

12 STEPS TO DESIGNING THE IDEAL B2B UX

September 2019

CYBER-DUCK



Hello!

Thanks for downloading this white paper. I'm Danny Bluestone, the Founder and CEO of Cyber-Duck. We're a full-service digital agency that delivers transformation for B2B clients like the Bank of England and Cancer Research Technology.

Over the past 14 years, Cyber-Duck has built a reputation for producing stellar digital experiences, apps and software as a service. Our clients trust us for our accredited UX design process and technical acumen.

We're committed to user-centred design because we know it works. So we thought it was about time we shared that expertise.

I hope you find this white paper useful and would love to hear your feedback. If you'd like to get in touch, drop me a line at **danny@cyber-duck.co.uk.**

Danny Bluestone

Founder & CEO, Cyber-Duck

**This photograph was taken by Sophie Lauren McCarthy for Dyslexia Creates 2019 (British Dyslexia Association).*

The digital landscape

Technology has become increasingly interwoven with our physical lives.

We now inhabit a complex world of automation, personalisation and AI, all surfing on a wave of big data.

From voice assistants to haptic console controllers and connected devices, the demand for digital tools that enhance the human experience has never been greater. At the same time, websites and apps need to continually evolve with technology, design styles and the types of devices we use.

It can feel overwhelming.

But one thing hasn't changed. We're still designing for people, and the success of an application or website still depends on user perception.

Your customers need help navigating this complex landscape. They want simple, effective, consistent experiences, wherever they are, whatever device they're using. And you need strong technical foundations that they can trust.

Right now, user-centred design has never been more important. That's why Cyber-Duck has created this white paper.

CONTENTS

01 SUCCESSFUL PROJECTS NEED FIRM FOUNDATIONS

1.1 Start with the why... *8*
1.2 Get your ducks in a row *12*

02 ESTABLISH YOUR CURRENT POSITION

2.1 Know your data and your users *21*
2.2 Talk to your stakeholders *24*
2.3 Know your content *26*
2.4 Know your features *28*
2.5 Know your competitors *30*

03 PLACE YOUR CUSTOMERS AT THE HEART OF THE EXPERIENCE

3.1 Understand your users *33*
3.2 Reveal your customer experiences with a service blueprint *35*

04 DEFINE YOUR TECH STACK

4.1 The 7 steps to defining your tech stack *39*
4.2 Bespoke versus out of the box *43*

05 OPTIMISE YOUR CRM

5.1 The 8 principles for optimising your CRM *47*

06 MIGRATE YOUR DATA WITH CARE

6.1 10 universal tips for migrating data *55*

07 GET STRATEGIC INSIGHT FROM YOUR DATA

7.1 3 steps to building your data strategy *62*

CONTENTS

08 CREATE CONTENT THAT DELIGHTS YOUR CUSTOMER

8.1 7 tips for successful content management *68*

09 BUILD PERSONALISED, AUTOMATED EXPERIENCES

9.1 Differentiate with personalisation *73*
9.2 Power up with automation *74*
9.3 *5 tips for successful marketing automation* *76*

10 UNLEASH THE POTENTIAL OF AI

10.1 The potential of AI *79*
10.2 3 rules for successful AI *80*
10.3 7 steps to implementing AI *82*

11 INSPIRE YOUR CUSTOMER

11.1 Collaboration is key *87*
11.2 6 principles for inspiring user experiences *88*

12 TEST, TEST AND TEST AGAIN

12.1 Quality Assurance *93*
12.2 Automated testing *94*
12.3 5 tips for effective QA *95*

13 CONCLUSION

13.1 Conclusion *98*
13.2 About Cyber-Duck *99*



SUCCESSFUL PROJECTS NEED FIRM FOUNDATIONS



"Leonardo Da Vinci combined art and science and aesthetics and engineering. That kind of unity is needed once again."

BEN SCHNEIDERMAN

Professor of Human-Computer Interaction

*This file is made available under the Creative Commons CC0 1.0 Universal Public Domain Dedication.

1.1

Start with the why...

Before you start defining the new project, assess where you are right now. Consider the science behind your research and the engineering you will use. Then there is the branding or aesthetics: each facet has to work seamlessly with the others. The previous quote is from Ben Schneiderman, who is one of the fathers of modern computing and usability. He urged designers and developers to provide a better user experience through a higher degree of usability consistency and control. Ask yourself:

1. *Users* - Have your personas' needs evolved recently? What do your users need, how personalised should you be and do these match your business needs?

2. *Data* - What elements of your customer experience are already working? Do you have data to prove this? Do you have enough data to prove that you are getting adequate ROI from your website? Is your measurement plan fit for purpose?

3. *Content* - Is your content working for you? What content needs to change or migrate over and why?

4. *Marketing* - Are your marketing and back-office team empowered to put out the right messages, content and campaigns at the right time?

5. *Product development* - Where do you sit in the market? What have you learnt since your last major project?

6. *Tech* - Is the technology scalable and robust and does it help to deliver the UX you want?

7. *Brand* - How has your brand evolved in line with your latest website iteration?

These insights will form the foundation of the brief for your new experience.

And the who...

Now's the time to consider whether your redesign can be handled in-house, if you want to appoint an agency, or blend both approaches.

There are advantages either way. There are several aspects to consider, from the size of your design and development team all the way to their compatibility with your new roadmap. You will also want to think about project management, data and content migration, delivering the application, launching and testing. Agencies can help fill gaps and deliver immense value should you lack skills, time or budget to hire full-time resource to deal with all of these.

Some agencies can become an extension of your team and can upskill them, such as in technical SEO. Make sure they can deliver secure, dependable technical solutions – you're trusting them with your brand, your customers and your data.

Alignment is key

If your organisation is aligned on a major digital transformation project, then you'll be able to:

- Clarify and align behind goals
- Resolve assumptions at the start
- Make decisions quickly, together
- Support and resource the project effectively
- Spot and resolve dependencies and problems swiftly

Large-scale projects need to be approached openly and collaboratively. Here's how:

- **Agree the project's stakeholders**
- **Set SMART or OKR goals with the stakeholders**
- **Agree project governance so responsibility is clear**
- **Agree a reporting mechanism to keep everyone in the loop**

Work closely with your analytics team so that any new website or experience has robust tracking (such as Google Tag Manager), so you can measure your goals.



"It might sound obvious, but the more time you spend aligning and preparing internally, the better an agency can help you. In 14 years of building user-centred experiences, I've never seen a partner spend too much time here."

