





Joint User Research to drive value and innovation

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OUTLOOK

"User Research" method

Introduction to UX, UI and User Research

Getting user feedback

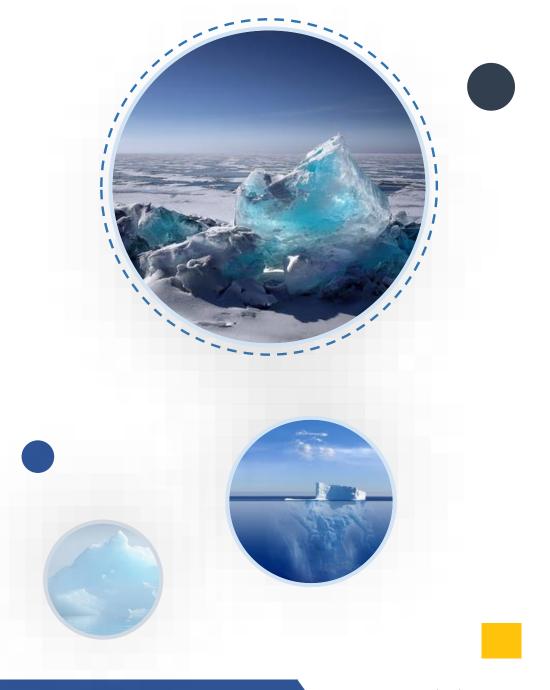
Accessing data through search engine

Defining personas

User Research Maturity

Initiatives for common projects

Conclusion



FROM **UI** TO **UX**

 UI is the user interface. This comprises everything a user can see and touch, such as menu options, buttons, text, layouts, navigation elements, sharing options, etc.

"I invented the term because I thought Human Interface and usability were too narrow: I wanted to cover all aspects of the person's experience with a system, including industrial design, graphics, the interface, the physical interaction, and the manual."

Don Norman

former User Experience Architect Apple, 1993

UX is why you made that change to affect how the user feels and behaves. The user experience is an umbrella term for the user's overall experience with the product: what they liked about it, how easily they accomplished their goals, moments of delight and frustration, etc.



USER EXPERIENCE

« User experience » encompasses all aspects of the enduser's interaction with the company, its services, and its products.

Definition by Nielsen Norman Group



User experience is a team effort

Everyone impacts the user experience.

- If a **developer** introduces a **bug**, it impacts the user experience.
- If a **product manager** doesn't take into consideration users needs, features user do not need might be **prioritized**.

Top 20 reasons for failure

According to Forbes, UX can be found in the top 20 reasons why products/startups fails

- 42% No market need
- **19%** Get outcompeted
- 17% Poor product
- **14%** Ignore customers



"USER RESEARCH" METHOD

- The main goal of User Research is to understand user's behavior, needs, and motivations through several methods such as observation, task analysis, survey tools and experiments in order to build solid design and product directions.
- It aims to inform the design process from the perspective of the end user, which prevents us from designing for one user: ourselves. What we as designers think a user wants is not necessarily the same as what a user actually wants. Without research, we might make decisions for ourselves instead of for our users.

UX without User Research is not UX

A great user experience is an experience which meets your users' needs and expectations.

User Research provides the methods to find out those needs.

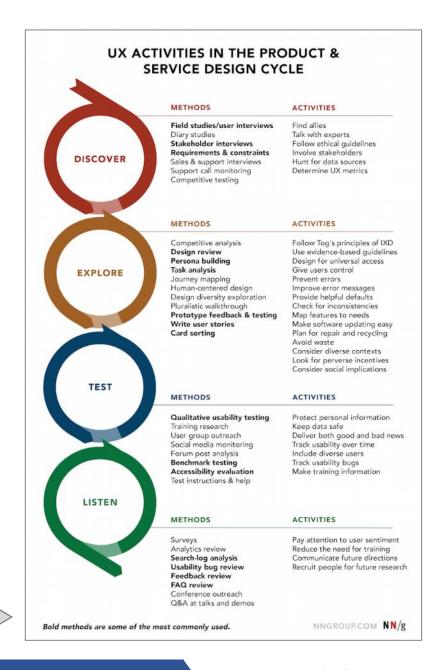
Designs are **assumptions** until validated with end users.

WHEN SHOULD WE UTILIZE USER RESEARCH?

When should we utilize User Research?

- User Research should be done at all the stages of the design process, as user-centered design is an iterative process, there will always be something to learn.
- Each time a research is done, more information will be discovered about the users, which will create more profound questions, and thus, create a successful product.

The diagram lists potential UX research methods and activities that can be done as projects move through stages of design. Think of this as a menu of recommended options. Your process will vary and may include only a few things on this list during each cycle. The most-frequently used methods are shown in bold. (Graphic by Sarah Gibbons.)

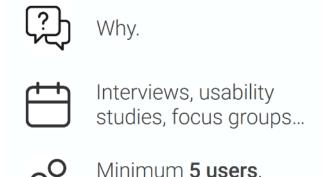


THE ATTITUDINAL VS. BEHAVIORAL DIMENSION

- This distinction can be summed up by contrasting "what people say" versus "what people do".
- The attitudinal method allows you to have a conversation with your users as you're observing what they are doing to better understand their behavior and dig deep into usability issues and attitudes. This includes methods like
 - Surveys
 - Focus groups
 - Interviews
- On the other end of this dimension, methods that focus mostly on **behavior** seek to understand "what people do" with the product or service in question. This includes methods like
 - Card sorting
 - Eye-tracking studies
 - Quantitative usability testing

THE QUALITATIVE VS. QUANTITATIVE DIMENSION

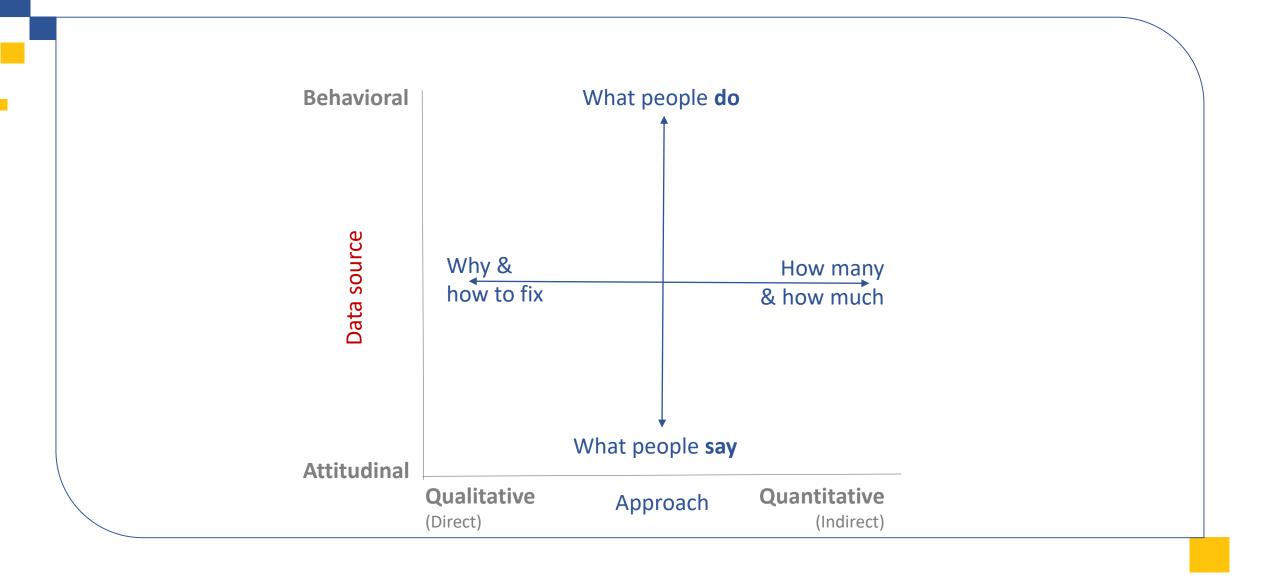
Qualitative studies in nature generate descriptive data about behaviors or attitudes based on observing them directly.



