



WEBINAIRE ON HUMAN CENTERED TECHNOLOGY AND PERSONAL DATA MANAGEMENT

April 2023





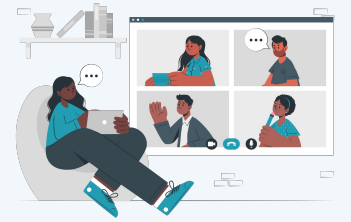
INTRODUCTION TO HUMAN CENTERED TECHNOLOGY (TCH)



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Senior UX Researcher
Co-founder YUX



What is Human Centered Technology (TCH), in your own words ?



YUX'S DEFINITION OF TCH.

TCH is an approach to technology based on:

- An explicit understanding of user needs
- Respect of privacy
- Respect of consent
- Respect of the human dimension of a product

During this webinar we will cover:

1. How to include the human factor at the heart of a tech project
2. How to include respect for Human rights, consent and protection of privacy in a tech project



Miro Exercise

WHY IS TCH IMPORTANT IN THE GLOBAL SOUTH?



WHY IS TCH IMPORTANT IN THE GLOBAL SOUTH ?



User needs are **specific** to a given context



Lack of trust in technology and organisations



Product and services are often **imported** and ill adapted



Low digitization and digital literacy



Low **connectivity** in rural areas

WHY IS TCH PARTICULARLY IMPORTANT IN:

