

Inside the Postdigital Crowds

The aesthetics and politics of the mediation and governing of digitised crowds.

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Submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy

Royal College of Art School of Fine Art and Humanities (Sculpture)

June 2021

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Signed.....Anna Ådahl

Date.....

Abstract

This practice-led research analyses and explores, through different artistic mediums and processes, the aesthetics and politics of the mediation and governance of crowds in a postdigital era. Through material and physical articulations it addresses the urgency of a phenomenon where the employment of computational tools and mechanisms representing and governing today's crowds and collective behaviour are becoming increasingly opaque while facing political and ethical dilemmas. The outcomes of this research proposes a new embodied understanding of the agency of the postdigital crowds.

The specific inside approach inherent to the present postdigital condition, is articulated throughout the research and embodied within the practice. Using a 'post-individualistic' perspective enables this research to think beyond today's intensified individualism and deploy a collective understanding of these crowds while shedding light on their fragmented and atomised online and physical existence.

The key terms and notions of 'default' and 'flow' are central in the methodological investigative nature of the research. They act as guiding clues exploring the links between the digital operations of crowds and contemporary economic currents and political strategies while establishing a direct correlation between written theory and the embodied and spatial articulations of the practice. A methodological approach which helps to identify the corporal ramifications and instrumental role the employment of these key terms and the digital tools have on the crowd and collective behaviour.

The postdigital crowds are analysed through their digital representations, media and technologies, such as crowd simulations for film and computer games (the latter in partnership with the gaming company Ubisoft), as well as multi-target tracking systems.

Through embodied experiences, this practice-based research uses multiple mediums in the form of spatial narratives, such as sculptural installations, collages and performance where the organic human body is used as reference and tool of investigation. This unravelling uses a process of re-mediation to physically understand the postdigital conditions in which the crowd operates with the aim to materialise the immaterial from a critical standpoint while making visible the dissimulated articulations and strategies enabled by computational technologies. The data generated from these various methods of approach are synthesised in a series of

essay films forming the core of this research. These films propose an associative and critical analysis of how digital governance of the crowds are modelling the politics of future collective behaviour.

In a postdigital era with a 24/7 online life and working body, framed within an accelerated economy affecting our collective behaviour and production modes, this practice-led research attempts to contribute an experienced understanding of the aesthetics and politics of the digital governing and modellations of crowds. By using various artistic media and methods this research establishes a multi-faceted and embodied analysis articulated in various spatial and visual outcomes on the conditions and agency of the postdigital crowd subject.

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List of Accompanying Material/Portfolio of Practice

See also attached file: Images for Portfolio of Practice

DEFAULT CHARACTER (2016)

13 min

HD video film

available at: <https://vimeo.com/194514816> (under construction, please contact me for film)

Website: <https://www.annaadahl.com/works/default-character-2016>

Synopsis: The film *Default Character* focuses on the vocabulary, tools and human representation in the various types of softwares that is used for modelling and tracking crowd behaviours.

List of images:

1. Film still
2. Film still
3. Film still

Exhibitions and screenings: Anna Ådahl: Inside the New Mass Ornament, Whitechapel Gallery, 2016; Night of Philosophy, Moderna Muséet, Stockholm, 2019; Rencontres Internationales Paris/Berlin, Forum des Images, Paris, Haus der Kulturen der Welt, Berlin, 2018; Flux/Flow, Techne Congress, Chelsea School of Art, 2017

DEFAULT CHARACTERS (2018)

solo exhibition at Marabouparken Art Gallery, Stockholm. May-September 2018.

Website: <https://www.annaadahl.com/works/default-characters-2018>

Default Characters was a solo exhibition entirely dedicated to my ongoing research and featured six newly produced projects in various mediums, investigating the

computational modelling tools for crowds such as crowd simulation softwares and the human multi-tracking systems.

Featured works:

Di-Simulated Crowds, 2018, film.

Locomotion Diamond, 2018, large size sculpture in metal and straps.

And or Or, 2018, performance.

Invisible Infrastructures, 2018, collages

Default Character 1-2-3, 2018, sculptural 3D printed busts.

