expiry.

The first action: pick your single highest-volume log stream, find out how long it is currently kept, and if the answer is "we don't know" or "forever," set a number today. Ninety days is defensible. Choose it, write it into the config, and let the first purge run.

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BRIEF 10.3

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## The Subprocessor List Nobody Has Read: Auditing Who Else Holds Your Customers' Data

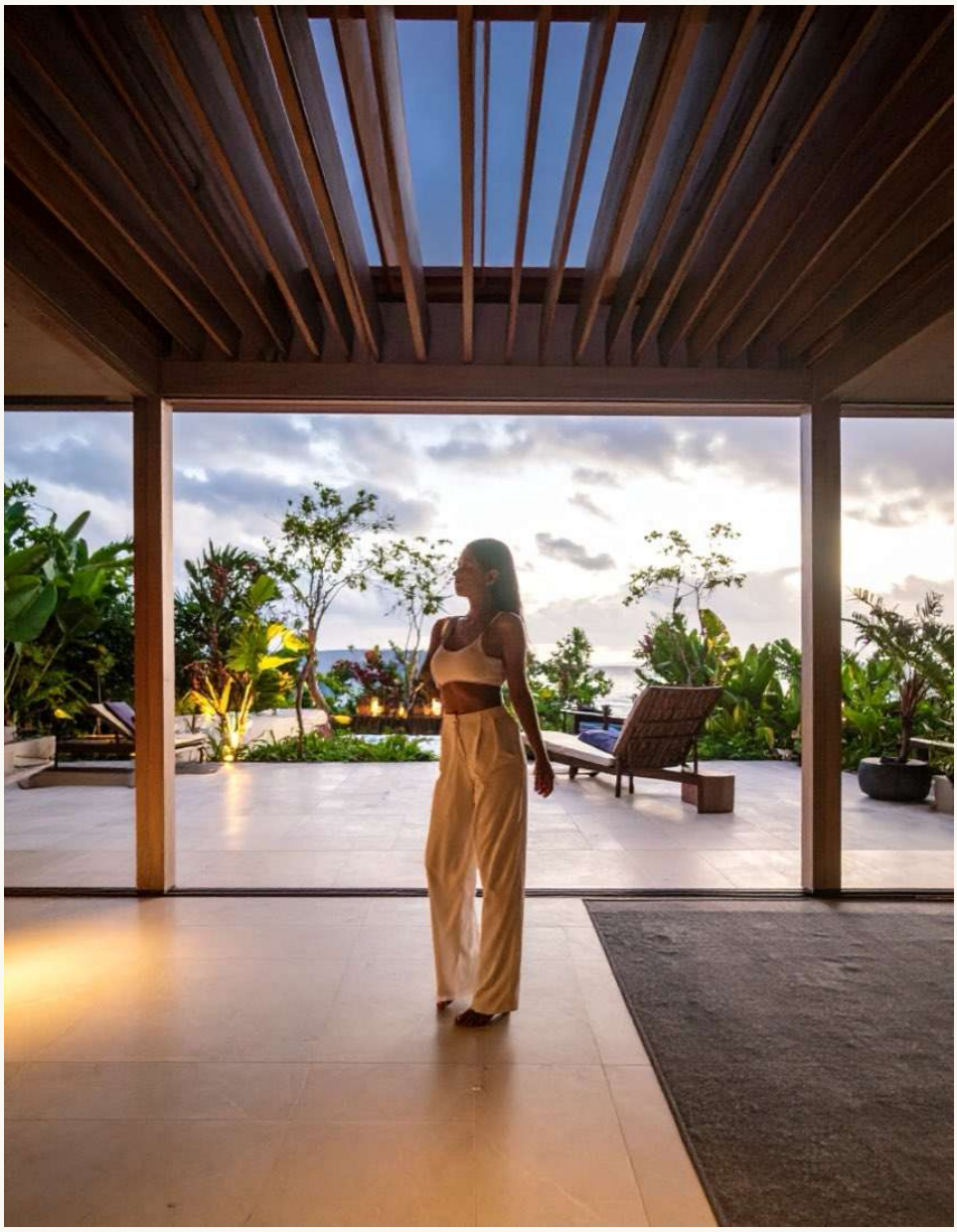
Your enterprise contract names a subprocessor list at a URL. That page has thirty-one entries. At least four of them are companies you no longer use, two are acquisitions that now sit under a parent with a different jurisdiction, and one — the transcription vendor a support engineer wired in for a pilot — is not on the page at all but has a copy of every customer call from the last year.

