Abstract

The ways in which people present themselves online to others is a growing point of interest for scholars in a multiplicity of academic fields. On the common ground of self-representation, the concept of *reach campaigns* is used as a hermeneutical tool to analyse and interpret the postings and uploaded videos of five selected vloggers to work towards a way to explain the hidden algorithms at work on Social Networking Sites. The purpose of *reach campaigns* is not to replace terms such as ideology, or hegemony, nor does it serve to categorize or limit certain trends and currents but rather aims to provide a means to discuss human interactions with technology and more specifically – digital technology, working in and around the fields of cultural analytics and visual studies. One of the most notable visualities to emerge from the human-technology relationship is that of the self-representation. Vlogging has become one of the most popular means of self-representation online and through the lens of *reach campaigns,* it is proposed that a contemporary understanding of online self-representation can be achieved. While a large majority of vlogging's conception occurs online, algorithms could be seen as a predominant influencing factor. This dissertation seeks to explore how algorithms may affect the promotion of four YouTube vlogger's videos.

Title of dissertation: *Reach Campaigns* and Self-promotion on Social Networking Sites: Hidden Algorithms at Work in Selected Vloggers' Videos

Name of Student: Ryan Davis Hargroves

Supervisor: Amanda du Preez

School of the Arts

Degree: Magister Artium (Visual Studies)

Key Terms:

Algorithms, reach, reach campaign, selfie, self-construal, self-promotion, self-representation, branded self, self-branding, social media, social networking sites, digital technology, Internet, Web 2.0, vlogging, vlogs, vlogger, YouTube, Instagram, Facebook, Twitter, SnapChat.

© University of Pretoria

FORM

UNIVERSITY OF PRETORIA
FACULTY OF HUMANITIES
DEPARTMENT OF VISUAL ARTS

The Department of Visual Arts places specific emphasis on integrity and ethical behaviour with regard to the preparation of all written work to be submitted for academic evaluation.

Although academic personnel will provide you with information regarding reference techniques as well as ways to avoid plagiarism, you also have a responsibility to fulfil in this regard. Should you at any time feel unsure about the requirements, you must consult the lecturer concerned before you submit any written work.

You are guilty of plagiarism when you extract information from a book, article or web page without acknowledging the source and pretend that it is your own work. In truth, you are stealing someone else's property. This doesn't only apply to cases where you quote verbatim, but also when you present someone else's work in a somewhat amended format (paraphrase), or even when you use someone else's deliberation without the necessary acknowledgement. You are not allowed to use another student's previous work. You are furthermore not allowed to let anyone copy or use your work with the intention of presenting it as his/her own.

Students who are guilty of plagiarism will forfeit all credit for the work concerned. In addition, the matter can also be referred to the Committee for Discipline (Students) for a ruling to be made. Plagiarism is considered a serious violation of the University's regulations and may lead to suspension from the University.

I (full names) Ryan Davis Hargroves

Student number 11177502

Declaration

1. I understand what plagiarism entails and am aware of the University's policy in this regard.
2. I declare that this dissertation is my own, original work. Where someone else's work was used (whether from a printed source, the Internet or any other source) due acknowledgement was given and reference was made according to departmental requirements.
3. I did not make use of another student's previous work and submit it as my own.
4. I did not allow and will not allow anyone to copy my work with the intention of presenting it as his or her own work.

Signature  Date 30/04/2020

© University of Pretoria

Reach Campaigns and Self-promotion on Social Networking Sites: Hidden Algorithms at Work in Selected Vloggers' Videos

by

Ryan Hargroves, 11177502

Submitted in fulfilment of the requirements for the degree Magister Atrium (Visual Studies)

in the

FACULTY OF HUMANITIES

UNIVERSITY OF PRETORIA

Department of Visual Arts

Supervisor

Prof Amanda du Preez

30 April 2020

© University of Pretoria

Acknowledgements

Throughout the writing of this dissertation I have received an invaluable amount of support from many people. I would first and foremost like to thank my supervisor Professor Amanda du Preez, whose expertise and passion for Visual Studies motivated me to pursue postgraduate education. Her hand in securing funding for my Magister Atrium in Visual Studies has proven to be fundamental in progressing my life and career.

I would also like to thank the department of Visual Arts at the University of their ongoing efforts in the pursuit of knowledge in a unique field suc Studies. Their eclectic backgrounds in education has equipped me and many students with important well-rounded tools of critical thinking.

In addition to this I would like to thank my parents whose ongoing support has guided me through trying times. Finally, I would like to thank my friends for their motivation and distraction, which have taught me lessons that will never be forgotten.

© University of Pretoria

Table of Contents Page

© University of Pretoria

LIST OF FIGURES Page

© University of Pretoria

GLOSSARY OF TERMS

Big Data – Refers to diverse, large sets of information that are growing at ever-increasing rates (Segal:2019).

Blog – Short for "Web Log," which refers to a list of journal entries posted on a Web page (TechTerms:[sa]).

Blogger – Refers to the person responsible for the blog post.

Facebook – An online Social Networking Site that allows its users to create and tailor their own profiles with videos, images and information about themselves (TechTerms:[sa]).

Hashtag – The number symbol (#) used to label key words relating to a Social Networking Site post. The term “hashtag” was coined by Twitter, combining the word ‘hash’ (another term for the number symbol) with the word ‘tag’ (another way of describing the labelling process) (TechTerms:[sa]).

Metadata – Describes and provides information on a specific web item’s content. For example; a digital image may include metadata that describes when the image was created, the digital size of the image and in some cases where the image was taken (TechTerms:[sa]).

Retweet – The act of sharing another Twitter users’ blog post.

SEM – ‘Search Engine Marketing’ the practice of marketing a business using paid promotions that appear on the pages of a search engine result (WordStream:[sa]).

SEO – ‘Search engine optimisation’ this involves adjusting the contents of a webpage to achieve a high search engine ranking. This means that a website may appear before others on a search engine’s (such as Google or Bing) results list (TechTerms:[sa]).

SnapChat – A mobile app for sharing short videos, images and messages with other users. It is differentiated by the feature that automatically deletes messages (in the form of text, image or video) once it has been viewed by the recipient.

SNS – Social Networking Site

Twitter – An online Social Networking Site that allows its users to post images, videos and short blog posts up to 280 characters.

Tweet – The blog posts found on Twitter

Vine – A short-form video social networking service.

Vlog – A blog or web log that could be entirely video-based or could include both written and video elements. Examples of this may include instructional videos, videos of personal opinion or even short films.

YouTube – An online Social Networking Site service that allows its users to share and watch videos.

© University of Pretoria

CHAPTER ONE: INTRODUCTION

The ways in which people present themselves online to others is a growing point of interest for scholars in a multiplicity of academic fields. This focus on digital self-representation is beginning to draw fields of study together, blurring the lines of categorised interpretation and opening the door to new forms of exploration. On the common ground of self-representation the concept of *reach campaigns* is used as a hermeneutical tool to analyse and interpret the postings and uploaded videos of four selected vloggers to work towards a way to explain the hidden algorithms at work on Social Networking Sites (SNSs).[1] The purpose of the concept *reach*[2] is not to replace terms such as ideology, or hegemony, nor does it serve to categorise or limit certain trends and currents but rather aims to provide a means to discuss human interactions with technology and more specifically – digital technology, working in and around the fields of Cultural Analytics and Visual Studies.[3] One of the most notable visualities to emerge from the human-technology relationship is that of the self-representation.

Vlogging has become one of the most popular means of self-representation online and through the lens of *reach campaigns,* it is proposed that a contemporary understanding of online self-representation can be achieved. This dissertation seeks to explore how algorithms may affect the promotion of four YouTube vlogger videos. These will include; Lilly Singh, Casey Neistat, David Dobrik and Peter McKinnon who have gained online celebrity status through their social media presence. A hermeneutical case study of the content produced by these YouTube vloggers will be the central focus of this dissertation. The aim is then, to gain an understanding of how algorithms may affect the ways in which vlogger's construct their YouTube videos as self-representation and self-promotion.

[1] With social media becoming so prominent in recent years, the volume of information online has grown exponentially, this has effected the way data needs to be ordered so that users find platforms accessible and interactive (Ceron, Curini & Iacus 2016:105). The ways in which these data are ordered and the affect this ordering has on the user is still open for debate (Ceron, Curini & Iacus 2016:105).
[2] When *reach* is italicised it refers to the combination of dictionary and social media definitions. It is a figurative term proposed to aid in the understanding of the human motivation to use technology in their daily lives.
[3] Cultural analytics is interested in patterns that can be deduced from the studying of large cultural data sets and according to Lev Manovich (2016:60-62) falls between 'digital humanities' and 'social computing'.

© University of Pretoria

With the advent of the Internet, and more recently Web 2.0, the rate of globalisation and communication have increased exponentially. SNSs such as Facebook, Instagram, SnapChat, YouTube and Twitter allow users to reach and extend their influence further than ever before. Reach is used here literally and figuratively to explore the ability of SNS users to spread their influence almost virally to broader audiences. Tied to extended reach is the rise of Internet stardom, where many individuals use social media platforms to extend their careers, opinions and branding of the self (Kanai 2015:1).

The purpose of this research is to explore how SNSs mediate self-branding and promotion to expand what is referred to as *reach campaigns.* First, let me unpack what is meant by reach as used in this study. Reach not only applies to "the act of stretching out, to touch or grasp something, to pick up and draw toward one or to strain after something" but also importantly refers to the context of SNSs (Merriam-Webster 2018:1). For instance, Facebook has somewhat redefined the word for marketing purposes by using the term to describe the size of an audience. In other words, the greater one's reach online, the bigger the audience that is participating in the self-promotion, e.g. Kim Kardashian can be said to have an enormous reach online with audiences exceeding millions (Figure 1). Reach (in terms of Facebook) is described by the Social Media Examiner (2017:1) as follows:

> Facebook reach is the number of unique people who saw your content. It affects every other metric you can track: engagement, likes, comments, clicks and negative feedback. And that's not all. There are different kinds of reach: post, page, organic, viral and paid. Everything on Facebook boils down to reach.

Thus, reach can be classified as reaching out to new audiences in order to grow the number of people who interact with a user's content. Reach is then important to both the SNS as well as its users. As the essence of SNSs emphasises user interaction and involvement, users are vital to a successful website (Lin & Lu 2011:1152). Without new audiences, reach, and subsequently the SNSs would disintegrate. Social media posts are, therefore, to be seen and prompt interaction (Hochman 2014:1). Posts are often considered more successful when engagement is higher, and this involves more people liking, commenting and sharing. Further, the more frequent the posts on SNSs, the larger the potential audience and accordingly, the further the reach. Building on this understanding of reach, this dissertation takes a pragmatic approach to exploring

© University of Pretoria

the motivations behind self-representations in SNS posts in an attempt to uncover the possible impacts of digital technology on humans. The term *reach campaign* is used to describe the practices put forward in an ordered manner to garner reach. A *reach campaign* could be seen as a means of promoting an individual's self-representations online.

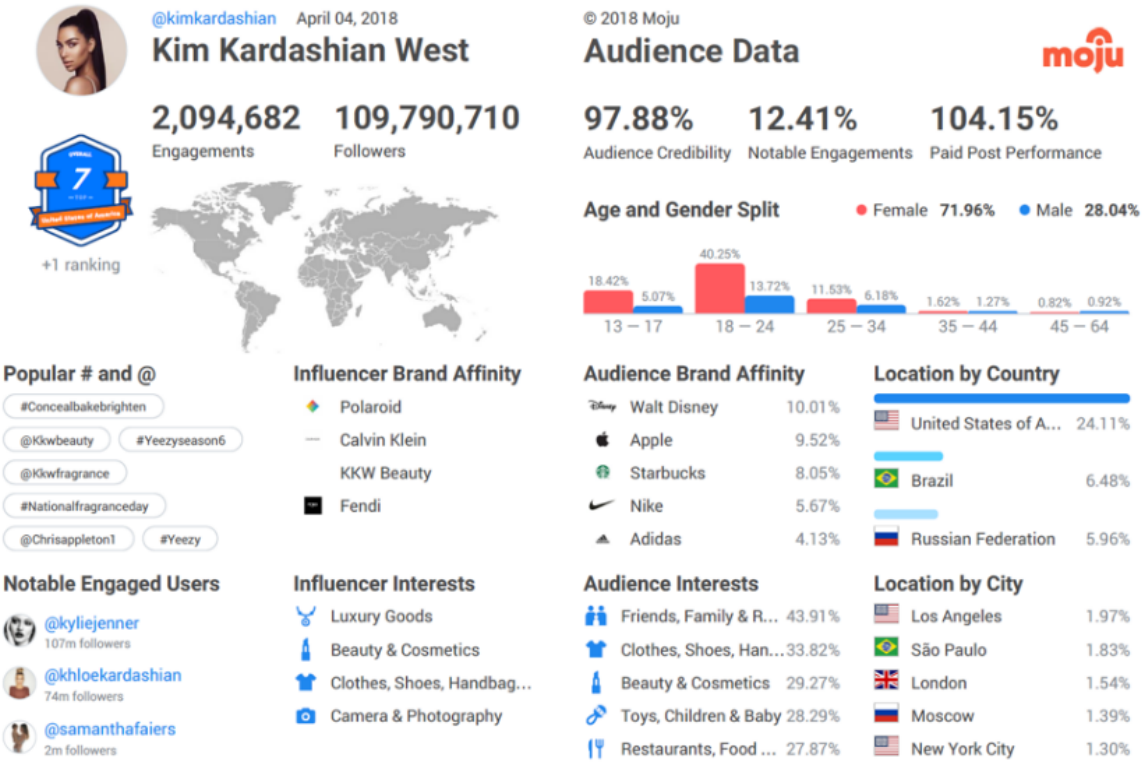

Figure 1.1: Kim Kardashian's Reach: Audience data for Kim Kardashian, 2018.

YouTube video bloggers (vloggers), make effective use of SNSs to promote their videos. Vloggers often upload promotional posts on Instagram, Twitter, Facebook and SnapChat prompting their followers to watch their videos on YouTube (thus prompting viewers to watch across networking sites or platforms). Through this cross-platform prompting vloggers' videos often garner millions of views. The type of content of vloggers' videos is also important to expand their *reach campaigns*. To appeal to larger audiences, vloggers are very aware of the type of content they represent in their videos. This can include popular content such as reviews on new technologies, comments on current events and fashion trends that all appeal to specific audiences. In so doing, vloggers build upon their *reach campaign* by deploying operations of acquiring audiences and extending their *reach*. By performing these operations to

© University of Pretoria

strengthen and develop the *reach campaign* a multifaceted self-representation is constructed simultaneously. This is to say that through campaigning their videos they are subsequently promoting aspects of themselves or at the very least, part of their online personas. These self-representations become fundamental to the vlogger's persona or self-branding.

This dissertation aims to explore the elements used in *reach campaigns* of four selected vloggers, namely; Lilly Singh, Casey Neistat, Peter McKinnon and David Dobrik. Lilly Singh is a celebrity YouTuber, known for her channels "IISuperwomanII" and "SuperwomanVlogs". The former, her main YouTube channel, consists of comedy sketches which involve subverting of ethnic stereotypes and the latter, her vlogging channel, consists of motivational and observational monologues mixed into her daily activities (Biography.com 2018). Singh has consistently uploaded to the platform for close to a decade and can be seen as an innovator in the field of vlogging. Her content has changed over the years in a bid to further her reach online. New aspects such as video quality, production value and cinematography have aided her in growing her following online. Singh began her vlogging career with low-resolution digital cameras and cheap editing software. Since then she has progressed to professional grade cameras, lighting and sets. The incorporation of elements of professional cinematography have become important parts of self-representation online. These changes are important to the study of self-representation as the changes are often influenced by viewers' responses and the continuing commercialisation of YouTube.

The shift towards a more professional and commercial YouTube has also attracted filmmakers with high budgets for making videos. Casey Neistat and Peter McKinnon have professional filmmaking experience and migrated to the platform when they saw the opportunity to make a living from content creation on YouTube. Casey Neistat is a filmmaker based in New York and is most renowned for his self-titled YouTube channel. He was the director, writer, editor, and star of the 2010 HBO series *The Neistat Brothers* (Design Indaba 2017:1). Neistat's work predominantly consists of short films known as vlogs, released only on YouTube. His vlogs consist of elements of travel, technology reviews and film making. Another YouTube creator with similar content is Peter McKinnon. A Canadian photographer, vlogger and videographer whose YouTube channel has been recognized as one of the fastest growing channels

© University of Pretoria

on the platform, obtaining over a million subscribers within its first year (Cooke 2017). Both Neistat and McKinnon make use of popular trends in technology development to bolster their reach online. The two vloggers often show technological advancements in digital camera equipment, such as drone aerial cinematography. Using cinematographic shots as part of their vlogs has changed the landscape for vlogging over the past few years. Vlogging has now moved away from a traditional 'talking head' formula to something that resembles a Hollywood blockbuster.

Straying even further from the original talking head vlogging style, David Dobrik makes use of a first-person perspective filming technique. Dobrik is a well-known American Vine star and YouTube vlogger. He grew his fan following on the now defunct application Vine and has since shot to stardom on the YouTube platform with over five million subscribers as of November 2017 (The Famous People 2017:1). Dobrik's vlogs consist of comedy sketches, pranks and giveaways. Unlike the aforementioned vloggers, Dobrik predominantly films his friends' activities, staying behind the camera. The vlogs take a documentary form in which certain scenes are rehearsed while others are candid. This has further nuanced the vlogging landscape as this style of video draws more parallels with a reality television show than the traditional vlogging style. Through this, the four vloggers have begun to widen the variety of video arrangements in their self-representations, adding elements of interest in order to be more entertaining to a wider audience. The wider variety of elements present in the videos allows algorithms to distribute the content to a wider audience.

Invisible to users are the actions of algorithms such as EdgeRank[4] and PageRank[5] that filter data and govern what appears first on a user's newsfeed on Facebook (Goodwin *et al.* 2016:9). This algorithmic tailoring may be a useful feature in some regards, however, most users of SNSs are unaware of these tracking features, and thus the algorithms potentially influence users' choices online. The information presented on someone's Facebook page for instance, is therefore not necessarily exactly what the user wants to see but rather an average of what they have seen

[4] EdgeRank is an algorithm that sequences posts on a user's Facebook News Feed, which is the landing page for users once logged into Facebook (Birkbak & Carlsen 2016:1).
[5] PageRank is the algorithm that composes the sequence of Google search results by judging the 'importance' of a webpage based on the users search phrase (Rieder 2012:1-3).

© University of Pretoria

before. The invisible algorithms become evident in 'suggested' search results which appear on many social media platforms and web pages. The 'suggested'[6] results give information that the user may or may not be interested in that is based on previous pages visited. What results from this is that information is not only about what one is interested in but also plays an active role in providing possible new interests to the user (Beer 2009:988). The filtered content that is fed to a user on social media could potentially have measurable consequences for the user.

These consequences have recently come into the limelight in the form of fake news on television as well as social media. Multiple scenarios of fake news have been uncovered surrounding the United States of America's 2016 elections (Allcott & Gentzkow 2017:211-213). Fake news stories are potentially fuelled by algorithmic structures that help their dissemination. By categorising news stories, algorithms are afforded the opportunity to reach a more specific audience through points of interest. Hunt Allcott and Matthew Gentzkow (2017:218) claim that consumers face a trade-off between a private motivation to consume unbiased, exact news and confirmatory news that provides a psychological utility. Often algorithms serve to aid these confirmatory news posts as they fall into the categories of interest of the user (Hwong 2017:481). A polarizing effect takes place with consistently anti-liberal or anti-conservative news stories being peddled by algorithms (and subsequently users). This produces a political environment of hostility and segregation in which no middle ground is discussed.

Information mediated by algorithms brings into question whether the user is freely roaming a social platform or being guided in certain directions. These directions are of course affected by marketing techniques such as hashtags, search engine optimisation (SEOs) and search engine marketing (SEMs),[7] pop up advertisements, endorsements and so on. In the digital realm, freedom of movement is merely an illusion with machine learning tailoring content according to data sets and averages (Hwong 2017:481). What becomes evident is the influence of ordered content over

[6] The "suggested" section could take the form of "people you may know" on Facebook (2017), "suggestions for you" on Instagram (2017), or even online shopping website Amazon's (2017) "related to items you have viewed", "More items to consider" and "featured recommendations".
[7] SEO stands for search engine optimisation and is the process of getting traffic from the search results on a search engine (Search Engine Land 2017:1). SEM (Search engine marketing) refers to paid listings that appear on a webpage (Search Engine Land 2017:1).

© University of Pretoria

online movements. The visual content that is favoured may shape the ways in which users portray themselves both online as well as in the physical world. This study aims to explore the intricacies of the SNS users' self-representation and how the mostly hidden ordering of content by algorithms may influence this.

In the chapter to follow, the lineage of interconnected computers is discussed from its humble beginnings of four interconnected university computers to the early deployments of the public Internet which saw rudimentary websites that displayed read-only information. Chapter two will then continue following the rise of artificial intelligence in the contemporary digital landscape and discuss how the Internet became known as the web as platform and was retro-defined as Web 2.0. This chapter also delves into the ways in which SNS users use Web 2.0 as means to construct their online identities based on their self-construals. Ted Singelis (1994:581) describes self-construals as a "constellation of thoughts, feelings, and actions concerning one's relationship to others, and self as distinct from others" - a term that will be further explored in chapter three. The nexus of this trend can be argued to be the growing celebrity discourse stemming from celebrity news magazines and the O.J. Simpson murder trial which focussed their respective attentions on the seemingly mundane aspects of the celebrities' lives and rebranding them as points of noteworthiness. The chapter connects the developments in how traditional media institutions such as newspapers, magazines and television represented celebrities to the developments in self-representation on SNSs.

Understanding the trends in self-representations is becoming ever more complex with the growing reliance on digital technology in our day-to-day lives. The proposed hermeneutical terms *reach, reach campaigns, reach hernias* are introduced in chapter three and aim to provide a new outlook on the complexities of self-representation and how these representations are constructed through the use the of digital technologies. Further, the extrinsic and intrinsic motivations behind self-representations are explored as a starting point to discuss the manifestations of self-construals online as well as the ways in which the usages of technology from instrumentalist approaches to contemporary digital technology and *reach* are understood. In the second half of chapter three *reach*'s academic positioning is considered while drawing parallels to the changes in research methods in Cultural Analytics. As the cultural landscape

© University of Pretoria

rapidly transforms the research methodologies need to stay abreast. Digital technology is affording researchers with far more avenues to explore the understanding of human behaviour.

This interchange between humans and digital technology has firmly rooted itself in our daily lives. Internet connected mobile phone technology is considered, in some societies, as a norm nowadays. It is clear that the tapestry of digital technology and human life has become taut, making it ever more important to examine the needle and thread that embroiders it. It is in chapter four that this dissertation investigates how digital technology has become embedded in one's day-to-day lives and argues that the world could be entering a new epistemic era of computation. This computation, through the datafication of corporeal experiences and the processing of this data, is done through complex decision-making software known as algorithms. The ways in which algorithms structure the media viewed online is discussed in the fourth chapter and further considers how this structuring may influence the SNS user.

Algorithmic structuring is often times funded by large corporations seeking to gain insight on new audiences in order to better market their brands. Further, corporate brands use popular SNS users to expose their branding's signs and symbols to a larger audience. This comes in the form of paid promotions, in which SNS users are paid to include the brand in their SNS post. Through this the line between advertisements and self-representations is becoming ever more blurred in contemporary consumer society. The signs and symbols associated with brands are being increasingly incorporated into SNS users' self-representations. Chapter five wishes to explore the possible effects of paid promotions on the self-construals and subsequently *reach campaigns* of YouTube vloggers.

© University of Pretoria

CHAPTER TWO: CONTEMPORARY SOCIAL NETWORKING - SITES OF SELF-CONSTRUCTION

In the past two decades, social media has become well rooted in everyday lives of people in a large section of the world. In the past year the number of new social media users has gone up by 321 million for a total of 3.8 billion social media users worldwide in January 2020 (Kemp 2020:sp). This chapter aims to explore the lineage of Social Media and how it has come to affect its users so greatly over the past twenty years. What began with a modest offset of connecting four university computers has now turned into what is considered to be a new digital era. Early deployments of the Internet were limited in its interactivity and was mostly read-only information. Later on, it started to be used in far more creative ways connecting people in far off locations instantly. These developments will be explored here in an attempt to shed light on the politics surrounding the ways in which technology impacts its users at a much more deep-seated level. What is mainly at stake here is the construction of identity online and how platforms such as Facebook, Instagram and YouTube affect these self-construals.

2.1 From ARPANET to Artificial Intelligence

SNSs as they are known today, like most social phenomenon, have no specific departure point but rather a series of events that have led to trends in the ways in which humans use the Internet. Early online networking can be traced back to ARPANET, a network theory first published in 1967 and developed under the United States' Advanced Research Project Agency or *ARPA* (Rouse 2017:[sp]). ARPANET laid the technological groundwork for large-area networking in the United States and subsequently the world (Denning 1989:1). The concept of ARPANET was to connect university computers together to share and communicate computer resources in a largely scientific community (Denning 1989:1). ARPANET capitalised on the novel idea of sending information in small parts called 'packets' that could be directed on different routes and then reconstructed at their end target (Denning 1989:2). ARPA followed the ARPANET with experiments in satellite and packet radio networks; the arising need to connect these various networks led ARPA to start its Internet Program

© University of Pretoria

(Abbate 1994:iv). This program developed techniques that were used to connect different research networks to ARPANET, forming the foundation of today's Internet (Abbate 1994:iv).

While these advances were being made, Robert Taylor had become interested in computer networking from a unique viewpoint (Denning 1989:3). Each computational centre had created their own respective communities and Taylor was interested in the ways these communities could collaborate, share and interact (Denning 1989:3). However, Janet Ellen Abbate (1994:iv) puts forward an important consideration: "[t]he Internet and ARPANET were socially constructed artefacts whose design was moulded by the worldviews and interests of its creators." The variance in worldviews associated with the computational centres is what was appealing to Taylor and connecting these communities became his main objective. He envisaged a network that would connect the centres in such a manner as to be fast and remain accessible under failures as well as one that would not need operating systems to be altered (Denning 1989:3).

