

Part 1
From Drawings to Deep Fakes – Some Introductory
Remarks

Chapter 1

Images, Technology, Ethics and Law – An Intricate Relationship

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I. Digital Ethics – The Issue of Images: An Introduction

1. Defining the issue

a) What is to be understood by digital image ethics?

As of now, *digital image ethics* may not be a well-established philosophical term or field of systematic research. Hence, before issues related thereto are discussed in the contributions to this book, some clarification of what is meant by digital image ethics is required. While, roughly speaking, *digital ethics* comprises the totality of ethical issues and rules regarding actions of digitisation, the use of objects and services, and communication in a digital format, *image ethics*, on the other hand, comprises the totality of ethical issues and rules regarding the production, dissemination and ultimately, consumption of visual images.¹ In view of these brief and admittedly, summary descriptions, it can be said that *digital image ethics* is both a part of digital ethics and likewise a part of image ethics, thus marking the intersection between these larger areas of applied ethics.

In view of the increasing penetration of society by digital and networking technologies, *digital ethics* is confronted with a continuously increasing number of issues. At present, in line with current development of technology, most books on digital ethics focus on different aspects of digital and networking technology, as well as on particular uses of different digital technologies. These include digital media ethics, computer or information ethics via the ethics of memory to the ethics of artificial intelligence appli-

1 Interestingly, the Stanford Encyclopedia of Philosophy lists neither “digital ethics”, nor “image ethics”. Rather, “digital” is only mentioned in connection with the philosophy of digital art, and “image” only in connection with mental imagery (<https://plato.stanford.edu/contents.html>). – However, for a summary of image ethics (“Bildethik”) in Germany see, e.g., Tappe (2016).

cations (AI) and, last but not least, the ethics of digital sex and of cyber warfare.

The array of issues addressed by *image ethics* is similarly wide. This is particularly true if, regarding images, one considers as images, besides depictions of real or imagined objects and non-figurative representations, still (drawings, photographs, computer generated and hybrid forms of images) and/or moving images, language metaphors and, ultimately, perhaps even mental images of human role model appearances. Ethical issues range from which images can be taken to under what circumstances and by whom images may be taken. They also concern the ways images are or should be used, including the legitimacy of image alteration and manipulation. Additionally, there are ethical questions as to who shall or shall not look at certain images. So far, image ethics literature has identified areas as diverse as privacy vis-à-vis curiosity and spectacle, surveillance, images of the pain of others,² copying and copyright-relevant acts, manipulation of images, the credibility of photojournalism, advertising and projected images of certain groups of persons and of the body, pornography, computer games, to name just the most prominent ones. In many, if not all areas, the prevailing issue is one of control over images, of external view and of self-representation both in individual cases and in society.³

At the intersection of both digital ethics and image ethics, *digital image ethics* on the one hand focuses from the vast area covered by digital ethics only on ethical issues raised relating to digital *visual* material. On the other hand, within the area of image ethics, it only deals with *digital* visual material. Consequently, issues which deal with digital issues in general, such as, e.g., the protection of personal data are not addressed by digital image ethics. Further, issues which exclusively concern images in general or actions which only concern analogue images are also not addressed. Of course, the separation of the issues is not as clearcut as it may seem at a first glance, since many digital image ethics issues are of a general nature

2 Sontag (2003); Fishman (2003).

3 See the attempts by both billionaires Bill Gates (with Corbis since 1989) and Mark Getty (with Getty Images since 1995) who had taken over many of the existing picture agencies, thus assembling a huge repertoire of visual images in order to serve a world-wide market; for the subsequent history – Corbis was sold, in 2006, to a Chinese Company, with Corbis retaining the right to license material from the image database outside of China. Getty Images, after it had changed ownership several times, was bought back by the Getty family. See Frater (2016); https://en.wikipedia.org/wiki/Branded_Entertainment_Network, and https://en.wikipedia.org/wiki/Getty_Images.

and hence important for visual and non-visual objects (such as, e.g., the issue of automated decision-making and the regulation of algorithms) as well as for digital and non-digital ethics (such as, e.g., the issue of image manipulation) alike.

b) Changes brought about by digital and networking technologies

Before some issues central to digital image ethics are discussed in this book, the impact of digitisation and digital communication technologies shall briefly be recalled.

Common metaphors such as the one of “flood of images” may, of course, be explained as merely defensive reflexes caused by fear due to the increased number of pictures made following the democratization of digital cameras which today are to be found in every smartphone. More precisely, networking technology and, most notably, the development of exchange platforms has led to a revolution in terms of who can distribute images and how images are distributed. This development has increased both the number of persons whose actions are subject to moral judgement and the number of ways that images can be used. In addition, automated search, identification and, to an increasing extent, even recognition of the semantic content of images makes it possible to automatically block access to or even delete unwanted images. Moreover, all of this is now possible without any direct human judgement but merely on the basis of predefined criteria or – even more detached from a direct human decision – on the bases of criteria search engines have “learned” through deep-learning techniques. The impact of digital and networking technologies is thus not only of a quantitative, but likewise of a qualitative nature, which completely transforms existing ethical issues and adds new issues unexamined by image ethics in times of analogue images.

Similarly, despite its use in “television”, the notion of “vision” was traditionally limited to on-sight vision of the material carrier of the images (the paper, but also the TV-screen). It was also complemented and enlarged by “supervision” which permits the observer to observe actions from a distance (the police station, the satellite control center etc.). The ethical issues raised in this respect may not be totally new. Indeed, Foucault’s “*Surveiller et punir – Naissance de la prison*” was published already in 1975, well before the advent of mass digitization, and the description of Jeremy Bentham’s “Panopticum” even dates to the late 18th century. But the digital development of tele-surveillance of everybody at any time

has taken on another quality and with it raised a substantial number of additional ethical issues.