E-COMMERCE

EDU-TECH

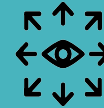
HEALTH-TECH



Lack of trust in modern services



Significant influence of the broader community



Sensitive data



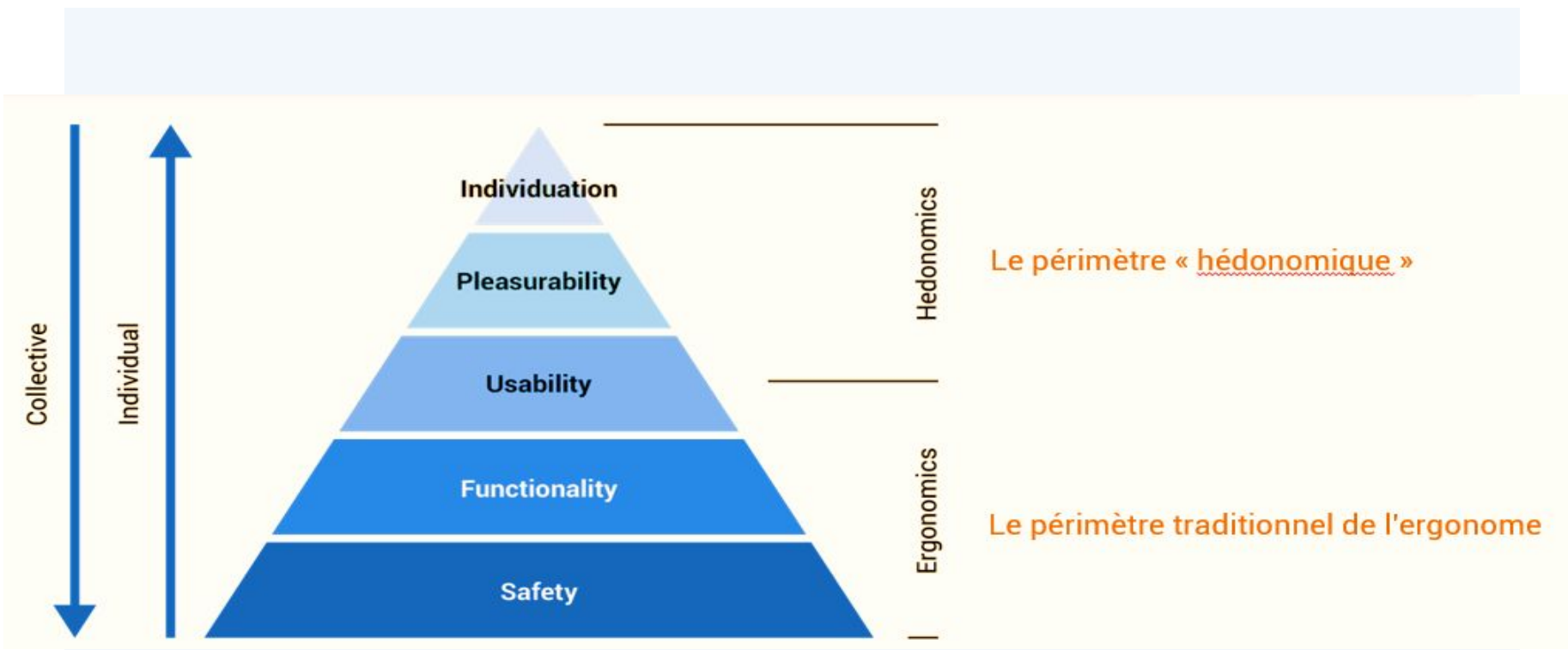
USABILITY

SECURITY

INDIVIDUATION

PLEASURE

FUNCTIONNALITY

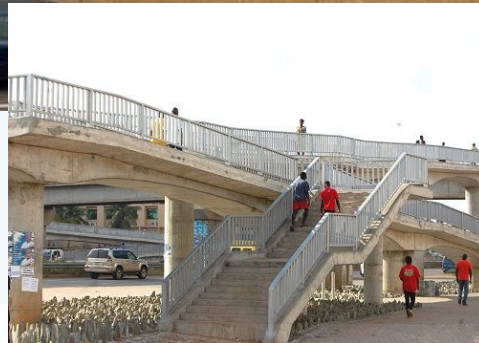


Hancock, Pepe & Murphy (2005)

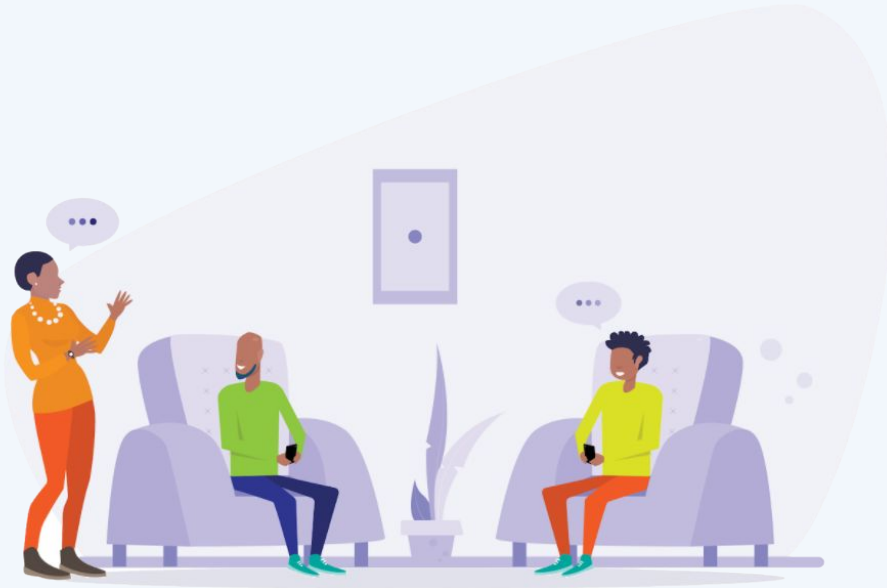
SENEGAL



ADENTA FOOTBRIDGE (GHANA)



DESIGN HEURISTICS



WHAT ARE HEURISTICS?

Many exists, but here are some commonly used ones:

- Nielsen's 10 usability heuristics
- Bastien & Scapin's ergonomics criteria
- Arhippainen's 10 UX heuristics
- Colombo & Pasch's 10 UX heuristics for optimal user experience

The first 2 evaluate **usability**, the other attempt to evaluate the **experience**.

Nielsen's 10 usability heuristics

1 Visibility of System Status

Designs should **keep users informed** about what is going on, through appropriate, timely feedback.

2 Match between System and the Real World

The design should speak the users' language. Use words, phrases, and concepts **familiar to the user**, rather than internal jargon.

5 Error Prevention

Good error messages are important, but the best designs **prevent problems** from occurring in the first place.

8 Aesthetic and Minimalist Design

Interfaces should not contain information which is irrelevant. Every extra unit of information in an interface **competes** with the relevant units of information.

Nielsen Norman Group

Jakob's Ten Usability Heuristics

3 User Control and Freedom

Users often perform actions by mistake. They **need a clearly marked "emergency exit"** to leave the unwanted state.

