TECHTRANSFORMED

tech-transformed.org

Version 1 | April 2019

Consequence Scanning

An Agile event for Responsible Innovators

Brought to you by: **doteveryone**

About this manual

This is a guide for people who want to make better technology products and services

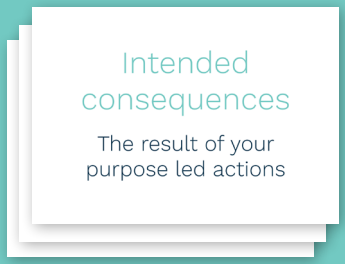
It introduces Consequence Scanning - a new Agile event that fits into an iterative development cadence. This is a way for organisations to think about the potential impact of their product or service on people and society. With Consequence Scanning, organisations will be able to anticipate and address concerns they might have early on in the development cycle, before the final product is shipped.

Within this manual we will introduce you to the foundations of this new agile event and tell you what you need to know to put Consequence Scanning into practice.

The contents of this guide, and our recommendations, are based on our experience running and observing Consequence Scanning. But this event is intended to be adaptable and you can follow the cadence, structure or process that makes the most sense for your organisation. This event is meant to be the place to start thinking about the potential consequences of the product or service you're developing.

About this manual

The Consequence Scanning Agile Kit also includes:



Printable headings

Recommended structure

Consequence prompts (P23)

Context prompts (P24)

Let us know how it goes

How did Consequence Scanning work for you in practice? Let us know! This is 'Version 1', and we'll be iterating on the event and this manual based on your feedback.

Help us to make this event even better and share your thoughts by filling out our **survey**, emailing us at **hello@doteveryone.org.uk**, or posting about it using **#ConsequenceScanning**.

Join our community for Responsible Innovators

This guide is part of Doteveryone's TechTransformed programme - which empowers Responsible Innovators to build organisations with responsibility at the heart of their technology business planning, product management, and design Sign up for early access to content at:

TechTransformed Mailing List

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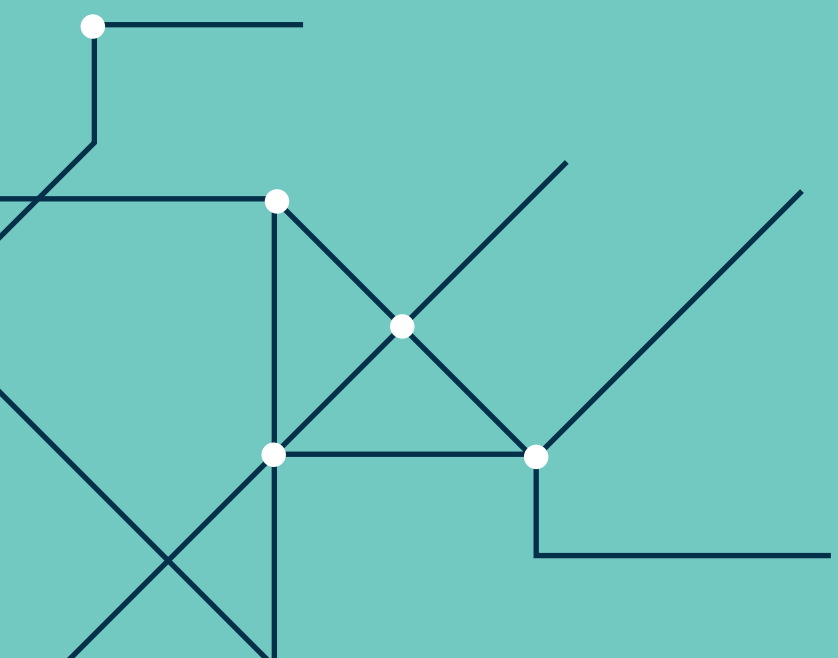

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Why considering the consequences is important

Many leaders of the biggest tech companies of our time have admitted that they simply did not think of the consequences of what they were creating.

As a result, companies have suffered massive reputational damage, missed opportunities to harness human diversity to solve new problems, and created products that were not as good as they could have been.

In our rapidly changing world, successful tech innovators will be those who seek new and responsible business practices and mindsets to match the increasing expectations of users, investors and employees, who are looking for organisations that make a positive difference while causing minimal negative impacts.

Consequence Scanning offers organisations an opportunity to do all of that while ensuring their technologies and their people reflect their values and culture.

As the world becomes more intertwined, technologies advance, and new generations come into the workforce, there will be a real cost to not building the organisational capacity for thinking and dealing with these issues now.

While you might not always be able to anticipate the consequences of the things you build, by creating a space to have conversations with members of your organisation you can start to take what can often be big, abstract conversations about ethics and values into something more tangible in the context of the product you are creating.