In economic terms, the most significant effects of digital and networking technologies are evidenced in the possibility to copy and transmit images at marginal cost without loss of quality in almost no time. At the same time, regarding the value chain, a marked shift of revenues generated due to image consumption is clear from those who produce and sell the images (professional and non-professional photographers, picture agencies, media enterprises) to the online content-sharing platform providers (YouTube, Instagram etc.). In ontological terms, what was once one individual analogue image, i.e., one object, has dissolved in its digitized form into a great number of discrete pixels which can be recombined in any possible new way. Even though digital photography still works with classical lenses, photo theorists generally diagnosed an end to photography,⁴ emphasising the special, non-indexical properties of digital photography and of computer-generated images over the indexical properties that analogue and digital photography still have in common. But even if the indexical link between what is depicted and what can be seen in a given picture, is undeniably weakened, it is not lost in all instances. Therefore, digital image ethics does not completely replace the ethics of analogue images. Rather, they complement and, in some instances, modify, the moral rules formulated regarding the production, communication and use of analogue images.

2. *Issues of digital image ethics*

As artefacts, “images do not in themselves make any assertions about the world, do not make any demands and do not make any judgements”.⁵ Rather, these actions are performed by the persons who produce, make use of or look at images. Since ethics only deals with actions, not with objects, it is these actions which must be judged according to their moral standards. In other words, when colloquially speaking of images that are dangerous for certain people, what we are really saying from an ethical perspective is that the act of showing images to people who should not see them is unethical due to the negative impact looking at them might cause to the individual or society at large.

4 For references see, e.g., Dreier (2019) 31 et seq.

5 See only Tappe (2016).

Digital image ethics is thus concerned with the ethical judgement of the actions of humans when it comes to acts of making, distributing and viewing certain images. If one of these acts is performed automatically, it is then the decision to use the automatic device and to opt for its particular design that should be scrutinised. However, additionally it should be noted this action-centered perspective of ethics is not shared by all disciplines. Thus, although an image has neither intentionality, will nor character, some authors in art history have recently attributed some form of “agency” to images. According to these authors who thus ultimately ascribe some form of “personhood” to images, in the communication between the person who makes or uses an image and the viewer, it is not primarily the latter who plays the active part in the construction of an image’s meaning, nor do images merely stare back at the gaze of their viewers.⁶ Rather, it is emphasised that it’s the images that look at their potential onlookers, provoking them to look back.⁷

However, such a focus on “acting” images does not exclude the necessity to evaluate the morality of the reasons to make and use images, nor the purposes of looking at an image. Hence, as an applied ethics, the focus of digital image ethics is, to a large extent, on the level of practice. However, as will be shown, ethical issues also exist regarding the semantical level of digital images.

a) Practical level

Generally, practical ethical issues concern all acts performed on all stages, from the production of images to their use and consumption. Considering the great number of persons which are involved today in the communication of images, acts undertaken not only by image producers but also by gatekeepers, agencies, editorial offices and, last but not least, by image-sharing platforms come into focus. After all, an image is not just taken and presented. Rather, every single step from the selection of the motif to the selection of a photograph and its cropping represents a decision, the exercise of which can be judged according to moral criteria. This concerns both the content of an image and the question of its potential falsification, misrepresentation or misinterpretation of its message by any of the stakeholders mentioned. Even the camera is not simply a neutral

6 Elkins (1996).

7 Mitchell (2005); Bredekamp (2018).

recording device, but, in many cases, changes the scene depicted which, in the absence of the camera, would often have been different.

The kind of questions that arise on a practical level shall only be briefly outlined here, by way of example, in relation to image manipulation and the use of filters. As it has often been stated, digital photography means the end of the indexicality of the photographic image. In other words, the trace between the object depicted and its representation is interrupted due to the discrete character of the digital form of the representation.⁸ This interruption creates room for subsequent image manipulation which is by far larger than in the case of analogue photography. Additionally, there is room for images that look like depictions of an object that never actually existed. The main problem with ethically judging acts of manipulating images is that it requires finding a discrepancy between what is considered as “true” or “authentic” and what is considered an ethically unacceptable alteration. In addition, it must be noted that over time and in different cultures, the expectations placed on the truth and authenticity of images vary quite substantially. What exactly is considered “authentic” under certain circumstances in a specific cultural environment seems to be less an objectively verifiable fact but rather the result of certain ascribed properties. Moreover, even before the advent of digital imaging technology, the expectation of image “authenticity” was exaggerated. Lenses have always preferred a certain vision over another and the chosen chemical configuration of color film was responsible for the hue of the resulting images.⁹ Contrary to what one might think, these differences were not a direct and uncontrolled result of chemo-technical differences of the respective film material. Rather, even in those earlier days these differences were a matter of conscious design decisions that reacted to assumed different color preferences in the U.S., in Europe and in Japan.

Already before the making of individual images, camera manufacturers configured camera software so that, even in low light, one can take images one could not take with an analogue camera. However, this would generally not be regarded as producing an in-authentic photograph. But what about other image modifications caused by the camera’s internal settings? If, e.g., it is most likely legitimate for private users to exercise their personal freedom and manipulate images in any way, why should

8 See, e.g., Mitchell (1992). – Of course, not only digital images, but all technically produced images brought about a radical change to images that were manually created; see Flusser (1983) 13 et seq.; Belting (2011) 27–28.

