Hybrid Prototyping Workshop
IdeaSquare, CERN – October 31 2025

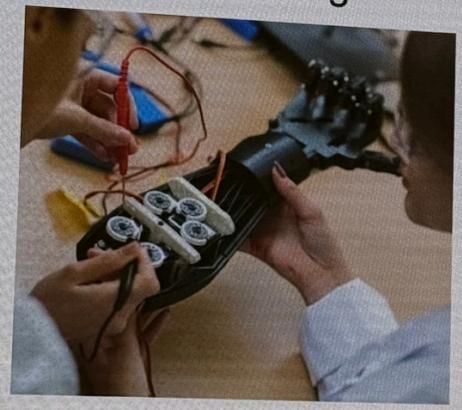Resume : Lorraine Tosi designer UX, qyall.fr

What is a prototype?

The word originates from the Greek *prōtotupos*, meaning "first example."

EARLY IN THE MORNING, BUT ALREADY ABOUT PROTOTYPING !...

What is a prototype?

Prototypes are different in different industries and serve different purposes

Industrial design

Engineering

Form and geometry

Function and performance

Source: Jensen, L. S. (2016). PROTOTYPES IN ENGINEERING DESIGN: DEFINITIONS AND STRATEGIES. INTERNATIONAL DESIGN CONFERENCE - DESIGN 2016
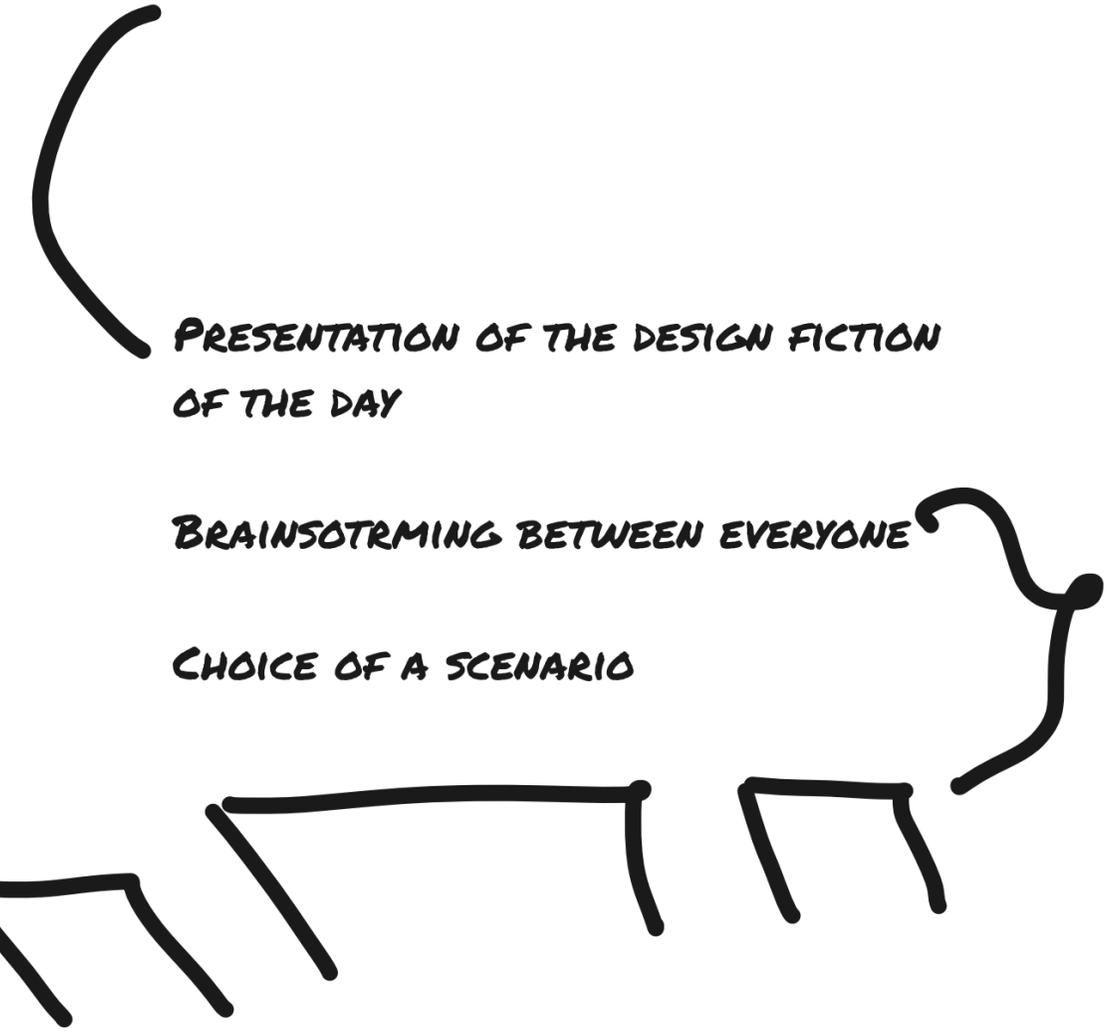
From Theory to Imagination: **Why Design Fiction ?**