DANNY BLUESTONE

Founder & CEO, Cyber-Duck

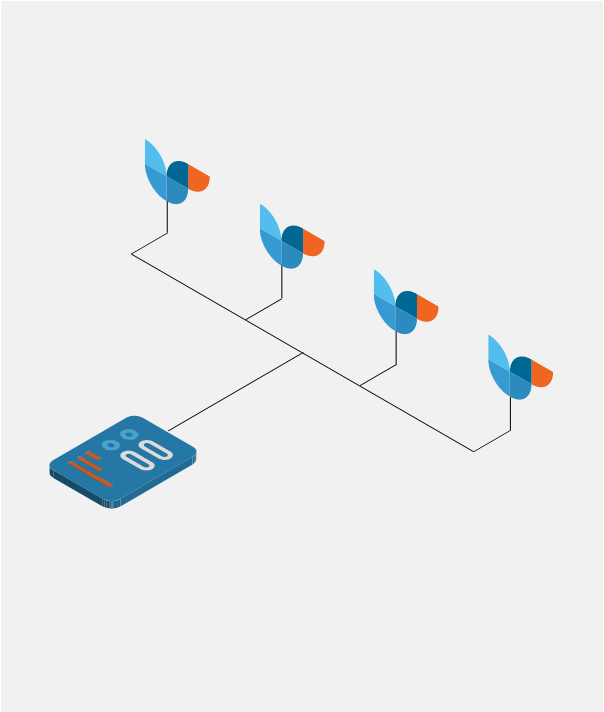
**This photograph was taken at Share Algarve 2019.*

1.2 Get your ducks in a row

You know what you want to achieve. You've agreed and prioritised the goals. Your colleagues are on board. Now it's time to make it happen. You need two things for that: a brief and a project team.

The brief

The brief explains, clearly and concisely, the vision for your project. A strong brief helps unify your team members, partners and stakeholders.



"Imagine you are in charge of a new mission to send a spaceship to the moon. When setting course, if your calculations are only a tiny fraction out, you're not going to land on the moon, and the mission will be a failure. The difference between a good brief and a bad brief is the same: if you don't have laser-like precision and clarity on your destination – what you're trying to achieve and why – then the project will inevitably fail. You can only achieve success if success has been clearly defined and agreed by everyone on the project, and that's where the value of a good, clear brief comes in."

STUART WILSON

Creative Director, Cyber-Duck

A brief includes:

1. *A short description* of your company and its position in the market

2. *The goals* of the project

3. *The scope* of the project (website, app, channels; branding; marketing and content; hosting and ongoing support)

4. *Stakeholder ownership and responsibility* (e.g. who signs off branding, who signs off UX etc.)

5. *Features or functions* needed (e.g. payments, CMS, systems integration)

6. *Budget* and available resource

7. *Timeline*, or what's delivered when

8. *Success metrics* that indicate how you'll measure against your goals

Agree the brief with your internal team and stakeholders so everyone's aligned and supportive of it.



If the project is technology heavy and requires migration, new system/s and extensive functionality, it's worth considering Scrum, an agile methodology. In Scrum, you create epics, sprints and user stories that will define the requirements and help clarify how many points and days are needed for the implementation. It's key to get agency (or tech team) buy-in from the outset to ensure they are comfortable with the user stories.

The team

Identify the project team, resources, external partners and any other support needed to deliver against your objectives. This should be agreed with your stakeholders too.

You'll need:

A project team, each with a clear area of responsibility

A decision-making structure for effective project governance

Resource and budget to deliver the project

This would generally include representatives from:

- **Design**
- **Technology**
- **Content**
- **Data**
- **Marketing**
- **Procurement**
- **IT**

Case Study:



A redesign “so bad it Hertz”

In April 2019, car hire company Hertz filed a lawsuit suing consultancy firm Accenture for $32 million (plus damages) for failing to deliver its website. The lawsuit alleged missed deadlines, failure to deliver a responsive or extensible design, substandard code, security vulnerabilities, unreliable analytics and inadequate testing. Accenture called the allegations “without merit” and filed a motion to dismiss the suit, plus counterclaims for past-due invoices.

*This file is licensed under Attribution-ShareAlike 2.0 Generic (CC BY-SA 2.0)

9 lessons from the Hertz redesign

Commentators were quick to highlight issues on both sides. Although the Hertz debacle involved a B2C company, the lessons are universal. They include:

01 Make sure your scope of work is tight. Any vagueness can lead to misinterpretation and rising costs.

02 Vet your supplier thoroughly. Do they have the experience to deliver what they're promising?

03 Ensure you have the internal capability to oversee the project – that's a part you don't want to outsource.

04 Develop user stories that clarify how the UX should work and get your agency to commit to delivering them.

05 Is your agency producing a technology architecture and have both parties agreed to it?

06 Systems integration is complex. Take an agile approach with phased releases, not a 100% go-live.

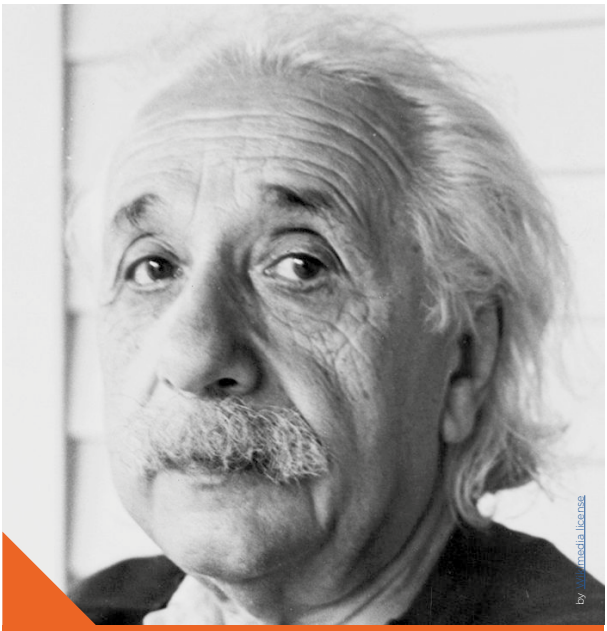
07 Follow test-driven development: write the tests that the product has to pass before it's coded.

08 Set the accessibility and compatibility standards and testing schedule for the new site at the start.

09 Define the UAT phase, sign-off and change control at the start.



ESTABLISH YOUR CURRENT POSITION



"Any fool can know. The point is to understand."

ALBERT EINSTEIN

*"Copyright John D . Schiff, New York" but "Copyright not renewed, 4/2000" according to LOC.

2.1 Know your data and your users

To know where you're going, you need to be sure where you are. Assess your current position. You might be surprised by what you learn – and the opportunities you'll spot.

Having the right analytics framework is key and so is balancing users and their data. It's an essential part of data-driven design. Reliable, robust data about your users is essential for improving and personalising your user experience. Whatever approach you take, be sure to ensure you review your data from a cross- or omni-channel perspective and start by conducting a forensic audit of your data.

- → **What measurement plan do you have?**
- → **What can your analysts tell you?**
- → **What is the marketing data showing?**
- → **What are your customers telling you?**
- → **What methodology are you using for data analysis?**

5 things to know about your data

1. Where is your data being held?

GDPR means you have to take greater care of your data than ever before. No one wants the embarrassment of compromised data, or to be hit by heavy fines.

2. How is your data being tracked?

A measurement plan helps to determine what data is being captured and why. More specifically it allows you to think about what goals need to be tracked and how, in line with your MarTech stack. B2B conversion's longer time frame can make analysing customer data more complex.

3. Why is your data being tracked?

Why are you collecting your data? If you're not sure, you risk having an unstructured and messy data strategy to handle.

4. Can you cross-reference your data from one source to another?

The best data strategies allow you to extrapolate insights and apply them to other areas. Try to build a holistic picture that shows how users interact with you.

5. What methodology should you use to analyse user data?

Typically you will always to ensure your data is representative of your users as otherwise you may misconstrue the readings. At Cyber-Duck we recommend a mix of quant and qual. With qualitative analysis we recommend interpretative

phenomenological analysis (IPA) or thematic analysis (TA) to draw distinct patterns, need states and empirical outputs.