Quantitative studies generate data about the behavior or attitudes in question which are gathered indirectly, through a measurement or an instrument such as a survey or an analytic tool.



DIMENSIONS GRAPH



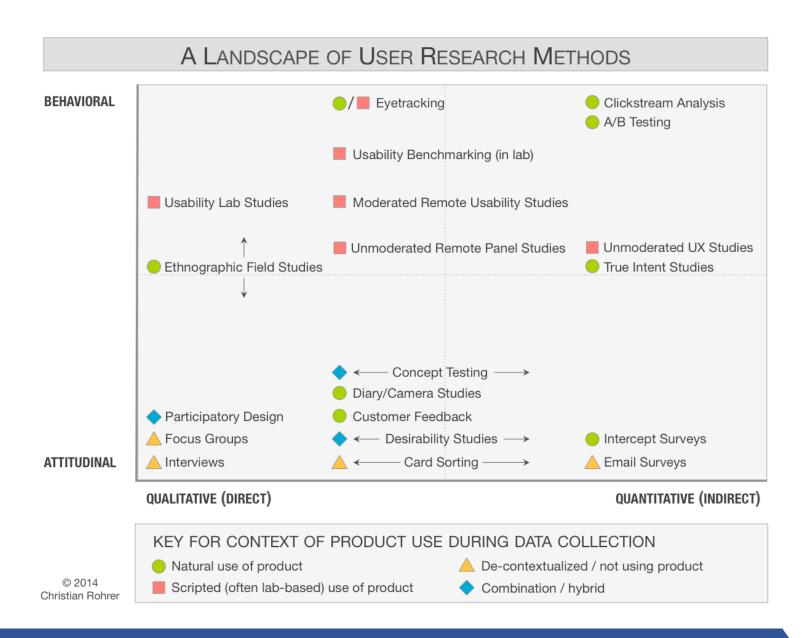
Most popular Qualitative methods

- 1. Interviews: usually performed in the 'empathize phase'. A researcher meets with participants one-on-one to discuss in depth what the participant thinks about the topic in question.
- **Desirability Studies**: participants are offered different visual-design alternatives and are expected to associate each alternative with a set of attributes selected from a closed list.
- **3. Focus Groups**: groups of 3–12 participants are led through a discussion about a set of topics, giving verbal and written feedback through discussion and exercises.
- **Concept Testing**: a researcher shares an approximation of a product or service that captures the key essence of a new concept or product in order to determine if it meets the needs of the target audience.
- **Guerilla testing:** a modern method that is typically done out in the community. Participants are found at coffee shops or subway stations and asked to complete basic tasks with a website or service.

Most popular Quantitative methods

- Card Sorting: Card Sorting helps to create or refine the information architecture of a site. By asking users to organize items into groups and assign categories to each group, you are exposing their mental models and ensure the site structure matches the way they think.
- 2. Surveys: a quick and easy method to understand the demographic, attitude and behavior of your users. It is better to ask closed, neutral questions as they tend to have higher response rates and are easier to analyze (Email or Intercept Survey).
- **Eye-tracking study:** this is a method to measure the gaze of the eye to reveal what the participants look at as they perform tasks or interact naturally with websites, applications, physical products, or environments.
- 4. A/B Testing: a method of scientifically testing different designs on a site by randomly assigning groups of users to interact with each of the different designs and measuring the effect of these assignments on user behavior.
- **Usability Benchmarking**: tightly scripted usability studies are performed with several participants, using precise and predetermined measures of performance.
- **ClickStream Analysis**: analyzing the record of screens or pages that users clicks on and sees, as they use a site or software product; it requires the site to be instrumented properly or the application to have telemetry data collection enabled.

