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# Developing an Integrity Policy for a Technical University: The Case of TU Delft

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## Abstract

Integrity is an increasingly important topic at universities, due to more awareness as well as due to internal and external challenges. This paper tells the story of the development of the integrity infrastructure at Delft University of Technology in the Netherlands, a leading engineering university. We write this paper as academics and philosophers working at TU Delft and as members of the committees and working groups that, over the previous decade, took up the question of how to ensure integrity within our university. Thereby we also engaged with the question of what integrity at a university ought to be like as well as who has which responsibilities to support it. In this paper we will discuss key narrative themes that arose from the insights gained through this process. The intention in sharing this story is to guide fellow academics in similar positions, struggling to identify the needs of faculty, staff and students, who wish to act with integrity but who require institutional support and clear guidance to do so. In particular, we wish to highlight a key tension, between the need to formalise general basic requirements and the wish to have clear thresholds for good and bad behaviour, and the daily practice of integrity which requires context-sensitive awareness, respect, diversity, open-mindedness and continuous engagement with any principles laid down. We present our case through narrative form in order to trace both the points where and how this tension took form, and to note potential leverage points in such processes for others. The process of creating an integrity infrastructure, that is, both embodies and illustrates this tension as well as offering some ways to ease or accommodate it. Further, we present in this paper a key contribution of the integrity policy developed at TU Delft: the creation of an infrastructure and Code of Conduct that attend not only to academic integrity, but draw out and enact the responsibility frameworks and duties entailed by social and organizational integrity as well, which together constitute the three pillars of TU Delft's integrity policy. As academic integrity relates to issues such as research ethics, social integrity relates to behavior between people (employees and students), and organizational integrity relates to issues such as conflicts of interest and collaborations with external parties. Of course, challenging situations will often

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involve aspects that fall under more than one of these pillars, but the pillars help to provide conceptual clarity. In this way the integrity infrastructure developed at TU Delft is richer and more ambitious than policies that focus primarily on what we call ‘academic integrity’.

**Keywords** University integrity policy · Academic research integrity · Ethics · Technology · Code of conduct

## Introduction

Increasingly, integrity is a frontline issue for universities. There are for example power abuses inside universities but also by authoritarian leaders that try to exert influence on universities. In this paper, we offer an illustrative case in developing what we call an ‘integrity infrastructure’ in the context of a technical university, specifically Delft University of Technology (TU Delft), the largest engineering university in the Netherlands. The development of the policy has been led by academic ethicists working at TU Delft, in collaboration with many stakeholders of the university and with strong support by the management of TU Delft, thereby ensuring highest quality standards as well as an inclusive and tailor-made approach. This relates to ethics teaching and research, but also to integrating explicit attention for ethics, responsibility and integrity into the *modus operandi* of the university as a whole. Our reflections on our own experiences of this process of development, the role of philosopher-ethicists working at TU Delft, and the importance of collaborations at multiple levels and across disciplines, have led to insights we think will be valuable to those in similar contexts and positions.

Many universities around the world are working on integrity policies (cf. e.g. Bretag et al., 2011 for a survey of such developments in Australia). Such integrity policies should address the scientific integrity of individual researchers and students (cf. e.g. McCabe & Pavela, 2000; Whitley & Keith-Spiegel, 2010; Glendinning, 2016; Bretag, 2016; Morris, 2018; Pell & Amigud, 2023; Golden et al., 2023; Kennedy et al., 2023; Pizzolato & Dierickx, 2022). Academic integrity is typically seen as the most important integrity issue for a university to track. However, more recent attention to other issues that arise on university campuses, such as power abuses, harassment, discrimination, etc., show us that integrity policies ought to cover a wider scope. Further, increasing collaborations with industry and at a global scale introduce the importance of shared values such as those related to human rights, in addition to avoiding the usual conflicts of interest. This is especially urgent in the case of technical universities, given the profound impact that new technologies can have on society, intended or unintended, for better or worse, and given the regular collaborations these public institutions (and their students and employees) have with private industry.

