Authenticity on Social Media vs Curated Content and its Correlation to Happiness

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Artificial Intelligence (AI) and Curated Content

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We shall not cease from exploration

And the end of all our exploring

Will be to arrive where we started

And know the place for the first time.

- T.S. Eliot, Four Quartets

"

Defining Authenticity

Authenticity is defined as a 'quality of genuineness', 'real' and 'not of doubtful origin' (Collins, 1997).[1]

According to American psychologist, Carl Rogers, we want to feel, experience and behave in ways which are congruent with our self-image and which reflect what we would like to be like, our ideal self.[1]

Rogers describes congruence as a close matching 'between what is being experienced at the gut level, what is present in awareness, and what is expressed to the client.' (Rogers, 1980)[1]

The more one is in congruent to their self-concept, the more they find meaning and satisfaction in life. Hence, when people describe their most authentic experience, they reveal feeling more contented, calm, enthusiastic, competent, open to new experiences and in sync with their environments.[2]

Living an authentic life is when we are fully connected with ourselves and others. Authenticity has been linked to higher levels of positive affect, life satisfaction, environmental mastery, self-acceptance and reductions in stress and anxiety. Being authentic correlates to a more secure form of self-worth that is not contingent on the evaluation of others.[2]

Rogers believed that when you become more authentic, you become more empathic, more accepting, both of yourself and others. It is a way of being that is defined by emotional and psychological maturity.[3]

"The good life is a process, not a state of being. It is a direction, not a destination." (Rogers, 1967, p. 187)

A recent study published in the Journal of Humanistic Psychology shows the more authentic people are, the more they are mindful and emotionally intelligent. Being mindful is about being aware of one's experiences without judgement. Emotional intelligence is when one is in control of their emotions and also able to read the other person's emotions.[3]

Authenticity involves learning about yourself, admitting your failures, being able to laugh at yourself, and most importantly, the willingness to let go of rigid ideas of who you think you are.[3]

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[1] M. Donaghy, 'Authenticity: A Goal for Therapy?', *Society for Philosophy in Practice*, UK, 2002, http://www.society-for-philosophy-in-practice.org/journal/pdf/5-2%2040%20Donaghy%20-%20Authenticity.pdf, (accessed 19 April 2021).

[2] S.B. Kaufman, 'Beautiful Minds: Grit and Authenticity', *Scientific American*, California, 2016, https://blogs.scientificamerican.com/beautiful-minds/grit-and-authenticity/, (accessed 18 April 2021).

[3] S. Joseph, 'Are Authentic People More Mindful?', *Psychology Today,* UK, 2020, https://www.psychologytoday.com/us/blog/what-doesnt-kill-us/202007/are-authentic-people-more-mindful, (accessed 24 April 2021).

According to Carl Rogers, when we actively engage with our own growth, we are moving away from the rigidity of life and our fixed patterns of behaviour.[4]

Rogers (1959) also believed that every person could achieve their goals, wishes and desires in life and self-actualisation takes place, in line with the main assumptions of Abraham Maslow. He also believed that humans have one basic motive, the tendency to self-actualize, to fulfil one's potential and achieve the highest level of 'human-beingness'. Self-actualisation occurs when a person's "ideal self" (who they would like to be) is congruent with their actual behaviour (self-image).[5]

For Heidegger, authenticity 'has to be retrieved from inauthenticity'

For Rogers, authenticity meant being the author of one's own life. It is a challenging process to strike a balance between realising one's own needs, while meeting the needs of others. As such, authenticity requires one to know yourself, own yourself and be yourself, moment to moment.[6]

Authentic people know themselves enough to be honest with themselves. They are able to listen to their inner voice, trust their gut and comprehend the complexities of their feelings and follow their own inner wisdom.

Authentic people take responsibility for their choices in life, knowing the consequences. They learn from what has happened and look to the future with clearer goals and greater wisdom. They own themselves by holding their ground on what they believe in. They value diversity over conformity. The authentic person is not fearless but is willing to feel their fear to be authentic.

With authenticity, comes integrity. Authentic people values being yourself and live their life consistent with their beliefs and values. They say what they mean and mean what they say. They are inclined towards openness and transparency with others, but know when the more authentic thing to do is to walk away.

You cannot be yourself, unless you own yourself, and you cannot own yourself, unless you know yourself.[6]

These three foundations of authenticity require us to have deep courage, humility and dedication to confront the truth about ourselves, in order to say the difficult things that need to be said and to fight for what we believe to be right.

[4] S.B. Kaufman, 'Beautiful Minds: Grit and Authenticity', *Scientific American*, California, 2016, https://blogs.scientificamerican.com/beautiful-minds/grit-and-authenticity/, (accessed 18 April 2021).

[5] S. McLeod, 'Carl Rogers, Humanistic Approach', *Simply Psychology,* UK, 2014, https://www.simplypsychology.org/carl-rogers.html, (accessed 23 April 2021).

[6] S. Joseph, *Authentic – How to be Yourself and Why it Matters*, London, Little, Brown Book Group, 2016, pg 1-30.

Authenticity is also how we approach life day by day, moment by moment. It is not a state of perfection. It is when we have no need to impress others or gain their attention as we are content to be who we are. We choose to follow the road that is right for us, rather than the road that others want us to go down.

In essence, authenticity is realising that we are the author of our own lives. We hold the pen; hence, it is up to us to choose who and what we become.[7]

The most important aspect of authenticity is the ability to communicate clearly about what matters to us. Authenticity is about being true to yourself in each and every moment, driven by those small decisions of everyday life that shape the big directions that we take. It is the difference that makes a difference.

Authenticity requires that we listen to ourselves and what is going on within us – synthesizing our feelings, thoughts and physical sensations. It is not an end point; rather, it is an ongoing process. It is a direction, not a destination.

Heidegger sees authenticity not as being true to oneself, but as being true to existence. Authenticity is being open to, or facing, the 'givens of existence', including our 'thrownness' (thrown into a world which already exist) and inevitable death. Inauthenticity, on the other hand, is turning away from or denying them.[8]

Heidegger suggests that authenticity 'has to be hard earned on a daily basis'. Understanding what it means to be authentic is related to our inevitable connection with the world and with others, a connection he calls 'Care'.

In order to be authentic, we must first be able to recognise authenticity, when we experience it. Taking an authentic stance may also lead to anxiety. Sartre postulates that 'authenticity demands much courage and more than courage'.[8]

Van Deurzen suggests authenticity as enabling one to find meaning in the journey towards one's goals, rather than just in their accomplishment. An authentic stance gives a sense of increased vitality to life.[8]

Assagioli recognised and developed two mutually dependent aspects of psychosynthesis. First, personal psychosynthesis, which aims to foster the development of a well-integrated personality through synthesizing the multiple aspects of the individual's personality. The idea is to evoke the individual's strengths and latent potential and to express themselves meaningfully as the creator of their own life.[9]

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[7] S. Joseph, *Authentic – How to be Yourself and Why it Matters*, London, Little, Brown Book Group, 2016, pg 1-30.

[8] M. Donaghy, 'Authenticity: A Goal for Therapy?', Society for Philosophy in Practice, UK, 2002, http://www.society-for-philosophy-in-practice.org/journal/pdf/5-2%2040%20Donaghy%20-%20Authenticity.pdf, (accessed 19 April 2021).

[9] D. Whitmore, *Psychosynthesis Counselling in Action*, London, Sage, 2014, pg 86-97.

Second, transpersonal psychosynthesis, where there is an integration between the inner and outer world, which leads to the possible realisation of one's higher nature and purpose in life. Assagioli recognised an individual's need for meaning, both the meaning of our existence and the meaning of the world we live in, indeed of life itself.[9]

The integration of these two aspects, lead to the awakening of Self. At some point in life, an individual may experience an inner awakening – a longing for life to be more deeply fulfilling. In Maslow's terms, peak experiences, which fosters momentarily clarity of vision, a transcendence of personal identity and the awareness of the oneness of life. Maslow's hierarchy is a powerful way to synthesize authenticity – the behaviours, thoughts and feelings of an individual whose basic needs have been met.

Maslow's assumption has also been criticised for concerns that the basic needs must be satisfied before a person can achieve their potential and self-actualise. In contrast, Dr William Glasser's concept of Choice Theory, which emphasises that everything we do is to get what we want, ultimately satisfying the dynamics of our Basic Needs.[10]

Peak experiences essentially create an opportunity for growth and a creative possibility for a latent potential to emerge.

The assimilation between the Self and the transpersonal dimension forms the authentic self. The Self can be described as an individual's most authentic identity, the deepest experience of Being, only to be discovered by ourselves.

This inner authority implies certainty and is deeply connected with a sense of self.

Since "the good life is a process", perhaps social media provides a playground to self-actualisation, where one explores the tension between their self-image and their ideal self.

Inauthenticity could be part of the game of social media as engaging in social media may be a form of escapism. Social media users engage in social media precisely to avoid the realities and complexities of life. To some, perhaps it's worthwhile to allow themselves to be inauthentic for that fleeting moment when we are wrapped in the complex world of social media.

I wish to focus on two areas of authenticity. First, being authentic as an active user on social media. How being true to ourselves and posting our real authentic self correlates with happiness and well-being. We can be the author of our own authenticity.