User Research methods Landscape

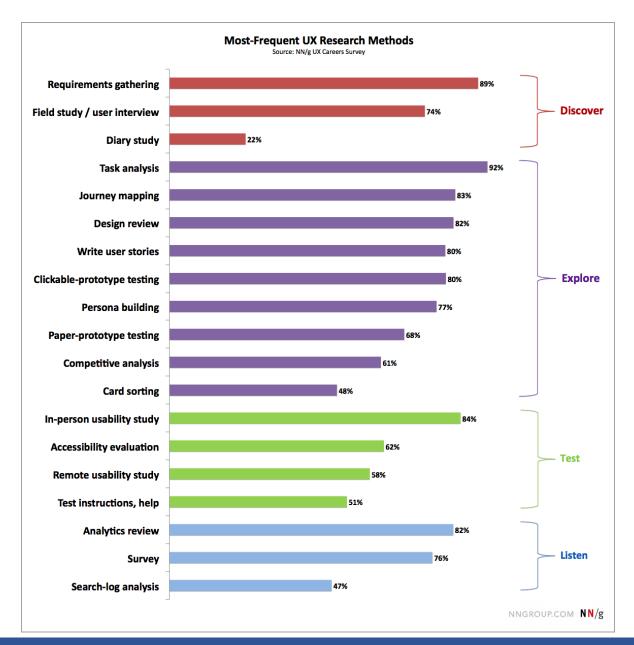


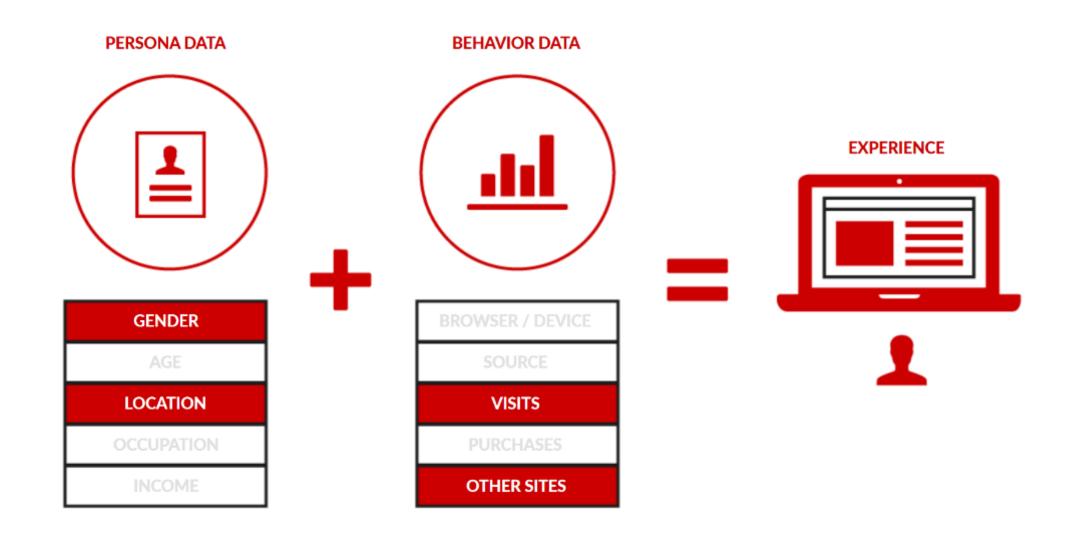
PRODUCT DEVELOPMENT PHASES

It is important to consider the phase of product development and its associated objectives when making a choice among research methodologies. The main product development phases are:

	Strategize	Execute	Assess
Goal	 Inspire, explore and choose new directions and opportunities. Who are the users? What is the user's journey? How do they currently solve a problem? What do users want and need? 	 Inform and optimize designs in order to reduce risk and improve usability. Does the new concept meet users' needs? What features and functions do users find useful? Can first-time users easily understand the product? 	 Measure product performance against itself or its competition. Can people use the product? How do they accomplish tasks against usability metrics? Which design generates better results?
Approach	Qualitative and Quantitative	Qualitative	Quantitative
Typical methods	Field studies, diary studies, surveys, data mining, or analytics	Card sorting, field studies, participatory design, paper prototype, and usability studies, desirability studies, customer emails	Usability benchmarking, online assessments, surveys, A/B testing

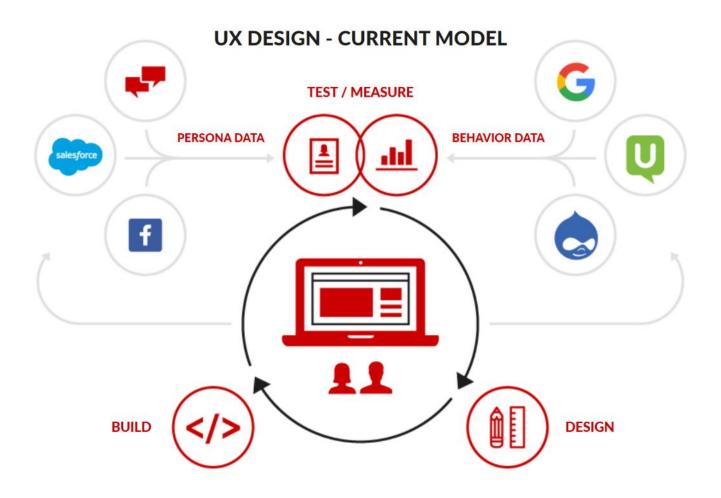
Most frequent methods





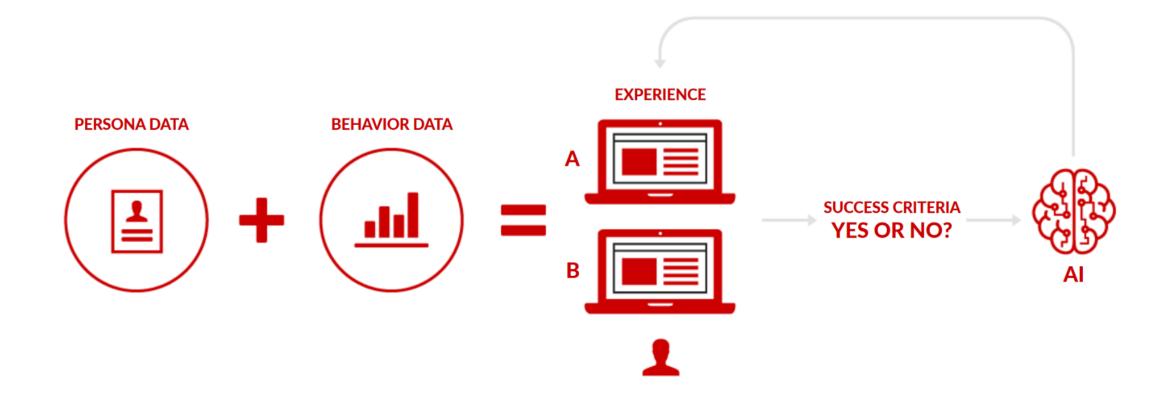


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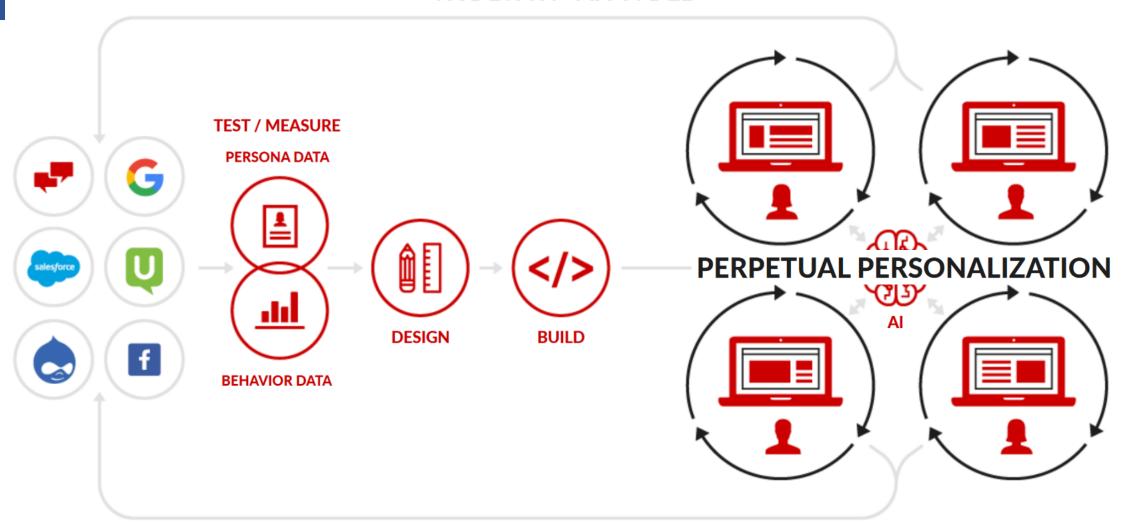
Some issues:

- Slow
- Hard to scale
- Requires a lot of people
- Not entirely accurate
- Aggregate...not really "personalized"
- Incremental success
- Big ideas?