The move is to reconcile the published list against the money. Pull every vendor with an active invoice, every OAuth grant issued against your production tenant, every API key in your secrets manager, and every DNS-resolvable third-party domain called from your client bundle. Intersect that set with your published subprocessor page. Both directions are findings: vendors you list but don't use are stale disclosure, and vendors you use but don't list are a broken contractual promise with named counterparties who can enforce it.

The mechanism is that data escapes through procurement, not through engineering. Engineering changes are reviewed; a $400/month SaaS tool bought on a corporate card by a team lead solving a real problem is not. Accounts payable is therefore a more complete map of your data perimeter than your architecture diagram, because paying for something is the one act nobody forgets to do. The condition for this working is that the reconciliation must run against the current billing period, not an annual vendor survey — the pilot tool that never got a PO is exactly the one that will be missed.

The failure mode is treating the audit as a naming exercise and stopping there. Listing a subprocessor discloses the relationship; it does not constrain it. If the vendor's own subprocessors are unlisted, if their retention exceeds yours, or if their DPA permits training on your customers' content, then a complete and accurate list has disclosed a promise you are still breaking one layer down. The second failure is the opposite direction: an over-broad list that names every conceivable vendor to avoid ever updating it, which converts the disclosure into noise and defeats the customer's ability to object.

The first action: export the last three months of vendor charges from your accounting system, and mark every line where the vendor could plausibly touch customer data. Compare that column to your public list. Read the delta out loud in your next standup.



*Shipping 'I Don't Know': Designing Refusal Into an AI Product Without Losing the Demo*

HAUTE LUMIÈRE · EARNED · BRIEF 10.4

BRIEF 10.4

## Shipping 'I Don't Know': Designing Refusal Into an AI Product Without Losing the Demo

The model answers everything. That is the demo, and it is also the defect: when it is wrong it is wrong in exactly the same confident register as when it is right, and the person relying on it has no signal to distinguish the two. You have shipped a system whose failures are invisible at the point of use.

The move is to give the system a first-class abstention path — a response type that is designed, not degraded. Not a hedging paragraph, not a disclaimer footer, but a distinct output state: *I don't have this. Here is what I do have. Here is who does.* Route it to a real next step — the source document, the search, the human. Then measure abstention rate as a product metric with a floor, not a ceiling.

The mechanism runs through the user's calibration, not the model's. Any system with a nonzero error rate can still be relied on safely if the user can tell which answers to check. Uniform confidence destroys that discrimination and forces the user into one of two bad equilibria: check everything, which removes the product's value, or check nothing, which converts your error rate directly into their loss. A visible abstention restores the signal — and it does more, because a system that sometimes says *I don't know* makes its other answers mean something. The condition is that abstention must be cheap and graceful for the user. If saying "I don't know" dumps them into a dead end, they will learn to hate it, and your team will quietly tune the threshold until it stops happening.

The failure mode is abstention as liability laundering: refusing on anything sensitive, contested, or specific, so that the system is confident about the trivia and silent about the stakes. That is worse than confident error, because it withdraws precisely where the user most needed help while preserving the appearance of caution. The second failure is threshold drift — abstention is expensive in the demo, in the eval leaderboard, and in the sales call, so it erodes release by release with no single decision ever having been made to erode it. Version the threshold and log it, or it will move.