In order to address these issues, the integrity policy developed at TU Delft is built on three ‘pillars of integrity’: next to *academic* integrity, also *social* and *organizational* integrity. As academic integrity relates to issues such as research ethics, social integrity relates to behavior between the members of the TU Delft community

(employees and students), and organizational integrity relates to issues such as conflicts of interest and collaborations with external parties. Of course, challenging situations will often involve aspects that fall under more than one of these pillars, but the pillars help to provide conceptual clarity. In this way the integrity policy developed at TU Delft is more encompassing than policies that focus primarily on what we call ‘academic integrity’. Based on these pillars, TU Delft has further developed its integrity infrastructure and Code of Conduct.

Both authors of this paper played key roles in the processes described in this paper. In that sense we work in the spirit of the method of participatory action research, and we present our experiences here. We are members of the Ethics and Philosophy of Technology section at TU Delft, which focuses on philosophical research and teaching related to ethical and methodological issues that arise with the development of technology. Our work with the integrity policy is both input for and output of our research, and a further step toward integrating new insights in ethics into the practices of engineers and the universities that train them.

In this context, we wish to highlight a key tension that emerged in the development of the integrity policy, namely between on the one hand the need to formalise general basic requirements and the wish to have clear thresholds for good and bad behaviour, and at the same time on the other hand the daily practice of integrity which requires respect, diversity, open-mindedness, context-sensitive awareness, and continuous critical engagement with and reflection on policies and principles. The approach developed at TU Delft has tried to address this by building supports that enable and guide individuals to act with integrity, while also encouraging open discussions about integrity throughout the university community, e.g. by providing ways to encourage collaborative deliberation on challenging and complex issues. As practice evolves and new ethical issues emerge, this process remains ongoing.

We present our case through narrative form in order to trace both the points where and how this tension between general rules and concrete practices took form, and to note potential leverage points in such processes for others. The process of creating an integrity infrastructure, that is, both embodies and illustrates this tension as well as offering some ways to ease or accommodate it.

## The History of Integrity Policy at TU Delft: 1990s-2017

In this section we reflect on the early history of the integrity policy at TU Delft to provide for a narrative case study that explicates how philosophers at a technical university have contributed to establishing an integrity policy in close collaboration with leaders and other members of the university, in order to ensure high quality standards as well as context-sensitive embedding and support within the organization.

The close relationship between philosophy and the integrity policy of TU Delft began with the championing of ethics education for all of its students, in the 1990s.<sup>1</sup> A handful of philosophers were hired to develop and provide bespoke ethics and philosophy of science courses for engineering students. At that time, few universi-

<sup>1</sup> <https://www.delta.tudelft.nl/article/ethiek-wordt-verplicht-vak>.

ties around the world provided ethics teaching to engineering students. In the United States, there were some programs that did so, and there were various US-based textbooks (e.g. Martin & Schinzinger, 1983; Harris et al., 1994; Whitbeck, 1998). In the mid-1990s, Dutch engineering universities started to offer ethics courses to their students on a greater scale. Often the focus in earlier approaches was on academic integrity (e.g. Vesilind 1996) or organizational integrity, e.g. by focusing on the role of the engineer in cases such as the Challenger disaster (e.g. Whitbeck, 1998). However, ethical challenges for engineers also concern the specific designs of the technologies they develop, and the role of these technologies in complex societal settings. The Ethics and Philosophy of Technology Section (EPT) of TU Delft developed its own approach to engineering ethics teaching<sup>2</sup> from the start, also addressing the unique ethical challenges that arise in all phases of technology development, including the design phase, the risk analysis and risk management phase and the implementation of technologies in society. The members of the EPT Section have done so by thoroughly engaging with engineering colleagues to ensure their teaching materials optimally connect with the needs of established and emerging engineering programs and challenges (Zandvoort et al., 1999; Van de Poel et al., 2001; Doorn & Kroesen, 2013; textbooks developed by members of the section include Van de Poel & Royakkers, 2011 and Taebi, 2021). EPT has further developed its own teaching approach through decades of practice, and in close consultation with the engineering departments of TU Delft (for a detailed discussion of the Section's current teaching approach, cf. <https://www.tudelft.nl/ethics/>, and van Grunsven et al., 2021). Given the size of the university (with more than 26,000 BSc and MSc students) and the complexity of adapting education programs, a diversity of teaching approaches is unavoidable and helps to provide for tailor made approaches for different degree programs. One major organizational issue is that programs are already fully packed and need to create room for ethics teaching. This is often easier in the context of a replanning of a degree program, when room for ethics teaching can be scheduled in from the start, so these efforts have had to be timely as well as collaborative. The scope of ethics and philosophy topics relevant to engineering students is growing, as programs expand to address complex issues such as climate change and AI, and technologies developed at the University have ever increasing impact on society. Adaptability and responsiveness have been and continue to be key elements of teaching ethics at TU Delft, with instruction taking place in many contexts (as modules, in lectures or workshops, with large classes and small groups) and for students from diverse backgrounds and with different needs. Hence, the EPT Section has expanded to have the capacity to address these issues. Many members of EPT are not only trained as philosophers but also have additional degrees in STEM or social sciences and bring to bear this diverse disciplinary training and expertise to the ethical aspects, opportunities and challenges of technological innovations. The perspective of EPT is thus deeply interdisciplinary.