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UX DESIGN - AI MODEL



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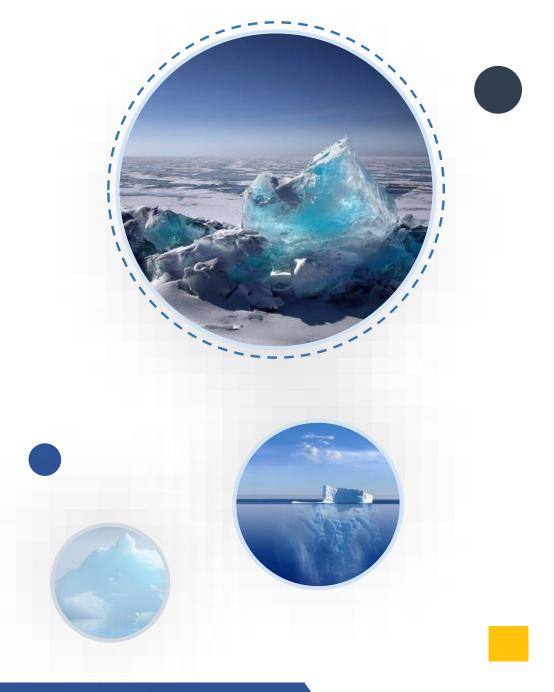
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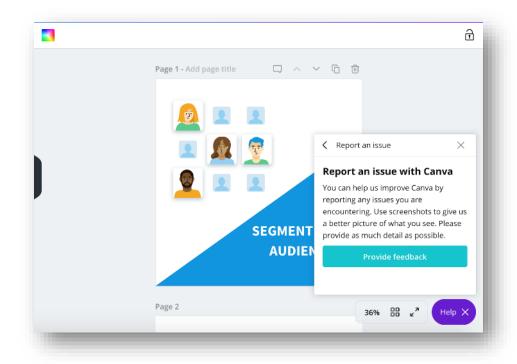
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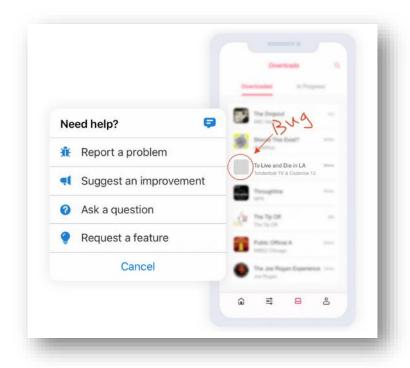
4 examples of quick win methods for getting user feedback in-app:

- Feedback through complaints and bug reports
- Feedback through simple questions
- Content and language analysis through search logs
- Tracking user interactions with Google Analytics

> FEEDBACK THROUGH COMPLAINTS AND BUG REPORTS

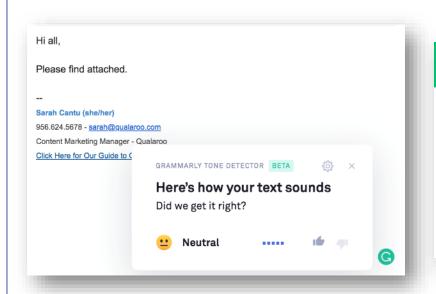


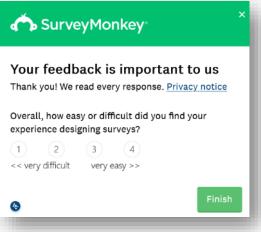
Canva's in-app feedback prompt.

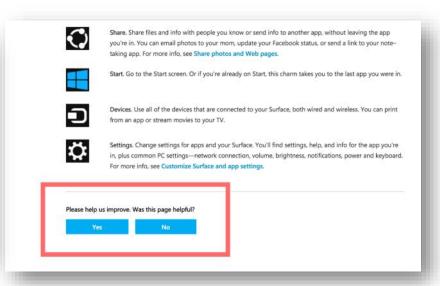


Instabug in-app feedback menu.

> FEEDBACK THROUGH SIMPLE QUESTIONS







Grammarly's Tone Detector stating that the email has a neutral tone: Thumb up or thumb down?

SurveyMonkey feedback survey: Rating from 1 to 4. Microsoft documentation user feedback gathering: Helpful Yes or No?

> CONTENT AND LANGUAGE ANALYSIS THROUGH SEARCH LOGS

Top search queries

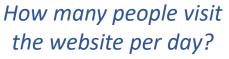
On aliens4eva.com; a site about alien races in Science Fiction.

- Delvian Klingons
- **Time Lords** Daleks
- The Doctor Jedi
- 4 Vulcans 14 Wookie
- A.I.
- Borg
- Cardassian
- Ferengi
- Hirogen
- 10 Romulan

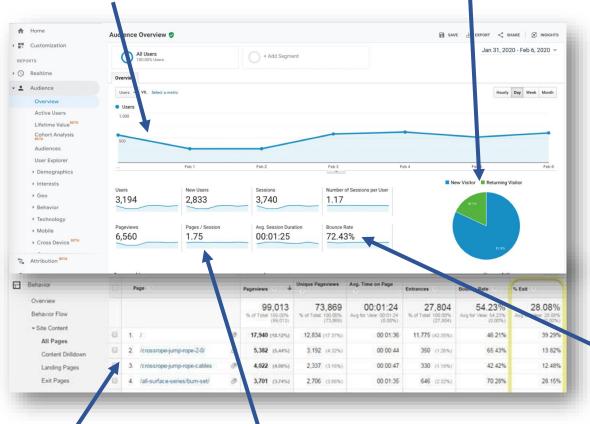
- Bajoran
- Robots
- Kardashian
- Peacekeepers
- **Weeping Angels**
- 20 Ood

> Tracking user interactions with Google Analytics

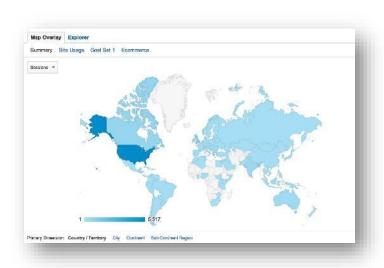




New or returning visitors?



Which country are they from?



How many visitors bounced off the website (without performing any action)?

What are the top pages?

How many pages did they visit per session?

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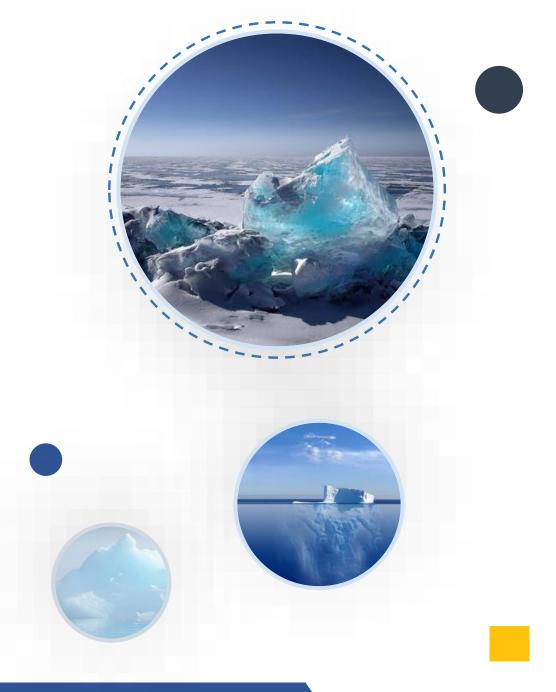
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COMMON PROBLEMS WHEN SEARCHING DATA

> AND A BEGINNING OF SOLUTIONS



Measure Search Engine Results Page Bounce Time

How data from the organization are visible in Google (for a given topic)?

