Introduction

Queer AI

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> If war is technological, perpetual, and networked, queer networks can provide interstices – places of difference that unite queer activists, intellectuals, and artists in technological agency. The gay bomb detonates a regulatory standard for homosexuality. Gay Bombs is a strategy that blows up this standard with the hopes of re-wiring a non-standard of queerness. Gay Bombs explode into interstices of infinite mutation.
>
> (Blas 2008a)

Queer technologies

In the *Queer Technologies* work series, the artist Zach Blas negotiates the relationship between sex, gender, and technology, which he sees to be relational and entangled. Since its first initiation in 2008, the artist has worked with various multimedia forms that represent different aspects of queer and queering technologies. Using a variety of screens arranged in a way reminiscent of commercial merchandise displays, Blas critically echoes consumer culture and its systemic ties to an oppressive economy, while at the same time enabling a pluriverse brought to the fore by each technological object, interface, or screen and the various time-space continuums they represent. Each individual presentation surface displays objects and monitors, some of which are labelled, while others are not. These diverse formats are unified through a conceptual framework, which embeds the technologies in a series of practices, artefacts, and informations that represent a vision of technology created in service of, or through the queer body (Figure 0.1).

Blas continuously makes visible and criticises naturalising constructions of sex and gender that manifest and reproduce themselves in technical artefacts and technological architectures. For example, the *ENgendering Gender Changers*, a series of devices packaged and aesthetically approximated to everyday travel adapters or electronic transmission converters. With this recontextualisation of a conventional consumer object, Blas consciously questions the connection between gender, identity, and the hard- and software connectivity of information technology. Through the possibility of converting oneself with such an adapter, the artist proposes a palette of

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Figure 0.1 Zach Blas. *Queer Technologies*, 2008–2012, New Wight Gallery, University of California, Los Angeles (2008).

campy solutions to the problem of binary gender constructions—the adapters allow for a fluid and continuous game of switcheroo between various real and imagined gender identities. With this collection, Blas points to the explosive potential of a pluralised practice of re-imagination that produces iterative ambiguities, not only queering existing technologies but also developing technologies that are imagined to actively participate in the queering of their surroundings. Contrary to conventional adapters that function according to a hole and pin principle, these *ENgendering Gender Changers* have multiple options, including MALE FEMALE to HIR, MALE to BUTCH, or MALE to FEMME transitions, which are materialised via double-sided plug holes, circular, or multidirectional pins and other formats that come to stand in for non-penetrative and queer exchange beyond the binary principle. In his curatorial practice, Blas further provides visitors with political tools that can be used to break through the very tendencies of naturalisation under critique, so as to not only negate or refuse, but reopen them to new interpretations (Figure 0.2).

This form of queer(y)ing technologies is best illustrated by the *Gay Bomb*. The *Gay Bomb* installation consists mainly of a video showing image-synthetic recreations of Blas' notions of a "Gay Bomb" in the form of a pink grenade. On the grenade detonator, visitors can identify the abbreviation QT for Queer Technologies, which is scattered across objects in the work series. The installation is accompanied by a technical manual manifesto that

Figure 0.2 Zach Blas. *ENgendering Gender Changers*, part of Queer Technologies, 2008–2012, New Wight Gallery, University of California, Los Angeles (2008).

explores the Gay Bomb as a pluralistic object of homosexuality that harbours heteronormative and queer potential at the same time. The myth of the "Gay Bomb" refers to a line of U.S. military research, which began in 1994 and was discontinued in 2005. The project aimed at developing an aphrodisiac chemical weapon that would literally make its targets "gay." Underlying the research was the notion that such a weapon would force enemies into submission by distracting them from combat operations, but also, and perhaps more centrally, by causing adversaries to surrender in shame at the sudden emergence of same-sex desire. Blas describes how this idea of an immaterial chemical weapon turns into a de facto bomb through media discourse that carry the research into the cultural imaginary. Once imagined in the form of an actual explosive device, the imaginary later becomes concrete technology: Instead of a biochemical "gay bomb," Afghanistan is hit by an actual bomb in 2003, on which a marine had written "High jack this Fags" in large white letters before sending it off (Blas 2008b: 29). What initially began as a rumour of experiments in the laboratory intertwines Orientalism, anti-Muslim racism, and homophobia in its final,

Figure 0.3 Zach Blas. *Gay Bombs: User's Manual*, part of *Queer Technologies*, 2008–2012, SPECULATIVE, Los Angeles Contemporary Exhibitions (2011).

concrete-material form as an artefact of the military-industrial-complex: technology appears here as a normative gendering force that lies in reverse to any kind of queer endeavour, producing the gay bomb in a necropolitical and heteropatriarchal object[1] (Figure 0.3).