The first action: take fifty real queries from last week's logs where you know the system was wrong, and check how many of them the system had internal signal to abstain on. Whatever that number is, it is your available headroom, and it is almost certainly larger than you expect.

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BRIEF 10.5

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## Publishing an Unflattering Evaluation: The First One Is the Expensive One

You have internal benchmarks. They show the system performing well on the cases you designed it for and poorly on a category you know about — long documents, minority dialects, adversarial phrasing, whatever yours is. The results live in a Notion page with six readers. Your marketing page says "highly accurate."

The move is to publish the evaluation, including the category where you lose, with the methodology reproducible enough that someone could check you. Name the failure category in your own words before a customer or journalist names it in theirs. State the number, state the conditions, state what you are doing about it and by when.

The mechanism is that trust is priced off the *worst* thing you have voluntarily disclosed, not the best thing you have claimed. Every vendor claims accuracy; claims are free and therefore carry no information. A specific, checkable, unflattering number is expensive — it costs you deals this quarter — and expense is what makes it evidence. The buyer who reads your published weakness now believes your published strength, because you have demonstrated that your disclosures are not selected. This works on a hard condition: the disclosure must precede the discovery. A weakness you publish after a customer finds it is not a deposit; it is damage control, and buyers can tell the difference by looking at the dates.

The failure mode is the sanitised eval — publishing a benchmark constructed so that the weakness shown is one you have already fixed, or one that is universal to the category and therefore costs you nothing competitively. That is a claim wearing the costume of a disclosure, and it burns the mechanism permanently: the second real disclosure will be read as marketing too. The other failure is publishing once. A single eval from eighteen months ago describes a model you no longer run, and stale transparency reads as evasion once anyone checks the version number.

And it must be said plainly: the first one costs real revenue. A deal will be lost to a competitor who claims 99% and measured nothing. That loss is the price of the asset, and it is only paid once — after which your numbers are the ones procurement believes.

The first action: find the internal eval slide with the number your team is least comfortable showing, and put it on the roadmap for external publication with a date. Today's action is the date, not the publication.



*Default Settings Audit: Every Toggle Whose Off State Costs You Revenue*

HAUTE LUMIÈRE · EARNED · BRIEF 10.6

BRIEF 10.6

## Default Settings Audit: Every Toggle Whose Off State Costs You Revenue

Somewhere in your settings there is a checkbox, on by default, that shares data or enables a charge, and the business case for its default state was written as a revenue projection. Nobody lied. Someone ran the experiment, on-by-default converted better, and the toggle shipped on.

The move is to enumerate every default in the product and sort it by one question: who benefits from this state? Not "is it disclosed" — everything is disclosed — but who gains when the user never touches it. Then flip every default where the beneficiary is you and the cost is theirs, and record the revenue you gave up as a line item.

The mechanism is that defaults are the promise layer with the highest leverage, because they are the only setting most users will ever have. Somewhere between 80 and 95 percent of users never open settings; the exact figure varies by product but the shape does not. A default is therefore not a preference — it is a decision you made on the user's behalf and then attributed to them. Auditing defaults works because it takes the one place where your interest and theirs diverge invisibly and makes the divergence a countable number in a spreadsheet with an owner's name next to it. The condition: you must record the revenue forgone. A default flip with no measured cost is indistinguishable from a default nobody wanted, and will be flipped back in the next growth cycle by someone who doesn't know why it was set.

The failure mode is auditing the toggles in the settings screen while the consequential defaults live elsewhere — in the plan that auto-renews at list price, the data retention that begins at indefinite, the model that trains on inputs unless a flag is passed, the invoice that defaults to the higher tier. The visible switches get audited because they are easy to enumerate; the defaults embedded in contracts, billing logic, and API parameters do the actual work. Second failure: flipping the default while making the on-state harder to find, which converts a revenue extraction into a usability tax on people who genuinely wanted the feature.