9 E.g., colour slide films manufactured by Kodak had a tendency to red cast, whereas Agfa films had a rather green and Fuji films a more bluish cast.

the hardware's configuration which enables users to do so be regarded as unethical? Does that allow for the installation of pre-defined so-called filters, the use of which enables the camera-user to embellish the picture taken? Is it objectionable if in-built software for selfies automatically makes us appear younger or our skin fairer, because the software programmer or its producer considers that wrinkles and a darker skin are undesirable? Ethically, are there absolute or at least relative limits to what should be considered a permitted embellishment, and what should not be permitted as an unacceptable distortion? Most likely, the decisive criterion will be whether the user is informed and if they have a choice to apply the specific filter.

As a matter of fact, Google has recently addressed this issue when it announced, in October 2020, its guidelines for face retouching filters. Previously, they were applied on Google Android devices by default, but following the announcement their default status should be off, so users can decide whether he or she wants to use them. Google reasoned that “when you’re not aware that a camera or photo app has applied a filter, the photos can negatively impact mental wellbeing. These default filters can quietly set a beauty standard that some people compare themselves against. ... We’ve steered away from references to ‘beauty’, by using iconography and language that is value-neutral, so you can decide what retouching means to you.” In other words, “if face retouching filters are on, this should be clearly indicated in the product experience. And when it’s off, it should stay off”.¹⁰ Indeed, if more than 70 percent of photos taken on an Android device are made using the front-facing camera, i.e., which are selfies, this policy change constitutes a major shift towards transparency and ultimately leads to greater self-determination for users. A similar issue is raised regarding digital images generated by artificial intelligence (AI) which may convey bias of gender or race, particularly if the training uses biased data.

b) Semantical level

Contrary to ethical issues at the practical level, ethical issues at the semantical level may, at first, be somewhat surprising. After all, as already stated, ethics concern actions and not objects. However, when judging acts of making, using and consuming images, the respective actions cannot be

10 Modi (2020).

judged from the perspective of their ethical value without considering their semantic meaning. On the one hand, it is true that unlike language, images generally may not need translation. On the other hand, like language, images are open to interpretation. According to a proverb often quoted, a picture is worth a thousand words. But what exactly does an image communicate? Does it say anything at all, or does it mainly transport and evoke emotions? Any interpretation of an image will encounter the problem that the semantic meaning of images is vague and ambivalent. This is even more true when moving between different cultural contexts. Interpreting and understanding an image's semantic content, on the one hand, highly depend on the cultural conventions shared by those who use images and those who view at them. On the other hand, it depends on each individual viewer's personal experience as well as his or her individual visual memory. Just as a verbal statement's ethical quality cannot be ascertained by simply analysing the speech itself but requires one to consider the statement's subject, speaker and circumstances, the ethical analysis of actions relating to images must also consider the images' semantic meaning.

3. *Method and aim of the book*

Whereas it is well possible to circumscribe the core of *digital image ethics*, its exact boundaries and content still must be more precisely defined.¹¹ Although this book's contributions shall provide some groundwork to formulate a digital image ethics, they cannot chart the totality of issues that may arise. Additionally, this book may even less provide answers to all the ethical issues one might naturally consider as belonging to digital image ethics. Rather, quite like this brief introduction, the contributions of this book only highlight certain isolated aspects of a digital image ethics.

The Villa Vigoni conference organisers and editors of this book share the conviction that meaningful discussion of digital image ethics cannot be conducted from a philosophical perspective alone. Rather, since a whole series of the questions that require answering have already been regulated by law, it seems sensible to include the legal perspective as well.¹²

11 For an overview of the current state of research relating to digital image ethics as a partial applied ethics, see Schmücker (2022) in this volume.

12 Note that due to the limited territorial scope of national legislation, any discussion of existing legal rules can only, on an exemplary basis, refer to a particular national legal order. Given the origin of the conference participants, reference is

Hence, the conference participants and the book's contributors were not exclusively philosophers, but, in equal numbers, lawyers.¹³

a) Questions to be asked

The leading question could be formulated as follows: If pictures play an important role in contemporary social communication, how should the actions relating thereto be judged from an ethical perspective? And, from the legal perspective, how should existing legal norms be ethically assessed? Additionally, it is important to note that digital technology defines what users can do with images, thus enabling and structuring, but simultaneously limiting the individual user's scope for action. The technical configuration of the internet, the architecture of platforms, the design of filtering technologies and technical access controls exemplify this important issue. Hence, the design and use of such technical devices as well as the relevant existing regulation must be ethically scrutinised. In view of the importance of such technical devices and their freedom enabling and limiting configuration, the focus of this book is on digital image ethics' structural issues. This contrasts to special uses of digital images which are usually at the core of image ethics (which images may be shown in the media, the extent to which alterations are permissible, whether the depicted person's personality rights are infringed, which images should be accessible to children and minors, etc.). This focus does not exclude, however, a small number of contributions dealing with the ontological structure of virtual images or the significance of digital images for the freedom to consume images and society's collective memory.

b) Consequential ethics

Clearly, when searching for moral solutions to these questions, a consequentialist ethics seems to dominate the discourse. According to this approach, actions appear ethically acceptable/unacceptable in terms of their

mostly made to German, Italian and EU law, with a possible sideways glance at US law.

13 The conference brought together expert scholars and interested doctoral and post-doctoral students from a variety of disciplines, namely from philosophy, law, legal theory, information technology, sociology and image sciences.

consequences, i.e., of the effects they may cause. If even today possible negative consequences are imputed to images, this conforms to the Platonic tradition to mistrust images. According to Plato, after the abstract idea and its representation in the physical world, images of the latter constitute only a third level truth which by pretending to be more than they are, lie. According to this view, not only do pictures lie, but because they lie, they are regarded as potentially dangerous. In view of this fundamental distrust of images, the question to ask is whether a rule with negative effects can be replaced by a rule that would have less serious negative consequences.