It's not about predicting the future, but about **opening debate** on what kind of future we want.

Design fiction is a speculative design method that allows us to:

- Envision and explore **alternative futures** for hybrid collaboration.
- Combine **narrative prototyping** and **fictional artifacts** to imagine "what could be."
- **Test possible scenarios** and reflect on their emotional, social, and collaborative implications.

[8] Sanders et Stappers, 2014

Presentation of the design fiction of the day

Brainsotrming between everyone
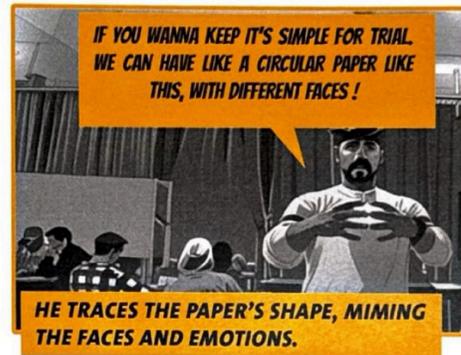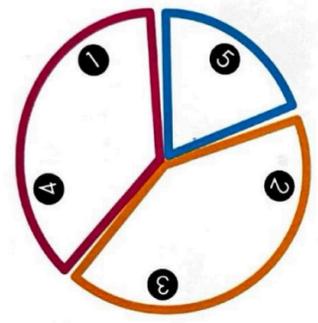
Choice of a scenario

WHAT IF, IN 2030, A SCATTERED TEAM OF FIVE STUDENTS CREATED A PROTOTYPE OF AN EMOTIONAL ROBOT WITHOUT EVER PHYSICALLY MEETING...

WHAT IF, EVEN FROM A DISTANCE, BUILDING THE ROBOT PROTOTYPE FELT LIKE SHAPING IT SIDE BY SIDE — OUR GESTURES OVERLAPPING IN THE SAME SHARED SPACE?

STUDENTS ARE DISPERSED ACROSS THREE DIFFERENT PHYSICAL LOCATIONS.

THEY BEGIN TO EXPERIMENT WITH HOW THE ROBOT PROTOTYPE COULD BE PHYSICALLY CONSTRUCTED, MAKING THEIR IDEAS TANGIBLE.

HE TRACES THE PAPER'S SHAPE, MIMING THE FACES AND EMOTIONS.

THEY EXPLORE THE MATERIALS AVAILABLE IN EACH OF THEIR WORKSPACES.

THE MANAGER SHOWS THEM THE MATERIAL DRAWERS ACROSS THE SPACE.