The gay bomb is at once knowledge artefact, projection and explosive technology. It harbours psychosocial and post-cold-war ontologies, as well as western liberal politics driven by and grounded in economic and political ideologies. As with any cultural artefact, interpretations of the gay bomb have been pre- and remediated, the imagined configurations are affectively prepared and worked over within the media mainstream: from Stanley Kubrick's film Dr Strangelove (1964), to the music video for *Ask* (1987), a song by the band *the Smiths*, as well as an episode of the television series *30 Rock* (2/15, May 8, 2008). In the latter, the "Gay Bomb" mistakenly explodes in the Pentagon. What follows is an exaggerated scene in which the notorious "old white men" of the U.S. executive suite approach each other in eroticised, sweating ecstasy. Through this media reinterpretation, the meaning of the "Gay Bomb" changes again, since its use in the scene of the TV series is directed inward, that is, against the bomb throwers. Thus, the original intention of use is reversed: homosexuality, once chosen as a weapon that humiliates the Muslim enemy, is now projected—no less contemptuously, perhaps—onto a representation

that excavates and derides concepts of masculinity within the military. The very fact that evaluations of this representation may differ, illustrates how multiplications and transformations of the "gay bomb" can be understood, with Zach Blas, as a "terrorist" (Blas 2008b: 25) appropriation of heteronormative attributions. Inherent to this appropriation is the possibility of disrupting heteronormativity from within. In this way, the idea of the concrete materialisation and medialisation of the "gay bomb" is routed via camp, drag, and queer subculture. Its concrete use is flanked by a socio-political process of negotiation that seeks to blur the previously exhibited unambiguity of the artefact.

Queerness, as the example shows, emerges here with, over, and through technology, which may also turn against its creators. It is thus no coincidence that Blas also begins his "User Manual" for the Gay Bomb with the mandate that was projected onto the Afghanistan bomb: "Hi-Jack This Queers!" (ibid.: 29). In this instance, however, it is an invitation and address to queer activist networks: to destroy the norm inherent to and reproduced by technology, to hi-jack it through queer political actions and formations based on the development, deployment, and dissemination of queer technology as "terrorist" (ibid.). Through these appropriation strategies of a queer multitude, it becomes apparent that technology itself is open and in parts indeterminate, and thus can represent its own space of possibility within concrete applications and appropriations that are released through resistant practices—for example, through a redirection of discursive logics towards a vital, mutating political body of queer empowerment. The artist interweaves discursive and material levels of queering automated warfare by describing queerness as a tactic of disrupting consumption and heteronormativity (Blas 2008b: 14). Inherent to this strategy is an understanding of the term queer that is also central to the present anthology: fundamentally, we understand queer as a critical practice that is directed against naturalising and unifying concepts of social, cultural, and political perspectives, as well as a modality of highlighting the potential for repression that lie within to such monolithic iterations (Case 1991: 3). Queering refers to strategies, options, and spaces of possibility with the help of which existing understandings and attributions of gender, sex, but also binary and thus mutually exclusive categorisations such as male/female as structuring concepts of and to technology can be criticised, analysed, and blasted open.

In this sense, technology can first and foremost be defined as indeterminate. Such an understanding illustrates the possibility that technology can be realised in very different ways in different contexts of application and also be distributed, appropriated, and made socio-politically productive in various ways. AI is thus merely the latest of a whole line of transformative media technologies that "matter the most, when they don't seem to matter at all" (Chun 2016). The example given here illustrates the limits of an understanding of technology as only determining—one that sees the technical merely as an instrument without contradiction, since even a

technical artefact that is highly functionally determined and intended to kill appears to be appropriable for queer imaginaries. As the "Gay Bomb" illustrates, technologies are embedded in the socio-cultural imaginary, which in turn provides multiple possibilities for reinterpretation and appropriation. Technology never materialises as "pure tech"; rather, it is embedded in concrete social and cultural norms on the one hand, and on the other hand, is highly context- and application-bound. Blas' work shows that sex, gender, and sexuality are strong structuring elements of technology; they claim their own space as points of friction and thereby have an effect on technology itself, as well as on the localities of its dissemination. Queerness, then, becomes an "Operating System" (Keeling 2014) through which to view technology, and potentially alter its fungibilities. In such readings, Blas' work, which is captivating in its reference to concrete materialised artefacts, can be applied equally to digital technologies and current imaginaries around AI—artificial intelligence. In the context of these increasingly ubiquitous digital technologies, questions arise about changing conditions and genealogies of power and influence. At the same time, a plurality of narratives on these seemingly new and emergent technologies may bring new and altered possibilities of appropriating technology, emancipating from, with, and through technologies, and resisting the normative thrust inherent to contemporary structures underlying the development of emerging technologies through an insistence on queer ambiguities.

