First Ventures 2021 **PROJECT PROPOSAL**

*Guidelines*

* When composing your proposal, please follow the order given below and answer all questions. We cannot accept pro­posals with incomplete information.
* Please use Times New Roman 11 in the entry field (shaded background).
* Limit your project proposal to 6 pages (whole document/proposal, excl. attachments).
* The proposal must include one-page CV of each project team member and a letter of endorsement from the UAS’s Institute/ Department Head responsible for the employment of the applicant(s).
* Please upload one single PDF file (including the proposal, CV and all attachments) on the [webportal](https://first-ventures.grstiftung.ch/apply) for the «First Ventures» program where you can submit your full application online.
* The PDF file is part of the full application and must be uploaded no later than 31 May 2021.
* If questions arise, please contact Marco Vencato at [first-ventures@grstiftung.ch](mailto:first-ventures@grstiftung.ch).

**BASIC INFORMATION**

**01 First name, last name** Adrian Demleitner **Academic title** B.A. Industrial Design **Date of birth** 29.08.1981

**02 Project full title** things.care  **Project short title** things.care

**03 Project duration** *–**Indicate the planned start and the expected finish of your project.* 03/2022 – 04/2023

**04 UAS / Home institute** MAD HKB BFH

**BUSINESS IDEA DESCRIPTION**

**05 Objectives** *– Describe the problem to be solved, shortcomings of existing solutions/competitors and the business opportunity (market/customers) you want to pursue. What is the project’s value proposition? Give concrete examples, names and numbers.*

This project proposes to radically rethink the interaction we have with technology, one device at a time, and enable a internet of things ecosystem the users can trust. For people who suffer from trust issues with the products of Google or Amazon, we're developing a voice assistant to help privacy-seeking users to regain trust in technology, by actually respecting privacy and giving back control to them.

Due to recent events and trends regarding data collection and tracking practices, trust in consumer technologies has waned. Missing trust is one of the main reasons that stops potential users in adopting voice assistants and other internet of things technologies or smart home appliances. A lack of trust also blocks entry into privacy-concerned markets like the the health sector or workplace constellations.

Two out of five owners of voice assistant are highly considering exchanging device and service, if a healthier alternative would exist. Among people that are hesitant to adopt voice assistant technology in their home, concern over privacy is the number one reason to not buy into this technology.

As oligarchic market leaders in voice assistants, big-tech companies Google and Amazon main intentions are focused on pushing their devices to further their data collection strategies. As voice assistants are often brought into the innermost sanctum of privacy, the family and the home, the needs of the user and the intentions of the manufacturers are diametralic opposites.

This is the first problem that needs to be solved. Technologies that enter spaces with privacy concerns, like our homes, need to be based on radical openness and transparent approaches.

At best, concerns over privacy concentrate on the legal-juridical and technical aspects. From a holistic interaction and user experience design perspective trust is not something that can be earned by ticking off a terms and conditions page while on-boarding a service. Trust is earned through a practice of negotiating privacy, intimacy and consent. This acts of negotiating are embodied practices. When we communicate with another person we don't just exchange words. When we engage each other we add gesture and mimic, eye contact and body posture. These cues help in transporting information and meaning.

This second issue goes hand in hand with an open approach to the underlying technologies. As this projects research shows, the user is patronized in terms of ways of interacting with a voice assistant, while having little to no say in how they want to go about that.

This projects proposes adding layers of interaction through a thing-based design approach that enables a richer communication between everybody involved - user, device and IoT ecosystem. This interaction system will propose possibilities to negotiate issues of privacy and intimacy, while also being conceived as an open system that can learn from the user or be customized by them.

Imagine an Amazon Echo, but fully owned by you - even the data collected - and with an interaction design and user experience that holistically incorporates you as a person.

**06 Project plan** *– Outline the timetable indicating project stages and milestones.*

**Sep 2021 - Feb 2022, Proof of Concept**

- Last Semester of MA

- Testing possible user journeys based on research and findings

- Achieving Proof of Concept

**Mar 2022 - Aug 2022, Prototyping Product**

- Development and Testing of Prototypes

- Solving Technical Problems

- Partnering up with manufacturers where needed

**Sep 2022 - Mar 2023, Production**

- Finalizing Prototypes

- Ramping up Production and Marketing

**Apr 2023**

- Market Entry according to Strategy

**07 State of the Art** *– What is the applied research base of your business project? Have you achieved the proof of concept in your Bachelor/Master thesis? What is your expertise brought to the project?*

The research body was built out of three different main sources. I led interviews with owners of voice assistants and I could conduct around 25 hours of direct observation of interaction between users and their voice assistants. The third source were user experience reports the owner of voice assistants posted online. I also researched the image worlds of hacked and customized devices as well as the advertisement created by the brands, although these two assets were not considered in the analysis of the data.

