**\* A user centered development approach of a haptic tracking device with vectorial guidance for graph exploration**\*\*

Or my examplified guide on how to find and solve usability problems

# Introduction

# Context

visually impaired people over the world presenting the two teams -> SACHI progress on the HaptiQ the challenges -> search collaboration,

# Analyse

(key concepts: having a clear understanding of what is going on with visually impaired people)

State of the art understanding the usage (constant talking with VI supervisor Bernard, exploring documentation made about VI) scenarios tasks modeling brainstorming

* interviews, personas

# Adapt

code engineering (evolutive structure, identifying what is key) testing and coverage (how to make sure the whole is still functional if we add change one thing?) python (developer friendly) versioning (tag previous versions, can come back easily, facilitate open source) documenting (why? -> , how?, small remark about comments) refactoring (helps understanding the code and the logic better) iterative ( ) polyvalent (3D printing, TUIO, ) communication skills (two labs, two different views of the final build, different ways: latex, ) proactive intelligence (explaining why, how: twitter, feedly, reddit) planning?

# Justify

(key ideas: HCI can be easily countered, tests are ok but eaisly falsiable, but how about we - UX designer create a clear way of justification our work, requires a lot of honesty, but it could be very beneficial and we can have an immediate feeling of how suitable for users the product is, this why I would like to suggest this recap)

- why not using dream -> unhappy with software and think it misses the point, yet, it's a good effort towards design justification why not purely citing papers -> my opinion is that papers should be referenced for critical stuff, also citing a paper can be misleading. The academics field knows that there is a variety of quality in papers and scholars know how to evaluate it, but how about others? If your work is to be kept in this field, no problem, but if we were to think UX design with an open-source perspective, we will be able to benefit from it only if we make the justifications readable. Citing a paper does not make it readable, it just adds a step of complexity for an idea that could be summarize in one sentence.

# Evaluate

(key idea is that this evaluation phase is for users only) user study (iterative, approuved, self testing, real testing, logging) informal testing (iterative, various persons, enrich the development, quick enough to be done on the spot -> force you to always have something to show) personal critic (okay that one is far fetched, but there is a reason to continue to have a critic eye on one's work, you need ) statistics

* more users? more VI?

# Progress and futur

# Conclusion

UX designer has increased in the UK, the US... it's becoming interesting for european countries. Yet, France industrials do not consider as seriously as these other countries. How we, ENAC student of the Master IHM can stand for more usability in the software development in France? Besides software development has starting to be outsourced for cheaper wages. Lived in romania... IT students should be concerned about this, as they will not be able to compete very long. I see two possibilities to maintain (interest), being an expert in a particular technology or starting to This is the kind of things I think would be beneficial for students to hear from our teachers.

Justifying is key to ux, and reporting is key for justification. My placement has lacked of reporting as it was difficult to understand what needed to be retracable and what not. Started with a board journal, but it's actually killing the information. Better is to focus on main steps like brainstorming, informal evaluation,

This report may take some strong position that better experts than me could easily critcise, and I would be happy to see them. I have just started to grasp to idea of a good UX design and this report can be seen as an effort to summarize my understanding.

This report has also been emphasizing the development side of the internship on purpose. UX designers are the interpret between users and developers. They should have a global understanding of computing as well as human behaviors. From my point of view, a good UX designer should be able to easily switch between platforms and limit his preferences, he should have also invested enough time to understand the tricks and ways of upcoming development process and that requires to deal with less user friendly tools. Yet, it's necessary to take this path. I am convinced that quality code and efforts made towards best practices lead to better design in the end by time saving, easy iteration and codeveloper friendly.