Artificial intelligence

Reaching beyond the examples worked through by Blas, AI no longer plays a role only in the military context; rather, there is an explosive spread of AI within everyday life. This omnipresence contributes to the fact that AI has become a term of enigmatic openness that is increasingly finding its way into various disciplines and discourses. Such ubiquitous diffusion is usually accompanied by a dilution of the term: AI currently seems to describe everything that is automated or autonomous in some way and can thus act purely as a machine. Thus, individual technical artefacts, especially algorithms, but also networked technologies or voice assistants such as Alexa, Siri, or wearables are subsumed under the term, as well as generalised references to machinic forms of being such as robotics, or specific methods of machine learning that are framed as "intelligent." So-called deep learning mechanisms involving neural networks are particularly prominent (LeCun et al. 2015; for an anthropological view see Seaver 2017)—these are becoming relevant especially in the context of increasing automation in a wide range of social domains from business to politics and healthcare (cf. Eubanks 2018).

As this short list already implies, AI has been positioned as the paradigmatic emerging technology, and has become a kind of universal representation of the same that provides suitable solutions for technical and

non-technical social or political problems. It is thus the latest buzzword upon which hinges a whole range of only partially technological regimes, previously accumulated under terms such as "Big Data" or the "Internet of Things." Examples can be found in a variety of contexts, such as the equation of automation and market liberalisation in the world of work gathered under the term industry 4.0, motion sensors that analyse and categorise facial movements to project emotional analyses via affective computing, or simply the monitoring of public spaces with the aim of deploying surveillance strategies in the name of order or security (Zuboff 2019; Amoore 2020). The efficient and rapid processing of a comprehensive amount of different data promises objectivity, effectiveness, and accuracy, and thus holds out the promise of standing apart from human error and bias, even proposing, as WIRED's former editor-in-chief once put it, an "end of theory" that "makes the scientific method obsolete" (Anderson 2008). Data is equated with an imaginary of complete knowability, which is set as universal through procedures of calculation that can produce a social "truth," because it can process more (and, in this imaginary, at some point *all*) data. Such an understanding of truth-making practices goes against a long history of feminist epistemologies of science and technology, which have argued against the objectivity of technology and its phantasm of complete knowability as a heteropatriarchal (and colonial) phantasy (e.g. Haraway 1988; Wajcman 1991; Browne 2015). This phantasy has been excavated as problematic, not just on gendered terms, in relation to AI in a variety of ways (cf. Gitelmann, 2013; Steyerl 2016; Noble 2018; Amaro 2022).

It is worth taking a closer look at the different uses and contextualisations of AI, to enable an approach to the phenomenon from different disciplines and methodologies—in terms of the history of ideas, conceptual critique, narratology, descriptive analysis, or deconstruction—and thus to set different focal points that diversify, contextualise, and make legible the sociopolitical relevance of AI. For, its usage has already been critically reviewed and evaluated for some time within the fields of Software and Critical Data Studies (cf. Chun 2005; boyd and Crawford 2012). Increasingly, research is addressing contemporary digital phenomena empirically, theoretically, and with regards to their social or cultural effects. Thus, an interdisciplinary field of research is forming that takes a look at political, social, and economic problem areas and attempts to theoretically capture the threat to social equality and freedom posed by technology (cf. most recently, for example, Amoore 2020; Crawford 2021; Coeckelberg 2022). The aim of such approaches and debates is to reflect in detail on datafied technologies' normative and normalising impact. At the same time, they open up the possibility of detaching algorithmic systems, information models and data-based spaces of action from a purely instrumental-technical understanding and anchor them more firmly within societal imaginaries and cultural production.