Now you can start crafting your data strategy. We'll come on to that in a later section.

"Your data and analysis strategy is crucial. If you use the right methodology throughout the product lifecycle, you will get meaningful insights and this will help underpin your future actions. It's one thing you really want to get right."

DANNY BLUESTONE

Founder & CEO, Cyber-Duck

2.2 Talk to your stakeholders

Stakeholders can give valuable insight into their area of expertise. Push them to share as much detail as they can about customer experience. It's also a good opportunity to understand their objectives, get them on board with the project and manage expectations.

5 tips to help your stakeholder interviews

1. Who are the stakeholders?
Consider internal and external stakeholders at different levels of the organisation. Are any stakeholders going to be 'shielded' or unavailable during the project? If so, you will need to factor them in as risks from the outset.

2. How do you engage stakeholders?
You can conduct individual interviews or group ones, depending on availability, but individual interviews will provide more insights and generally be more objective.

3. What should you ask stakeholders?
It's best to probe the stakeholder's ideas with questions that get them thinking deeply about the project. This will help you uncover the 'why'. You can use information you gained from one interview to probe other stakeholders and understand how they're aligned.

4. Who should attend the stakeholder interviews?

If you can, double up and bring another person in when conducting stakeholder interviews – you'll catch more of their insight that way.

5. What methodology should you use for stakeholder analysis?

As when conducting persona or user analysis, we recommend interpretative phenomenological analysis (IPA) or thematic analysis (TA) to draw distinct patterns, need states and empirical outputs from the stakeholders. This can then be presented back to the stakeholders to further probe alignment.



One of our UX Designers collates insights from stakeholder research.

2.3 Know your content

Content is central to shaping your user experience. A content audit early in your project will identify issues, highlight any gaps and inform your content strategy and information architecture.

- Map out your content and analyse its performance
- Ask your customers what is useful and how easy it is to find
- Assess the style, tone of voice, messaging and formats. Do they meet your customers' needs? Are they on brand? Do they fit your channels and platforms? Are they delivering your goals?
- Is your content discoverable, usable and accessible across all the different channels? Are there any barriers between your customers and your content?
- Use data to track how quickly customers can find content through search or the navigation system

“Content is the key to shaping engaging designs, interactions and the overall user experience.

The best content audits score existing content, consider governance, identify gaps and advise what to drop, migrate and create for the new project.”

SOFIA BREG

Marketing Manager, Cyber-Duck

2.4 Know your features

If you're redesigning an existing app, website or tool, it's worth conducting a feature audit. Talk to users and stakeholders, audit your features for accessibility and check your data.

The best feature audits help you:

- Learn which features are valued by your customers and stakeholders
- Show which features are most and least used – which is not always the same thing
- Reveal how users use your features – and how they want to
- Be sure that you have analysed the key features from all aspects of your customer's and staff's perspective

“A feature audit is an insurance policy that you have analysed all features, whether minor or major, that are important to people that interact with your website, product and service.

Once you conduct the audit, its findings will help you to reaffirm any redesign decisions.”

DANNY BLUESTONE

Founder & CEO, Cyber-Duck

2.5

Know your competitors

Competitor research can spark ideas and highlight opportunities. Alongside direct competition, look at best-practice leaders from other market verticals – they can be great for inspiration.

- Conduct competitor audits to assess what they're doing well and not so well
- Look at their creative direction, marketing strategy, channel use and even on-the-ground presence at trade events
- Use your findings to inspire a creative discussion on what you can learn from competitors – the good and the bad



One of our UX Designers conducts competitor research.



PLACE YOUR CUSTOMERS AT THE HEART OF THE EXPERIENCE



"Simple can be harder than complex; you have to work hard to get your thinking clean to make it simple."

STEVE JOBS

Co-Founder, Chairman & CEO, Apple

*This file is licensed under the Creative Commons Attribution-Share Alike 2.0 Generic license.

3.1 Understand your users

The whole ethos of user-centred design is to build your process around your customer. At Cyber-Duck, we've got over 14 years' experience in this. In that time, we've honed our approach to focus on what really matters.

It takes time, a lot of listening, and probably a lot of Post-it notes to truly understand your user. But once you do, you'll be able to respond to their needs and aspirations in a transformative way.

We like to approach this with personas, scenarios and a tool called a service blueprint.

What are personas and scenarios?

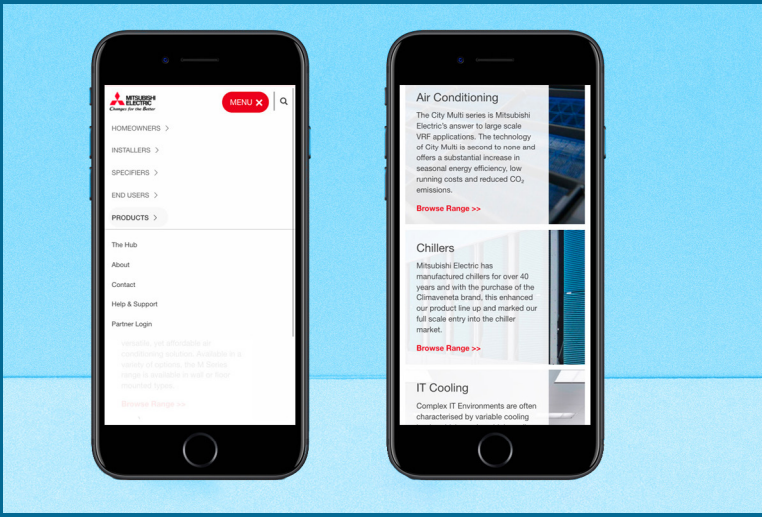
- Personas **tell you who your users are**. They focus on the person and the situation they are in

- Scenarios tell you **what they're trying to do**. They focus on the task(s) a persona, or multiple personas, are trying to complete

Personas are important, but scenarios move you beyond the psychographics to activities, stories and tasks.

To understand your key personas and scenarios, talk to your stakeholders. Verify the personas and scenarios they identify through user interviews.

Case Study:



Clarifying tasks for Mitsubishi Electric's users

Our client, Mitsubishi Electric, had multiple personas – engineers, installers, property developers, architects - but there was one thing in common. There was a huge overlap between the type of tasks they were each trying to complete. Their personas are different, but many of the scenarios were the same. So we knew to focus on those.

Read the full case study.

3.2 Reveal your customer experiences with a service blueprint

Service blueprints plot a customer's journey – and their data – across all touchpoints in a scenario. They reveal the layers of data, operations, systems and business dependencies that underpin the customer experience. Service blueprints for UX have been pioneered by the likes of Adaptive Path for their work at CapitalOne.

A service blueprint includes:

1. User actions
What your customers do, the script, scenario and tasks they follow.

2. Brand touchpoints
Digital, physical, online and offline interfaces that they need to deal with.

3. Back office support
What needs to happen from the organisation's human perspective to facilitate.

4. Data layer
What data is needed, how it should be processed and where it needs to go.

5. Support processes
Technological systems, processes and activities that are required behind the scenes.

They can also include timelines, success metrics or customer satisfaction across the process. They help you drill deep into everything that supports the customer experience and identify where improvements and efficiencies can be made.