Homogenous Mass, 2018, installation with sand and endoscopic camera

List of images:

1. Installation view at Marabouparken Art Gallery.
2. Installation view at Marabouparken Art Gallery.
3. Installation view at Marabouparken Art Gallery.

DI-SIMULATED CROWDS (2018)

HD Video and video installation

15 mins

available at <https://vimeo.com/267534688>

Password: triptyk

Website: <https://www.annaadahl.com/works/disimulated-crowds-2018>

Voice over transcript: separate document.

List of images:

1. Installation view in exhibition Default Characters, Marabouparken Art Gallery, 2018
2. Installation view in exhibition Default Characters, Marabouparken Art Gallery, 2018
3. Film still
4. Film still

Represented and acquired by the Museum of Modern Art, Stockholm since 2021.

Exhibitions and screenings: Di-Simulated Crowds has been exhibited and screened in solo exhibition Default Characters, Marabouparken in 2018; Haus der Kulturen der Welt, Berlin and at the Gaité Lyrique, Paris, within the framework of festival Rencontres Internationales Paris/Berlin in 2018; Visions Bleeding, Royal College of Art, 2018; The Royal Institute of Technology within the framework of lectures series Human Tech in 2019; in the group exhibition ARTworlds/Scena 7 in Bucharest within the framework of the International Wrong Biennale, 2020.

DEFAULT CHARACTER 1-2-3 (2018)

Sculpture

3D printed life size busts in polyurethane and unhardened clay. The 3D printed clay bust is developed and executed by RISE Interactive at the Northern WASP Hub in Umeå.

Website: <https://www.annaadahl.com/works/default-character-1-2-3>

List of images:

1. Default Character 1, polyurethane plastic
2. Default Character 2, unhardened white clay.
3. Default Character 3, polyurethane plastic
4. Installation view of sculptures in exhibition Default Characters
5. Installation view of sculptures in exhibition Default Characters

IN-VISIBLE INFRASTRUCTURES (2017-8)

Digital collages in various formats printed on paper.

Website: <https://www.annaadahl.com/works/in-visible-infrastructures-2018>

List of images:

1. Collage 1 (available as poster), Collage 2
2. Series of collages 3-4-5-6 printed on Japanese vintage paper.

The collages were exhibited in the solo exhibition Default Characters but were also published in OEI magazine n. 77, 2017.

THE LOCOMOTION DIAMOND (2018)

Sculpture 250 cm x 700 cm

Metal, textile strap band

Website: <https://www.annaadahl.com/works/the-locomotion-diamond-2018>

The sculpture is a translation, remediation of the crowd simulation software triangular shaped control operator for the velocity and motion of the crowd.

List of images:

1. Installation view in exhibition Default Characters, Marabouparken Art Gallery, Stockholm
2. Installation view in exhibition Default Characters, Marabouparken Art Gallery, Stockholm
3. Installation view in exhibition Default Characters, Marabouparken Art Gallery, Stockholm
4. Installation view in exhibition Default Characters, Marabouparken Art Gallery, Stockholm

AND OR OR (2018)

Performance

4th of May and 16th of August 2018 at Marabouparken Art Gallery, Stockholm.

Performers: Rebecca Chentinell; Andrea Svensson; Sybrig Dokter; Pelle Nilsson.

Video documentation of performance with and without audience:

available at <https://vimeo.com/272562739>

available at <https://vimeo.com/272561900>

List of images:

1. Image of performance in in exhibition Default Characters, Marabouparken Art Gallery, Stockholm
 2. Image of performance in in exhibition Default Characters, Marabouparken Art Gallery, Stockholm
 3. Image of performance in in exhibition Default Characters, Marabouparken Art Gallery, Stockholm
-

HOMOGENOUS MASS (2018)

Installation composed of sand from various locations, macro photography camera, screen.

Website: <https://www.annaadahl.com/works/homogenous-mass-2018>

List of images:

1. Installation view in exhibition Default Characters, Marabouparken Art Gallery, Stockholm
2. Installation view in exhibition Default Characters, Marabouparken Art Gallery, Stockholm
3. Installation view in exhibition Default Characters, Marabouparken Art Gallery, Stockholm

Exhibited in solo exhibition Default Characters at Marabouparken Art Gallery, Stockholm, 2018.

