

What does a Digital Ethicist do?

Introduction

Because technology plays a major role in our daily lives, it is important to avoid a negative social impact of technology during development as much as possible. Yet, in practice, this is difficult, despite e.g. the different tool sets available to do so. In our report on 'Ethical principles and (non-)existing legal rules for AI' (only available in Dutch), we recommend the creation of a function that monitors the social, ethical and legal perspective of impactful technology. In this publication, we call such a person a digital ethicist. But what exactly does a digital ethicist do and what place can he or she have in your organisation? That is what this publication is about.

A digital ethicist (DE) can develop and maintain an ethical culture within the company and actively monitor a social perspective within innovation processes. The goal is to make ethics not an afterthought, but a central pillar within the organisation, whereby the impact of technology is considered throughout projects. The idea of an ethics officer in general, and for technological applications specifically, is on the rise and is seen as an important 'future job'¹. Yet there is little consensus on what that role looks like: what exactly is and is not included in the job description and how can someone take on that role in an organisation²? Within this document, we try to give a general but specific description of (1) the function of a digital ethicist and (2) how this role is situated within an organisation.

1 <https://www.forbes.com/sites/insights-intelai/2019/03/27/rise-of-the-chief-ethics-officer/>

2 Moss, E. & Metcalf, J. (2020). Ethics Owners: A New Model of Organizational Responsibility in Data-Driven Technology Companies. Report of Data & Society Research Institute, New York. - <https://datasociety.net/library/ethics-owners/>

Because of the novelty of function profiles as a digital ethicist, we will continue to refine this publication. If you have any questions, input or feedback on how we can further refine this profile, please let us know.

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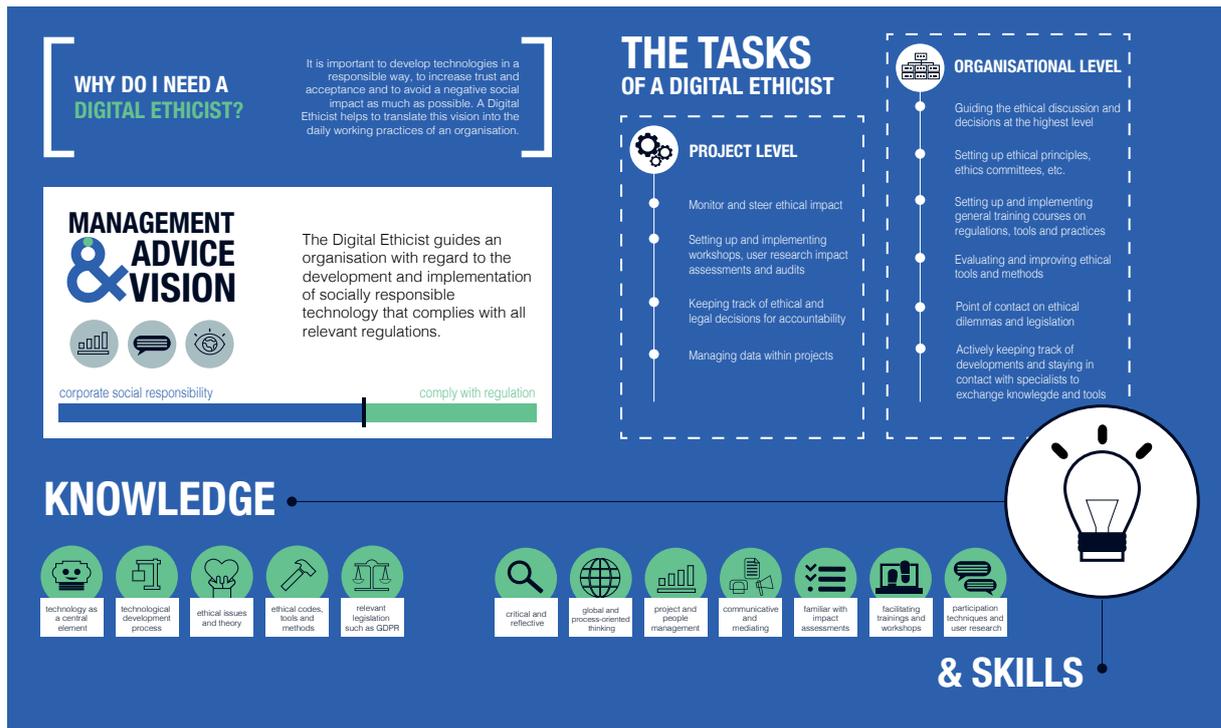
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1. In short

We briefly describe the profile of the digital ethicist in an infographic and a brief job description.