The first action: open your own product with a fresh account, screenshot the settings screen before touching anything, and mark each toggle with *me* or *them*. The ones marked *me* are the audit.

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BRIEF 10.7

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## Human Recourse SLA: How Fast Can a Person Reverse Your Machine, and Who Pays

An automated system suspended an account, declined a transaction, flagged a document, or refused a claim. The customer is now in a queue behind a form, and the honest answer to "when will a human look at this" is that nobody in your company knows, because nobody has ever measured it.

The move is to publish two numbers and staff to them: time-to-human — from a disputed automated decision to a person with authority reviewing it — and time-to-reversal for cases decided in the customer's favour. Attach a third commitment that is the one with teeth: who carries the cost of the delay. If your system froze funds wrongly for six days, the interest, the fees, and the downstream consequences are yours, stated in advance, not negotiated afterwards by whoever complains loudest.

The mechanism is that automation redistributes error, it does not eliminate it. A human agent with discretion absorbed your bad rules quietly, thousands of times a day, at no visible cost — that absorption was a subsidy the frontline paid on your behalf. Remove the discretion and the error lands directly on the customer with nothing between. A recourse SLA is how you take the error back onto your own balance sheet, and it works precisely because it is expensive: a company paying for its own false positives will tune its thresholds. Nothing else tunes them. Accuracy targets set by a team that doesn't bear the cost of being wrong will always drift toward whatever minimises the team's workload. The condition is authority — the reviewer must be able to reverse the decision unilaterally, without escalation, or the SLA measures only how fast someone reads.

The failure mode is the SLA that measures first response rather than resolution. A templated acknowledgement in four hours satisfies the metric and moves nothing, and the organisation will optimise for the metric it publishes. The second failure is a recourse channel that exists but is unreachable from where the decision was delivered — the suspension email with no reply address, the decline screen with no dispute link. Recourse nobody can find is not recourse; it is documentation of recourse.

The first action: take one automated decision your product makes today, and time yourself doing what a customer would do to reverse it. Use the real form, the real queue. However long that takes is your current SLA, whether or not you published it.



*Claim Against Capability: Engineering Sign-Off on Every Security Word in Marketing*

HAUTE LUMIÈRE · EARNED · BRIEF 10.8

BRIEF 10.8

## Claim Against Capability: Engineering Sign-Off on Every Security Word in Marketing

The landing page says "end-to-end encrypted." The implementation encrypts in transit and at rest with keys your service holds, which is a good posture and is not what that phrase means. No one lied — a marketer

wrote a sentence that sounded like the architecture as it had been described to them, and nobody with the schema open ever read the page.

The move is a hard gate: every security, privacy, and reliability claim in customer-facing material carries a named engineer's sign-off against the specific implementation, and the sign-off is recorded with a date and a version. Build the list of controlled terms — encrypted, anonymised, deleted, isolated, private, never, only, all, SOC 2, zero-knowledge, on-device — and route any copy containing them through the gate before publication. Contracts and RFP responses too; those are where the strongest claims actually live.

The mechanism is that security words are technical terms with public definitions that marketing uses as intensity adjectives. The divergence is invisible internally because both parties are being honest in their own vocabulary, and it becomes visible externally at exactly the worst moment — in an incident, when a researcher publishes, or in an FTC enquiry, where the claim and not the control is the thing you are held to. Sign-off works because it puts the person who knows the true state of the system in the path of the sentence. It requires one condition: the engineer must have standing to say no, and saying no must not be career-costly. A sign-off that is a rubber stamp collected under deadline pressure is a signature on a false statement, which is worse than no process — you have now documented that someone checked.

The failure mode is the gate narrowing to the marketing site while the extreme claims migrate to sales decks, security questionnaires, and verbal answers on calls. Those are the documents buyers actually rely on and litigate over. Second failure: qualifying every claim into mush — "encryption where technically feasible" — which passes the gate, protects nobody, and destroys the informational value of your accurate claims.