THE POWER OF FLOW. THE FLOW OF POWER (2020)

HD video

18 mins

available at <https://vimeo.com/386927993>

Password: flow

Website: <https://www.annaadahl.com/works/the-power-of-flow-the-flow-of-power-2020>

Synopsis: Through an immersive experience the film addresses how the notion and term of flow and state of flow have been monetised by our current economy and accelerated society of 24/7 consumption, production and performance.

List of Images:

1. Installation view Pylon Lab
2. Film still
3. Film still

Exhibitions and screenings:

A Crowded Sky, group show at IMPAKT in Utrecht alongside works by artists Clemens von Wedemeyer, Lawrence Lek, Tools for Action och Lantian Xie & Jaebum Kim and curated by Jasmijn Vissr and Stefan Schäfer.

MASS, group show at Pylon Lab, Dresden, alongside artists Boromir Doring and Clemens von Wedemeyer. In this show the work in progress *State of Flows* (a

collaboration with choreographer Rebecca Chentinell) was also exhibited together with the film.

Rencontres Internationales Paris/Berlin, art and film festival, online from The Louvre in Paris in February 2021 and in Berlin at the Haus der Kulturen der Welt in August 2021.

The film was also screened within the context of a webinar I made within the context of Walking during Lockdown organised by Walkative Society and during an online lecture at The Royal Institute of Technology in Stockholm in January 2021.

Acknowledgements

This research has been a wonderful and an enriching voyage as well as an extended journey due to the pandemic in 2020 and 2021. This unexpected situation has put strain on the making of the written contribution/thesis and the people and structures surrounding and supporting it. I therefore want to specially thank TECHNE and NPIF for supporting this research as well as extending its funding during the pandemic but also the Royal College of Art for the help and support during this time.

First of all a big thank you and gratitude to Esther Leslie and Jaspar Joseph-Lester for being dedicated and insightful supervisors guiding me in the right directions.

A special thank you to Stefan Jonsson for acting as external advisor giving valuable advice and believing in my work.

Patrick Bach at Ubisoft for our numerous discussions and exchanges and Alexander, Ben and Stratis for sharing their valuable knowledge on AI and animation.

Ellen Wettmark and Hans Rosenström, thank you for your friendship, kindness and hospitality during my stays in London. And Amelie Mallet (with family) for your warm hospitality, wit and support.

Bettina Pehrson, director of Marabouparken Art Gallery, for believing in my work and allowing me to explore my research and related art practice in the solo exhibition *Default Characters*. As well as the whole team (Karin, Cecilia, Fredrik and Elin) at Marabouparken for helping produce and installing the artworks.

My thanks extend to colleagues and dear friends with whom I have had vivid conversations and collaborations during this PhD journey and who have in different ways lent me their moral and intellectual support: Janina Lange, Laura Grace Ford, Pauline Van Mourik Broekman, Filipa Ramos, Anja Kirschner, Emma Kihl, Diana Kaur, Eva Arnqvist, Ingela Johansson and Fanny Stenberg. Clemens von Wedemeyer for our conversations and exhibitions.

Last and not least, my family, Kim and Iris, who have been my pillars and who have fed and endured me during these strenuous times of not only work but also numerous travels and absences. A special shout out to my mother for her unconditional support and presence.

And a special acknowledgement to Azadeh Fatherad who pushed me into undertaking this journey in the first place.

Preface/Overview

This practice-based research project uses artistic practices and processes in various mediums to analyse the aesthetics and politics of crowds in a postdigital era.

In the production of this thesis, the art practice and theoretical writing have been evolving in parallel and in dialogue. I have sought to let their different heuristic frameworks confront and complement one another, as parts of a composite yet integrated methodological approach. A sensorial, and experience-based knowledge of artistic practice with the abstractions has been combined with the speculations of theoretical reflection.

