ESDIT KNOWLEDGE TRANSFER AND IMPACT STRATEGY

The 'Ethics of Socially Disruptive Technologies' research program has the explicit goal to connect ethical and philosophical analysis to societal challenges and technological practices, and to contribute to public discussion on the social implications of technological developments. To achieve this goal, the program will develop valorization and impact activities targeted at different societal groups.

We are committed to extensive knowledge transfer and exchange activities, in direct interaction with relevant stakeholders, with whom we aim to build up and strengthen relationships during and beyond the lifecycle of this project. To reach these aims this document presents a detailed knowledge transfer and impact strategy. This strategy builds on and further elaborates the Knowledge Transfer Plan for external stakeholders of the original proposal. This strategy does thus not cover the knowledge transfer understood as dissemination of research results to internal partners or to external audiences, such as peers, stakeholders, or academic and non-academic audiences. For this our strategy of the original proposal remains in place and is reflected in the Communication Plan.

1. Scope

This document focuses on the shared aims and shared strategy for the ESDiT program and provides a general account of the aims and target groups of the ESDiT knowledge transfer activities. The document does not entail detailed implementation steps of the given strategy, as these will be developed separately, in collaboration with the members of the ESDiT consortium. This document is based on the original strategy of the Gravitation proposal and the results of a series of meetings and an ESDIT workshop on Impact and Knowledge Transfer in 2022.

2. General Objectives

The overall goal of the Knowledge Transfer and Impact plan is to guide the dissemination of knowledge generated in the project to relevant users and stakeholders in society. In our original Knowledge Transfer Plan, we have identified four objectives and four target groups for the impact activities of ESDiT to external stakeholders. The updated strategy concerns these four target groups.

Knowledge Transfer to Technology Developers
Objective: to make technology developers (research centers, labs, companies) aware of potential impacts and ethical aspects of disruptive technologies, and to transfer knowledge and skills for responsible technology development.

The objective of transferring knowledge to technology developers is crucial because disruptive technologies have the potential to drastically alter society and have significant ethical implications that must be considered during their development. By making technology developers aware of the potential impacts and ethical aspects of disruptive technologies, we can ensure that they approach their work

with a sense of responsibility and consideration for the wider social and ethical implications of their work.

Knowledge Transfer to the General Public
Objective: to stimulate societal discussions about ethical issues concerning disruptive technologies and to share the (preliminary) results of the project with a wider audience.

Disruptive technologies have the potential to significantly impact society, and it is essential that the public is informed and engaged in discussions about the ethical implications of these technologies. By stimulating societal discussions about ethical issues concerning disruptive technologies, we can encourage public awareness and engagement with these issues, which can help to shape the development and implementation of these technologies. Through our knowledge transfer efforts, we can work towards a more informed and engaged society and promote a culture of responsible technology development that aligns with ethical principles and societal values.

Knowledge Transfer to Governmental and Nongovernmental Organizations
Objective: to make governmental and non-governmental organizations aware of potential impacts and ethical aspects of disruptive technologies, and to exchange insights from our academic research with stakeholders for more morally responsible technology policy, regulation, and implementation of technology in society and in organizations, and more fair and inclusive decision procedures concerning potentially disruptive technologies.

By making policy makers and NGOs aware of the potential impacts and ethical aspects of disruptive technologies, we can ensure that they have the necessary information to make informed decisions about technology policy, regulation, and implementation. The exchange of insights from our academic research with stakeholders can help to create more morally responsible technology policy and regulation, as well as more fair and inclusive decision-making procedures regarding potentially disruptive technologies.

Knowledge Transfer for Education
Objective: to develop new educational materials and programs that incorporate our research results.

The aim of this objective is to help to equip future generations with the knowledge and skills needed to navigate the ethical implications of disruptive technologies. The transfer of knowledge to education can help to raise awareness of the potential impacts and ethical aspects of disruptive technologies.