6 Recognition Rather Than Recall

Minimize the user's memory load by making elements, actions, and options visible. Avoid making users remember information.

9 Recognize, Diagnose, and Recover from Errors

Error messages should be expressed in **plain language** (no error codes), precisely indicate the problem, and constructively suggest a solution.

4 Consistency and Standards

Users should not have to wonder whether different words, situations, or actions mean the same thing. **Follow platform conventions.**

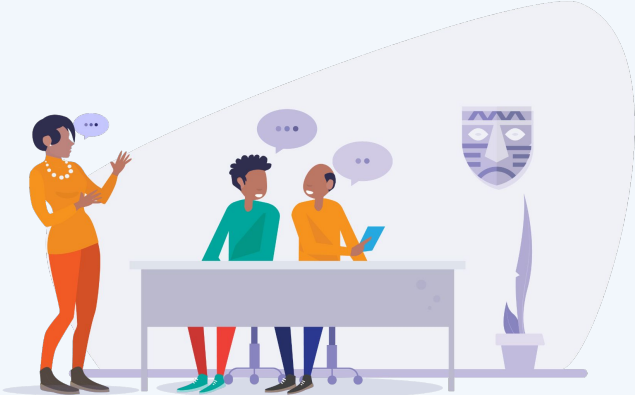
7 Flexibility and Efficiency of Use

Shortcuts — hidden from novice users — may **speed up the interaction** for the expert user.

10 Help and Documentation

It's best if the design **doesn't need** any additional explanation. However, it may be necessary to provide documentation to help users understand how to complete their tasks.

HCD PROCESS



ISO NORME for HCD

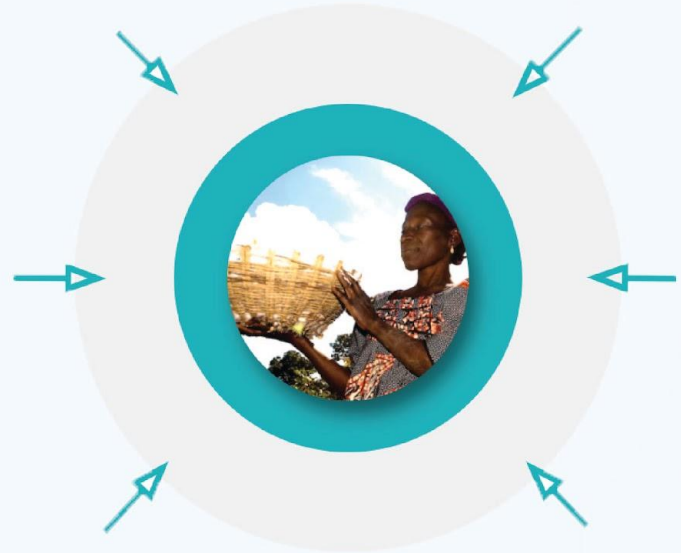
ISO 9241-210, 2010 standard **Human-centred design for interactive systems**, that describes 6 key principles that will ensure a design is user centered:

1. The design is based upon **an explicit understanding of users**, tasks and environments.
2. **Users are involved** throughout design and development.
3. The design is driven and refined by **user-centered evaluation**.
4. The process is **iterative**.
5. The design addresses **the whole user experience**.
6. The design team includes **multidisciplinary skills and perspectives**.



HOW TO IMPLEMENT HCD ?

- Le **Design centré sur l'humain** est un processus de résolution de problèmes.
- Il place les utilisateurs réels au centre du processus de développement.
- Permet de créer des produits et des services qui répondent aux besoins, à l'environnement et au contexte culturel des utilisateurs.
- Le HCD touche diverses industries et se nourrit de l'inclusion d'équipes pluridisciplinaires qui travaillent ensemble pour résoudre des problèmes complexes.