If you apply the insight that you gain from personas and scenarios to a service blueprint, it can help you build a user journey that meets your customer need. But its real strength is that it ensures you have the right processes, systems, integrations and people to deliver it. Service design blueprints can work in tandem with user flows, empathy maps and user journey paths or diagrams.

The blueprint can also help to identify what processes and tasks can be automated and even enhanced by AI and personalisation. We'll come on to that later.



DEFINE YOUR TECH STACK



"Code is not an asset. It's a liability. The more you write, the more you'll have to maintain later."

JEZ HUMBLE

Author of Accelerate and Continuous Delivery

*This file is licensed under Attribution-NonCommercial 2.0 Generic (CC BY-NC 2.0)

4.1 The 7 steps to defining your tech stack

You might be happy with your tech stack and want to focus your agency's efforts on the UX and content of your new experience. (In which case, great, let's get going.)

But you might know or suspect that your tech stack isn't entirely fit for purpose - it may be missing functionality or integrations that you need now or in the future.

At the same time, any new 'sexy and shiny' tech that is promised as a 'holy grail' will need upkeep and support. As Jez Humble said, the more complex the application, the more upkeep it will need.

Then, depending on the infrastructure, tech stack, frameworks or software you choose, budgets will of course play a key part.

It goes without saying that selecting the right technology will be a make-or-break moment that you will only be able to judge as successful in a matter of years, not months.

We've handled all kinds of technical integrations for clients over the years. Here's what we've learnt about building a technical foundation that you can trust.

1. Start with the customer experience

Look closely at your customer strategy. What do your customers need from you? How can you deliver that to them? How will you meet your business objectives? As Steve Jobs famously said, *"You have to start with the customer experience and work backwards towards the technology."*

2. Consider how you'll bridge the gap

Once your customer experience is defined, look at its requirements and make a technical choice on what can best deliver the system. As you look at what needs to change and why, you'll also want to consider your budget, what technologies and setup you're comfortable with and what sort of licensing or payment model works for your business.

3. Future-proof your functionality

Are there any real-time aspects to your functionality, such as live stock prices? If so, you'll need technologies that'll allow you to push and pull that information. Think about personalisation, marketing automation and AI capability - functionality that will become increasingly important over the next few years.

4. Explore what you already have

Tech stacks today are very different from five or 10 years ago, but the implications of moving CRM or CMS can be significant. Consider them carefully. Sometimes when we look at tech stacks, we advise clients that they don't necessarily need

to change out their systems - they just need to upgrade them. Are you making the most of what you already have?

5. Build a firm foundation

What type of infrastructure do you need? Look at your servers, security and monitoring requirements. These are your core building blocks - the foundations, if you like - and they need to be strong enough to support the rest of your stack. As part of your foundations, you will want to consider everything around how you stage deployments, testing, DevOps and even a run book (procedural check-list of all the steps to plan, prepare and execute a launch of an application or website).

6. Layer the essentials on top

What systems does your data need to connect to? You should also consider infrustrcuture. The layers you'll add are likely to include:

- Front-end framework (HTML and React.js, Vue.js and Angular)
- A CMS platform or headless CMS (e.g. Drupal, Contentful, Prismic)
- Back-end frameworks (typically PHP or .NET)
- Marketing automation software (e.g. HubSpot, Marketo)
- CRM platform (e.g. SharpSpring, Salesforce, Microsoft Dynamics)

- ERP software (e.g. SAP)
- Deployment and DevOps stack (e.g. Buddy or Codeship and Sentry for error logging)
- Ecommerce functionality and payment platforms, if your B2B customers can place orders online (e.g. Shopify, Magento; Paypal, Stripe, SagePay)
- Hosting environments (e.g. AWS, Microsoft Azure or Google Cloud)

7. Integrate your custom tools

Whether they're in-house bespoke systems or off-the-shelf platforms for payments, recruitment or video streaming, they'll need to be integrated with your tech stack.

4.2 Bespoke versus out of the box

When you're evaluating systems, think about how you'll balance time and budget. Some systems might take longer to configure, but might offer more functionality.

- If your application is very bespoke, you'll probably want to choose a framework that'll allow you to build a very flexible system. Laravel is great for this and you can also use it to split applications into smaller micro-services
- Off-the-shelf systems can save you a lot of time. Drupal is a highly configurable CMS that's really powerful out of the box - and although it's not as bespoke as some, it can be extended with open-source modules
- Be aware that an out-of-the-box platform might seem expensive, but over a five-year period might work out cheaper than a bespoke build

4 tech tips from the Cyber-Duck team

1. Embrace test-driven development

Find out if your developers write functional and regression tests before they build your features. It helps keep your product or experience on track, ensures it's fit for purpose and means fewer issues will be discovered on launch or in feature releases.

2. Keep your developers involved throughout...
They can check the UX wireframes are feasible and validate your logic and systems. Remember - it's cheap to wireframe or prototype, but that doesn't always mean you'll have budget to build. Likewise the developers should be involved in selecting the infrastructure, selecting the frameworks and software.

3. ...and check in with your agency little and often
It's helpful for clients to be involved in show-and-tells early on so they can see how a design is evolving. This saves time by stopping an agency going down the wrong path. It's part of an agile approach: the earlier your agency gets feedback, the cheaper it is to fix.

4. Remove risk with proof-of-concept prototypes
Proof-of-concept prototypes are a good way to remove risk from complex interactions like single page applications or animations. Building them at an early stage can potentially save time and money further down the line. It doesn't matter if they're a bit hacky and dirty – they're there to prove whether your concept is possible or not.



OPTIMISE YOUR CRM



"Strong customer relationships drive sales, sustainability, and growth."

TOM CATES

Founder and Chief Storyteller, Encompass-CX

5.1 The 8 principles for optimising your CRM

When you're creating user-centred experiences where you need to personalise the experience, you could argue there's no more critical system than your CRM. It's the single point of truth for your customer data across your entire company, so it needs to be able to accept, sync, process and measure any data you want to use.

Your CRM is the key to ensuring you're talking to the right person and managing that longer-term relationship. It needs to centralise all your sales and marketing activities across multiple touchpoints and social media channel conversations to ensure you get the full picture of your most engaged users.

1. Establish your baseline

How is your company using its CRM and what features do you use or need? You'll want to assess the touchpoints right across your organisation, look at its current and potential functionality and test whether it can accept and interpret any data you need to drive to it.

2. Define your customer data

Consider the type of information you want to hold about each user - for example, contact details, location, sector and job title. Your CRM should be your single point of truth - the one central repository - to ensure data keeps its integrity and currency as it's transferred between all your systems. This is also the time to ensure your customer data is GDPR compliant.

"If you're happy with your CRM, don't feel you have to change it just for the sake of it. That's a major piece of work with many touchpoints across your organisation. Look carefully at how your company is using its CRM globally - your website is only one facet."

DANNY BLUESTONE

Founder & CEO, Cyber-Duck

3. Decide how you'll use your data

Now you have the data, what do you want to do with it? Once your requirements are clear, you can program the logic for automated email drips, customer updates and catchups, B2B events and more.

4. Define what upgrades your current CRM needs...

If you're keeping your current system, then conduct a gap analysis to see what changes or upgrades it needs to give you the functionality you require.