Second, authenticity as a passive consumer of social media. The authentic vs curated content that appears on our newsfeed and what we consume as social media users. How much does Artificial Intelligence (AI) define our authenticity.

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[9] D. Whitmore, *Psychosynthesis Counselling in Action*, London, Sage, 2014, pg 86-97.

[10] W. Glasser, 'Quickstart Guide to Choice Theory', *Glasser Institute for Choice Theory*, Texas, 1980, https://wglasser.com/quickstart-guide-to-choice-theory/#basic-needs, (accessed 1 August 2021).

Actively Authentic
on Social Media

Social media users often faced the dilemma and tension between presenting themselves in an idealised or authentic way.

Self-expressions on social media platforms are often curated, idealised, exaggerated and unrealistic. Social media users often edit and filter the content they present to others online.[11]

"Social media allows users a vast amount of control in deciding the persona they wish to show the world. With that control comes the temptation to create our 'best self,'"[12] said Sandra Matz, Columbia Business School Professor.

"We show that resisting this temptation and instead sharing one's authentic day-to-day experiences is critical when it comes to users' life satisfaction and happiness," Sandra added.

[11] E.R. Bailey, S.C. Matz, W. Youyou, et al., 'Authentic self-expression on social media is associated with greater subjective well-being', *Nature Communications 11*, 4889, California, 2020, https://www.nature.com/articles/s41467-020-18539-w, (accessed 10 April 2021).

[12] S. Matz, S. Iyengar, E. Bailey, Y. Wu, 'Be Yourself: Authenticity on Social Media Leads to a Happier Life', Columbia Business School, New York, 2020, https://www8.gsb.columbia.edu/newsroom/newsn/9829/be-yourself-authenticity-on-social-media-leads-to-a-happier-life, (accessed 13 April 2021).

Authenticity on Social Media correlates with Greater Life Satisfaction

A study done in the journal, Nature Communications postulates sharing authentic posts on social media is better for our mental well-being. Analysing data of 10,560 Facebook users, research shows individuals who are more authentic in their self-expression on social media, report greater life satisfaction, regardless of their personality profile. It is also plausible that individuals who experience higher levels of well-being are more likely to express themselves authentically on social media.[11]

The research estimates the degree of self-idealised vs authentic self-expression and correlates it between a user's self-reported personality and the automated personality judgements, made based on Facebook's likes and status updates.

In fact, this effect appears coherent across different personality profiles, disputing the proposition that individuals with socially desirable personalities may benefit from authentic self-expression more than others. Instead, the findings posit that all individuals regardless of personality traits could benefit from being authentic on social media. Posting in an authentic way was linked to more positive mood and affect, and less negative mood within participants.

The findings also show that self-enhancement specifically, or lack of authenticity is detrimental to subjective well-being.

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[11] E.R. Bailey, S.C. Matz, W. Youyou, et al., 'Authentic self-expression on social media is associated with greater subjective well-being', *Nature Communications 11*, 4889, California, 2020, https://www.nature.com/articles/s41467-020-18539-w, (accessed 10 April 2021).

The findings propose that the extent of social media use, related to well-being, depends largely on how individuals use it.

In the second part of the study, researchers got 90 students to post in an authentic way on Facebook for a week, followed by self-idealised way for a week.[11]

Participants reported significantly higher levels of well-being, after the week in which they posted authentically, as compared to the week in which they posted in a self-idealised way. Specifically, well-being scores in the authentic week were significantly higher than in the self-idealised week. One reason might be self-deception induces feeling of guilt and shame.

Interestingly, research has shown that individuals on Facebook are more likely to portray their actual self rather than idealised personalities. This is particularly relevant for platforms such as Facebook, where the majority of friends in a user's network also have an offline relationship. Hence, to some degree, the social nature of the platforms provides a certain level of accountability that prevents individuals from starkly misrepresenting their identities.

A good example of an inauthentic post, according to Bailey, is when an introverted user post about how excited they were to go out on the weekend.

The researchers highlighted that although the effects of authenticity in social media on well-being were meaningful, they were rather small as compared to other important predictors of well-being such as income, health and relationships. How you use social media is relatively easy to change, compared to other factors such as jobs and health, which may not be within the immediate control of an individual.[13]

"Given that it's hard to avoid social media these days, we wanted to know if there are ways that we can use these tools to be more or less helpful to us psychologically," Bailey said.

[11] E.R. Bailey, S.C. Matz, W. Youyou, et al., 'Authentic self-expression on social media is associated with greater subjective well-being', *Nature Communications 11*, 4889, California, 2020, https://www.nature.com/articles/s41467-020-18539-w, (accessed 10 April 2021).

[13] K. Hunt, 'Being Authentic on Facebook is better for your Mental Health', *CNN Health,* Atlanta, 2020, https://edition.cnn.com/2020/10/06/health/facebook-authenticity-social-media-mental-health-wellness-trnd/index.html, (accessed 12 April 2021).

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> **What our paper shows is that if people want to take part in social media, they should use it to share what they really care about, what they are actually doing, and how they truly feel. "**
>
> - Erica Bailey, PhD candidate and corresponding author, Columbia Business School

The Psychology of Authenticity on Social Media

Authenticity is defined as the unobstructed expression of one's self.

Contrary, social media users desire to present both the ideal and authentic self simultaneously. Realise that self-idealisation and authentic self-expression fulfil different psychological needs, hence produce different psychological costs.

Self-idealisation has been called a "fundamental part of human nature". It allows individuals a space to portray a positive self-view and to create positive impressions of themselves in the eyes of others.

The flipside of self-idealising behaviour can be psychologically costly, as acting out of character produced feelings of internal conflict, psychological discomfort and strong emotional reactions. Some individuals may also own characteristics that are less socially desirable; hence, they face internal conflict between their desire to present themselves in an authentic way and their desire to present the best version of themselves.[11]

While it may be tempting to portray and curate a self-enhanced Facebook presence, authentic self-expression on social media can be psychologically beneficial to users.

Authentic self-expression, on the other hand, allows individuals to verify and affirm their sense of self, which may increase self-esteem and a sense of belonging.

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[11] E.R. Bailey, S.C. Matz, W. Youyou, et al., 'Authentic self-expression on social media is associated with greater subjective well-being', *Nature Communications 11*, 4889, California, 2020, https://www.nature.com/articles/s41467-020-18539-w, (accessed 10 April 2021).

The healthiest decision someone can make for their happiness and well-being while on social media is to stay true to themselves and share their life as it is and not as they wish it to be.

- Sheena Iyengar, Professor, Columbia Business School

Exploring subpersonalities on Social Media

John Rowan defines subpersonalities as "permanent or semi-permanent autonomous regions of the personality". Another definition of subpersonality is "a complex of thoughts, feelings and even body sensations which is capable of acting as a complete person for shorter or longer periods of time."[14]

Rowan further identifies six broad sources of our subpersonalities. The first source being the social roles we play. We all play multiple roles in real life and our deeper subpersonalities are highly influenced by what we present ourselves to the world such as mother, wife, daughter, mentor, friend etc.[14]

Second, internal conflicts. We may have two or more internal sides arguing within us frequently enough to form our unique selves.

Third, fantasy images. These are people we identify as our hero or heroine. As adults, we can admire someone enough to internalize the image and adopt some of those ideal traits.

As John Rowan postulates that human beings have different personalities, perhaps even up to 12 subpersonalities and those different situations may elicit different selves.[15]

Fourth, personal unconscious. These are the subpersonalities that develop as a result of repeated physical or emotional trauma or stress within the family, where the nascent self, attempts to find ways to regain the love and approval of the parents.

These unwelcome childhood experiences remain a part of the child's internal world of repressed and unresolved wounding. Instead of obliterated from the child's mind, they form an active semi-autonomous object relation, capable of influencing the personality and expression.[16]

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[14] W. Harryman, 'Subpersonalities – Definitions and Origins', *Integral Options Blogspot*, US, 2007, http://integral-options.blogspot.com/2007/04/subpersonalities-definintions-and.html, (accessed 24 April 2021).

[15] D. Cohen, 'Many faces of Eve's daughters and sons/ Review of 'Subpersonalities' by John Rowan', *NewScientist* UK, 1990, https://www.newscientist.com/article/mg12517034-600-many-faces-of-eves-daughters-and-sons-review-of-subpersonalities-by-john-rowan/, (accessed 23 April 2021).

[16] C. Meriam, *Digging Up the Past, Object Relations and Subpersonalities,* California, Psychosynthesis Palo Alto, 1994, pg 18.

More common complex subpersonalities are formed as ways to maintain some stable sense of identity amongst powerful relational tensions.[17]

Fifth, cultural unconscious where every culture will have different values that are internalised and influence our ways of thinking.

Finally, the collective unconscious where archetypes or a perfected ideal image integrates with our personality.