Consequence Scanning has been designed not only to surface issues that might not get raised otherwise, but to have a format for more open dialogue about these as a team. It is also a space to ideate on new and positive solutions and stay close to what you value as you make new things happen.

Because innovation doesn't have to be about moving fast and breaking things; it can also be about achieving what you believe in.

Introducing Consequence Scanning

Consequence Scanning is a new and dedicated Agile event that fits alongside other agile processes in an iterative development cycle.

It will allow you to consider the potential consequences of what you're building and will provide you with the opportunity to mitigate or address potential harms or disasters before they happen.

In the event you will be answering three questions about your product once it is in the real world. This should help you to make positive decisions about your product that are aligned with your organisation's vision and values.

You should run the event at initial conception of a product, during roadmap planning, and during feature creation. It's meant to spark new ideas and foster positive conversations and common understanding between all stakeholders.

Participants in this event should be cross-functional and multi-disciplinary. Including different perspectives and expertise means you will have a clearer shared understanding of the goals of the product and a greater opportunity to identify potential consequences.

The event is lightweight and simple to understand - you don't need a lot of materials, preparation or even expertise to conduct or participate.

Finally, this is not just a talking exercise. Proactive and dedicated consideration of potential consequences needs to become embedded in the heart of business planning, design, and product development in order to make better technology.

About the event

Consequence Scanning should fit into your existing Agile practice and feel familiar to everyone who has taken part in other Agile events. This event is designed to be adaptable and fit in with how you already work as a team. The important part is doing the thinking and acting on it.

We have created this Agile event to be:

Lightweight

You don't need a lot of materials, preparation, or even expertise to conduct or participate.

Simple to understand

It should be easy to understand what you should do, how, and why.

Difficult to master

This event demands critical, creative, and systems thinking. Everyone who takes part needs to be prepared to think openly and talk candidly about the potential harms or disadvantages your technology might be creating. This is likely to be difficult at first but it will get easier the more you do it.

The event also requires you to balance input from lots of different kinds of people. It is intended to be representative of your users and inclusive of different points of view, and therefore you should invite people from different disciplines and at different levels of seniority.

The point of the event is to facilitate tough conversations that wouldn't normally happen when you're focused on delivery, and although it will take some getting used to, it will be worth it!

The three questions you'll be asking

In a Consequence Scanning event, you will answer the following three questions about your product once it is in the real world:

1. What are the intended and unintended consequences of this product or feature?

2. What are the positive consequences we want to focus on?

3. What are the consequences we want to mitigate?

These questions help your team to share knowledge and expertise so you can map the potential impact of your product or feature.

Why these questions?

1 What are the intended and unintended consequences of this product or feature?

This will help you to think about the potential consequences of the technology you are creating. Consequences are the result of an action, and they might be intended or unintended, positive or negative.

Intended consequences are the change or impact you are looking to make. These are your project requirements. But try to reframe in terms of impact on the world as well as your business aims.

Unintended consequences are what could happen as a result of your actions. What have you learnt from similar releases throughout history? This is your time to actually think about what you might be missing, how what you've created could be used in ways you don't intend, or the knock-on effects of what you do intend.

2 What are the positive consequences we want to focus on?

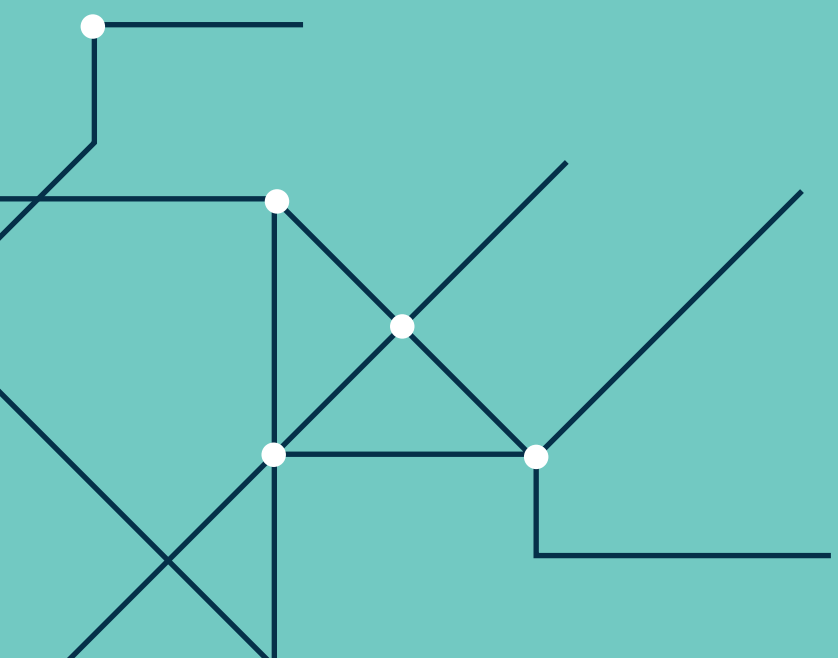
This will help you to make the most of the positive consequences that emerge and bring them forward. Not all consequences are negative - even the unintended ones.

