10 tips for how to implement RRI through interdisciplinary collaboration in ICT projects

This is a living document. Based on insights from the HubIT workshops and events the tips have been developed – and then based on the feedback we receive in our future workshops and events we will continuously update them. So please let us know what you think and co-create the tips with us. The 10 tips are part of the HubIT guidelines. The main target audience of these guidelines is ICT developers and researchers.

In this section, you will find the 10 main tips that need to be taken into account when you aim to implement responsible practices in your project. They work as a supplement to the more comprehensive guidelines providing deeper insights into the different phases of the innovation process. All of these tips are expected to enable you to better implement responsible research and innovation (RRI) through the co-creation process with actors from social sciences and humanities (SSH). Combining ICT expertise with SSH competences can help align ICT development with the demands and needs of society and in this way taking matters of RRI into account. These 10 tips are good examples of how you can co-create responsible innovations with SSH actors and how such collaboration would be beneficial for your work.

1. Rely on expertise from social sciences and humanities to co-create and cooperate

There are many different competences within the field of ICT and the same goes for the field of SSH, where experts may rely on ethnographic analysis, network analysis, economic and juridical knowledge, etc. SSH experts can therefore be suitable partners with valuable skills in the field of RRI. And cooperation with them may generate important synergies since you can mutually help each other out. When you are about to work together in innovation, make sure that you find a good match with an SSH expert with the right competences for your idea or project. SSH actors are able to seize and analyze certain issues, patterns and needs in society and translate it in order to make it beneficial for your project. Make sure that you actively rely on each other's competences in a complementary way in order to ensure that you meet the principles of RRI.

2. Have a user-centered approach by defining your target audience

It is vital to keep your target audience and your potential customers in focus in order to remind yourself who you are developing for and for what purpose. If you continuously have in mind both what your potential customers want and what society needs while not compromising any ethical issues, you are showing that you are aware of your environment and taking responsibility. By keeping the users at the center of your project you make sure not to miss what is at stake in society. In addition, you can better ensure that your product or service will be used for the intended purposes. SSH actors have the skills to make sure that you keep your users at the center of your process by involving them, for instance through participatory product development, by capturing embodied, sensory and affective experiences from them, and by asking critical questions in order to help you reflect on your own innovation.

3. Understand the cultural context while analyzing your potential market

When having to design or launch your product or service it is important that you understand the market and the cultural context. As societies are culturally diverse, you must be careful when attempting to develop universal solutions; therefore it is important not to assume that just because something has worked well in one context, it will work out in another too. Understanding the market and the specific context in which it is embedded enables you to know when the best time to launch your product is and in which context. SSH actors can help you both with understanding the cultural context and the market. They can also make sure that all needs are met and that you live up to all the criteria when launching, so that you do not come across as irresponsible, but rather as an aware and responsible actor. For instance, an important lesson can be learned from ethnographic research, whose main competencies are to gather in depth data about lived experiences and situations (through so called "thick description") and bring a better understanding on how societies and markets evolve.

4. Implement responsible concepts and principles

It is important to reflect on matters of autonomy, integrity, authenticity, personal safety, individual rights, liberties and dignity and on how you can best implement these matters into your product or service. Branding yourself on having taken such matters into consideration is crucial if you want to establish a responsible profile and if you want to get full acceptance from users and regulators. You can for example reflect on questions such as how people's personal safety is obtained; do certain aspects of your technology conflict with such matters and could it potentially harm someone? Make sure you reflect on such questions. In addition, there is a bigger chance of getting funding if you implement responsible concepts and principles. Get SSH experts to monitor your innovation process and to ensure that you are implementing such principles, as it will be beneficial for all parties.

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5. Reflect on the purposes of a given product or service

Reflecting on the purposes of developing a given technology can be helpful to make the vision you follow clearer and more prominent. Think of questions such as why you are developing this technology specifically, what the benefits of it are to you and to society? This will help you not to lose focus on why you are doing what you are doing and for whom you are doing it. SSH experts can help you to improve your knowledge about your product and the context in which it is embedded by helping you to question your own idea and preconception you might have on your product and service. This kind of reflexive process might be useful in getting an outsider perspective on your product. By questioning what seems to be normal or objective in the innovation process, SSH experts might contribute to shedding light on potential limits or unanticipated side-effects of the product or service.

6. Think of possibilities and potential risks

During your journey, you will meet unexpected events that are able to change your course of action. It is important to map these uncertainties to plan how you can overcome them the best way possible. It is also necessary to reflect on how you can design and develop this in a responsible way, and in a way that does not compromise ethical, social and environmental dimensions. Finally think about whether it aligns itself with society's wants and needs. Discuss with SSH experts whether your product or service aligns with such needs and whether it meets responsible principles. In addition they can help you map and analyze uncertainties, so that you are prepared in case the process goes in a different direction than first intended.

7. Be transparent

In order to give the best impression possible to various stakeholders, you need to be transparent both in your work and results but also, and especially, in the deployment phase of your innovation. You need to be clear about your vision for your product or service and tell the outside world the story of how your product has gotten to this point. Through this, you will increase the number of people sharing your visions. This will also create better relations with your customers or clients and it will enhance their understanding of your work. You also need to show that you understand the consequences and possibilities of innovation and provide an informed basis for cooperative and interdisciplinary work.

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8. Hear from different stakeholders

If you want your product or service to work optimally and be more bullet-proof to potential backlash, you also need to get feedback from different kinds of stakeholders in society throughout the innovation process. Such feedback can help you view new perspectives and possibilities in your work and therefore enable you to take new measures into consideration that will be beneficial for your work. In addition, it can help you yielding better results, as it gives you a more profound idea of the wants and needs of society. SSH actors can help you identifying which actors are relevant to include and to get feedback from, relying on various methods such as focus groups and user journeys and help you translate this feedback into valuable inputs for improving your product or service.

9. Test the product on the users

In order to know whether your product or service is working according to the plan, it is important to test the product on the future users. This can also give you new perspectives and ideas and enhance your product. Furthermore, it can ensure that you have not overlooked any blind spots and that you are living up to society's demands; and if not, you are able to adjust it accordingly before launching. SSH experts can act as a bridge between the users and ICT experts by seizing and translating specific requirements. This will ensure that all the relevant points are heard, that you implement them into your work and eventually contribute to substantially improve your end product.

10. Review your own innovation process

As we are living in a rapidly changing world, trends can change very fast and new technologies arise constantly. It is therefore important to be critical towards your own work and consider whether it is working not only theoretically but also embedded in specific contexts and situations. The direct environment of your product or service will most likely change rapidly and it is adapting to new contexts and new information, so it will not necessarily continue to work optimally, especially if competitors emerge with better innovations. Therefore you can get SSH experts to make you reflect on certain aspects of your product that you might not have thought of yourself. Furthermore, it is important that you revise your product to see whether you are living up to the demands of society. When the product or service has been launched, it is also important to take a step back and reflect on the whole process and what you have learned. Be open and learn from potential mistakes.