How to improve data visibility?

- Improve Google indexation
- Track content and structured data

What are the most-used features in data visualization products?

Track content engagement

When a visitor finds a page in the search results, opens it, and leaves without interacting with the website any further, we say that they "bounced". This can happen because they don't like something about the website or it doesn't have what they're looking for.

Google has officially said that adding meta-tags is a **best** practice for Googlebot indexing.

Using structured data on pages helps Google understand how relevant is the page for a user's query.

The key is to measure **interactive time** – the time when the user is actively interacting with the page, with keyboard and mouse.

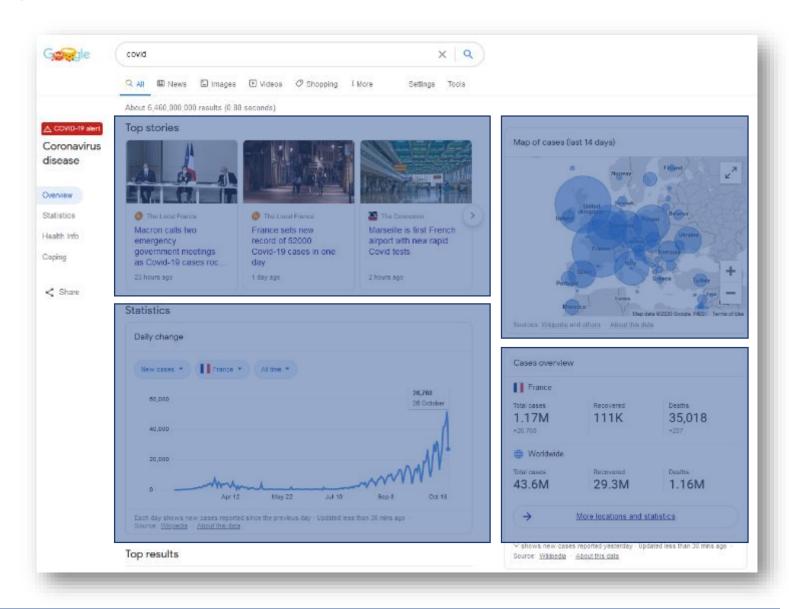
A RICH SEARCH ENGINE RESULTS PAGE

> "COVID" SEARCH EXAMPLE

Top stories

Statistics graph

From Wikipedia



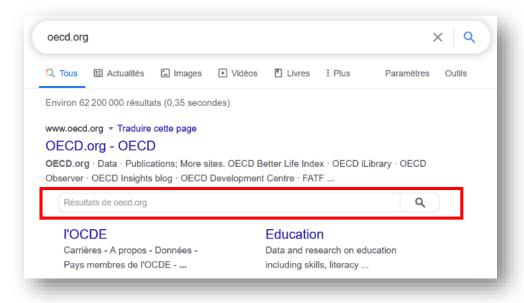
Map

Statistics numbers

From Wikipedia

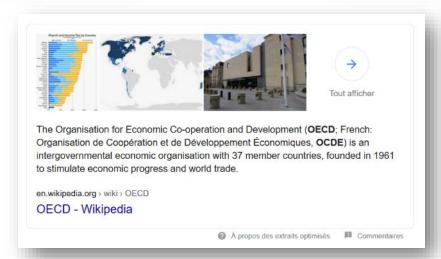
A RICH SEARCH ENGINE RESULTS PAGE > "OECD" SEARCH EXAMPLE





Direct Answer Results

Image Pack



Sitelink search box

Tied together with the internal search engine of the site

TAG MANAGEMENT

> THE KEY TO GET FEEDBACK LOOP AND RICH SEARCH ENGINE RESULTS PAGE

- Tags are **snippets of code** which are added to a site
 - To **collect** information, in order for the owner to **analyze** it.
 - To give insights about what is the content of the page, in order for **search engines** to display rich results page.
- Tags can be used for all sorts of purposes:
 - Scroll tracking
 - Monitoring clicks on links, file downloads, items being added or removed from a bookmarks list
 - Tracking how people arrive at the site
 - **Describing** the content and the relation between objects...
- Sites commonly use several different tags.
- These tags, or tracking codes, **must be placed on every page** of the website, directly in the source code.
- Thus, creating and maintaining them is can be overwhelming, and must be done by developers.
- Since it takes time for developers to implement it manually, tags are often **static**. They are **rarely updated** to meet the analytics team needs.

```
<script type="application/ld+json">
    "@context": "https://schema.org/",
    "@type": "Recipe",
    "name": "{{recipe_name}}",
    "image": [ "{{recipe_image}}" ],
    "author": {
      "@type": "Person",
      "name": "{{recipe_author}}"
</script>
```

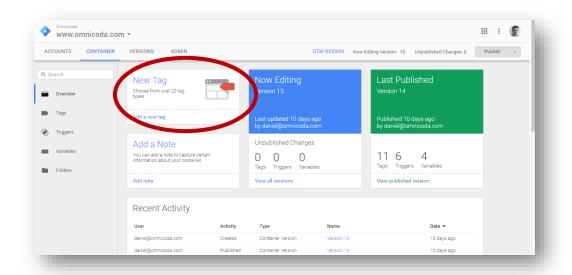
Example of a tag for a Recipe page

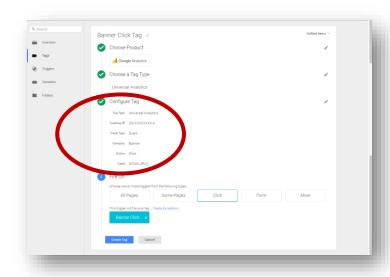
TAG MANAGEMENT WITH GOOGLE TAG MANAGER

> TAG MANAGEMENT BY NON-DEVELOPERS



- Google Tag Manager is a tool with a user-friendly, web-based interface that simplifies the process of working with tags.
- GTM allows to add, edit, and disable tags without having to go in the source code.









Create and deploy tracking and measurement scripts with ease



Allows to focus on analysis rather than implementation

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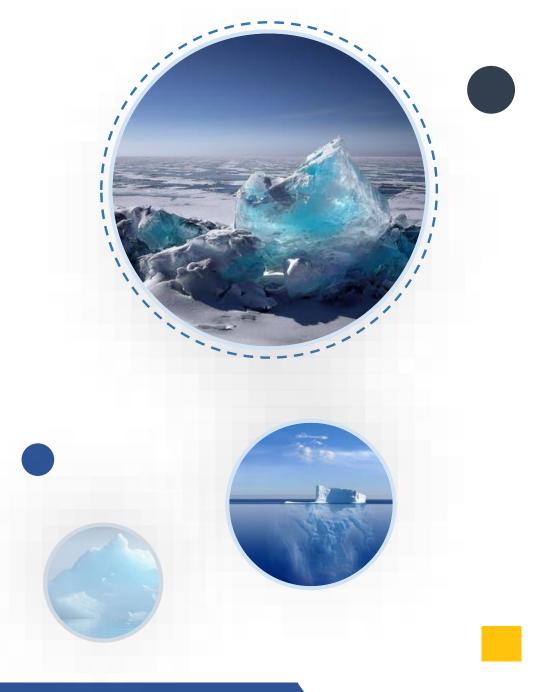
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Personas creation for UX research

Why do we need personas?