3 What are the consequences we want to mitigate?

This will help you to identify what you can do to mitigate any potential harms to your organisation, to your users, and to the communities you operate within. Because not everything about what you create is going to good for everyone in every context.

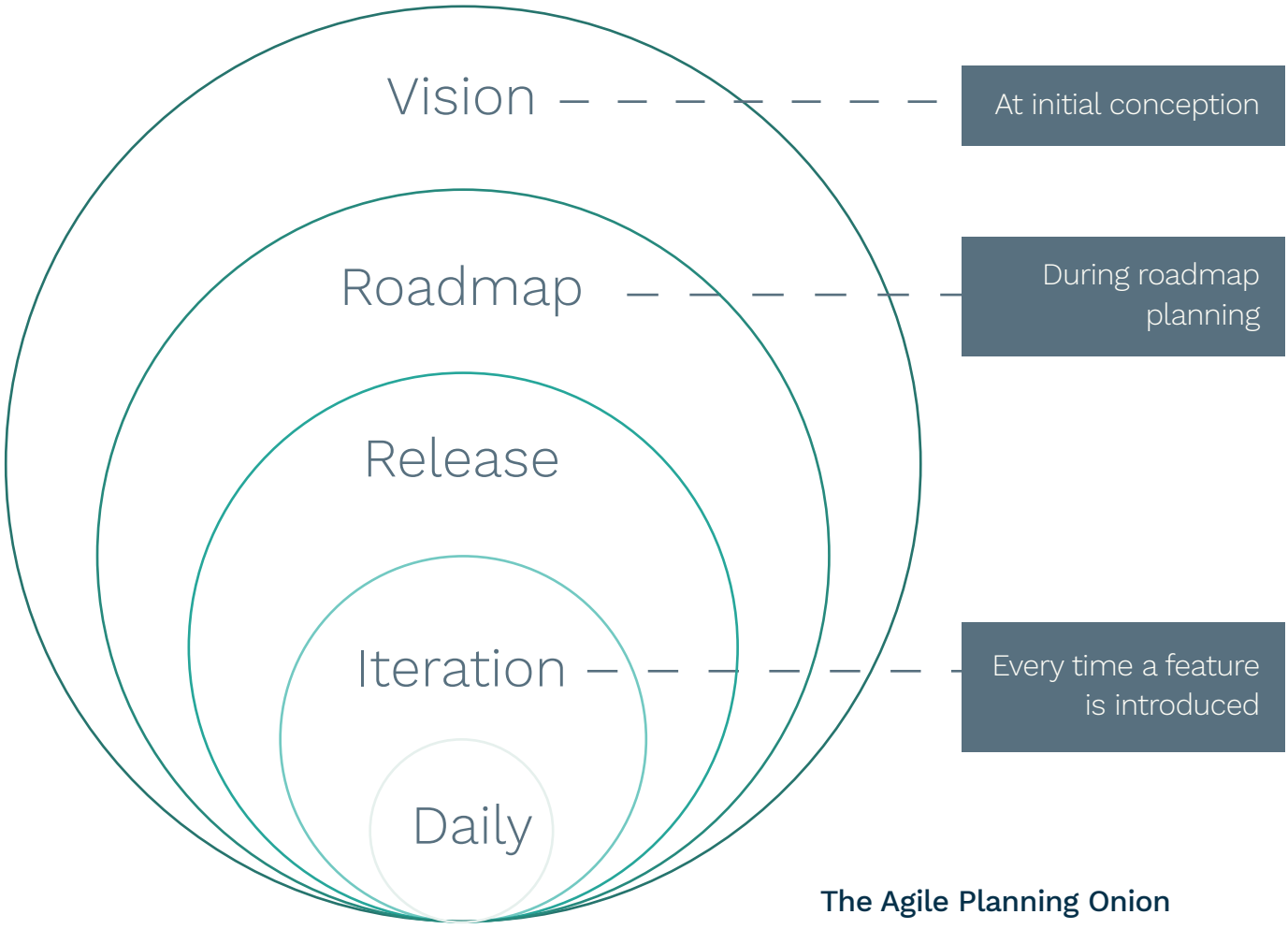
What you need to know before starting

- When should you do Consequence Scanning?
- Who should take part?
- What do you need?