3. Translation of the objectives towards ESDiT activities as related to the four categories

3.1 Impact on Technology Developers
Objective: to make engineers aware of the potential impacts and ethical aspects of disruptive technologies and to develop new collaborative models between philosophers and engineers to address these impacts and ethical aspects.

Within the Gravitation consortium, various models have been developed to connect ethics and engineering such as Design for Values, Guidance Ethics, Translational Ethics and Responsible Futuring.

The ESDiT program is a good context to expand this set of approaches and use them to make an impact on engineers. The STEM track, which establishes the connection between ethics and engineering, helps to systematize these efforts to connect the ESDiT research to engineering and is making good strides to implement our vision. Taken together, we aim to: (a) disseminate research in venues read by engineers, (b) connect different approaches in workshops, (c) set up collaborations with researchers in engineering and (d) connect our methods to engineers outside the academic context.

a) Disseminate research for technology developers and engineers

We aim to publish research not only in applied philosophy journals that are read by our peers, but also in engineering journals that have a focus on ethical issues related to disruptive technology, such as the Journal of Engineering Ethics or IEEE Technology, or similar venues. We aim to present our research at interdisciplinary conferences that are attended by engineers, such as the International Conference on Engineering Ethics and Education, or conferences that are visited by STEM researchers and/or technology developers from industry (such as e.g. the Persuasive Technology Conference, or the Behaviour Change for Health Conference).

b) Connect different approaches in workshops

We aim to reach out to engineers by organizing workshops that go beyond philosophers and other academics. These could be e.g., interdisciplinary workshops that bring together engineers, social scientists, philosophers, and other experts to discuss ethical issues related to disruptive technology, or workshops that use value sensitive design or similar methods to facilitate discussions and generate innovative solutions to ethical challenges of disruptive technologies.

c) Set up collaborations with researchers in engineering

We aim to establish research collaborations with STEM researchers. These initiatives will be led by the STEM track and reach out to existing research consortia on disruptive technologies, such as the NWO program on Hybrid Intelligence or similar initiatives. We furthermore encourage our researchers to participate in interdisciplinary research projects that involve ethical considerations.

d) Connect methods to engineers outside academic context

We aim to connect to engineers outside the academic context by exploring partnerships with industry associations and organizations to develop training programs on ethical issues related to disruptive technology for practicing engineers or via conducting workshops and for engineers in industry to increase their awareness and understanding of ethical issues related to disruptive technology.

3.2 Impact on the General Public

ESDiT will reach out to the general public and actively take steps to inform the public on our research findings and engage in a public debate about the ethical aspects of socially disruptive technologies via different means.

Objective: to stimulate societal discussions about ethical issues concerning disruptive technologies and to share the (preliminary) results of the project with a wider audience.

We have identified three major approaches to encourage public debates about socially disruptive technologies. ESDiT will (a) organize or co-organize events for a broader public such as Museum exhibitions, public lectures and events; (b) establish platforms for regular public outreach, such as the ESDiT website and the ESDiT podcast; and (c) encourage and coordinate media activities of the members.

a) Museum exhibitions, public events and festivals

Public events for a broader audience, museum exhibitions and philosophy/science festivals are exciting and interesting ways to explore issues at the intersection of technology and society. Many such events, such as exhibitions, also allow collaboration between philosophers, ethicists, engineers, artists, and historians. ESDiT will organize high-profile events and exhibitions, either on its own, or with relevant partners to reach a large audience.

b) Outreach via ESDiT platforms, such as our website and ESDiT podcast

ESDiT regards the website as its portal to the broader public. Therefore, efforts will be made to enhance the quality, ease of use and visibility of our web and social media presence. This will help journalists and the broader public to find our work and help our input in societal debates. And a wider, general audience that is interested in ethics and technology should be able to get acquainted with our work in an easy way. The website should give easy access to our op-eds, interviews, video talks, and our podcast series. Furthermore, ESDiT aims to continue and further promote the currently running podcast series, which offers a closer look 'behind the scenes' of the program and discloses our work to a wider audience.

c) Media activities of our members

To have media impact ESDiT aims to set up and coordinate a working group that organizes contributions to the national and international public discussion on the ethics of technology, realizing a specific number of media appearances by ESDiT members per year. It is desirable that senior and junior members of the project work together, to enable a new generation of scholars to become 'thought leaders'.