In order to study digitally operated crowds in their proper conditions, this research project actively affirms its situated and embodied perspective. The project is conducted from within a postdigital reality, a reality itself integrated with the circuits of global capitalism. In the twenty-first century surveillance economy, every crowd subject is entangled with and defined by technologies that track and model its behaviour.

An “automated crowd” as a digital, operational representation of an “organic”, analogue crowd, generated through tracking, data-gathering, and modelling of that organic crowd and its subjects. The automated crowd is, within this research, considered as a crowd constituted by multiple, digitally “programmed” bodies. Any attempt to approach the automated crowd as both theoretical and practical research object must consequently account for the investigating subject’s own situated and embodied status, and for the way the human body may function as at once a reference and a tool for investigation.

The artistic components of this research project use methodological processes and mediums appropriate to the specific topics or subjects of investigation, articulated in visual and material compositions, with the overall aim of producing a sensible and experienced rather than an exclusively cognitive mode of knowledge.

Among those artistic components are: transmediated sculptures and installations where digital forms have been translated from the immaterial to the material; scripted performances where professional dancers conjugate/reenact the behavioural grammar of digital agents; assemblage works based on documents and images drawn from online archives; and finally essay films that combine found footage and newly shot images using methods of intellectual and associative montage.

Already during the initial phase of research, it became clear that two concepts would be important for my work: the notion of “default” settings and options, and the concept of “flow”.

These two concepts both name prominent strategies and mechanisms through which the crowd is today digitally mediated and organised. They have therefore served both as objects of study and as heuristic tools for my theoretical and practical investigations.

The first step of research consisted in identifying and mapping the crowds and the technologies relevant to the investigation. The first chapter studies the representation and the construction of these crowds through an analysis of a number of mediating technologies and platforms: crowd simulation software packages, and their connected databases, through which digital crowds are constructed; surveillance and tracking systems that employ associated techniques for dynamically mapping, governing, and organising “analogue” crowds; and the non-playing characters which composes the interactive “background” crowds in video games. This later study was made in dialogue with the gaming company Ubisoft via a partnership enabled by the NPIF TECHNE award (AHRC).

The second chapter seeks to understand how a crowd can be administered and its collective behaviour can be standardised, such that it can be operated and governed as a standardised *mass*. Most digital systems employ interfaces that individualise the user experience, establishing a personalised space where the user may exert a highly scripted and circumscribed mode of control. These interfaces are designed to be experienced as individualised, but are in fact systems of mass governance, programming the behaviour of thousands, even millions of people, depending on the platform’s reach. By necessity, such operations of mass governance must make use of a limited range of default modes, in order to address the multitude of individuals in a “user-friendly” way. Those default modes may facilitate access and navigation, but are regularly interconnected with data harvesting systems that generate vast sets of data concerning user behaviours, from which patterns and predictive models can then be derived. Those patterns and models are in turn “fed back” into the user interfaces, further circumscribing the range of the user’s autonomy, in the name of enhanced “user-friendliness” and utility.

“Automated” crowds are therefore operated first of all in default mode, since their size can range across millions or even billions of individuals. Consequently, a “default crowd” is not an average crowd, but a crowd operated by statistically informed, average-based systems. The average is not merely derived from the crowd, but informs default systems that govern the crowd’s behaviour, which in turn affects the statistics that can be drawn from that behaviour, so that the “average” (a standardisation) is in fact also prescriptive, generating a “default crowd” (a phenomenon referred to in this research as the ‘loop’). In crowd simulation software, default

modes create default agents acting together as default crowds, all in accordance with a library of predefined aesthetics and behavioural patterns.

In the artistic, practical components that correspond to this chapter, I have therefore devoted my attention to the programmed bodies of digital default agents available in crowd simulation software. Seeking to understand the “default” behaviours prescribed by these agents, I have studied their features, their physical traits, and the gendered choreography of their behavioural vocabulary. I have then translated and conjugated those forms and patterns into different mediums and materialities, seeking to reveal the ethical and political norms that they embody and enact. My aim here has been to set up a new choreography of analogies to explore contradictions between material and immaterial bodies, digital and analogue agents, where the latter draw from, enact, and diverge from the default modes set by the former, as can be seen in the performance *And or Or* (2018) and the essay films *Default Character* and *Di-Simulated Crowds* (2018).