A STRUCTURED APPROACH



PLANIFICATION



EXPLORATION



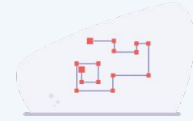
DEFINITION



IDEATION



PROTOTYPE & TEST



IMPLEMENTATION

DESIGN THINKING

DESIGN DOING

AN ITERATIVE PROCESS



EXPLORATION
DÉFINITION

IDEATION

PROTOTYPAGE
& TEST

IMPLEMENTATION



PLANIFICATION

CLIENT FIRST MEETING

DEFINE MISSION & OBJECTIVES

RETRO PLANNING
Retro Planning

KICK OFF
Raci
Core Team



EXPLORATION

DESK RESEARCH
Desk research with analysis

STAKEHOLDER INTERVIEWS
Reports and Analysis

AUDIT OF THE EXISTING (UX-UI)
Reports and Priorization

BENCHMARK (UX-UI)
Reports and Strategic Positioning
Workshop

USER OBSERVATIONS
Observation guide
Observation Synthesis
Photos

USER INTERVIEWS
Interview Guide
Synthesis
Photos, Videos, Sound Captation

FOCUS GROUPS
Guide
Reports Synthesis
Photos, Videos, Sound Captation

RECRUITMENT (INCENTIVES)
No deliverables (data protection)

LOOKA
YUX Business Unit
Market Research
Quanti questionnaires and Synthesis



DEFINITION

All are deliverables from the exploration

ECOSYSTEM MAP

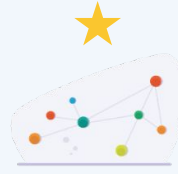
PERSONAE
Only use if we have a huge amount of
quali or quanti

USER PROFILS

CUSTOMER JOURNEY

STRUCTURING LEARNINGS

AREAS OPPORTUNITIES



IDEATION

CREATIVE SESSIONS IN HOUSE
Lots of Ideas, Scenarii, Storyboarding,
Storytelling, Prototypes Low Fidelity

CO-CREATION WITH USERS
Reports and analysis
Sound Captation, Videos, Photos
Experiences Prioritization

STORYBOARDING

STORYTELLING

PRIORITIZATION MATRIX
Services, Functionalities prioritization
matrix

BUSINESS STRATEGY
Product Box
Business Model Canvas
MoscoW



PROTOTYPE & TEST

INFO ARCHITECTURE

WORKFLOW

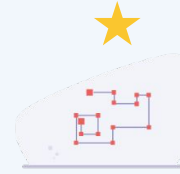
WIREFRAMES

LOW FIDELITY PROTOTYPES

HIGH FIDELITY PROTOTYPES

USER TEST

VISUAL USER INTERFACE (UI)



IMPLEMENTATION

PRODUCT ROADMAP

DESIGN SYSTEM

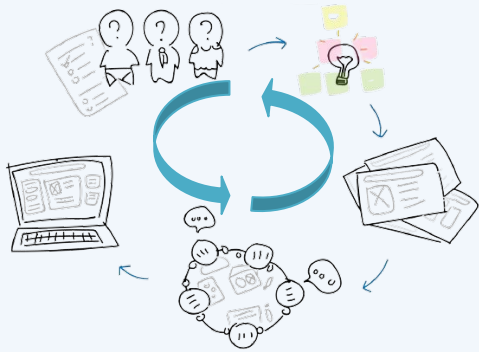
BACKLOG

COLLECT FEEDBACKS

USAGE TRACKING

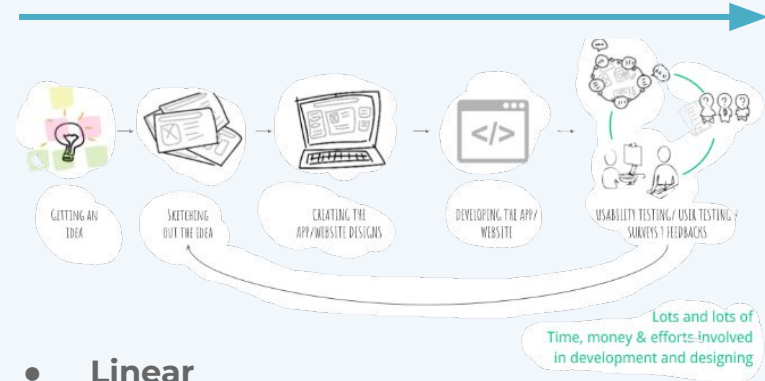
HCD vs traditional waterfall process

HCD



- **Iterative** approach that puts users at the center of the creative process
- **Transversales and multidisciplinary teams**