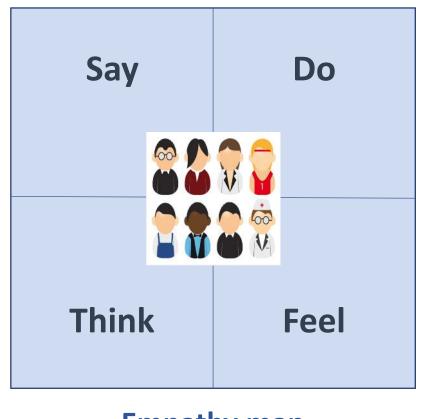
- Have a better understanding of users expectations
- Meet the needs, motivations and desires of users

What are personas?

- Primary users fictional representations
- Exhibit similar attitudes, behaviors, goals in relation to the product
- Human-like snapshots

What do we do with personas?

- Create an empathy map
- Use it for design and feature decisions
- Settle disputes with personas in mind



Empathy map

Personas types

Marketing vs UX Personas

UX Personas

Help product teams empathize with a group of real people:

- Goals
- **Aspirations**
- **Motivations**





Marketing Personas

Market research from existing customers:

- Segmenting
- **Targeting**



HOW TO CREATE ACCURATE UX PERSONAS

§ Limit persona number

- § 1 or 2 personas should represent a larger group
- § A persona should be a combination or an aggregation of a cluster members
- § Focusing on 1 or 2 personas allow to develop empathy for them and to memorize better their behaviors and expectations
- § Methodologist says with more than 5 personas, the capacity to keep them all at the front of the mind while making decisions is too difficult





Do a research to make personas

- Research allows
 to understand common behaviors and
 needs among users
- For each persona, 5 users should be interviewed in order to:
 - Identify overlaps between users personalities, characteristics or traits
 - Identify patterns
 - Understand personalities and what motivates the users
- Moderated research sessions is a way to have a guided discussion with users and also ability to sidetrack and get some relevant details
- § This kind of research with real users needs a budget or can also be started with internal stakeholders

CONDUCTING THE RESEARCH

- Ask questions about the participant's personal life (place of residence, spare time, favorite brands or Internet services...)
- Ask technical background (softwares and tools, devices...)
- Ask professional questions (typical weekday, goals, how do they plan on achieving those goals?)



Where do you live?



What social medias you use the most?



What do you do in your free time?



How many hours you work?

Persona components

Name



MOTTO

"You don't have to see the whole staircase, just take the first step"

BIO

- Freelancer...

BEHAVIORS

- Uses Instagram & Twitter
- Spend all day in office

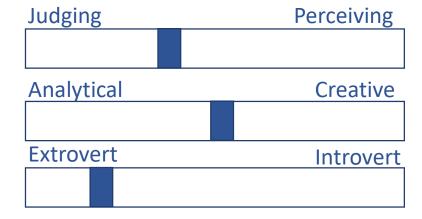
GOALS

- Enhance productivity
- Develop more skills

PAIN POINTS

- Hard time managing client accounts

PERSONALITY



MOTIVATIONS





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PERSONAS > BY OECD (1/2)

- Different personas have been defined for the OECD Data Portal.
- OECD approach was to define personas by who they are.

Policy Advisor Preparing for a conference Get further knowledge on a specific issue and latest thinking Goal and research

Looking for headline points but

Easy Straightforward navigation/search to appropriate recent data and charts with structured search results

also supporting data and charts

- Quick comparison between countries
- Get also interim data
- Data download

Business Analyst

Client business advice

Get knowledge on specific situation, trends and forecasts, with comparison to other countries

- Easy
- Straightforward navigation/search to appropriate data
- Download for off-line processing
- Check of appropriate methodology
- Browse for related information

Researcher / Statistician

Data crunching for a report

Compare specific countries' figures over time

- Easy
- Straightforward navigation/search to appropriate data
- Download with clean data formats needed for working with professional software
- Bookmarking a link to a data view

University Librarian

Assisting advanced data query

Compare specific data across different countries over time

- Easy
- Straightforward navigation/search to appropriate data
- Clear and comprehensive documentation,
- Long time series
- · Knowing when any new data comes out
- Ease data download in simple format

PERSONAS > By OECD (2/2)

- Those personas are business targeted. An « ordinary citizen » persona seems to be missing.
- Other organizations might have already define personas.

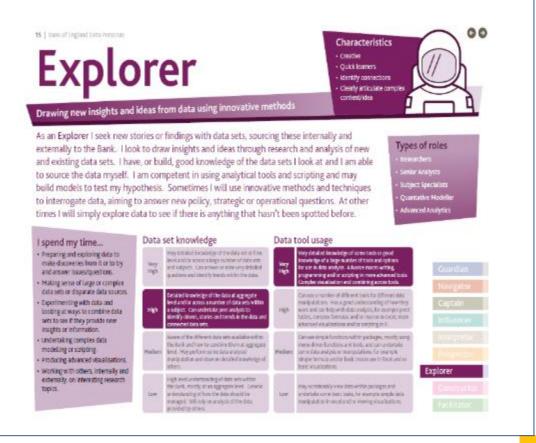
Journalist	NGO / Citizen with cause	Undergraduate Student	General public
Creating a topical graphic	Financial trends report	Digging into the data	Fact-checking
Get informed about news and releases, and related data	Get trend reports on specific topic	Knowledge in trends in specific topic and for significant breakdown data	 Check about statistics heard in the News Build her own opinion with objective data
 Easy Straightforward navigation/search to appropriate data, news and related things (reports/charts) Quick data enquiries for further exploration 	 Easy Straightforward navigation/search to appropriate data Search results with well-identified content types Reports for context Locating further data Easy data download Notifications for data updates 	 Easy Straightforward navigation/search to appropriate data Assurance having found the right data Clearly explained default settings Easy understanding of all available filters Clear levels of granularity/breakdowns 	 Easy Straightforward navigation/sear to appropriate data Minimum effort to get to the data Relevant filters already applied Visual response with relevant chart Suggestion for related data

PERSONAS

> BY BANK OF ENGLAND

- Those personas are targeted on what they do.
- They focus on what skills do they have, what tools do they use ("dataset knowledge" and "data tool usage").