Our scenario <3

Ideas of people (thanks)

TEAM BRAINSTORMING

+ GATHERING IDEAS BY THEMES

Scenario 2:

Interactions:

- I was bored so I worked on the eye, do you want to see it?
- Digital post-it displaying
- With prototype parts the last version?
- Use other way to interact with others & speak
- Keep convergent/divergent ideas when they come
- INTERACT WITH PROTO (SAME V)

Tools

- Copy for later usage?
- Augment of transition goals
- Another routine region
- bioreactive textile
- collective biofeedback system
- smart wristband/ring/card

Emotions

- "I want to be out" JOCKER (stop)
- social battery

places identified automatically (in every contribution)

Time Management

- decision don't keep it in time line
- Day's tasks + state
- Define the rules of working together
- Building clear guideline and timetable to be able to go through the versioning together
- who is currently cooking on what?
- current purposes Displayed
- 4th project 1 → the last v. 1 2 3
- capture routine flee and the tasks liked automatically

Space Management

- plan / map of what is available free
- & please Marc, open drawer n°2, can this match the need?
- Displaying tasks
- Scanner
- If every susan with a camera so the last is always visible

Tasks Management

VERSIONING

- automatic identifying contributions (bracelet)
- Different dashboard - role - place ?
- naming version out loud (+ voice)
- self constructed history →
- keep every version/contribution
- How can I keep this "hand" prime of my prototype
- ok guys! I'll be there afternoon, but let's keep this exact version

INVENTORY

- Question: what need? what is there? who? what can make the...
- THE INVISIBLE FACE IS VERY IMPORTANT, HOW TO HIGHLIGHT IT?

REMOTE MANIPULATION AND TANGIBLE CONTRIBUTION

PHYSICAL AND DIGITAL INTERACTION

This domain explores tools and spaces for interacting with physical and digital objects. It examines how interaction zones are set; how physical and digital dimensions connect in hybrid work. Flexibility and remote interaction are essential to create inclusive, engaging experiences for participants.

→ Enable remote participants to manipulate physical objects virtually.

https://www.unige.ch/designfiction2025
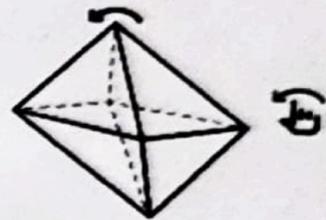
The cards helped us but we could not class every idea (it's a mix)

Linked cards

SYNCHRONIZATION AND SHARED ATTENTION

CONVERGENCE OF PERSPECTIVES AND COORDINATION

Convergence of perspectives and coordination strengthen collaboration by enhancing mutual understanding, synchronizing actions, and sharing attention, especially in hybrid or remote contexts.

→ Enhances synchronization of actions and shared attention, ensuring consistent interaction and fluid distribution of roles. & One participant stressed the importance of synchronization for effective collaborative working.
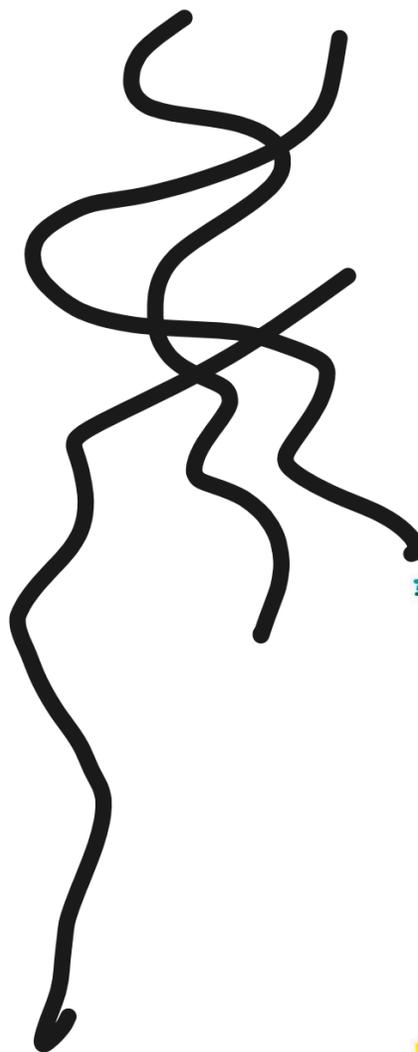
divergent   convergent