Subpersonalities are autonomous configurations within the personality as a whole. Their unique characteristics, each with its own specific behaviour pattern, form a relatively unified whole. Therefore, each subpersonality has an exclusive way of responding, often in reaction to the demands of the situation. At times, we are trapped in ambivalence, confusion and conflict as our inner world control us. In order to overcome that, we need access to our entire personality so that we are able to choose alternative and appropriate behaviours, appropriate for the circumstances.[9]

Subpersonalities are also the many "selves" inside of us, with each having their own agendas and wants at heart and little conscious awareness of the effects of their biases on other subpersonalities or on the larger personality as a whole.[17]

Subpersonality is also an embodiment of tension and conflict, yet, paradoxically, a quest for harmony and unity. It is a person's creative attempt to navigate potentially destructive interpersonal relationships at a particular phase of life. It is an early attempt at integration and synthesis within the psyche – psychosynthesis, as they strive to integrate complex relationships in both the inner and outer worlds.[17]

Assagioli defines subpersonality as "a synthesis of habit patterns, traits, complexes and other psychological elements" organised around "an inner drive, or urge, which strives to be expressed" (Vargiu, 1974, p. 60).[17]

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[9] D. Whitmore, *Psychosynthesis Counselling in Action*, London, Sage, 2014, pg 86-97.

[17] C. Meriam, *Digging Up the Past, Object Relations and Subpersonalities,* California, Psychosynthesis Palo Alto, 1994, pg 7, 38-44.

Being aware of a subpersonality is often the beginning towards freedom from its limitations and distortions, which leads to recognition, acceptance and integration.[9]

Recognition of subpersonalities is to encourage the emergence of that subpersonality within you, while maintaining the attitude of an objective observer.

Acceptance of subpersonalities, especially the negative aspects, are often misunderstood that it remains forever in us. On the contrary, once a subpersonality is accepted, it makes it possible to evolve by enhancing the positive qualities and allow space for it to be fulfilled in healthier ways, while the negative ones dissipate.

Finally, the integration of parts into a larger whole, resolves inner conflicts, releases repressed life energy and increase aliveness and oneness.

Social media at its best, allows users to attempt to live out their deeper self. It is a platform of exploration. It provides the opportunity for the inner dialogue to manifest, complicated by the numerical validations and affirmations from our online reference group.

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[9] D. Whitmore, *Psychosynthesis Counselling in Action*, London, Sage, 2014, pg 86-97.

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Authenticity could be an infusion of Rogers' theory on congruence and Rowans' perspective on subpersonalities.

Given the various personas we play in real life, the Self is undeniably comprised of multiple subpersonalities, yet each expressed subpersonality is congruent and an authentic experience, validated by the Self at the gut level.

We are a constant, yet evolving individual.

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Illusion on Social Media

Social media has, in its own way, provided us a means of generating other selves. We just haven't yet learned to set them free. Beyonce has.

Social media tends to reward those who share the most, which means we tend to see way more from certain people than we want.

Most people treat social media like the stage for their own reality but celebrities like Beyonce treats their public persona more like Barbie – offering images and just a little more, allowing social media users to project their own ideas, fantasies and narratives about her life. Enough for social media users to feel mystifyingly satisfying and intimate.[18]

The Beyonce on social media provides an illusion that feels intimate and real, enough to provoke an emotional reaction. A hologram self for social media users to interact with, yet probably provides Beyonce space to exist privately.

Social media could perhaps be used as a prism, in which we choose to project only what we want others to see. Our filtered, yet authentic self, leaving enough room for imagination. We can choose to display a sub of our subpersonality and save the rest for our actual selves.

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[18] J. Wortham, 'Social Media Got You Down? Be More Like Beyonce', *New York Times*, New York, 2016, https://www.nytimes.com/2016/10/02/magazine/social-media-got-you-down-be-more-like-beyonce.html?searchResultPosition=5, (accessed 25 April 2021).

The Extended Self
on Social Media

The swift interplay between the virtual self-construction and non-virtual self-construction is key to defining ourselves in the digital age. To what degree do these 2 personas influence our whole self.

For older generation who grew up predominantly interacting with offline friends, their online persona may not shape their self-construct as much as the younger generation who is born into the digital age and the line between online and offline self becomes more ambiguous.

Is social media then, a new construction of definition of the self, or is it merely an extended self? Social media becomes a platform where we conceive and construct our real self. It is a constantly evolving sub-personality, rather than a choice. This evolution is evident in Sorapure's (2003) observation that "in an online diary, pieces of information about the self may be brought together in different configurations, signifying multiple and shifting ways of understand the self".

Feelings of anonymity and invisibility may encourage sharing and self-disclosure online, resulting in a disinhibition effect (Ridley 2012; Suler 2004). Some are able to express their "true self" better online than they could in face-to-face contexts. This does not mean there is a fixed "true self", it is a work in progress. Building on this perspective, social media then incites more open self-extension in the digital world.[19]

The sharing of information about self online, coupled with disinhibition makes it far easier to present ourselves in ways that would have been awkward in predigital times. As Zhao (2005) postulates, there is not only an inward turn in self-consciously crafting our autobiographies, there is also an outward turn in terms of presenting these self-displays for the online world to see. Cote (1996) sees this as a part of historical progression from ascribed to achieved to managed social identity.[19]

"The ability to remodel the virtual environment extends the identity project far beyond the body. Therefore, places in virtual worlds can also be considered to be vivid markers of virtual identity," Kozinets and Kedzior (2009).[19]

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[19] R.W. Belk, 'Extended Self in a Digital World', *Journal of Consumer Research*, Chicago, 2013, https://academic.oup.com/jcr/article/40/3/477/2379767?login=true, (accessed 26 April 2021).

All this content forms a rich collection that reflects who you are and what you think. As more photos, movies and email messages are created, the entire collection becomes a fuller reflection of you.

(Carroll and Romano, 2011)

In today's constant digital gaze, we enter a voluntary panopticon, in which we expose ourselves on social media like Facebook.

Besides offline individual self-identity, the entire realm of cyberspace that we occupy can now be considered a part of the aggregate extended self, shared with other participants. In this re-worlding, we experience transcendence of the body, time and space (Biocca 1997; Sherry 2000).[19]

Social media, then becomes an aestheticization of life, where social media users merge their subpersonalities online and offline, yet still authentically them.

Social networking sites are now seen as important sites of psychological development, especially between adolescence and adulthood (Steinfield, Ellison, and Lampe 2008). [19]

Floridi (2012) suggests that there are lesser naïve lying about oneself on Facebook, as everybody knows if you are. Online friends also aid in co-constructing and reaffirming each other's sense of self through comments. Teens occasionally post self-disparaging comments on photos of themselves in an apparent effort to seek validation or reassurance (Boyd 2010; Forest and Wood 2012).[19]

The co-construction of self also takes place offline in face-to-face encounters (Matthews, 2008), but the online disinhibition effect makes it easier for social media users to explore their new selves, or allow subpersonalities to emerge online.

Suler (2004) explains further that the boundaries between self and other representations in the virtual world, become more diffuse and thinking becomes more subjective. The shared memory online, especially photographs of a memory or event attended together becomes part of co-construction of oneself with others on social media (Van Dijck, 2007).[19]

With the proliferation of multiple online personas, the offline self converges with other subpersonalities online, hence forming the core self. In the digital world, the shared nature of self coupled with more instantaneous feedback, comments and likes can affirm or modify our sense of self.

The concept of self is definitely challenged and modified by new possibilities offered in the digital world, yet still authentically them.

[19] R.W. Belk, 'Extended Self in a Digital World', *Journal of Consumer Research*, Chicago, 2013, https://academic.oup.com/jcr/article/40/3/477/2379767?login=true, (accessed 26 April 2021).

Merging Self-Concept

Offline & Online Self-Concept

Self-concept is constructed from the materials of the culture and it is influenced by the immediate social and environmental contexts. It is formed in the matrix of a given culture, social structure and institutional system.

Although the individual's view of themself may be internal, what one sees and feels is largely the product of social life. Since the self-concept is acted upon, and in turn, acts upon society, it is imperative to view self-concept as a social product and a social force.

James (1950: 294) observed that an individual's self varies from situation to situation. One has a variety of social selves, as there are distinct groups of people, in which opinions mattered. Hence, different sides of them are revealed to these different groups.[20]

According to Mead (1934) in his publication of Mind, Self and Society, the fundamental social process, the process that makes society possible and what makes the human truly human – is communication. In speaking, we adopt the view of the other. Therefore, it inevitably results in us to view the self as well, from the perspective of the other person. Mead (1934: 68-69) emphasises that "we are more or less unconsciously seeing ourselves as others see us". It is then plausible to suggest that the attitudes of others will help shape our self-concept.[20]

Hence, as we enter into the realm of digital space, our self-concept is highly influenced by how other social media users view us – through the online validation, affirmation and recognition via numerical followers, likes, comments and views.

The aggregate of offline and online self-concept, then forms the whole authentic self.

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[20] Morris, R., The Self-Concept: Social Product and Social Force, cited in Rosenberg, M., Turner, R. H., *Social Psychology: Sociological Perspectives*, New Jersey, Library of Congress, 1992, p. 593-624.

Effects of Inauthenticity on Social Media

Essena O'Neill, the 18-year-old Australian, with more than half a million followers on Instagram, 200,000 on YouTube and Tumblr and 60,000 on Snapchat is quitting social media for good, despite making a living off her fame through modelling and sponsorship. She deleted 2,000 Instagram photos and renamed her account to "Social Media Is Not Real Life."

"Deleted over 2000 photos here today that served no real purpose other than self-promotion. Without realising, I've spent majority of my teenage life being addicted to social media, social approval, social status and my physical appearance," she wrote on an Instagram post.[21]

"Social media, especially how I used it, isn't real. It's contrived images and edited clips ranked against each other. It's a system based on social approval, likes, validation in views, success in followers," she added.