A consequential ethics asks questions such as who may be harmed by an action concerning the making, use and consumption of images, and whether the specific type of image impacts the harm? Who should be entitled to protection (e.g., the person depicted, the potential onlooker)? Should some persons such as children, victims of accidents, terrorist attacks and warfare, or ethnic minority groups receive more protection than others? How should one respond to images' intended or unintended effects on the formation of the human image, the image and construction of the body and, generally, those effects which discriminate "the other" through visual stereotyping or denigration? Examining these questions, in Western cultures initially,¹⁴ the construction of the image of women mainly in advertising was dominant. Later, the image of other minorities became prevalent and for some time now, post-colonial cultural studies examine the stereotypes of non-colonial populations in Western visual communication,¹⁵ at times reversing the perspective by writing "photography's other histories" from a non-Western point of view.¹⁶

When answering ethical questions from a consequential view, one likewise must ask what could justify an otherwise unacceptable making or showing of images. If photographing warfare victims always seems problematic, can it be justified by the fact that without such documentation, human suffering would remain unnoticed, outside the place and time it was afflicted? To name just one example: It is now a commonly shared belief that Nick Út's famous photograph of the naked girl after the US napalm attack on a village in Vietnam played a crucial role in changing the attitude of the US population towards the Vietnam War. Moreover, without the publication of the photograph, the girl (Phan Thị Kim Phúc)

14 It should be noted, however, in Germany the debate about personality rights to one's own image dates back to a photograph illegally taken in 1898 of Germany's ex-chancellor Bismarck on his deathbed; see Koetzle (2002).

15 E.g., see only Herdin/Faust/Chen (2020); Cohen (2003).

16 Pinney/Peterson (2003).

would probably not have been transferred to a special clinic and would not have survived. In turn, does the commercial motive for taking such photographs alter the ethical judgement of the taking? Will the ethical judgement be different if the photograph is reproduced even half a century later? When it is filtered out for nudity on a Social Media platform? What about the use of such images of victims in art?¹⁷

Concerning all these questions, the debate is still ongoing. In both traditional forums and social media diverging claims are made and attacked, especially when it comes to the disputes fought out under fighting terms such as “political correctness”, “culture cancelling” and “identity politics”. The sometimes fiercely led debates revolve precisely around the fundamental questions of who may communicate and share – via text or images – what, to whom, about whom, in what manner and when. However, these questions are not the subject of the contributions to this book.

4. Law and ethics

Finally, another issue which is underlying most of the contributions to this book, but which is not addressed as such, shall briefly be touched upon here. It is the question of the relationship between ethical and legal rules. It is certainly possible to answer all digital image ethics questions from a purely philosophical perspective without considering existing and corresponding legal norms. However, to do so would seem a little odd. Admittedly, there may be issues that will always be outside of legal regulation as well as others which so far have not been addressed by legal regulation. However, to the extent that legal rules have already been formulated, the formulation of ethical rules would not have to start from scratch. Rather, these existing legal regulations could serve as a starting point for a discussion on what ethical rules should look like if they are not regarded as formulations of ethical rules altogether. Examples are the already mentioned right to one’s own image, copyright as well as the protection against the circumvention of digital technical protection measures, to name just a few of the areas that will be dealt with in more depth in this book.¹⁸

¹⁷ For a more recent example, see Brinkmann (2020) 94 et seq.

¹⁸ Other major examples not discussed in this book are the legal ban found in many jurisdictions of making, distributing and even possessing images of child pornography; age restrictions or warning and labelling duties for showing certain images to specific groups of onlookers such as children and teenagers, as well as,

The existence of legal rules for images raises the question of the relationship between them and the corresponding ethical rules. On the one hand, one could argue that provided the legal norms were adopted by a democratically legitimized lawmaker, they reflect societal consensus on how these issues should be regulated. On the other hand, the majority may not share a view in line with ethical principles. Moreover, the legislative process might be flawed and thus not reflect the majority's moral conviction, but rather only the interests of a powerful and influential individual group or group of individuals. That is why it is indicated to also analyse actions which do not morally conflict with legal rules. For example, one may ask whether it is ethically permissible to publish an unfavourable picture of a person, even if it does not violate the law. But not only legal norms – be they imposed by authoritarian governments or adopted by democratic procedures – may conflict with sound ethical rules. Rather, the same can be said of court decisions. Since judges are bound by the legal norms adopted by the lawmaker, even if judges are impartial, any ethical flaw of a legal norm continues in court decisions.

However, at least in countries where the Constitutional Court has the legal power to declare legal norms adopted by Parliament null and void if they violate fundamental human rights, things appear different. Here the legality of the scrutinised legal norm is not ascertained because of the mere act of adoption in Parliament. Rather, the standard of measurement against which legal norms must be measured, are the human rights as enshrined in the Constitution. In such cases it appears at least plausible to assume that the Constitutional Court has already considered all the ethical aspects when interpreting individual fundamental rights and weighing them against each other. But even if carefully argued Constitutional Courts' decisions take due account of all ethical issues, one should emphasize that they hardly ever hold that only one legal norm is correct from a constitutional perspective. This is somewhat surprising to the philosopher who is used to assuming that any given ethical issue has only one single definitive answer. But from a constitutional perspective, the reason that more than one specifically worded legal rule can meet the constitutional threshold test is that some scope for political decision making must be left, by the judiciary, to both the legislative and the executive. In other words, since fundamental rights generally allow for more than one political decision, more than one legal rule implementing a specific political

last but not least, the obligation to affix certain images showing health hazards of smoking when selling packages of cigarettes.

decision satisfies the balance of fundamental rights. On another occasion, it was suggested by one of the book's editors to accept, quite like in constitutional law, a margin of appreciation also when it comes to defining ethical rules.¹⁹ In other words, it could no longer be concluded that a legal norm which does not correspond with the preferred ethical rule is by definition unethical. Rather, any legal norm that remains within the constitutional margin of appreciation would have to be considered equally ethically justified. This assumption of a margin of appreciation should not be confused with ethical relativism.²⁰ Other than ethical relativism which allows for only one answer from each individual perspective, the model of a margin of appreciation suggested here would allow for several possible answers from one and the same perspective.