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<sup>2</sup> Furthermore, the Section provides mandatory sessions on scientific integrity for all PhD-students of TU Delft as well as courses on research design. Finally, the Section provides courses on methodology and philosophy of science for various programs (on BSc-, MSc- and PhD-level; for more information see <https://www.tudelft.nl/ethics/>).

Explicit cross-disciplinary sharing of expertise dominates not only the teaching of EPT, but also the research of the Section members, who typically work in close yet critical collaboration with engineering experts. The research of EPT is grounded in what has been called the ‘empirical turn’ in philosophy of technology (Kroes & Meijers, 2001). Colleagues at EPT have thereby developed various new research approaches, concerning e.g. responsible innovation, design for values and risk ethics (cf. e.g. Sand & Copeland, 2020; Taebi et al., 2014; Van den Hoven et al., 2015; Roeser, 2018; Roeser & Steinert, 2019, to mention a few). Over the last decades, members of the EPT Section have successfully contributed to new research funding schemes, founded research institutes and acquired prestigious research grants in ethics and philosophy of technology, thereby solidifying their role as researchers as well as educators within TU Delft, grounded in close collaboration with engineering experts.

Furthermore, in the same embedded and collaborative way, EPT has played a vital and active role in the development of TU Delft’s integrity policy since the 1990’s, when the Platform for Ethics and Technology<sup>3</sup> was established. The idea behind the Platform for Ethics and Technology was to foster deliberation without setting up formal rules or guidelines. However, in light of the complex challenges of academic practices, more formal and specialized committees were eventually needed – here was an early encounter with the tension mentioned in the introduction, where the need for formal structures to support the desired deliberative processes clearly presented itself. For instance, a formal process for the independent investigation of potential scientific integrity issues, such as conflicts of interest or accusations of fraud, was needed, and established in the form of the Academic Integrity Committee.

A second identified need was a formal process for ensuring that research involving human subjects at TU Delft is conducted in an ethical way. That is why in 2012<sup>4</sup> TU Delft established the Human Research Ethics Committee, or HREC. HREC is TU Delft’s institutional review board, assessing all research involving human subjects taking place at or through TU Delft. While medical ethics committees have long been legally required in the Netherlands, no such requirements existed at the time for social science or engineering research. However, these disciplines also do research involving human subjects, which gives rise to ethical issues that need to be addressed and assessed. TU Delft’s initiation of the HREC was pioneering for engineering universities in the non-Anglophone world (cf. Koepsell et al., 2015).

The policies of HREC are in part also more demanding than for example the GDPR, to do justice to context-specific ethical concerns that may not be legally codified, based on deliberation within the committee and where needed in consultation with the researchers. There is an ongoing need for HREC to address the specific circumstances of research projects, but also to integrate new insights into its procedures. This is another example of how the tension between strict rules and context-sensitive deliberation has been institutionalized to handle it effectively.

<sup>3</sup> <https://www.delta.tudelft.nl/article/ethiekplatform-voor-ontwerp-en-onderzoek>.

<sup>4</sup> Also in 2012, the first TU Delft Code of Conduct was developed, but we address this in a following section.

Members of the EPT section have played leading roles in setting up and chairing these initiatives, procedures and committees. Thus, early and ongoing involvement of the experts at EPT in deep collaboration with other Faculties, the administration and educators, led to the creation of formal contexts in which deliberation and education on issues relevant to ethics and integrity could take place.