The third chapter, finally, maps and analyses the notion of “flow”, aiming to show how various “natural flows”, on different scales – from the individual human body to planetary ecosystems – are being rechanneled in accordance with a profit-oriented logic, producing a range of effects with momentous social and ecological implications. In an accelerated, postdigital society, the crowd may become a vehicle of homogenising subject-formation, relaying social and psychic “flows” into a programmed, quantified, and performative “mass”. I have sought to address these problems theoretically, but also practically, in two film-based works: the essay film *The Power of Flow, The Flow of Power* (2020), which uses an associative editing technique in order to generate an immersive yet critical experience of how micropolitical and macropolitical “flows” intersect and interact; and the performance film *The State of Flow* (2020), in which a performer enacts the antagonisms of the various, differently scaled “flows” that converge in and thereby constitute the human body.

By presenting the results of this research project in a variety of different discursive modes and aesthetic arrangements, my aim is not only to establish a theoretical understanding of the forms and instruments that are used to mediate and govern crowds, but also to facilitate an embodied, sensible and visual experience of those forms, and their political implications. In the end, this research project combines theoretical and practical modes of knowledge in order to establish a more complete and versatile image of the agency of the postdigital crowd.

Introduction



Figure 1- Digital crowd.

'The most important techniques invented in the last 150 years are the various systems for the management and control of human beings. '

— Jonathan Crary, 2014¹

When I started this practice-based research project, my aim was to understand the conditions in which crowds are operating and being operated today, in a postdigital era. How can art be used to capture what it means to be a member of a crowd under those conditions? In a

¹ Crary, J. (2014) *24/7: Late Capitalism and the Ends of Sleep*, London: Verso Books. p.36

postdigital world of increased automation, the crowd tends to become a programmed collective body. Can a programmed body have a voice?

These questions pointed toward a more fundamental one, which has become central to this research project: what modes of agency are available to the crowd in a postdigital era?

The crowd's movements and actions on digital platforms, in urban space, and through various infrastructures are tracked by different data harvesting, surveillance, and satellite-based positioning systems, generating enormous data sets: a vast archive of behavioural patterns. This data has become valuable capital which can be bought and sold on different markets. Algorithmically processed, can also be employed for crowd management purposes, in predictive models and in designing crowd simulations. A feedback paradigm that I refer to as the 'loop' governed by ever-evolving technologies which – crucially – use the data they accrue to direct their own evolution. This paradigm has its origin in the 'adaptive systems' and 'feedback loops' of early cybernetic research (N. Wiener 1950, Macy Conferences 1946-53).

Understanding the ramifications of the 'loop' is central to this research project. I propose that we draw a parallel between the repetitive, spiralling aesthetics of the data accumulation cycle, and Siegfried Kracauer's thoughts in his "Mass Ornament" essay, where he understands the new spectacles of the masses as reflections of the logic of production in capitalist society, and where the new figures of the crowd could point toward the creation of a new political subject. Today, the data sets at the heart of the 'loop' are predominantly owned by a limited number of multinational corporations (the "big five"²), which are (close to) monopolising the market. In some countries the data sets are controlled by political regimes. Can we see an analogy between the monopolisation of data sets and linked technologies, and an authoritarian governance of the crowd?

The contemporary crowd navigates a world of complex technological infrastructures which are beyond the cognitive reach of any single individual, at the same time as they dissimulate the logics of their own operation, creating an intensified sense of alienation. The use of smart devices and the establishment of online lives create a digital and social filter: a distancing and dissociation between people that generates an atomised and fragmented crowd. Meanwhile the dominant producers of hardware and software and the major digital communication platforms are facing ethical and political dilemmas. There is consequently an urgent need for

² The "big five" are known as Google, Apple, Microsoft, Facebook and Amazon.

new ways of seeing, experiencing, and understanding these computational tools and systems, and the procedures through which they operate and model crowds.