The first action: grep your own website and your standard security questionnaire for the word "all" and the word "never." Every hit is a total quantifier that engineering has probably never been asked to confirm. Take the list to one engineer this afternoon.

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BRIEF 10.9

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## Correlated Failure: Why Automated Errors Arrive All at Once, and How to Stage Rollouts

When a human team of forty made a judgement call badly, they made it badly forty different ways, and the variance itself was a shock absorber — some got it right, the wrong ones were wrong differently, and the pattern surfaced slowly enough to notice. When a model makes it badly, it makes it badly identically, to every affected customer, in the same minute. Your error rate did not necessarily rise. Its correlation went to one.

The move is to treat every model, prompt, threshold, and rule change as a staged deployment with a blast radius you chose in advance. One percent, then five, then twenty-five, with a hold at each stage long enough for the slowest feedback channel to report — and for most consequential decisions that channel is a customer complaint, which takes days, not the dashboard, which takes seconds. Set the automatic rollback trigger before you deploy, on a metric that moves when customers are harmed rather than when the system is unhealthy.

The mechanism is that correlation, not magnitude, is what turns an error rate into an incident. A 2% independent error rate across 100,000 decisions is a support cost. A 2% correlated error rate is 2,000 people hitting the same wall on the same afternoon, comparing notes publicly, and constituting a class. Staging works because it decouples the two: it converts a simultaneous event back into a sequential one and buys you the interval in which a human can notice. The condition is that the hold must be long enough for your *slowest* detection path. Staging a rollout over ninety minutes when your feedback signal is a support ticket filed the next morning is theatre — you have staged the deployment and not the discovery.

The failure mode is staging that samples by traffic volume rather than by population, so the 1% cohort is drawn from your highest-volume, most typical users — and the failure mode that only affects the unusual customer, the one with the edge-case configuration or the minority-language input, is systematically absent from every early stage and arrives whole at 100%. Stage deliberately across your least-represented segments first, or the staging tests only the case that was already working. Second failure: no rollback authority on-call, so the trigger fires at 3am into an empty room.

The first action: find the last model or prompt change you shipped and determine what percentage of users received it in the first hour. If the answer is 100, you do not currently have staging, whatever the deploy tool is called.



