

KOMODO

AN INSIGHT INTO DESIGN THINKING

An insight into how the five-stage design thinking methodology can be used to solve complex problems.

— WHITE PAPER
DESIGN THINKING



WHAT'S IN THIS WHITEPAPER

CONTENTS

WHY LISTEN TO US?	03
USING THE DESIGN THINKING METHODOLOGY TO SOLVE COMPLEX PROBLEMS	05
DESIGN THINKING: EMPATHY	07
DESIGN THINKING: DEFINE	10
DESIGN THINKING: IDEATION	13
DESIGN THINKING: PROTOTYPE	15
DESIGN THINKING: TEST	18
GET IN TOUCH	22

Estimated reading time: 20 mins

01 — ABOUT US

WHY LISTEN TO US?

We build design-driven products that increase revenue for companies across the globe.

KOMODO is a creative product studio that puts your goals front and centre. We take your core aims and ambitions and translate them into growth-driven outcomes, built into an effective digital product.

To accomplish this, we use design thinking methodology and our own in-house processes to get to know your end-users, interpret their wants and needs, and design solutions that meet your goals – and your customers' too. Whatever stage of digital growth you're at, we can support you across three main tracks:

Revolution

Launching something brand new? Bring your idea into our studio and we'll show you design thinking's most exciting practices – growing your idea from 'we think this might work' to 'we know our users want this'.

Reboot

When things go wrong, there's no shame in asking for help. From failed in-house projects to disastrous encounters with contractors, we excel in rebooting mishandled projects and turning them around.

Refinement

Good is... good. Great is better. We love showing successful businesses how to supercharge their software products to win more engagement and increase profits.



KOMODO digital studio.

01 — ABOUT US

How do we handle these different types of projects?

We practice design thinking – understanding your users and their behaviours, interpreting their needs, and prescribing the features and functionality your project needs to launch with maximum impact.

We don't work on assumptions or prior expectations. Each new product is an opportunity to bring our skills and experience to your business – but the process and technologies we use will be dictated by your users.

Forget about software agencies that drain your time and money, making each update a constant back-and-forth of requests and pushbacks.

We're a design studio with experts in UX & UI design, plus a team of developers at the cutting edge of the industry.

While everyone says they're good, KOMODO is happy to prove it – with every decision based on real, tangible user needs. If you're considering a new project, read on to find out more, or get in touch now.

02 — METHODOLOGY

USING THE DESIGN THINKING METHODOLOGY TO SOLVE COMPLEX PROBLEMS

This process follows five stages that take a vague problem, define it, generate solutions and iterate until it aligns with the user's needs.

Design thinking is not restricted to design problems. Companies across many sectors adopt it when seeking a solution – the process is exceedingly user-centric, keeping user needs an absolute priority.

Design thinking is a human-centred methodology that tackles complex problems – often unknown or unclear – by challenging assumptions and using a hands-on approach.

DESIGN THINKING — DEFINED

In 2022 there's been increased attention on combining design thinking with data – creating user-driven solutions through genuine research, then proven via analytics and automation.

We believe in that combination and foresee it being imperative to iterating new products, where growth becomes dependent on usage data showing how, why and what users do with your product.

02 — METHODOLOGY

At KOMODO we implement this process for clients across every sector. These five steps help you understand your users, create exciting solutions and use intelligent design to stand out from the crowd.

Empathise

Empathise with your end-users to understand their needs – who you're designing for and what their issues are. It gives a deeper, user's-eye perception than guesswork.

Define

Collate and analyse the insights from the empathise step. Frame clear problem statements capturing who the user is, their needs and the challenges they face.

Ideate

Interpret the problem statements and brainstorm. Banish judgement so every thought is considered and every avenue explored – logical and obscure alike.

Prototype

Experiment with the solutions identified and see which works best – sketches, low-fidelity wireframes and eventually a design mock-up. Simpler prototypes iterate faster.

Test

Test the prototype to measure its fit for purpose. Feedback is a precursor to revisiting earlier stages – user groups, 1-on-1 and A/B testing each unlock different insight.



Photo by Lana

03 — DESIGN THINKING PROCESS

EMPATHY

The empathy stage is crucial for designers, giving us an opportunity to understand users and their needs. There are various activities we can undertake to empathise more effectively.