Bias

More recently, discrimination has become a central point of focus to describe the socio-political impact of AI in a way that has entered societal discourse through the concept of algorithmic bias. Within algorithmic systems understood as AI, it refers to unjustified unequal treatment as well as unjustified equal treatment in the context of algorithmic information processing. The examples are numerous, and some have received much attention of late: Amazon's recruitment algorithm that identified tech-savvy men as significantly more suitable for high-paying positions than equally tech-savvy women, a Facebook image recognition programme that sorted images of Black people into the category of "primates," or Facebook's classification of indigenous names as "fake." On different levels, these examples illustrate inherent biases within technological systems believed to have been deployed objectively. This is due to a central feature that makes AI work: for an AI to function, it must make concrete classifications based on concrete data. AI thus devalues certain data features while upgrading others (cf. Amoore 2020, 8). In order for an AI to produce results, it must therefore "discriminate" in the true sense of the word. Such a complex issue is usually reduced to a technical term or a technical flaw, the bias. However, biases are merely the result of a problematic policy that equates representation with categorisation, and it can occur at different levels. The recruiting algorithm had decided men to be more hireable, because men were already dominant in the specific jobs it was recruiting for, the AI projected data of the past into what it considered a desirable future. The equation of Black people with primates may have been the result of lacking data—as many facial recognition technologies are still not trained on Black and brown faces, and thus fail to recognise these as human more often than the white faces that make up the data sets (cf. Buolamwini and Gebru 2018). But it may also be the result of a form of malicious repetition, in which the repeated identification of Black people *as* primates calls upon the historical and racist degradation that these groups continue to be exposed to.[2] In most cases, a faulty, non-diverse data set is marked as responsible (cf. in more detail on the levels and aspects of algorithmic discrimination: Schwarting and Ulbricht 2022). However, the representational gaps might not be only due to a lack of data, but also due to a prior categorisation that evokes, works through, or problematically recodifies racist and sexist, or hetero-patriarchal stereotypes (Browne 2015; Noble 2018; Benjamin 2019; Angwin et al. 2016).

A purely technical understanding of discrimination then obscures the fact that evaluations and attributions—including conceptual ones—necessitate precise definitions of categories and thus rely on distinct precision rather than contextual interpretation. However, these interpretations play a role in decoding the patterns the AI produces when data becomes knowledge. Instead of presenting a bird's eye view that proposes complete knowability, AI works

with reductive systems that continuously negates or subsumes multiplicity and ambivalence, codifying it into this or that identifiable norm. The use of AI is therefore always oriented towards a normative structuring of data sets, which in turn is often historically based on the exclusion of marginalised positions. In a striking example, the author, filmmaker and artist Hito Steyerl shows how racisms, stereotypes, and structural inequalities can bias data sets even if the AI presents factually true forms of knowledge that could be considered as new information: When leading technology consulting firm Booz Allen, which evaluates and distributes security infrastructure for the US government amongst other clients, examined the demographic information of a luxury hotel chain, it turned out that many young people from Middle Eastern and North African countries were staying there and were booked into the consistently high-priced locations, which were spread all over the world. As Steyerl writes, the company did not trust its data analysis and dismissed the information as an error in the algorithm:

> The demographic finding was dismissed as dirty data—a messed up and worthless set of information—before someone found out that, actually, it was true. Brown teenagers, in this worldview, are likely to exist. Dead brown teenagers? Why not? But rich brown teenagers? This is so improbable that they must be dirty data and cleansed from your system!
>
> (Steyerl 2016, n.p.)

Such distortions of the result of a supposedly representative survey reveal an *inappropriate* distinction, even if the calculation procedure is factually correct: a specific characteristic is understood as an irrelevant miscalculation due to an incorrect reading and evaluation of meaning. Such miscalculations may concern empirical knowledge: Black people are not primates and that equation has a genealogy grounded in white supremacy and racial capitalism. However, it can also lead to seemingly sensible conclusions that reveal problematic situations: When women were previously underrepresented in a certain labour market, this should not lead to an equation that they are not suited for employment in these markets in future. This example shows that such a phenomenon cannot be countered with a mere "more" of data, to make the technical basis for calculation more accurate. Steyerl's observation shows that although data are available, they are (or can be) deleted, classified as false or ignored, and thus a reactionary moment is inherent to the codification of cultural evidence and its transformation into knowledge. What initially reveals itself as a technical procedure—the devaluation and revaluation of data characteristics—is historically bound and socio-politically determined.