## **TU Delft's Vision on Integrity (2018–2024): an Inclusive and Reflective Procedure for a New Integrity Strategy**

Over the course of 2017, the so-called coordination group on integrity developed a systematic inventory of the existing integrity infrastructure of TU Delft, as well as an inventory of desirable but missing elements. The resulting report came together with recent developments in (inter)national legislation and codes of conduct committed to by TU Delft, policy changes in respect to Open Science, data management and diversity. These changes led to a need for revising the code of ethics that was developed in 2012, and a full update of TU Delft's integrity infrastructure in accordance with the new institutional strategy. The result of the recalibration process that followed was the development of the 'TU Delft Vision on Integrity 2018–2024' (VoI; Roeser et al., 2018)<sup>5</sup> by the Committee Reassessment Integrity Policy, reporting to the Rector of TU Delft.<sup>6</sup>

Two features of this process should be noted: first, previous consultations (during 2012) had organizational integrity as their focus; academic integrity played only a small role and social integrity had not been mentioned explicitly. During the consultation process for the new Vision on Integrity, it became clear that these different dimensions of integrity: academic, organizational and social integrity, are of crucial importance for a university integrity policy and should each be explicitly addressed. In the new Vision on Integrity, what would be called the three pillars of integrity would be separately treated in order to highlight their interdependence as well as each's distinct importance. The process was inspired by research approaches developed by the EPT section that emphasize context-sensitivity, inclusivity, the direct involvement of stakeholders as well as special attention to their experiences, values and concerns (Correljé et al., 2015; Roeser and Pesch 2016; Roeser, 2018). Thus, the process of developing the new integrity policy was highly interactive, giving all members of the university an opportunity to provide input. The resulting Vision on Integrity included an update of the Integrity Infrastructure, an Integrity Statement—certain foundational and normative boundaries that arose from deliberations, suggestions for a new code of conduct, integrity workshops etc.

Developing the Vision on Integrity through deliberation, and the follow up activities via working groups to develop a new code of conduct and update other aspects of the Integrity Infrastructure, were acts of negotiation between the need for formal

<sup>5</sup> <https://www.tudelft.nl/en/about-tu-delft/strategy/integrity-policy/tu-delft-vision-on-integrity-2018-2024>.

<sup>6</sup> I.e. the highest administrator of TU Delft, in other countries the title might be that of president of the university.

policies and structures and yet also the need for flexibility, space for further deliberation and adaptation. On the one hand, participants were frequently concerned that developing a more thorough integrity policy would generate more bureaucracy without actually changing peoples' mindsets or creating awareness. More documents, that is, would not lead to better integrity overall. On the other hand, the lack of clear guidance on difficult situations could lead to unfairness and ad hoc handling of potentially harmful behavior,<sup>7</sup> and there was an obvious need for systematic attention for and the deliberation on ethical dilemmas that arise everyday in the university. The Vision on Integrity, thus, aimed to address this tension by providing for proposals on strengthening the infrastructure itself, codifying key values and guidelines, as well as increasing awareness through education and deliberation and awareness activities for employees.

### Strengthening the Infrastructure

Table 1 presents TU Delft's integrity infrastructure as conceptualized in the Vision on Integrity, organized via the three pillars of academic, social and organizational integrity. Each of these pillars consists of seven components, representing the various elements of the infrastructure relevant to integrity at TU Delft. It indicates, in each pillar, what permissions are required, which people ought to be consulted on integrity issues, who has responsibilities of investigation and regulation and how the infrastructure is coordinated.

In the Fall of 2018, the former 'Coordination Group Integrity' was replaced with a more substantive Integrity Office, which coordinates the implementation of the Vision on Integrity, and an Integrity Board to oversee this. The Integrity Office has a coordinator as well as policy advisors for each of the pillars. The Integrity Office and Integrity Board are chaired by an Integrity Officer, a full professor of ethics of TU Delft. Information on the updated integrity policy was made available via the new website [www.integrity.tudelft.nl](http://www.integrity.tudelft.nl), a user-oriented and up-to-date resource. The website worked to draw together in one place information on existing committees and rules that had arisen organically or individually, but ought to be part of a single system. New hires allowed for the expansion of HREC expertise into the domain of medical technology.<sup>8</sup> The existing infrastructure of confidential advisors across the university was updated and expanded, an ombudsperson was hired, and introductions to new employees now includes a workshop on the integrity infrastructure and ethical deliberation in the workplace.