Building empathy is the first of five steps in the design thinking framework – the ‘empathise’ stage. It calls on the designer to put themselves in the user’s shoes and see things from their perspective.

Empathy is, in its most basic form, the ability to understand and share the feelings of another. In design, it demands a heightened awareness of user needs, wants, motivations and goals.

EMPATHY — DEFINED

When we become more empathetic, we digest information more efficiently and begin to see problems from the user’s view – things that were previously difficult to understand.

Understanding the reasoning behind users’ requirements ensures the product is built to work for them, rather than for our own estimations or guesswork.

03 — DESIGN THINKING PROCESS

Why is Empathy Important in Design?

When applied to design, empathy demands a heightened awareness of user needs, wants, motivations and goals. Completing empathy-building activities lets us digest information more efficiently and see problems from the user's view.

User Shadowing

Shadowing is a great way to get first-hand information from potential users. Completely understanding a day in the life of a user reveals the issues they face and how we can improve them. It's too time-consuming at scale, but ideal for understanding key users and how their minds work.

Journey Mapping

After understanding a typical day and its pain points, we assemble a user journey – a diagram split into stages showing every interaction a customer has with your company, and their feelings throughout. It uncovers areas of opportunity to improve the experience.

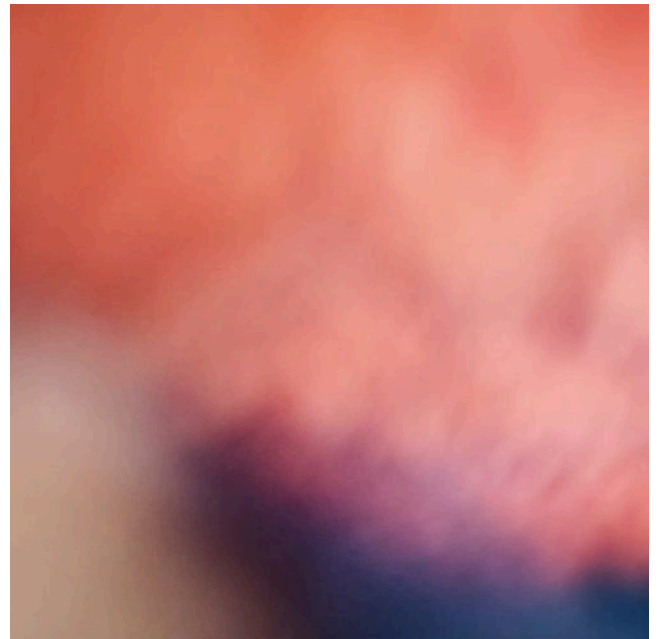


Photo by Rachelle O'Brien

User Interviews

User interviews are a fundamental tool for gaining in-depth knowledge from real or potential users, informing a more user-centric design. The percentile method – interviewing extreme ends of the spectrum, such as users who rely on screen readers – surfaces needs the average user won't.

Personas

A persona is a fictional yet realistic representation of a typical user. Used early, personas influence design decisions by prioritising user needs. Their real value is the goals and motivations they identify – generating several helps teams make better decisions.

Asking the 5 Whys

Developed by Taiichi Ohno at Toyota, the '5 Whys' repeats 'why' until you reach the core of a problem. Why did the robot stop? A fuse blew. Why? The bearings locked from poor lubrication. Why? The oil pump wasn't circulating oil. Why? Its intake was clogged with metal shavings. Why? There was no filter on the pump. Without asking, an employee might only replace the fuse rather than fixing the root cause – that is the value of getting deeper into the issue to find the most effective solution.

04 — DESIGN THINKING PROCESS

DEFINE

Without clearly defining the problem you want to solve, you won't end up with results that truly help your users overcome challenges and engage with your product.

Empathy-driven learnings are only the beginning – it's time to define the problems users face in clear, coherent language. The goal of the define stage is to frame the problem statement correctly and clarify the problem to be solved.

By now you should have a deep understanding of who you're solving for – their pain points, preferences and daily journey. Combining the empathy insights, a more exact point of view emerges.

What Makes a Good Problem Statement?

It's about the people you're helping – the needs from the empathy stage frame it and keep it user-centric. Find the right balance: enough creative freedom for unexpected insights, but enough constraints to stay manageable. Avoid technical specifics that narrow the solution, and start with a verb to make it action-oriented.