The contemporary postdigital³ (Cramer, 2015, Berry & Dieter, 2015) crowd operates in a global economic and surveillance system. The crowd's constituent subjects may be disenchanting (Cramer, 2015)⁴ with the digital technologies which permeate and monetise their everyday lives, yet they remain unavoidably committed to them. In this condition, digital technologies can not be understood merely as tools: digital and analogue (physical) identities are more and more deeply entangled, subjects navigate a world of devices and technologies where online existence and 'real' life have merged into a symbiotic coexistence. Here, any critique must be immanent: it can not be enounced from the outside, but only from within, from the position of the user.

Such an inside position gives access to vast information networks, but it is also a position of exposure to control and manipulation. Paradoxically, to be a subject of the crowd here is to be atomised; to access information networks means to be separated from the complex systems through which they operate.

In this research project I seek to establish a critical position within the postdigital crowd. The criticality of this research proposes a post-individualistic mindset. Adopting such a standpoint is to attempt to think of ourselves beyond our customised environments and social bubbles, as parts of a bigger, globalised, connected crowd: an assembly of singulars with a collective and democratic consciousness, composed of subjects with agency. In sum we could say that this post-individualist position is the repressed yet constitutive condition of the operations of the global information networks.

Consequently, at the centre of this research is the crowd subject and the body in both its natural and digital state. While those two states are symbiotically entangled in a postdigital reality, what differentiates the digital from the 'real' is the physical body. Therefore, the

³ 'The notion of the post-digital is used to acknowledge that, today, digital technology is deeply embedded in 'everyday life'. It serves to emphasize that 'the digital' is not as definite as we might assume: that it is no 'virtual reality' distinct from our everyday world, but a constitutive part of it ' (Berry and Dieter, pp. 76-98)

⁴ 'The term 'post-digital' can be used to describe either a contemporary disenchantment with digital information systems and media gadgets, or a period in which our fascination with these systems and gadgets has become historical'. Florian Cramer, *What is Post-Digital, Postdigital Aesthetics*, Palgrave Macmillan, 2015, ed. Berry, D., Dieter, M.p. 13.

observations and analyses of this research project use the human body as a reference and as a tool of exploration. The human body is itself not neutral since it archives and reflects the conditions in which it operates. Recently the terminology of 'bodies, in contemporary art, not only refers to the body as such, or as object, but as subjects. Bodies as (biopolitical) subjects which also bear witness of the vulnerable, precarious condition in which they are inscribed by the capitalistic system (Vischmidt, 2020)⁵.

Through its inarticulate, corporal language the body speaks a truth: the truth of its vulnerability to and its wariness of the social, technological and economic system by which it is conditioned. It only communicates that inarticulate information through its presence in space, through the ways in which it occupies and modulates its physical and social surroundings. It is an information that cannot be read, only observed. Art may provide a way of spatially articulating what cannot be discursively, semantically enounced.

In accordance with such a critical inside position and with the need to grasp the dissimulated and complex technologies that operate the crowd, this practice-based research project studies the aesthetics and politics of the digitally mediated crowd. It proposes a combination of and a dialogue between multiple investigative and analytical frameworks, seeking to establish an embodied understanding of how digital technologies govern and simulate crowds, and for what aims. First of all, the artistic practice provides the embodied, visual, sensorial and material outcomes of the project. The theoretical components, in turn, historically and critically contextualise the artistic practice, weaving in social, political and economic references. Central to the project has also been my collaboration with the gaming company Ubisoft, a collaboration which took the form of a dialogue and study of the role of AI and of interactive digital crowds (NPC) in contemporary gaming culture.

In this research project, the art practice offers alternative routes into conceptualising the relation between digitality, AI and the crowd. I have sought to approach each subject of research with the appropriate artistic mediums, techniques, and gestures. In trans/re-mediated⁶ installations and

⁵A thought drawn from what M. Vishmidt states in *Bodies in Space: On the Ends of Vulnerability*, 2020: '...bodies' have reemerged as the centre of contemporary art and a general theoretical discourse as where the terminology of 'bodies' rather refers to them as subjects rather than objects. Subjects which bear witness of the vulnerable, precarious condition in which they are inscribed by the current capitalistic system. Emergent from the biopolitical discourse and in reference to the bodies of the multitude as described by Hardt and Negri '.