To work with the data I opted for a thematic analysis, with a reflexive approach after Braun and Clarke. This is a rather classic qualitative data analysis approach for mixed media datasets that labels the transcribed data and then builds overarching themes out of the codes.

The last step of the research process, before going into prototyping, was an expert workshop. I wanted to to have the opinion of specialists in their respective design disciplines on how to improve the emotional bond between users and their voice assistant devices. The workshop was based on the emotional durable design framework, by Jonathan Chapman, as well as the thematic analysis.

The expert workshop delivered valuable insights that overlapped with my own findings as well as approaches found in design theory. The findings will now be designed into prototypical user journeys that will be tested in the last semester and will hopefully deliver a proof of concept.

This proof needs to incorporate research done towards the interaction part of the product, which is about the aforementioned embodied practice of negotiating privacy. This interaction goes into the direction of proximity tracking, gestures or physical interaction with a beacon and ambiquity as a design strategy to name a few variants that will be tested.

For details to my expertise, please refer to the cv. I have more then 15 years of experience in professional software development in the industry with a focus on web technologies as well as internet of thing devices. I am currently employed as lead scientific software programmer at the University of Basel in a research project where I'm also take place in the user experience design of the project prototype. I hold a BA in industrial design as well as, hopefully, soon a MA in design research.

**08 Business model** *– Who will buy what, to which price and why? Describe your revenue stream and how it will sustainably finance the business activities after the end of the funding period?*

This research projects wants to introduce an alternative voice assistant and a accompanying platform for the interaction with the internet of things. The first product to use this platform will be a privacy-aware voice assistant. The underlying technology will be radically open source and built on the Better IoT principles, in order for the user to be able to trust into the product. The functionality will be based on user research and include the most common use cases for hands free computing, like kitchen aid, listening to music or querying the internet. The ways of interacting with the device will included several more layers to enact control and let the assistant know what is needed from the current situation.

For target audience, see point 09.

As the device, the underlying platform as well as the technologies involved will be open source, revenue is mainly generated by the selling of devices as well as an accompanying support service subscription.

The pricing of the device will hover around premium models of voice assistants, which at the time of writing this, are around 150.- - 200.- CHF. The additional subscription service, which includes support, is targeted at around 5.- - 10.- CHF a month. For financial sustainability, see point 10, scale-up strategy.

It is planned to go into the direction of a steward-ownership-driven business model, in order to attract investors but be able to use profits for the purpose.

**09 Customers/Partners** *– Indicate the main customers and partners of your business project.*

The target audience are already-owners of voice assistants who want to change the device-ecosystem as well people who are closing in on acquiring a voice assistant, but are unsure because of privacy concerns. This is the market segment, where an entry is the easiest as change of ownership is possible and can be disrupted.

A second layer of customers is generated by the aesthetics and product design as well as the communication or the world building around this devices ecosystem. Instead of driving a innovation, feature and tech discourse, the proposed products strive for a mindful approach to technology. There is growing market for people who embrace technology but seek a calmer, minimal and conscious interaction. This positioning will help to underline the privacy and intimacy aspects of the product.

Once established as a stable ecosystem, the platform will seek to expand into sectors where privacy concerns are taken serious. For further elaboration, see point 10, scale-up strategy.

**Partners**

crisp id, https://www.crisp-id.ch

crisp id is an industrial design studio in Bern, Switzerland, and is specialized on innovative products in the intersection of market, technology and aesthetics. They will accompany the project in terms of brand and product development.

Better IoT, https://betteriot.wordpress.com

This community-led project has developed principles that are connected to the core-issues of this project, like privacy, openness, transparence and data governance. things.care will seek active counseling by the Better IoT community.

Prof. Thomas Amberg, https://www.fhnw.ch/en/people/thomas-amberg

Thomas Amberg is a lecturer for Internet of Things at the FHNW Institute of Mobile and Distributed Systems and will coach Adrian Demleitner as well as the project regarding the underlying technology stack.

Christoph Jenny, https://www.linkedin.com/in/chrisjenny

Chris Jenny is co-founder of the Impact Hub in Bern, Switzerland, and will provide mentoring and coaching for the development of the business case of this project.

**10 Market entry strategy** *– How do you intend to attract and acquire your first customers? Describe your scale-up strategy.*

For target audience, see point 09. The first customer will most likely be at a point of disruptable change of ownership. They already adopted a voice assistant at home, but are in advanced progress of changing this device. The market entry strategy wants to trigger the change through an exchange program, where the old device can be exchanged for a discount on the purchase of our product. This will help make the jump to our product.