Waterfall



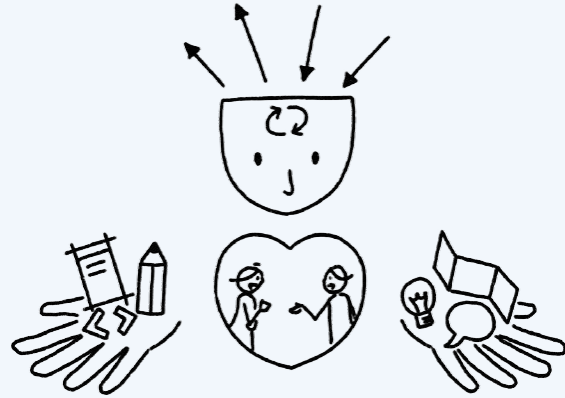
- **Linear**
- **Users** mainly involved **at the end**
- Heavily influenced by funders/ project owners and not by users.

DISCUSSION

From what has been presented at this point, do you think you have applied an HCD (or similar) process to your work before?


QUALITIES TO DESIGN A HUMAN CENTERED TECHNOLOGY

- **Beginner** mindset
- Ask **questions** (and follow up ones !)
- **Show empathy**





DON'T DISCONTINUE THE MOTHER'S MILK TILL TWO YEARS OR THERE WILL BE A REASON TO REGRET

For more information, contact your nearest Anganwadi worker,
ASHA or ANM or log on to www.akshayaposhan.gov.in or www.poshan.nic.in.
Technical support from 



Towards a new dawn
Ministry of Women & Child Development
Government of India

4 golden rules, 1 big idea.

Malnutrition, Quit India!

1. Proper nutrition for the mother during pregnancy
2. Mother's first milk is essential for the baby
3. Only mother's milk for the first six months
4. And then, a nutritious diet along with mother's





What are the challenges to design a TCH ?

Value of design for companies

McKinsey
& Company



BENEFITS

Rentabilité financière



Amélioration ventes et parts de marché

Diminution coûts d'acquisition

Diminution support client

Réduction des coûts internes



Diminution temps développement et maintenance

Augmentation productivité des employés et diminution erreurs

Rétention et image de marque



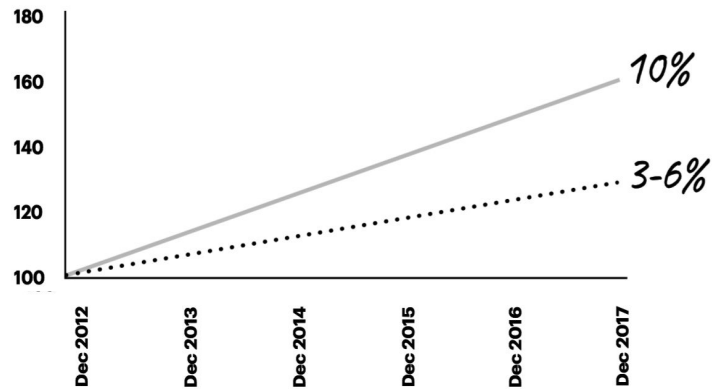
Augmentation satisfaction client et fidélisation

Valorisation de l'image de marque

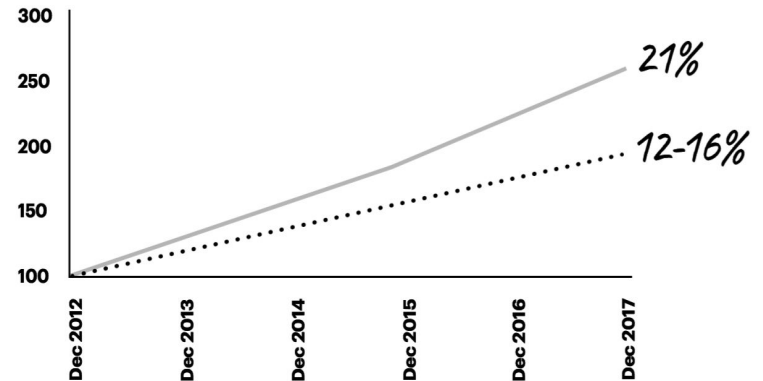
LA VALEUR BUSINESS DU DESIGN (McKINSEY)

- Entreprises “centrées design”
- · · · Reste des entreprises

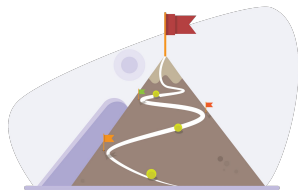
Chiffre d’Affaire



Retour sur investissement pour les actionnaires

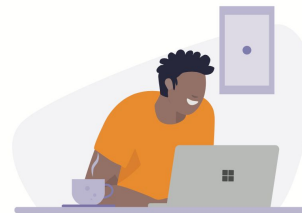


Pourquoi investir dans le design centré utilisateur ?