What does a **DIGITAL ETHICIST** do?



A Digital Ethicist (DE) guides an organisation in the development and implementation of socially responsible technological innovation. This person has two main responsibilities:

- Ensuring that applications comply with (inter)national regulations applicable to AI and (digital) technology.
- Establishing, implementing and translating the company's ethical standards and values to the workplace for the development of (digital) technology with a positive impact on people, society and the world (corporate social responsibility).

A DE moves between all layers of the organisation to help decide the direction of the organisation and, within projects, to ground the social perspective in working practice. The DE can be a single person, but can also be a team of people who (partly) take on this role.

1.1. Task description

- A DE thinks along on a management level about the future direction of the organisation and which projects, ideas and initiatives can, or cannot, be carried out from a social perspective, or only if adjustments are made.
- A DE builds an ethical, responsible culture in all layers of the organisation by
 - setting up and further developing statements of principles, codes of ethics and ethics review boards within the organisation,
 - setting up general training on important regulations, tools, methods and ethical (product) development,
 - evaluating to what extent the methods and tools used by the DE add value to the process.
- A DE is a point of contact for questions, problems and solutions regarding ethical dilemmas and legislation related to technological innovation.
- A DE keeps close contact with legal specialists, ethicists, and similar roles in other companies and knowledge centres to share knowledge, tools and practices and translate this to the work floor.
- In development projects, the DE is involved from start to finish to monitor and guide the ethical impact, using various techniques, such as workshops, brainstorming sessions, user research, impact assessments, auditing and testing of prototypes and data management.
- A DE logs all decisions on ethical and legal aspects during the project, for justification afterwards.

1.2. Required knowledge and skills

A DE has knowledge of...

- the operation and ethical concerns of the technology that is central to the organisation;
- the development process of technological innovations;
- general ethical questions relating to technology, ethical theories and practices from engineering ethics, research ethics for human subjects, business ethics and/or professional ethics;
- ethical codes and tools for use in the development process;
- (basic) knowledge of GDPR and other relevant regulations.

General skills. A DE...

- is critical and reflective, and can translate working points into pragmatic solutions;
- can easily adopt a global metaperspective, and can think in process terms;
- is good at project management and people management;
- is communicative and able to bring stakeholders to consensus;
- Is familiar with impact assessment techniques;
- is familiar with organising and facilitating training courses, workshops and brainstorm sessions;
- is ideally also familiar with participatory (research) techniques and user research.



2. Detailed job description

2.1. What is a DE? What is his/her role?

- The DE guides the company in the development and implementation of socially responsible technological innovation.
- One aspect of this is to comply with (inter)national regulations applicable to AI and (digital) technology (compliance).
- Furthermore, the DE has the task of drawing up, implementing and translating the ethical norms and values of the company for the development of (digital) technology with a positive impact on people, society and the world (corporate social responsibility).
- The DE moves between all layers of the organisation to help decide on the direction of the organisation and, within projects, to ground the social perspective in working practice.
- The DE can be one person, but can also be a team of people who (partly) take on this role.
 - The role can also be outsourced to an external partner (innovation ethics as a service), but that is less ideal to be able to integrate ethics within the entire organisation and work processes from start to finish.

2.2. What are the tasks of a DE?

At the **organisational** level:

- A DE is responsible within the organisation for ethics and regulations in (digital) technological innovation.
- A DE builds an ethical culture within the organisation. This means that this person creates an environment where reflection, the posing and discussion of (ethical) dilemmas is encouraged, so that there is awareness and a sense of responsibility among all employees.
- Part of this is also
 - setting up and further developing statements of principles, codes of ethics and/or ethics review boards within the organisation,
 - setting up general training courses on important regulations and ethical (product) development providing useful tools and methods and offering training in the use of these tools.
 - evaluating to what extent the methods and tools used by the DE add value to the process.
- A DE is a clear point of contact for questions, problems and solutions concerning ethical dilemmas and legislation concerning technological innovation. Employees of the organisation (and possibly even customers or users) can report problems in a safe, anonymous manner to the DE, who will then



take them up within the organisation.