O'Neill spoke about how unhappy her social media obsession made her and the amount of time she took to take that photo that made her look good.

Social media backfires when users do not portray their authentic self. It is again, how authentic we are and how we use social media that correlates to happiness.

"It's perfectly orchestrated self-absorbed judgement. I was consumed by it."

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[21] Megan, M, 'Teen Instagram Star Speaks Out About The Ugly Trust Behind Social Media Fame', *Time,* USA, 2015, https://time.com/4096988/teen-instagram-star-essena-oneill-quitting-social-media/, (accessed 2 May 2021).

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Social media is a platform of exploration of our evolving subpersonalities, allowing space for the emergence of our digital subpersonalities, in which form our whole authentic self.

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Subjective Authentic Selfies

Ultimately, authenticity involves a degree of subjectivity.

Research conducted through four focus groups at University of Adelaide concluded that the authenticity of the selfie as a way of visualising a social media persona is subjective and contingent on the individual posting the selfie.[22]

Through the focus group discussions, they concurred that only the person who took the selfie can determine whether it is authentic, and authenticity was understood as expressive, rather than fixed. The notion of expressive authenticity is when the relationship between an individual's expression of their personality, morals and beliefs correlates with his or her visual representation.[22]

Warfield (2014) postulates that selfie can be an authentic portrayal of reality, but does not necessarily make it an objective representation of reality.[22]

"It's about continuously rewriting yourself. It's an extension of our natural construction of self. It's about presenting yourself in the best way," Dr Mariann Hardey, digital social networks lecturer at Durham University.[24]

In Goffman's (1959) Dramaturgical perspective, introduced in his book 'The Presentation of Self in Everyday Life', took on theatre as a metaphor to represent how people behave in society and represent themselves. Goffman further coined the term 'Impression Management', where one attempts to control the impression that others have of them. He illustrates further through the concept of front stage self and a backstage self.[23]

The front stage self is the self that we are likely to show to the world. On the other hand, the backstage self is the self in which we really are and there is no need for any kind of impression building. When we are off stage, we are unobserved; hence, more relaxed. The stage then becomes a metaphor, where we act in ways that fulfil our needs to be accepted in society.

Rooting from this perspective, the careful framing and editing work that goes into producing a selfie alongside with captions on social media, aims to control the desired impression of a person in the eyes of other social media users. Social media becomes the front stage.

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[22] L. Nguyen, K. Barbour, 'Selfies as Expressively Authentic Identity Performance', *First Monday,* CA, 2017, https://firstmonday.org/ojs/index.php/fm/article/view/7745/6561, (accessed 4 May 2021).

[23] Sociology Group, 'What is Goffman's dramaturgical theory (Impression Management)?', *Sociology Group,* CA, 2017, https://www.sociologygroup.com/dramaturgical-perspective/, (accessed 4 May 2021).

[24] E. Day, 'How Selfies Became a Global Phenomenon', *The Guardian,* UK, 2013, https://www.theguardian.com/technology/2013/jul/14/how-selfies-became-a-global-phenomenon, (accessed 18 May 2021).

Social media as the "looking screen" self

According to Cooley (1902), our self-concept is created through reflections and the evaluations of others in our close environment. Essentially, how we perceive ourself is not a solitary phenomenon but is influenced by others (Rousseau, 2002).[25]

"It's not necessarily because they are fake, they just want to appeal to other people."

In applying the concept of looking glass in shaping our online personas, Liubinienè and Keturakis (2014) posited that the continuous flow of reactions and affirmations through numerous social media platforms influence the identities of social media users, especially among young people.

The assumptions of others' impressions toward us affect our concept of the image of self, especially when viewed through the lens of the selfie.

The responses from the focus group discussions indicate that editing and modifying selfies is not seen as inauthentic, but rather an indication of a desire to internalise positive feedback, based on the expected perceptions of others on social media.

Hence, the technical architectures of social media, comprise of numerical likes, comments and views become the "looking screen" self. The attempt of authenticity by social media users are further reconstructed and modified to gain a favourable self-concept.

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[25] L. Nguyen, K. Barbour, 'Selfies as Expressively Authentic Identity Performance', *First Monday,* CA, 2017, https://firstmonday.org/ojs/index.php/fm/article/view/7745/6561, (accessed 4 May 2021).

Expressive Authenticity on Selfies

The selfie as a tool is used as an expressive medium.

In a research conducted in South Korea by Kwon and Kwon (2014) with young adults, they evaluated how young adults take selfies and share in order to explore, exhibit and pursue their real self.[25]

Through in-depth interviews, it is discovered there are three phases of authenticating acts in the practice of taking selfies.

First, to embody. Selfie is understood as a form of self-expression. It is a medium in which social media users are able to capture a momentary image of themselves. Majority of participants concurred that they were able to understand further about their physical exterior by evaluating a variety of images of themselves in selfies. These selfies assisted them in learning more about their external and internal selves.

One participant said, in reviewing her facial expressions in her selfies, she could reflect on her current mental state and was able to view a genuine reflection of her internal state, as she was able to evaluate the image as a subject. Therefore, good selfies are not just gratifying images, but a way of how one intends to accurately portray themselves.

Second, the transfer of self. In an attempt to portray authenticity, selfie is at best, a transfer of a private, carefully contrived version of self to the public domain.

Third, to elicit social interactions. This is where other users view and comment on each other's selfies, eliciting a response.

Relating to Cooley's theory of the looking glass self, participants imagined how they should appear to others and how they would be judged, which then led a stronger sense of self (Yeung and Martin, 2003).

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[25] L. Nguyen, K. Barbour, 'Selfies as Expressively Authentic Identity Performance', *First Monday,* CA, 2017, https://firstmonday.org/ojs/index.php/fm/article/view/7745/6561, (accessed 4 May 2021).

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Social media allows you to have that opportunity to construct someone who you aspire to be.

"

- a participant from focus group discussions by Nguyen

"I think being authentic online is when one tries to replicate what you are in real life."

Focus group discussions conducted among young women, aged between 18 and 24 years old from the University of Adelaide concluded three key findings – the definition of authenticity as subjective, selfie as an expressive medium and an individual can be considered no more or less authentic from one another, as she is merely abiding to various social contexts and audiences, according to each social media platform.[25]

Common themes emerged from the discussions include your online and offline selves are both highly congruent, which portrays a true, accurate representation of self. Adding on, being authentic online is highly dependent on the individual.

Turkle (1995) argued that in order for an individual to be deemed authentic between developing and portraying different aspects of their identity offline and online, the self may be multiple in nature, but all aspects of this self are coherent.

Online authenticity is "an experience that is understood from the viewpoint of the subject". It is highly dependent on whether the person who took the selfie believes it to be authentic.

Expressive authenticity is successfully linked when "things are true to their own nature".

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[25] L. Nguyen, K. Barbour, 'Selfies as Expressively Authentic Identity Performance', *First Monday,* CA, 2017, https://firstmonday.org/ojs/index.php/fm/article/view/7745/6561, (accessed 4 May 2021).

> "
> I don't think you can achieve being yourself in real life, online. A definition for me would be trying to incorporate your real life persona, trying to be as reflective as you can or close to accurate.
> But obviously we know they are
> two different platforms.
> "

(a participant from focus group discussions by Nguyen)

Selectively Authentic on Social Media

Social media is a valuable "expressive" space for individuals to experiment with identity (Williams and Copes, 2005).

Social media plays an imperative role in the lives of teenagers. These mediated online interactions complement offline engagements. Boyd (2014) argues that social media users make a decision to select what to reveal, based on their understanding of the different digital environments and the imagined audience.[25]

In an online experiment conducted by Marwick and Boyd (2011), whereby a series of questions were asked to their Twitter followers about how users envision their audiences. The idea was to understand how users target diverse audiences, select topics yet maintain authenticity of the self.[25]

The findings revealed that social media users present themselves online differently according to different audience and circumstance in which the interaction takes place. For example, LinkedIn is perceived as a serious and work-related platform, Instagram is polished and Snapchat is quick and provides a lot of behind the scenes that is temporary.

Similarly, in an offline setting, one selectively acts differently in a job interview as opposed to socialising in a bar. We choose to present different sides of our identities, according to the unspoken expectations and norms coming from different social situations.

Linking to Goffman's (1959) Dramaturgical perspective, social media users who create Twitter and Facebook profiles are akin to actors acting on stage. They use these platforms to enact performances to uphold positive impressions with the need to be seen as authentic to the self and others. Tweets were constructed with significant influences from perceived judgements of imagined audiences.[25]

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[25] L. Nguyen, K. Barbour, 'Selfies as Expressively Authentic Identity Performance', *First Monday,* CA, 2017, https://firstmonday.org/ojs/index.php/fm/article/view/7745/6561, (accessed 4 May 2021).

"I think if you want to choose to show things that are going well in your life, I don't think that makes you less authentic. It's just being selective."

Hence, social media users constantly adjust self-presentation, through the use of filters and editing tools, and manage their impressions, according to their online audience and circumstances.

Continuing from the focus group discussions, conducted at the University of Adelaide, social media is an expressive space to experiment with their identity – it may not fully represent who they are presently but what they aspire to be in the future.

For young female users, social media platform is a means to construct, develop and experiment with different sides of identities over time.

"If you take it to a different meaning as in you know you have a hidden personality and then when you go online and you reveal that person online that you have never shown to anyone before," described by a participant.