When should you do Consequence Scanning?

This event should be done in the early stages of product planning and returned to throughout development and maintenance.



The Agile Planning Onion

By doing Consequence Scanning in the earliest stages of product planning and development, it will be easier for your team to think critically and candidly about what you're making without being too attached to specific ideas or work that has already been completed.

Returning to the event during roadmap planning, and every time a feature is introduced, will ensure that new consequences are uncovered and you are still delivering on the original intent.

Who should take part?

Do what makes sense for your organisation, but be sure to have people outside of your core team participate in the event.

Having different perspectives and disciplines contributing to the conversation could lead you to solve new problems and create something truly innovative. We recommend including:

Core Team

Those involved in the day-to-day making of the product.

User Advocates

It's essential that you involve user researchers. They will help to represent the world views, perspectives and habits of the people who use or benefit from your products and services.

Collaborators - Technology Specialists

These can include specialists in security, infrastructure, risk, and compliance working on the product or feature.

Collaborators - Business Specialists

These can include specialists from marketing and communications, sales, customer services and change management who will work on the product or feature.

Other key stakeholders

You might want to also include senior stakeholders or external key stakeholders such as board members or investors.

Whether participating in the event directly or not, senior stakeholders have roles to play:

Senior Product Sponsors

It's important that the senior stakeholders, or clients responsible for product strategy and delivery, are aware and supportive of conducting Consequence Scanning.

They can act as change sponsors and help ensure the event takes place with the right people at the right time. They should also be responsible for following up and helping to action outputs.

Collaborating Senior Stakeholders

Senior stakeholders who need to have representatives from their area participate in the event as collaborators should also act as change sponsors.

They should provide appropriate support to ensure their representative is able to devote their time to the event, as well as advocate for their voices to be heard.

What do you need?

Now that you've made your multidisciplinary team, this is what you need to prepare before running the event:

Dedicated time, but keep it short!

The event should be timeboxed so that everyone who attends knows what they are committing to and can come along prepared to take part for that period of time. Depending on the size of your team, the complexity of your technology, and the stage of development, **we recommend 45 minutes to an hour**.

The more often you do the event, the faster it will become. But it is important to set a time limit so that participants know what to expect and can plan their time accordingly.

Clear format and structure

To run the event, you will need to set up a Consequence Scanning diagram where you typically conduct Agile events. Make sure this is accessible so everyone on the team can comfortably contribute.

Your Consequence Scanning diagram should include two sets of headings: one to capture intended and unintended consequences, and another to capture actions.

We also recommend including:

1. The Consequence Scanning questions
2. Context prompts
3. Consequence prompts

We have made a set of downloadable and printable resources, available for free at:

https://doteveryone.org.uk/project/consequence-scanning/

What do you need?

Materials

In addition to the Consequence Scanning diagram, you will need:

- A copy of your company's vision, mission and values

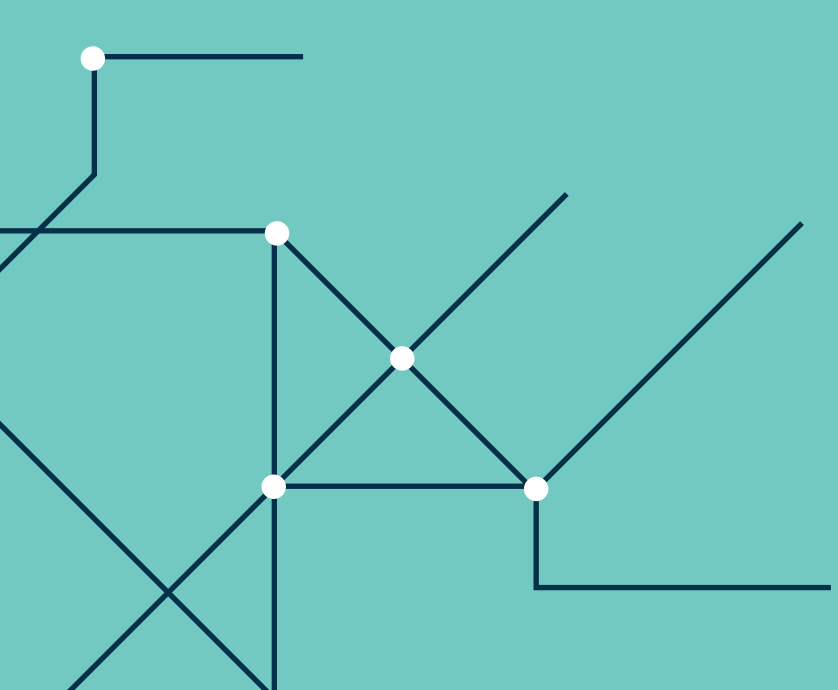
- Any other tools or documents, for example ODI's Data Ethics Canvas or EthicalOS, that can help you think through messy trade-offs that may be specific to your industry, sector, or type of product