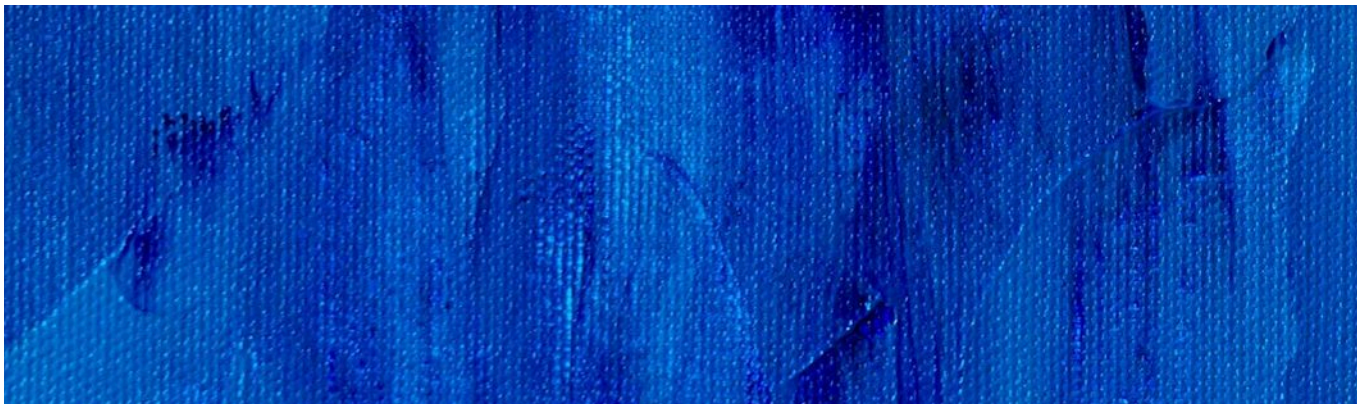


Photo by Steve A Johnson

04 — DESIGN THINKING PROCESS

How to Define Your Problem Statement

Start by analysing all the information collected in the empathy phase and summarising the most important points; mark out key themes so questions can be formulated, refined and improved.

Affinity Diagram

The data from the empathy stage is collated into one space – a wall of information like a mood board. Themes and patterns become visible between the pieces; group and explore them to identify the meaningful needs of your user base and inform your problem-statement direction.

Point of View Statement

A problem statement is often called a point-of-view (POV) statement, combining User, Need and Insight to answer who you're solving for, why, and what. Format: [User] needs [Need] because [Insight]. Example: an elderly social housing tenant needs internet access because provider systems are becoming more automated.

04 — DESIGN THINKING PROCESS

‘How Might We’ Questions

When a problem statement is defined, idea generation can begin. ‘How might we’ (HMW) questions are created from the POV to give the ideation stage a starting point.

HMWs are short questions that break the POV into smaller, manageable pieces – bringing focus without restraining the imagination. In response to our POV example:

- How might we educate tenants on how to use the internet?
- How might we enable access to services without the use of screens?
- How might we encourage tenants to go paper-free?

By focusing on the problem you’re solving for your business, customer and end-user, you create a clear, meaningful problem and a better direction before ideation.

If the root of the problem isn’t clearly defined before the ideation session, chances are the solutions created next won’t be solving the real problem.

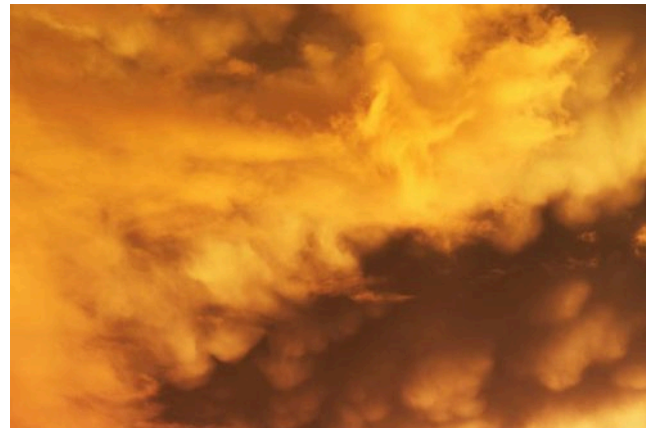


Photo by Jack Hamilton

05 — DESIGN THINKING PROCESS

IDEATION

The ideation phase is about generating as many ideas as possible that align with the end-user's needs – regardless of how outlandish they may seem.