The acquired devices can be either sold on a second hand market, used to repair faulty products or be properly recycled. Either way, this can be used in terms of marketing communication to underline the core message of our product.

In a second phase, the platform will try to expand into other use cases where privacy concerns are present. A voice assistant platform with additional interaction layers could be applied as a supporting tool in therapeutical settings or in the care of elderly people. As such, and through its open source approach, the platform can be reused for further research and opening up new markets and fields of inquiry.

A third way in engaging the public is through the radical openness of the products. This will create a small but active community of people who like to appropriate and hack devices in order to customize and try out possibilities. Such a niche community is invaluable in communicating that a product is of the people, for the people.

**11 Novelty** *– To what extent is your project innovative and unique (USP)?*

The most important USP is the products focus on privacy and intimacy, which is not only tackled from a legal-juridical or technological perspective, but also from interaction design and user experience research. Instead of feeding your most private data into the tracking habits of big-tech companies, this product and all its data belongs to you. The interaction design with the product not only lets you know this, but also feel and experience it.

**12 Impact** *– What lasting benefits to society is the project aiming to achieve when implemented? Give concrete examples.*

Finally, this project reimagines technology from the perspective of the people for the people. It is a reappropriation of the imagination on what technology could be.

Humans and technology, from the steam engine to voice assistants, are fundamentally entangled. We're not just using technology, we are technology. From such a viewpoint, it is crucial that we do our best to make sure that technology is from the people, for the people. Practices of data tracking and similar by bigger tech companies destroy our ability to trust into technology and harm the way we interact with it.

Voice assistants and other internet of things technologies hold much potential for society. A honest and open approach to these technologies would give these potential back to the people instead of locking them up into the walled gardens.

**13 IP protection** *– Are patents available or planned? Do any third parties have claims over or interest in the targeted results?*

The technology stack as well as the custom development that will be needed to realize the project are open source or are planned to be released under open source licenses.

**budget**

**14 Detailed project budget** *–**Budget for the overall project, partial budget for the project submitted to Gebert Rüf Stiftung, contribution of your home institute, funding awarded or expected from third-party sources (specify sources).*

For a detailed budget, please see attached sheet. It is planned to seek further funding from foundations interested in privacy-sensitive enterprises like the Mozilla Foundation, Ledger, and similar.

**15 Detailed project budget submitted to Gebert Rüf Stiftung** *–* *How will you use the funds? Make a distinction between salaries (provide underlying cost system/structure) and material expenses.*

This application seeks funding from Gebert Rüf for the development part of the budget.

**PROJECT TEAM**

**16 Co-applicant** *–**First name, last name* Entry *Academic title* Entry *Date of birth*DD/MM/YYYY *UAS/Home institute* Entry

**17 Thesis supervisor/tutor** *–**First name, last name* Thomas Amberg *Academic title* Prof. *Date of birth*DD/MM/YYYY *UAS/Home institute*FHNW, Hochschule für Technik

**PROJECT SETTING**

**18 History** *–**Since when has the project been underway?*

The project started as an inquiry for a MA Design thesis with a focus on the potentials to improve our relationship to consumer technology in the beginning of 2020. During a phase of narrowing down problems in the beginning of 2021 it became a relevant businesscase. The underlying problem with voice assistant technology will be the subject of the master thesis.

**19 Submissions, rejections and awards** *–**Has the project been submitted elsewhere? Has it been rejected or awarded? If so, where?*

The project has not been submitted elsewhere for funding. I was able to present and discuss the project at the following two design related conferences:

* Reclaim Futures, a tech and culture conference around the broad subjects of post-capitalist desire, utopian exploration, ecology and alternative computing – September 2020
* NERD, New Experimental Research in Design – June 2021

**20 References** *–**Provide two references with addresses* Entry

**21 Commitment** *–**What is your motivation brought to the project?*

I'm personally driven by the believe that we can do better in terms of consumer technology. There is untapped or even wasted potential hidden in the piles of electronic trash; in terms of mitigation of environmental problems as well as what technologies could do for us as people and communities, or even the society at large. I’m dedicated to bring out this potential and make it available. I also believe that the tech industry's large players grew tired of trying to do their best, and that sustainable and healthy innovation needs to come from newcomers.

**22 Skill expansion** *–**Which topics would interest you to learn about?*

I personally believe to have solid skills in terms of design research, handling of theory, implementation of findings as well as technical expertise. What I would love to learn more about is the translation of design research into business cases; That is, doing research and forming findings into services or products that solve customers problems in the real world.

**23 PLACE:** Entry, **Date** DD/MM/YYYY, **Signature (electronic)**: Entry