https://www.unige.ch/designfiction2025
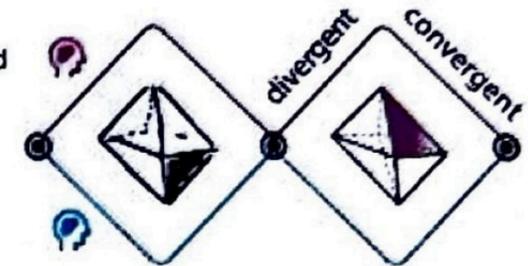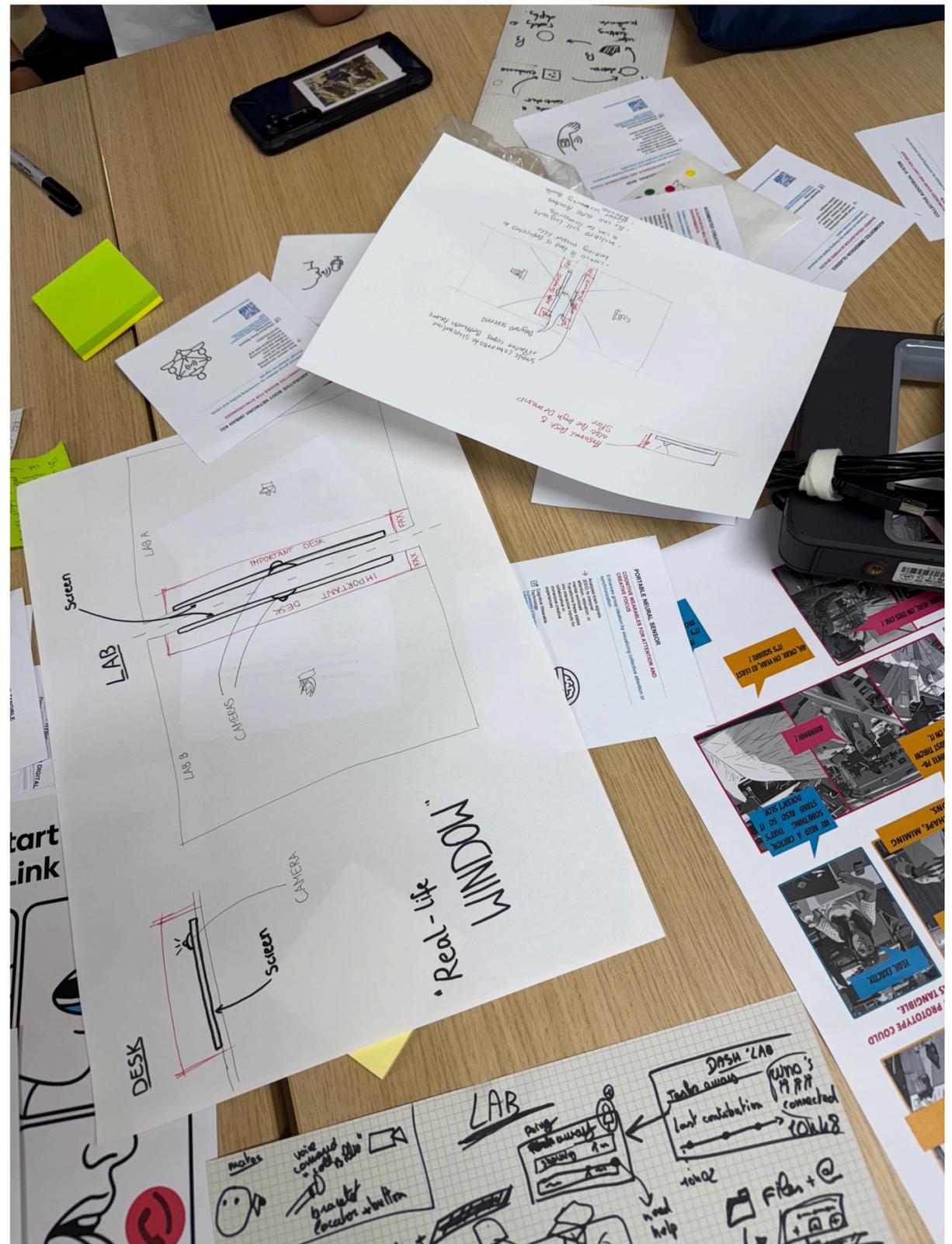
CONVERGING STEP IS HARD