With this in mind, Abbate states that different networking techniques had different implications for the performance, social dynamics and economics of the resulting system (Abbate 1994:iv). Through this, the development of networking systems can be seen as a set of trade-offs between competing values (Abbate 1994:v). The usages of these interconnected networks were beginning to be shaped by their developers and soon started to show the signs of what is recognised today as social media. By the beginning of 1968, the first processors that could translate between messages and packets were in development and by the end of 1969 the first four interface message processors (IMPs) were delivered (Denning 1989:3). The first packet-switched network was active in the start of 1970 (Denning 1989:3). In simple terms this was the very beginning of instant messaging, a nascent form of email.

The ARPANET morphed the standards and expectations of the computing profession (Abbate 1994:5). Its mere existence made linking heterogeneous groups of computers and subsequently the people using these computers feasible. Although electronic mail was not part of the initial ARPANET objective, it accounted for a large proportion of the traffic in 1971 and most of its users considered this a way of communication and

© University of Pretoria

collaboration support (Denning 1989:4). Half a decade later, it seemed that research networking was growing precipitously and it became evident that ARPANET would need to begin connecting with other networks (Denning 1989:4). A multiplicity of community networks started to appear in and around 1980, these included BITNET that connected IBM[8] machines and CSNET that connected computers used for research as part of the computer science community (Denning 1989:4).

In 1989, Tim Berners-Lee[9] proposed constructing a place in which information could be accessible from any network-connected computer, this would be referred to as a single Universal Document Identifier or *UDI* (Aghaei, Ali Nematbakhsh & Khosravi Farsani 2012:2). This early version of the web was predominantly read-only, static and, to a certain extent, mono-directional (Agaei *et al.* 2012:2). Businesses could use the web to present information such as catalogues and brochures and customers could view the information and contact the business (Agaei *et al.* 2012:2). Many businesses implemented shopping carts in different forms which allowed customers to order goods without making phone calls (Agaei *et al.* 2012:2). Initial websites made use of HTML[10] pages that were seldom updated, their main purpose was merely to provide information for anyone at any time and establish a presence online (Agaei *et al.* 2012:2). This implementation of the web has been retro-defined as Web 1.0 (Agaei *et al.* 2012:2). The Internet began to shift away from Web 1.0 patterns with the launch of social sites such as SixDegrees.com in 1997, Blogger in 1999, Friendster in 2002 and Myspace in 2003. With the creation and prolific popularity of Facebook in 2004 the move away from a read-only web was a certainty.

The Internet economy crisis emerged in 2000. An influx of financial capital grew market values of certain Internet companies; later when these companies could not meet the profit expectations of investors a resulting financial bubble formed, dubbed the Dot-

[8] IBM (International Business Machines) is considered to be one of the world's biggest information technology companies. They provide a wide variety of computing hardware, software and services (TechTarget 2016).
[9] British computer scientist, Tim Berners-Lee is recognised as the inventor of the World Wide Web (W3 1998:[sp]). Berners-Lee is the appointed director for the World Wide Web Consortium (W3C) which is responsible for supervising standards for the World Wide Web and the Internet (W3 1998:[sp])
[10] Hypertext Markup Language or *HTML* is the language used to construct webpages (TechTerms [sa]). "Hypertext" can be classified as hyperlinks that are included in a webpage (TechTerms [sa]). "Markup language" refers to the labels that are used to define the layout of the webpage as well as elements included within (TechTerms [sa]).

© University of Pretoria

com bubble (Fuchs 2017:35). That bubble was burst in 2000 and resulted in many Internet start-up companies going bankrupt (Fuchs 2017:35). After this crisis, investors needed coaxing to buy into any new Internet start-ups and it was the appeal of Web 2.0's new democratic and economic potential that convinced investors to buy in (Fuchs 2017:35). Thus Web 2.0 was born from financial capitalist crisis and was a means to overcome this crisis through establishing new models of capital accumulation for a corporate economy on the Internet (Fuchs 2017:35).

Dale Dougherty[11] officially defined Web 2.0 in 2004 in a brainstorming session between O'Reilly Media's Tim O'Reilly[12] and MediaLive International which gained notoriety online over the next few years (O'Reilly 2005:17). The term gained traction amongst marketing practitioners and academics alike and had upwards of 135 million citations on Google in February of 2007 (O'Reilly 2005:17). However, there was still much disagreement over what the term actually meant, with some people writing it off as a marketing buzzword (O'Reilly 2005:17).

O'Reilly (2009:17) later offered a paper to better define the concept of Web 2.0 and gave this criterion on which the concept should be defined:

> Like many important concepts, Web 2.0 doesn't have a hard boundary, but rather, a gravitational core. You can visualize Web 2.0 as a set of principles and practices that tie together a veritable solar system of sites that demonstrate some or all of those principles, at a varying distance from that core.

In their preliminary set of outlines in 2004, O'Reilly and Dougherty pointed out one of those principles as "[t]he web as a platform" (O'Reilly 2005:19). What was interesting for O'Reilly was that two of the Web 1.0 archetypes, Akamai[13] and DoubleClick[14] were both innovators in using the web as a platform (O'Reilly 2005:19). Ad serving was one of the preliminarily widely-used web services that allowed a smooth collaboration

[11] Dale Dougherty is a co-founder of O'Reilly Media, he acted as the first editor of their computing trade books and developed the original commercial website GNN in 1993 (Bloomberg [Sa]). Further Dougherty has served as an Executive Vice President of O'Reilly & Associates and in 2013 founded Maker Media Incorporated (Bloomberg [Sa]).
[12] Tim O'Reilly is the CEO and founder of O'Reilly Media Inc. and has been instrumental in convening conversations that housed terms that have reshaped the computer industry (O'Reilly [Sa]).
[13] Akamai is a cloud service and content delivery network provider. They specialize in streamlining the ways in which users access content online through local servers (Forbes 2017).
[14] DoubleClick is a Google owned company that specializes in the distribution of advertisements on the web, allowing publishers to show ads for revenue and allowing advertisers a space to place their ad (The Guardian 2018).

© University of Pretoria

between two websites that delivered an integrated page to viewers on a growing number of computers (O'Reilly 2005:19). These two companies pioneered Web 2.0 and 'the web as platform' has become a widely accepted way of capital gain on the Internet.

Web 2.0 has also become known as the read-write web, people centric web or participative web, implying bi-directional patterns of usage (Agaei *et al.* 2012:3). This shift towards a community driven web facilitated flexible web design, collaborative content creation and updates (Agaei *et al.* 2012:3). Developments in web technology made creating online content far more accessible for a vast majority of those who had access to the Internet. Even before the Internet had been retro-defined as read only, many showed optimism for the possibilities of the Internet as a platform for sociability. Howard Rheingold (1993:11) was one of these optimists, favouring the Internet as a sphere in which one could meet people of similar interests and passions. Rheingold (1993:11) praised the Internet for being able to jump straight to being in contact with people who would want to discuss a certain topic, eliminating the need to meet copious amounts of people who may or may not be interested in what one may have to say. He claimed that the chances of making friends was magnified for this reason (Rheingold 1993:12).

Through this, the Internet can be seen as a meeting place rather than a tool for communication, albeit showing characteristics of both. Mark Poster (1997:14) echoes this sentiment and claims that:

> …the Internet is more of a social space than a thing so that its effects are more like those of Germany than those of hammers. The effects of Germany upon the people within it is to make them Germans (at least for the most part); the effects of hammers is not to make people hammers, though Heideggerians and some others might disagree, but to force metal spikes into wood. As long as we understand the Internet as a hammer we will fail to discern the way it is like Germany. The problem is that modern perspectives tend to reduce the Internet to a hammer.

In the big picture of modernity, the Internet is an efficient tool of communication, helping users to work towards their goals and have meaningful interchanges with other people. Web 2.0 has made these spaces more accessible to its users. Web pages facilitate and promote the exchanging of knowledge and now constitute a new powerful

© University of Pretoria

form of communication. These web pages such as weblogs, mashups and wikis have become meeting grounds for likeminded individuals.

Weblogs or *blogs* were originally used to track a user's own online records, however blogging soon became a key part of online culture (Hsu & Lin 2008:65). Blogs provide an easy way for users to publish their opinions on any topic they desired and are not limited to text but also includes photoblogs and videoblogs or *vlogs* (Agaei *et al.* 2012:4). Blog posts can be tagged with keywords that categorise the subjects pertaining to the post, making it easier for search engines and other Internet users to find (Agaei *et al.* 2012:4). Interaction facilitated by blogs aided their popularity and saw a 58% rise in blog readership in the United States in 2004, according to a survey done by Pew Internet & American Life project (Hsu & Lin 2008:65). Moreover, the number of blogs grew rapidly from 29,500 in 2000 to 5,340,000 in 2005 (Hsu & Lin 2008:65). This growth brought about the need to order information in a manageable way, Really Simple Syndication (RSS)[15] facilitated this and revolutionised the ways in which content was consumed online. Again, the structuring and development of networking has been heavily affected by its participants and uses. Mark Poster (1997:4) points out that the new forms of interaction seen online give rise to questions of power relations between participants. He poses this question:

> …are there new kinds of relations occurring with [the Internet] which suggest new forms of power configurations between communicating individuals? In other words, is there a new politics on the Internet?

To confront this question, one must look towards the Internet in the same way one would a corporeal public sphere. Poster (1997:5) claims that the notion of a public sphere implies an arena of exchange, such as those seen in a town hall or the Greek agora. What makes this apt is the digital technology being used is so readily available. Entrance is afforded to these digital public spheres through mobile devices which here act as the gateways into contemporary agora. 'Public' according to Poster (1997:5)

[15] RSS feeds are generally text files that allow subscribers to view content shortly after it has been updated (Collins 2018:[sp]). Content from multiple sources can be aggregated and viewed from one feed reader or web mashups (Collins 2018:[sp]). A Web Mashup is a web site that pools information from multiple sources and have become popular due to the fact that they are quicker and easier to code than coding applications from scratch (Agaei *et al.* 2012:4). This ease of information control is considered to be one of the most valuable capabilities of Web 2.0 (Agaei *et al.* 2012:4).

© University of Pretoria

slides more and more towards 'publicity' as 'image' becomes a placeholder for 'character'.

Nick Couldry (2015:1) points out how deeply embedded media outputs are in our lives as well as how these outputs use social media platforms to stimulate economic growth online, this puts greater value in data. Through uploading of everyday activities, users are essentially converting qualitative data into quantitative data which is then measured and tracked (Couldry 2015:1). This requires users to be further orientated towards the online platforms in order to feel 'social' (Couldry 2015:1). Through this a constant exchange takes place, platforms have a continuous query for data to be uploaded which is then streamed through filters and fed to the appropriate viewers (Hochman 2014:1). The result is a continuous flow of data between users, facilitated by platforms and controlled by quantitative models that aggregate similar information (Hochman 2014:1).

Aggregation and collaboration have been cornerstones of Web 2.0 culture and this is evident in many of its popular web sites. The giants of Web 2.0 have embraced the power of collective intelligence and used it to their advantage. Numerous people with varying knowledge have the possibility of congregating and sharing ideas on the collaborative web, making Web 2.0 a powerful tool. Sites like Facebook, Instagram, Twitter, YouTube and SnapChat rely on their users to keep their platforms active. Some may argue[16] that the users of these sites are not completely autonomous but rather products of corporate governance. Nancy Baym (2015:1) questions social media sites from the root term 'social media'. Baym (2015:1) critiques the concept as the respective terms 'social' and 'media' don't stand for anything distinctive and claims that this obscures the truth – that the social has been taken over by the corporate. Moreover, she asserts that social media occurred when corporations took what people were already doing, made it somewhat easier, dubbed it 'content' and channelled user practices into their profit margins (Baym 2015:1). Through this the term 'social media' puts emphasis on how the platform is used rather than critical issues such as ownership, power and rights (Baym 2015:1).

[16] As argued later in this dissertation in Chapter 3 with the help of Antoinette Rouvroy (2012:1) and William Uricchio (2017:125).

© University of Pretoria

It is interesting to note that up until 1994 the Internet was primarily funded by the United States' National Science Foundation and when funding was handed over to commercial entities commerce gained entry (Baym 2015:1). It was in 1994 when the term 'social media' was first used and with advertising and economic exchange being welcomed into the web the ways in which it was used changed drastically (Baym 2015:1). About a decade later terms like Web 2.0 and 'social media' began to gain traction and platforms built around user-generated content seemingly engulfed the Internet (Baym 2015:1).

There have been a multiplicity of definitions surrounding social media, from the more computer programming oriented (in the case of Tim O'Reilly) to those which include cross-cultural slants, user-generated bias (that has become most popular among corporate entities) as well as those which deal more specifically with visualities and human interaction (Fuchs 2017:37). Within the umbrella term of social media lie distinctions between different platforms. José van Dijck (2013:8) distinguishes them as follows; 'Social Network Sites' which primarily promote interpersonal contact such as Facebook, Twitter and LinkedIn and 'user-generated content' which support creativity and promote professional or amateur content such as YouTube. Over and above these she adds the category of 'Trade and Marketing Sites' that serve as online market places to sell products such as Amazon, eBay and Craigslist (Van Dijck 2013:8). Another prolific category is the 'Play and Game Sites' in which users are able to play a game and communicate and share results with other users (Van Dijck 2013:8). This list of subcategories is far from exhaustive; however, it does give an insight to how interwoven and complex social media is and moreover, how capitalist agendas are aligned with the social.

Exploring the term *social media* further, *social,* refers to the human prior to connect with other humans and *media* refers to the media people use to make these connections with other humans (Safko & Brake 2009:4). However, it is important to remember that social media, in its contemporary understanding, is by no means more social than the technologies used to connect in the past, it merely occurs at a much faster rate (Baym 2015:1). Humans have always felt the need to be included in groups of like-minded people, to find spaces in which one can feel comfortable sharing ideas and connections with others (Safko & Brake 2009:4). This kind of social structuring

© University of Pretoria

has not been borne in, and is not exclusive to, the era of Web 2.0 however the rapid dissemination of media through the collaborative web has facilitated further social ordering.

According to Fuchs (2017:39), media are not merely technologies but techno-social systems. He classifies media as having a technological tier of artefact that both enables and limits a level of human activities that produce, diffuse and are consumed with the help of technology in an active and repetitive process that joins human actions to technological structures (Fuchs 2017:39-40). The World Wide Web is clearly no longer merely a system of interconnected computers but rather a network that intersects social networks and connected computer networks (Fuchs 2017:41). This technological structure then both creates and recreates human actions and social networks and therefore produces and reproduces itself by these practices (Fuchs 2017:41). Thus, in this liaison between user and platform the social is affected in the production through human agency and reproduction through technological structure (Fuchs 2017:41). What is important for Fuchs (2017:41) in discussing the social elements of social media is human agency, as at this level different forms of sociality can be distinguished.

These levels of sociality correspond with the most notable classic positions on social theory, namely those defined by Karl Marx and Friedrich Engels, Max Weber and Emile Durkheim. Community and collaborative work were already interpreted by Marx and Engels through the notion of co-operative work (Fuchs 2017:42). For them social is the co-operation of individuals in any condition, any manner and to any ends (Marx & Engels 1845:50). Marx and Engels (1845:50) follow this with the claim that a certain level of production is shared with a certain level co-operation, in this sense co-operation itself is a ‘productive force.’ The Marxist position on the social thus ties in the productive nature of co-operation and collaboration in contemporary times within social media as Fuchs (2017:41) has pointed out.

Collaboration and social relations have strong undertones in contemporary technologies, especially those which use the Internet as a platform for production. The sociologist, Max Weber (1978:4) divides sociology in two categories, *social relations* and *social actions*. He claims that actions are social as they can be seen to be adjusted

© University of Pretoria

to cater to the actions of other's and then performed in bias towards one's surroundings (Weber 1978:4). In other words, one's actions are dependent on one's surroundings. This would mean, for example, that one's actions would differ in a court house compared to a night club. Weber's (1978:26) account of social relations has a similar slant to his definition of social actions, however it considers a plurality of social actors. The agent's meaningful content is potentially internalised by the other and is therefore oriented with this in consideration (Weber 1978:26). This is to say that most social actions are influenced by the environment in which they occur and vice-versa. He stresses that in order for something to be considered a social relation, behaviour must be a meaningful representative interaction between human actors (Fuchs 2017:41). It is however, arguable whether the social interaction is exclusive to human actors - as meaningful interaction can occur between man and machine[17] (Fuchs 2017:42).

Fuchs (2017:42) puts forward that all software and media are social insofar as they are products of social processes. This takes into account Durkheim's (in Fuchs 2017:41) understanding of a social fact which is "every way of acting … capable of exercising an external constraint … while at the same time existing in its own right independent of its individual manifestations." Technologies record information created in corporeality, often between human agents (Fuchs 2017:42). This information is then quantified into machine readable data and then applied by machines in societal structures online (Fuchs 2017:42). In other words, the sociocultural artefacts that have are able to exist in their own right in any environment and have now been embedded in technologies through its development. For example, in 2016 Microsoft's research and development team collaborated with Bing to create a 'chatbot'[18] that learnt conversational language (Kastrenakes 2016:[sp]). The chatbot dubbed 'Tay' was available most notably on Twitter and allowed users to interact with the bot by merely tweeting it (Kastrenakes 2016:[sp]). Tay's conversational abilities were created through 'mining relevant public data' and combining it with input from the editorial staff

[17] This is to say that digital devices are capable of meaningful interactions that can be considered to possess social value.
[18] A chatbot is an artificial intelligence software that simulates a conversation with a user in conversational language. Chatbots are usually used through websites, messaging applications or through the telephone.

© University of Pretoria

(Kastrenakes 2016:[sp]). The bot is supposedly meant to learn as it talks to people to become more of a natural conversationalist (Kastrenakes 2016:[sp]).

Therefore, users type their thoughts into Twitter which quantifies the information into machine readable data, Tay is fed this data and responds accordingly. However, as users soon found out, some of the responses were merely copied from other users, responses that included misogynistic, racist and offensive tweets (Hunt 2016:[sp]). This shows how artificial intelligence can reuse and redirect information created by humans. Thus, technology potentially possess intrinsic value that could influence its surroundings. With digital technology now becoming more of an agent in social interactions, it is important to consider the user's relationship with these digital agents as well as how our actions and self-portrayals may be affected.

In the Web 2.0 environment users are prompted to create content at an increasing rate, with social sites such as SnapChat, Instagram and Facebook introducing time limits to content.[19] There is a constant exchange between platform and user, that could have profound influence on social production and reproduction. Furthermore, this structuring of information online could influence the ways in which users represent themselves on SNSs. In the section that follows these influences are discussed in terms of YouTube vloggers Lilly Singh,[20] Casey Neistat,[21] David Dobrik,[22] and Peter McKinnon.[23] These Vloggers have shown varying ways of self-representation on SNSs and are now known as some of the forerunners of using YouTube as a career.

[19] 'Stories' are temporary video and photo content that are laced together to form a slideshow gallery (Bradford 2018). 'Stories' allows a user to upload photos or video to their 'story' which expires after 24 hours (Bradford 2018). The 'stories' function was first introduced by SnapChat and later adopted by Instagram and Facebook.

[20] Lilly Singh is a celebrity YouTuber, known for her channels 'IISuperwomanII' and 'SuperwomanVlogs'. Her main channel consists of comedy sketches which involve breaking of ethnic stereotypes (Biography.com 2018). Her vlogging channel consists of motivational and observational monologues (Biography.com 2018).

[21] Casey Neistat is a filmmaker based in New York. He is the director, writer, editor, and star of the 2010 HBO series *The Neistat Brothers (Design Indaba 2017:1)*. His work predominantly consists of short films released only on the Internet. Neistat prefers the accessibility and honesty of YouTube as a distributive platform (Design Indaba 2017:1).

[22] David Dobrik is a well-known American Vine star and YouTube vlogger. Dobrik grew his fan following on the now defunct application Vine and has since shot to stardom on the YouTube platform with over five million subscribers as of November 2017 (The Famous People 2017:1).

[23] Peter McKinnon is a Canadian photographer, vlogger and videographer prominent on YouTube (Cooke 2017). Mckinnon's channel has been recognized as one of the fastest growing channels on YouTube and obtained over a million subscribers within its first year (Cooke 2017).

© University of Pretoria

As many of these vloggers' channels revolve around their personal lives, they make for interesting exploration into self-representation online.

2.2 Constructing the online self

The showcasing of personal life online has gained much traction since the Web 2.0 phenomenon. However, glorifying the mundane has its roots embedded much earlier in media culture. The drive behind the propagation of the public self has multiple sources according to David Marshall (2014:154). He claims that one of the possible explanations for this rise in personal-public life is that of the expanding celebrity discourse (Marshall 2014:154). Celebrity culture has become increasingly normalised in newspapers since the 1970s (Marshall 2014:154). Lifestyle sections began to expand and stories devoted to the famous became standardised after every 'newsworthy' interview (Marshall 2014:154). Sections that dealt with celebrities migrated from the back pages to the front pages in newspapers (Marshall 2014:154).

The natural home for celebrity discourse has customarily been magazines which supported the efforts of popular music, television, radio and film (Marshall 2014:155). In the last third of the 1900s the robust celebrity magazine market had developed with an astonishing number of titles dedicated to celebrity reporting, gaining its initial foothold in woman's magazines (Marshall 2014:155). Celebrity journalism has dominated the market in the United Kingdom, as well as the popular 'supermarket tabloids' in the United States such as the *Globe* and the *National Enquirer*, this has resulted in the creation of the genre of celebrity weekly magazine (Marshall 2014:155). Since the 1980s, such magazines have reinvented their editorial catalogue in response to dwindling circulations and competition from the celebrity weeklies and international monthlies (Marshall 2014:155). While still maintaining their traditional interest in domestic advice, beauty and fashion, mainstream women's magazines have increasingly shifted their focus towards celebrity culture (Gough-Yates 2003: 136).

With increasing competition and demand for notable stories, topics of gossip began to proliferate. Marshall (2014:156) cites the O.J. Simpson murder trial as one of the turning points in celebrity news as it broke down traditional boundaries of reporting where the lines of sensationalism and quality began to blur. Aspects of Simpson's life

© University of Pretoria

that did not necessarily pertain to the case were broadcast in attempt to gain viewership. Celebrity life in the news began to change the way in which news stories were broadcast and subsequently consumed by their viewership. The journalistic media began to cover Simpsons' spousal abuse issues from five years prior to the trail in a bid to identify patterns and commonalities unseen in the other reporting (Marshall 2014:156). The coverage allowed for an investigation into the personal as a new form of public politics (Marshall 2014:156). The personal lives of celebrities became a hot topic in print publications, the likes of television and later celebrity culture dedicated web pages followed suit.

Following the digital image in the 1990s, as well as the networked image (digital images uploaded to the Web) at the turn of the millennium, the social media image has come to be considered as the new dominant cultural visuality of the 2010s (Hochman 2014:1). With its exponential growth of production globally the social media image demonstrates distinctive modes of socio-cultural expression (Hochman 2014:1). The rapid dissemination of information has further blurred the boundaries of the public and the personal. The digital image has made it far easier to post pictures of one's personal domain in a public arena such as the Internet. The interaction between mobile digital technology and its users accelerates the dissemination of these images with every post, comment, share and the like. With this, the borders of public and personal become increasingly unclear. Moreover, people move within and between the public and the private, and sometimes occupy both simultaneously (Lasén & Gómez-Cruz 2009:205).

The departure from the now 'traditional' forms of media (television, film, and print) towards new digital media has given a larger number of people a level of autonomy over self-disclosure. Celebrities once delivered their messages with the use of these traditional media outlets indirectly through journalists that may have filtered the said messages. Social media allow for a far more personalised and unfiltered means of communication. This allows for a greater control over the ways in which social media users can disclose their identities. Online self-branding is mostly created by the user and therefore could be seen to be mediated to a lesser extent. Self-branding involves the self-conscious construction of specific meta-narratives and meta-images of the

© University of Pretoria

self through the use of cultural meanings and images influenced by narratives and visual codes of the mainstream culture industries (Hearn 2008:198).

Jill Rettberg (2017:1) proposes three modes of self-representation on social media, namely; visual, written and quantitative. She puts forward that visual self-representation comprises not only of selfies, but other images and symbols that are used to express ourselves, such as our curated photos on Facebook or the themes selected for a Tumblr blog (Rettberg 2017:1). Secondly, written self-representations could include blog posts as well as the multiple written status updates shared on sites such as Twitter, Facebook and even the comment section on Instagram (Rettberg 2017:1). The third mode Rettberg (2017:1) explores is quantified self-representation, which is starting to become gradually more common as mobile devices are used as step-counters and heart rate monitors which provide apps an increasing amount of opportunity to signify our lives through graphs and numbers. Quantified self-representation could mean measured and extensive self-tracking, as seen in the efforts to quantify our movement, or it could be as simple as swiping within an app like SnapChat to add an overlay or 'filter' to the image showing the speed at which you were traveling or the local temperature at the time (Rettberg 2017:1).

Often these modes of self-representation intersect, a selfie[24] with overlaid text makes use of both the written and the visual and of course the quantifiable when the text includes numerical information (Rettberg 2017:1). For instance, the YouTube vlogger Casey Neistat makes use of all three of these forms of self-representation in his videos. Neistat often uses written overlays to represent the distance he has travelled during his daily run, information acquired from his mobile digital devices. The three forms of self-representation manifest in Lilly Singh's vlogging videos too, as she represents her daily tasks in an infographic at the beginning of each vlog. Singh assigns points to each task as a form of motivation to complete these tasks throughout the day. These infographics overlaid on the video show the ways in which their practitioners use information to represent themselves.

[24] A 'Selfie' refers to a photograph taken of the photographer by the photographer.