The creation and expansion of the integrity infrastructure at TU Delft was intended to introduce both more awareness of issues that can arise and how to resolve them, as well as multiplying the spaces and methods for deliberation about integrity issues. The creation of committees and additional confidential advisors, for instance, provide

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<sup>7</sup> Recently a new Code of Conduct has been developed that provides yet more explicit guidelines, as the experience over the past years showed that this was needed.

<sup>8</sup> For the purpose of guiding researchers; ethical review committees for medical technology exist at medical centres at other Dutch universities with whom TU Delft researchers frequently collaborate and whose procedures they follow in such cases.

**Table 1** TU Delft integrity infrastructure

	Academic Integrity	Social Integrity	Organisational Integrity
Information	<p><b>Integrity Roadmap</b></p> <ul style="list-style-type: none"> <li>• Research ethics</li> <li>• Research integrity</li> <li>• Educational integrity</li> <li>• Responsible research cooperation</li> <li>• Research data management</li> <li>• Open Science</li> </ul>	<ul style="list-style-type: none"> <li>• (Un)desirable behavior</li> <li>• Diversity &amp; inclusion</li> <li>• Work pressure</li> <li>• Interactions between staff and/or students</li> </ul>	<ul style="list-style-type: none"> <li>• Managerial integrity</li> <li>• Responsible cooperation</li> <li>• Ancillary activities</li> <li>• Responsible operational management</li> <li>• Fair treatment/assessment of students and staff members</li> <li>• Data management</li> </ul>
Regulation	<p><b>Integrity Statement &amp; Code of Conduct &amp; Declaration of Integrity</b></p> <ul style="list-style-type: none"> <li>• Code of Honour (for students)</li> <li>• Regulations on Academic Integrity Complaints</li> <li>• Fraud prevention framework</li> <li>• Research Data Framework Policy</li> </ul>	<ul style="list-style-type: none"> <li>• Regulation Complaints about Undesirable Behaviour</li> <li>• Diversity &amp; Inclusion policy framework</li> <li>• University Action Plan Work Pressure</li> </ul>	<ul style="list-style-type: none"> <li>• Regulations on the reporting of irregularities</li> <li>• (Student) Complaints regulation</li> <li>• Code of Conduct for the use of ICT facilities</li> <li>• Teaching and Examination Regulations</li> <li>• Rules regarding the use of buildings, grounds and facilities</li> </ul>
Reflection	<ul style="list-style-type: none"> <li>• Dilemma game on Academic Integrity</li> <li>• Training of staff and students</li> <li>• Advisory IP-committee VC responsible cooperation</li> </ul>	<ul style="list-style-type: none"> <li>• Dilemma game on Social Integrity</li> <li>• Training of staff and students</li> </ul>	<ul style="list-style-type: none"> <li>• Dilemma game on Organisational Integrity</li> <li>• Training of staff and students</li> </ul>
Permission	<ul style="list-style-type: none"> <li>• Human Research Ethics Committees</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Not applicable</i></li> </ul>	<ul style="list-style-type: none"> <li>• Data Protection Officer</li> <li>• Authorisation for access and use of devices</li> <li>• Approval of ancillary activities</li> </ul>
Consultation	<ul style="list-style-type: none"> <li>• Confidential advisors academic integrity</li> <li>• Data stewards</li> <li>• Human Research Ethics advisors</li> </ul>	<ul style="list-style-type: none"> <li>• Confidential advisors social integrity</li> <li>• Academic counsellors, student counsellors and psychologists</li> </ul>	<ul style="list-style-type: none"> <li>• Confidential advisors organisational integrity</li> <li>• Central Complaints Desk for Students</li> </ul>
Investigation	<ul style="list-style-type: none"> <li>• Academic integrity committee</li> <li>• Conflict of Interest Committee</li> <li>• Integral Safety and Security</li> </ul>	<ul style="list-style-type: none"> <li>• Ombudsperson for staff (pilot)</li> <li>• Complaints committee undesirable behavior</li> <li>• Integral Safety and Security</li> </ul>	<ul style="list-style-type: none"> <li>• Ombudsperson for staff (pilot)</li> <li>• Ombudsperson for students</li> <li>• Examination Appeals Board</li> <li>• Central Objections Committee</li> <li>• Integral Safety and Security</li> </ul>
Coordination	<p><b>Integrity Office in consultation with Integrity Officer and Integrity Board</b></p> <ul style="list-style-type: none"> <li>• Academic Integrity policy advisory</li> </ul>	<ul style="list-style-type: none"> <li>• Social Integrity policy advisory</li> </ul>	<ul style="list-style-type: none"> <li>• Organisational Integrity policy advisory</li> </ul>