- A DE is in contact with legal specialists for advice on regulations and possible legal dilemmas and can translate this advice to the work floor.
- A DE is in contact with similar roles in other companies and knowledge centres to share knowledge, tools and practices (e.g. through a professional association).
- A DE thinks along on a management level about the future direction of the organisation and which projects, ideas and initiatives can, or cannot, be carried out from a social perspective, or only if adjustments are made. A DE does not necessarily take the decisions itself at the highest management level, but does point out possible ethical implications to managers, offers strategies and clarifies the options available to managers.
- In organisations where an ethics committee has been set up, it is the task of a DE to convene the ethics committee at regular intervals. A DE prepares the agenda for the committee and highlights the ethical choices to be made.

On the **project** level:

- In development projects, a DE is involved from start to finish to regularly monitor the ethical impact and steer the project from a social perspective. To do this, this person uses different techniques, depending on the needs of the project:
 - Organising and facilitating workshops and brainstorming sessions with the project team in order to include the societal perspective in the development of the relevant technology.
 - Involving the norms and values of various stakeholders, (end) users and non-users in the development process by means of public consultations, user research and participation techniques.
 - Carrying out impact assessments and assigning actions for improvement.
 - Auditing and testing prototypes and models from different ethical values and with different stakeholders and (end) users.
 - A DE can be (co-)responsible for the management of the data in a safe, responsible and correct way.
- A DE logs all decisions with ethical or legal aspects during the project, in order to be accountable afterwards.

2.3. What are the biggest challenges for a DE?

- A DE must find a good balance between personal and social principles and the market reality of the organisation.
- For a DE, it is easier to plead within an organisation for prevention of harmful outcomes, than for a positive impact on people and the world.
- A DE has to adapt his way of working to the business model and the specific norms and values of



the organisation.

- A DE cannot fall back on a standard set of tasks.
- A DE will have to find ways to make ethical impact measurable within organisations, where quantitatively measurable results are often more important than qualitative results.
- A DE often has to make an effort to not only research stakeholders and users of the product (where there is more data), but also the impact on non-users and society in general.
- A DE may have to deal with innovations that are rolled out on a large scale and globally. However, ethical impact is often linked to specific situations and contexts. A DE will then have to find ways to broaden the scope of research on ethical impact as well.
- A DE must combine an ethical perspective with regulatory compliance. But what is ethically the right thing to do does not always tie in with legal obligations and vice versa. (For example, to ensure the reliability of an algorithm, it may be necessary to collect sensitive personal data from users).
- A DE will have to involve itself actively in the various projects in order to bring about real change and not just watch from the sidelines.

2.4. What skills and knowledge does a DE need?

A DE has

- (basic) knowledge of the operation of the technology that is central to the organisation (AI, ML, product, etc.) - being able to discuss and know what ethical issues there are with what technology;
- An understanding of ethical concerns for technology, ethical theories and practices from engineering ethics, research ethics for human subjects, business ethics and/or professional ethics;
- knowledge of ethical codes and tools for use in the development process;
- insight into the development process of technological innovations;
- (basic) knowledge of GDPR and other relevant regulations.

General skills. A DE...

- is critical and reflective, and can translate working points into pragmatic solutions;
- can easily adopt a global metaperspective, and can think in process terms;
- is good at project management and people management;
- is communicative and able to bring stakeholders to consensus;
- Is familiar with impact assessment techniques;
- is familiar with organising and facilitating trainings and courses, workshops and brainstorm sessions;
- is ideally also familiar with participatory (research) techniques and user research.



3. The Digital Ethicist in the organisation

3.1. What structures and resources does a DE need?

- A DE is involved in projects and on the work floor in order to be able to include the social perspective in all layers of the organisation and from start to finish.
- In order to function properly, it is important that a DE has the freedom to be critical and that the problems that are raised are listened to and acted upon.
- A DE has a say in the go/no-go moments for projects and new initiatives.
- A DE has the opportunity (time and budget) to include the user perspective in the development process with the help of participatory (user) techniques and user research.
- To bring about real change, it is important that the entire organisation cooperates with the DE's ideas and advice.

