3 HOW DEVELOPERS MAY HELP USERS FIND EVIDENCE

Before reading this document, we advise you to read the framework on how to find evidence for digital products for autistic users. This framework is the result of a consensus of experts on digital technologies for autism. As explain in the framework, your potential clients are likely to look for information on the following aspects of your product when deciding whether to buy or recommend it:

- Reliability: Is it technically sound / functional? How well does it work?
- Engagement: How usable, agreeable, pleasant and accessible a product is for the specific users?
- Effectiveness: How much impact does it have to the people using it? Does it make an observable difference in the user's life/behaviour?

To allow future users to gather evidence on these aspects, we suggest the following recommendations:

REVIEW THE LITERATURE BEFORE YOU START.

Make sure you have a clear understanding of what type of support is useful, what is appropriate and what has already been done. The field of digital technology for autism is not new and you may want to take a close look at previous work. There is a wealth of information to be found in the scientific literature. We recommend that you conduct a systematic review of the literature in all relevant scientific databases. Remember that technology for autism is very interdisciplinary, so you should search databases in different disciplinary fields, such as IEEEXplore, PubMed, PsycINFO, ERIC (Education Resources Information Center) and so forth. You may also want to check relevant non-academic documents, such as the grey literature. National agencies, foundations or autism societies may offer additional resources.

ADOPT A USER-CENTRED DESIGN APPROACH

User-centred design (see User-Centred Design in Background material) will help you adjust to the users' needs during the design and implementation phases. User-centred design is considered to yield more efficient and safer products, while increasing users' acceptance. Remember that end-users often include not only autistic people but also proxies, such as caregivers, friends or family members. If autistic end-users cannot be involved in the design process, you can still rely on experienced parents or autism professionals.

MAKE SURE YOU OFFER A TRIAL VERSION

Trial versions were rated high by experts as sources of evidence for reliability and engagement. Below are a few points you may want to consider when designing a trial version :

- Keep in mind that trial versions are relevant not only software, but also hardware products. Hardware products can be presented and tested by users in individual institutions or exhibitions.

- Regarding software applications, there can be issues with the platform (e.g. tablet, iPhone) that users need to know about in order to try out the trial version, so make clear what versions of hardware and operating system your software is compatible with.

- The trial version has to be engaging not only for the end user, but also for the caregiver that might facilitate the usage.

- Potential clients need to understand how to use the trial version. Information on how to use the trial version should be easily accessible.
- Be clear about the differences between the trial version and the final version, especially regarding content. For instance, the trial version of a language learning tool may offer much less vocabulary than the complete version.

- Trial versions were also considered a source of evidence for effectiveness, although to a lesser extent than for reliability and engagement. Explain that some effects of the product can appear quickly, while others are slower, for instance technologies providing sensory stimulation or everyday skills training might quickly yield an effect, while the effect of technology for cognitive training might not be perceived as quickly.

MAKE YOUR PRODUCT KNOWN TO RELEVANT PROFESSIONALS AND AUTISTIC COMMUNITIES

Professionals in the autism field might have limited experience with the latest digital technology or lack training in assistive technologies. They may however be potential sources of information for end-users. Proper information and training should be accessible for them.

CREATE SPACES FOR OBJECTIVE ONLINE REVIEWS

Media and social networks that favor honesty and transparency are recommended. Note should be taken that there are less risks of fake comments in closed Facebook groups. Those groups are usually linked to the autism community and it is easier to detect an intruder or someone posting fake comments.

SEEK COLLABORATIONS WITH ACADEMICS

Scientific publications are highly valued sources of information regarding effectiveness. They can also be informative for reliability. Scientific methodologies are useful when designing the product and evaluating it. We recommend following a user-centered design approach (see User-Centred Design in Background material) and evidence-based methods for evaluating the effect of a product (see Evidence-Based Practice in Background material). When conducting a scientific study, it is important to be transparent regarding where the funding came from and who the authors of an academic paper are.

BETA
BUILDING EVIDENCE FOR
TECHNOLOGY AND AUTISM