Ideas are about quantity over quality. Avoid fixating on a single idea and explore freely – a project with a single idea isn't going to take off. There's no need to critique anything at this stage; you're free to explore.

What is the Goal of Ideation?

To generate as many ideas as possible. Working with your team, you pull them into a large pool that can then be refined and experimented with. The empathy phase gave you the ability to understand and observe your users and define the problem – now ideation reaches for a solution.

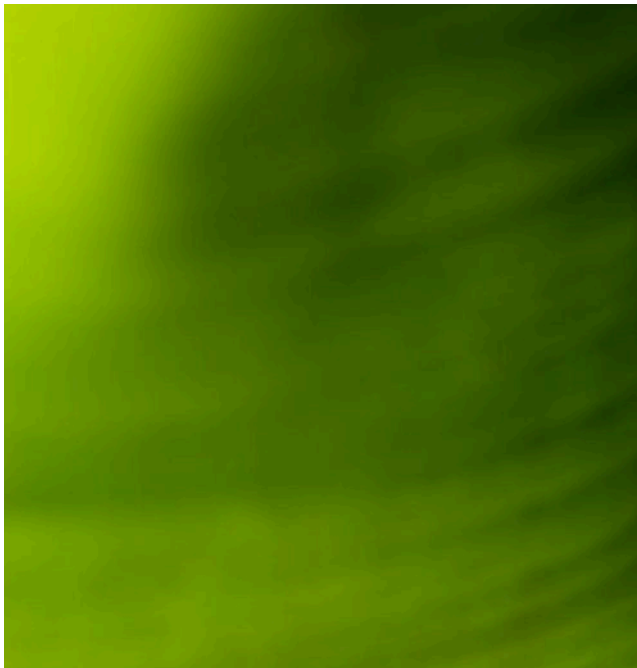


Photo by Leo Chane

05 — DESIGN THINKING PROCESS

How to Structure the Ideation Phase

Best structured as a brainstorming workshop with several steps – generating, structuring, selecting and refining ideas before moving on to prototyping and testing.

Generate

People should feel confident sharing ideas in a session focused on user needs. No criticism at this stage – generate as many ideas as possible on post-it notes, no matter how crazy, as long as they relate to the user profile and defined problems. A useful tip is the SCAMPER technique: Substitute, Combine, Adapt, Modify, Put to other uses, Eliminate, Rearrange.

Structure

Once you have a large selection, structure them into a format that's easier to digest – categorising into topics: does this idea match the question or meet the user's needs? Is it out of scope? This moves you towards refining a shortlist before the prototype stage.

Select & Refine

To short-list ideas, let each member of the workshop vote on the most viable – voting with dot stickers and short-listing the two most popular. Once ideas have been selected, document and refine each one: detail the discovered solution, the benefit of the idea, and how it aligns with the user's needs.

06 — DESIGN THINKING PROCESS

PROTOTYPE

A process helps generate user-driven ideas – but how can teams visualise the solution to win stakeholder approval or test user feedback? Enter the prototype.

Prototypes are an extremely valuable resource and an integral part of the design thinking process. They contribute to a better user experience for your audience.

Prototypes are the first actual creations based on your process – the early stage of the eventual product design. A good one streamlines development, wins approval, justifies ideas or tests with users.

PROTOTYPE — DEFINED

Prototypes are a combination of the previous steps displayed visually. The goal is to test products and identify any issues before going into production.

It's a misconception that prototypes are only needed in the late stages – it's best to prototype little and often, leading up to the higher-fidelity prototypes.

The Benefits

Prototyping helps in several ways: it streamlines development by outlining the tangible buttons, screens and features devs will code; justifies ideas visually to users and stakeholders; identifies redundancies to cut from the final build; saves time and money by reducing errors and amends; and provides a platform for early feedback that can be implemented rather than retrofitted once live.

Level of Fidelity

A prototype's fidelity refers to how much detail is built in, and each level suits different feedback. Low-fidelity prototypes are quick, colourless and blocky – great for early usability feedback and fast changes, without overwhelming users with content. High-fidelity prototypes resemble the finished product, adding colour, imagery and near-final functionality to test that it aligns with the user's needs.