WE DO NOT AGREE ON IDEAS
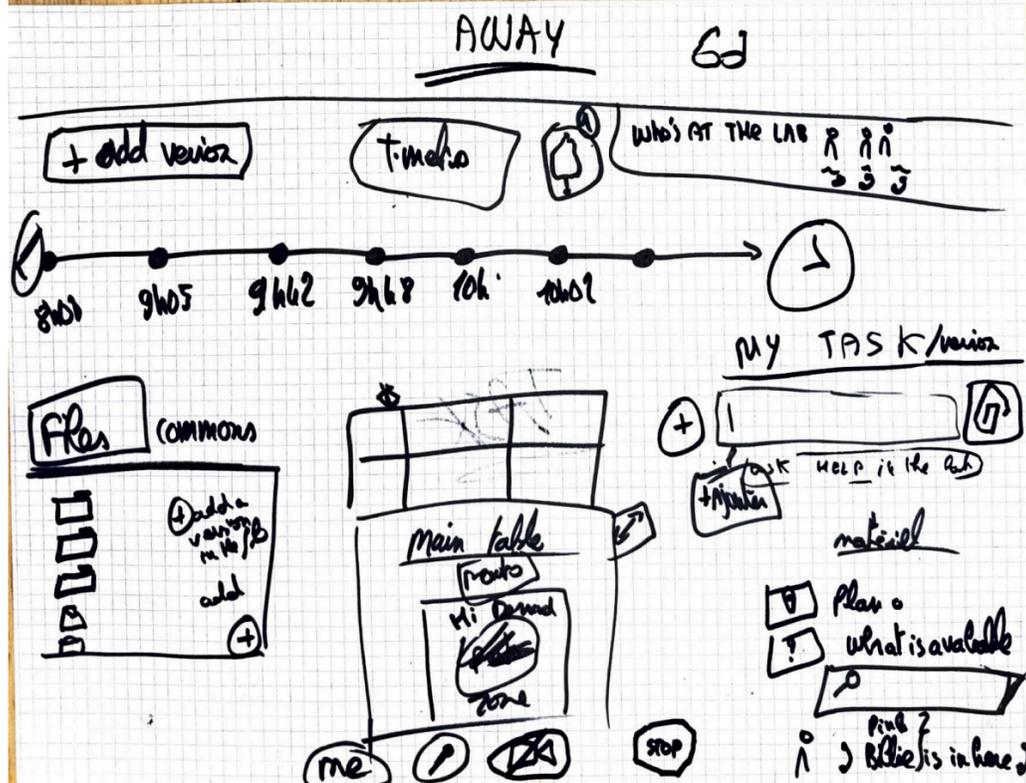
LET'S KEEP ALL THE IDEAS!

HOPEFULLY
WE HAVE COFFEE

DRAFT OF PROTOTYPE

FINALLY !...