© University of Pretoria

Neistat prides himself on his fitness and his ability to run every day and he represents this by editing these practices into his vlog. He often posts pictures with information of his latest run on Twitter. Figure 2.1 shows a picture posted on Twitter by Neistat near a beach after his daily run (Twitter 2018). In comparison, Singh's vlogs often include motivational themes and prompt viewers to take their lives into their own hands. Her infographics show the measures she takes to motivate herself and through this motivate others. Each day Singh lists her daily "mission" which usually comprises of mundane tasks such as washing her hair or replying to emails. Figure 2.2 is a screenshot taken from Singh's *WATCHING MY CRINGE CHILDHOOD VIDEOS,* depicting her daily mission taken from the vlog posted in March 2018.

Figure 2.1: Casey Neistat selfie showing his running statistics. 2018. Screen shot by author.

© University of Pretoria

Figure 2.2: Lilly Singh shows her daily mission, WATCHING MY CRINGE CHILDHOOD VIDEOS. 2018. Screen shot by author.

Self-representation is constantly about communication, they are often personal media forms and mostly intended to be seen by only a few (Rettberg 2017:2). Although Singh and Neistat's videos are most certainly not seen by only a few,[25] they are made for the individuals that follow the vlogs, as daily or weekly updates on the poster's life. They act as common ground for what may be perceived as an achievable lifestyle for the observer. Here the info-graphics are used as the most accurate way to express Singh and Neistat's self-construal. By listing their actions, they provide a form of visual evidence that the viewers could perceive as accomplishments. Through this, even the most mundane tasks such preparing emails are seen as noteworthy events.

An important consideration when dealing with self-representation is the term representation itself. Rettberg (2017:3) questions why the modes of self-expression are representations rather than presentations. She claims that they cannot be seen as either, as the two terms provide two separate ways of viewing this phenomenon (Rettberg 2017:3). A representation is considered to be an object, a symbol that is fabricated in some way, and that stands in place of an object to which it signifies (Rettberg 2017:3). A presentation can be seen as an act - exploring presentations allows us to examine the way that a person performs to present themselves (Rettberg

[25] Casey Neistat's channel has accumulated over two billion views since 2010 (YouTube 2018). Lilly Singh's vlog channel has accumulated over 330 million views since 2011 (YouTube 2018).

© University of Pretoria

2017:3). However, these terms are not completely independent from each other. The terms presentation and representation are used in different ways in respective discourses, making their use thorny in the thicket of interdisciplinary fields such as Internet studies and Visual Studies (Rettberg 2017:3). While Rettberg (2017:3) maintains a simplistic view of representations, seeing it as a totem or placeholder for what it is representing. Stuart Hall (1997:24) has a more elaborative explanation and views representations as having more contextual dynamics.

Hall (1997:24) designates three principles to representation: reflective, intentional and constructive. Through the reflective understanding, representation can be seen as a reflection of reality. With the intentional understanding, it is accepted that the symbols used, mean what the creator intends them to mean (Hall 1997:25). However, both of these theories have been problematized by Hall, who considers representation as constructed (Rettberg 2017:4). Accepting this would mean that representation has some level of performativity. Combining totems in a reflective or intentional way does not necessarily differentiate a representation from presentation. The act of combining these symbols with an intended use is the performing factor and leaves the representation as a reflection of how the author may see reality rather than a pure mirror image. Further, a representation cannot be a mirror of reality as there is no singular understanding of reality itself (Rettberg 2017:4). Representations are then extremely reliant on context and culture in their manifestations of meaning (Rettberg 2017:4). In other words, what a representation may be intended for in its original deployments could be construed in differing ways. For example; an image intentionally constructed to represent body positivity,[26] which aims to subvert objectifying human anatomy according to heteronormative ideals of body image, could be construed as promoting obesity and ill health (Malacoff 2018). In this way the image fails to be a pure representation of body positivity and aligns more towards the definition of a presentation of the self.

It is then important to examine the ways in which self-construals manifest closer to presentations or representations online. The ways in which individuals put themselves

[26] The body positivity movement was created to help people with bodies considered to fall outside of heteronormative ideals feel more entitled to self-love (Malacoff 2018).

© University of Pretoria

forward via online media is evidently more open to interpretation than was once thought. The signs and symbols one might include in the construction of one's online identity are then not always literal but rather rhetorical in nature. Alison Hearn (2008:198) claims that the function of the branded self is purely rhetorical; its goal is to produce cultural value and, possibly, material profit. Work on the production of a branded 'self' involves creating a separate, detachable, saleable image or narrative, which effectively circulates cultural meanings (Hearn 2008:198).

The datafication of human experiences has become rebranded as 'user-generated content' and in so doing oriented the usage of online platforms as social (Couldry 2015:1-2). Hearn (2008:197) argues that the logic and practice of self-branding is inflected differently on social networking sites which are storage for various types of 'selves'. The content posted on respective social media sites by an individual, online can have differing objectives. In other words, the ways in which an individual performs can differ depending on the social media site chosen. For instance, David Dobrik centres his vlog on YouTube around the people and events in his life, while posts on his Instagram account are used often for promotional purposes. In this way, two 'selves' can be seen as they perform in differing ways. They are, however, still performing for the purposes of Dobrik's self-branding. These forms of self-branding, that can be found across several different kinds of media, illustrates the narrowing of the divide between any meaningful notions of the self and capitalist processes of production and consumption (Hearn 2008:197).

Many YouTubers, including Dobrik and Neistat, have their own clothing lines which they call "merch" (short for merchandise). The clothing includes phrases or images that relate to the vlogs as a kind of inside joke between the creators and the viewers. These techniques of capital acquisition are common in the YouTube community and are almost a necessity with regards to their marketing campaigns. Users of social media platforms are now able to create and sell content just as well as large corporations used to.

User-created content has been described by Melita Zajc (2015:28) with the concept of *prosumption*, which claims that with the rise of digital electronic technologies the boundaries separating production from consumption have crumbled. *Prosumption*

© University of Pretoria

also implies an emphasis on production. The active participation of audiences in the production of media content has been the pinnacle of communication and media scholars for decades (Zajc 2015:29). In the infant stages of press and electronic mass media, audience participation in content production had remained an unachieved ideal (Zajc 2015:29). The viewership of these forms of media needed to make a more concerted effort to participate in the development of content compared to that of the ease of social media platforms. Commenting opinions, creating blogs and reviewing restaurants happens at a far more rapid rate because of this ease of access. In their present use as social media, new digital media and communication technologies appear to enable the fulfilment of the ideal of audience participation (Zajc 2015:29).

Evidently, one of the most prominent forms of 'audience participation' on Web 2.0 are the 'likes' and comments on social media posts. These serve as immediate feedback on the author's posts and as mentioned earlier this chapter, may influence their future uploads. The fact that one's self-representations are being aired out in an arena open to scrutiny from the online public has given these representations a sense of significance, perhaps influencing authors to become more studious when creating uploads. Likewise, developments in digital technology have facilitated an increasing importance for images in social media[27] (Rettberg 2017:13). Communication then, has begun to centre itself around the digital image. Incorporating these factors of open public communication and the heightened significance of the digital image has equipped the likes of Facebook to become a conventional form of communicating one's self-representations (Rettberg 2017:13). Visual totems that act as forms of self-representation certainly did not emerge from the advent of smart phones, nor are they exclusive to the hand held devices. Photos and animated gifs were used on early websites and chatrooms as visual self-representations, Myspace users and bloggers chose templates and fonts that they felt characterized themselves best (Rettberg 2017:14).

Though self-representations have taken many forms in the lineage of media, self-portraits have been one of the most visually accurate forms of self-construal. Katie

[27] Once Web 2.0 became an established phenomenon in the first decade of the 2000s, smartphones with incorporated cameras, screens with higher resolution and affordable data plans became common (Rettberg 2017:13).

© University of Pretoria

Warfield (2014:1) states the following on contemporary self-portraiture:

> The selfie also reminds us of self-portraiture, and art history, and therefore the existential intrigue many artists have experienced in crafting and image that was to be representative, to some degree, of him or herself.

Following this, the selfie is far from a new phenomenon and is more of an interwoven relationship with a multiplicity of visual media predecessors (Warfield 2014:1). Katie Warfield (2014:1) claims that, like many forms of new media, the selfie can be seen as a multimodal convergence of newer and older technologies and thus acts as a mirror, camera and billboard or stage all at once. Echoing Hall (1997:24) and Rhettberg (2017:4), the selfie is a form of presentation or performance as well as a representation at the same time.

An example of this (Figure 2.3) is Hippolyte Bayard's *Self-Portrait as a Drowned Man* (1840), which depicted the photographer slumped beside a wall as though he was dead (Rettberg 2017:15). This was not only one of the first self-portrait photographs but also a staged photograph, purposely depicting a fictitious scene (Rettberg 2017:15). This photograph serves as a useful reminder that self-representations are frequently performed and not often meant to be taken as truth (Rettberg 2017:15). Another noteworthy point here is that the photograph not only allowed others to to see Bayard as a drowned man but also himself (Rettberg 2017:15). It allowed him to see himself as he would have never been able to without the help of technology (Rettberg 2017:15). Through this, self-portraits can be a way of communicating with others, but also a way of envisioning themselves differently (Rettberg 2017:15).

© University of Pretoria

Figure 2.3: Hippolyte Bayard*, Self-Portrait as a Drowned Man,* 1840. Direct Positive Print. (Machina)

Selfies have emerged from a converging of technologies and subsequently the exploration into selfies requires a convergence of cross-disciplinary theoretical approaches (Warfield 2014:1-2). Using historic photography as means of exploration into selfies gives us a sense of how self-portraits may have given birth to ideals of contemporary self-representation. As Bayard presented himself a deceased in his self-portrait, he subverted the notions of photographs being an exact reflection of reality and simultaneously adding a performative factor to a self-representation. Returning once again to contemporary self-representations, similarities begin to emerge. As seen through Dobrik and Singh's self-representations, in what Banet-Weiser (quoted in Kanai 2015:1) terms 'the authentic self-brand', one sets up a simultaneous relationship to oneself, as well as a relationship between oneself and one's prospective audience. This double relationship is one of innovation, production, and

© University of Pretoria

consumption of the self, holding itself accountable for producing a unique, 'authentic' self for others (Kanai 2015:1). The self-representations presented by the YouTubers then begin to give more control to the audience and this may result in a self-representation less of their 'authentic' self. Certain YouTubers such as Peter McKinnon ask for suggestions on what the topic of their next video should be. These often translate into content that is tailored to the viewers' requests.

McKinnon's video series *Two Minute Tuesday*, often involves tutorial videos in which he guides the viewer through a multiplicity of filmmaking techniques. These involve photo and video editing software tutorials, camera hardware reviews and general how-to's involving video creation. McKinnon uses his comment section for feedback and often asks what viewers would like to see in his next video. Figure 2.4 shows a screenshot of the comment section in McKinnon's video *How using a SPEED RAMP can IMPROVE your videos!!* (2017), in which he asks viewers what topics they would enjoy watching during the *Two Minute Tuesday* series.

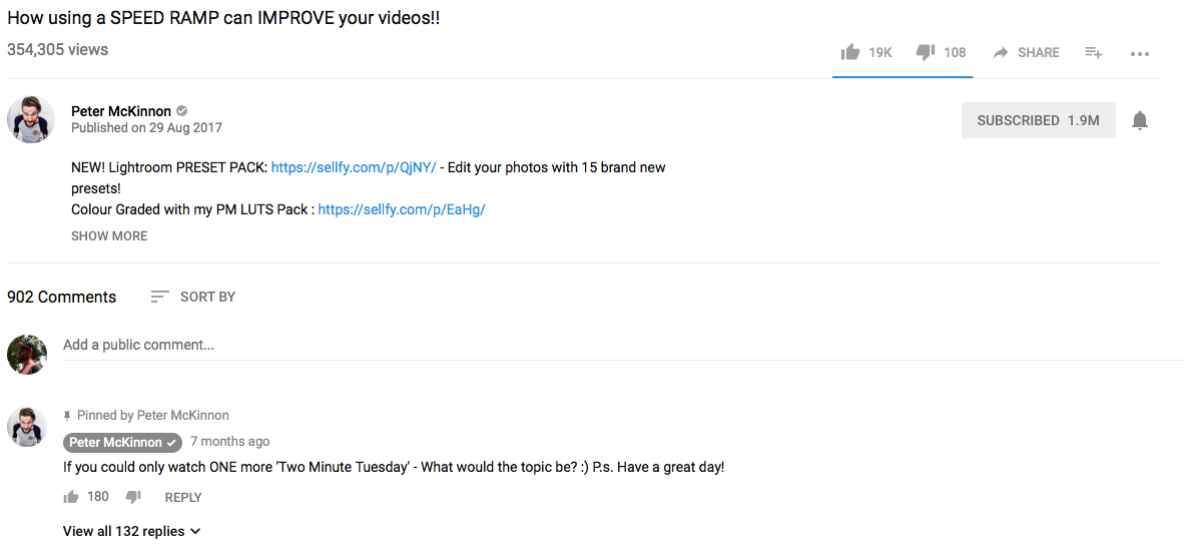

Figure 2.4: Peter McKinnon comment section. *How using a SPEED RAMP can IMPROVE your videos!!.* 2017.Screenshot by author

Questions such as these by the authors of the YouTube videos prompt engagement from viewers which as act as guidelines for future content creation. Although the foundation of McKinnon's videos remains the same, audience suggestions demonstrate how engagement could influence YouTubers' self-representations in the

© University of Pretoria

future with topics chosen by the viewership. Vloggers like Singh have popularised the form of vlogging in which the creator is directly in front of the camera and speaks on a variety of topics. Sigh is the centre of attention in a large majority of her videos in which she speaks on a variety of topics from acne to her experiences of being intoxicated. These novel ideas attract large viewership[28] and theoretically more money can be made per video.[29] The idea of the self as commodity, or form of property subject to market change runs alongside the notions of the *produser* and *prosumption* culture. User created content is fast becoming the hot topic in marketing as well as social media studies and is highly relevant to self-depictions and online popularity.

Through this, users have become accustomed to certain forms of content creation. These forms were borne from Web 2.0 advancements and of course technological advancements in the hardware used to create media. Blogs created an outlet for users to share their ideas, with the addition of photos and video, visualities gained prominence (Agaei *et al.* 2012:4). With this in mind, every day and scholarly mechanisms for understanding media still have a 20th century prior where one expects media to be professionally made by a select few for the general masses (Rettberg 2017:26). As viewer's often assume a representation is thoughtfully fashioned and packed with meaning (Rettberg 2017:26). Social media representations however don't take this form very often, content is frequently made for the moment and not for eternity (Rettberg 2017:26). It is often used more as a narration of an event in our lives, guiding friends and followers through daily experiences (Rettberg 2017:26).

At the same time, self-representation is exactly that, a representation (Rettberg 2017:26). It depicts a certain aspect of ourselves as well as a certain way of seeing ourselves (Rettberg 2017:26). If these representations were chosen for us by an audience, the authenticity of the content is arguably lower. Of course, it is not a holistic representation of ourselves, it can never share everything in our lives (Rettberg 2017:26). However, these snippets or highlights of self-construals are being

[28] Since its publication, Singh's video *STUPID THINGS I'VE DONE WHILE DRUNK* (2017), has gained over three million views. Another video of hers *The Struggles of Having Acne* (2018), has garnered nearly two million views.
[29] The YouTube Partner Programme allows creators to monetise their content on the platform (YouTube 2018). Content creators can earn money from advertisements displayed on their videos as well as from YouTube Red subscribers viewing their videos (YouTube 2018).

© University of Pretoria

increasingly guided by online peers, algorithms and the Web 2.0 platforms themselves. Through this begins a negotiation of what to show and what not to show and what is appropriate and what is not with every post (Rettberg 2017:27). This appropriateness depends on the platform on which it is posted. Platforms such as Instagram favour content that consumes less time with videos length being capped at one minute. Platforms such as YouTube do not have this limitation and this allows for a different form of representation. The online platform therefore provides a large amount of context to the representation media.

This echoes the theories put forward of by Hall (1997:25) and Rettberg (2017:4) that the totems represented in media are highly reliant on context and culture in their manifestations of meaning (Rettberg 2017:4). What this means for self-representations is that there is an increasing reliance on digital technology in the construction and deployment of one's self-construal. SNSs and their structuring as well as audience engagement then play an important role in self-representative media. How this may affect the user's corporeal identity is vital to explore as with the hyperbolic growth of digital technology comes a new ontological era of self-construal.

© University of Pretoria

CHAPTER THREE: REACHING OUT WITH DIGITAL DIGITS

The bounds of human imagination as well as its manifestations are constantly changing with advents in digital electronic technology. Digital technologies have undoubtedly given rise to contemporary means of self-representation as discussed in the previous chapter. However, what is at stake in this chapter is developing an understanding of what motivates digital self-representation as well as what ends these forms of representation may work towards. Exploring the ambitions of digital self-representations could uncover new understandings thereof and subsequently contemporary visualities. To reiterate, this dissertation seeks to explore the ways in which digital technology affects online self-representation through the lens of a proposed coalescent term, namely *reach.* This term is expanded upon later in the chapter to further explore actions set out and executed by their practitioners to work towards an end goal, this is discussed through the proposed term of *reach campaigns*.

3.1 Reach: an introduction

Reach is an amalgamation of definitions from the traditional dictionary version to social media vernacular. Merriam-Webster (2018:[sp]) offers a multiplicity of definitions for the term ‘reach’ - they are as follows: the act of stretching out, to touch or grasp something, to pick up and draw toward one or to strain after something. In contemporary marketing, social media platforms such as Facebook use the term reach to describe the size of the audience. Online social media and marketing resource, Social Media Examiner (2017:1) explains reach in the following way:

> Facebook reach is the number of unique people who saw your content. It affects every other metric you can track: engagement, likes, comments, clicks and negative feedback. And that’s not all. There are different kinds of reach: post, page, organic, viral and paid. Everything on Facebook boils down to reach.

Facebook has become, by far the largest social networking platform globally (Statista 2018). As of the third quarter of 2017, Facebook has surpassed the two billion global

© University of Pretoria

monthly active users[30] mark, including over 1.5 billion mobile monthly active users[31] (Statista 2018). Facebook was founded and created in 2004 by Harvard student Mark Zuckerberg and was originally intended to be a means of networking between Harvard students, but swiftly spread to other academic institutions and in 2006 was opened to the public (Statista 2018). Since its public introduction, marketers have recognised that Facebook offers a different kind of instrument for interacting with their potential audiences (Nelson-Field, Riebe & Sharp 2012:1). When compared to more traditional types of advertising media, Facebook is often cited as the one of the most cost-effective ways of connecting and communicating with actual consumers (Nelson-Field, Riebe & Sharp 2012:1). The number of attracted and repeat consumers are typically the key metrics for evaluating the success of a Facebook marketing campaign (Nelson-Field, Riebe & Sharp 2012:1).

By its nature, reach (in its social media capacity) places crucial importance on the acquisition and retention of new audiences. Facebook for business (2020:[sp]) has offered the following definition for a 'reach objective:'

> The Facebook reach objective lets you maximize the number of people who see your ads and how frequently they can be seen. If you're looking to build brand awareness or change perception of your brand, reach objective lets you maximize the number of impressions your ads receive via impressions optimization.

As the essence of SNSs emphasises user interaction and involvement, users are vital to a successful website (Lin & Lu 2011:1152). Without new audiences, reach, and subsequently the social media, has no purpose. Social media posts prompt interaction through the availability of likes and comments (Hochman 2014:1). Posts are often considered more successful when engagement is higher and this involves more people liking, commenting and sharing. The continuous posting of content initiates and maintains a 'presence' on social media platforms (Goodwin *et al.* 2016:10). This 'presence' is seen as an achievement linked to reaping the maximum amount of

[30] Monthly Active User is considered to be a key performance indicator for online platforms (Investopedia [sa]). The monthly active user count is determined by the number of unique users over a thirty-day period and is defined by a user that is logged onto the platform and interacts with the webpage by liking, sharing, commenting messaging or following a link (Investopedia [sa]).
[31] Mobile monthly active users are determined in the same way as monthly active users, however they are exclusive to mobile devices (Tardi 2019:[sp]). These can be defined not only as users who own a mobile phone but rather users connected to a mobile tariff or service via a SIM card (Tardi 2019:[sp]).

© University of Pretoria

benefits from Facebook as a means of enhancing sociability (Goodwin *et al.* 2016:10). Over time,[32] the rate at which posts gain views, shares and comments decreases which creates the need for new posts to further grow reach and online presence. Social media continuously prompt content to be created and uploaded and through this create a constant stream of interaction and reach growth (Hochman 2014:1).

What motivates and affects continued intention to use social media thus becomes an important issue (Lin & Lu 2011:1152). Web 2.0 and its contemporary uses have given rise to new social practices that have been lodged in our everyday lives. An increasing number of people are using the web as a way to interact with other members of society in a bid to feel a sense of belonging. This is to say that individuals adopt digital technology as they perceive a possible enjoyment or utility from it (Lin & Lu 2011:1153). It is thus important to explore network externalities[33] and individual motivation to further comprehend why individuals continue to make use of social networking sites (Lin & Lu 2011:1153).

3.2 Extrinsic and intrinsic motivation theories and *reach*

Previous research has broadly used motivation theory as a means of explaining individual's behaviour when utilising digital technologies (Davis, Bagozzi & Warshaw 1992; Lin & Lu 2011; Moon & Kim 2001; Sledgianowski & Kulviwat 2009). Edward Deci (1985:32-132), theorist of human motivation, divides human's behavioural motivation into extrinsic motivation and intrinsic motivation. Extrinsic motivation refers to exercising an action because its outcome is perceived as valuable or helpful (Deci & Ryan 1985: 129-132). Intrinsic motivation refers to the exercising of an action for the reason of interest in the action itself and not external support (Deci & Ryan 1985:32-35). Later studies (Lin & Lu 2011; Moon & Kim 2001) reinforced the notions of usefulness as an extrinsic motivation and enjoyment as an intrinsic motivation (Lin & Lu 2011:1153). Davis, Bagozzi & Warshaw (1992:1111-1132) noted that both intrinsic

[32] This time period is extremely variable and dependent on factors such as the poster's following size, time of day and region.
[33] Michael Katz and Carl Shapiro (1985:424-426) defined network externalities as the value or utility that users gain from a product or service that will provide more value to consumers with the increase of users, services or complementary products. In other words, once the number of users of a particular product reaches saturation point, external benefits emerge that attract more users to adopt the product (Lin & Lu 2011:1153).

© University of Pretoria

(gratification) and extrinsic (utility) factors effects the motivation to use digital information technologies. Further, extrinsic and intrinsic motivation have been cited to effect how an individual makes use of digital information technology (Lin & Lu 2011:1153). In other words, the use of digital technology is deeply motivated by both extrinsic and intrinsic factors (Lin & Lu 2011:1153). Kuan-Yu Lin and Hsi-Peng Lu (2011:1153) propose that individuals are motivated by a perceived benefit of enjoyment and utility made available with the use of social networking sites. According to them, this is the individual's motivation behind the continued use of social media. Through the observation of possible utilitarian benefit and cognitive enjoyment from the use of digital technology, specifically social media utilisation, one can view basic human wants and needs in a contemporary way.

Traditional studies of an individual's motivation, such as American psychologist Abraham Maslow's (1943:370-396) five-tier model (Figure 3.1), could not have predicted the implications of digital technology on the human psyche. However, revisiting his theory may shed light on how individuals now satisfy needs and wants with the use of digital technology as tools to execute their ideas. Exploring the motivations of human behaviour in the contemporary digital landscape could provide a new way of understanding psychological need satisfaction through the use of SNSs and subsequently how this may complicate the relationship between humans and digital technology. The complication at stake here is a growing reliance on digital technology to help meet self-esteem and self-actualisation needs.

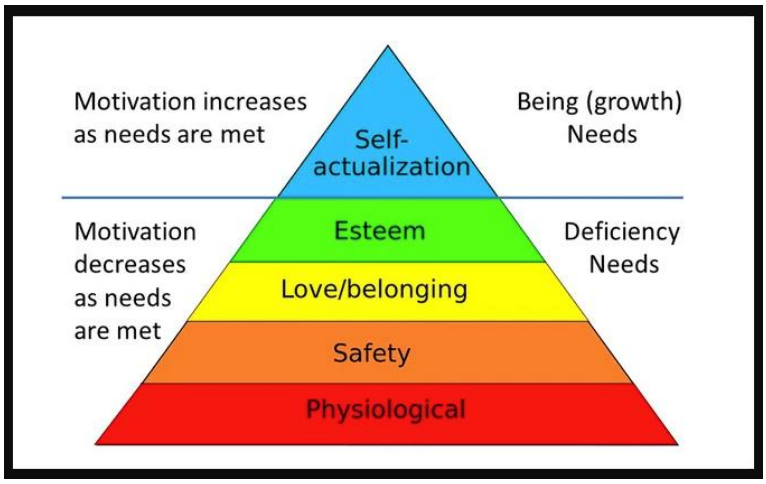

Figure 3.1: Diagram of Maslow's hierarchy of needs. Simply Phycology. Saul McLeod, 2018.

© University of Pretoria

Maslow's model can be divided into two categories, namely; deficiency needs and growth needs (Maslow 1943:375). Deficiency needs are claimed to arise due to deprivation and motivate people when they are unmet (Maslow 1943: 375). Maslow claims that once a need is satisfied it is no longer a motivating factor for the individual (Maslow 1943:375). This is to say that once a need is satisfied, new 'higher' needs emerge. Further, that an individual is motivated and dominated by the unsatisfied need (Maslow 1943:376). Growth needs, seemingly do not stem so much from physiological deprivation but instead from the desire to grow as a person (Maslow 1943:376).

Social belonging and affection arise once physiological[34] and safety[35] needs are satisfied (Maslow 1943:380-381). Maslow (1943:381) goes on to say that people will crave affectionate relations with others in general and for a place in a social group. In other words, once the physiological and safety needs have been gratified, the individual will become more aware of a lack of affection from other people and filling this void will then in turn become the chief motivation. This is an important insight when trying to understand what motivates social media users. The collaborative web (Web 2.0) has become a new sphere of social interaction and can even be argued to become a new public arena. By connecting with other users online, social media users are satisfying the need for belonging and to create human interaction. Maslow (1943:381) notes that the needs in terms of love and affection involve both receiving and giving love. This need can be transposed to social media interactions where once a comment is made it can be liked or responded to through further commenting, enabling the possible interchange of affection between users.