Photo by Clem Onojeghuo

Types of Prototype

The type changes with fidelity. Low-fidelity prototypes often use paper – quick to iterate and useful for viewing a concept stripped back. Wireframes follow in digital form; their detail varies with the feedback desired. Wireframes then become the foundation for a visual mock-up, which adds colours, fonts and images for a realistic impression. Interactions can be added later to turn the mock-up into a full working prototype.

Why are Prototypes so Vital?

They're an integral part of the process and contribute to a better user experience – but the right prototype must be used for the right situation, or the feedback won't be useful. Prototype with purpose and the user always benefits. Prototypes also let designers build user testing in earlier rather than later, when changes cost more time and resources.

TEST

You must test your prototype early to save time and money.

The goal of testing is to analyse how users interact with your prototype – questioning their actions and processes, and interpreting how you can make their experience better.

Testing helps you empathise with your customers while producing clearly defined insights into how they interact. These interactions help you readdress your problem statements and create new ideas. Testing is rarely the endpoint – it should send you back to the empathise stage to iterate again.

1 : 10 : 100

the relative cost of fixing a problem at the research, design and development stages. For every \$1 spent on research, it costs \$10 to fix in design or \$100 in development – so test early.

What will Testing Achieve?

Testing the prototypes from the previous stage brings valuable feedback from real-world customers who could use the product once it launches. It shows how well your prototype solves the problem you defined – essential for fine-tuning, or for spotting a problem before too much time is spent designing or developing.

Why is Testing Important?

Constantly learn and question the motivation behind users' decisions. Don't instruct or guide the user – in a real-world scenario that wouldn't be a true representation. The goal is to learn and analyse how the user interacts with the prototype; it's fine to question their thoughts and actions to learn more.

How to Best Structure the Testing Phase

Define what you hope to achieve beforehand. Ask: are there pain points throughout the process? Any positives? What should be iterated to improve the experience? Let the user carry out their journey as naturally as possible, with questions at the end. If possible, record the workshop to capture body language and feedback that might otherwise be missed.

07 — DESIGN THINKING PROCESS

A range of methods can unlock different types of feedback during the testing phase.

Face-to-Face Interview

Include more than one person to analyse and document the test. One sets up the scenario and interviews the user; another focuses fully on observing what the user does. Filming the outcome is ideal where possible.

A/B Testing

Great for figuring out which design or experience users prefer – from a whole page to button styles or navigation. Testing options concurrently lets users compare between A and B.

Observe & Document

Observing and documenting reveals how a product is used or misused versus its original intention. Without real interaction through testing, there's no way of knowing exactly how people will use what we design.

Online Testing

Web-based tools gather feedback remotely. At KOMODO we use inVision to upload wireframes and designs; users test on different devices and leave notes on the designs. Fixing pain points at a loose wireframe stage beats discovering changes later.

Resources

Maze is another great user-testing platform: it turns your prototype into actionable insights from real users, revealing the exact route taken and showing where the prototype excels in user experience – and where it needs work.

IN CLOSING

Our five-step process is, at its core, a design thinking process taken to the next level to drive client success – our own variation of the methodology.

01

UNDERSTAND

We'll establish what your business wants, then show you what your users want too – after all, they're the ones who drive your revenue.

02

DEFINE

From this research we build out a scope so everyone's in the know. You'll see exactly how we plan to do things and why.

03

IDEATE

Our creative product studio is full of great ideas, and we bring the full weight of our passion to bear on every project.

04

CREATE

We'll build, test and launch quickly. Getting your MVP out is the priority – we believe in real-world testing and iterating to innovate.

05

REFLECT

Once a product is in the wild, we learn from user behaviour and build updates and improvements based on tangible reasons rather than speculation.

IN CLOSING

DESIGN THINKING THAT DRIVES REVENUE & RESULTS FROM AN INNOVATIVE CREATIVE STUDIO

Whatever your challenge looks like, KOMODO can help – recovering a broken product to make it usable and exciting, revolutionising the market with your new idea, or redefining an existing product into something more efficient. If you'd rather cut to the chase, get in touch.

GET IN TOUCH

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