II. *The Contributions of This Book*

The book's contributions are the result of a three-day symposium at Villa Vigoni near Lake Como in Menaggio, held from 28 September to 1 October 2020 between two waves of the Corona pandemic. The conference was organized by the editors and sponsored by the German Research Foundation. This context explains the painting reproduced on the book's cover which was painted in 1939/1949 by American painter Sophia Amelia Peabody well before the advent of digital technology and even photography, but from the spot overlooking Lake Como where the Villa Vigoni stands today.

1. *Transalpine considerations*

Due to the format of conferences and symposia organized at Villa Vigoni, which serves as a German-Italian Center for the European Dialogue, about half of the participants of the conference and contributors to this book were from Italy, and the other half from Germany. The focus on the Italian-German cultural exchange is also the reason why the first of the contributions by *Werner Gephart* concentrates on the role of images from drawings to online communication in the transalpine context. Taking the

¹⁹ See Dreier (2018) 54.

²⁰ For ethical relativism recognizing and taking stock of cross-country cultural differences, see, e.g., Ess (2009) 183 et seq.

Malcesine episode of Goethe's "Italian Journey"²¹ as the starting point, Gephart adopts a sociological lens and proposes that the text can be viewed "as a reconstruction of a sociological space of observation and experience". From there on, Gephart examines "whether Goethe also used this objective space of experience 'sociologically', i.e., to what extent did [Goethe] not only discover himself, but also 'society' in Italy". This contribution analyses the extent to which the image of the "foreign" is indissolubly connected to the image of the "self", be it the personal self or the self of the traveller's own culture and society he lives in. Simultaneously, Gephart highlights how carefully and intentionally Goethe used both his drawings and his writings to initiate and undertake a highly complex transalpine transcultural communication. Images and their production, it becomes clear, are by no means static ontological objects, nor are they to be regarded as anthropological constants. Rather, as forms of communication in society, Gephart concludes, they "are placed in the realm of the normative and surrounded by commandments and prohibitions. They also exude their own deontic power, which we find difficult to grasp theoretically."

2. *The parts of this book*

Despite its limited focus on images as experienced by the famous traveller in the late 18th century, this initial contribution opens the view to the ethical questions raised by today's production and communication of digital images. These are developed by the subsequent contributions and can be divided into five parts.

To begin with, Part 2 on the *ethical foundations* starts with an overview of existing research in the field of visual digital ethics and an attempt to describe what an applied digital image ethics might have to say. This includes, on an exemplary basis, the formulation of three ethical rules. A second contribution of this part sketches out the relationship between form and norm in images.

Following, Part 3 centers on an array of ethical issues relating to *images in art and society*. It begins with the suggestion that to ensure that our societies are fair, rather than focussing on the issue of privacy we should focus on the benefits derived from a better understanding of the functioning of digital technology and the surplus value it creates via the web. Also, a helpful starting point could be a better understanding and ontological analysis

21 von Goethe (1816/1817).

of both the identification and the properties of immersive artistic forms. Additionally, one could focus on the shift in the understanding of images as objects to an understanding of images as a means of communication. On an exemplary basis, this is further highlighted by a discussion of the issues raised by referencing cultures. This part closes with two contributions discussing ethical issues regarding the importance of safeguarding digital images for the future, one focussing on the orientation of future generations, and one more specifically on issues surrounding the restoration of conceptual audiovisual material.

Part 4 examines the *effects of digital technology on the individual image*, which tends to dissolve into an array of isolated pixels. This begins with a more theoretical elaboration of the semiotics of the visual fake, followed by a more practical look at digital collaging and image manipulation. The next contributions focus on the existing legal regulation which already transmits certain ethically motivated choices, and hence could serve as a blueprint for the formulation of corresponding ethical rules. First, a description of the different legal regimes protecting the multiple layers of information in a digital image is made. Second, an explanation is given of the difficulties faced by legal regulation when regulated objects can be looked at as either one image or an array of personal data. Finally, the issue of human authorship is discussed when objects are made using artificial intelligence.

Subsequently, the contributions of Part 5 reflect some of the *effects of digital technology on both ethical and legal norms*. This begins with a thorough examination of the moral issues and constraints concerning cloud-based image storage, a chapter which raises more – highly relevant – questions than it is yet able to answer but clarifies to what extent these answers are influenced by the configuration of the storage devices. Particularly access controls, the following contribution argues, have the effect of replacing what users are legally allowed to do with what they can do, thus making the effect of both legal and ethical norms obsolete. The following contribution in this chapter draws the readers' attention to the fact that all norms – and, in particular, algorithmic decisions – which hold that certain images should be inaccessible involve some sort of censorship in a broad sense and hence must be based on ethical, political, and economic rationales. The last contribution in this part discusses the issue of the image of algorithms and provides an overview of the possibilities to regulate algorithms to ensure that they perform the decision making as envisaged.

Finally, the contributions of Part 6 attempt to shed some light, on an exemplary basis, on the intricate relationship between *ethical rules and fundamental rights*. One of these examples retraces the ethical considerations and

arguments in decisions from both the German and Italian Constitutional Courts relating to the scope of the right to one's own image vis-à-vis the freedom of the press. From a similar perspective, the other contribution examines how the freedom of the art is currently being delimited from the proprietary interest protected by copyright in conflicts involving works of appropriation art.