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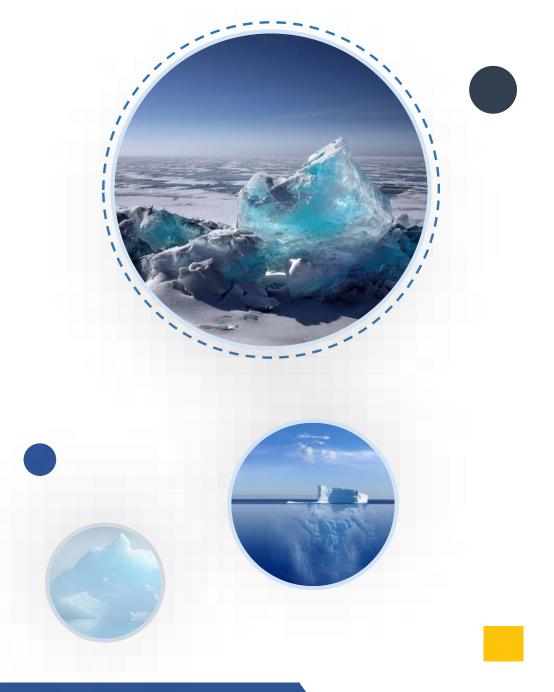
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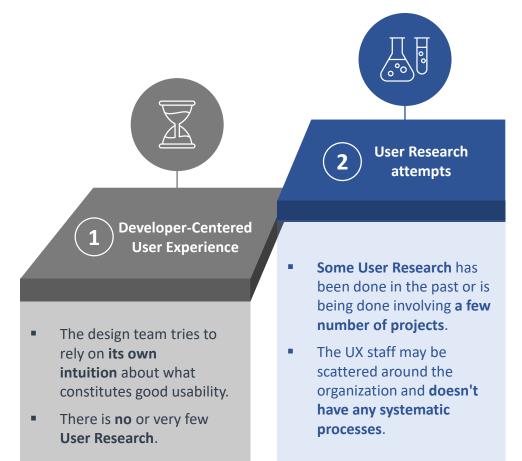
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USER RESEARCH MATURITY STAGES





- **On-going User** 3 Research at the organization level
- User Research activities are being done as an ongoing process and involves several projects.
- There may be an official **UX group** in the organization, who has the charter to "own" UX and usability.
- The organization have a process in place for tracking user experience quality throughout design projects and across releases.

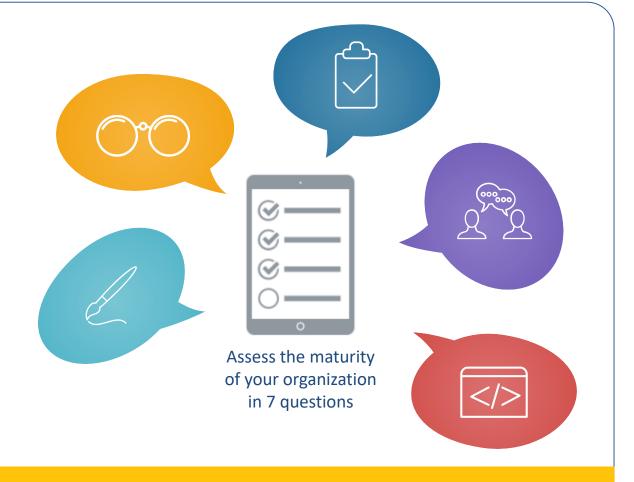


- The organization may **track** quality through quantitative usability metrics.
- Each development lifecycle step is infused with user data, including the project definition itself and the requirements phase.
- Each project has defined usability goals that these measurements must surpass for the design to be greenlighted for release.

USER RESEARCH MATURITY SELF-ASSESSMENT

We would like you to answer a short survey.

The aim is to have a first idea of the maturity of organizations in regard to User Research.



Maturity self-assessment

https://www.surveymonkey.com/r/user-research-maturity

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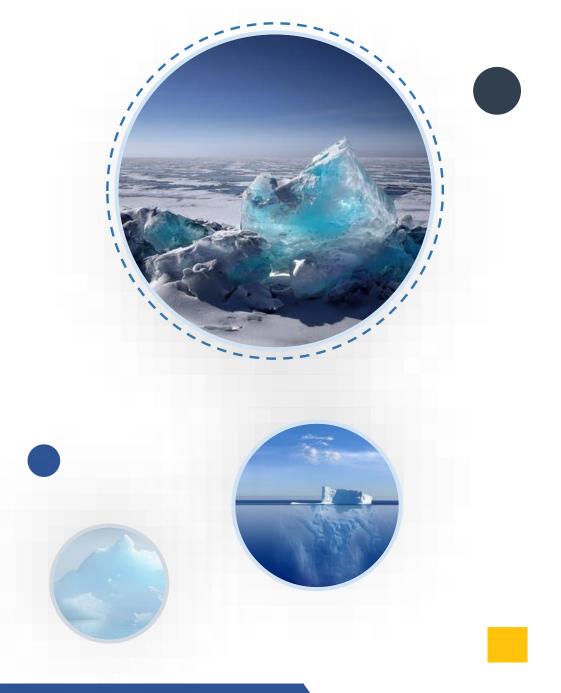
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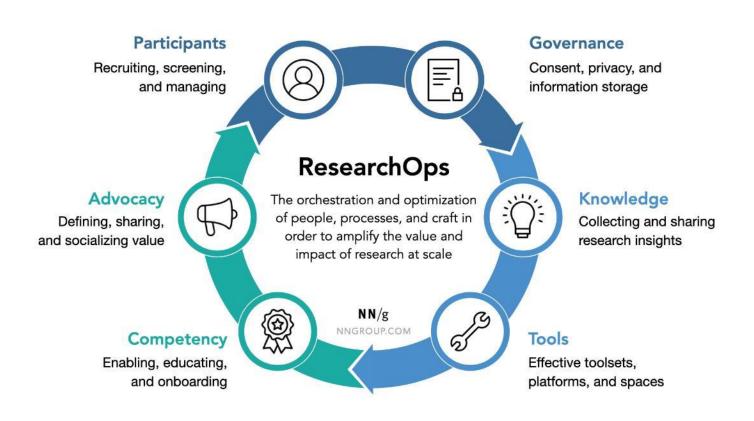
RESEARCHOPS

> A FRAMEWORK TO SET USER RESEARCH IN MOTION

ResearchOps is the people, mechanisms, and strategies that set User Research in motion.

It provides the roles, tools, and processes needed to support researchers in delivering and scaling the impact of the craft across an organization.

The ResearchOps Community



Shared, open 'stats personas' knowledge base

Why

- Build a shared knowledge base on personas of statistical organizations.
- Share knowledge in a systematic way.
- Shared methods & artefacts in gathering qualitative information.

What

- Stats organizations can develop data products based on solid evidence and User Research.
- Stats organizations can accelerate the pace of acquiring cutting edge UX/UI skills by mutualizing efforts.

Outputs

- The reference 'stats personas' knowledge base.
- The reference network of UX/UI practitioners in stats organizations.
- Ongoing capacity building activities.

Inputs

- Personas defined for the OECD Data portal and Bank of England.
- Aggregation of personas that have already been created from all participating organizations.

How

- Identify existing research method about personas in organizations; spot what is highly reusable and therefore can be shared.
- Define the process to continually improve personas, share information, and fluid ways for practitioners to join and connect.