Williams and Copes (2005) argued that in the process of developing the authentic self, young women are able to utilise social media platforms to portray selected identities that are not easily revealed in the offline world, due to limitations such as confidence issues.[25]

One participant concurred that through the responses from others, it is part of the formation of the most authentic version of themselves that they are content to portray.

The idea of experimenting with the projected ideal version of the self on social media could be understood as potentially authentic, even if it is presently aspirational. As such, social media as the "front stage" can be internalised through affirmations, such as likes, leading to a newly developed version of the self (Goffman, 1959).[25]

Therefore, portraying different sides of identity online vs offline does not make an individual less authentic, but rather selectively authentic in how one chooses to be seen within the social media context for the imagined audience.

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[25] L. Nguyen, K. Barbour, 'Selfies as Expressively Authentic Identity Performance', *First Monday,* CA, 2017, https://firstmonday.org/ojs/index.php/fm/article/view/7745/6561, (accessed 4 May 2021).

Authentic vs Inauthentic Anger on Social Media

"[People think] the way of me making change is to be as judgemental as possible about other people, and that's enough.. [but] that's not activism, that's not bringing about change. If all you're doing is casting stones, you are probably not going to get that far," said former US president, Barack Obama

Anger and outrage have become the defining emotion of the 21st century, escalated by social media.

"With the internet, the capacity for emotional contagion of anger has increased, certainly you see anger crossing populations much more easily,"[26] said psychotherapist and author Dr Aaron Balick.

"The trouble with non-stop access to social media and news outlets is that our boundaries, identities and values can be assaulted whenever we look at our phones, turning all of us into tinder boxes," adds Balick.
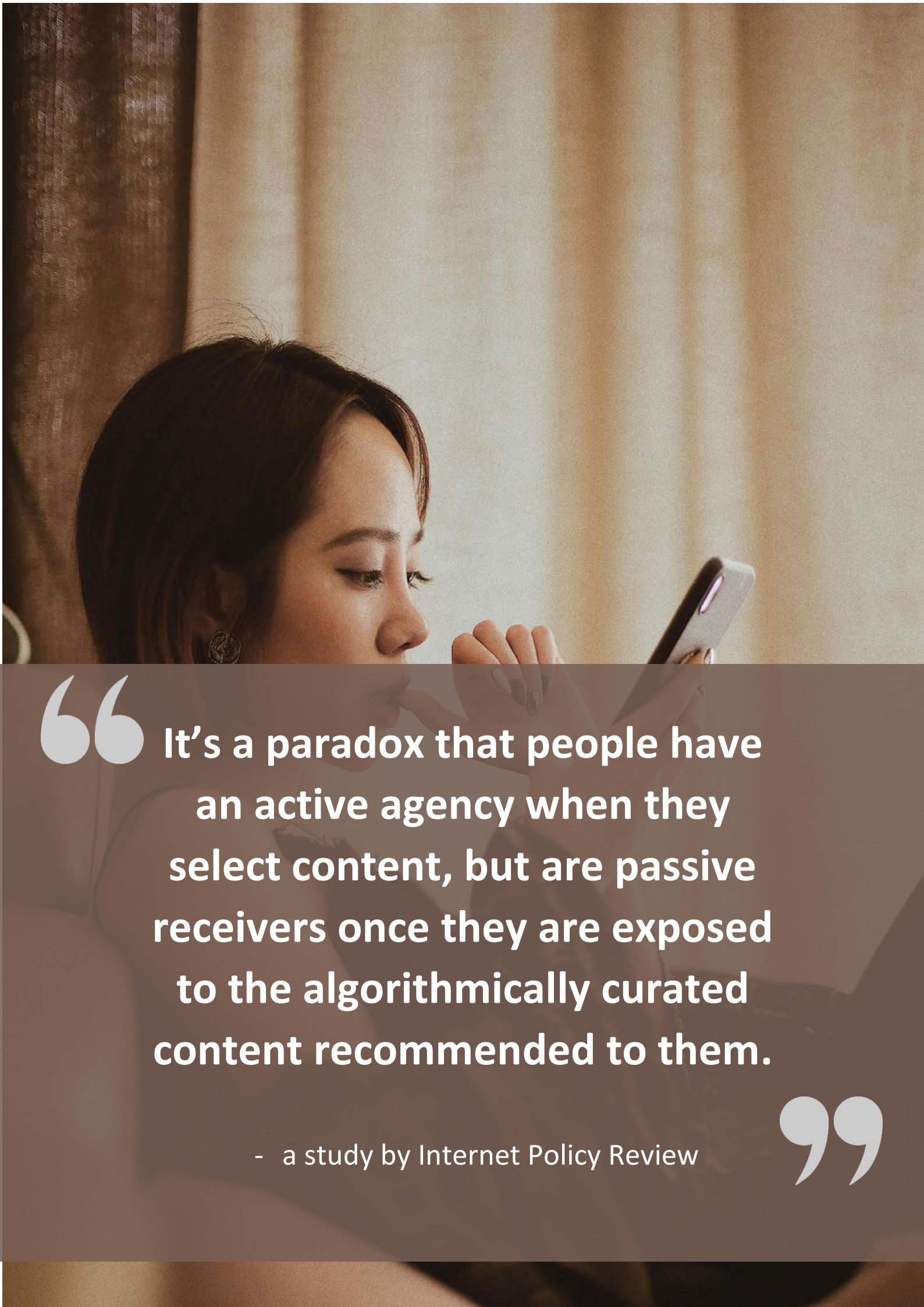
According to Balick, people who are exposed to angry social media tend to have less margin to contain their anger. This narrowing of our margins of tolerance is similar to driving i.e. you're more likely to scream out of the window if you're in a state of mild or high stress vs if you're in a relatively calm state.

In his book, *The Psychodynamics of Social Networking,* anonymity is a big part of online anger. Anger is quite a sensational emotion. In some cases, social media may be an accelerator to the anger, frustration and polarisation that is already there. Now, entangled with natural confirmation bias, filter bubble and personalisation through algorithm.

More disturbingly, the expression of anger on social media may be a reflection of life off-screen, now amplified through social exclusion. It is a rather escalated, yet authentic anger on social media.

On the flipside, perhaps some social media users may choose to express inappropriate anger and exhibit such sporadically anonymous, aggressive behaviour online, inciting racial, political or other inappropriate abuse on social media.

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[26] A. Fleming, 'Why Social Media makes us so Angry, and what you can do about it', *Science Focus,* Bristol, 2020, https://www.sciencefocus.com/the-human-body/why-social-media-makes-us-so-angry-and-what-you-can-do-about-it/, (accessed 21 July 2021).

> **It's a paradox that people have an active agency when they select content, but are passive receivers once they are exposed to the algorithmically curated content recommended to them.**
>
> - a study by Internet Policy Review

Artificial Intelligence (AI) and Curated Content

Filter Bubbles

Social media reinforcement bubbles have two primary contributing factors. First, self-perpetuated bubbles, where we ourselves as social media users, choose to "follow" or "unfollow" knowingly. We manually create our own bubble because we have a natural tendency to expose ourselves with like-minded people and content.

We tend to read content that we agree with, and less that challenges our beliefs. Homophily often leads individuals to form bonds with others who share similar beliefs and interests. We surround ourselves with online friends who share our opinions and by subscribing to content that supports our beliefs, which then creates an echo chamber of information.

Essentially, processing new facts, ideas and perspectives requires actual neural effort. "We experience conflicting thoughts as actual psychological discomfort,"[27] says Don Vaughn, a neuroscientist at the department of Psychology at UCLA.

The second factor is the social media "filter bubble", a term coined by internet activist, Eli Pariser. He defined this echo chamber as a "personal, unique universe of information that you live in online".[27]

Social media giants, including Google, Facebook and Twitter use algorithms that are ever-changing, which ultimately create these filter bubbles.

"The reality is that all platforms now constantly feed us content that aligns with our own interests, friends and belief systems,"
Dr Lisa Strohman

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[27] W. R. Gould, 'Are you in a Social Media Bubble? Here's how to tell', *NBC News, New York*, 2019, https://www.nbcnews.com/better/lifestyle/problem-social-media-reinforcement-bubbles-what-you-can-do-about-ncna1063896#anchor-Wemanuallycurateourownbubble, (accessed 29 May 2021).

In Pariser's 2011 TED Talk titled "Beware Online Filter Bubbles", he argued that algorithms learn who we are and create our filter bubble, based on what we click on and how long we spend looking at that content. These filter bubbles may have a negative impact on society because algorithms are confining people to their small bubble of information and polarizing our opinions.[28]

Pariser argues that the phenomenon of personalisation is rapid, showing us what it thinks we want to see, but not necessarily what we need to see. These filtering algorithms are biased as they don't show content that disagrees with the user. What we're experiencing is a passing of a torch from human gatekeepers like editors who control the flow of information to algorithmic gatekeepers.[28]

"They are able to take what we browse or post about and feed us back our own thoughts gathered from other social media followers as though we have hundreds and thousands of friends feeling the same way." Dr Lisa Strohman, a licensed clinical psychologist and Founder of Digital Citizen Academy.[27]

The challenge with reinforcement bubbles is it inhibits authentic dialogue and true change. "Reinforcing our current feelings and thoughts make us feel better," says Strohman, "but when doing so, we also lose the ability to elevate our ideas and collaborate on major issues that our nation is facing."[27]

Furthermore, when both sides only see content from their respective echo chambers, they are not exposed to the same information, hence, they can't have effective conversations with individuals of different perspectives. "Users tend to aggregate in communities of interest, which causes reinforcement and fosters confirmation bias, segregation and polarization." (Del Vicario, 558)

We also tend to be more biased with our perspectives. "Our brain constructs a model of the world from interactions with our environment. If all our interactions are one-sided, then our brain's model will be biased," says Vaughn. Reinforcement bubbles may lead us to believe that more people support our world view than it is in reality.[27]

"Over time, you have the false sense that everyone agrees with you, because everyone in your news feed sounds just like you. And that once you're in that state, it turns out that you're easily manipulated, the same way you would be manipulated by a magician." Roger McNamee, Facebook Early Investor, Venture Capitalist.[29]

In essence, these filter bubbles curate our online content, influencing our world view, thus altering the authenticity of the flow of content that we are exposed to.