3.3 Knowledge transfer to governmental and non-governmental organization

Objective: to make governmental and non-governmental organizations aware of potential impacts and ethical aspects of disruptive technologies, and to exchange insights from our academic research with stakeholders for more morally responsible technology policy, regulation, and implementation of technology in society and in organizations, and more fair and inclusive decision procedures concerning potentially disruptive technologies

Several consortium members contribute to policy-making practices in relation to disruptive technologies, ranging from writing op-eds in influential newspapers to being a member of ethical committees (local, national, EU, global), and from advising political organizations to writing policy-oriented reports. The ESDiT project offers a possibility to professionalize this policy connection, and to learn from each other's experiences, methods, and approaches. We aim to (a) make an inventory of relevant advisory councils, (b) organize workshops aimed at policy makers and (c) setting up an infrastructure for policy advise.

a) Relevant advisory councils

We aim to make an inventory of advisory councils that ESDiT researchers are members in and organize internal meetings to exchange best practices about co-operation with policy makers for both experienced and junior researchers. We also aim to actively identify new and emerging opportunities to give advice on ethical aspects of disruptive technologies

b) Organizing workshops aimed at policy makers

We aim to Identify policy makers who would benefit from workshops on ethical aspects of socially disruptive technologies, such as government officials, civil servants, and industry representatives. ESDiT aim to organize workshops for stakeholders from policy, either as consortium or in partnership with existing institutions in our network, such as e.g. the Rathenau Institute.

c) Setting up an infrastructure for policy advice

ESDiT will identify members with relevant expertise on specific topics surrounding ethical aspects of socially disruptive technologies and set up an entry for contacts for journalists and policy makers via our webpage.

3.4. Knowledge transfer in education

ESDiT will develop educational material for teaching ethics of socially disruptive technologies to be used at the participating universities and to be promoted to a wider audience at other universities and for a broader audience.

Objective: to develop new educational materials and programs that incorporate our research results.

The researchers of ESDiT have a strong embedding in teaching ethics of technology at their universities and contribute to the 4TU.Ethics graduate school for PhD candidates as well as to the Dutch Research School for Philosophy. Several members of ESDiT also have experiences with developing online courses for a broader audience. ESDiT will build on these existing activities and develop teaching materials, modules and courses to disseminate our research results. Specifically, we aim at developing and implementing (a) educational material at the BA and Master level for engineers at technical universities, (b) educational material for philosophy programs, (c) courses dedicated for engineering professionals. We will further (d) hold lectures and educational activities for a broader audience.

(a) Educational material at the BA and Master level for engineers at technical universities

ESDiT researchers will implement research results into their teaching. All technical universities offer various courses for engineers, in which ethical aspects of disruptive technologies can be discussed, our research results can be used as reading materials, and selected cases can be used as case studies.

(b) Developing educational material for philosophy programs

ESDiT also aims to implement research results as part of the teaching of the non-technical universities of the consortium. Options that will be explored can cover activities such as creating a repository of

educational resources, including papers, case studies, and video lectures, on the ethical aspects of disruptive technologies, and the implementation of research results into the trainings of PhD students in philosophy at 4TU.Ethics and/or the Dutch Research School of Philosophy.

(c) Developing courses dedicated to engineering professionals

ESDiT aims to develop dedicated teaching materials aiming at engineering professional and/or the broader public. Activities could include the development and implementation of Master Classes and/or MOOCs that use research results, case material and other results of ESDiT researchers and are being taught by members of affiliated members of the research consortium.

(d) Lectures and activities for a broader audience

ESDiT aims to also reach out to the general public through open workshops and or hosting public lectures and debates to engage the public in conversations about the ethical implications of disruptive technologies.