Once an individual feels the void of affection has been sufficiently filled the esteem needs emerge again (Maslow 1943:381). Maslow (1943:381) maintains that most people in society have a desire or need for a robust high appraisal of themselves or in other words, for self-esteem and self-respect. This self-esteem is based on achievement, and respect from others (Maslow 1943:381). As a result, individuals seemingly develop a persona in order to become more widely accepted by others. In

[34] In Maslow's (1943:376) hierarchy he cites physiological needs as fundamental to human survival. Having access to food, water, air, warmth and rest is what drives an organism (Maslow 1943:375).
[35] If physiological needs are relatively well satisfied, there arises a new set of needs, which Maslow (1943:376) categorises as the safety needs. Protection from the elements, law, order, stability, security and being free from fear (McLeod 2017).

© University of Pretoria

this way the individual is presenting themselves in a manufactured or self-branded way. Sarah Banet-Weiser (2012:80) argues self-branding relies greatly on the concept of authenticity. Users are no longer developing a genuine relationship with their inner self but their authenticity must now be performed (Banet-Weiser 2012:80). To this end, to be authentic to oneself, users must first be authentic to others (Banet-Weiser 2012:80). In this regard, the mechanisms of Web 2.0 are used between the two tiers of belongingness and esteem in Maslow's hierarchy. Some individuals use social media as a connecting tool (gaining affection) between people while others use social media in an attempt to gain self-esteem through respect from others. Maslow (1987:67) notes that the order of needs may be flexible due to situational external forces. For instance, he notes that for some individuals, the importance of self-esteem is higher than the need for love.

Reach encompasses both extrinsic and intrinsic motivation to understand the motivation for users to use social media. Users seek to use the collaborative web as a means of social interaction (the extrinsic or utility factor). Users also use social media for the enjoyment (intrinsic or gratification factor).[36] Based on Maslow's (1943) principals, *reach* attempts to develop an understanding of human needs with an emphasis on the human-digital interaction. As previously discussed, Maslow's hierarchy can be applied to contemporary social interactions, however *reach* works towards encompassing all actions in Maslow's hierarchy of human motivation rather than only the top tier of "Self-Actualisation." This is to say that Maslow's (1987) definition of self-actualisation shares many similarities with the proposed hermeneutical lens that is *reach*. Maslow (1987:64) describes self-actualisation as realising personal growth or one's desire to accomplish the envisioned goals an individual is capable of. *Reach* would be the lens in which the other four tiers of Maslow's hierarchy would be viewed. This would mean that all actions under the tier of self-actualisation would form part of an individual's *reach campaign*: the organised actions in which individuals perform, in a certain arena, in order to reach a goal.

[36] According to *Social Media Today*, an average person will spend almost two hours (about 116 minutes) on social media daily (Asano 2017). This adds up to a total of 5 years and 4 months in a lifetime (Asano 2017). In 2017 the total amount of time spent on social media exceeds time spent eating and drinking, grooming and socializing (Asano 2017).

© University of Pretoria

Reach allows for a more fluid interaction between deficiency needs and growth needs and provides flexibility in the terms of belongingness, esteem and safety needs.[37] These observations are important when exploring self-representations online as they put emphasis on the ontological and epistemological engagements of human beings and technology. The argument surrounding the encroachment of technology into every-day life has been generally biased towards a utilitarian disposition up until now. The exploration into effects of digital technologies, although increasing, is still in its fledgling stage of investigation. There is an increasing academic insight into how digital technology is affecting a multiplicity of public spheres. From Gwenn Schurgin O'Keeffe and Kathleen Clarke-Pearson's (2011:800-804) study of the impact of social media on children, adolescents and their families, to the exploration into the effects of digital technology on education among you people by Neil Selwyn (2012:81-96). Other ventures include Satish Nambisan's (2017:1029-1055) insights into digital entrepreneurship, Wijnand IJsselsteijn, Yvonne de Kort and Karolien Poels' (2007:1-9) exploration into digital gaming and social presence technology as well as Ed Darack's (2011:[sp]) brief history of unmanned aircraft in warfare situations. *Reach* aims to take a pragmatic approach to its explanations of digital-human affects. Through exploring technology as a means of executing ideas, a higher emphasis can be placed on what this may mean for human behaviour rather than technological development in an exchange between humans and digital technology.

3.3 Instrumentalist approaches to technologies and *reach*

Encompassing approaches to technology that include human interaction in its considerations such as Martin Heidegger's (1977:2) analysis of the 'essence' of technology with his now seemingly outdated techno-deterministic approach still equips us with a better understanding of the repercussions of the digital technological era. In the same way, the intent of consolidating the aforementioned uses of the term, *reach* aims to work towards a more precise, accountable description and demarcation of the concept of *reach* for the purpose of exploration into social and Cultural Analytics.

[37] This will be discussed further in the next section in terms of *reach hernias.*

© University of Pretoria

Technologies, that were understood from an instrumentalist approach, would have been used to extend the *reach* of the user by creating a convenience factor, an ease of access to further their competency. Instrumentalist theory provides the most commonly accepted view of technology (Feenberg 1991:6). It is rooted in the idea that technologies are "tools" waiting to serve the purposes of users (Feenberg 1991:6). Technology is therefore deemed as "neutral," without inherent value of its own (Feenberg 1991:6). For example, weapons aid individuals (and subsequently groups) to gain control over others. In the very beginning of weapon technology stones gave an upper hand to the wielder in battle. Thereafter, spears added the benefit of being able to attack from a greater distance. Between 40 000BC and 25 000BC, the atlatl (sometimes named the Stone Age Kalashnikov), a flexible dart that could kill a deer at 40 meters became state of the art weaponry. Developed in northern Africa, it spread throughout the world, later replaced by the bow and arrow around 20 000BC (Marshall 2009:1). Come 500 BC the traction trebuchet is thought to have been developed in China, powered by teams of about a dozen people, it could sling balls of rock as far as 125 meters (Marshall 2009:1). Around the same time, ancient Greeks develop their own long-distance battle weapon, the ballista, their rendition of scaled-up crossbow (Marshall 2009:1). In the mid to late 1700s missiles became a permanent feature in warfare and with the advent of lasers in the 1960s accuracy was greatly increased (Marshall 2009:1). Post-World War II and closer to the millennium, unmanned aerial vehicles (UAV's), also known as drones, started to shape the ways in which counties approach warfare (Darack 2011:1). UAV's can be operated from the opposite side of the world and can carry mass amounts of ammunition (Darack 2011:1). Through this the opportunity to threaten and overpower other parties from increasing distances has become possible through the extension of physical reach in weapons technology.

The same can be said for digital technologies, as with the advent of the Internet came new ways of managing our everyday lives from scheduling meetings to Internet connected fridges that notify its owner when their milk is empty. Digital technologies allow us to control situations in our absence, such as ordering milk online from work to be delivered to Internet connected homes. Technologies have been used in the past to satisfy needs; the Internet is just now allowing us to satisfy these needs in more abstracted ways. For instance, one feels present and responds emotionally to virtual others in computer games, pixelated faces in video calls and even simulated beings

© University of Pretoria

(Biocca 2015:2). These virtual spaces and manufactured personas accommodate and interact with our actions in such a way as to increase our feelings of presentness (Biocca 2015:2). For example, research into collaborative virtual environments or CVEs (Normand *et al.* 1999:1-24, Bailensen & Yee 2007:271-290), have shown that interactants can share a mutual three-dimensional digital space despite being ensconced in another physical location. Immersive virtual environment technologies monitor individuals' behaviour and movements and then render those behaviours and movements in the CVE in form of avatars (Bailensen & Yee 2007:275). The digital representations are traced by optical sensors, cameras and mechanical devices (Bailensen & Yee 2007:275). Through imagery and calculated reactions, digital technologies convince one into believing one is interacting with sentient beings. Thus, digital technologies allow us to remain absent physically while extending our digital or virtual *reach* to interact with others. This satisfies the social media user's need for belonging and gaining self-respect as seen through the application of Maslow's hierarchy above.

It may be necessary at this point to engage with the argument of *reach* in terms of the concepts of weapon technology as transposed to digital technologies and human motivation as discussed above. As weapon technology allowed its users to expand their *reach* on the battle field, digital technologies aid their users in expanding *reach* in their everyday life as well as online. Individuals utilise ideologies as weapons in order to gain respect from others. By sharing common interests, an individual is more likely to be accepted in a social group and in so doing gain the respect of others. By contributing towards certain ideologies individuals overlap their *reach campaign* with that of others simultaneously expanding their *reach*. One's *reach campaign* could be considered to be the work put forward in the form of organized and active operations to achieve a goal. A *reach campaign* would therefore relate to *reach* in the same way a recipe relates to a dish.

Extending the victual metaphor for a moment; if one were to make a vegan dish, all the ingredients and processes involved would have to take veganism into consideration. Every ingredient or process that does not follow vegan values is therefore unsuitable for the use in the dish. The existence of vegan ingredients in the dish are then paramount to the success of the dish. If meat was added the dish it would

© University of Pretoria

no longer be vegan and as a result fail its main purpose. In the same way, vegan ingredients being used in a non-vegan dish would not be utilised to their full potential. Therefore, ingredients considered to be vegan, especially meat substitutes, allow for a larger variety of vegan dishes and simultaneously fulfil their purpose of containing vegan values. What this means for the argument of *reach campaigns* and *reach* is that *reach campaigns* are paramount to the existence and growth of *reach*. Further, the work put forward in a *reach campaigns* towards the goal of *reach* would suffer when utilised in the improper manner. *Reach campaigns* are thus directed and goal focused towards the core values inherent in *reach*, just as vegan ingredients are directed and goal focused towards vegan core values. Through this goal-oriented mentality, arises the opportunity for conflict as differing motivations may hinder the efficiency of a *reach campaign*.

3.4 *Reach* and *reach campaigns*

Reach campaigns therefore have a certain performative factor, acting out to dissolve and thus becoming part of a larger ontology, in the same way the vegan ingredients act for the purposes of the vegan dish. Peggy Phelan (1993:97) describes performance in normalised cultures such as heterosexuality as follows:

> The power of the 'unseen' community lies in its ability to cohere outside the system of observation which seeks to patrol it. So the 'in- jokes,' the 'secret' codes, the iconography of dress, movement, and speech which can be read by those within the community, but escape the interpretative power of those external to it, can create another expressive language which cannot be translated by those who are not familiar with the meanings of this intimate tongue.

Reach and *reach campaigns* are of course not exclusive to sexualities or any specific form of cultural norm. They serve as the imagined success rate of an individual or group (*reach*) and the method of achieving this success (*reach campaign*). Often *reach campaigns* overlap and coincide allowing certain groups to hybridise. When similar methods of achieving a goal are shared by individuals, these individuals could be seen to migrate towards each other in an attempt to fortify the effectiveness of the method's actions. For example, vegetarian dishes can utilise vegan ingredients as they contain both vegan and vegetarian core values. This means more individuals will use the vegan ingredients and result in a greater number of actors working towards a common

© University of Pretoria

goal. Thus, the *reach campaign* draws individuals and groups together which subsequently creates hybridised communities.

Néstor García Canclini (2014:422) states that humans have gone from societies scattered into thousands of peasant communities with homogeneous, local and traditional cultures to a predominantly urban structure with heterogeneous symbol offerings renewed by constant transnational communications. These communications are of course facilitated largely by the collaborative web and the heterogeneous symbols shared at an astonishing rate. These heterogeneous symbols (or the 'secret codes' and in-jokes' in Phelan's (1993:97) words) act as the keys that open doors into respective *reach campaigns.* This is not to say that the hybridisation of groups implies becoming dissolved into an anonymous unity or group (Canclini 2014:422). The public insecurity, the volatility of urban cultures and incomprehensibilities of the metropolitan lead us to search for selective forms of social interaction which can be described as trusting encounters (Canclini 2014:423). Speaking on the geographical segmentation of societal groups, Nestor Garcia Canclini (2014:423) maintains that popular groups rarely leave their spaces, whether centrally or peripherally located, middle and upper-class factions expand on security measures on their homes and neighbourhoods increasing isolation from other groups.

The same can be said for social groups online. Users follow accounts that fall into their set of interests or beliefs and tend to migrate towards each other rarely venturing out into different subjects of interest or ontologies. In this way, ontologies simultaneously group individuals together while cordoning them off from other subjects of interest. Visual totems that characterise an ideology simultaneously act as reinforcement for its isolation. The symbols categorise and differentiate one group of individuals from another. This is to say that the visual totems both mobilise and limit sets of concepts and categories within a certain subject area. In terms of *reach* the same holds true for a *reach campaign*. *Reach campaigns* both allow their practitioners to expand their *reach* as well as confine it to certain ontologies. For example, if one only speaks English, one has access to a multiplicity of English media however they are also limited by not having access to media in other languages.

As previously discussed, *reach campaigns* are the actions set out and executed by their practitioners to work towards an end goal (*reach*). These actions are motivated

© University of Pretoria

by basic human needs and wants and are justified by perceived utility and enjoyment. Whether this motivation is seen to be outcome driven (extrinsic motivation) or process driven (intrinsic motivation) is yet to be established (Deci & Ryan 1985: 32-132). However, what is evident is that social media and the collaborative web facilitate both kinds of motivation, easily persuading individuals into its utilisation. Through actions executed on SNSs, needs or wants are met and new desires emerge and become the foremost motivating factor for the individual, as indicated in the discussion on Maslow previously. The collaborative web has facilitated these actions and is thus seemingly playing a key role in working towards the satisfaction of human desires. The actions contained in *reach campaigns* then, can be seen to revolve around a visual core as individuals create visual artefacts for the purposes of posting them on SNSs as self-expression. These visual artefacts are laden with iconographic representations of an individual's self-construal. Since social media's logic depends so heavily on the visual elements of self-representation, the user's ability has become synonymous with visibility (Goodwin *et al.* 2016:10). Imagery mobilises both the collaborative web as well as individual's *reach campaigns*. It is for this reason that visual components are of utmost importance when considering the relationship between humans and digital media.

Further, *reach campaigns* aid in the understanding of people's interaction with digital media and its effects on visualities. Through the growth and momentum created by individuals sharing similar iconography, groups of like-minded individuals begin to emerge. These groups proliferate and cultural norms and ideologies become cemented in online communities.[38] The exponential growth of communities online has given rise to the necessity of new ways of examining large data sets. Subsequently, *reach* falls into the broad category of Cultural Analytics set out by Lev Manovich (2017:55) as the analysis of huge cultural data sets and flows using the techniques that have become synonymous with computation and visualisation.

[38] A good example of this can be seen in the MeToo Movement, which originally started as local grassroot work to help survivors of sexual violence and gained viral status due to celebrity exposure (Me Too 2019). In under six months, thanks to the viral #metoo hashtag, an important conversation about sexual violence has been thrust into the global dialogue (Me Too 2019).

© University of Pretoria

3.5 Positioning *reach* and Cultural Analytics

Cultural Analytics through computation and visualities follows research that had started to analyse particular historical periods and professional cultural areas such as contemporary popular music, website design and 19th century literature (Manovich 2017:55). Most of this research has been carried out under two newly developed fields according to Manovich (2017:55), Social Computing and Digital Humanities. He maintains that Digital Humanities and Social Computing have engraved their own domains relative to the kinds of data they study, while 'Cultural Analytics' (and consequently *reach*) continues to be free of such limitations (Manovich 2017:56). Digital Humanities scholars are known to use computers to analyse predominantly historical artefacts created by professionals, in the likes of writers, musicians and artists (Manovich 2017:56).

The discourse of Social Computing however, is much larger.[39] In this field, researchers have advanced degrees in computer science and study online user-generated content as well as the interactions with this content (Manovich 2017:56). The data sets are generally much larger than those explored by the Digital Humanities and it is not uncommon to find researchers examining hundreds of millions of posts or other media (Manovich 2017:56). The perceived benefit of such large data sets is that computer science creates better algorithms and other digital technologies that are useful to government and industry organisations (Manovich 2017:57). The analysis of historical artefacts is thus less important to corporate organisations and thus falls outside of the goal of efficiently streamlined data, consequently fewer computer scientists work with historical data (Manovich 2017:57).

However, Manovich (2017:58) argues that looking at a large number of examples of computer science papers,[40] what becomes evident is the fact that research is actually being done in the Humanities or Communication Studies but at a greater scale. There is an importance to larger data sets other than the seemingly pessimistic 'corporate

[39] Here, social computing can also be used as an umbrella term for all computer science explorations that analyse social media activity (Manovich 2017:56).
[40] See for instance: "Quantifying Visual Preferences Around the World" (Reinecke & Gajos 2014) and "What We Instagram: A First Analysis of Instagram Photo Content and User Types" (Hu *et al.* 2014).

© University of Pretoria

governance' stance. To have a representative sample, a substantially larger set of data is needed from which to draw from (Manovich 2017:59). Additionally, without a large enough sample, only general arrangements and trends can be found, but not specific patterns (Manovich 2017:59). Manovich notes that while small samples allow for the finding of the 'typical' or 'most popular', it does not represent what he calls 'content islands.' Cultural Analytics and *reach* are interested in the patterns that emerge from the exploration of large cultural data sets (Manovich 2017:62). These large cultural data sets are becoming more easily accessible with the exponential growth of social media sites. According to Manovich (2017:62), ideally the analysis of larger cultural patterns will lead researchers to the individual cases, such as distinct creators and their specific creations and cultural behaviours. Culture is of course one of the major influences on image and self-representation (Kim & Papacharissi 2003:101). To this point, visualities on social media can be seen as reductions of corporeal cultural institutions. It is for this reason that *reach* acting under the umbrella term of Cultural Analytics can assist in understanding self-representation on social media sites.

The convolution of cultural developments has many similarities to the developments in an individual's *reach campaign*. Cultural influences have been prominent shapers of identity both online and in corporeality. Academics often find it useful to use the divergence between interdependence and independence in understanding how cross-cultural differences shape self-image (Kim & Papacharissi 2003:101). The section to follow discusses the similarities between cultural development and *reach* in terms of rapidly expanding *reach* or *reach hernias.*

3.6 *Reach hernias*: communicating innovations in self-representations

In the previous section the ways in which *reach* and *reach campaigns* can be considered to be a way of need satisfaction has been discussed. This showed that through social media, individuals perceive a level of fulfilment of social belonging and self-esteem needs. Self-esteem needs are seemingly deeply dependent on social factors including social interaction, hybridisation, development and differences. This section aims to examine what may occur when *reach campaigns* expand rapidly (*reach hernias*) and what effects this may have on other *reach campaigns*. Online

© University of Pretoria

communities that share ideologies have the propensity to share similar spaces and subsequently create larger factions of individuals. These individuals have the desire for social belonging and tend to act in certain ways in a bid to garner respect from others. It is these acts as well as cultural norms that influence individuals to assimilate into a social group. Further, through guiding individual actors they shape the ways in which communities grow. Social psychology explores the influences various cultures have on each other, *reach* attempts to draw parallels to cultural influences in a bid to explore self-representation in terms of the level of autonomy in individualist and collectivistic cultures. This is to question whether the influence of the collective on the individual is greater than the influence of the individual on the collective.

Heeman Kim and Zizi Papacharissi (2003:101) note the dichotomous classification of independent and interdependent cultural relationships. According to them, this relationship emphasises the connection to collectiveness of relational groups found predominantly in non-Western cultures and the individualism and abstractness that characterise Western cultures (Kim & Papacharissi 2003:101). Individualism and collectivism have been given various meanings around the world and because of this the boundaries of the terms have become blurred (Triandis 2018:2). Subsequently, their meaning and manifestations are difficult to measure and in recent years social psychologists have discovered the complexities of individualism and collectivism through attempts at measuring their tendencies (Triandis 2018:2). The general consensus among social psychologists seems to accept that motivation differs in cultures that are considered to be individualistic as opposed to motivation in cultures considered to be collectivistic.

Social psychologists (Hofstede 1980:45, Kim & Papacharissi 2003:10, Triandis 2018:2, Matsumoto 1991:130) agree that collectivism could be preliminarily defined as social patterns consisting of closely connected individuals who perceive themselves as a part of one or more collectives. These individuals are predominantly motivated by the structures and norms imposed by these collectives and will generally give priority to the goals of the collective over their own (Triandis 2018:2). These collectives could include family groups, work groups and national groups (Triandis 2018:2).

© University of Pretoria

Individualism can be defined as social patterns that comprise of loosely interrelated individuals who perceive themselves as independent from collectives (Hofstede 1980:45, Kim & Papacharissi 2003:10,1 Triandis 2018:2, Matsumoto 1991:130). These individuals are predominantly motivated by their own preferences, rights and needs and the bonds they have made with others (Triandis 2018:2). These individuals, unlike those part of a collectivist arrangement, give priority to their own goals over the goals of others (Triandis 2018:2). It is also common for these individuals to analyse the advantages and disadvantages of associating themselves with others (Triandis 2018:2).

While defining an individual through the dichotomous classification of individualism and collectivism it is only helpful in understanding a section of cultural differences, this approach shows a lack of account for nuanced social phenomena such as sub-cultural developments and intersections (Kim & Papacharissi 2003:102). Moreover, from this standpoint the contributions of individuals within a social system tend to be glossed over as their actions are categorised into either individualism or collectivism. As a response to this pitfall, *reach* attempts to examine individual behaviour and works towards a more contemporary way of viewing ideologies perpetuated through self-representation which is facilitated by digital technology (Kim & Papacharissi 2003:102). Ted Singelis (1994:581) describes self-construals as a "constellation of thoughts, feelings, and actions concerning one's relationship to others, and self as distinct from others." These feelings, thoughts and actions can be seen to be heavily influenced by the use of digital technology as often they are manifested through the use of the collaborative web. The shared online spaces act as a melting pot for heterogeneous cultures, resulting in hybridisation towards homogeneity but also fosters a culture of individualist differentiation. Thus, self-representation becomes an interplay between performing for others to gain respect and recognition and performing for self to differentiate from the collective.

Hazel Markus and Shinobu Kitayama (1991:226-227) differentiate between two kinds of self-construal, independent and interdependent. The independent self-construal is used to denote an individual actor who perceives themselves as a unique and constrained entity by reference to one's introspective feelings, thoughts and actions rather than by reference to those of other's feelings, thoughts and actions (Markus &

© University of Pretoria

Kitayama 1991:226). The interdependent self-construal is used to denote an individual actor who perceives themselves as interrelated and connected to other individuals' thoughts, feelings and actions and recognises that these factors organise the actor's behaviour (Markus & Kitayama 1991:227).

Theodore Singelis (1994:581) emphasizes that it is possible for independent and interdependent perceptions of the self to coexist in individuals. Building on previous research, Singelis (1994:581) found that independent self-construals were more prevalent in individualist cultures while interdependent self-construals were more prominent in collectivist cultures. Social media and the collaborative web can be interpreted as having qualities similar to those in collectivist cultures while users can be seen to act in ways common in individualist cultures. Further, Social Media users come from both individualist and collectivist cultures and thus perpetuate the ideologies attached to these cultures. This is an important consideration as then, from an individual level, SNS users begin to affect the societal structuring online. Individual actors online perform in ways that are perceived as unique and independent however, as noted in the previous chapter, individuals often consume to produce.[41] Through consumption a social interaction and dependence is formed. The collaborative web, that is dependent on the interaction between individuals and cultures, was birthed in an individualistic society.[42] This is to say that individual's actions within an independent cultural atmosphere have influenced social groups online towards a cultural thinking of collectivism.

It is then the contributions of the individual actors in social interactions that mobilise and proliferate social structuring (Hearn 2008:198). The ways in which SNS users interact with the Internet is testimony to the coexistence of interdependent and independent cultures. Users use the web to mobilise their own objectives while simultaneously assimilating to cultural norms. The production of a unique 'self' involves creating a detachable, separate and saleable image or narrative, which effectively circulates cultural meaning (Hearn 2008:198). Social media users create and maintain profiles to present themselves online, to communicate with off-line and on-line friends and family as well as to provide entertainment to the self and others

[41] As unpacked in section 1.2 on *prosumption*.
[42] Western cultures are considered to be aligned closer to an individualist culture (Kim & Papacharissi 2003:102).

© University of Pretoria

(Kim & Papacharissi 2003:104). The relative anonymity of online interactions allows social media users to manipulate and express their identities more liberally, frequently evading traditional limitations of social prejudice and status (Kim & Papacharissi 2003:104). This anonymity allows for users to assimilate into an online societal group as well as differentiate themselves from other cultural groups.

Reach hernias aim to provide a way in which to view these online self-construals as both a way of differentiation and assimilation. *Reach hernias* could be classified as the interplay between independent and interdependent and consequently individualistic and collectivistic approaches. *Reach hernias* can be seen to emerge when an individual's *reach campaign* herniates or deviates from cultural norms. This deviation aligns closer to the ideals of an independent or individualistic culture. Subsequently the exerted efforts to stray from categorisations emerge as a result of motivation to differentiate from a collective. This is to say that an individual performs actions to satisfy their perceived needs of delineation and in so doing performs in ways that are less recognisable to the social group around them. As individualism is associated with greater self-reliance, there is a lower concern for acceptance from in-groups and larger distance from in-groups (Kim & Papacharissi 2003:102).

However, as discussed through Maslow's hierarchy, self-esteem and achievement is often rooted in receiving recognition from others (Maslow 1943:381). In terms of individualism, one would feel the need to be recognized for their efforts into differentiating themselves from the collective. However, through this a paradoxical conundrum appears - the motivation to differentiate is based on societal ideals of assimilation. In other words, in this system, if one were to appear 'normal' they must be seen to be making the effort to be different from others. Working towards individualistic ideals now shows to be opening a door to the 'in-groups' and in so doing becomes part of a collective mentality. When users post content online the platform prompts interaction between users (Hochman 2014:1). Posts are often considered more successful when engagement is higher, meaning a larger number of people liking, commenting and sharing. The continuous posting of content instigates and maintains a 'presence' on social media platforms (Goodwin *et al.* 2016:10). This 'presence' is seen as an achievement linked to reaping the maximum amount of benefits from Facebook as a means of enhancing sociability (Goodwin *et al.* 2016:10).