*Giving the Ethics Function a Veto, a Budget, and a Launch Gate*

HAUTE LUMIÈRE · EARNED · BRIEF 10.10

BRIEF 10.10

## Giving the Ethics Function a Veto, a Budget, and a Launch Gate

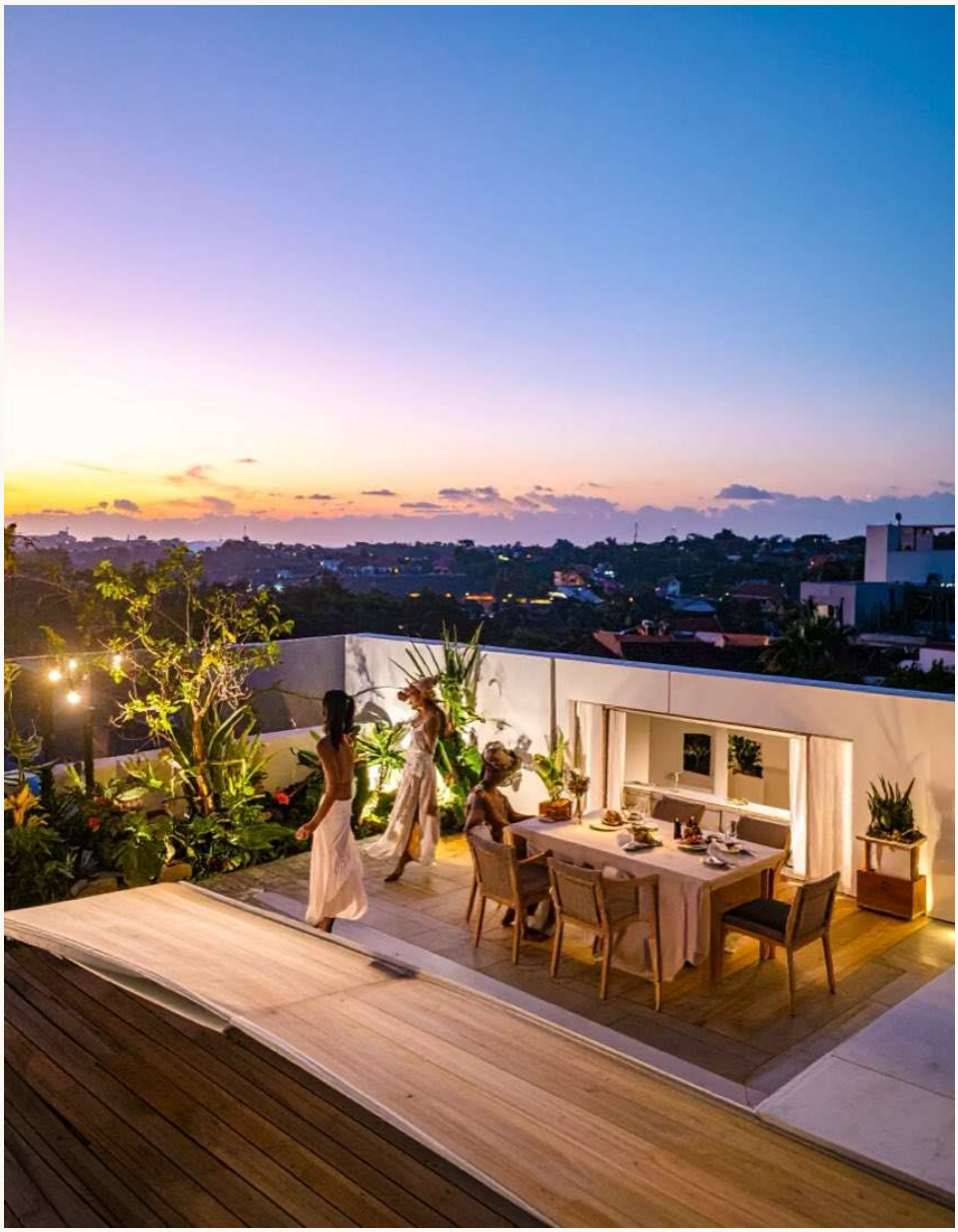
You have a responsible AI group, a trust and safety council, or an ethics review board. It writes thoughtful memos. It is consulted late, it reports through the function whose launches it reviews, and it has never stopped anything — a fact that is presented internally as evidence that nothing needed stopping.

The move is three structural changes made together, because any one alone is decorative. A veto: the function can block a launch, and overriding it requires a named executive signing a written rationale that is retained. A budget: its own headcount and spend, not borrowed from the product team it reviews. A gate: it sits on the release checklist as a required approval, at a defined stage early enough that blocking is cheap.

The mechanism is that ethical outcomes are produced by incentive structures, not by convictions. Everyone in the room genuinely wants to do right; the question is whose quarterly number moves when the launch slips, and an advisory function with no budget and no veto is structurally identical to a suggestion box. The three changes work together because each closes the escape route from the others: a veto without a budget is captured by the team that pays the salaries, a budget without a gate arrives too late to matter, and a gate without a veto is a signature square. The written override is the load-bearing piece — it does not prevent shipping, it prevents shipping *anonymously*, and the requirement that a named person put a rationale in writing is what makes the expensive choice survive the next reorganisation. Structures that make reversal costly are what distinguish a commitment from a mood.

The failure mode is the function that uses the veto often and unpredictably, which teaches product teams to route around it — to scope work below the gate's threshold, to reclassify launches as experiments, to consult informally and never formally. A veto is a finite instrument; spent freely it converts the function from a gate into an obstacle, and organisations reliably build paths around obstacles. The second failure is capture in the other direction: a function so integrated with product that its approval becomes automatic, at which point the gate's green light is a false assurance that other reviewers now rely on.