platforms wherein integrity can be the focus of deliberations and support in particular instances. Identifying the three pillars grounded the establishment of the infrastructure around different areas. Academic integrity is evidently important in the context of a university. However, the new integrity infrastructure also emphasized social and

organizational integrity. Social integrity refers to for example formal anti-discrimination policy, but also conflicts between colleagues and power abuses, such as those highlighted by the #metoo movement. Organizational integrity made explicit the role the institution must play in creating spaces and methods for resolving integrity issues and conflicts. Furthermore, organizational integrity refers to providing guidelines for students, academic and support staff with regard to responsible cooperation with external private and public partners, also in other countries. That is, collaborations with other organizations or research funders should only be entered into when they are compatible with the TU Delft integrity policy and contain fair agreements on whether or not to share and make data and other research materials available, and to respect human rights.

Furthermore, the integrity infrastructure aims to provide resources for employees and students so that they can follow regulations appropriately, and to update TU Delft processes when needed.

## New Code of Conduct

The TU Delft Code of Ethics developed in 2012 had the explicit intention to be a ‘living document’, that is, to ensure ongoing efforts for raising and maintaining awareness for the code to encourage feedback, as well as regularly updating it accordingly. This Code of Ethics was primarily directed at organizational integrity and to a lesser degree at academic integrity and not on social integrity; also, it primarily focused on academic staff, less on support staff, and hardly mentioned students. The new Code of Conduct was thus supposed to discuss these various dimensions of integrity and different roles at TU Delft in a more balanced way. The move from ‘Ethics’ to ‘Conduct’ in the title of the document was a decision made to focus more on the everyday, behavioral aspects of integrity, i.e., on how to both reflect the key TU Delft values as well as respectfully deliberate together about how to act with integrity.

A working group to develop this new Code of Conduct<sup>9</sup> was chaired by the Integrity Officer and the writing was led by an EPT member with particular expertise in research ethics. Over the course of the 2018/19 academic year, consultations were held with everyone involved in the new integrity infrastructure, with representatives from the students, academic and support staff from all parts of the university, and with experts in various new regulations on privacy, digitalization and inclusivity. In the summer of 2019, the revisions were offered for feedback to the entire TU Delft community online. The new Code of Conduct was approved by the board of TU Delft in January 2020, after a formal consultation of the works council and student council.

The Code builds on the Integrity Statement, which was created as grounding framework for the new Vision on Integrity. The Integrity Statement<sup>10</sup> is a list of basic principles that all TU Delft employees should accept, emphasizing, amongst others, the unnegotiable importance of treating everyone with respect and that all activities

<sup>9</sup> [https://filelist.tudelft.nl/TUDelft/Over\\_TU\\_Delft/Strategie/Integriteitsbeleid/COC%20EN.pdf](https://filelist.tudelft.nl/TUDelft/Over_TU_Delft/Strategie/Integriteitsbeleid/COC%20EN.pdf); Roeser et al., 2020.

<sup>10</sup> Accessible at [integrity.tudelft.nl](http://integrity.tudelft.nl).

of TU Delft should contribute to responsible innovation; the Code of Conduct seeks to interpret these principles as guides to everyday behavior at the university. Furthermore, the Code builds on the already existing ‘DIRECT’ values. The DIRECT acronym refers to the following basic values: Diversity, Integrity, Respect, Engagement, Courage and Trust. Beginning with these basic values and principles, the Code then covers the following aspects of studying and working at TU Delft with integrity: how can we, as individuals, act with integrity; how can we, as employees and students at TU Delft, ensure that integrity is supported at the university; and, how can TU Delft, as an institution, ensure that its impact on society is in keeping with its own key values?

In the section “Acting with Integrity” the importance of collaboration and mutual respect is emphasized, as well as the fact that specific responsibilities come with different roles, e.g. being a researcher, an educator, a member of the support staff, or a student. The importance of how we relate to each other is further emphasized in the section “Supporting Integrity”, which describes the duties of care that TU Delft has as an institution, to enable all members of TU Delft to act with integrity, and to provide employees and students with opportunities for personal development and attention to diversity and inclusiveness. Furthermore, this section emphasizes the importance of responsible data management that is in accordance with the so-called FAIR principles (i.e. findability, accessibility, interoperability and reusability; Wilkinson et al., 2016) that ensure open data while also respecting privacy. In the section “Taking Integrity Further” the Code points toward the formal regulations and processes that enable people to bring integrity issues to the fore without fear of repercussions, and to resolve integrity-related issues.