⁶(Re)mediation 'They define remediation as 'the representation of one medium in another' (Bolter and Grusin 2000, p. 45). So if we think of Helmut Smits' Dead Pixel, emulating a bitmap error in the physical

sculptures, digital bodies and crowds were translated into space using various materials. In digitally assembled collages on paper, archival and internet-based images of crowd algorithms and of tracked and simulated bodies were combined and confronted with one another. In the performance works I establish a comparative analogy between the digital and the analogue body, playing on the similarity between choreographic scores and computer programming.

In this research project I have used various mediums to translate the digital into the 'real', in order to understand how automated operations, AI models and algorithmically governed tools impact upon crowd behaviour. Such a process of trans(re)mediation, translating immaterialities into material form, also serves to make visible the dissimulated operations and strategies that govern the function of interfaces and digital platforms. The postdigital approach of this research was articulated in the combination of the digital and analogue which is inherent to the process of trans(re)mediation and the assemblage techniques used within the practice. An editing technique which also allows for various temporalities to meet.

The artistic components of this research project are developed as free-standing artworks in their own right, but are also designed to function as practice-based, spatial and visual articulations integrated in the overall investigation. In this sense they have a mediating purpose, linking the apparatus of academic and scientific legitimation with the apparatus of institutional and critical legitimation proper to the field of artistic practices.

The artistic components therefore demand interpretation, resisting complete hermeneutic closure, even while they are composed using fact-based data (material from online archives, found footage, etc.), the validity of which can be empirically verified. At the same time, the associative logic specific to certain kinds of art production – apparent in essayistic editing techniques or sculptural design, for example – has informed the development of the research project as a whole, linking the rigorous process of scientific, academic investigation to the openness of imaginative, sensorial and aesthetic correspondences.

In the initial phase of the research project, my attempts to understand the digital crowd led me to the field of crowd management, and from there to crowd simulations and multi-targeted tracking systems. I was especially intrigued by the image of the human body in crowd

landscape, of voxelated sculptures, of pixelated fabric or polygon-shaped shoes, we can see these as digital media being represented on – or remediated to – real-world surfaces'. Bishop R., Gansing K., Parikka J., Wilk E. (eds.), *across & beyond: A transmediale Reader on Post-digital Practices, Concepts, and Institutions*, Berlin: Sternberg & Transmediale, 2017, p.76

simulation software, by the computationally generated visualisations of human figures designed to act within crowds.

Crowd simulation images, and especially the default characters that populate them, show something – a standardised, computational crowd subject – but they also hide something: the layers of infrastructure that facilitate the images and their mediation. The politics of that aesthetic mediation needs to be unravelled, which forces us to go beyond the “immaterial”, digital image.

I identified two key terms that helped me understand how crowds are digitally governed and mediated: ‘default’, as a tool of rationalisation and standardisation of crowd behaviour for better management, and ‘flow’, as the preferred and most efficient dynamic politics of that same crowd. This research was therefore organised – both theoretical and practical – as an investigation into these two terms.

Such investigation required a mapping and a contextualisation of the postdigital crowds – both the simulated ones in gaming etc., and the “analogue” ones tracked by various surveillance systems. The first chapter of this thesis therefore maps the various computational techniques of simulation and tracking. It provides a theoretical and historical contextualisation of postdigital crowds (with references including Gustave Le Bon, Elias Canetti, Siegfried Kracauer, Alexander Galloway, Nora Khan, Lev Manovitch, Harun Farocki, Yuk Hui and Gonzalo Frasca. It explores how crowds are digitally tracked but also simulated with the help of crowd simulation software. Finally, the chapter analyses the interactive digital characters that populate computer games, so-called “NPCs” (non-player characters).

The second chapter studies default settings, the pre-programmed options we face in our smart devices and apps, and incorporates references from key contemporary theorists including Shoshana Zuboff; Marshall Mac Luhan, Adam Greenfield, Erich Fromm, Wendy Hui Kyong Chun, Gabriel Tarde, Marina Vishmidt and Tiziana Terranova.