The first action: look at your release checklist. If there is no line requiring an approval from outside the shipping team, add one — unsigned, unstaffed, just the line — and see who objects. The objections are the map.



*The essays · Chapter Ten*

HAUTE LUMIÈRE · EARNED · CHAPTER TEN

## The Essays

*Five assignments for the long evening*

ESSAY 10.1

The prompt — A company cannot honestly promise the behavior of a system whose failure modes it cannot enumerate, yet customers will not deploy the system without some bound on risk. The tension sits

between the commercial necessity of deployment and the epistemic reality of complex adaptive systems: on one side, markets reward clear boundaries and predictable outputs, because uncertainty paralyzes procurement and invites liability; on the other, any enumerated boundary is inevitably incomplete once the system meets the real world, meaning a promise of behavior is necessarily a promise of ignorance. The strongest case for commitment argues that partial enumeration, stress-tested through adversarial simulation, provides sufficient trust for deployment, while the strongest case against argues that non-enumerable failure modes will inevitably surface in ways that render any public claim fraudulent, regardless of good faith. The framework inverts when enumeration becomes a static compliance exercise rather than a living constraint; boundaries harden into blind spots, and the system stops adapting to novel failure modes precisely because the documentation declares them accounted for, degrading trust not from unexpected error, but from the confidence that the error space has been exhausted.

What a serious answer has to do — The essay must establish that trust requires bounded predictability rather than omniscience, and it must show how to encode those bounds upstream in data handling and default configurations before any user interaction occurs. Evidence must come from actual deployment histories where failure boundaries were explicitly modeled, tracked, and corrected, not from post-hoc risk disclaimers that shift liability downstream. The cheap answer—that compliance checklists or marketing language sufficiently contain risk—must be argued past by demonstrating how those mechanisms distribute error to the customer while preserving the illusion of control.

Where to look — The material lives in safety engineering and regulatory certification, where aviation software, medical device algorithms, and industrial control systems require explicit failure mode enumeration before deployment. Historical case studies of systems that operated within documented uncertainty bounds, alongside post-deployment audits of those same systems, reveal how boundaries are breached and how trust is preserved or broken. The discipline of reliability engineering, particularly failure mode and effects analysis, provides the mechanism; the history of actual product recalls and liability settlements shows what happens when the enumeration fails.

The length — 2,500 words minimum.

ESSAY 10.2

The prompt — Apple's privacy architecture generates pricing power and customer loyalty, yet it also forgoes a lucrative data brokerage ecosystem, making its stance simultaneously principled and commercially self-interested. The tension sits between trust derived from aligned self-interest and trust derived from sacrifice: one side argues that when privacy protection directly strengthens the product's core value proposition, it is durable because the incentive to maintain it is structural and self-reinforcing; the other side argues that aligned interest is inherently fragile, because margins shift, competitors undercut, and regulatory pressure mounts, at which point the company will quietly erode the boundary, whereas trust built on genuine sacrifice—where the company absorbs cost without immediate return—creates a moral reserve that survives market cycles. The strongest case for sacrifice suggests that customers can distinguish between marketing posture and actual revenue forfeiture, granting deeper loyalty; the strongest case against aligned interest notes that any trust tied to business model alignment collapses the moment alignment breaks, and the framework inverts when alignment becomes indistinguishable from compliance theater, as the company maintains the appearance of sacrifice while quietly migrating data handling to third-party partners, eroding trust precisely because the boundary was never structurally enforced.

What a serious answer has to do — The essay must establish how to measure the durability of trust across market inflection points, using actual pricing power, customer retention, and regulatory compliance costs as evidence rather than survey sentiment. It must show how to separate structural alignment from performative transparency, demonstrating that sacrifice requires a cost structure the company cannot easily reverse without destroying its competitive position. The cheap answer—that transparency alone builds trust or that sacrifice is always superior—must be argued past by showing how aligned interest, when encoded in defaults and conflict structure, actually compounds faster than moral signaling.