Power

Jutta Weber (2005) identifies a "gendering" of technology and machines, an observation that goes beyond technical discrimination or bias. While the

concept of discrimination as bias is concerned with the parallels between evaluations and socio-political structures, the concept of power—parallel to the concept of intelligence—emphasises the productive potential of normative stereotypes inscribed into concepts of race, sex, and gender, but also into cultural formations that refer to geography economic status, and religion. Technology is never separate from these formations, rather, the mechanical apparatus is entangled with them in epistemological and socio-political ways. After an acknowledgement of "race as technology" (cf. Chun 2009), we must thus come to terms with gender functioning in parallel and being developed through new technological modalities of knowledge production (cf. Sharma and Singh 2022). With Blas' examples discussed initially, this means understanding how reductive concepts of gender and sexuality inform technology—as pin and hole infrastructures, for example—and how these technologies come to inform social contexts of "truth." This means not only looking at contemporary iterations of AI, but also tracing how it is a contemporary iteration of research, both military and economically driven, that begins amidst the anxieties of the Cold War and the desire to emerge as the superior economic system. The structures and modes of knowledge production and truth-finding in data-driven societies may now be established via algorithmic procedures. But these merely embed and codify earlier ideological frameworks within specific, sometimes de-contextualised automated systems. Especially for the humanities, this means that debates and analyses are turning towards the question, what knowledge is produced by algorithmic systems in what ways, and how this knowledge translates into socio-political structures and realities. Viewed through the lens of power, it has become apparent that AI is but the latest in a series of protocols that reproduce western heteropatriarchal normativity and whiteness as prototype via infrastructures referred to as "data colonialism" (cf. Browne 2015; Kwet 2019; Cave and Dihal 2020). The seeming autonomy of algorithmic systems thus works through an invisibilisation of the very structures of power and exploitation that AI is dependent upon, without which it would neither function nor seem intelligent (cf. Atanasoski and Vora 2019; Ganesh 2020). The gendering of technology can thus be excavated on the normative level of representation, but also in the acknowledgement that the infrastructural, invisibilised labour that produces these technologies has itself been feminised, so as to appear "natural" (cf. Haraway 1991; Nakamura 2014).

Knowledge, and with it, the material set-up of the world, is rationalised through seemingly objective, numerical procedures, as a result of which an understanding of knowledge prevails that is oriented towards the parameters of calculation, abstraction, and generalisation. AI thus becomes tangible above all in terms of its definitional power. Infrastructures of AI participate in the framing of reality and thus define the meaning of what is considered "normal" and "desirable" (cf. Amoore 2020, 6f.). Following Blas, these practices serve a successive framing of social reality, which is significantly oriented towards the heteronormative as infrastructural, unchangeable, as

universal. AI systems are used against this backdrop to advance socio-political development only within prevailing norms, in terms of normalising broad areas of life for individuals and collectives. AI thus posits societal norms within a double bind: on the one hand, AI fundamentally rearticulates prevalent modalities of discrimination and exclusions within societies by overemphasising existent social hierarchies. On the other hand, AI produces normativity when used to generate knowledge within a diverse range of social contexts, thereby reducing ambiguities, deviations, and multiplicities to the one or the other data set befitting the more general queries it is confronted with.

Processing almost infinite amounts of data by AI systems thus creates technology-bound, yet culturally situated knowledge, which it has the tendency to generalise according to west-centric readings and economic profitability, rather than neutral or pluralistic classifications and objective determinations of need. Instead, the focus shifts to the question of how existing relations and individuals are integrated into a deterministic regime of hegemonic views by means of AI systems (cf. Benjamin 2019). This particularly concerns a central feature of modern democratic societies. Modern democracies are characterised by a pronounced awareness of contiguity, according to which fundamental social norms, as well as specific laws can be criticised within the framework of institutional procedures as well as through political protest. In contrast, AI is rather a moment of normalisation qua technology. Thus, the concept of power no longer only focuses on the epistemic foundations of societies in the age of intelligent technology, but also places technological dominance at the centre of attention as a majority intertwined with concrete designs for order. Algorithmic decision-making thus quite literally positions AI in a capacity to not only evaluate data but actually autonomously decide things with societal dimensions. Not only are capacities for decision-making delegated away from societal terms of accountability, say, for discrimination on the job market, the process of decision-making is black-boxed and thus the complex data sets and contexts that led to these decisions become naturalised and seemingly unchangeable.