If being done in-person, you will need the following stationary:

- Post-it notes
- Pens or markers
- Stickers for dot voting

How to do Consequence Scanning

- The Three Questions
- Recommended Structure
- Phase 1: Ideation
- Phase 2: Action
- Action Sorting
- A note on agile tools
- Prompts



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The three questions you'll be asking

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1. What are the intended and unintended consequences of this product or feature?

2. What are the positive consequences we want to focus on?

3. What are the consequences we want to mitigate?

This event is meant to be adaptable. You can follow any cadence, structure or process you like that makes sense for your organisation and answers the three questions, but we have included a recommended structure.

Consequence Scanning
Recommended Structure

Phase 1
Ideation

1

Introduction
Explain focus of event and post up intended consequences

2

Quiet time
Ask participants Q1. Everyone takes quiet time to answer based on their expertise and experience

3

Affinity sorting
Participants post up; similar ideas are grouped together

4

Quiet time
Participants have another opportunity to add new consequences based on other posts

Phase 2
Action

5

Action sorting
Sort the consequences into action categories - act, influence or monitor

6

Dot voting
Once sorted, ask Qs 2 & 3. Everyone can vote all at once on the posts.

7

Discussion
What do the consequences you can act on mean for your product? Are there any quick wins? Assign responsibilities.

8

End
Thank everyone for participating

Phase 1: Ideation

This phase is focused on brainstorming about the impact your product or feature will have once it's out in the real world. This phase is about answering Q1: what are the intended and unintended consequences of your product or service? Phase 1 includes the following stages:

1 Introduction

The person hosting should kick off the event by letting all the participants know what is going to happen. They should introduce the product or feature and start by posting up its **intended** consequences (what you hope the impact will be once it's released).

2 Quiet Time

Everyone participating takes a few minutes to think through their answers to the first question without conferring with each other. This is an important feature as it removes seniority barriers and gives everyone an opportunity to contribute.

3 Affinity Sorting

Participants post up their ideas - this can be done all at once, or in turns. Group any similar thoughts together.

4 Quiet Time

Participants then have a second opportunity to add new ideas based on what has been posted up already. This allows you to react further to the first ideas and go beyond initial assumptions.

Phase 2: Action

This phase is about taking the ideas from Phase 1 and turning them into actions. Here you will focus on sorting the consequences into action horizons, determining the answers to questions two and three - positive consequences and consequences you may want to mitigate - and assigning responsibility.

5 Action Sorting

Shift over to new headings 'act, influence, monitor'. You can make a grid and include 'high, medium, low' if useful to you. This step is to determine which of the consequence ideas are within your ability to act upon. You should sort them into these three categories:

Act: Consequences within the control of the participants to act upon

Influence: Consequences which are out of your control but you can influence the outcome of

Monitor: Consequences completely beyond your control, but could affect your product and so you should understand better and monitor.

The bulk of discussion should be on this step.

6 Dot voting

Participants should indicate by colour (could be stickers or drawn dots) if they believe consequences in the act and influence categories are positive or need to be mitigated. Everyone can vote all at once. Are the consequences positive, negative, or both?