Main steps

- Defining the network and a platform to share content.
- Ongoing support of the community, capacity for building the platform and maintenance.

Initiative 2

Joint engagement with and research on a specific segment (e.g. data journalists)

Why

- Increase engagement with a specific segment on a regular basis, for example, data journalists.
- Get a deep understanding of their needs & their ways of working.
- Engage with them to assess data products and value propositions.

Inputs

 Existing information on services provided to data journalists from across all stats organizations: personas, service description, feedback... and contact details.

What

- Stats organizations can develop first hand knowledge and evidence on the target sample.
- Stats organizations can engage and consult on a need basis with the target sample.

How

- Define the target sample and engage (eg 'recruit' them).
- Define the methodology and process to survey or consult the sample.
- On a need basis, design and carry out additional research (for ex, on a specific idea for a data service).

Outputs

- The reference sample of data journalists.
- Reports based on data gathered and joint analysis of it.
- Specific events or consultations with the sample population.

Main steps

- Identification of interested organizations; procurement.
- Inception and execution of the project.
- Conclusion and communication.

A toolkit for SEO & official statistics

Why

- Understand the determinants/roadblocks of official stats visibility in search engines (Google mainly, but also: AWS Alexa, etc.)
- Establish ways to continually improve it on an ongoing basis.

What

- Improved visibility of official statistics in Google and other search engines.
- Stats organizations can accelerate the pace of acquiring cutting edge SEO skills by mutualizing efforts.
- Create capacity to influence?

Outputs

- The reference toolkit for 'SEO & official statistics' including tools to measure visibility.
- The reference network of SEO practitioners in stats organizations;
- Ongoing capacity building activities.

Inputs

- Existing SEO strategies in organizations.
- Ways of measuring visibility and existing reports.
- SDMX metadata and semantics.

How

- Research on what could be done in order to improve visibility in the search engines and ways to measure it.
- Leverage value added statistical metadata (eg SDMX semantics) in order to search engine optimize (SEO) official statistics.

Main steps

- Identification of quick-wins method to improve statistics visibility in search engine.
- Identification of tools.
- Building common rules and model with the tools.



EARLY IDENTIFICATION OF PRIORITY AREAS OF WORK

Let us know if your organization would be interested in joining the initiatives:

Initiative 1 Shared, open 'stats personas' knowledge base

Initiative 2 Joint engagement with and research on a specific segment (e.g. data journalists)

Initiative 3 A toolkit for SEO & official statistics

Others initiatives that could be of interest, such as:

Initiative 4 Search engine optimized for official statistics

Initiative 5 Developing data stories around official statistics



Initiatives vote

https://www.surveymonkey.com/r/user-research-initiatives

OUTLOOK

"User Research" method

Introduction to UX, UI and User Research

Getting user feedback

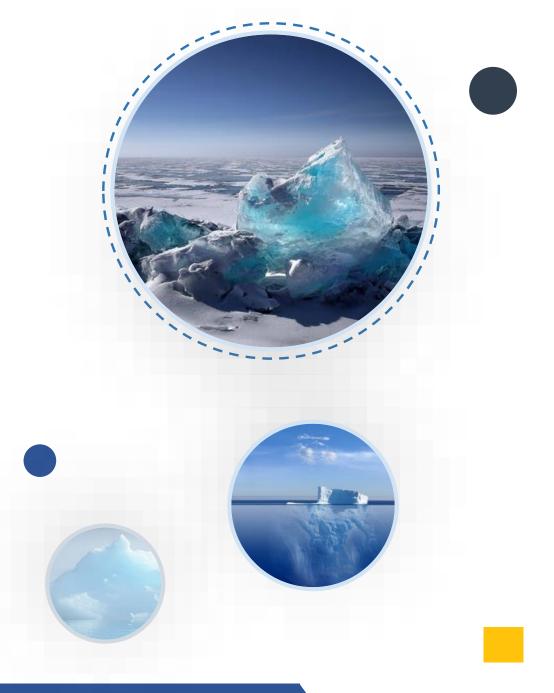
Accessing data through search engine

Defining personas

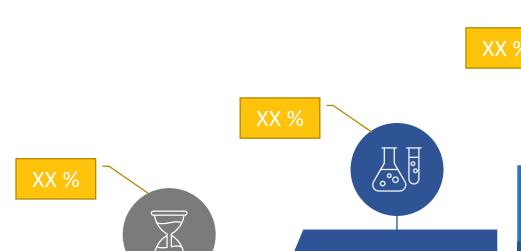
User Research Maturity

Initiatives for common projects

Conclusion



SELF-ASSESSMENT RESULTS OVERVIEW



- **Developer-Centered User Experience**
- The design team try to rely on its own intuition about what constitutes good usability.
- There is **none** or very little **User Research** done.

Some User Research has been done in the past or is being done involving a few projects.

User Research

attempts

The UX staff may be scattered around the organization and there is no systematic processes.



- **On-going User** 3 Research at the organization level
- User Research activities are being done as an ongoing process and involves several projects.
- There is an **official UX** group in the organization, who has the charter to "own" UX and usability.
- The organization has a process in place for tracking user experience quality throughout design projects and across releases.

User-Driven organization

XX %

- The organization tracks quality through quantitative usability metrics.
- Each development lifecycle step is infused with user data, including the project definition itself and the requirements phase.
- Each project has defined usability goals that these measurements must surpass for the design to be greenlighted for release.

MATURITY SELF-ASSESSMENT RESULTS OVERVIEW

Maturity self-assessment – Dashboard

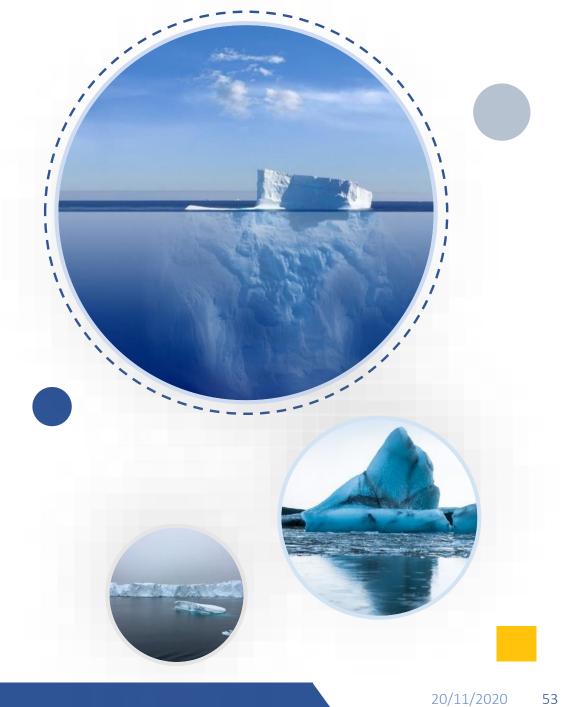
https://www.surveymonkey.com/stories/SM-2GWWXPTY

INTEREST IN INITIATIVES RESULTS OVERVIEW

Interest in initiatives – Dashboard

https://www.surveymonkey.com/stories/SM-835Z8VFY/

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