[27] W. R. Gould, 'Are you in a Social Media Bubble? Here's how to tell', *NBC News, New York*, 2019, https://www.nbcnews.com/better/lifestyle/problem-social-media-reinforcement-bubbles-what-you-can-do-about-ncna1063896#anchor-Wemanuallycurateourownbubble, (accessed 29 May 2021).

[28] K. Allred, 'The Causes and Effects of "Filter Bubbles" and how to Break Free', *Medium, New York*, 2018, https://medium.com/@10797952/the-causes-and-effects-of-filter-bubbles-and-how-to-break-free-df6c5cbf919f, (accessed 30 May 2021).

[29] *The Social Dilemma*, [online video], Netflix, 2020, <https://www.netflix.com/search?q=social%20network&jbv=81254224>, accessed July 26, 2021.

As Pariser puts is, "what the code knows about you constructs your media environment, and your media environment helps to shape your future preferences" (Pariser, 2011: 233). Through time, the Internet ultimately become "a perfect reflection of our interests and desires" (Pariser 2011: 12), which can lead to "information determinism, in which our past clickstreams entirely decide our future" (Pariser, 2011: 135).

Having said that, it is argued that preferences and choices should be kept separate. First, preferences are subjective comparative evaluations and are more accurately a state of mind, whereas choices are actions.[30]

Algorithm can directly observe what a person consciously chooses, but we can never directly conclude what a person prefers.

Challenging the notion of personalised filters, some algorithms use collaborative filtering when recommending content to individuals. This means taking the aggregate preferences of multiple individuals and suggests collectively gathered content into the feeds of individual users. Furthermore, it is suggested that an individual can have multiple preferences that lead to similar choices.

This filter bubble thesis also assumes a journalistic lens. For instance, social media sites primarily exist by some sort of social ideal of connecting people. The challenge emerges when social media is evaluated as a news site and its personalisation algorithms are considered as a type of editor. It is implausible to rely on our social media network friends as a balanced news distribution service, in which an algorithmic selection could exists. Even if an individual is completely insulated in a filter bubble that excluded challenging information, they could still consume information and news on other relevant media sites.

The metaphor of an enclosing online filter bubble, which is inescapable is powerful in its persuasiveness and simplicity. However, the metaphor could be misleading since it assumes the filter bubble as something singular as social media users have multiple competing preferences that can be in conflict with each other as well as overlapping social networks in various dimensions. It is important to emphasize that different social media users have different motivations and purpose for media use.

Ultimately, the choice remains in your hands – turn off preferences on your social media.

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[30] P. M. Dahlgren, 'A Critical Review of Filter Bubbles and a Comparison with Selective Exposure, *Sciendo,* Poland, 2021, https://www.sciendo.com/article/10.2478/nor-2021-0002, (accessed 4 July 2021).

> **What's in your filter bubble depends on who you are and it depends on what you do. But you don't decide what gets in. And more importantly, you don't actually see what gets edited out.**
>
> — Eli Pariser, Internet Activist

Defining Algorithms

Algorithm is defined as a set of steps to accomplish a task. In computer science, algorithm is a set of steps for a computer program to accomplish a task. Algorithms put the science in computer science. [31]

Every website aims for users to use their sites and stay on them for as long as possible.[32]

Information is suggested and filtered, based on what it thinks you will be interested in. This will also determine which advertisement pops up on our feeds, search results as well as the order of the displayed content.[32]

Algorithms are large, complex computer codes that decide how relevant information is to each individual.

"I like to say that algorithms are opinions embedded in code and that algorithms are not objective. Algorithms are optimized to some definition of success. So, you can imagine if a commercial enterprise builds an algorithm to their definition of success, it's a commercial interest. It's usually for profit." Cathay O'Neil, PhD, Data Scientist, Author of Weapons of Math Destruction.[29]

Social media algorithms are a way of sorting posts in a users' feed based on relevancy instead of publish time. Social networks prioritize which content a user sees in their feed first by the likelihood that they'll actually want to see it. This is especially relevant for social media users following hundreds or thousands of accounts on a network, hence, algorithm do the legwork of suggesting content that you want and filtering out content that's irrelevant or low quality.[33]

Hence, algorithms learn what the user's beliefs and interests are, in order to tailor the information to each individual user.

[31] What is an Algorithm and Why Should you Care?, [online video], *Khan Academy*, 28 July 2015, <https://www.khanacademy.org/computing/computer-science/algorithms/intro-to-algorithms/v/what-are-algorithms>, accessed July 5, 2021.

[32] K. Allred, 'The Causes and Effects of "Filter Bubbles" and how to Break Free', *Medium,* New York, 2018, https://medium.com/@10797952/the-causes-and-effects-of-filter-bubbles-and-how-to-break-free-df6c5cbf919f, (accessed 30 May 2021).

[29] *The Social Dilemma*, [online video], Netflix, 2020, *<https://www.netflix.com/search?q=social%20network&jbv=81254224>,* accessed July 26, 2021.

[33] B. Barnhart, 'Everything you need to know about Social Media Algorithms', *Sprout Social*, Illinois, 2021, https://sproutsocial.com/insights/social-media-algorithms/, (accessed 6 July 2021).

How Algorithms Affect the Psychology of Social Media Users

How do we make intelligent decisions through Algorithms? The decisions that we make when scrolling social media – are they based on AI or are they our own decisions?

Psychologists describe human behaviour in terms of nature and nurture. Nature being our genetic code and nurture being our environment.[34]

Linking this to algorithm, it has its own nature, which is the computer codes written by engineers – the logical part of algorithms. Algorithm also comprises of nurture, which are the data that algorithms learn from social media users. Increasingly, as the world evolves to machine learning, algorithm is learning how to respond based on the information it was being fed.

"Our attention is the product being sold to advertisers,"[29] Tim Kendall, Former Executive, Facebook, Former President, Pinterest and CEO, Moment.

"If you're not paying for the product, then you are the product,"[29] Tristan Harris, Former Design Ethicist, Google and Co-Founder, Center for Humane Technology.

Algorithmic decision-making is evident in our daily life – from books to read in Amazon and movies to watch on Netflix. These algorithmic recommendations are also prevalent on YouTube and our Google search results. For those who rarely cross page one of search results, algorithm has decided which pages we look at. Remarkably, algorithm also drives decision on who we date and eventually marry through dating platforms like Tinder, as algorithms create most of the matches.

In the medical world, it is moving towards personalised medicines. Patients with the same symptoms may not be receiving the same treatments, as algorithms are guiding the doctors with those decisions, based on the DNA profile of patients.

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[34] K. Hosanagar, 'Who Made that Decision: You or an Algorithm?', *University of Pennsylvania*, Philadelphia, 2019, https://knowledge.wharton.upenn.edu/article/algorithms-decision-making/, (accessed 7 July 2021).

[29] *The Social Dilemma*, [online video], Netflix, 2020,

Algorithm also has the potential to be independent in its approach, as seen in autonomous cars, operating without human involvement.

In the world of social media, algorithm suggests content and recommends friends to expand our social network.

Ultimately, the end goal is to entice social media users to stay on the platform for as long as they could. Therefore, the control of algorithm is essential to maintain the authenticity of the content recommended to social media users. Two years ago, users could not alert Facebook's algorithm, should there be a false news. Today, with just two clicks away, users could notify Facebook that a certain news post or content is either offensive or fake. That user-generated feedback and control is necessary for the algorithm to correct itself. The more feedback we give, the more authentically algorithmic content we will see on social media.[34]

With algorithms, does free will exists? Fundamentally, we make those decisions, based on the recommendations we see, but algorithms are nudging and influencing us in interesting ways. Use it actively, we are saving time and the flip side to that, is we become passive to what is being suggested to us.

"It's the gradual, slight, imperceptible change in your own behaviour and perception that is the product,"[29] Jaron Lanier, Founding Father of Virtual Reality and Computer Scientist.

Human beings are complex individuals and social media merely appeals to parts of who we truly are. Balick described social media as "a digital extension of the partial self."[35]

According to a 2017 article in Motherboard, our "likes" on Facebook reveals a lot about us. Researchers found that a mere 70 Facebook likes provide sufficient information to know as much about you as close friends and 300 likes to know you as well as your partner. These data were compared to "the big five personality traits", which includes characteristics such as how open, conscientious, agreeable, extroverted or neurotic you are.