© University of Pretoria

This aligns the social media user more closely to the ideals of a collectivistic culture, one that encourages self-expression that facilitates group cooperation and cohesion (Kim & Papacharissi 2003:102). Thus, self-differentiation online is reliant on the group's perceptions and is often tailored towards them. In this way *reach hernias* emerge as a result of both individualistic tendencies as well as collectivistic influences.

A *reach hernia* can be described as a fast growing 'unseen' community, one that embodies new ways of thinking, new 'in-jokes' and 'secret' codes. When these new communities emerge and expand, they herniate from normalised cultures reshaping the societal landscape. *Reach hernias* are becoming far more prevalent in contemporary times with the popularity of the collaborative web. Digital technology and SNSs facilitate viral idea adoption and dissemination, drastically increasing the rate of communication across a large group of individuals. Everett Rogers, communication theorist and sociologist in his 'Diffusion of innovation' (1962, 1971, 1983, 1995, 2003) series has explored the dissemination and adoption of new ideas over time through a social system. He has dubbed the communication of an innovation through certain channels over time among members of a social system, 'diffusion' (Rogers 1995:5).

Communication according to Rogers (1995:6), is the process in which participants create and share information between each other as a means to reach a mutual understanding. This classification implies that communication is a process of confluence (or divergence) as two or more people are involved in an interchange of information in order to move towards each other (or apart) in the meanings they perceive in certain events (Rogers 1995:6). Although Rogers wrote about communication before the advent of SNSs, the process of communication between individuals remains the same. However, what has changed through digital technology is the rate at which an idea is communicated between individuals at a massive scale. With the increased rate of communication, the persistent inquiry from SNSs for individuals to provide new content and the influences of individualistic differentiation, new ideas are churned out at astonishing rates online.

Rogers (1995:6) claims that diffusion is a special type of communication as it deals with new ideas. According to him the newness of the idea contained in a message gives diffusion a special character (Rogers 1995:6). The newness implies a certain

© University of Pretoria

degree of uncertainty is involved in diffusion (Rogers 1995:6). This is to say that uncertainty implies less predictability of information and structure (Rogers 1995:6). When knowledge, practices and beliefs become institutionalised, the innovation is what confronts these behaviours. Diffusion then is a kind of social change as when new ideas are invented, diffused and adopted or rejected, they lead to certain consequences[43] and social change occurs (Rogers 1995:6). Social change is defined by Rogers (1995:6) as the process by which alterations in the structure and function of a social system occur. This social change through the communication of a new idea is what *reach hernias* aim to examine.

The way in which *reach campaigns* influence new audiences helps grow communities and expand *reach. Reach hernias* are the beginnings of a social change, an alteration in the structure of a social group through new ideas birthed in individualistic differentiation. In individualistic cultures, newness can be seen to be one of the cornerstones for receiving recognition in a social group. Innovation is paramount to differentiation in a system with such a rapid rate of communication such as that seen on the collaborative web. This is to say that innovative ideas often elicit confrontation of ideologies and cause turbulence in social structuring. Rogers (1995:12) would define the new idea that causes social change to be an innovation. An innovation is an idea, object or practice that is perceived as new by an individual or group (Rogers 1995:12). For the purposes of this dissertation, an innovation can be seen as a new way of self-representation that differentiates the SNS user from their collective. Rogers (1995:12) claims that as far as human behaviour is concerned, whether or not an idea is genuinely and objectively original is of little importance, it is only the perceived newness of an idea that determines the reactions toward it. Further, 'newness' can be articulated in terms of knowledge, persuasion and the decision to adopt (Rogers 1995:12). He fleshes out this idea through the concept of the innovation-decision process (Rogers 1995:21).

The innovation-decision process, is the process through which a person passes from the initial knowledge of an innovation to forming an attitude towards the innovation, to deciding whether to adopt or reject, to implement and use the new idea and to confirm

[43] The consequences of a new idea can be considered as the attitude and reactions towards an innovation as well degree to which the innovation is adopted (Rogers 1995:12).

© University of Pretoria

this decision (Rogers 1995:21). Rogers (1995:21) conceptualises five main steps in the innovation-decision process, here it will be discussed in terms of self-construal and individualistic differentiation. Firstly, knowledge occurs when an individual discovers the existence of an innovation and gains some understanding of its functions (Rogers 1995:21). For example, an individual may find a potentially new way of representing themselves online be it a selfie filter, new item of clothing, a trendy hairstyle, hashtag or even political opinion. Secondly, persuasion occurs when one forms a favourable or unfavourable attitude towards an innovation (Rogers 1995:21). Thirdly, decision occurs when a person engages in activities that lead towards a choice of adoption or rejection of the innovation (Rogers 1995:21). At this point the individual will decide whether the possible new self-representation is viable to their online identity. Fourth, implementation occurs when one puts the innovation to use (Rogers 1995:21). This can be seen as the inclusion of the element of differentiation in the individual's online self-representation. Finally, confirmation occurs when a person seeks support of an innovation-decision that has already been made and at this stage could reverse the process if conflicting messages about the innovation are mentioned (Rogers 1995:21). By creating a self-representation through differentiation and posting it online for others to see, an individual is providing an opportunity for others to form an opinion on this self-construal. It is at this junction that SNS users gain recognition through likes, comments and shares. If the attitude formed by others of the self-representation is positive, the individual is more likely to post similar content in future. This process is repeated continuously and through this, *reach hernias* emerge.

The innovation-decision process can be seen as an information acquisition and processing activity in which people obtain information in order to decrease uncertainty about the innovation (Rogers 1995:21). In terms of *reach*, this process is generally the deciding factor of whether or not a *reach campaign* will be successful. This aids in innovation and *reach campaign* adoption and acts as a reorganisation of social structures. In this way, once the innovation has either been adopted or rejected by a large majority, the *reach hernia* has subsequently been enveloped and ceases to exist in certain social systems. In the same way once an innovation has been accepted by a large group of people, it is no longer innovative but common practice to the majority. This is to say that the *reach campaign* has lost its innovativeness to its relative adopters. A *reach campaign* may still be perceived as innovative in a different social

© University of Pretoria

system in which it has the potential to herniate and influence its structures. As time passes, the message of the innovation is spread further and wider and through this a larger number of people adopt the innovation. New ideas of self-construal are constantly emerging through turbulent social systems on the Internet. The pace at which innovations are communicated through the collaborative web is increasing, narrowing the time between innovations.

As a result, SNS users are seemingly constantly faced with possible new methods of portraying themselves. These individuals, through their self-representations, shape the social landscape of online culture. In this way, the SNS user has been afforded high amounts of feasible influence over social structuring that may have not been possible before the advent of digital media and the collaborative web. Social systems are immensely influenced by digital technology and more applicably, the collaborative web because of the rate at which ideas are communicated (Castells 2007:242). Moreover, Castells (2007:242) maintains that the medium in which messages or ideas are communicated has "substantial influence on the form and effect of the message." In the interest of this dissertation, the medium in which messages are communicated is the collaborative web. This medium is increasingly becoming the main means in which message dissemination occurs (Beer 2009:987). Through this, the ideas of self-representation online are potentially highly influenced by the collaborative web as well as the interconnected social systems it facilitates.

The concepts of *reach* and the diffusion of innovation seemingly fall firmly into Scott Lash's (2007:56) post-hegemonic world. Lash argues that if the hegemonic world is ordered through a cultural reasoning of reproduction, then the post-hegemonic world is ordered through a cultural reasoning of invention (Lash 2007:56). With the prominence of the Internet and the embeddedness of the collaborative web in people's lives there is an emergence of persistent production of social, political and economic relations (Lash 2007:56). This production draws upon the *reach hernia* and consequently the diffusion of innovation as discussed above. Every new form of production must have an innovation or *reach hernia* from which to expand on and communicate. Proponents of post-hegemony argue that humans now live in highly complex societies that are far more fragmented and which have been intensely

© University of Pretoria

affected by globalisation[44] (Carey & Foster 2013:249). However, through the exploration of independent and interdependent cultures above, it can be noted that production is not merely a reaction to outside influence. *Reach* and innovation are considered to be forces that emerge with reference to both independent and interdependent influences. This is to say that individual's act with individualistic tendencies while still reliant on the collective's perceptions.

The collaborative web and its manifestations have afforded the Social Media user power over their own self-representation. Categorisation and social sorting have then tended to move away from the bureaucratic towards the individual. Lash (2007:59) suggests that what has replaced 'discourse' and 'cognitive judgment' in the post-hegemonic is power. He describes this as the 'vitalization of power', where power is a piece of our being that lives within and reacts to ourselves (Lash 2007:69). This is to say that where power was once considered to operate from without, it now operates from within (Lash 2007:59). The movement of power towards the inside has a ripple-effect on organisation which has subsequently been replaced by self-organisation (Lash 2007:60). This self-organisation is evident in the ways in which people interact with social media and resonates with the commentaries on individualism above. Lash (2007:65) claims that the social bonds of hegemony are dissolving and that in the 'global information society', social relations are reduced to communications. Consequently, power and domination are now mobilised through and localised in our communications rather than a dominant presence acting on us (Beer 2009:994).

This echoes the sentiments of Hearn (2008:198) that individual actors have the power to mobilise and limit cultural practices. The shift that Lash is implying is toward information becoming a part of us, our being, how we do things, the way we are treated, the things we are exposed to, a way of life (Beer 2009:988). What results in this shift is that information is not only about how the world is understood, it is also active in constructing it (Beer 2009:988). With the collaborative web being one of the predominant means of communication, a large amount of potential power over cultural practices is given to the social media user.

[44] Globalisation, in terms of structuralism, is the increase in the possible means of organisation such as: international, national, transnational, macro-regional, micro- regional, local and municipal (Pieterse 1994:161-184).

© University of Pretoria

This form of communication is used in rapidly changing social atmospheres which both influence and are influenced by Social Media users. *Reach campaigns* incorporate these acts of online communication in the work towards a fulfilling self-representation which has been seen to have both independent and interdependent influences through individualistic differentiation and collectivistic perception consideration. Self-representations could be seen to result in social structuring through rapid dissemination and mass adoption and assimilation or *reach hernias*. It is through this exploration of the relationship between humans and digital technology that may lead us to a more nuanced view of the involvement and affects of digital technology in our everyday lives.

© University of Pretoria

CHAPTER FOUR: COMPUTATIONAL VISUALITIES

The interchange between humans and digital electronic technology has firmly rooted itself in our daily lives. It is clear that the tapestry of digital technology and human life has become taut, making it ever more important to examine the needle and thread that embroiders it. It is in this chapter that this dissertation investigates how digital technology has become embedded in our day-to-day lives and argues that society at large could be entering a new epistemic era of computation. This computation, through the datafication of corporeal experiences and the processing of this data, is done through complex decision-making software known as algorithms. The ways in which algorithms structure the media viewed online is discussed here and further considers how this structuring may influence the SNS user both online and in corporeality.

4.1 The computational turn

The advent of the Internet and its availability to the general public from the late 1980s and early 1990s, set off a new way of handling data. The definition, assessment, analysis and calculation of data has long been a part of how humans navigate their reality (Uricchio 2017:125). However, this has reached new heights with the increasingly collaborative and machine-driven web. With more and more people gaining access to the Internet each day, increasing amounts of machine-readable data is produced. With technological innovations arriving more consistently, consumers demand the pinnacle of technological advancement from their digital devices. Some now choose their mobile digital device based on their attributes such as camera quality, screen size and even pixel density. Gone are the days that consumers marvel at the fact that you can make a phone call from a park bench.

As a result, a new set of data has emerged from these increasingly frequent innovations in digital technology, namely the kind of data that is produced in large quantities for non-human interpretation. The unbridled production of data is partly due to the digital encoding of attributable phenomena as well as the production of data by a growing legion of technological actors (Uricchio 2017:125). These actors include human individuals who make use of digital technology as well as their artificial

© University of Pretoria

intelligent counterparts. The Age of Enlightenment could be seen as a notable progression towards recording and analysing data, while the emerging digital era can be seen as the progression towards interconnected non-human actors continually analysing and producing data created not only by humans but machine-readable data created by machines (Uricchio 2017:125).

This machine-readable data is essentially a digital representation of physical reality and objects. What might be referred to as the digital folding of reality constitutes translating a physical object into a digital code for the requirements of a digital or computational device (Berry 2011:1). This transformation is effected through the input apparatus of a socio-technical device that houses a model of interventions, processes and filters, which is eventually displays a final calculation, often in a visual form (Berry 2011:2). Merely carrying your smartphone in your pocket now generates machine readable information. Our devices quantify our every movement from step counters to heart rate monitors. This has given rise to unfathomable amounts of information to be explored and analysed.

Through this, researchers are faced with an abundance of empirical information and have increasingly turned to automated methods of analysis in order to investigate the new mass of data (Röhle 2012:76). Operations of collection, structuration and processing of data for the dedication of data mining and categorisation have helped organisations and individuals manage situations of uncertainty and relieve them of the inconvenience of interpreting everyday events (Rouvroy 2012:1). This undoubtedly has beneficial aspects to academia and allows for a promising future of research. These computational tools are able to process much larger amounts of data than ever manually possible and promise the ability to move rapidly between micro and macro and consolidate the breadth and depth of analysis, as well as, questioning semantic relations and meaning (Röhle 2012:76). One could then, for example, analyse a nations' health as well as an individual's, while still considering the implications of digital technology on its users. In this regard, producing and organizing sizeable amounts of data is largely beneficial, however it is important to remain critical of how data is amalgamated, interpreted and distributed.

© University of Pretoria

The implicit belief that accompanies the growth of Big Data is that, once one has access to the mass amounts of raw data, one could possibly be able to predict most phenomena of the digital and physical worlds (Rouvroy 2012:1). This could be achieved through the use of simple algorithms to build models or patterns of behaviours without even considering causes or intentions (Rouvroy 2012:1). Antoinette Rouvroy (2012:1) calls this new predictive means of knowledge production "data-behaviourism". She puts forward that this contemporary means of producing knowledge about future behaviours, attitudes, preferences or events does not take into consideration a subject's psychological motivations, narratives or speeches, but relies on data instead (Rouvroy 2012:1). The constant quantification by digital devices (while functioning on algorithmic logic) abstracts the human actor from the responsibility to transcribe, evaluate and interpret their everyday actions (Rouvroy 2012:1). Smart phones and wearable technology are set up to transcribe our movements automatically. By measuring our every movement, digital technology side-steps the meaning-making process of representation, institutionalisation, symbolism and convention (Rouvroy 2012:1).

Of course, data is meaningless without an organizing scheme (Uricchio 2017:125). What lies behind the vast amounts of digital information is a scheme of arrangement that takes the form of an algorithm (Uricchio 2017:125). These are a set of decisions that have a finite amount of outputs. The set of decisions put forward for social media use are claimed to be beneficial as the output is generally tailored to a specific user. This supposedly eliminates undesirable content from appearing in a user's newsfeed. However, in dividing the world up in this way, information about the physical world has to be discarded in order for the representation to be stored within the computer (Berry 2011:2). In other words, a computer requests that the continuous flow of physical reality is translated into a set of numbers that can be stored as a representation of reality which can then be further manipulated by algorithms (Berry 2011:2). These subtractive means of accepting reality produce new knowledges and methods of controlling reality (Berry 2011:2). Thus, the implications of the computational turn on governmentality are not in the least trivial (Rouvroy 2012:1). The consistent adjustment of online environments to individual and collective summaries, produced by artificial intelligence is an unmistakable form of governance (Rouvroy 2012:1). In

© University of Pretoria

other words, the personalisation of content, tailored to SNS users can be seen as a new media regime.

The question whether there is an over-reliance on algorithmic knowledge, whether these algorithms produce viable predictions or not or whether algorithms work or not, is not what is entirely at stake in this dissertation. Rather, what is more important here is to focus on what the algorithm abstracts us from - the collective and individual perceptual efforts of meaning construction in media (Rouvroy 2012:1). This is to argue what the algorithm takes away from the individual and collective in the media presentation and representation process rather than what algorithms add to it. Since the purpose of algorithms is to ultimately eliminate the unpredictable, a statistic driven deductive logic with subtractive methods of understanding is given precedence. This results in a system of number driven knowledge that prefers to steer away from elements of human unpredictability commonly found in inductive logic. There is then little room for nuance in the algorithmic understanding of reality. Physical reality is translated into data that is used to categorise and deduce, leaving data sets of averages void of subjectivity.

Data mining and categorisation build factuality on enormous data sets and commence a new era of 'Big Data'. Boyd and Crawford (2012:3) distinguishes Big Data as being a cultural, scholarly and technological phenomenon that relies on the interchange of the following three aspects:

> (1) *Technology*: maximizing computation power and algorithmic accuracy to gather, analyze, link, and compare large data sets.
> (2) *Analysis*: drawing on large data sets to identify patterns in order to make economic, social, technical, and legal claims.
> (3) *Mythology*: the widespread belief that large data sets offer a higher form of intelligence and knowledge that can generate insights that were previously impossible, with the aura of truth, objectivity, and accuracy.

The interplay of these phenomena as well as their accessibility give rise to a growing dependence and devotion to Big Data somewhat similar to the sciences during the enlightenment period. With the number-crunching and structuring nature of the Big Data, cultural artefacts are reduced to a set of action-reactions. Through this, subjectivity and objectivity are drawn towards each other by eroding uncertainty and bolstering predictability. Put differently, algorithms draw on previously gathered data on human actions and input to perform a suitable reaction, disregarding a large share

© University of Pretoria

of human subjectivity or psychological motivations. For example, images on Social Media sites are presented to the user based on previous interactions with similar images or posts. The user is then presented with the option to digitally 'react' to the media; however, these reactions are often void of nuance. The multiplicity of reasons for which the user may have find an image or post provoking or upsetting is reduced to a single artefact – like.

The use of data mining is usually supported by claims of rationalisation (Rouvroy 2012:4). Crunching numbers appears to be superior by putting rational thought over emotional, racial and political biased human perception (Rouvroy 2012:4). The computational turn is then changing our relation to knowledge and further, our relationship with digital technology (Rouvroy 2012:4). Knowledge has become far more accessible to the general public through the Internet. With obscure facts and information being only a few clicks away, more people are able to have information on subjects they may have never been exposed to previously. Relying on technology in ways further removed from the instrumentalist definition means depending on digital devices to make up for the shortfalls of our minds which results in connecting knowledge in new ways. This could change the way wisdom, intelligence and knowledge itself (Berry 2011:10). Moreover, the storage and digital analysis of information adds a new dynamic to knowledge dissemination. Massive pools of information are accessible through key words typed into search engines; this means very little previous knowledge is needed to gain access to these mass amounts of information. Digital analysis and ordering structures make this accessibility possible, however, what could be explored in more depth are the implications of algorithmic structuring of information on human users.

© University of Pretoria

4.2 Algorithms: A new epistemic era?

William Uricchio (2017:125), argues that algorithms are in fact redefining imbedded subject-object relationships and in so doing, present some fundamental epistemological questions. While some critics may brush the usage of the algorithm off as a mere wave in a sea of change, others may argue that the current algorithmic regime could have a longer lasting affect (Uricchio 2017:126). This argument is gradually strengthening with digital technology being so deeply rooted in our daily lives. Scholars such as Berry (2011:4), Rouvroy (2012:4) and Uricchio (2017:126), cite the use of the algorithm combined with data as an emerging epistemic era. Algorithms can be seen as far more than just large-scale information ordering such as that on SNSs. They are present in a variety of software from word processors to video editors. Algorithms determine a digital reaction to human input. Something as simple as pressing a key on a keyboard sets off a number of automated electronic decisions which results in a digital visual representation. Algorithms are then paradoxically both simple and complex. Digital outputs as a result of algorithmic decision making is seemingly undeniably logical, however, the implications of these decisions are highly nuanced.

Algorithms have given rise to a new means of producing, presenting and representing media. These massive, impersonal, statistical and constantly evolving sets of raw data which constitute the digital world unveil what algorithmic logic puts forward as ‘reality’ (Rouvroy 2012:4). A reality that doesn’t seem to be produced anymore but rather is already always there, waiting to be uncovered by algorithmic processes and filed away into digital databases (Rouvroy 2012:4). This digital ‘reality’ is described by Rouvroy (2012:4) in the following way:

> Data, information, knowledge are thus more or less taken to be the same things. Such ‘knowledge’ thus does not appear as a ‘production of the mind’, with all the artificiality and cognitive and emotional biases unavoidably connoting mental productions, but as always already ‘given’, immanent to the (digitally recorded) world, in which it is merely automatically ‘discovered’, or from which it literally flourishes thanks to algorithmic operations rendering invisible correlations operational.

This is to say that factuality constructed from the digital world can be seen as correlations between data sets and less than correlations between human actors or

© University of Pretoria

even between data sets and human actors. Knowledge is then built on a platform of purely objective and deductive logic, leaving little room for hermeneutic exploration.

This kind of algorithmic knowledge is not critical about the physical world, it does not test and is not tested by the world it is birthed from, it is rather formed in the digital reality without any direct contact with the very world it aims at representing (Rouvroy 2012:4). Reducing physical world information to sets of data changes the user experience as the space for interpretation is narrowed. Raw data is treated as de-territorialised signals, prompting predetermined responses by computer systems, instead of signs that carry meaning and require interpretation (Rouvroy 2012:4). This is to say that, media with cultural context is plugged into a socio-digital device and through a set of algorithmic decisions, mediated content is then returned to cultural actors in a different context. The algorithmic system proceeds as if the meaning-making process is no longer necessary, or as if meaning in the world requires no interpretation (Rouvroy 2012:4). These decision-making processes then narrow the field of possible outcomes which could result in a closed system of creating meaning, also known as 'echo chambers' or 'cyber tribes'. These chasms usually involve a group of people in a virtual community that share attributes such as language, ideologies, traditions, cultures, practices and interests (Arreymbi & Williams 2007:65). By channelling the information available to the SNS user, algorithms begin to sort people into the cyber tribes. This may have a polarising effect on cultural perceptions and subsequently cultural formations. Perception,[45] arguably one of the most important aspects of cultural formation is therefore being side-stepped by algorithmic logic. The segmentation and grouping of like-minded individuals online then could be in the hands of machine learning and machine-driven data.

It is then important to examine the algorithm logic in all its profoundness as these digital methods may not just be another set of tools in the structuring of information,

[45] According to Marshall Singer (1998:14), the perception process is comprised of three phases; selection, organisation and interpretation. According to him, our cultural experiences influence every phase of the perception process and determine how individuals make sense of the world (Singer 1998:14). During the selection phase, individuals are only able to give their attention to a small fraction of information available to their senses, this is determined by what they perceive as important or relevant to them (Singer 1998:14). During the organisation phase, individuals categorise information into distinguishable groups (Singer 1998:14). Finally, in the interpretation phase, individuals assign meaning to the groups of information they have selected and organised (Singer 1998:14).

© University of Pretoria

they may in fact be the cornerstone of a new epistemological era (Röhle 2012:76). Uricchio (2017:126) maintains that the coupling of algorithms and big data could give rise to new social forms or bolster the most egregious aspects of our current social structures.[46] Becoming ever more imbedded in social interactions, technology is starting to manifest as a social actor itself, affecting the relationships between humans and also humans and technology. Information is used as ammunition fed into the social media cannon and blasted at user fodder, the algorithms that aim the cannon have no ethics, only orders from quantifiable averages and percentages. With the ever-growing amount of visual content being shown and consumed, it is thus important to understand the ways in which technology is used to represent ourselves as well as the ways our uploaded data are quantified and redistributed to other social actors. From ordinary conversations between human actors to the study of technology, algorithms are beginning to shape the landscape of corporeal understanding.

The use of algorithms is therefore an important consideration as they not only alter the subject-object relationship amongst consumers, they change the way in which scholars work with their information (Röhle 2012:76). According to David Berry (2011:1), the days of academics toiling over smaller data sets are steadily declining with information and methods of analysing this information increasing so rapidly. He claims that library catalogues can now be seen as the minimum way in which academics access books and information and further, these non-digital methods are on the steady decline in the modern university (Berry 2011:1). Through easily accessible methods for data collection and a new mass of media available for analysis it may be more applicable to examine the institutions, platforms and mechanisms that facilitate these new media. Berry (2011:1) maintains that Google searches, Email and massive bibliographic databases become more important as more of the world's libraries are being converted to digital data and that the mediation on research by digital technology is on the increase. Further, he states that this mediation is gradually starting to change what it means to commit to research since it is affecting both

[46] For example; sexual objectification has been seen to be widespread in visual media (Allen, Bernard, Delmée, Gervais & Klein 2015:1). Already in the 1980s and 1990s there was an increasing amount of academic interest in the ethics and effectiveness of sexism in advertisements (Huber & Lindgren 2018:10). Soley and Kurtzbard (1986) discovered that the use of sexual objectification in advertisements had increased and that they had become more expressive, using nudity and suggestions of sexual intercourse more regularly (Huber & Lindgren 2018:10).

© University of Pretoria

ontologies and epistemologies that are bound to a research programme (Berry 2011:1). A heightened algorithmic mediation on research is then a crucial focal point that needs to be examined if the research itself were to stay abreast.

4.3 Hidden algorithms

That being said, the usage of algorithmic structures has grown so rapidly that little opportunity has been given to analyse and understand them. What has resulted is an underlying sense of suspicion and apprehension about the rise of software and its subsequent dependency (Paßmann & Boersma 2017:139). Consumers have become extremely dependant on digital technologies in their everyday lives. These digital technologies do not only mediate our interactions with others they are now comprised of them (Beer 2009:987). This is to say that digital information structuring is becoming a part of human epistemology. Digital devices convert our daily activities into data that is then shared with relational databases and locational hardware to collect data and then make decisions based on these data sets (Beer 2009:988). Our devices are then in permanent communication and interconnected with others. Further, most of these connections and communications go unnoticed by the user and the human awareness makes up only the tip of the data flow iceberg (Beer 2009:988).