Queering

This emphasis on the reciprocity of power and AI and its entanglements with fundamental and hierarchical structures that permeate society are underlying the reflections in this volume, but its central impetus lies within the potential that the queer(y)ing of technologies such as AI might bring. For the conceptual openness and fluidity that AI allows for, also produces excesses, slippage, and resignifications that are the result of and equally reveal AI's constructedness and its levelling of cultural multiplicities as paradoxes that question the status quo. The volume thus considers the development and application of a queer understanding of knowledge; one that acknowledges every technological knowledge production as limited, contingent, and

particular, but at the same time repeatedly reveals "starting point[s] for shifting boundaries and destabilisations" (cf. Weber and Bath 2003) due to inherent multiplicities of reading. Against the heteropatriarchal, seemingly rational (and thus modern/colonial and economically oriented) understanding of complete knowability—epitomised in Donna Haraway's catchphrase "the view from above, from nowhere" (1988: 589)—we consider knowledge a result of concrete practices legitimised by material and discursive structures that streamline multiplicities into norms, and data into seeming objectivity (cf. Foucault 2001; Amoore 2020). However, these norms can be challenged, rejected, or resignified. Knowledge is thus always particular, incomplete, multi-dimensional, situation-bound, and plural.

While AI thus represents a most recent form of epistemic streamlining, the volume hopes to excavate epistemic surpluses and ambiguities that point to glitches in the essential structure of knowledge, which in turn are made productive by a queer-theoretical approach to digital technologies. Although they are based in a whole range of methodological and epistemic traditions, the chapters in the volume are pulled together via their groundings in queer theory, which itself is marked by multiplicities and ambiguities and a non-identitarian impetus that refuses categorisation. What can be found as binding this diverse field together is a notion of refusal that articulates itself against binaries of all kinds, playfully appropriates hegemonic aesthetics and forms, and shows crossings and appropriations inherent to past, normative, and future genealogies (cf. Butler 2004; Muñoz, 2009; Halberstam 2020). While the "shock-value" of these queer aesthetics had been imagined as pacified during the late beginnings of the 21st century to a certain extent (McRobbie 2009; Berlant 2011), the anti-identitarian impetus of queer studies as an intellectual and political tool of critique arises once more to be of central importance in times of algorithmic accuracy and certainty. At the same time, much like contemporary debates on computer vision and racism (cf. Amaro 2022), queer theory itself needs to be bolstered against appropriation in a time where technologies themselves are turning to affects, desires, and multiplicities that rein in or attempt to codify queer life. As a framework of analysis, a decidedly queer approach can question the very logics of visibility with which algorithmic systems and AI are trained. It can serve, for example, to excavate practices of disidentification (Muñoz 1999), satirising the reductive outlining of queer subjects by AI, as Blas perhaps has chosen to do. And, in the sense of refusal, perhaps as queer theorists such as Lee Edelman would represent (2004), queer theory can question whether the question of inclusion of any kind could ever be a satisfactory option for queer life, when this inclusion means merely adaptation and co-optation into a heteronormatively constructed system. In both cases, a queer disposition is expressed that defies normative relations, in one way or another, and articulates a politics that epitomes in "the consent not to be a single being" (Moten 2018). Articulated as multiplicity, such refusal holds the potential to give space to marginalised positions far beyond the spectrums of sex, gender,

and sexuality, to question not only representational identities but the structures that produce them as deviant as much as the technological forms of capital that seek to pacify that deviance.

Such a "queer" understanding of knowledge and knowability crosses hegemonic understandings of AI as a specific technical apparatus. For, in most cases, AI continues to be considered merely in terms of its interconnected technical units based on formalised calculations. This technocratic understanding of rigid and purely mathematical-numerical systems leads to a return of the black box that has framed AI as inaccessible and difficult to understand, so that possible changes are perceived as difficult or difficult to realise. But "explainable AI"—the proposition to contrast the black box with transparent and understandable pathways—arguably norms the rational framework of a certain type of explainability all the more. With queer theory, we seek to reopen the black box as a potentiality and resituate AI within the various, ambivalent and sometimes contradictory cultural narratives that have brought it to the fore—technological development and plausible fictional scenarios that envision its necessity are two sides to the coin of material technicity, and they shape and are shaped by socio-cultural location (Dainton et al. 2021). An "algorithmic anthropology" (Seaver 2017) is thus concerned with not only technical, but also cultural, aesthetic, and semantic practices and effects of algorithmic systems, understands them as multiple and polysemic, and thus alterable. Sociotechnical imaginaries (Jasanoff and Kim 2015) of AI are thus central important social frameworks, which can be excavated from cultural artefacts, films, and artworks, as well as societal and scientific processes. Further, technological metaphors that are transported into social context can also produce meaningful queer analyses of sociotechnical imaginaries, that pluralise how we conceive of societies and collectivities.