During the writing process and consultations for the Code, a common theme for discussion that arose was where thresholds for behavior might lay—that is, at what point and with what kinds of behavior should formal responses such as punishments be brought into force? While it was important to have clear definitions of what counts as ‘bad’ behavior that cannot be tolerated, the Code was intended as a guide and a description of integrity rather than a list of things not to do.

A further concern that emerged during the process of its creation and remains an issue is that by avoiding formalization into specific things and acts to avoid, the Code remains too vague to guide action in questionable or problematic situations.<sup>11</sup> However, given the changing regulatory landscape and emerging ethical issues raised by movements such as #metoo, the working group remained keenly aware that it would be impossible to codify all potentially harmful behaviors. In order to remain relevant and to avoid conveying integrity as an issue of mere compliance, space for interpretation and further deliberation was also needed. In general, the Code of Conduct aims to put more emphasis on creating and maintaining an environment in which people dare to address ethical issues, questions and dilemmas. This requires both an emphasis on the importance of continuous attention for awareness and reflection on integrity dilemmas, as well as the need to define as clearly as possible what is considered to be undesirable behavior: that is, to clarify what may require context-sensitive

<sup>11</sup> Indeed, providing yet more clear guidelines is one of the goals of a new Code of Conduct that has recently been developed, also see note 7.

deliberation versus what is not negotiable. Here again the earlier mentioned tension emerged. The Code of Conduct tried to strike a balance between formal rules and room for deliberation. Integrity without rules and procedures is at risk of becoming too feeble and depending on people's coincidental goodwill, while on the other hand, integrity that is merely a construction of rules and procedures will defeat its own purpose by not reaching people's hearts and minds, at most resulting in compliance.

## Awareness Program

Avoiding over-bureaucratization was important, as it may rather undermine integrity, as people would see it primarily as an issue of compliance, not as something that is intrinsically valuable and for which they have their own responsibility. On the other hand, leaving things as they are means that important integrity issues may not get addressed. That is why, next to the procedures mentioned above, an awareness program is also important. But awareness of existing policies is not enough: rather, people should be encouraged and feel safe to discuss integrity dilemmas. This requires continuous attention for the topic within all levels of the organization and for all dimensions of integrity.

Formal aspects of the awareness program have been difficult to implement. While the Vision on Integrity proposed that all TU Delft staff members sign a Declaration of Integrity, in which they declare that they are acquainted with and will behave in accordance with the Integrity Statement and Code of Conduct, at the time of writing this has not yet become integrated everywhere. In employment contracts for new employees, the most important guidelines such as the Code of Conduct are mentioned, but not everyone studies these. New employees are frequently introduced to the integrity infrastructure at a workshop they may attend voluntarily, wherein the values are explained and the resources provided by the integrity infrastructure are introduced to them, but this information may fade into the background when working at TU Delft for some time.

The integrity sessions at workshops for new employees provide an opportunity to integrate the formal with the deliberative needs that were central to the Vision of Integrity. The participants in the workshop might be academic or administrative staff, or PhD candidates who are employees—any new employee can attend. The workshops are divided into two parts – in the first half, the DIRECT values, the Integrity Statement and the integrity infrastructure are introduced to new employees. In the second half of each workshop, the participants deliberate about potential ethical dilemmas they may encounter in the workplace while at TU Delft.