15%

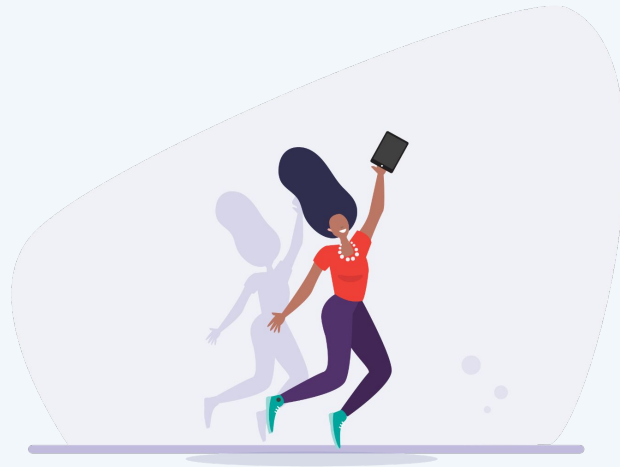
des projets informatiques
n'aboutissent pas



50%

du temps des développeurs est
utilisé pour refaire des parties de
projets

Q&R





Moussa Diallo
CTO LOOKA
Lead Tech at YUX



CONTENTS

- 01 **Introduction**
- 02 **Definition: What is personal data?**
- 03 **The main principles of personal data protection rules**
- 04 **Case study: LOOKA**
- 05 **Q & R**
- 06 **Practical case**

TOOLS

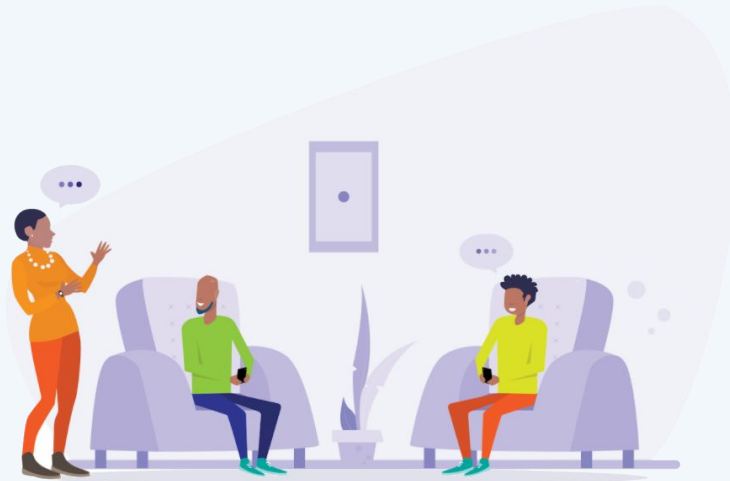


Miro Board



Figma

Definitions



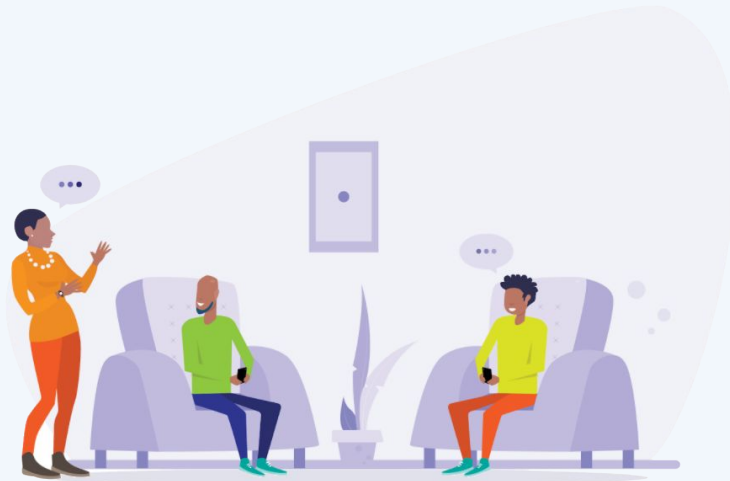
What is a personal data ?