7 Discussion

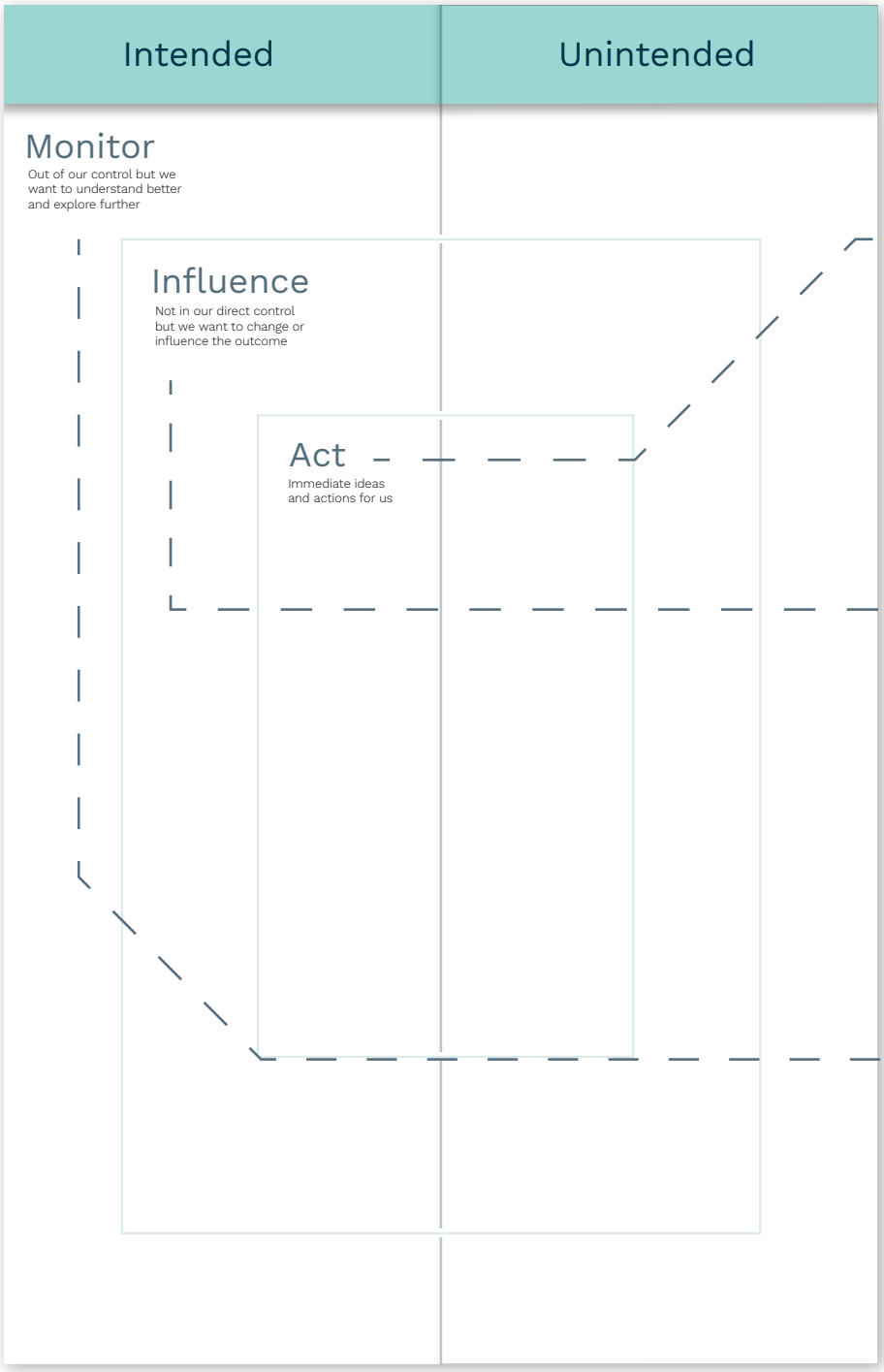
Focus this on the 'act' and 'influence' sections to determine how to make the consequences in these areas be more positive than negative, and assign responsibilities as appropriate.

8 End

The host should thank everyone and capture insights and next steps.

Action Sorting

Ease of implementation vs. Scale of impact



Act:
The things the core team can take forward and action immediately. Within these, prioritisation and time scales should be applied.

Influence:
Consequences that need to be handled by other stakeholders, either within the organisation or externally, but within reachable networks.

Monitor:
These are consequences that you cannot control, such as political climate or global trends.

A note on agile tools

Agile tools can help you run this event...

There are many tools that have been developed to help with agile development and iterative cadences, that you can use to help run this event. As this event is designed with typical agile methods and attributes, any of these tools may also be helpful in allowing your team to run the event more efficiently or remotely.

But...

Before applying a tool to the process, think about the value of doing it and if it matches what you would like to achieve!

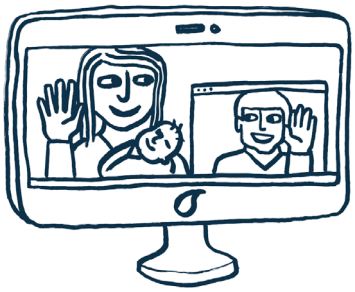
The main purpose of the event is to think critically, to examine different lenses and perspectives, and to have challenging and robust conversations. Much of this will be lost if the quiet time and ability to think independently is taken away, and if, in particular, the discussion portion is lost. So choose your tools wisely!

Prompts to help you think differently

Context Prompts

When thinking about potential consequences, go beyond user interactions within your product. What about the impact on individuals, communities, the market and the planet?