3. *The contributions in detail*

a) *The ethical framework*

Following Part 1, in Part 2 of the book *Reinold Schmücker* begins with a differentiated overview of what the term “digital ethics” means or should mean from different perspectives and in view of different cognitive interests. Being critical of mere “guidebook” literature masquerading as ethics, Schmücker outlines the different approaches so far taken in ethical research. After providing an admittedly subjective snapshot of the current state of the multitude of positions and arguments on very different individual aspects of digital ethics, Schmücker discusses the difficulty of formulating normative foundations for what in his opinion could be an applied digital ethics. Also, he considers the functions a digital applied ethics could have and how it might differ from our everyday moral judging. In doing so, Schmücker draws a parallel between formulating an applied ethics and the application of legal rules. This complements the brief analysis of the substantive relationship between legal and moral rules found in the book's introduction by focussing on the procedural similarities of legal and ethical rules. Finally, Schmücker focuses on an “image ethics” that sees itself as part of digital ethics and considers the differences between analogue and digital images to be only of a gradual nature and hence doubts the need for a special digital image ethics. Rather, Schmücker argues, it is the social practices regarding digital images which raise normative questions that digital image ethics should aim to answer. The mid-level ethical principles Schmücker proposes – the “Principle of Unconditionally Permissible Use of All Vocabulary of a Visual Language”, the “Principle of the Legitimacy of Taking Photographs in Museums” to allow for documenting one's own life, and the “Principle of Prohibiting Deception by Manipulated Photographs” – regarding digital images could all be applied to analogue images as well. However, Schmücker concludes that in the analogue age, there was simply no need for those principles specifically tied to the characteristics of digital images.

Following Schmücker's contribution, *Enrico Terrone* proposes an hylomorphic account of pictures. Assuming hylomorphism is the view according to which objects are constituted by both their form and their matter, Terrone argues that the matter of a picture is a colored surface while its form is a norm that prescribes how to use that surface, that is, what one should see in that surface. Moreover, the hylomorphic account of pictures can be deployed to evidence both the analogies and the differences between depiction and language.

b) Images, art and society

The first contribution in Part 3 on various issues of the production, dissemination and use of images in art and society by *Maurizio Ferraris* starts from the observation of the current societal crisis and particularly how our work life and our private life has changed due to digital technology and the web ("smartworking"). Ferraris contends that this is an ongoing and accelerating trend which can be observed over the past few years. This trend is said to make us consider our own features and appreciate the opportunities the Web gives us, without, however, being fully aware of the information asymmetries between the mobilisers and the mobilised, which Ferraris analyses in great detail. He then proposes that we should reduce the importance of privacy to better understand the potential of benefits gained from a true and transparent understanding of the Web, of big data, and its uses. This could lead us to dealing with what Ferraris calls "documedia capital", the surplus value of which will help us to make our societies fairer, provided it is properly distributed. However, there are, of course, two main objections made against this approach, which Ferraris attempts to debunk.

The contribution of *Davide Dal Sasso* offers an account of the origins and features of "immersive artistic forms" by proposing a list of identifying criteria. The first part of this contribution is dedicated to the topic of technology and focuses on the relationship between art, knowledge and operational practices. The second part addresses some issues in the metaphysics of art, the relationship between form and structure. Likewise, it presents possible criteria for identifying "immersive artistic forms". It is suggested that rather than classifying a kind of art, the term can reference the outcomes achieved through different artistic practices that favour users' immersion in works of art. Based on these identification criteria, immersive artistic forms are thus works of art structured in different ways and

which may offer immersive experiences in virtual reality as well as in the real world.

Wolfgang Ullrich subsequently discusses the consequences of a new image culture that has emerged in recent years because of digitization and can be described as a shift from works to lively means of communication. For the first time in their history, images are no longer static entities, but can be reproduced, sent, and above all, changed as often and quickly as desired. Following language, one could thus say that there are no longer only written, i.e., fixed, but also oral forms of pictoriality. Until now, such forms existed mainly to the extent that facial expressions and gestures have a pictorial-variable character. Correspondingly, many forms of digital images also have primarily communicative functions. Only rarely, are they still associated, Ullrich argues, with the idea of an (art) work.

Stating that today, not only do images gain their prominence through mass reproduction on social media, but that referencing images has become a general means of communication, *Eva-Maria Bauer* concludes that existing copyright law does not adequately reflect the importance of references such as Memes or GIFs. Contrary to the U.S., where most – and certainly non-commercial – referencing uses of images in social media are covered by the so-called “fair use”-exception, under European copyright law there is no corresponding exception to the exclusive rights of the original creators of images. Even the exception for pastiches, recently adopted in Germany based on EU legislation dating from 2001, will – notwithstanding the fact that the official memorandum, accompanying the draft bill explicitly considers memes as a case of pastiche – not solve the problem. This is because such a broad understanding of pastiche was likely not intended at a time when communication with images via social networks was simply beginning. In Bauer’s view, the societal importance of referencing cultures justifies eliminating the discrepancy between a rigid legal assessment of appropriation on the one hand, and referencing techniques and the changed communication behaviour in social media on the other hand. Without the creation of a legal exemption for communicative appropriations, Bauer argues, the legitimacy crisis of copyright law will intensify, for if copyright law no longer reflects social reality, it will no longer be supported by social consensus.

The remaining two contributions focus on aspects of preservation of digital art works and their importance for future generations. To begin with, *Tiziana Andina* focuses on the aspect of transgenerationality of digital images, outlining a new ethic regarding the role of digital images to orient the future. In view of the need of Western democracies to direct the future, Andina proposes that tools must be strengthened to orient the

future towards a direction of development, greater equity and sustainability. To this end, Andina examines the technological possibilities offered by digital images and demonstrates how they can easily become tools of memory as well as vehicles of detailed information to help us to understand the human at a level of detail never reached before. This informational capital could become the empirical basis for backcasting experiments that could later be used to model future societies.