Personal data: means any data relating to a natural person identified or who can be identified directly or indirectly thanks to this data. For example, email address, professional activity, age, gender...

What is sensitive data?

Sensitive data is data which reveals, directly or indirectly for an individual, racial or ethnic origins, political, philosophical or religious opinions or trade union membership, or which relates to health or sexual orientation.

Principles



The main principles of personal data protection rules

- Legality
- Purpose
- Minimization
- Protection
- Conservation
- Security
- Transparency
- Rights of persons

Legality

The **data** collected must be **legal**.

Purpose of processing

The personal data collected can only be processed for one purpose:

- ▶ Precisely determined
- ▶ Explicit
- ▶ Legit

Data minimization

Only the data **strictly necessary** to achieve the purpose may be collected and processed.

Special protection of sensitive data

Sensitive data can only be collected and processed under certain conditions.

Limited data retention

Dès que la finalité pour laquelle elles ont été collectées est atteinte, les données selon les cas peuvent être :

- ▶ **Archivées**
- ▶ **supprimées**
- ▶ **anonymisées**

Dans tous les cas, une **durée de conservation** doit être définie et appliquée.

Obligation de sécurité

Des mesures doivent être mises en oeuvre pour :

- ▶ **Prévenir les risques d'atteinte à la sécurité**
- ▶ **Assurer la sécurité des données traitées.**

Transparence

Les personnes doivent être **informées de l'utilisation des données** les concernant et de la manière dont ils peuvent exercer leurs droits..

Droits des personnes

Les personnes bénéficient de nombreux droits qui leur permettent de garder la maîtrise de leurs données :

- **Droit d'accès**
- **Droit de rectification**
- **Droit de suppression**
- **Droit d'opposition**
- **Droit à la portabilité**
- **Droit à la limitation du traitement**
- **Droit de définir le sort des données après la mort**
- **Droit de ne pas faire l'objet d'une décision automatisée**

Questions ?

Q & R

The advertisement is split into two main sections. The left section has a dark blue background with a woman in profile, smiling and holding a bowl of fruit. A yellow hand icon is positioned above the text. The text reads: "Take research into *your own hands.*" and "Getlooka.com". The right section has a yellow background and displays a grid of logos for various partner organizations.

Take research into
your own hands.

Getlooka.com

FACEBOOK Square
orange LEONARDO
TOUCH paydunya
YOCO dymagi
KONRAD ADENAUER STIFTUNG UNICEF
International Centre for Diarrhoeal Disease Research Bangladesh Institute for Data Science and Analytics

info

Etude de cas

LOOKA: Gérer le traitement des données personnelles pour une suite d'applications qui recueille des données terrains

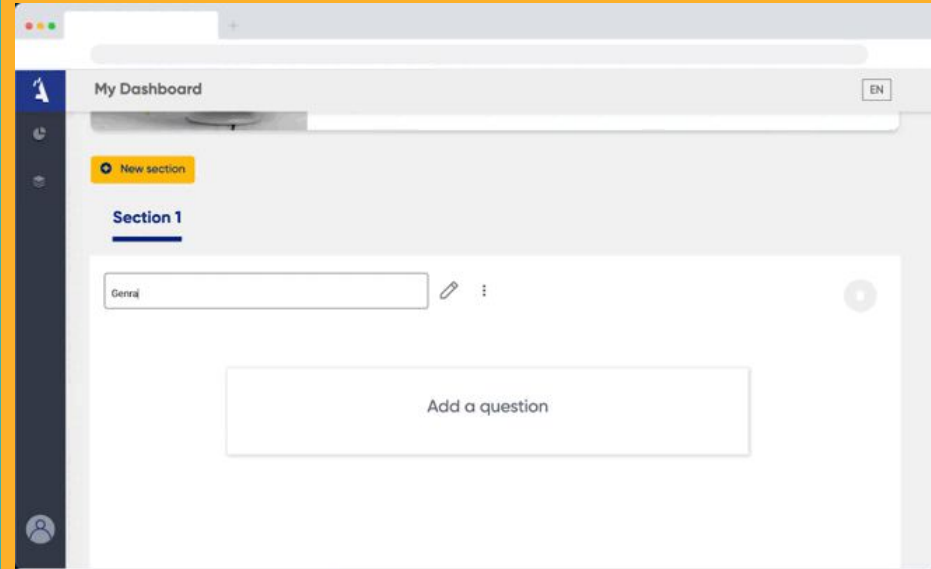
Que fait LOOKA ?