Conception

Given the various disciplines represented in the anthology—art history, cultural and literary studies, curatorial, digital and disability studies, English studies, feminist science and technology studies, information, media and software studies, medical ethics, and sociology—all of which have a strong interdisciplinary framing informed by questions on gender and sexuality, the aim is to draw on different aspects of AI and stimulate broad reflection on the subject. The volume is thus broadly divided into three sections, which complement and can be read against each other.

Part I Genealogies

In the first part, the genealogies of AI are contextualised and denaturalised by situating them in specific scientific, cultural, and economic contexts that influence their emergence. The focus is on the question of how the underlying

problematic of normative AI can be historicised, which historical traditions of exclusion and devaluation of current digital technologies link to it, and where the possibilities and limits of theoretical and empirical reflection of that matter lie.

Blair Attard-Frost thus frames the concept of intelligence as something itself embedded within a number of performative practices that reveal cognitive biases. For this purpose, intelligence is positioned as an ambiguous concept of judgement based on different norms and values. Attard-Frost counters this with a theorisation of intelligence that takes into account the conceptually conceived variability and diversity, which conceives of intelligence as a value-dependent cognitive achievement in the sense of a performance. Building on this, Attard-Frost designs a critical analytical framework within the study from the field of information science to queer two influential theories of intelligence: John Carroll's three-layer theory and Alan Turing's references to an ontology of AI.

Orit Halpern proposes a second avenue through which to understand AI, which is grounded within the neural net, neo-liberal economic thought, and finance. In this chapter, Halpern argues that these genealogies help understand how reactionary politics, population, and sex are being reformulated in our present with and through technologies. While the relationship between the Right, post-truth, suggestion algorithms, and social media has long been documented, rarely has there been extensive investigation of how ideas of choice and freedom become recast in a manner amenable to machine automation and to the particular brands of post-1970s alt-right discourses. This situation provokes serious challenges to political action, but also to our theorisation of histories of race and sex capitalism.

In **Nishant Shah**'s contribution, these genealogies are yet again reformulated within the dualities of cleanliness and dirt. Contemporary AI applications and platforms are placed within a genealogy that illustrates a continued pathology of queer bodies as dirty and contaminated, so as to produce AI as clean, pristine, and superior. Expanding on genealogies of AI that are involved in an epistemology of outing, Shah argues that AI not only out and thus define queerness, but produce queerness in a state of contamination and risk. The chapter closes with three design propositions that focus on queerness as care, relation, and kinship, which reject normative frameworks that posit queer bodies as AI's Other, but suggest a teleology that produces queerness and technology as conjoined mediations of the body.

Part II Materiality

Departing from the question of genealogies, the second part of the anthology centres on the identification of the body as a site for the politics of queer AI. This part centres on the very real and situated materialities, which come to inform AI systems and become invisibilised within their deployment as disembodied universal machines.

In a chapter on queer and crip technologies, **Ute Kalender** returns to the Harawayan cyborg to question its relevance for contemporary discourses on diversity and AI. Kalender resituates this prominent figure within emerging discourses in disability studies by giving space to embodied queer knowledge. Implementing the experimental methodology of fictocriticism, Kalender enables a narratological practice that embodies AI via the experiences of disabled and queer-crip research subjects, allowing them to speak to AI discourse instead of the other way around. By means of semi-fictional narratives Kalender shows how people with disabilities are indeed and always have been cyborgs when, for example, thousands of them already drive AI-based cars. At the same time, merging with AI is discussed as obstructive, painful, or as simply enforcing conformity with the mandatory norms of performance and productivity.

Michael Klipphahn-Karge's contribution states that artificial bodies often appear as representatives of queer subjects and their embodiment in exhibition contexts. He exemplifies the entanglement of queer and artificial bodies by means of the 2014 artwork *(Female Figure)* by Jordan Wolfson. Targeting an aesthetic of ambiguity as central for queer representational practices, Klipphahn-Karge works through the figure of the robot, a main point of reference of *(Female Figure)* that allows for an embodied perspective on the seemingly disembodied systems of AI. By conveying ambivalences and ambiguities through and within this work of art, his analysis holds out the prospect of breaking down technical disambiguation and stereotyping.