LAB

AWAY
Home
Coworking
somewhere

DIGITAL ENHANCED LAB

IdeaSpace Lab

Timeline

WHO'S IN THE LAB
- BILLIE
- MTR BILLIE IS working on
- P

I AM WORKING ON

LAST VERSION

INVENTORY

NOTIF

NOTIFICATIONS

EARPIECE

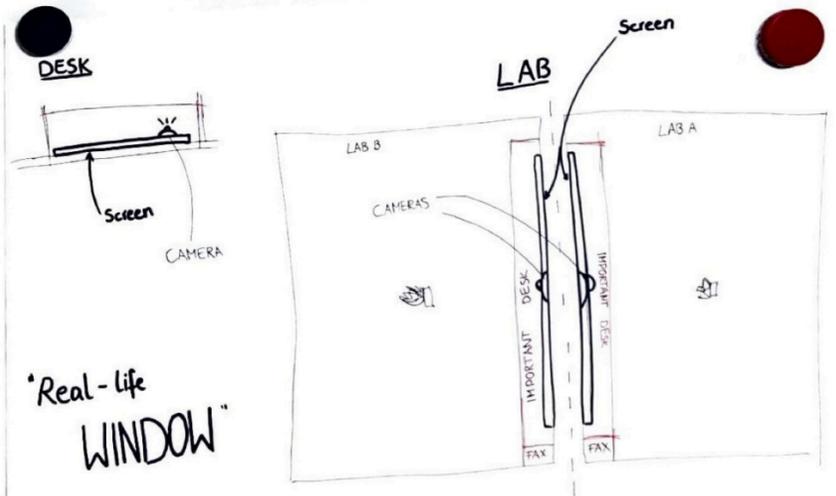NETWORK SHARING
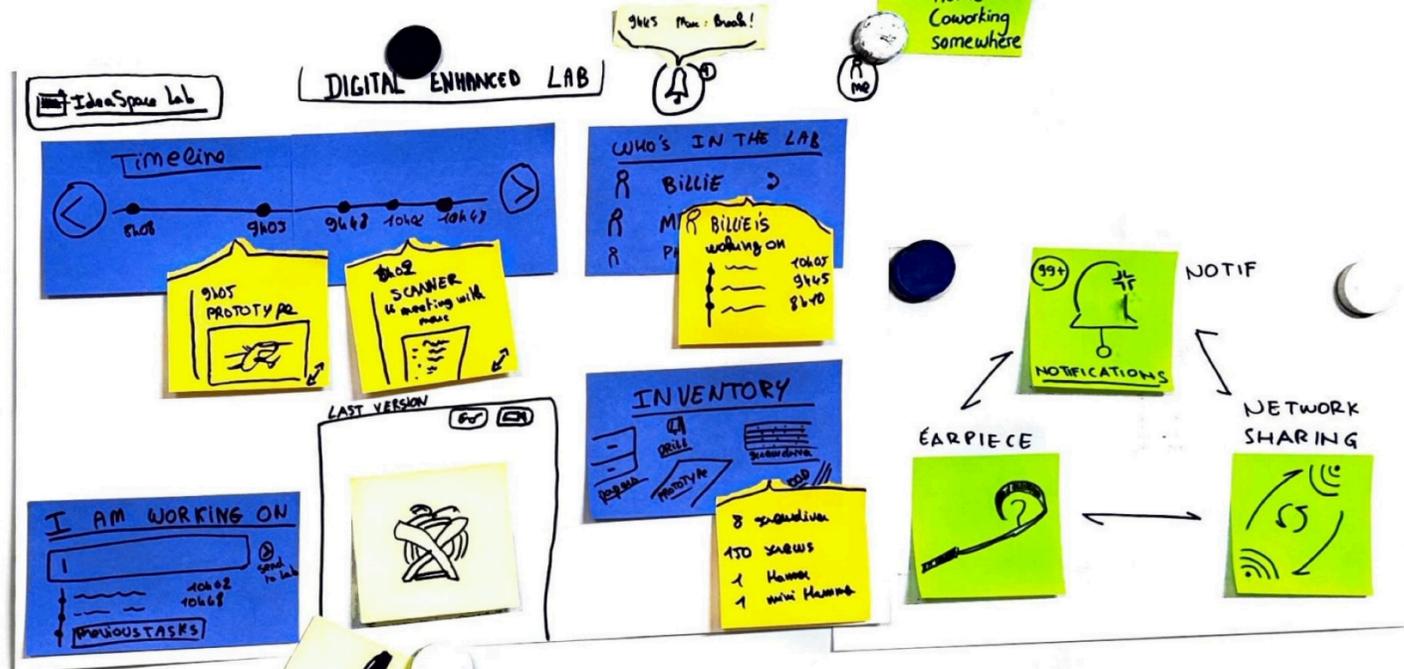
Concept: ProtoPol (Full prototype Suite)
AR Glasses
+
ProtoPol Platform
"Central" Scanner
+ (Scan the prototype in the "Proto" room)

DESK
Screen
CAMERA

LAB
Screen
LAB B
LAB A
CAMERAS
DESK
IMPORTANT DESK
FAX FAX

"Real-life WINDOW"

The result :

Digital enhanced Lab

Resume : Lorraine Tosi designer UX, qyall.fr