One is then unaware of a large majority of what is happening behind the screens that users spend so much time staring at. What is important here is that without the possibility of these hidden or discrete encoding processes, the corporeal subject cannot be processed by the digital device (Berry 2011:2). In other words, the algorithmic process is vital to the translation of the physical world into machine readable data. Further, once the physical world object has been translated into digital data its importance is of little significance to computation. This realisation is becoming ever more widespread and is causing an upwell of suspicion towards technology and its inner workings. This suspicion is rooted in the notion that we do not know what ‘the machine’ does (Paßmann & Boersma 2017:139).

The machine in this case is of course the software that is installed on our digital devices. The inner workings of operating systems, apps and programs being used are largely unknown. In many cases the term algorithm is often used to describe the machine, its workings and results (Paßmann & Boersma 2017:139). The general

© University of Pretoria

usage of the term then largely ignores the call for transparency. While recent observations made on algorithmic structuring are generally accurate, the term is often generalized. Journalistic articles such as *MPs warn of possible bias in algorithms* (UKAuthority 2018), expresses its concern over how algorithms structure content online and whether this structuring has a bias towards certain social groups. Little to no explanation is given towards what an algorithm is, how it is in itself structured and further what can be done to aid its transparency. Another article *'Algorithmic death spiral': The failing mental health of our machines* (Hills 2018) makes more of an effort to distinguish between algorithms and delves into their complexity but is far from exhaustive.

These articles give us a sense of what the popular understanding is towards algorithms and their usages. There is a certain level of apprehension towards the algorithm but simultaneously a willingness to work with the algorithm. The unknowableness of the inner workings of an algorithm has been echoed by scholars and journalists alike. This unknowableness has been referred to by many academics as 'black boxing.' Black boxism has been a challenge in the sciences for many years and is becoming increasingly problematic for the Digital Humanities and media students (Paßmann & Boersma 2017:141).

According to Gregory Bateson (1972:242), the term comes from engineering shorthand. He states that when engineers are drawing a complex diagram, instead of including all the details they supplement it with a box to stand for a multiplicity of parts and label this box with its contents (Bateson 1972:242). When discussing SNSs the term 'algorithm' usually acts in the same way as the engineer's shorthand black box. The black box is then, an orthodox agreement between analysers to stop the explanation of something at a certain point (Bateson 1972:242). At this point of agreement, it becomes evident that there is a consensus on the implications of the information contained in the black box, that the impact of the black box's contents is not worth noting. This approach can be seen as problematic as it is essentially 'covering up to reveal'. The decisions contained in algorithms that order SNSs are largely unknown and certain academics have grown weary because of this.

© University of Pretoria

Johannes Paßmann and Asher Boersma (2017:140) claim that the circle of events surrounding the usage and scepticism of algorithms is so large and encompassing that questions that seek to shed light on the unknown areas are increasingly being replaced by questions and solutions on how to work with the unknowable. Paßmann and Boersma (2017:140) have found that what is in debate surrounding the black boxing of algorithms is not the algorithms themselves but the concept of transparency. They argue that authors often give very different meanings to the term transparency and that these definitions can be divided into two notions (Paßmann & Boersma 2017:140). On one side, there is what they term "formalised transparency" which attempts to obtain more positive knowledge on the contents of the unseen algorithm (Paßmann & Boersma 2017:140). On the other side is what they term "practical transparency" which does not attempt to unearth elements within the algorithm but aims to develop skills without confronting their openness (Paßmann & Boersma 2017:140).[47] The latter is steadily becoming the accepted approach as with the rapid development of digital technologies and its software, the timeframe to scrutinise structures within the algorithm is narrowing. Under closer analysis both of these approaches could be seen as problematic as neither can offer full transparency.

In the case of formalized transparency, the positive knowledge obtained through further investigation often offers little to no clarity. Access to the inner workings of commercial algorithms, such as Google's for example, are often intensely safeguarded (Uricchio 2017:127). Bruno Latour and Steve Woolgar (1979:242) speak critically on black boxing, claiming that with the aid of money, authority and confidence certain types of knowledge are prevented from being questioned, which causes the raising of alternatives to be highly improbable. However, even if access was granted, investigators would immediately be confronted by the problem of expertise. For most individual algorithms are part of a vast interdependent algorithmic structures (Uricchio 2017:127). Disaggregating and understanding these algorithms usually require teams of experts of comparable size to the algorithmic structures themselves (Uricchio 2017:127).

[47] These two approaches are not exclusive to each other but outline two different ways of dealing with the unknown present in algorithms which can complement each other (Paßmann & Boersma 2017:140).

© University of Pretoria

It may be argued that the analysis of the algorithm's inner workings remains important, however, it proves problematic. Through this it may be necessary to succumb to the pressures of algorithmic logic but in such a way as to remain critical of its implications. By accepting the content of the black box as having limited implications and practical transparency as being the most viable way to approach algorithmic logic, it may be possible to develop an understanding of this new epistemic era. However, practical transparency and working around the black boxes could be equally as treacherous. There are individual and clustered algorithms that appear in different settings with some dating back to before World War II still being utilized today (Uricchio 2017:127).

What this means is that one can never be precisely sure which algorithmic clusters are being examined, even if one were, the function of personalisation would limit the comparability of the findings (Uricchio 2017:127). There are cases in which not all knowledge on a subject is necessary for its employment, such as knowledge on a combustion engine is not needed to drive a car (Paßmann & Boersma 2017:142). However, to extend the metaphor, this would mean sports cars would be directly comparable to cruise liners. In certain areas this would be apt, they are obviously both modes of transport however their usages and influences on the world at large are vastly different. Seemingly, this macro approach is becoming more widely accepted with scholars warmly embracing the large data sets they were once starved of.

Bruno Latour (2010:1), claims that particularly in sociology, the humanities have been obsessed with the goal of becoming a quantitative science. Working towards this goal seems problematic as what has been defined as quantifiable within a social domain has been up for debate (Latour 2010:1). Vast amounts of data are now being considered in qualitative manners because of methods of research common in the Digital Humanities, unearthing new evidence and suggesting structures and patterns that were once unable to be noticed with smaller data sets (Berry 2011:12). This is an important consideration as the ways in which social interactions, patterns of social relationships and culture are examined are increasingly through a computational lens. The very nature of algorithms simplifying information as much as possible, could be having a profound effect on human understanding as researchers are presented with processed data that may be in danger of having a confirmatory bias.

© University of Pretoria

Thus, sociology can be seen as one of many disciplinary fields influenced by new formations of knowledge facilitated by computational logic. This may seem beneficial, however, the way in which digital databases are being created are intensely computational in content and structure and because of the entanglement of computational logic with digital representations of physical objects, texts and 'born digital' knowledge, they are still in need of exploration (Berry 2011:12). Through this, computational techniques are not just a tool used by traditional methods of research; they are inseparable from, and have major influence on these methods of exploration. With this, algorithms then effect the way online media is created, consumed, discussed and examined.

This leaves scholars in an awkward position when analysing the effects of an algorithm. The fact that there are already ways of working around full transparency give us an idea of how consuming the usage of the algorithm is. Moreover, there is a level of acceptance inherent in this approach. Developing a work-around means the acceptance of the presence of what is being worked around. The opportunity to completely reject and rebel against computational methods of media creation, exploration and discussion has already passed and knowledge on what is contained in the black box of algorithms is then fundamental to developing methods to work with and around the algorithm. This opens up a position to interrogate the algorithm while still not forgetting the contents of its black box. What this position also does, is allow for a new mode of cultural production. In other words, cultural development does not occur completely autonomously from algorithmic logic but also does not allow the algorithmic logic to take full control over social structuring. Data, the ways in which data sets are structured, models, interfaces and software systems all have a key role in cultural production (Uricchio 2017:128). It is for this reason that they are not only an appropriate area of study for the humanities and more specifically Visual Studies, it is quickly becoming an important and necessary area of exploration (Uricchio 2017:127).

4.4 Influencing algorithms

As already indicated, the Internet and its usages have enjoyed massive developments in the past three decades. This has manifested most prominently in Internet connected devices, as at one point in its brief history (1969) these devices were used solely for

© University of Pretoria

connecting people to share academic material (Denning 1989:1-2). Devices were used by experts for academic exploration and confined to American universities.[48] Nearly half a century later, teenage and Millennium users globally spend a tremendous amount of time online. As of the second half of 2019, Millenniums spend an average of 242 minutes per day online on a cell phone, computer, laptop or tablet (Statista 2019). While the early developments of the Internet revolved around text-based websites, more contemporary developments put emphasis on more media rich websites that include images, video and audio. Transforming from a read-only web into what has been described as the collaborative web or Web 2.0, a stronger bias has been put on the user's involvement in the creation of content in this version (Beer 2009:985). It is not surprising that Web 2.0 has become popularly known as a liberator of 'the people' which affords them the opportunity to reclaim the Internet and apply their 'collective intelligence' (Beer 2009:985).

Collaboration has been the fulcrum on which Web 2.0 has gained leverage, however, little emphasis has been put on the non-human collaborators of this web. With so many interactions taking place on the web, huge masses of information are produced. The structures that order this data have moved further away from mere mediators towards components thereof. Our non-human counterparts take up a larger section of the collaborative web than human consumers do. Through this our interactions with others are developing a bias towards non-human involvement. Alexey Vinel, Lizhe Wang, Feng Xia and Laurence Yang (2012:1101) state that we are ushering in a new era of the 'Internet of Things.' The Internet of Things (also known as the Internet of Objects) refers to the interconnection of everyday objects which are mostly equipped with a seemingly ever-present intelligence (Vinel, Wang, Xia & Yang 2012:1101). From the moment a consumer starts using a digital device, data is produced for algorithmic analysis. Photographs taken on smartphones are particularly shaped by algorithms as these algorithms aid in the composition of the photograph. Light from outside of the digital camera is converted to electric charges which are then measured and turned into a digital value (Gillmor 2018:1). This information is then analysed and an image is produced.

[48] See section 1.1.

© University of Pretoria

Through this, users work with their technological counterparts rather than through them. Algorithms have largely become enactors of information and in so doing have a large influence over the interactions between social actors. Humans are now able to interact with technology seemingly without the need of another human's input. No longer are digital devices used to connect with other people but to interact with automated digital technology. These interactions could be seen to be critical to cultural structuring and development as every digital technology makes use of algorithms in order to facilitate human input. Algorithms are thus tailored towards processing human actions to create machine readable data. Technically speaking, an algorithm is, plainly put, a process or group of rules most commonly expressed in algebraic notation (Uricchio 2017:126). Values are created from human input; these values are then processed by a set of predetermined decisions and an outcome is produced. This could be as simple as clicking a link on a webpage which results in a new webpage appearing. The values inserted into the algorithmic processes are less important in this section than the step-by-step structuring that dictate their distribution (Uricchio 2017:126). This is to say that the façade of media being distributed by algorithms have a potentially lower value than the meta-data attached to them. With both consumers and artificial-intelligence adding to this meta-data in a bid to further quantitate media, the qualitative elements may be becoming increasingly brittle. The ideals of Web 2.0 have been continuously cited as collaborative and interactive, giving a sense (arguably a false one) of qualitative value to its users.

4.5 The online branding iron

Although, the Internet is largely a collaborative entity, the collaborations on Web 2.0 however, could also be seen to be skewed towards those with larger economic standing and of course the institutions that facilitate these collaborations. Consumer brands and the brands of SNSs are fundamental to the mobilisation of the collaborative web. The signs and symbols attract consumers to a centralised location in order to share their input. This can be seen through embedded buttons on journalistic websites that give the option to 'share this post' on the SNS of the reader's choice. This draws traffic to the SNSs as well as the brands that utilise the embedded buttons. Consumers then congregate, under the impression of free will, in these pseudo-places to further interact with others. It is then important to view the methods in which users are

© University of Pretoria

persuaded to translate our physical reality into data critically as they are the foundation on which the digital communication house is built. Branding on social media then continually prompts users to 'datafy' their every move in the physical world. Algorithms process this data in ways pre-programmed to be the most efficient and cost effective to the companies invested in them. For this reason, it is important to remain critical of the institutions who use branding online as a means of creating value for their companies.

Nicholas Carah (2017:385), claims that critical accounts of branding online have inclined to head in one of two directions. The first of which is that brands could be understood as lived cultural practices in that they are open ended social relations rather than targeting discrete messages of consumerism (Carah 2017:385). This approach focuses on the role of the cultural producers and consumers that embed brands within their identities and cultural practices (Carah 2017:385). Thus, this direction focusses more on the distribution of ideas and perceived benefit rather than selling a tangible product. Algorithms play a major role in this distribution on the Internet, as media can be attributed more closely to a set of ideas than a tangible product. With this, the increasingly branded media online should be seen as a form of marketing.

The term 'social marketing' was coined by Philip Kotler and Gerald Zaltman in 1971 to describe the marketing and targeting of influencing behaviours as the solution to societal and health problems (Hastings, MacFadyen & Stead 1999:1-10).[49] Rendering 'social marketing' problematic, is the extent to which brands use participation to cement themselves as meaningful or authentic parts of consumers' lives (Carah 2017:385). This term has since been problematized and developed into 'societal marketing' which centres its focus on the societal or ethical repercussions of commercial activity (Hastings, MacFadyen & Stead 1999:1). Brands generate value by using the consumers who are perceived as influential in cultural structures to further their brand identity (Carah 2017:385). This could potentially alter the way in which

[49] Social marketing, similar to generic marketing, is not in itself a theory (Hastings *et al.* 1999:1). It is rather a structure or framework that lends from many other disciplinary fields such as sociology, psychology, communications theory and anthropology to gain an understanding on how to influence a person's behaviour (Kotler & Zaltman 1971:4-5).

© University of Pretoria

consumers construct their self-representation as they are increasingly exposed to media containing brands and social marketing.

The second critical account of branding that Carah (2017:385) describes, relates to a data-driven media structure which brands operate within. He claims that this approach tends to centre its focus on the relationship between media industries and advertising and that the emergence of web-based and data-driven media has given large corporations the tools to personalize and customise content (Carah 2017:385). This makes it easier for large corporations to promote social objectives as if they were tangible products. Further, Carah (2017:385) maintains data that consumers generate enables media institutions to categorise content towards specific audience attention. For example, media institutions have access to data containing consumers previously visited web pages. These web pages contain metadata pertaining to the subject of the website and web page. Following this, media institutions can gather the metadata on the subject matter of a website with reference to the consumers' movements online. Subsequently, these institutions can use similar subjects and themes to construct and target their advertisements at consumers who have showed interest in these themes in previous web browsing.

For example, car manufacturer Hyundai used the hashtag #MyHyundaiVeloster on Twitter and Instagram as a way for fans to enter a contest to be one of the first people to test drive their latest car model, the 'Veloster' (Kilroy 2018:[sp]). Veloster drivers also use the hashtag #VelosterNation on Instagram and Twitter as a way to show their support and fandom of the car and subsequently their affiliation with the Hyundai brand (Kilroy 2018:[sp]). Figure 4.1 shows the Veloster contest as advertised on their website (right) and an Instagram post as a contest entry (left).

© University of Pretoria

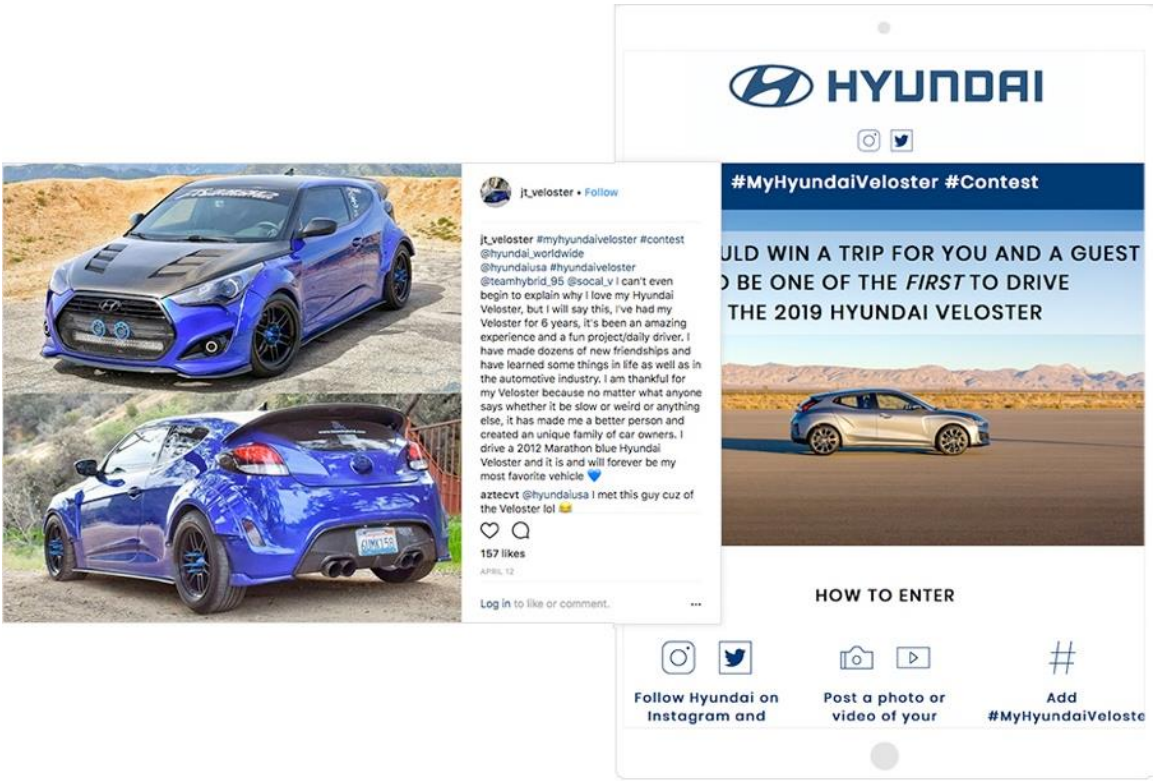

Figure 4.1: Dana Kilroy. Screenshots of #MyHundaiVeloster advertisement and entry. 2018.

In this capacity consumers translate corporeal interests into digital data with little control over the usage of the metadata produced. The translation of physical world objects and ideas into digital data allows large advertising corporations to learn consumer habits and use this information to target their brand to appropriate audiences. As seen in the Veloster contest, Hyundai has asked for potential customers to show interest in the car. Through this the car manufacturer gained information on how many people show interest in the Veloster. The images posted by those entering the contest also carry with them metadata such as location, which is a potential key point of interest in marketing efforts.

With this, user's posts and self-representations are being used as data in marketing campaigns. Nick Couldry and Joseph Turow (2014:1712) argue that content is chosen for consumers based on criteria unknown to them, then adjusted to large data-generated assumptions that produce valuable insights and attention for marketers. The value to the capital-bloated institutions could then be seen to be rooted in digital reality, as with more users posting content related to the brand's identity, the larger

© University of Pretoria

their online presence grows and subsequently, the more likely their products are to be seen and acquired by the consumer. This also further cements the sentiments of algorithmic logic, in that consumer's perceptions towards brands and their usages are increasingly being translated into quantifiable digital data, making it easier for marketing teams to measure and target user-generated information.

SNSs are common ground for brands, marketers and consumers where all parties involved have perceived benefit from use of these collaborative platforms. SNSs facilitate the interaction between brands and consumers with marketers streamlining brand messages towards certain consumer groups. Brands benefit from potentially massive exposure online while marketers are afforded the opportunity to reach and analyse these massive audiences through computation at an extremely low cost compared to more traditional forms of media such as surveys and print advertisements. It is still in debate what value consumers gain (if any) from being exposed to brands and computational marketing techniques. Moreover, what effects these capitalist endeavours have on the self-representation of the consumer. Exploring the exposure of branding to the SNS user as well as how these users may propagate branding in nuanced ways could lead us to new understandings of self-construals in a contemporary digital landscape. The chapter to follow will discuss online branding and algorithms through the hermeneutical framework of *reach campaigns* with visual examples of self-representations of YouTube vloggers.

© University of Pretoria

CHAPTER FIVE: SHOWING ALGORITHMS

Algorithms in contemporary web platforms have shown to be somewhat influential in both the creation and distribution of media. The ways in which individuals use SNSs to represent themselves is thus an important consideration. Further, the congregation of large corporate entities and consumers in the same virtual arena could prove to be a point of interest. In the section to follow, the ways in which algorithms and computational logic manifest in online self-representations as well as how this logic could be exploited by capitalist endeavours is discussed.

5.1 Self-branding: beneficial or profitable?

The line between advertisements and self-representations is becoming ever more blurred in contemporary consumer society. The signs and symbols associated with brands are being increasingly incorporated into SNS users' self-representations. This chapter wishes to explore the possible effects of paid promotions on the self-construals and subsequently *reach campaigns* of YouTube vloggers. Many YouTube vloggers enter paid product placement or promotion deals that provide them with capital in exchange for a product or brand endorsement. This could have a noticeable influence on the self-construals of the endorser as often times the brand or product is the central focus in an endorsed vloggers post. In addition to this, YouTube celebrity endorsements can have a significant impact on growing consumer awareness and purchase motivations and could potentially affect their self-construals to boot (Schafer 2014:1).[50] As discussed in chapter three, *reach campaigns* incorporate acts of online communication that work towards fulfilling a self-representation which has both independent and interdependent influences. The SNS is the crossroad where the independent and interdependent influences meet.

[50] According to Henry Schafer (2014:1), the key to an impactful paid promotion is ensuring that the celebrity is perceived as compatible with the product and brand category and further, that these perceptions are based on the target audience of the brand. He argues that the perceived relationship between the brand and celebrity should be assessed on the following four dimensions; sensibility and appeal, believability, appropriateness and motivation to the buying decision (Schafer 2014:1). The perceived brand-celebrity relationship needs to be strong in all four dimensions in order to have an impactful campaign (Schafer 2014:1).

© University of Pretoria

Metaphorised, SNSs acts as the slide on a zipper while the respective *reach campaigns* of vloggers and corporate brands act as the two teeth strips. As the slide moves along the zipper, the two strips of teeth must enter at a certain angle. The strips then pass through the slide and its inclined edges bring the teeth toward each other and they interlock (Harris 2020:[sp]). This is to say that SNSs angle commonalities between the two *reach campaigns* to bring them together and form one narrative. Brands and products that are endorsed in YouTube content often comprise of a larger narrative of the YouTube vlogger. The brands and products then relate to the YouTube vlogger's core ideals and audience.[51] In this way the endorsement of products and brands by YouTube vloggers can be seen to be more than generic marketing but also social marketing. By including brand signs and symbols in their *reach campaigns*, the YouTube vloggers are imbedding the brand as an integral part of their lives. This results in altered self-representation, one with added elements of consumerism through social marketing (Carah 2017:390). According to Carah (2017:390), the effort towards self-branding culminates in two elements; using brands as symbolic properties imbedded in the presentation of one's identity and adopting the promotional stance of brands in such a manner as to pose ourselves in promotional and competitive ways (Carah 2017:390).

YouTube vlogger Lily Singh makes use of both of these elements in her posts on SNSs. Singh is a celebrity YouTuber, known for her channels 'IIsuperwomanII' and 'SuperwomanVlogs'. Her main channel consists of comedy sketches which involve breaking of ethnic stereotypes while her vlogging channel consists of motivational and observational monologues (Biography.com 2018:[sp]). Singh has partnered with brands such as SmashBox, Kelvin Klein and Olay and in their paid promotions she gives the respective brands exposure to her multi-million-person fan base. Similarly, Peter McKinnon, has partnered with Squarespace[52] and endorses their services on almost all of his videos. McKinnon, a successful YouTuber and photographer, centres the focus of his videos around film making and photography tutorials. Often, photographers find it necessary to showcase their photographs online as a form of

[51] For example, Casey Neistat's vlogs revolve around cinematography, digital cameras and technology. For a paid promotion to be impactful on Neistat's audience the brand or product should relate to cinematography, digital cameras and technology.
[52] Squarespace is a popular website building platform that allows individuals to create their own website without the knowledge associated with website coding (Carney 2020).

© University of Pretoria

portfolio for prospective clients. In this way, both McKinnon and his target audience[53] could perceive Squarespace beneficial to their *reach campaigns*. Figure 5.1 shows McKinnon endorsing Squarespace in his video *Motivation to keep going* (2020) as well as in the caption below the video. McKinnon (2020) encourages his viewers to purchase a web domain with his promotion code, saying:

> …you need a website, if you are an individual, if you're a human being, an entrepreneur, a creative, someone that just likes to make things, you need to put that on the Internet…

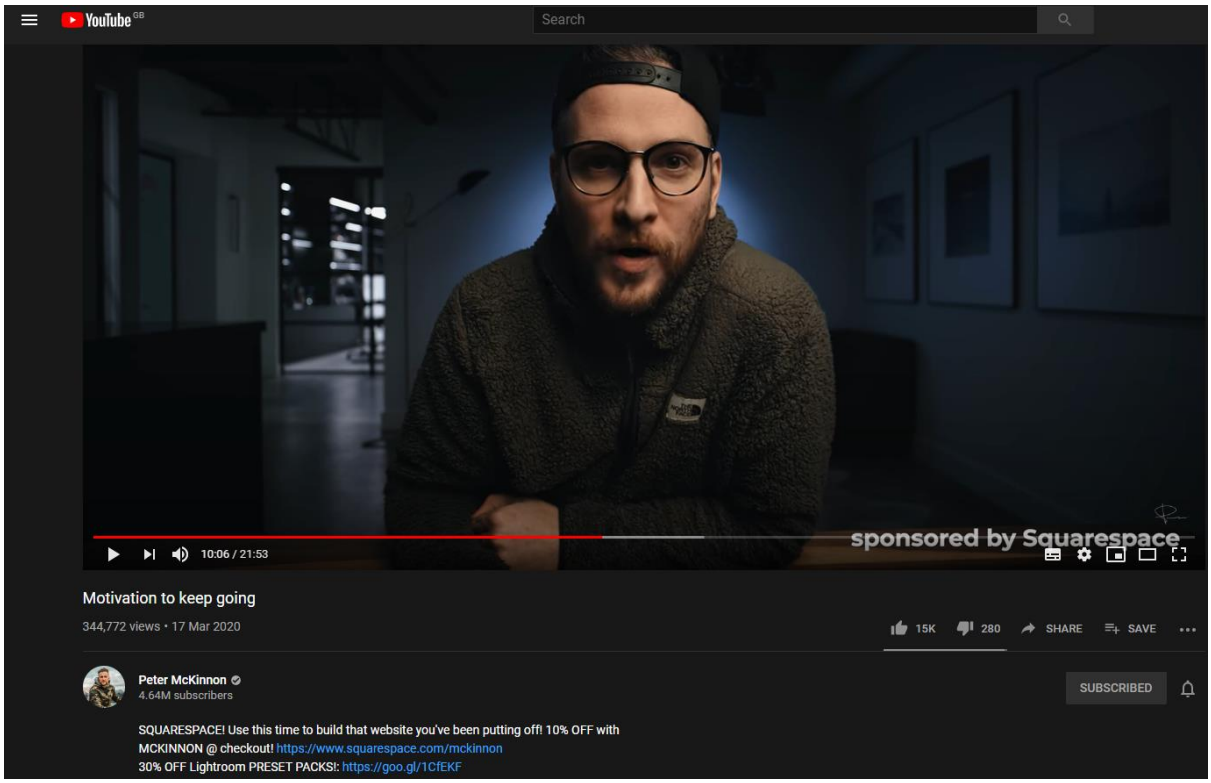

Figure 5.1: Peter McKinnon endorses Squarespace on YouTube. *Motivation to keep going.* 2020. Screenshot by author.