5. ...or select your new CRM with care

Your requirements will help you decide which CRM will suit your needs. Small to mid-sized businesses might find SharpSpring, Pipedrive or HubSpot a good fit. Enterprise solutions could include Salesforce and Microsoft Dynamics.

6. Keep everyone in the loop

Communication is vital between your technical teams and marketing strategists. Make sure they agree requirements early on and keep talking, so you get a system that's secure but still flexible enough to meet business goals. This includes your compliance team, who remain on top of GDPR!

7. Test deeply and roll out slowly

If you're choosing a new CRM, take the time to ensure you can conduct due diligence and comprehensive technical testing. Start with small-scale proof-of-concept testing (one campaign and a few customers) to make sure data can sync and flow in and out of the CRM, iron out any glitches, then slowly scale up. If you are introducing a new system, you may want to run the old system in parallel and even undertake double entry and/or a sync between the two systems to really stress-test things thoroughly.

8. Get insight on your customer interactions

You should now be able to track who's interacting with your business across all touchpoints - email, phone calls, meetings and more - in one central place. This rich data should build a clear picture of your customer so you know how, when and where to contact them.

“Data enrichment gives you the potential to personalise how you handle your B2B customers. Perhaps one never opens email newsletters, but contacts your call centre - they might prefer a face-to-face meeting. Make sure your CRM is giving you the data to help you engage with your customers in a way that suits them.”

SYLVAIN REITER

Client Services Officer, Cyber-Duck

Case Study:

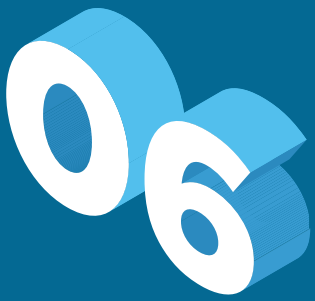


CRM to drive scientific discovery

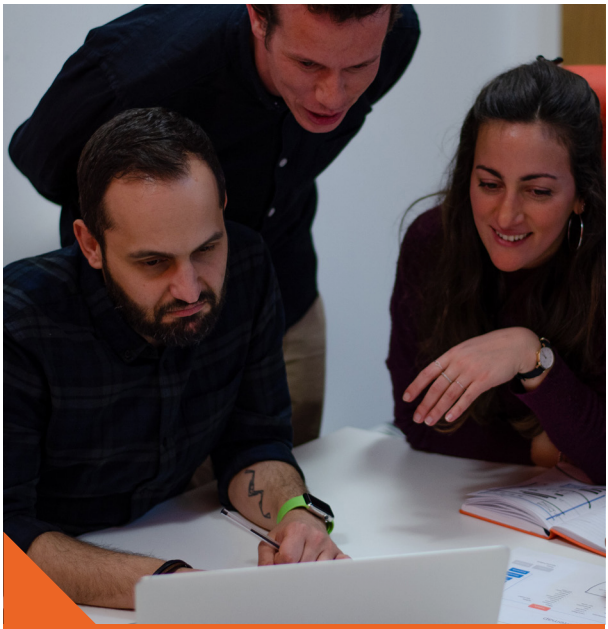
Cancer Research Technology chose Cyber-Duck to brand, design and develop Ximbio, a crowdsourced marketplace for scientific research tools.

We analysed Ximbio's CRM requirements and helped them choose a cost-effective, appropriate solution. We helped them cleanse their database of 5,000 contacts to ensure it met GDPR requirements. Then we handled the technical implementation of SharpSpring, configured the platform for their needs, trained their team and created visual workflows for their newsletters and event invitations.

Read the full case study.



MIGRATE YOUR DATA WITH CARE



“Sense and deal with problems in their smallest state, before they grow bigger and become fatal.”

PEARL ZHU

Author of the Digital Master series

6.1 10 universal tips for migrating data

We all know moving data is risky. If it breaks during migration, it can cause havoc to your sites or apps, or even set off a chain reaction that can break customer experiences. Because it's a tricky thing to get right, it's where many organisations fail.

Approach data migration from a perspective of risk mitigation. You want to be sure you've prepared up front to minimise the chance of any unpleasant surprises.

An experienced team and their tech lead will consider these data migrations tips:

1. Strategy

We recommend a strategy for schema and structural changes so no legacy data is made unusable and any legacy or new functionality is accounted for. If you're migrating content or data from one system to another, make sure to map out and test the data move.

2. Syncing data

If you're planning to sync data across platforms, it's vital to research the best ways to do this. Should this be a one-off procedure or a recurring sync? If you go for a sync, there are multiple chances of things going wrong, so make sure you prepare.

3. UX

Document any changes to the UX and user journeys, however small, and test them with real users throughout the project lifecycle. That way, you'll be able to spot problems sooner.

4. Automated testing

Use test scripts and automated testing to robo-test thousands of permutations, from login to functional usage of the system – it's far more comprehensive than testing manually.

5. Betas

Taking a lean approach by running alpha/beta testing will ensure that both users and system analysts are satisfied with the new system. If you are syncing data, do this early and give yourself enough time to sync across test environments with different content and file types.

6. Runbooks

Make sure there's a runbook for deployment so all steps of deployment are documented. If there is an error, it must be possible to rollback without any data loss. Escalation paths should be set and assigned to individuals so everyone's clear on procedure if something goes wrong.

7. Testing environment

The testing environment needs to be identical to the production environment. A lot of problems happen when the configuration between the two differs.

8. Application hosting

The hosting and cloud platform require special attention to ensure they are scalable and secure. An engineering team should be monitoring performance 24/7.

9. Communication

There should be clear communication that change is coming. Internal resourcing and support should be geared accordingly and planned for a crisis.

10. Analysis

Intelligent insights and tracking tools can be used to alert analysts of problems both during testing and in the live environment.

Case Study:



Learnings from TSB's migration meltdown

In April 2018, British bank TSB experienced a major data meltdown that left many of its customers locked out of their accounts or unable to make payments. The botched migration happened as TSB transferred more than 5m customers and 1.3bn records from its former owner Lloyds Bank to a platform built by its new owner, Spanish bank Sabadell.

TSB blamed middleware, although industry experts suggested a number of other factors behind the debacle, including mismatching data fields, insufficient testing, no roll-back methods and pressured timelines. The meltdown cost TSB an estimated £330m and CEO Paul Pester departed the bank in September that year.

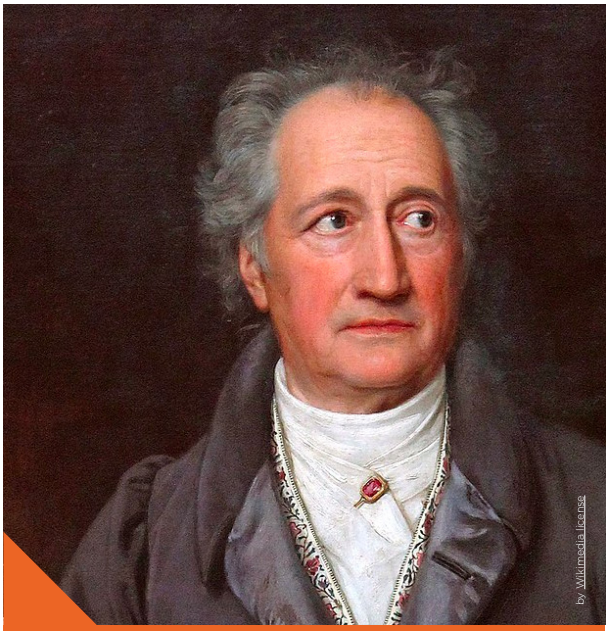
*This file is licensed under the Creative Commons Attribution-Share Alike 3.0 Unported license.