Default settings provide users with simplified interfaces by limiting information and available choices, as data on user behaviours is being harvested. Most crowd simulation software propose default characters: standardised human figures programmed to act collectively; subjects of the crowd. Digital crowd agents programmed to avoid others and objects, so that the crowd remains in a state of continuous, dynamic flow. In the artistic components of this

project, the default character is an important figure to study, and was the central object of investigation in my solo exhibition *Default Characters* at Marabouparken Art Gallery in 2018 (which was a major presentation of this practice-based research).

The third chapter studies the notion of “flow”, exploring how it provides a link between the postdigital crowd and various market and political strategies. Through readings including contributions by Siegfried Kracauer, Brian Massumi, Adam Greenfield and Ronald Purser, the chapter considers the ways in which “natural” states of flow have been rechanneled and even “hijacked” into monetised systems, instrumental in the organisation and modelling of crowds. Keeping crowds in flow enables their continuous performativity and exploitation as sources of productivity. The artistic components that correspond to this chapter explore the figure of flow through different techniques, such as immersive montage and performance. In the essay film *The Power of Flow. The Flow of Power* (2020), the viewer is invited to embark on various experiences of flow, from an imagined, original “natural state” to infrastructural flows, and to the monetised, virtual flows of online “mindfulness” platforms. In the *State of Flow* (2020), in turn, the subject of the smoothly “flowing” crowd reveals a strenuous and tense body in constant motion.

In the artistic components of this research project, I employ a combination of different mediums and methods, held together by my consistent use of the human body as a mediator, revealing the contingency and the finitude of the organic and the digital alike.

In films, installations and sculptural works I more or less explicitly draw on a number of sources and precursors: the critical documentary and essay films of Harun Farocki (such as *Serious Games* and *Parallel I-IV*); the interest in new, digital mapping techniques and ‘re-mediating’ processes among investigative artists and collectives such as Forensic Architecture or Trevor Paglen. However, in my research project the focus remains the postdigital crowd, and the subject forms and modes of corporeal, sensible experience that correspond to it (as in *Default Character 1-2-3*) with special attention to the aesthetics performed by the digital apparatus⁷. In my performance works I draw on what Andrew Hewitt calls “social choreographies”, linking that notion to score-based techniques in modern and contemporary dance and performance art. The use of scores and reenacted gestures stems from the post-modernist tradition as, for

⁷ An example is the preservation of the glitches and markings made by the 3D printer on the busts of *Default Character 1-2-3*. These markings are usually polished away manually, by the human hand.

example, in the works of Yvonne Rainer and Simone Forti. I also adhere to the critical investigations into postdigital modes of embodiment and power relations in the performance works of for example Alexandra Pirici and Anne Imhof, but where their works focus on industrial/economic labour regimes and social media attitudes, my performances focus on the postdigital condition of the automated crowd subject.

In this research project I also examine how digitally formed patterns can inform us about the politics and aesthetics of postdigital governance. There seems to be an uncanny correspondence between algorithmically organised crowds performing in perfect synchronisation, and crowd representations and performances in authoritarian regimes.

This research project returns to an age-old dialectic: the dialectic of individual and mass, of activity and passivity, of emancipation and submission. It seeks to address that dialectic, and its contemporary modulations, through analyses of the terms “default” and “flow”. Furthermore, the postdigital regime in which the crowd operates – where the digital and the analogue (organic) are deeply entangled – shifts the conditions for thinking the possible agency of the postdigital crowd. An understanding of this regime is therefore crucial for any understanding of how collective behaviour will continue to evolve and what role digital crowd mapping may play in that development.

The fundamental aim of this practice-based research project is therefore to identify the conditions of collective agency, through theoretical and practical analyses of the computational tools which are used to mediate and govern today’s crowds.

The intent is to make graspable and ‘real’ – through embodied identification – how we, as members of a potential global crowd, may understand the postdigital governance techniques that affect our gestures and behaviours, but also our senses of political agency and our perspectives for social emancipation.