By endorsing these brands positively, Singh and McKinnon give the impression that the brand is an integral part of their everyday life. This may result in their viewers being exposed to the brands and products and potentially be influenced into purchasing them. Figures 5.2, 5.3 and 5.4 show Singh positively endorsing the respective brands on her Instagram account.

[53]McKinnon's target audience is likely to include amateur photographers looking to improve their expertise and professionalism.

© University of Pretoria

Figure 5.2: Lily Singh endorses Olay in an Instagram post. *IISUPERWOMANII INSTAGRAM ACCOUNT*. 2018. Screenshot by author.

Figure 5.3: Lily Singh endorses her Smashbox partnership on Instagram. *IISUPERWOMANII INSTAGRAM ACCOUNT*. 2018. Screenshot by author.

© University of Pretoria

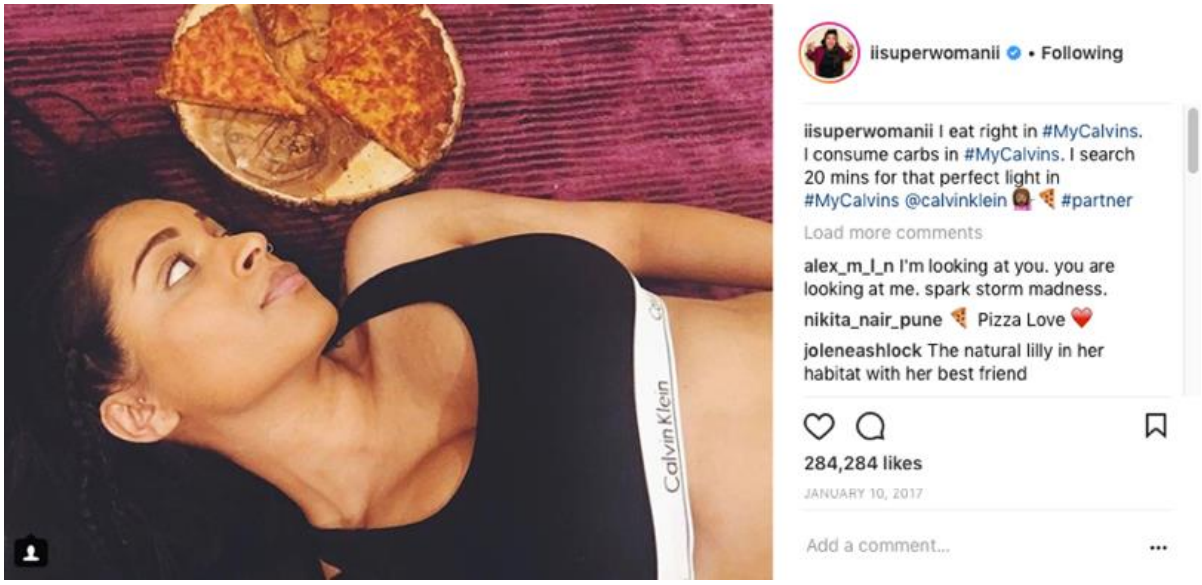

Figure 5.4: Lily Singh endorses Calvin Klein on Instagram. *IISUPERWOMANII INSTAGRAM ACCOUNT*. 2018. Screenshot by author.

In this way, Singh and McKinnon fulfil the requirements of their respective *reach campaign* by structuring their self-representation in a way that shows them positively while the corporate brands fulfil their *reach campaign*'s requirements by being included in content that is seen by potentially millions of people. This culmination results in highly self-branded content. As mentioned earlier in this dissertation, self-branding involves the self-conscious construction of specific meta-narratives and meta-images of the self through the use of cultural meanings and images influenced by narratives and visual codes of the mainstream culture industries (Hearn 2008:198). The inclusion of these meta-narratives and meta-images and of course the conversion of physical reality into digital data adds to the branding of the self. Algorithms and computational logic make use of these meta-narratives to categorise data for future consumers. This results in a self-representation that has developed through computation and branding.

Singh's followers often include the hashtag "#iisuperwomanii" or "#TeamSuper" to categorise and draw attention to their post, simultaneously developing the meta-narratives of Singh's personal self-branding as well as their own. Figure 5.4 shows the Instagram search result for the hashtag "#iisuperwomanii" with over 135 000 posts. A substantial amount of attention is channelled to Singh's Instagram profile through the respective hashtags.

© University of Pretoria

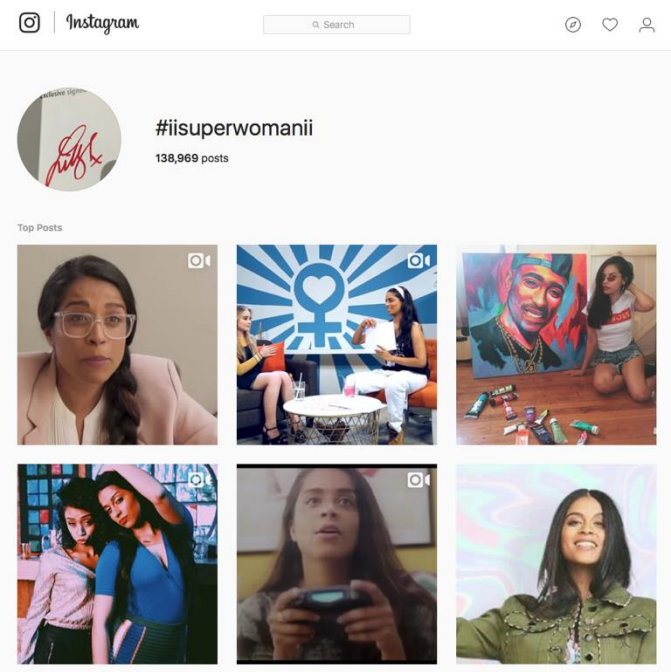

Figure 5.4: Instagram search result for "#iisuperwomanii". *INSTAGRAM SEARCH PAGE*. 2018. Screenshot by author.

With Singh's followers posting content with the hashtags corresponding to her *reach campaign*, they feed the algorithms that direct meta-data driven content and could influence more individuals to follow her account and subsequently provide increased exposure for the brands and products included in Singh's posts. As discussed in the first chapter of this dissertation, what is happening here could be defined as the simultaneous consumption and production of online content as described by Zajc (2015:29) as *prosumption*. *Prosumption* argues that with the advent and rise of digital technologies the walls separating production from consumption have come crumbling down (Zajc 2015:29). This is to say that gap between the consumer and producer of content is narrowing.

As seen with the Hyundai Veloster contest in the previous chapter, advertisements are becoming more difficult to distinguish from not-for-profit self-representations. There is a substantially higher level of branded content emerging in vlogs, with viewers continually consuming and producing content. The increase of branded content seemingly creates a more 'marketable' self-representation, one that would be most effective in growing a *reach campaign.* What this may indicate is the encroaching of algorithmic logic into a SNS users' self-construal process. This is evidenced by the amount of effort SNS users put into their posts to eliminate any aspects that could be

© University of Pretoria

deemed as detrimental or 'unmarketable' to their self-representation and *reach campaign.*

In a recently uploaded video on her vlogging channel titled *Exposing My Instagram Fails* (2019), Singh briefly describes her process of taking a photograph for the purposes of Instagram. In a pre-emptive statement Singh (2019) says:

> In an effort to show you that social media is not real life and is everyone's highlight reel (and that's fine, we accept) I decided to show you some of my picture fails. The pictures that did not make it to Instagram.

In her explanation she shows the images that were posted on her profile, followed by a series of photos that were deemed not good enough for posting and the reasons for this. In Figure 5.5, Singh shows the image posted on her Instagram followed by a jump-cut to an 'unsatisfactory' picture shown in Figure 5.6. Singh describes the unsatisfactory picture (Figure 5.6) as her 'fixing' her earring as it repeatedly got caught in her hair. Figure 5.7 is a zoomed in version of the unsatisfactory picture shown in Figure 5.6 where Singh draws attention to a few strands of stray hair at the back of her head. She then exclaims:

> Also, my hair is very messy from the back and I posted the picture I posted because you couldn't see the messy hair and if I decided to post another picture, I would have photoshopped it.

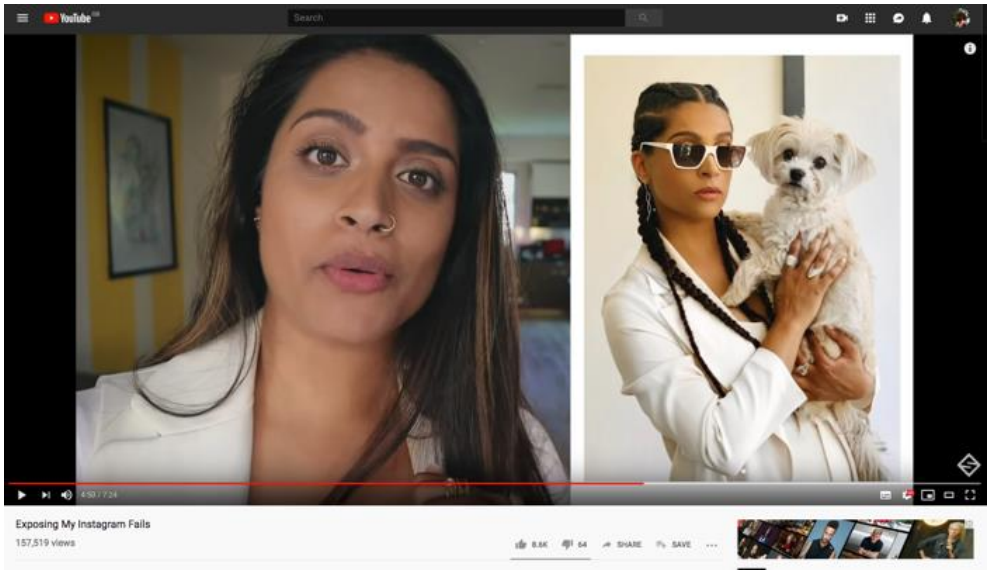

Figure 5.5: Lilly Singh shows an image posted on her Instagram profile, *Exposing My Instagram Fails.* 2019. Screenshot by author.

© University of Pretoria

Figure 5.6: Lilly Singh shows an image that was deemed unsatisfactory for the uses of Instagram, *Exposing My Instagram Fails.* 2019. Screenshot by author.

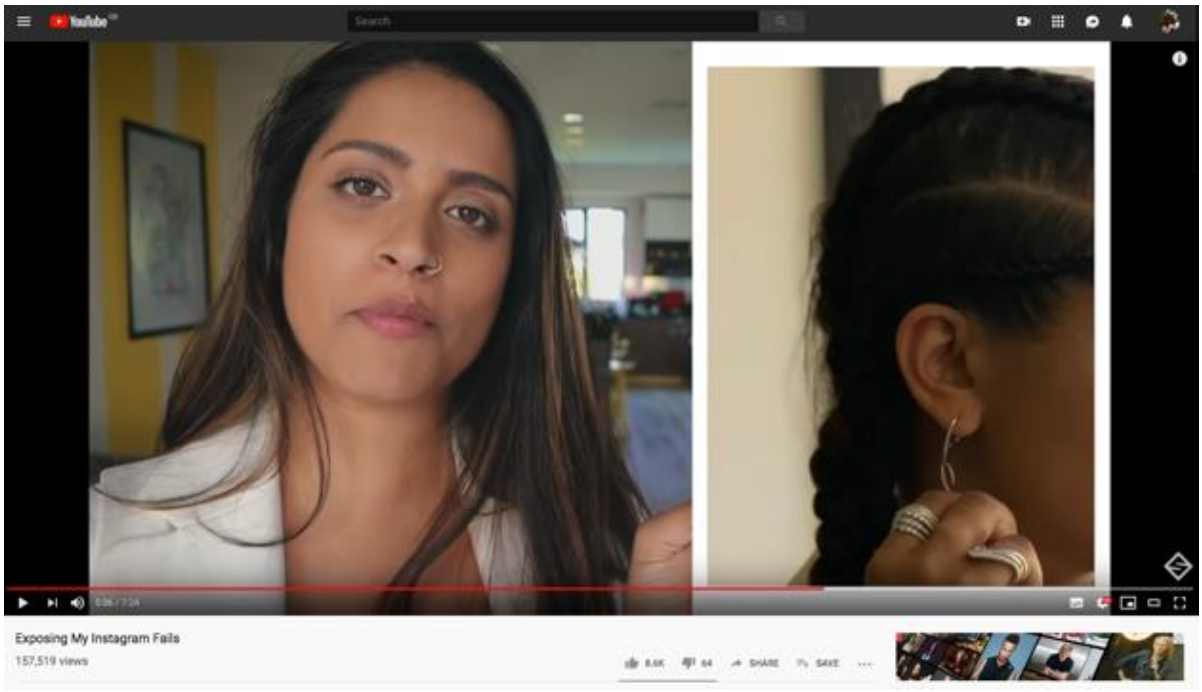

Figure 5.7: Lilly Singh drawing attention to stray hairs in unsatisfactory image, *Exposing My Instagram Fails*. 2019. Screenshot by author.

This photo series and explanation by Singh shows a common ritual in producing content for the purposes of social media. There is a clear effort made to present herself in such a way as to get positive affirmation from her viewership. Steps are taken here to avoid any possibility of criticism on how she might look, ironically through criticism

© University of Pretoria

of herself. This is the form of control one would have over their self-representation on social media. Pictures may be mediated and edited so as to seem without fault to the content creator. In certain situations, such as the examples in figures 5.2, 5.3 and 5.4, brands are included to bolster this self-representation. Some technological companies have made use of this trend in an attempt to grow their user-base and popularity. This marketing technique aims to capitalise on the trend of user created content and *prosumption*. One of the most popular examples of this, takes the form of SnapChat's[54] 'Dog filter.'[55]

The dog filter can be seen as one of the ways SnapChat has channelled user-generated content in an attempt to gain value from Web 2.0. Moreover, the filter seems to fall neatly into Couldry and Turow's (2014:1712) argument of data-driven chosen content. The dog filter started to appear more often on the ever-changing list of filters included on SnapChat due to its popularity. The dog filter could be seen to be chosen based on algorithmic information on the amount of usage. The usage of the dog filter allowed SnapChat to gain valuable insights into what demographic most enjoyed the filter. A quick Google image search shows that young female SnapChatters make up the overwhelming majority of dog filter users. Figure 5.8 shows the Google image search results for "SnapChat dog filter selfie."

According to Carah (2017:390), in a system increasingly geared towards mobile media, the branded self has begun to extend beyond the mere incorporation of brands into visual self-representations. The work of the branded self now involves consumer's bodies becoming objects that digital devices respond to (Carah 2017:390). Users pose themselves in front of the camera in such a way as to interact with the filter, producing branded content alongside self-representative content. As media become increasingly sensor driven, algorithmic and mobile, it becomes easier for the SNS user to brand and market themselves in ways that are attractive to algorithmic logic.

[54] Snap Incorporated is an American based company founded by E Spiegel, Bobby Murphy and Reggie Brown which released the popular social media app SnapChat (O'Connell 2020).
[55] The Dog filter is a special effect which was first featured on SnapChat in February 2016 (Know Your Meme 2016). The filter was released as a part of a major update to the App which included an additional six filters (Know Your Meme 2016). The effect allows users to overlay an animated dog's ears, nose and tongue over their face and other's (Know Your Meme 2016). The App makes use of facial recognition software which triggers the dog's tongue to droop out whenever the user opens their mouth (Know Your Meme 2016). This employment of user personalisation has become one of the most popular data-generated media in the past five years and has drawn large amounts of users to the platform.

© University of Pretoria

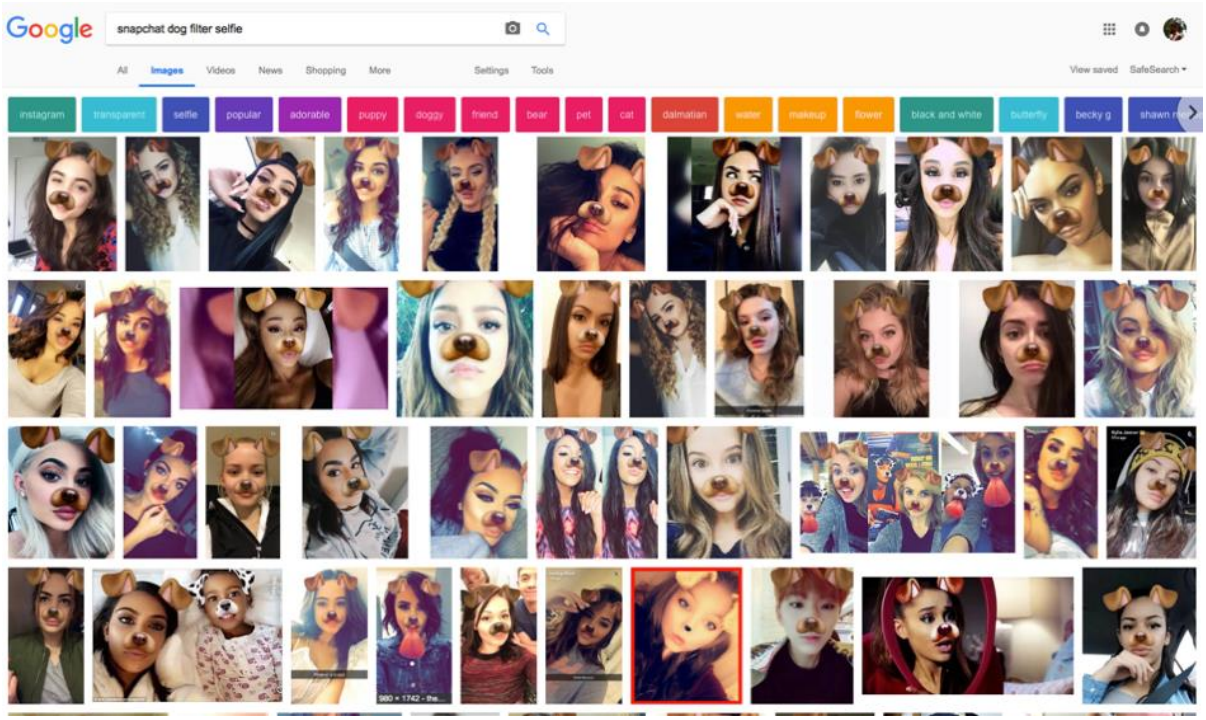

Figure 5.8: Google image search result for “SnapChat dog filter selfie”. *GOOGLE IMAGE SEARCH PAGE.* 2018. Screenshot by author.

The dog filter can be seen to be chosen for consumers based on previous usage and popularity. The users of the dog filter are merely the ‘canvas’ onto which SnapChat paints part of its marketing campaign. By utilising the filter, consumers endorse a brand as fundamental to their self-portrayal. This is similar to Singh’s incorporation of Calvin Klein and Smashbox however the dog filter is far more nuanced and interactive. Moreover, the filter adds an element of same-ness which aids in the acceptability to the image. Just as Singh hid the stray hairs from her viewership to avoid possible criticism, the dog filter creates an image that is hard to differentiate from other dog filter images and therefore less likely to be criticised. Through this one can see that social media users use images created through algorithmic methods as self-representations in a bid to be accepted by their peers. By posting images that are similar to other user’s images the perceived likelihood of acceptance is higher.

Evidently the function of the branded self in the age of computational logic is chiefly rhetorical; its aim is to yield cultural value and occasionally material profit (Hearn 2008:198). This trend is becoming increasingly evident with social networking platforms such as YouTube rewarding users with capital gains. This can be seen through the monetisation of YouTube videos, sponsored videos and paid

© University of Pretoria

endorsements such as Singh's promotion of Smashbox and Calvin Klein. Prominent YouTube users often include these visual codes and cultural narratives in their videos to market themselves to mainstream cultural ideals, however, it is not only the YouTube celebrities and Instagram 'influencers' who make use of these tactics. Many SNS users use similar techniques when posting content online in order to gain social acceptance.

What is clear is that computational logic, algorithms and branding have a noticeable effect on SNS users' self-construals. Subsequently, the work put forward in the form of organised and active operations to achieve the goals of a *reach campaign* are formed around capitalist, computational and algorithmic logic. As seen through the dog filter, Hyundai's Veloster contest and Singh's methods of self-representation, SNSs are beginning to change the way its users communicate themselves to others. It is for these reasons that the humanities need to further investigate the impact of technology and their methods of deployment in order to understand the epistemic era being entered into.

© University of Pretoria

CONCLUSION

In the past two decades, social media has become well rooted in everyday lives of people in a large majority of the world. What began with a modest offset of connecting four university computers has now turned into what is considered to be a new digital era. ARPANET and its successors changed the landscape of sharing information for the purposes of education while Facebook, Instagram, SnapChat, YouTube and Twitter have become some of the most popular forms of communication and self-representation. The showcasing of personal life and self-representations online has gained much traction since the Web 2.0 phenomenon. As discussed in chapter two, these self-representations have developed tremendously from self-portraits to many forms of visual self-representations that are used to express ourselves. Written self-representations, in the form of blog posts, status updates and comments also make up these visual self-representations.

Often times these self-representations are influenced by the SNS they take place on as well as the other users of these SNSs. As discussed, YouTube vloggers make use of the comment section of their videos to canvass for new video ideas and thusly new forms of self-representation. What this dissertation has explored is the motivations behind self-representations on SNSs through the proposed hermeneutical framework of *reach* and *reach campaigns. Reach* is an amalgamation of definitions from the traditional dictionary version to social media vernacular. Namely, the dictionary definition 'to reach out and grab something' and the SNS definition of the acquisition and retention of new audiences. One's *reach campaign* could be considered to be the work put forward in the form of organized and active operations to achieve a goal. Engaging with the argument of *reach* in terms of weapon technology, digital technology as well as imagery as discussed in the first chapter equips us with a new angle to approach the motivations of SNS users to post self-construals online. As weapon technology allowed its users to expand their *reach* on the battle field, digital technology aids its users in expanding *reach* in their everyday life. Finding common interests between individuals allows for a connection to be made. This connection in turn increases *reach* by acquiring a new audience. By incorporating ideological visual totems in their online self-representations, individuals overlap their *reach campaign* with that of others simultaneously expanding their *reach*.

© University of Pretoria

This dissertation has further used *reach campaigns* to critically analyse the expansion of self-representation on social media platforms. Through attempting to garner larger audiences in order to develop higher reach, self-representations may take new and interesting forms. Construals of the self, have been and are becoming an increasingly heated debate within discourses dealing with performativity, self-representation and online identity. Therefore, self-representations on a social networking platform such as YouTube, that are continuously changing, need to be analysed consistently. Questions that have arisen are; What are the motivations behind self-representations? Are these motivations instrumentalist in nature? What do self-representations online do for the SNS users' self-fulfilment?

Exploring these questions alongside many others requires contemporary methods of research as traditional methods would struggle to abreast with the rapid changes seen in the digital landscape. Digital Humanities scholars are known to use computers to analyse predominantly historical artefacts created by professionals, in the likes of writers, musicians and artists (Manovich 2017:56). The discourse of Social Computing however, is much larger.[56] In this field, researchers have advanced degrees in computer science and study online user-generated content and the interactions with this content (Manovich 2017:56). The data sets are generally much larger than those of explored by the Digital Humanities and it not uncommon to find researchers examining hundreds of millions of posts or other media (Manovich 2017:56).

Machine learning is a subsection in computer science that focuses on constructing algorithms to learn and analyse the hidden patterns in data and make predictions based on these analyses (Bishop in Hwong *et al.* 2017). The value of machine learning lies in its ability to expose patterns and correlations from massive, diverse and fast changing data sets to create accurate predictive models to guide future actions (Bishop in Hwong *et al.* 2017). This dissertation has shown that this algorithmic pattern reading is more profound that what meets the eye. Data can be seen as structured in such a way as to be consumable to the SNS user. 'Retweet', 'like', 'share' and 'comment' are some of the most common ways users engage with messages on

[56] Here, social computing can also be used as an umbrella term for all computer science explorations that analyse social media activity (Manovich 2017:56).

© University of Pretoria

Twitter, Facebook, Instagram and YouTube. Consequently, these measurable data sets reflect how interesting or valuable the post is (Naveed, Gottron, Kunegis, & Alhadi in Hwong *et al.* 2017). Thus, algorithms seem to favour content that is more popular in terms of amount of views, shares, comments and likes – in other words, a higher engagement.