Large institutions like The Bank of England and Mitsubishi Electric trust us with their data. We've developed processes, checklists and risk registers to ensure data migration happens smoothly. Through our ISO 9001/27001 certifications, we ensure that these processes are audited and continually improved. This helps to provide compliance, security and ensure bullet-proof accountability.



GET STRATEGIC INSIGHT FROM YOUR DATA



"There is nothing so terrible as activity without insight."

GOETHE

*It has been established that this file is free of known copyright limitations, including all related rights.

7.1 3 steps to building your data strategy

You've clarified your mission, objectives and KPIs. You know what data you have where. Now you're ready to build your data strategy.

"At Cyber-Duck we use an ISO-accredited design and technology process to ensure that all the products we build are designed based on insights. We follow Google's certified GACP principles on data insight generation. That's how we make sure that the data that's generated is usable and useful. We use a blend of quantitative and qualitative, because they reveal different things. Combine them and that's where you find your insights."

DANNY BLUESTONE

Founder & CEO, Cyber-Duck

1. Define your metrics

Translate your top-line business objectives into the metrics that matter. The data audit's recommendations, your scenarios and service blueprints will help you see where to improve your data collection. Make sure you create a measurement plan that clearly specifies each KPI/OKR and how you will track them.

2. Implement data tracking

Work with a Google certified analytics agency to implement your web analytics framework to ensure it's robust. Typically you can use tag manager software like Google Tag Manager (GTM) across channels to track digital user behaviour. Your framework can focus on various tracking types, from destination goals and events to ecommerce. You'll probably want personalised Google Data Studio dashboards set up so you can monitor your data live.

3. Full attribution visibility

If you're tracking campaigns, make sure to include your users' previous channel engagements. Post-view conversions as well as post-click conversions will give you a full picture of your users' journeys.

Now you can schedule any analytics reviews, updates or reports so everyone's informed by the data they need.

“SharpSpring is a great resource for B2B companies. Their cutting-edge IP analysis tool shows you what companies are visiting you, by sector, and reveals insights such as their user journeys. These insights can give your sales team warm leads and help them personalise their follow-ups with potential clients.”

SOFIA BREG

Marketing Manager, Cyber-Duck



We're a Google Analytics and Google Tag Manager Certified Partner so we understand how digital analytics can drive your business. Our experts can create sophisticated Google Tag Manager tracking solutions for almost any digital product, from simple event tracking to complex virtual funnels.



CREATE CONTENT THAT DELIGHTS YOUR CUSTOMER



“Stop marketing. Start storytelling.”

LAURA HOLLOWAY

Founder and principal of The Storyteller Agency

8.1 7 tips for successful content management

Your content is fundamental to your customer experience. Every step of their journey, it's representing you and your brand offering.

When you get it right – personalised messaging delivered at the right time, to the right person – it can help you build rapport with your customer and trigger actions to grow your business.

1. Start your strategy early

Create your content strategy as early as you can. It'll highlight any content gaps, which gives you time to create or refine content where needed.

2. Use real content

Just as we recommend moving to code as soon as possible, we like to use real content in any new designs or interfaces from the very early UX stages all the way to coding. Gather Content is a great tool for creating content in context.

3. Migration testing

If you're handling a content migration, run tests as soon as you can to check you can import legacy content easily to your new system.

4. Content matrix

If your content migration is vast, a content matrix can help you prioritise and sort content based on the persona and even campaign type. Factor SEO requirements, metadata and links to other content into your new information architecture.

5. Rich content

Content isn't just words. Images, video, infographics and social posts all play a part in your content mix. Consider what kind of storytelling fits each need and platform and how content will be grouped and designed.

6. Accessibility

Content can only do its job if it's usable, findable, searchable and accessible to all users regardless of their age or disability. Build accessibility and search engine checks into your content production and testing.

7. Governance

Don't forget content governance. Consider who's responsible for editing and managing your content. Put in place processes so it's reviewed and updated as needed.

Case Study:



A content strategy the Bank of England could trust

The Bank of England's mission is to maintain monetary and financial stability for the UK. But its previous website hadn't helped people understand this – information information was hard to find.

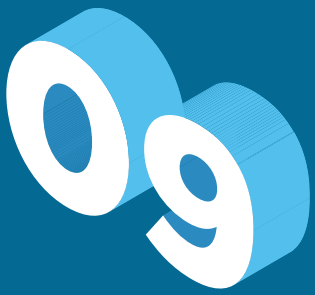
That's why Cyber-Duck was brought in. Our research showed that users enjoyed the Bank's content – they just couldn't find it. The website's existing structure was inaccessible. So we tackled the scale and findability of the existing content.

We absorbed and rationalised all the content – 4,500 web pages and over 20,000 PDFs – into a new information architecture, creation and migration plan that simplified all user journeys.

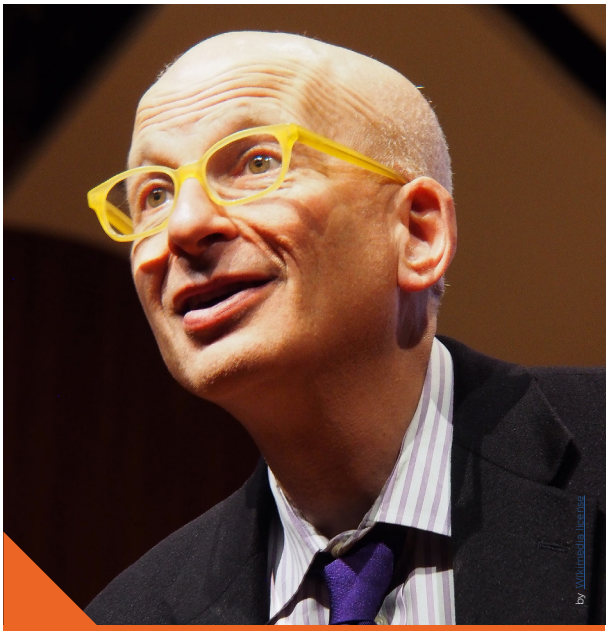
The result? Time spent on the new website went up by almost 30%.

Read the full case study.

* *This file is licensed under the Creative Commons Attribution-Share Alike 2.0 Generic license.*



BUILD PERSONALISED, AUTOMATED EXPERIENCES



Personalisation... is a chance to differentiate at a human scale."

SETH GODIN

*This file is licensed under Attribution-NonCommercial 2.0 Generic (CC BY-NC 2.0)

9.1 Differentiate with personalisation

Marketing data, at its best, can power tailored, useful experiences that will delight your customers and build brand loyalty.