Where to look — The material lives in platform economics and historical pricing power, where privacy-first devices, encrypted messaging platforms, and hardware-software integration models demonstrate how premium pricing persists even when data brokerage becomes more lucrative. Actual case studies of companies that shifted from data-harvesting to privacy-as-a-feature, alongside post-shift customer churn and margin data, reveal how alignment compounds. The discipline of behavioral economics and regulatory history, particularly shifts in data protection law, shows how structural alignment outlasts regulatory cycles.

The length — 2,500 words minimum.

ESSAY 10.3

The prompt — A customer harmed by an automated decision requires recourse that is both actionable and funded, yet companies consistently treat human intervention as an optional escalation rather than a structural component of the system. The tension sits between the economics of automation and the ethics of redress: one side argues that recourse should be priced into the service, with companies absorbing the cost of human review as a fixed operational expense, because externalizing it to customers or third-party vendors destroys the very trust automation claims to deliver; the other side argues that recourse is a market signal, and that competition will naturally price humane design into products while keeping human costs contained through scalable triage. The strongest case for funded recourse holds that without pre-allocated human capacity, automated systems will optimize for closure rather than correctness, making redress impossible in practice; the strongest case against funded recourse argues that mandatory human review inflates costs, slows iteration, and that market pressure alone can enforce humane defaults. The framework inverts when funded recourse becomes a compliance tax rather than a design constraint; companies hire review staff who are instructed to deny claims at high rates to protect margins, turning human intervention into a rubber stamp that preserves the illusion of redress while maintaining automation's efficiency, failing precisely when cost allocation is decoupled from decision authority.

What a serious answer has to do — The essay must establish the mechanics of meaningful recourse, showing how to encode human review into system defaults, data handling, and conflict structure before deployment occurs. Evidence must come from actual adjudication histories where human intervention was either fully funded and structurally guaranteed or entirely outsourced and functionally inert, demonstrating how cost allocation determines whether redress actually exists. The cheap answer—that algorithmic auditability or appeals forms suffice—must be argued past by demonstrating how those mechanisms concentrate power in the system designer while leaving the harmed customer with procedural friction and no financial backing.

Where to look — The material lives in credit reporting disputes, insurance claims adjudication, and platform content moderation, where actual case studies of funded versus outsourced human review reveal how cost structure determines outcome quality. Regulatory history, particularly financial services and telecommunications dispute resolution, shows how rate-setting and mandate design either embed human capacity into defaults or push it to the margins. The discipline of operational economics and administrative law provides the mechanism; actual settlement records and audit reports show what happens when recourse is underfunded.

The length — 2,500 words minimum.

ESSAY 10.4

The prompt — Markets reward confident answers because they reduce decision latency and increase conversion, yet calibrated uncertainty acknowledges the limits of predictive systems and prevents catastrophic error. The tension sits between commercial velocity and structural honesty: one side argues that calibrated uncertainty is a losing product strategy because users abandon systems that hesitate, and that confidence, even when partially wrong, generates more usable value than honest ambiguity; the other side argues that confidence in automated systems breeds systemic fragility, because users stop questioning outputs, making rare but severe errors inevitable, and that calibrated uncertainty, though initially frictionful, builds durable habit and prevents blowback. The strongest case for confidence holds that decision markets prize speed and clarity, and that uncertainty signals incompetence regardless of accuracy; the strongest case against confidence argues that markets that reward certainty will eventually pay for catastrophic miscalculation, while calibrated uncertainty, properly encoded, compounds into long-term user retention. The framework inverts when calibrated uncertainty becomes performative hedging; companies output confidence intervals that are so wide they are functionally useless, or they hide uncertainty behind user interface design that forces a single visible answer, preserving the appearance of decisiveness while preserving

Promises a Machine Has to Keep

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