In the second of the two contributions on aspects of preservation of digital art works and their importance for future generations, *Cosetta Saba* examines the impact of preserving analogue audiovisual material in a digital format. Building upon a distinction from the French philosopher, anthropologist and sociologist Bruno Latour, between iconoclasm (which aims at the destruction of a work of art) and iconoclash (which designates the forces behind different modes of representation), Saba demonstrates to what extent iconoclash is inherent in both the activities of preservation and digital restoration of analogue moving images. Indeed, the apparent indistinction between destructive and constructive actions aimed at the cultural transmission of analogue images reveals a principle of assimilation underlying the current “software culture”. What we are faced with is a “selective-elective” process, i.e., selection by similarity and election to oneself – a “making similar to oneself” – that removes the aesthetic and historical difference of analogue moving images regarding their context of production and reception. The practice that qualifies the digitisation process for preservation purposes thus activates issues that have less in common with the variation of the aesthetic and historical properties of analogue motion pictures, than with their “erasure”.

c) Binary encoding and artificial intelligence: The dissolution of the visual object

In a way, the contributions of the following Part 4 revisit the iconoclash theme regarding the representation of the human face. What is gauged is the difference between the real face and a deep fake which is no longer indexically linked to and does not represent a particular individual's face, but which, through algorithmic machine learning references a great number of faces. In this respect, *Massimo Leone* proposes a semioethics of visual fakes and argues that the ethics of images differs from that of words because images have an intrinsic motivation that words lack. There is of course something conventional in images, as there might be motivation in words, yet the materiality of visual signs anchors them to reality and perception in a different, more cogent way. That is why, in Leone's opin-

ion, images do not lie as words do. Even when they are farfetched, they transmit an idea of real possibility that words can hardly evoke. There are two different ideological stances regarding the relation between images and the reality they manifest. Humanities, including semiotics, tend to emphasize the weight of the cultural context; increasing evidence, however, shows that images evoke certain responses because they match the innate neurophysiology of cognition. Humans are biologically inclined to react to images, and representations trigger different perceptions depending on their technology, which accumulatively evolves throughout human history. Semiotics is therefore called to debunk the realistic propaganda of new devices for representation and display, emphasizing their conventionality, but also considering how new advances in the production of simulacra tend to introduce emerging phenomena between images and the human perception. The visual fake of today is indeed somewhat more powerful than those of past epochs because it is constructed through machines whose outcome can be debunked only by other machines. Furthermore, the evolution of digital cultures now blurs fictional and non-fictional genres. The visual fake starts to circulate like a virus, multiplying the occasions for ambiguous suspensions of disbelief. Instead, Leone argues, a new ecology of the fictional that can foster a reasonable semioethics of the visual fake is needed.

On a slightly more concrete and practical level, *Olivia Hägle* then retraces how the basic principle of digital information processing, binary encoding, yields a variety of new possibilities for the manipulation of visual objects. By breaking down images to their components and recomposing these parts with parts of other images, existing visual objects can be manipulated and entirely new objects can be created. Recent technical advances in artificial intelligence enable such image manipulations to be created almost autonomously and already achieve deceptively realistic results. This so-called deep fake technology offers numerous potential applications. It could revolutionise the film industry and it provides countless opportunities for art, satire and economy. But in the wrong hands, like any technology, it has a potential for misuse. All too often, deep fake technology is used to defame people, for example by inserting them into pornographic material. And due to their simplicity and persuasiveness, deep fakes are powerful weapons for targeted disinformation campaigns. Given the technology's inherent threats, according to Hägle, there is a strong need for regulation. Therefore, not only should legal and technical measures be considered, but also ethical considerations.

Shifting the focus to existing legal regulation, *Benjamin Raue's* contribution provides an overview of the multi-layered – structural, syntactical,

semantical – information in a (digital) image, and describes the legal regulations attached to each of these layers. In his view, the information layer model is a tool to structure and analyse the varying interests that exist within a digital image. While the model does not provide definitive answers, it does allow the identification of the appropriate layer of information for mediating the different interests. Accordingly, the regulation can be limited to specific aspects of information and, consequently, restrict the conflicting interests as little as possible.

Another legal aspect of the dissolution of images into discrete digital pixels is discussed by *Lorenz Müller-Tamm* in his contribution on the legal protection of images through personality rights (right to one's own image) versus data protection legislation. For a long time, there had been broad agreement that pictures depicting people are subject to image protection law. However, the introduction of data protection laws, especially the European General Data Protection Regulation (GDPR) in 2016, which also encompasses the processing of image data, questioned the relationship between the two regulatory regimes. After giving an overview of the image protection law in Germany and the data protection law in the EU, the contribution investigates the question whether the GDPR opening clauses still allow for the applicability of the German image protection law despite the general precedence of EU law. The account of this vital legal debate then leads to the follow-up question of whether the – national or European – legislator should intervene and what could be considered an ethically appropriate solution.