Fonctionnalités :

- Création d'étude et de son questionnaire
- Recueillir des données terrain pour des clients
- Traitement des données
- Gestion des enquêteurs

Plateformes :

- plateforme web de présentation
- Plateforme web pour création d'étude, de questionnaires et suivi des données recueillies
- Application mobile pour réaliser les enquêtes terrain
- Application mobile pour réaliser les enquêtes par téléphone



Le challenge de la gestion des données personnelles

Acteurs



Enquêtés

Enquêteurs

Clients

Problèmes



Comment informer chaque enquêtés de l'utilisation future de ses données personnelles fournies

Comment respecter les règles de gestion des données personnelles sur différents pays ?

Comment garantir la sécurité et la confidentialité des clients et de leurs projets confiés à LOOKA ?

Idées de Solutions



Pour chaque étude générer de manière automatique les GDPs appropriés

- Faire accepter les GDPs à l'enrôlement de l'enquêteur.
- Demander la permission d'accès aux DP's chaque fois qu'il est nécessaire

Bien clarifier les limites d'utilisation des DP's

Anonymisation des données recueillies

Study data ☆ 📄 🌐

File Edit View Insert Format Data Tools Extensions Help

100% 123 Default... 10

A.A

	A	B	C	D	E	F	G	H	I	J	K	L	M
1		S01_Q02	S01_Q03	S01_Q04	S01_Q05	S02_Q01	S02_Q02	S02_Q03	S03_Q01	S03_Q02	S04_Q01	S04_Q02	Si
2				How do you fin		What type of o							
3	What is your o	What sector dc	What is your m		How do you fee	If you spend us	Where do you	What digital ba	If you were to c	How do you m:	What's the har	H	
4	Worker with f	Public service	100K - 500 UG	from agencies	1	9 *	Top up money on virtual walle	from agencies l	mobile banking	Low rates *	Mobile money	Network *	Λ
5	Worker with f	Oil and gas prc	100K - 500 UG	online friends	3	3 *	Top up money on virtual walle	bank	bank	Excellent custc	Mobile money	Network *	Λ
6	Worker with v	Postal and tele	1000000 - 200	promotions by	10	10 *	Hold money in Ugandan shillir	promotion by f	agency banking	Transparent ra	Card *	Network *	C
7	Worker with v	Food; drink; to	500 - 100000K	social networki	8	8 *	Top up money on virtual walle	social network	digital banking	Reliable servic	Card *	Speed *	C
8	Worker with v	Agriculture; p	1000000 - 200	family	7	7 *	Bill payments *	family	mobile banking	Reliable servic	Mobile money	Network *	Λ
9	Worker with v	Commerce *	2000000 - 400	advertisement:	9	9 *	Top up money on virtual walle	advertisement:	agent banking	Low rates *	Mobile money	Network *	Λ
10	Worker with v	Commerce *	1000000 - 200	internet	5	5 *	Hold money in other currenci	internet	visa card	Low rates *	Card *	Pricing *	C
11	Worker with v	Commerce *	100K - 500 UG	financial servic	5	5 *	Spend using a virtual card *	B banks	debit card	Reliable servic	Mobile money	Network *	C
12	Worker with v	Financial servi	1000000 - 200	promotions by	2	2 *	Hold money in Ugandan shillir	promotions by	mobile banking	Reliable servic	Mobile money	Network *	Λ
13	Worker with v	Education *	500 - 100000K	work plqce	1	1 *	Hold money in Ugandan shillir	work place	online banking	Transparent ra	Mobile money	Network *	Λ
14	Worker with v	Utilities (water	500 - 100000K	adverts	10	10 *	Spend using a virtual card *	adverts	debit card	Low rates *	Card *	Network *	C
15	Worker with f	Health service	500 - 100000K	social media	8	8 *	Top up money on virtual walle	social media	debit card	Low rates *	Card *	Mobile Network *	Λ
16									internet bankir				



Join Us for more !!

Q & R



academy@yux.design

Practical case

Let's catch up on Figma for a practical exercise in managing personal data for an application



Thank you