Balick argued although how we present ourselves gives away a huge amount of information about us, one is merely sharing what we are prepared to, knowing that we are being watched. The digital traces that we leave behind does indeed reveals something about you – but only part of the story. The idea that we can be "known" by what we like on Facebook needs to be critically reappraised as algorithms and psychometrics won't be able to reveal the nature of someone's values, why they prefer one brand over the other and how it feels to be expecting.

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[34] K. Hosanagar, 'Who Made that Decision: You or an Algorithm?', *University of Pennsylvania*, Philadelphia, 2019, https://knowledge.wharton.upenn.edu/article/algorithms-decision-making/, (accessed 7 July 2021).

[29] *The Social Dilemma*, [online video], Netflix, 2020, *<https://www.netflix.com/search?q=social%20network&jbv=81254224>,* accessed July 26, 2021.

[35] A. Balick, 'How can Algorithm know us, when we hardly know ourselves?', *Science Focus*, Bristol, 2018, https://www.sciencefocus.com/the-human-body/how-can-algorithms-know-us-when-we-hardly-know-ourselves/, (accessed 25 July 2021).

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In many ways, algorithm influence the curation of content on our news feed, directing the thinking and psychology of social media users.

"

Authentic Algorithmic Decision on Social Media

A subset of algorithms is Machine Learning (ML). ML is a type of computer algorithm, which relies on a large amount of input data to make a future decision about a new data point. Essentially, it is a type of algorithm, where it 'learns' through data that was fed, and the more data it processes, it becomes more accurate at selecting the data points, which best match the data set it was fed. The only way ML can make decisions is through the data that was fed to it.[36]

For instance, when users shop online for a black bag, the ML algorithm will then suggest a variety of black bags for you to choose from. Unless you look for a silver or red bag, it will not be suggested to you.

On dating applications, ML algorithm attempts to 'match' you based on previous matches you have selected. Social media platforms, such as Facebook and Instagram, use ML algorithms to curate which sponsored content to show you.

"You're giving the computer the goal state. I want this outcome and the computer itself is learning how to do it. That's where the term "machine learning" comes from. And so, every day, it gets slightly better at picking the right posts in the right order so that you spend longer and longer on that product."[29] Jeff Seibert, Former Executive Twitter and Serial Tech Entrepreneur.

"The algorithm has a mind of its own, so even though a person writes it, it's written in a way that you kind of build the machine and then the machine changes itself."[29] Bailey Richardson, Early Team,

Psychologically, our mind is very much akin to ML algorithm. We feed our mind certain data, through the stories we tell ourselves, the experience we have, self-beliefs, the things we watch, read, scroll and the ideas we get from people we converse with.

When we feed our mind these data, our mind forms a belief system, which then picks up the next data point which is most similar to the belief system we have formed, based on the information that our mind has aggregated.

Relating it to ML algorithm on social media, essentially, we are making those authentic algorithmic decisions based on the input we provide and the emotional reactions that we attached to it.

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[36] A. Powers, 'Is Our Mind a Machine Learning Algorithm?', *Forbes*, New Jersey, 2017, https://www.forbes.com/sites/annapowers/2017/12/31/is-our-mind-a-machine-learning-algorithm/?sh=5eb8b12b73c1, (accessed 10 July 2021).

[29] *The Social Dilemma*, [online video], Netflix, 2020, *<https://www.netflix.com/search?q=social%20network&jbv=81254224>,* accessed July 26, 2021.

> **Therefore, if we make the initial authentic decision through our clicks, hence, the curated content on social media merely reflects the psychological thought process of our mind. Though influenced by algorithms, fundamentally it came from us.**

Deepfakes

Deepfakes, a portmanteau of 'deep learning' and 'fake', are ultrarealistic fake videos, created with artificial intelligence (AI) technology to mimic people doing things they have never done before, and usually without their consent.[37] The purpose of such curated content is to promote misinformation through manipulated audio or video contents.[38]

The videos, changes the pitch of their voice and also make individuals (usually public figures) appear to say things that they have never said at all. It looks very real and convincing.

Technically, it uses lots of images and videos as it learns how to correctly position the face based on the actor underneath and map it with the actual individual. It composed of two key parts. First, the actor where AI attempts to learn statistical information to generate the images. Second, critic to assess if those images are successful and improves itself to make better and better mappings.[38]

Similar technology can also create images and realistic-sounding audio.

As the AI technology behind the creation of deepfakes evolves, it will be even more challenging to discern fact from fiction.

"Fake news refers to false information published under the guise of being authentic news to mislead people, and deepfakes are a new, far more insidious form of fake news. In some countries, we are already witnessing how such deepfakes can be used to create non-consensual porn, incite fear and violence, and influence civic mistrust,"[37] said Assistant Professor Saifuddin, NTU's Wee Kim Wee School of Communication and Information.

While some tools exist, it's a constant battle between creation and detection of deep fakes. The algorithms that build deepfakes are easier to build than detect, based on the very nature of the Generative Adversarial Networks (GAN).

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[37] Nanyang Technological University, '1 in 3 who are aware of deepfakes say they have inadvertently shared them on social media', *Newswise*, Virginia, 2020, https://www.newswise.com/articles/1-in-3-who-are-aware-of-deepfakes-say-they-have-inadvertently-shared-them-on-social-media#!, (accessed 12 July 2021).

[38] A. Cohen, 'Deep Fakes and Social Media', *Digital Government*, Washington DC, 2021, https://digital.gov/event/2021/05/18/deep-fakes-and-social-media/, (accessed 12 July 2021).

"Once a preliminary fake has been produced, a method known as GANs, makes it more believable. The GANs process seeks to detect flaws in the forgery, leading to improvements addressing the flaws," said Paul Barrett, adjunct professor of law at New York University.[39]

"The danger of deepfakes is "the technology can be used to make people believe something is real when it is not,"[39] said Peter Singer, cybersecurity and defence-focused strategist and senior fellow at New America think tank.

John Villasenor, non-resident senior fellow of governance studies at the Center for Technology Innovation at Washington-based public policy organization, the Brookings Institution told CNBC the technology "can be used to undermine the reputation of a political candidate by making the candidate appear to say or do things that never actually occurred."[39]

"They are a powerful new tool for those who might want to (use) misinformation to influence an election," said Villasenor.

According to MIT technology report, a device that enables deepfakes can be "a perfect weapon for purveyors of fake news who want to influence everything from stock prices to elections."[39]

One may wonder how deepfakes video affect one psychologically when a deepfake video is perceptually indistinguishable from a real video. At the core of deepfakes is deception, which involves intentionally misleading another person. Some may not be particularly good at detecting such deception and my lead to them acquiring false beliefs.

The impact of deception through deepfake videos has the potential to be greater vs verbal deception as it involves a complete fabrication of verbal and nonverbal behaviours. Not only does deepfakes alters the authenticity of verbal content, but it also changes the visual properties of how the message is being conveyed, which includes the movement of a person's mouth and their behaviours.

Hence, such curated content on social media is potentially detrimental to the psyche of social media users. Under many circumstances, humans rely more on visual communication than other forms of sensory, a phenomenon known as the Colavita visual dominance effect.[40]

[39] G. Shao, 'What 'deepfakes' are and how they may be dangerous', *CNBC*, California, 2019, https://www.cnbc.com/2019/10/14/what-is-deepfake-and-how-it-might-be-dangerous.html, (accessed 13 July 2021).

[40] J. T. Hancock, J.N. Bailenson, 'The Social Impact of Deepfakes', *Liebertpub*, New York, 2021, https://www.liebertpub.com/doi/10.1089/cyber.2021.29208.jth, (accessed 14 July 2021).

In this Colavita experiment conducted in 1974, participants were asked to make speeded responses to a random series of auditory, visual and audiovisual stimuli. Participants have no challenge in responding to the audio and video targets separately, but when presented together, they are unable to respond to the auditory targets. It is as if the visual stimuli extinguish the audio stimuli.[40]

Therefore, social media users are more likely to recall and trust audiovisual messages over verbal messages because the content has a higher resemblance to the real world, leading to potentially harmful impact.

The power of audiovisual leads us to believe what we see in a video and as a result of that, videos become the "gold standard" of truth. With the augmentation of deepfakes video, the credibility of information that videos carry to viewers diminished. Even if it's genuine, it creates doubt among viewers. Hence, the implication for our shared understanding of the world and the role of media in constructing the world, may be critically compromised.

Exposure to deepfakes increased an individual's uncertainty about media in general. This sense of uncertainty reduces their trust in news.

Deepfakes videos also have the potential to alter our memories and implant false memories. Even more so, they change a person's attitudes toward the target of the deepfake, and consequently affect their decision making.

Deepfakes have deep interpersonal consequences.

A recent study demonstrated that exposure to deepfakes, depicting a political figure drastically altered a participant's attitude towards a politician. The study also revealed that microtargeting deepfakes to groups most likely to be offended, e.g., Christians, through social media's ability to target content to specific demographic groups, amplifies this effect.[40]

Deepfakes weaponize information in a way which leverage on the maximum advantage of social media ecosystem, that prizes traffic above all else. Like any other digital content, this digitally-altered content can be easily distributed via social media. With the right combination of planning, timing and luck, it could go viral and reach millions. Deepfake videos doesn't need to convince everyone who sees it, it just needs to undermine the targeted individual's credibility to make a difference.[41]

[40] J. T. Hancock, J.N. Bailenson, 'The Social Impact of Deepfakes', *Liebertpub*, New York, 2021, https://www.liebertpub.com/doi/10.1089/cyber.2021.29208.jth, (accessed 14 July 2021).