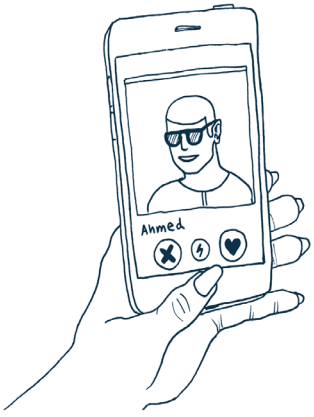
What could this mean to the consumers of your product? Have you considered security, reliability, support & monitoring, understandability?



What could this mean for wellbeing or relationships? Who else does your user experience your product with?

What could this mean if everyone in the world were doing it? How could the communities you operate within be affected?

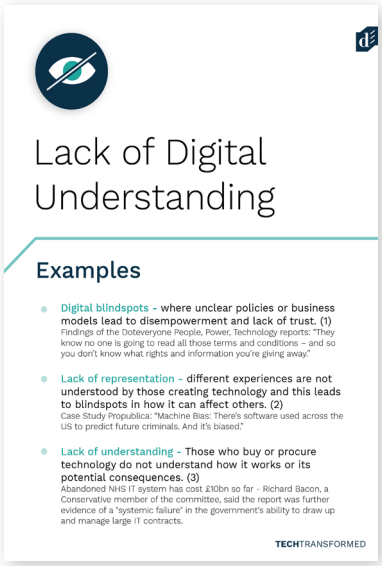
What could this mean to people in their professional life? How could this affect different markets?

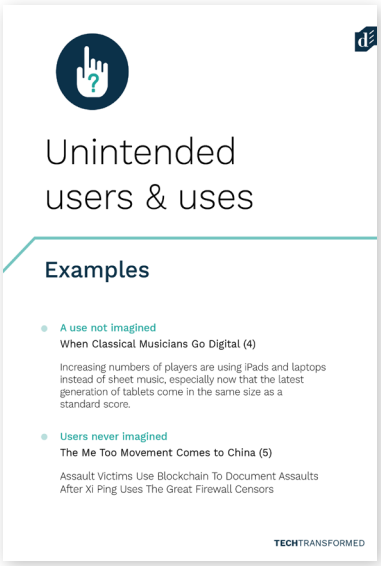


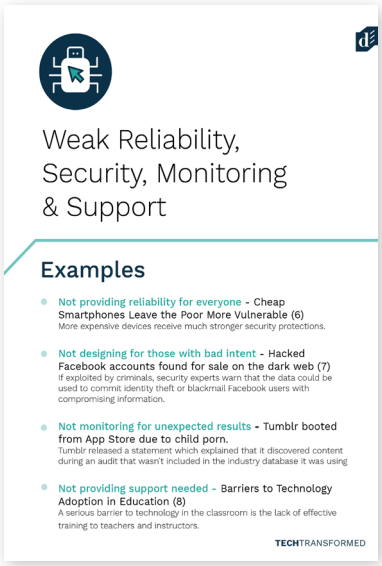
Prompts to help you think differently

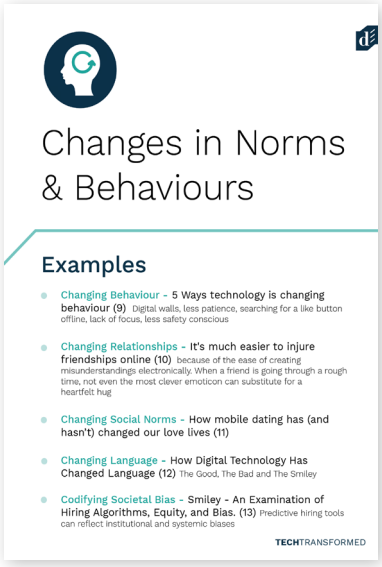
Unintended Consequence Prompts

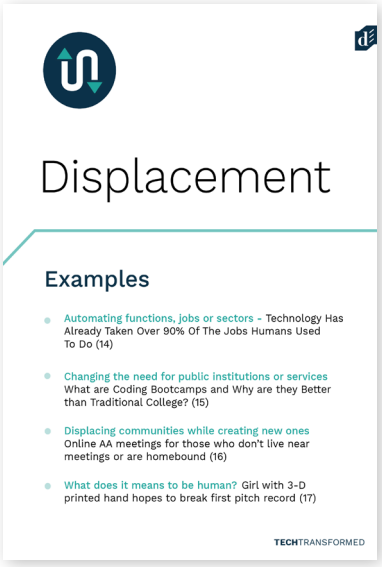
It can be hard to think of unintended consequences, but based on our research many of the consequences of digital technologies have common themes. We've put together some categories and case studies of unintended consequences to help you think about your own potential consequences on people and society.