Through this, content online is ordered by the unseen algorithm on the criteria of engagement. Consumers that interact with a post are feeding the algorithm data which in turn helps to analyse and structure content online. Niels Kerssens (2017:232) claims that in his history of online searching, it is the rise of the menu interfaces that have helped normalise and encourage algorithmic ideology long before the advent of algorithmic search used in search engines in the 1990s. He argues that menu interfaces made it possible for the birth of a more autonomous back-end, unguarded by human agencies (Kerssens 2017:232). This implies the segregation between front-end[57] and back-end[58] of web-based platforms. Based on this research, Kerssens (2017:232) puts forward that the gap between algorithms and users is widening as the latter is increasingly pampered and formatted by interfaces while the former is progressively becoming more complex and refined. Through this, the way in which users consume information online is ever more mediated and it is argued here that a *reach campaign* cannot be entirely autonomous online.

Data that consumers generate enables media institutions to categorise audience attention (Carah 2017:385). These media institutions then categorise information and feed it back to the user as new and unique. In this way, the consumer plays a seemingly passive role in media creation (Carah 2017:385). On social media, the user has the power (albeit for a limited time) to present themselves in such a way as to gain or maintain popularity or *reach*. In other words, certain visual totems gain notoriety and the individual is merely associated to the content rather than vice versa. For example; content creators are referred to by what they create before anything else –

[57] The "front-end" of the web is the part of the web that you can see and interact with (Treehouse 2017:1)
[58] The "back-end" of a web page usually comprises of three parts: an application, a server and a database (Treehouse 2017:1). When a user enters information in the front-end of a web page, the application stores the data in a database that is located on a server (Treehouse 2017:1).

© University of Pretoria

"Vlogger" Casey Neistat (YouTube) and popular Instagram and Twitter users are often referred to as influencers.

With this said, styles, ideologies, fads, trends and even the seemingly mundane everyday activities gain notoriety through their dissemination, and most notably through digital photography and videography. The spreading of ideas thus helps the *reach campaign* grow for its practitioners. Tremendous amounts of new visual content are posted every day to social media, some images used as a documentative means such as news articles while others are used as advertisement or entertainment. The line between advertisements and self-representations is becoming ever more blurred in contemporary consumer society. The signs and symbols associated with brands are being increasingly incorporated into SNS users' self-representations.

Through the rapid dissemination of data more and more individuals are being confronted with information that may influence their core beliefs. This is intensified by algorithms which feed the most 'valuable' information to users (Hwong 2017:481). It is important to examine this phenomenon in all its profoundness as digital methods of analysis and structuring may not be just another set of tools in the humanities research arsenal, they may in fact be the cornerstone of a new epistemological era (Röhle 2012:76). This dissertation argues that computational logic, algorithms and branding have a noticeable effect on SNS users' self-construals. Subsequently, the work put forward in the form of organised and active operations to achieve the goals of a *reach campaign* are formed around capitalist, computational and algorithmic logic. As seen through the dog filter, Hyundai's Veloster contest and Singh's methods of self-representation, SNSs are beginning to change the way its users communicate themselves to others.

What is argued here is then supported by strong evidence, however where this study may fall short is staying abreast with the fast-changing digital landscape. Over the past three years, SNSs such as Instagram and Facebook have made substantial changes to their platforms, while SNSs such as TikTok have gained tremendous popularity. For this reason, it is important to consistently analyse SNSs and their deployments as with every innovation in digital technology comes a new set of nuanced implications to their users. This extreme rate of production and innovation also allows for much opportunity

© University of Pretoria

for future research in the field of Visual Studies. As discussed in this dissertation, larger data sets are making it easier for researchers to recognise patterns and correlations of behaviour. This holds specifically true for Visual Studies as there is a growing bank of evidence that supports queries into the effects of digital technology on visual media online.

© University of Pretoria

SOURCES CONSULTED

Abbate, J.E. 1994. From ARPANET to Internet: A history of ARPA-sponsored computer networks. *American Scientist* 77(6), November-December:1-12.

Aghaei, S, Nematbakhsh, M.A. & Farsani, H.K. 2012. Evolution of the world wide web: From WEB 1.0 TO WEB 4.0. *International Journal of Web & Semantic Technology* 3(1):1-10.

Allcott, H & Gentzkow, M. 2017. Social media and fake news in the 2016 election, in *The Journal of Economic Perspectives* 31(2): 211-236.

Asano, E. 2017. [O]. Available: https://www.socialmediatoday.com/marketing/how-much-time-do-people-spend-social-media-infographic
Accessed 25 March 2018.

Banet-Weiser, S. 2012. *AuthenticTM: The politics of ambivalence in a brand culture* (30). New York: NYU press.

Bateson, G. 1972. The logical categories of learning and communication. *Steps to an Ecology of Mind*. Chicago: University of Chicago press: 279-308.

O'Hearn, M. 2018. *Fake news: the drowning of Hippolyte Bayard*. [O]. Available: https://www.artstor.org/2018/09/12/fake-news-the-drowning-of-hippolyte-bayard/
Accessed 20 May 2019.

Baym, N.K. 2015. *Personal connections in the digital age*. Hoboken: John Wiley & Sons.

Beer, D. 2009. Power through the algorithm? Participatory web cultures and the technological unconscious*. New Media and Society* 11(6): 985-1002.

Bernard, P, Gervais, S.J, Allen, J, Delmée, A & Klein, O. 2015. From sex objects to human beings: Masking sexual body parts and humanization as moderators to women's objectification. *Psychology of Women Quarterly* 39(4):432-446.

Berry, D. 2011. The computational turn: Thinking about the digital humanities. *Culture Machine* 12:1-22.

Bernard, P, Gervais, S.J, Allen, J, Delmée, A & Klein, O. 2015. From sex objects to human beings: Masking sexual body parts and humanization as moderators to women's objectification. *Psychology of Women Quarterly* 39(4):432-446.

Biocca, F. 2015. Lighting a path while immersed in presence: A wayward introduction. *Immersed in Media.* Cham: Springer:1-9.

© University of Pretoria

Biography.com. 2018. [O]. Available:
https://www.biography.com/personality/lilly-singh
Accessed 20 June 2018.

Birkbak, A. & Carlsen, H. A. B 2016. The world of Edgerank: Rhetorical justifications of Facebook's news feed algorithm. *Computational Culture* 5:sp.

Bloomberg. 2018. [O]. Available:
https://www.bloomberg.com/research/stocks/private/person.asp?personId=30033917&privcapId=241471433
Accessed 20 November 2019

Boyd, D & Crawford, K. 2012. Critical questions for big data: Provocations for a cultural, technological, and scholarly phenomenon. *Information, Communication & Society* 15(5):662-679.

Bradford, A. 2018. [O]. Available:
https://www.cnet.com/how-to/how-to-use-instagram-stories/
Accessed 16 August 2018

Canclini, N.G. 2014. *Imagined globalization*. Durham: Duke University Press.

Carah, N. 2017. Algorithmic brands: A decade of brand experiments with mobile and social media. *New Media & Society* 19(3):384-400.

Carey, M & Foster, V. 2013. Social work, ideology, discourse and the limits of post-hegemony. *Journal of Social Work* 13(3):248-266.

Carney, L. 2020. [O]. Available:
https://www.websitebuilderexpert.com/website-builders/squarespace/squarespace-review/
Accessed 25 April 2020.

Casey Neistat selfie showing his running statistics. 2018. Screen shot by author.

Castells, M. 2007. Communication, power and counter-power in the network society. *International Journal of Communication* 1(1):238-266.

Ceron, A, Curini, L & Iacus, S.M. 2016. iSA: a fast, scalable and accurate algorithm for sentiment analysis of social media content. *Information Sciences* 367:105-124.

Collins. 2018. [O]. Available:
https://www.collinsdictionary.com/dictionary/english/rss
Accessed 20 June 2018.

Cooke, A. 2017. [O]. Available:
https://fstoppers.com/education/understanding-meteoric-rise-peter-mckinnon-and-how-you-can-apply-it-your-work-199781
Accessed 20 June 2019.

© University of Pretoria

Couldry, N. 2015. Social media: human life. *Social Media+ Society* 1(1):1-2.

Couldry, N & Turow, J. 2014. Advertising, big data and the clearance of the public realm: marketers' new approaches to the content subsidy. *International Journal of Communication* 8:1710-1726.

Darack, E. 2011. *Air and Space Smithsonian.* [O]. Available: http://www.airspacemag.com/photos/a-brief-history-of-unmanned-aircraft-174072843/
Accessed 15 September 2017.

Davis, F.D, Bagozzi, R.P & Warshaw, P.R. 1992. Extrinsic and intrinsic motivation to use computers in the workplace 1. *Journal of Applied Social Psychology* 22(14):1111-1132.

De Kort, Y.A, IJsselsteijn, W.A & Poels, K. 2007. Digital games as social presence technology: Development of the Social Presence in Gaming Questionnaire (SPGQ). *Proceedings of PRESENCE* 195203:1-9.

Deci, E.L. & Ryan, R.M. 1985. The general causality orientations scale: Self-determination in personality. *Journal of Research in Personality* 19(2):109-34.

Denning, P.J. 1989. The science of computing: The ARPANET after twenty years. *American Scientist* 77(6):530-534.

Design Indaba. 2017. [O]. Available: http://www.designindaba.com/profiles/casey-neistat
Accessed 21 November 2017.

Facebook for Business. 2020. [O]. Available: https://www.facebook.com/business/help/710746785663278?helpref=uf_permalink
Accessed 17 July 2020.

Feenberg, A. 1991. *Critical theory of technology* (Vol. 5). New York: Oxford University Press.

Forbes. 2017. [O]. Available: https://www.forbes.com/companies/akamai-technologies/#7c7d65693851
Accessed 20 March 2020.

Fuchs, C. 2017. *Social media: A critical introduction*. London: Sage.

Gillmor, C. 2018. [O]. Available: https://medium.com/tech-update/how-does-a-digital-camera-sensor-work-1342974250fd
Accessed 6 October 2018

© University of Pretoria

Goodwin, I, Griffin, C, Lyons, A, McCreanor, T & Moewaka Barnes, H. 2016. Precarious popularity: Facebook drinking photos, the attention economy, and the regime of the branded self. *Social Media+ Society* 2(1), January-March:1-13.

Gough-Yates, A. 2003. *Understanding women's magazines: publishing, markets and readerships in late-twentieth century Britain*. London: Routledge.

Hall, S. 1997. The work of representation. *Representation: Cultural representations and signifying practices* 2:13-74.

Harris, T. 2020. [O]. Available: https://science.howstuffworks.com/innovation/everyday-innovations/zipper2.htm
Accessed 13 January 2020

Hearn, A. 2008. Meat, Mask, Burden: Probing the contours of the branded self. *Journal of Consumer Culture* 8(2):197-217.

Heidegger, M. 1977. The question concerning technology, in *The question concerning technology & other essays*, trans. W Lovitt. New York: Harper Perennial: 3–35.

Hills, T. 2018 [O]. Available: https://geneticliteracyproject.org/2018/05/29/algorithmic-death-spiral-the-failing-mental-health-of-our-machines/
Accessed 19 August 2019

Hochman, N. 2014. The Social Media Image. *Big Data + Society* 1(15), July-December:1-15.

Hofstede, G. 1980. Motivation, leadership, and organization: do American theories apply abroad?. *Organizational Dynamics* 9(1):42-63.

Hsu, C.L & Lin, J.C.C. 2008. Acceptance of blog usage: The roles of technology acceptance, social influence and knowledge sharing motivation. *Information & Management* 45(1):65-74.

Hu, Y, Manikonda, L & Kambhampati, S. 2014. What we Instagram: A first analysis of Instagram photo content and user types. In *Eighth International AAAI conference on weblogs and social media*.

Huber, R & Lindgren, L. 2018. Sexual Objectification of Women in Advertisements: The Influence of Consumer Attitudes on Brand Image. MA dissertation, Lund University School of Economics and Management, Sweden.

Hunt, E. 2016. [O]. Available: https://www.theguardian.com/technology/2016/mar/24/tay-microsofts-ai-chatbot-gets-a-crash-course-in-racism-from-Twitter

© University of Pretoria

Accessed 14 July 2018

Hwong, Y.L, Oliver, C, Van Kranendonk, M, Sammut, C & Seroussi, Y. 2017. What makes you tick? The psychology of social media engagement in space science communication. *Computers in Human Behaviour* 68: 480-492.

Investopedia. 2019. [O]. Available: https://www.investopedia.com/terms/m/monthly-active-user-mau.asp Accessed 20 September 2019.

Kanai, A. 2015. WhatShouldWeCallMe? Self-Branding, Individuality and Belonging in Youthful Femininities on Tumblr. *M/C Journal* 18(1).

Kastrenakes, J. 2016. [O]. Available: https://www.theverge.com/2016/3/23/11290200/tay-ai-chatbot-released-microsoft
Accessed 13 July 2019

Katz, M.L & Shapiro, C. 1985. Network externalities, competition, and compatibility. *The American Economic Review* 75(3):424-440.

Kemp, S. 2020. [O]. Available: https://wearesocial.com/blog/2020/01/digital-2020-3-8-billion-people-use-social-media
Accessed 17 July 2020.

Kerssens, N. 2017. When search engines stopped being human: menu interfaces and the rise of the ideological nature of algorithmic search. *Internet Histories* 1:1-19.

Kilroy, D. 2018. [O]. Available: https://www.shortstack.com/blog/the-ultimate-guide-to-hashtag-contests/ Accessed 15 November 2019

Kim, H & Papacharissi, Z. 2003. Cross-cultural differences in online self-presentation: A content analysis of personal Korean and US home pages. *Asian Journal of Communication* 13(1):100-119.

Know Your Meme. 2016. [O]. Available: https://knowyourmeme.com/memes/dog-filter
Accessed 16 March 2018.

Kotler, P & Zaltman, G. 1971. Social marketing: an approach to planned social change. *Journal of Marketing* 35(3):3-12.

Lasén, A & Gómez-Cruz, E. 2009. Digital photography and picture sharing: Redefining the public/private divide. *Knowledge, Technology & Policy* 22(3):205-215.

© University of Pretoria

Lash, S. 2007. Power after hegemony: Cultural studies in mutation? *Theory, Culture & Society* 24(3):55-78.

Latour, B & Steve Woolgar. 1979. *Laboratory Life: The Construction of Scientific Facts*. Princeton: Princeton University Press.

Latour, B. 2010. *Tarde's idea of quantification*. New York: Routledge: 145-162.

Lin, K.Y. & Lu, H.P. 2011. Why people use social networking sites: An empirical study integrating network externalities and motivation theory. *Computers in Human Behavior* 27(3):1152-1161.

MacFadyen, L, Stead, M & Hastings, G. 1999. A synopsis of social marketing. *Health Promotion International* 9:59-63.

McLeod, S. 2018. [O]. Available:
https://www.simplypsychology.org/maslow.html
Accessed 15 July 2019.

Malacoff, J. 2018. [O]. Available:
https://www.shape.com/lifestyle/mind-and-body/how-body-positivity-movement-is-evolving-whats-next
Accessed 23 August 2019

Manovich, L. 2017. Cultural analytics, Social Computing and digital humanities. *The Datafied Society*. Amsterdam: Amsterdam University Press: 55-68.

Markus, H.R & Kitayama, S. 1991. Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review* 98(2):224.

Marshall, P.D. 2014. Persona studies: Mapping the proliferation of the public self. *Journalism* 15(2):153-170.

Marshall, M. 2009. New Scientist. [O]. Available:
https://www.newscientist.com/article/dn17423-timeline-weapons-technology/
Accessed 15 September 2017.

Marx, K & Engels, F. 1976. *Marx & Engels Collected Works Vol 06: Marx and Engels: 1845-1848*. London: Lawrence & Wishart.

Maslow, A.H. 1943. A theory of human motivation. *Psychological Review 50*(4):370-396.

Maslow, A & Lewis, K.J. 1987. Maslow's hierarchy of needs. New York: Salenger Incorporated.

Matsumoto, D. 1991. Cultural influences on facial expressions of emotion. *Southern Journal of Communication* 56(2):128-137.

McKinnon, P. 2017. *How using a SPEED RAMP can IMPROVE your videos!!.*

© University of Pretoria

https://www.youtube.com/watch?v=qpph9lvoEVU
Accessed 20 May 2020.

McLeod, S. 2018. [O]. Available:
https://www.simplypsychology.org/maslow.html
Accessed 23 May 2018.

Me Too. 2018. [O]. Available:
https://metoomvmt.org/about/
Accessed 20 May 2018.

Merriam-Webster. 2018. [O]. Available:
https://www.merriam-webster.com/dictionary/reach
Accessed 17 July 2020.

Moju. 2018. [O]. Available:
https://www.moju.io/static/pdfs/Kim_Kardashian_Report.pdf
Accessed 06 June 2018.

Moon, J.W & Kim, Y.G. 2001. Extending the TAM for a World-Wide-Web context. *Information & Management* 38(4):217-230.

Nambisan, S. 2017. Digital entrepreneurship: Toward a digital technology perspective of entrepreneurship. *Entrepreneurship Theory and Practice* 41(6):1029-1055.

Nelson-Field, K, Riebe, E & Sharp, B. 2012. What's not to “like?”: can a Facebook fan base give a brand the advertising reach it needs?. *Journal of Advertising Research* 52(2):262-269.

Normand, V, Babski, C, Benford, S, Bullock, A, Carion, S, Chrysanthou, Y, Farcet, N, Frécon, E, Harvey, J, Kuijpers, N & Magnenat-Thalmann, N. 1999. The COVEN project: Exploring applicative, technical, and usage dimensions of collaborative virtual environments. *Presence: Teleoperators & Virtual Environments* 8(2):218-236.

O’Connell, B. 2020. [O]. Available:
https://www.thestreet.com/technology/history-of-SnapChat
Accessed 2 March 2020.

O'Keeffe, G.S & Clarke-Pearson, K. 2011. The impact of social media on children, adolescents, and families. *Pediatrics* 127(4):800-804.

O'Reilly, T. 2005. [O]. Available:
https://www.oreilly.com/pub/a//web2/archive/what-is-web-20.html
Accessed 15 November 2019.

O'Reilly, T. 2019. [O]. Available:
https://www.oreilly.com/tim/bio.html
Accessed 15 November 2019.

© University of Pretoria

Paßmann, J & Boersma, A. 2017. Unknowing algorithms: On transparency of unopenable black boxes. *The Datafied Society.* Amsterdam: Amsterdam University Press: 139-146.

Phelan, P. 1993. *Unmarked: The Politics of Performance*. London: Routledge.

Pieterse, J.N. 1994. Globalisation as hybridisation. *International sociology* 9(2):161-184.

Poster, M. 1997. Cyberdemocracy: Internet and the public sphere. *Internet culture.* New York: Routledge.

Reinecke, K & Gajos, K.Z. 2014. Quantifying visual preferences around the world. In *Proceedings of the SIGCHI conference on human factors in computing systems,* 11-20.

Rettberg, J.W. 2017. Self-representation in social media. *The SAGE Handbook of Social Media.* London: SAGE.

Rheingold, H. 1993. *The virtual community: Finding commection in a computerized world*. Boston: Addison-Wesley Longman Publishing Co. Inc.

Rieder, B. 2012. *What is in PageRank? A historical and conceptual investigation of a recursive status index.* [O]. Available: http://computationalculture.net/what_is_in_pagerank/ Accessed 19 August 2019.

Rogers, E.M. 1995. Diffusion of Innovations: modifications of a model for telecommunications. In *Die diffusion von innovationen in der telekommunikation*. Berlin: Springer.

Rouse, M. 2017. [O]. Available: https://searchnetworking.techtarget.com/definition/ARPANET Accessed 20 Feb 2018.

Rouvroy, A. 2012. The end (s) of critique: Data behaviourism versus due process. In *Privacy, due process and the computational turn*. London: Routledge.

Röhle, B.R.T. 2012. Digital methods: Five challenges. In *Understanding digital humanities*. London: Palgrave Macmillan: 67-84.

Safko, L & Brake, D.K. 2009. The Social Media Bible: Tactics, Tools, and Strategies for Business Success. Hoboken: John Wiley & Sons.

Schafer, H. 2014. [O]. Available: http://qscores.blogspot.com/2014/01/the-value-of-celebrity-endorsements.html Accessed 13 October 2018

© University of Pretoria

Scientific American. 2009. [O]. Available:
https://www.scientificamerican.com/gallery/early-sketch-of-arpanets-first-four-nodes/
Accessed 15 February 2018.

Search Engine Land. 2017. [O]. Available:
https://searchengineland.com/guide/what-is-social-media-marketing
Accessed 20 November 2017.

Segal, T. 2019. [O]. Available:
https://www.investopedia.com/terms/b/big-data.asp
Accessed 25 October 2019.

Selwyn, N. 2012. Making sense of young people, education and digital technology: The role of sociological theory. *Oxford Review of Education* 38(1):81-96.

Singh, L. 2017. *STUPID THINGS I'VE DONE WHILE DRUNK.*
https://www.youtube.com/watch?v=oIMLor4mkKg
Date accessed 15 May 2020.

Singh, L. 2018. *WATCHING MY CRINGE CHILDHOOD VIDEOS*.
https://www.youtube.com/watch?v=AZza8TVGeNk
Date accessed 15 May 2020.

Singh, L. 2018. *The Struggles Of Having Acne.*
https://www.youtube.com/watch?v=iI3ZbE37VEg
Date accessed 15 May 2020.

Singh, L. 2019. *Exposing My Instagram Fails.*
https://www.youtube.com/watch?v=WdLlGbbf3x0
Date accessed 15 May 2020.

Singelis, T.M. 1994. The measurement of independent and interdependent self-construals. *Personality and Social Psychology Bulletin* 20(5):580-591.

Singer, M. R. 1998. Perception and Identity in Intercultural Communication. *An Abridged and Revised Edition of Intercultural Communication: A Perceptual Approach*. Yarmouth: Intercultural Press.

Sledgianowski, D & Kulviwat, S. 2009. Using social network sites: The effects of playfulness, critical mass and trust in a hedonic context. *Journal of Computer Information Systems* 49(4):74-83.

Social Media Examiner. 2017. [O]. Available:
https://www.socialmediaexaminer.com/facebook-reach-guide/
Accessed 15 November 2017.

Statista. 2018. [O]. Available:
https://www.statista.com/topics/751/facebook/

© University of Pretoria

Accessed 20 February 2018.

Statista. 2019. [O]. Available:
https://www.statista.com/topics/2576/us-millenniumls-Internet-usage-and-online-shopping/
Accessed 20 February 2018.

Tardi, C. 2019. [O]. Available:
https://www.investopedia.com/terms/m/monthly-active-user-mau.asp
Accessed 25 March 2020.

TechTarget. 2019. [O]. Available:
https://searchitchannel.techtarget.com/definition/IBM-International-Business-Machines
Accessed 15 July 2019.

TechTerms. [sa]. [O]. Available:
https://techterms.com/definition/seo
Accessed 20 November 2019.

TechTerms. [sa]. [O]. Available:
https://techterms.com/definition/blog
Accessed 20 November 2019.

TechTerms. [sa]. [O]. Available:
https://techterms.com/definition/metadata
Accessed 20 November 2019.

TechTerms. [sa]. [O]. Available:
https://techterms.com/definition/facebook
Accessed 20 November 2019.

TechTerms. [sa]. [O]. Available:
https://techterms.com/definition/hashtag
Accessed 20 November 2019.

The Famous People. 2017. [O]. Available:
https://www.thefamouspeople.com/profiles/david-dobrik-8024.php
Accessed 21 November 2017.

The Guardian. 2018. [O]. Available:
https://www.theguardian.com/technology/2012/apr/23/doubleclick-tracking-trackers-cookies-web-monitoring
Accessed 15 October 2019.

Treehouse. 2017. [O]. Available:
http://blog.teamtreehouse.com/i-dont-speak-your-language-frontend-vs-backend
Accessed 25 November 2017.

© University of Pretoria

Triandis, H.C. 2018. *Individualism and collectivism*. London: Routledge.

Twitter. 2017 [O]. Available:
https://twitter.com/casey/status/876762941001015296
Accessed 17 July 2020.

Van Dijck, J. 2013. *The culture of connectivity: A critical history of social media*. Oxford: Oxford University Press.

UKAuthority. 2018. [O]. Available:
https://www.ukauthority.com/articles/mps-warn-of-possible-bias-in-algorithms/
Accessed 15 September 2018

Uricchio, W. 2017. Data, culture and the ambivalence of algorithms. *The Datafied Society*. Amsterdam: Amsterdam University Press: 125-138.

Warfield, K. 2014. *Making selfies/making self: Digital subjectivities in the selfie.* [O]. Available: https://kora.kpu.ca/islandora/object/kora%3A39/datastream/PDF/view
Accessed 20 May 2019.

Weber, M., 1978. *Economy and society: An outline of interpretive sociology* (1). Berkeley: University of California Press.

Williams, G & Arreymbi, J. 2007. Is Cyber Tribalism Winning Online Information Warfare?. In *ISSE/SECURE 2007 Securing Electronic Business Processes*. Berlin: Vieweg.

Wordstream. [sa]. [O]. Available:
https://www.wordstream.com/search-engine-marketing
Accessed 25 November 2019.

W3. 1998. [O]. Available:
https://www.w3.org/People/Berners-Lee/
Accessed 15 August 2018

Xia, F, Yang, L.T, Wang, L & Vinel, A. 2012. Internet of things. *International Journal of Communication Systems* 25(9):1101.

Yee, N & Bailenson, J. 2007. The Proteus effect: The effect of transformed self-representation on behavior. *Human Communication Research* 33(3):271-290.

YouTube. 2017. [O]. Available:
https://support.google.com/youtube/answer/92725?hl=en
Accessed 22 November 2017.

YouTube. 2020. [O]. Available:
https://www.youtube.com/user/caseyneistat/about
Accessed 22 November 2017.

© University of Pretoria

YouTube. 2020. [O]. Available:
https://www.youtube.com/user/IISuperwomanII/about
Accessed 22 November 2017.

Zajc, M. 2015. “Social media, prosumption, and dispositives: New mechanisms of the construction of subjectivity”. *Journal of Consumer Culture* 15(1):28-4.

© University of Pretoria