How to approach personalisation:

- Listen to your user research and understand your key data
- Examine your user journeys and service blueprints
- Identify the points at which you can personalise the experience, whether that's through geotargeted events, sector-targeted thought leadership or tailored on-site content

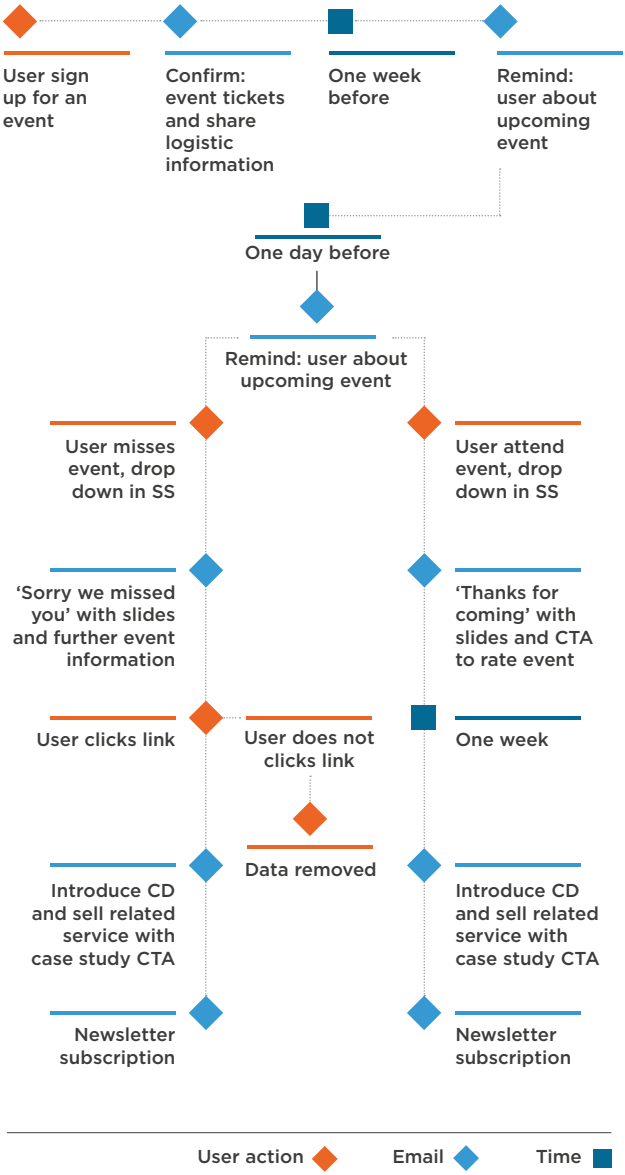
9.2

Power up with automation

Marketing automation helps us to identify, categorise, target and streamline interactions so we can automatically deliver a tailored user experience. That's key in a B2B environment, where the route to purchase can involve a lot of nurturing and reminders to keep you top of mind.

For example, a drip email campaign – a set of automated emails that are triggered by a user action – is a great way to keep re-engaging your audience with your product or service.

Automation workflow for a meetup



9.3 5 tips for successful marketing automation

- **Identify your customer**
  You need an email address, CRM entry or unique ID from the start.
- **Insights**
  Automate based on data insights.
- **Content**
  The strength of your workflow is only as good as your content.
- **Personalisation**
  Automation works hand-in-glove with personalisation.
- **Measure, adapt**
  Review and iterate your automation continuously.



UNLEASH THE POTENTIAL OF AI



Artificial intelligence is growing up fast."

DIANE ACKERMAN

Poet, essayist and naturalist

*This file is licensed under the Creative Commons Attribution-Share Alike 3.0 Unported license.

10.1 The potential of AI

The power of automation really comes through when it's combined with AI.

- Improving efficiency where there are manual processes or operators through automation and augmented intelligence
- A way to bring in more natural conversational user interfaces (CUI) to discover user intent and empower them
- Providing a system, website or campaign with a layer of intelligence and even machine learning to improve itself and what it offers to the end user

"A quarter of customer service operations will use virtual customer assistants by 2020"

GARTNER

10.2

3 rules for successful AI

1. Logic
AI depends, just like the human brain, on combining observation, data, memory, creativity, motor coordination, judgement and wisdom.

2. Ethics
AI requires human supervision of machines and machine checks on human inputs.

3. Rules
AI needs to work with rules, like cars need the highway code and motor laws.

"Chatbots will save businesses $11 billion a year by 2023, up from $6 billion in 2018"

JUNIPER RESEARCH

"When designing AI experiences, a common mistake is to use the data you already have, rather than determine what data the system and users actually need. Think about a GPS navigation system. What would be more useful: "Please continue on the motorway for 5 miles and turn left" or "Please continue on the motorway for 5 minutes and be ready to turn after the bridge"? For most of us, it would be the second. But when GPS was designed, that functionality wasn't built in nor was that data specified or generated, so for now we're stuck with guesstimating distances or relying on a new clever algorithm that may or may not be able to deal with the above."

DANNY BLUESTONE

Founder & CEO, Cyber-Duck

10.3 7 steps to implementing AI

Strategy

When you're looking to layer AI into your experiences, consider your business objectives and customer needs. What's the end goal? How can AI support it?

Research

Hold a service design workshop to establish the core product – user journeys, touchpoints, initial UI and data flow. Evaluate any risks – human bias, for example, can be replicated or even amplified by AI.

Framework

Consider what software or frameworks you will use for AI. You'll want to ensure compatibility and support.

Gap analysis

Conduct an audit and gap analysis of data and existing systems.

Data warehouse

Design your data warehouse to cover ingestion, storage, processing, analytics, output and how data is processed by the application.

Start small

Test your algorithms and hosting architecture with an MVP on a small data sample before full implementation.

Real-time processing

Then scale up to real-time processing and larger volumes of data. Consider machine learning systems – they learn and improve their accuracy as more data is processed.

Regular reviews

Once it's set up, you'll want to monitor AI to ensure it's providing value. Review your workflows each week. Then tweak, test and adapt your experiences.

Case Study:



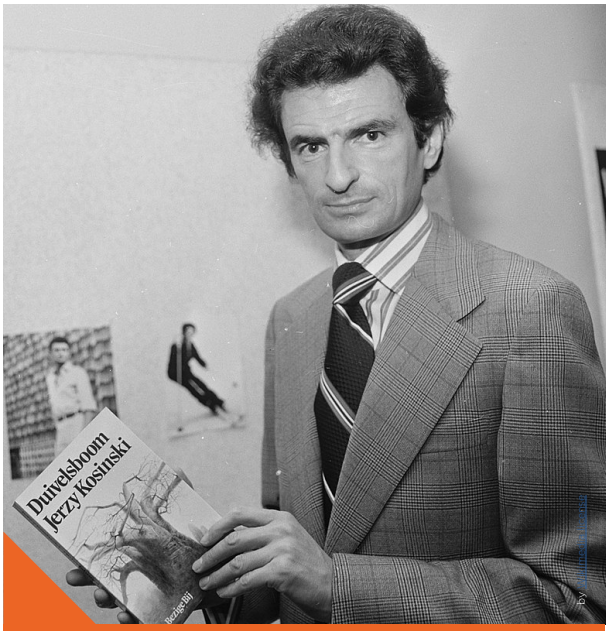
Building a bot to flag trading errors

Banks and asset managers have historically traded with each other over the phone and by email. But this can cause errors if what's being bought and sold doesn't tally. They're known as failing trades. Failing trades carry fines and penalties if they're not resolved within four days. So, we're building a data warehouse and a bot for a financial services client that will spot inconsistencies in the data warehouse and flag failing trades by delivering push notifications to traders' messaging apps.