A dilemma game was designed for the purpose of such workshops by TU Delft, consisting of sets of cards that present difficult situations in which some action must be taken by the protagonist in the narrative. As a resource for discussion, they center groups around finding solutions and asking relevant questions about particular cases. In recent years the workshops focused primarily on dilemmas in the area of social safety. This is because social integrity is the category in which common themes arise for all sectors of TU Delft employees in a similar fashion—not everyone conducts research or has a managerial role, so academic and organizational integrity can be

less relevant for some participants. Further, social safety has become an issue of heightened awareness for TU Delft, due to concerns with the way in which social safety issues and complaints have been handled.<sup>12</sup>

## Reflections and conclusion

In this paper we discussed the history and recent developments of TU Delft's integrity policy. We hope that this case can serve as inspiration for other institutions. It also illustrates how within a few decades, ethics and integrity have rapidly grown as important topics. The building of an infrastructure to support integrity as well as educating current and new employees and students on the revised documents and policies, is a complex, multi-level and dynamic process. While here the process described may seem quite orderly and linear, this work has taken considerable effort, many meetings by committees and with individuals. Many of the plans outlined in this paper are ongoing and reflect the aims of current efforts, and not all of the plans have yet been achieved. Indeed, as we discuss below, new updates to TU Delft's integrity infrastructure and Code of Conduct are currently being developed.

In sum, our narrative highlights three important overarching insights that may also be relevant for other universities:

1. TU Delft's new integrity policy comprehensively covers academic integrity as well as social and organizational integrity.

This is important in order to do justice to the fact that universities are complex organizations that do not only conduct academic research but also collaborate with external stakeholders and in which employees and students with diverse backgrounds interact in complex settings.

2. The integrity policy has been developed with the lead of academic ethicists working at TU Delft, in a collaborative effort with all members of the organization and strong support by the leadership of TU Delft.

Having academic ethicists in the lead ensured that highest quality standards were met, while constructively collaborating with members of all parts of the university, including the leadership, ensured that the policies are grounded in lived experiences and needs of the organization and that they receive strong support.

3. There can be an inherent tension within the development of such an integrity infrastructure, between clear rules and procedures as well as flexibility and context sensitive deliberation on complex issues.

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<sup>12</sup> See e.g. <https://www.tudelft.nl/en/2024/tu-delft/tu-delft-stresses-need-for-permanent-improvement-in-social-safety>.

Some elements of the integrity infrastructure that had been proposed in the VoI had not yet been realized, this has recently been updated, also in the light of these developments.

This is an important insight that should also temper ambitions to have complete integrity policies, codified in abstract rules. Rather, context-sensitive ethical assessment and deliberation will always be needed, which requires the continuous training of such capacities and maintenance of psychologically safe spaces for deliberation.

This development of a more and more complex integrity infrastructure leads back to a recurring theme in all these developments: have we created a bureaucratic monster, or are these really important and even necessary tools? This in turn relates to a long-standing discussion in moral philosophy: can and should ethics be codified in principles and rules (as argued for by deontologists and utilitarians), or does ethical reflection require an intrinsic ethical awareness and context-sensitive reflection (such as argued for by care ethicists, virtue ethicists and intuitionists; cf. Roeser, 2011)? As we discussed throughout the paper, this tension is unavoidable. Committees, rules and regulations without awareness, good intentions and attention for context-specific features leads to an empty, pro forma structure that can even backfire, by creating incentives to circumvent rules or just fulfill them as a means to comply with the system. On the other hand, in a highly complex organization with thousands of people collaborating on the newest innovations that can have profound impact on society, relying on mere goodwill and good intentions is insufficient. Even well-intending people need organizational backing to be stimulated to reflect together on complex ethical dilemmas.

Furthermore, it is important to note that an integrity policy is not likely to ever be finalized, rather, it requires constant critical reflection and updates. Indeed, TU Delft is currently updating the Code of Conduct and has developed new elements of the integrity infrastructure, such as a reporting point for integrity matters. Also, it remains an issue to make people aware of the existing integrity infrastructure. This is partially due to the fact that people overlook the information they are provided with when they do not need it, e.g. when they start their position or studies, and fail to find it when they do. Several suggestions in the Vision on Integrity toward improving awareness have not been implemented. This became more urgent when TU Delft faced a very critical report about its social safety culture (in the Spring of 2023), which gave rise to renewed efforts to strengthen the integrity infrastructure, awareness thereof, and improved communication between members of the organization (students and employees alike) about complex issues related to the three pillars of integrity.

A university integrity infrastructure should help people in these processes, provide inspiration, continuous self-reflection, flexibility for organizational learning, while also setting clear boundaries and ethical goals. This will be an ongoing task for all employees and students, and the integrity policy will in that sense never be finished. This paper presents a current snapshot, as well as a lens to look backwards, and also tentatively forward, on TU Delft's integrity policy. We hope that this discussion can provide inspiration for others.

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