3.2. Related profiles: similarities and differences

A DE can be a role that is taken up (in part) by a person who also fulfils other functions within the organisation. Below, we list a number of other function profiles that show affinity with the DE function. We also describe where they differ and where they have common ground.

3.2.1. DPO

A DPO ensures that personal data are processed and stored correctly, in compliance with the rules of the GDPR. A DPO informs and advises, and also functions as a point of contact, but does not take any executive decisions himself.

Similarities:

- Informing, advising and point of contact role
- Focus on compliance with data processing regulations
- Focus on changing the way of working and how data is handled
- In contact with management / highest administrative level

Differences:

- DPO is an independent role and cannot make decisions in all aspects of projects, whereas the DE is actively involved within projects and has more of a steering role in decisions and developments
- The DPO's focus is narrower, only on privacy and data protection, whereas the DE has a broader social perspective and also involves other ethical values



A DPO can also be a DE if he builds up skills to include the broader societal, ethical perspective in projects. A DPO will have to learn how to contribute more extensively to the development process, e.g. by learning to use participatory (research) techniques.

Pitfall: a DPO as ethics officer can quickly have a too narrow focus on privacy and data only.

3.2.2. Business analyst

The business analyst supports the company in the area of designing and improving business processes. In doing so, he or she functions as the spider in the web between the business departments and the supporting departments such as IT, Marketing and HRM.

Similarities:

- Bridging the gap between organisation-wide and project-specific thinking: both are a link between project managers, the board of directors and various stakeholders
- Focus on changing and improving business processes and ways of working
- Thinking together on solutions

Differences:

- A business analyst focuses on business/financial strategy and approaches projects less from a broader societal perspective

A business analyst can be a DE if he or she builds up more background knowledge on ethics and corporate social responsibility.

3.2.3. Interaction designer

Researches and designs products, applications and interfaces, starting from the perspective of the user or a human being.

Similarities:

- User research
- Thinking about and of human-technology relationships

Differences:

- Looks more at the individual level than at societal level
- Looks more at interfaces/application and less at underlying algorithms/systems
- Has more of a 'how do people work' perspective than a 'what is good for people' perspective
- Works within projects, but does not decide on an organisation-wide basis



An interaction designer can be a DE if he/she builds up more skills in management and can think from a social, ethical perspective.

Pitfall: an interaction designer as a DE can possibly focus too much on all the different (user) perspectives and try too little to make the development process more ethical.

3.2.4. Project manager

Leads projects, maintains an overview of the proposed goal and end result.

Similarities:

- Keeps an overview and a broad perspective
- Coaches people or teams
- Central point of contact
- Setting up and coordinating project plans

Differences:

- A project manager leads the entire project, the DE only specifically leads the ethical/social part of the project
- A project manager often does not carry out any (user) research him-/herself
- A project manager works at the project level and is not, or less, involved in organisation-wide decisions

A project manager can be a DE if he or she acquires more skills in how to include the ethical/societal perspective in projects.

Pitfall: managing too much and not doing enough research from the social perspective.

3.2.5. Ethical committee or board of ethics

Gives ethical advice and can (in some cases) approve or disapprove of projects, research, actions (as for example in the medical world).

Similarities:

- Has an ethical and social perspective on what is right and wrong
- Gives ethical advice

Differences:

- Focus on individual cases and not on a technology that will affect many users
- Is not actively involved in projects and does not contribute to the development itself



- More judgmental than solution-oriented (although an ethicist/board of ethics can also have a great deal of expertise in coming up with good solutions)

An ethicist or board of ethics may take on the role of DE if it acquires skills to take an active role throughout the development process of technological innovations and further experience in project management. It is likely that a DE will convene an ethics committee and prepare dossiers for them, highlighting choices, which the ethics committee then has to make the final judgement on.

Pitfall: being too much on the sidelines of the development and therefore not being involved in the decisions that are made.

3.2.6. Product owner

Is responsible for the development of products within the organisation and manages the entire product development process.