Katrin Köppert's contribution begins with the pathology inherent to menstrual cycle monitoring and birth control to think through notions of subjectivity and desubjectivation. Starting from the premise that feminised and reproductive bodies are unequally reduced to data in biometric applications, either disproportionately captured or misrecognised, Köppert negotiates the detachment of the body from the category of being human and subject constructed by technology from an art and media studies perspective. Putting the artistic work of Tabita Rezaire in conversation with Luiza Prado de Oliveira Martins' GIF essay "Every Direction at Once," Köppert excavates a transgressive aesthetic of incompatibility and conflict, based in the material realities of Black and brown menstruating bodies.

Part III Speculation

After the question of how AI materialises with and through bodies, the third and final part of the anthology turns towards the speculative potential of AI. The last three chapters address the question of futurities and imagination in relation to the question of identification and disidentification and sharply focus on AI as a disruptive element that makes the unity of the human subject incoherent, to instead iterate conjoined and posthuman agencies and productivities. The speculative thus seeks to excavate practices and narratives that turn towards a future and bring it into the present, even if

this present is, first and foremost, speculative, minor, and fragmented, needing to come together through cutting-apart, as Karen Barad might say.

It is this becoming-together that is formative for a reading of AI in **Sara Morais dos Santos Bruss**' argument. Building upon an acknowledgement that AI is not accurate, but immersive, environmental and constantly creating excess, the chapter posits Jeff VanderMeer's novel *Annihilation* and its cinematic adaptation as a central imaginary that reworks AI as immersive, wild, and queer. In such a reading, the wildness that VanderMeer describes is posited as the refusal of algorithmic categorisation and accuracy, to instead point out the constant productions of excess and a different form of agency and non-subjectivity that these excesses might signal towards. At the same time, the article questions whether these excessive infrastructures themselves are not currently under threat, as AI becomes affective and emotional, thus once again formalising queer wildness into a capturable form.

Carsten Junker looks at contemporary engagement and tinkering with AI through literary imaginaries produced within cyberfeminist manifestos. The chapter identifies a tension between the disruptive agendas of these manifestos, their emancipatory rhetorical promises, conceptual innovations and critical claims on the one hand, and the repetitiveness of the generic conventions these texts mobilise on the other. The paper highlights a contradiction that can be observed in the authors' use of the manifesto as a form: while they use this literary form to postulate novelty and call for disruption—thus formally and propositionally actualising the manifesto—the critical and queer potential of the genre is neutralised by its iterative use, thus potentially limiting how AI, as the subject of their proposed disruption, is reimagined and distributed.

Johannes Bruder explores selective inclusions and exclusions that underlie the operations of AI. Starting from the premise that epistemologies of Big Data and the operations of AI are incompatible with queerness, and building on insights into the functions of autistic subjectivity and cognition in the context of AI, Bruder points to the function of autism as an Other that is constitutive of AI. At the same time, he shows that autistic individuals were and are already an essential part of the cognitive infrastructure of real existing AI—whether as test objects, coders, or data workers. In this way, Bruder challenges the forcible inclusion and definition of autistic subjectivity and cognition as a basis of AI. Neuroqueerness is conceived as a performative response to selective inclusion and exclusion that autistic individuals are subject to in social contexts. The forcible and necessary inclusion of certain bodies to produce AI narratives is also a matter of concern for speculating on its ambivalent inclusion, and Bruder identifies a paradoxical situation of the (neuro-)queer that both fixates and ambiguates AI's relation to queer potential.

The anthology is tied together by a final contribution by **Os Keyes**, which serves as a conclusion. In this final chapter, Keyes gives an outlook into gaps and slippages that still need to be addressed, as well as proposing emergent qualities of the volume.

Notes

1 Achille Mbembe has developed the term "necropolitics" to describe the ability to decide who can live and who can die (cf. Mbembe 2011). Here, queerness is both identified and eradicated through the Gay Bomb—its targets become "fags," the gay body is identified in death, in being hit by the gay bomb.
2 Safiya Noble (2018) illustrates how activists made public that a Google search for n-word house or n-word king during the Obama administration would lead to Google Maps taking users to the White House. This example illustrates that "biases" are not always—although very often—simply the result of omissions of specificity due to a belief in a supposed universal. Sometimes, these systems allow for individuals to exploit the working of these systems in targeted ways, while, as Noble reports, the companies responsible for regulating these results can resort to claiming "technological errors" and shun accountability.

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