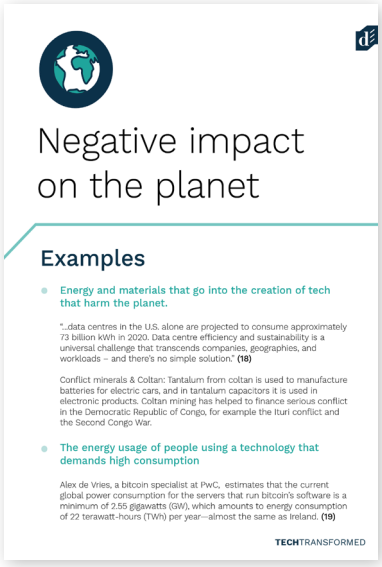






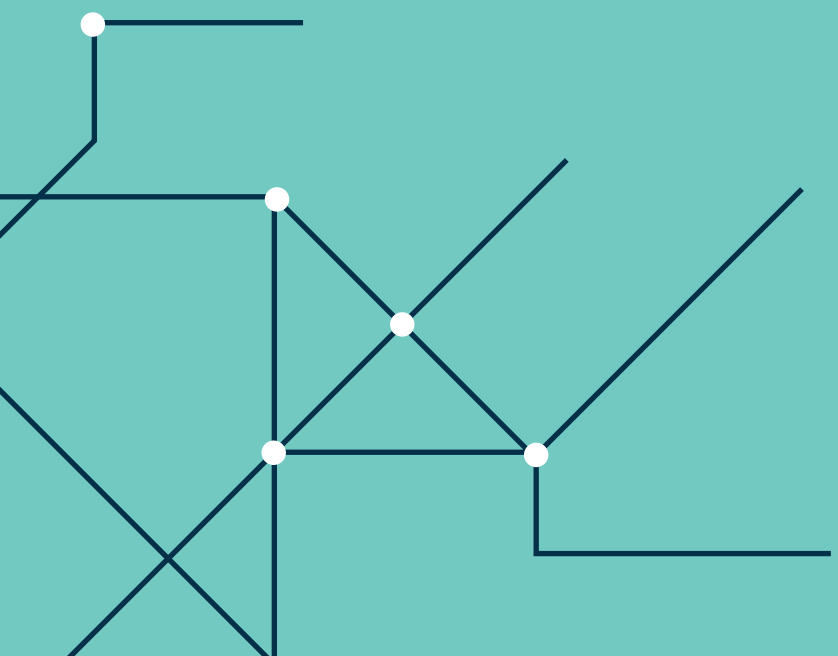






Putting it into practice

- Making a Consequences Log
- Tell us how it went



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Making a Consequences Log

This event should surface consequences and ideas that are actionable.

Some things might be quick wins that can be solved straight away, others may take longer, and may need to be saved for future development, or subject to other processes. But it's important to keep a record of what you discussed in the session.

The consequences submitted through the event become an artefact or log that you should continue to refer to throughout the development process. This log should be used to inform roadmap planning sessions and consequence review sessions. You should use it in the same way as other kinds of impact reporting.

Ensure you update the backlog accordingly so de-prioritised items don't get lost, and can be re-prioritised or acted on at a later point.

Your Consequences Log should include:

- **Consequences** - Intended or Unintended, Positive, or Not-so-positive [5]
- **Action** - Act, Influence, Monitor
- **Prioritisation** - ease of implementation vs scale of impact
- **Hypotheses** - propositions supported by evidence
- **Action Plan** - a list of intentions
- **Measure** - how will you measure the outcome?
- **Timescale** - 3 months, 6 months, 1 year, 2 years

We have made a template consequence log available at:
Consequence Scanning Log Template
– but be sure to download or make a copy!

Tell us how it went

People and organisations creating technology that have the potential to impact others have a responsibility to consider the intended and unintended consequences of their work.

Consequence Scanning is a way to do that.

After doing Consequence Scanning, get in touch and help us make this event even better by telling us your experience by:

- Filling out our **short survey**
- Dropping us a line at: **hello@doteveryone.org.uk**
- Sharing your experiences using the hashtag: **#ConsequenceScanning**

Acknowledgements

- Collaborators and contributors
- Permissions

Collaborators and contributors

Doteveryone
Doteveryone is an independent think tank that explores how technology is changing society, shows what responsible technology can look like, and catalyses communities to shape technology that serves people better.

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With support from:

Tacit London
Tacit is an independent consultancy that helps to sustainably transform organisations. Our focus is on people, because all organisations are made of people.

Emily Webber, Agile Expert

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