Apart from raising many additional questions, the advent of artificial intelligence used when making artefacts urges the law to reconsider the traditional concepts of authorship, originality, and creativity both in- and outside of copyright. As *Gianmaria Ajani* shows, current copyright laws only offer the public domain or outdated regulatory mechanisms as solutions. The inertia of the law, he argues, is rooted in the romantic idea of a solitary individual as the master of creativeness. While this idea still inspires theoretical elaborations and normative choices, the art world is discovering the perspective of an art made without the intervention of human authors. Facing these technological advancements, in Ajani's view, policy makers should reconsider the role of artificial intelligence in copyright law and be inspired by innovative theories in robot law where new frames for a legal personhood of artificial agents are being proposed.

d) *Technology, ethics and legal norms*

Opening Part 5 which focuses on the relationship between and mutual dependency of, technology, ethical and legal norms, *Wybo Houkes*' contribution emphasizes that, increasingly, businesses turn to subscription-based, service-oriented models for digital products instead of traditional models which transfer ownership of a product. One instance of this "servitization" trend is cloud storage of personal images, such as family photos. Here, justifiable business interests must be weighed against basic consumer (or end-user) rights. Woukes explores ways to examine and assess this complicated balance from a moral perspective. According to him, the first option is to focus on seeking continuity with non-digitized practice. Consumer acceptance of digitized products crucially depends on how they are used to view such products. Existing consumers' perceptions create reasonable expectations regarding consumer rights, but also difficulties to identify how best digitized products should be viewed. After proposing that the perception of digitized objects be examined in relation to high-level activities, Woukes specifies moral constraints for the basic activities of accumulating, accessing, curating, and deleting personal images in cloud-based storage. These constraints result from personal image collections acting as "technologies of memory" that support formation of and reflection on individual and collective identity.

Next *Thomas Dreier*, in his contribution draws the readers' attention to the phenomenon that whereas the law tells us what we may do, technology defines what we can do. While technology enables users to act in a new way, it does not enable users to act in any way they want. Whereas this is the case with any technology, it presents a problem if technology prevents its users from performing acts which they are legally allowed to perform. In such cases, Dreier argues, law and even ethical norms lose their regulatory function when technology takes the lead. This is a phenomenon described by Lawrence Lessig in the famous expression "code as law" and one which Dreier names the deontic power of technology. Copyright limitations are prime examples as they grant users certain communicative freedoms which, due to copy control mechanisms and automatic filtering systems applied by platform operators, can no longer fully be exercised digitally. Similarly, so-called end-user license agreements implemented as digital contracts reduce the users' freedom of response to the "love it or leave it" approach. After retracing the legal reactions of the legislature, the courts and legal literature, Dreier outlines the key elements for developing both ethical and legal rules to counterbalance the factual force of technology. As long as competition is not unduly restricted and

since technical protection measures allow useful product diversification, an appropriate solution, Dreier argues, cannot be found in an ex ante ban nor in a mere ex post control of technology. Rather, it is proposed that the aim should be greater transparency and more detailed information of users about the existence and properties of technology applied to digital content, including images.

Reminding the reader that any regulation which allows the circulation and accessibility of images constitutes a form of censorship in the wider sense, *Eberhard Ortland* first explains that censorship is neither good nor bad, as it can be used for both bad (suppressing certain opinions) and good (protecting children from images detrimental to the child's personal development) purposes. However, in all instances the central question is who should decide according to which criteria under which circumstances which images may and which may not be shown? In view of both the increasing number of circulated images due to the increase of cameras, digital communication technologies generally, and conflicts regarding circulation and accessibility of certain images, this task is increasingly assigned to more or less automatic censorship algorithms. Concerning the moderation of visual contents, algorithms, Ortland argues, need supervision by accountable human moderators so long as they cannot cope with the pragmatics of "pictorial speech acts", among other challenges.

Finally, *Lisa Käde* takes a closer look at algorithms and discusses how they could be regulated in a way that automatic decision-making could be left to them. In other words, what has to be done to guarantee that AI algorithms are in line with regulation? The most important issue to consider in this respect, Käde argues, is to ascertain the exact societal impact of algorithms, and why and in which cases algorithms must be regulated. How can images, Käde asks, be useful for the regulation of algorithms? How should algorithms dealing with images be regulated? And how does the negative image of algorithms influence their regulation? The author discusses the ethical issues and legal context as well as their mutual influences. Answers to these questions are provided by means of practical examples. Finally, Käde reviews existing legislative approaches, guidelines and regulations, both in Germany and the EU as well as practical tools to foster algorithm transparency.

e) Ethics and fundamental rights

In Part 6, the two final contributions of the book focus on how ethical issues regarding images are treated by constitutional law.

In the first of these contributions, *Johannes Eichenhofer* highlights various issues related to the constitutional protection of images. The starting point is the proposal for a terminological and phenomenological distinction between “inner” and “outer” images on the one hand, and “self” and “external” images on the other hand. In the following, Eichenhofer aims to show how these different conceptions of “images” are treated under both German and Italian constitutional law. The focus of his analysis is on a German-Italian case study on the legality of the dissemination of images of prominent persons, namely Princess Soraya of Persia and Princess Caroline of Hanover (formerly Monaco). He then uses this case study to propose some constitutional standards for the use of images and discusses the extent to which digitization justifies modifying these standards. The contribution concludes with some remarks on the handling of digital images.

In the final contribution, *Christophe Geiger* reviews a set of recent court decisions convicting famous contemporary artists for copyright infringement in cases of appropriation art. It is argued that these decisions not only totally disregard the artistic context in which these takings from previous works occur, but also wrongly assess the legitimacy of these artistic expressions regarding fundamental rights protection in our democratic society. Denying art the possibility to construct a discourse about a previous copyright protected work, the act of copying itself, or even the copyright system and its conception of ownership, amounts to a misuse of copyright for the purpose of censorship. This is, Geiger argues, because it is the essence of art to be able to express ideas without seeking for permission by the state or by private entities. Moreover, in Geiger’s opinion, these decisions endanger the worldwide exhibition of contemporary art as often museums or art galleries have been jointly convicted with the appropriation artists. Consequently, there is a serious risk that cultural institutions in the future will be overcautious when choosing to expose certain artists to avoid repeated and costly copyright claims. To address these shortcomings of the copyright system, Geiger proposes to rethink the boundaries of copyright law and to introduce into the European legal framework a flexibility clause based on criteria developed by the freedom of expression-case law of European courts.

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