Similarities:

- Keeping an overview and a broad perspective
- Central point of contact
- Drawing up and coordinating planning
- Familiar with the technical side of the product

Differences:

- A product owner guides the development of the product more holistically, where a DE has a more focused perspective on ethics/society
- Is less involved in organisation-wide decisions

A product manager can take on the role of DE as he/she builds up more background knowledge and skills on ethics and corporate social responsibility.

3.2.7. Sustainability manager or impact manager

Is responsible for managing and finding ways and strategies to integrate sustainability into the business.

Similarities:

- Manages and implements new work processes and culture from a particular perspective
- Works between different departments
- Carries out assessments



Differences:

- Focus on sustainability and ecology
- Can use existing and standardised processes and assessments.

A sustainability manager can take on the role of DE if he or she has a broader social perspective, and builds knowledge and skills on ethics and corporate social responsibility

Pitfall: a too narrow focus on sustainability.

3.3. A typical week of a DE

To make it even more tangible what a Digital Ethicist does, we have worked out a fictitious example of what a DE's week might look like.

Monday afternoon 14.00-17.00

The kick-off meeting of a new project, project C, is about to begin. The last employees are still entering the meeting room. Everyone involved in the project is present at this first meeting: from programmers and data scientists to UX designers and the DPO. The project manager leads the kick-off, but the DE also has a central role in the meeting.

They discuss the goal of the project, what they are going to work towards and how they plan to get there. The DE supervises a short brainstorming session about the possible stakeholders and users, about social issues that may be of importance, what bias may arise from the training data and how they can anticipate this. In this way, everyone is immediately aware of the impact the new AI system can have. A strategy for safe and responsible data management is also drawn up immediately, together with the DPO.

The attendees decide when in the project the DE will return to supervise the project from a social perspective.

Tuesday morning 09.00

With the morning coffee, the DE opens the mailbox and finds an interesting new (ethical) design tool in a newsletter. With a few clicks, it is quickly clear that the tool is made for AI developers. The tool offers a basis for working around a number of values that the organisation where the DE works also strives for. Perhaps this week, the DE will already be able to try out this tool and see if it can add something to various projects.

Tuesday afternoon 16.00



An email from the project manager of project B. They have just run into a dilemma during the team meeting and ask for the DE's advice. They schedule a meeting for tomorrow morning and the DE uses the rest of the afternoon to read into the project and to study the dilemma and the possible solutions. Perhaps the new tool will come in handy here!

Wednesday morning 11.00-12.30

The core of project team B meets with the DE. They present the dilemma. By listening carefully and asking critical questions, they find out exactly what the tricky part of the situation is. Then the DE introduces the new tool, structuring the discussion and making them think of different solutions. Together, the team comes to a consensus on what they think is most important and how to ensure it in their AI system.

The DE schedules an extra meeting for next week to follow up on the solution and help detect and solve new problems.

The tool seems to have potential and with some adjustments specific to the organisation/project, it can be a good addition. The DE works out the adjustments and adds the tool to the list of tools that can be useful in projects.

Thursday morning 09.00-11.00

The European Commission has announced new regulations on AI, which will come into effect next month. Together with a legal specialist, the DE has set up a training for all project managers so that they are aware of the main points and how the regulation can change their process.

Thursday afternoon 15.00-17.00

The DE joins a milestone project meeting of project A. The project is already in its final stage and the model will be presented this afternoon. The DE asks critical questions and actively reviews the social perspective. The DE has doubts on a few points and indicates that these should definitely be included in the test phase to check how users react to them. It is possible that the problem can be solved with a few simple adjustments. The DE agrees to help design the user tests.

Friday morning 09.00-10.30

During the board meeting on Friday morning, the DE reports on the state of affairs in the ethical and social field and presents some problems to the other directors in which decisions must be taken. New customer questions and product ideas are also presented, on which the DE reflects whether and how they can be fitted into a project in a responsible manner.

Friday afternoon 15.00-17.00

For project D, the DE conducts a number of interviews to find out how end users evaluate the prototype



application in terms of privacy and transparency. The interviews are part of an impact assessment that the DE is carrying out, and the DE will report these to the project team to improve the social impact and the acceptance rate of the product.

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