**This file is made available under a free license (personal and commercial use) by Rawpixel.*



INSPIRE YOUR CUSTOMER



The principle of true art is not to portray, but to evoke.”

JERZY KOSINSKI

Writer and novelist

*This file is made available under the Creative Commons CC0 1.0 Universal Public Domain Dedication.

11.1 Collaboration is key

Once you've established the interaction design, you can lift the visuals with styling. Art direction and branded design is an essential part of the user experience – the messages, tone of voice, colours, imagery, fonts and placement will all have an impact on how your users feel as they navigate towards their goal.

Everyone has an opinion on aesthetics and messaging, so think about who needs to be involved so you get buy-in for the project. If your stakeholders are on board with the interaction design, then guiding them through the branding, art direction and visual design will be more straightforward.

To truly inspire your audiences and while redesigning the website, try to audit your existing messaging and tone of voice and plot this against different persona groups to ensure they are presented with the right messaging and key moments in the user journey.

Style tiles are a great way to share design elements. They're less precise (and quicker to produce) than a mockup, but convey more elements than a mood-board. Style tiles help stakeholders see key elements, such as colours, fonts and logos, and feed back on them at an early stage.

11.2 6 principles for inspiring user experiences

Inspiring, effective art direction should be:

1. Seamless

Jarring visual experiences confuse users. Help them navigate your product by creating consistent messaging and visual interfaces that align with brand guidelines and tone of voice.

2. Effective

Designs need to work across multiple screens, platforms and channels. Plan from the start to design responsively, to use web- and app-friendly type foundries, and to ensure your imagery can work across channels.

3. Inclusive

Beautiful experiences are usable experiences. Accessibility should be woven through your art direction, not bolted on later. Colour contrast, font-sizing and component size are just three things to consider – talk to your users to find out what matters most to them.

4. Flexible

Design is an investment and needs to work for you long-term. Design systems – collections of reusable components and guidelines – can cut design and development time, boost consistency and make your designs scalable.

5. Meaningful

Colours and fonts are able to communicate just as much meaning as copy. Talk through the purpose of your product with your stakeholders and users to identify the feel the experience should convey.

6. Beautiful

And we've saved the most important until last. Did you know that websites that users rate visually appealing websites as the most usable? A famous UX researcher discovered that "what is beautiful is usable" so it is truly worth investing in the design. Simple, refined aesthetics will lift experiences and make them so pleasurable that your users will stick around longer – and be glad to return.

Case Study:



Building a solid future for the Bank of England's website

For the visual design, Cyber-Duck looked at the Bank, its people, its building and its printed material for inspiration. We combined the Bank's official typography and bold photography with vibrant colours – including the traditional doorman's pink uniform and a strong navy blue – to create a traditional yet exciting palette.

*This file is licensed under the Creative Commons Attribution-Share Alike 3.0 Unported license.



TEST, TEST AND TEST AGAIN



Code, without tests, is not clean. No matter how elegant it is, no matter how readable and accessible, if it hath not tests, it be unclean."

ROBERT C. MARTIN

Uncle Bob

This file is licensed under the Creative Commons Attribution-Share Alike 4.0 International license.

12.1 Quality Assurance

Remember the TSB debacle that we covered at the start of this white paper?

Quality Assurance (QA) is the process that mitigates these kinds of meltdowns. It defines, measures and delivers the quality you would expect from fully functioning products. It often uses test-driven and behaviour-driven development methodologies to test all functions of a product for bugs and to make sure that user journeys work as intended. When redesigning your website, it's a prime opportunity to reset your QA methodologies.

> *"Quality is everyone's responsibility. Quality Assurance is how you deliver it."*

GARETH DREW

Technical Director, Cyber-Duck

12.2 Automated testing

Automated testing is a major breakthrough for QA. Now you can test at scale by using machines instead of humans.

QA creates a test that a machine can run for every function that's developed. The test can be used by developers to double-check their code for launch, and then whenever there are code changes, to ensure the experience still works.

At Cyber-Duck, we like to use computer-aided software testing (CAST) tools like Ghost Inspector and Katalon Studio.

"Automate your testing wherever you can. As a product evolves and becomes more complex, manual testing gets unwieldy and expensive. Machine testing in parallel means you can maintain the rigour of your tests at scale."

GARETH DREW

Technical Director, Cyber-Duck

12.3 5 tips for effective QA

1. Put the user first
Use a user-centred design approach to build websites and apps that are user focused, accessible and based on empirical research.

2. Share the knowledge
Share the learnings that your QA has revealed. Encourage team members across different departments to understand the importance of QA and to share their knowledge about new trends.

3. Automate where possible
For menial tasks like checking contact forms, we use an automated testing tool, so QA engineers can focus on complex systems like CMS.

4. Use a DevOps approach
Development Operations (DevOps) encourages collaboration between tech teams. It helps deliver faster deployments as QA and developers work seamlessly together on projects.

5. Get creative

Focus on what the software should not do and try to find ways to break it to see how it can be improved. Bring your design and technical teams together to find creative solutions.

These principles have helped us to drive standards higher and deliver a better, more robust user experience for the end customer.

"Don't think of quality assurance as an expensive add-on at the end of a project. It's a proactive investment in the user experience that can differentiate your product before it even goes to market."

OBI NWAJEI

Senior QA Analyst, Cyber-Duck



CONCLUSION

13.1

Conclusion

This white paper has explained how clear goals and knowing where you stand will set you up for success when redesigning your website.

It has explored personas, scenarios and the benefits of service blueprints. It has discussed the pros and cons of changing your tech stack and delved into content and art direction. We've talked about your data strategy and setting metrics that deliver meaningful insight. It has even covered the benefits of personalisation, automation and AI.

If there's one thing we'd like to leave you with, it's this. Wherever you are along the way, your customers will be able to guide you. True user-centred experiences are a collaboration between you and them. Talk to them, trust them, and the rest will follow.

And if you'd like to know more, do get in touch. Email our team at hello@cyber-duck.co.uk or call us on +44 (0) 208 953 0070.

Let's work together

- → User Experience
- → Technology
- → Marketing
- → Branding
- → Digital Transformation

13.2

About Cyber-Duck

Established in 2005, Cyber-Duck is a leading digital transformation agency that works with exciting start-ups and global brands such as the Bank of England, Mitsubishi Electric and Cancer Research. Cyber-Duck delivers transformation that is powered by user-centred design, data and technology. The company blends an ISO-accredited design process with lean and agile management principles, and draws expertise from investment in creative R&D.

The Cyber-Duck team have spoken as industry experts on BBC Watchdog and at many notable conferences, including SXSWi, UXPA and UX London. The company has won some of the most sought-after industry awards, including the Webby, Wirehive 100 and UX UK Awards. They are ranked in Econsultancy's Ones to Watch Top 100 Digital Agencies, The Drum's Design Agency of the Year, as well as listed in Deloitte's Technology Fast 500 (EMEA).

www.cyber-duck.co.uk



Let's work together
+44 (0)20 8953 0070
hello@cyber-duck.co.uk
www.cyber-duck.co.uk