[41] J. Villasenor, 'Deepfakes, Social Media & the 2020 Election', *Brookings*, Washington DC, 2019, https://www.brookings.edu/blog/techtank/2019/06/03/deepfakes-social-media-and-the-2020-election/, (accessed 18 July 2021).

One of the most common early forms of deepfakes is the non-consensual acts that never occurred, typically by placing a person's face on another person's body. Given the influence such deepfakes can have on self-identity, the impact on a victim's life can be devastating.

A group of researchers concluded that confirmation bias, which is the tendency to frame and process new information to support our pre-existing beliefs, was a big factor in how people judged the veracity of the fake information. We tend to see what we want to be true – a desirability bias. This was postulated after showing over 3,000 adults fake images accompanied by fabricated text.[42]

According to Richards Heuer, in his book 'Psychology of Intelligence Analysis', there is a societal need to improve critical thinking by teaching tools and techniques to overcome cognitive biases. Educating people to pause and assess information before innocently sharing a shocking deep fake video will help to curb the spread of deepfakes.[42]

It is suggested the most effective strategy is to educate people with online media and digital image editing, elevating the digital media literacy.

In a research conducted by Niemanlab, with 3,476 participants, each research participant was presented with a randomly selected image mock-up on their desktop, comprise of six fake photos on diverse topics, created by 28 mock-up compositions. Participants were instructed to look at the image carefully and rate its credibility.[43]

The findings revealed that participants' judgements of how credible the images were didn't vary, despite the various contexts. A picture in a Facebook post that only four people had shared is as likely to be fake as when it appeared as part of an article on The New York Times website.

Instead, the key differentiators, which determined the authenticity and credibility of the images were their level of experience with the Internet and digital photography. In fact, an individual's existing beliefs and opinions has a huge impact on how they judged the authenticity of the images. This finding is aligned with studies showing confirmation bias, or rather the tendency for people to believe in the veracity of a piece of new information is authentic or fake, if it corresponds and affirms their existing views and beliefs.

It is one's biasness that enables deepfakes to flourish. Therefore, in understanding how to spot and address our cognitive bias within ourselves and in others, we stand a better probability to discern the authenticity of the content and mitigate the threats of deepfakes in social media.

[42] M. Rasser, 'Why Are Deepfakes so Effective', *Scientific American*, California, 2019, https://blogs.scientificamerican.com/observations/why-are-deepfakes-so-effective/, (accessed 17 July 2021).

[43] M. Kasra, 'Can you Spot a Fake Photo Online? Your level of Experience Online matters a lot more than Contextual Clues', *Niemanlab*, Massachusetts, 2019, https://www.niemanlab.org/2019/06/can-you-spot-a-fake-photo-online-your-level-of-experience-online-matters-a-lot-more-than-contextual-clues/, (accessed 19 July 2021).

> ## It is the human factor, our weaknesses in human psychology, and not the technical sophistication that make deepfakes so effective.
>
> Martijn Rasser, senior fellow in the Technology and National Security Program at the Center for a New American Security.

Happiness is when what you think what you say and what you do are in harmony.

- Mohandas Gandhi

Eudaimonic vs Hedonic Happiness

The Greek philosopher, Aristotle proposed the concept of eudaimonia in the 4th century BC in his essay Nicomachean Ethics. The term 'eudaimonia' is etymologically based in the Greek words eu (good) and daimon (spirit) – the notion that living in accordance with one's daimon, which means character and virtue, leads a good life.

In the Aristotelian view, we are driven to pursue our potential, to be the best versions of ourselves that we can be. Therefore, the eudaimonic life is to be had whenever we are in pursuit of fulfilling our unique potential.

Blending into the 20th century, the humanistic psychologist Abraham Maslow proposed a similar view to Aristotle, in which as our needs are fulfilled, the more we are able to self-actualise the unique potential within us. Essentially, self-actualisation is a process to become everything that one is capable of becoming.[44]

For Carl Rogers, the good life is a flowing, changing process. It is a direction, not a destination. It is a process that we continually engaged in, moving towards becoming the authors of our own lives. Through this, we become free to move in a direction that is most authentic to us.

Veronika Huta, psychologist at University of Ottawa, who pioneered research into eudaimonic psychology stressed that the difference between eudaimonic and hedonic life is reflected in an individual's orientation towards life – the whys of what they do.

The eudaimonically oriented person seeks for meaningful purpose in life.

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[44] S. Joseph, *Authentic – How to be Yourself and Why it Matters*, London, Little, Brown Book Group, 2016, pg 34-45.

An eudaimonic individual values personal growth, seeks new challenges, strives for excellence and sets goals for themselves that are intrinsically valuable to them and part of their identity. They engage in activities such as volunteering, donating money and time to the less fortunate and taking part in worthwhile charitable causes. They become deeply engaged in their work and leisure activities, which provide a sense of meaning and purpose. Their mindset is of gratitude and being mindful.

In contrast, a hedonically oriented person focuses on immediate pleasure, enjoyment, comfort or relaxation. They tend to enjoy parties, attending sporting events and concerts.

In a study conducted by Veronika Huta and Richard Ryan, whom randomly allocated participants into two groups. Those in the hedonic group were asked to add one more hedonic activity to their daily routine. These were activities like sleeping more, listening to music, watching TV and socialising more.[45]

On the other hand, the eudaimonic group were asked to add one more eudaimonic activity such as helping someone else, studying more, having meaningful conversation with someone and counting one's blessings. Over the next days, participants were carefully monitored. The research shows that those in the hedonic group produced better well-being at the end of the ten days, however, it was the eudaimonic group who demonstrated better results in well-being in three months' time. This shows that the benefits of eudaimonia seem to last longer.

Authenticity is at the heart of eudaimonia as it involves pursuing goals that are more intrinsically motivating to us and making the most of our talents and abilities. This leads to a deeper sense of meaning and purpose as we engage more deeply in our work.

The wider landscape of well-being includes having a deeper sense of meaning and purpose, mastery and control as well as opportunities to develop our strengths and pursue the best in ourselves – the eudaimonic orientation. Authenticity should be at the heart of the helping professions.

Indeed, the term eudaimonia means the "true self".

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[45] S. Joseph, *Authentic – How to be Yourself and Why it Matters*, London, Little, Brown Book Group, 2016, pg 102-118.

Authenticity is a dangerous idea. When an individual is authentic, they can be awkward, questioning status quo and reluctant to be pawns for someone else. Authentic individuals strive to have power over their own lives and so will always question those who assume power over them to justify it. The more authentic we become, the more we demand authenticity within our surrounding institutions, leaders and systems.

Recognizing what Viktor Frankl said, 'Happiness cannot be pursued: it must ensue. One must have a reason to be happy. Once the reason is found, however, one becomes happy automatically.' The great philosopher, John Stuart Mill also concurred that the only people who are truly happy are those who 'have their minds fixed on some object other than their own happiness; on the happiness of others, on the improvement of mankind, in fact, even on some art or pursuit, followed not as a means, but as itself an ideal end'. Therefore, the quest for authenticity should be at the heart of everything we do.[46]

With social media, users are pressured to present an enhanced image of themselves to the world as a digital image. At the surface, social media seems to be a platform to pursue hedonic happiness due to its consumer culture and technological architectures, which promotes instant gratification through numerical followers, likes, comments and views. The general "flexing" culture on social media may have let it come across as a hedonically-oriented platform.

Is it possible while we are in the pursuit of eudaimonic happiness, social media is a motivation and support through hedonic means? As social media users pursue their unique potential through creative expression and self-actualisation activities, such as raising funds or creating an awareness for a cause that they truly believe in, social media is a digital platform where we synthesize eudaimonic and hedonic happiness, accelerating the process of a good life.

Again, it is how an individual utilises social media that makes the key difference.

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[46] S. Joseph, *Authentic – How to be Yourself and Why it Matters*, London, Little, Brown Book Group, 2016, pg 217-223.

Broad Conclusions

One of life's greatest adventures is human interactions – getting to really know others and actively discovering our authentic self - the constant yet evolving individual.

The combined effect of algorithms and our ignorance is what creates filter bubbles and will continue to have a subtle, passive impact on the fabric of society. Or is ignorance true happiness.

In order for us to leverage on technology to make decisions that are for us and not against us, we need to engage more authentically and purposefully, and be an active part of this process of influencing the creation of these technologies as they develop for the advantage of mankind.

I recommend further research in the areas of deploying artificial intelligence (AI) on social media for the advantage of social media users and their mental health, rather than commercial benefits. Perhaps AI can be identified as the progressive tool to optimise the human mind i.e. human-centric AI.

If AI and machine learning can make relevant and accurate predictions about our economic patterns, why not predict our emotional patterns? If data can define who we are, can it define how we feel? Essentially, creating a eudaimonic-oriented AI, rather than a hedonic-oriented AI.

Ultimately, it still lands at us through the power of authentic choices. If you find yourself crossing that fine line of social media addiction, perhaps switch off all notifications. Even if you decide to switch on, let us all make a conscious decision to authentically curate our content for our own happiness, both online and offline.

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