

MettaVerses Literature Review

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Introduction

In an era characterized by the rapid evolution of digital technologies, the dynamics of human interaction and community formation are undergoing significant transformations. The advent of online spaces and social networks has altered the way people connect, yet it has also brought forth new challenges, such as increasing *atomization* of communities and the erosion of social cohesion and compassion (Chen 2021; Lynn 2020, Turkle 2011). This literature review is part of a project that aims to explore the feasibility of developing an online platform rooted in the Buddhist concept of "Metta" (loving kindness), which can facilitate the creation and growth of online and real-world communities that prioritize compassion, social cohesion, and interconnectedness. The proposed platform, MettaVerses, will support and encourage the growth of online and real world communities based on Loving-Kindness. MettaVerses is a direct response to online social isolation and the increasing lack of social cohesion due to the fragmentation and breaking up of online and real world environments into "silos". The platform will attempt to address this growing social and personal isolation and also respond to increasing atomization triggered by online engagement.

Social atomization in online environments refers to the fragmentation and isolation of individuals within digital spaces, leading to diminished social connections and a lack of cohesive communities. Turkle (2011) highlights that excessive online engagement can result in a 'tethered self', disconnecting individuals from face-to-face interactions. Wellman et al. (2001) discuss how online interactions can replace physical ones, contributing to weaker ties and reduced social support. This phenomenon can lead to echo chambers, where users interact only with like-minded individuals, as explored by Sunstein (2007), fostering a sense of isolation and hindering the formation of diverse and inclusive communities.

Alarmingly, atomization and the isolation it causes can lead to severe negative health outcomes. According to the US National Institute on Aging, the health risks of prolonged isolation are equivalent to smoking 15 cigarettes a day (Wigfield et al 2023). Social isolation and loneliness have even been

estimated to shorten a person's life span by as many as 15 years (Pomeroy 2019). People who are socially isolated or lonely (SI/L) are more likely to be admitted to nursing homes and the emergency room (Kroll 2022). According to the US Health Resources and Services Administration, people who are SI/L may get too little exercise and often do not sleep well, which can increase the risk of stroke (by 32%), heart disease (by 29%), mental health disorders (by 26%) and premature mortality (by 26%), as well as other serious conditions (Kroll 2022). It is quite clear that the isolation caused by the shift to online social environments and the atomisation this causes needs to be addressed.

A literature review of the published research articles and studies on the subject identifies three key problems in contemporary society caused by atomization due to participation in online social media platforms. These identified problems are:

1. the increasing narrowness, disconnection and isolation of communities and individuals due to the limitations of online spaces and social networks
2. the increasing lack of social cohesion, kindness and compassion in both online and real world environments
3. The negative physical and mental health effects of social atomisation exacerbated by social media

The identified problems are broken down further in the next two sections.

Atomization of Communities and Isolation

Online spaces, while providing convenient platforms for connection, often result in *atomization*, where individuals become isolated within echo chambers and narrow interest groups. Social atomization, a term coined by ancient Greek philosopher Democritus and Roman philosopher Lucretius, refers to the tendency for society to be made up of self-interested and largely self-sufficient individuals, operating as separate atoms (Chen 2021). This phenomenon has been increasingly observed in modern societies, with the rise of individualism and technology playing significant roles (Chen 2021; Chelstowski 2012).

This phenomenon hampers the creation of diverse and inclusive communities, leading to a lack of exposure to differing viewpoints and diminishing empathy and understanding. This atomization also increases "confirmation bias". Confirmation bias refers to the cognitive bias or tendency of individuals to seek, interpret, and remember information in a way that confirms their pre-existing beliefs, attitudes, or expectations. This bias often leads people to unconsciously ignore or dismiss information that contradicts their viewpoints while selectively focusing on information that aligns with what they already believe. Confirmation bias can reinforce existing opinions, hinder open-mindedness, and hinder the ability to critically evaluate different perspectives or evidence. It is a common cognitive

phenomenon that affects decision-making, reasoning, and the way people engage with information and the world around them. This kind of atomization of communities and individual isolation can lead to increasingly extreme views, radicalisation and even acts of violence.

What is Atomization?

Social atomization mainly refers to ‘the process of the change of social connection state in the process of unit institutional change’ (Tian 2019). The political scientist Andrew Heywood defined social atomism as a core feature of liberalism (2011) and Aaron Lynn (2020) was among the first to popularise the term ‘social atomization’ and define the causes and effects of social atomization in contemporary society (see the next section). Tian (2019) suggests that ‘it is mainly manifested in the weakening of the relationship between individuals, the alienation between individuals and the society’.

Heywood (2011) explains that this theory refers to ‘the tendency for society to be made up of a collection of self-interested and largely self-sufficient individuals, operating as separate atoms’. In other words, social atomization is the process by which extended families, thought of as molecules, give way to “nuclear” families, and then disintegrate further into sub-particles, their individuality gaining clarity as relationships disintegrate. It is also the tendency for society to be made up of a collection of self-interested and largely self-sufficient individuals, operating as separate atoms (Heywood 2011; Chen 2021; Chelstowski 2012).

The term “social atomization” refers to a state in which individuals within a society become isolated or detached from the larger community, deprived of meaningful connections that once bound them together. This phenomenon is not new; however, with modernization and technological advancement, its prevalence and consequences have become more pronounced.

Émile Durkheim, one of the pioneers of sociology, referred to a similar phenomenon as “anomie.” He posited that rapid societal changes, especially during times of economic upheaval, could lead to a breakdown of societal norms, leaving individuals feeling disconnected and without a sense of purpose. Durkheim wrote, “Where old traditions are disappearing and the horizon is unlimited, ambitions multiply, while innumerable roads open at every instant to the insatiable appetite for wealth” (Durkheim, 1897). For Durkheim, anomie was a state of normlessness, where individuals felt untethered from society.

Expanding on this concept in the 20th century, Robert Putnam's work "Bowling Alone" painted a vivid picture of the decline in social capital in the United States. Putnam observed, “Over the last three decades, membership records of such diverse organizations as the PTA, the Elks club, the League of Women Voters, the Red Cross, labor unions, and even bowling leagues show that participation in many

community activities is down by roughly 25 to 50 percent” (Putnam, 2000). This decline in group activities indicates an increasing sense of individualism and a retreat from collective community engagement (Chelstowski 2012).

Zygmunt Bauman (2007), a contemporary sociologist, further developed this theme in his work on “liquid modernity”. For Bauman, social atomization is a consequence of the fluidity and instability of modern life. In his words, ‘Individuals become simultaneously the promoters of commodities and the commodities they promote’ (Bauman, 2007). As a result, personal relationships, which were once stable and enduring, have become transient and easily replaceable.

There are several factors that contribute to the rise of social atomization. These are:

- **Technological Evolution:** Digital communication platforms might offer the illusion of connectivity but can also be responsible for fostering isolation. Sherry Turkle, in her work *Alone Together* (2011b), explores the paradox of being more connected yet feeling more alone. Elsewhere, Turkle notes, ‘Technology celebrates connectedness, but encourages retreat’ (Turkle, 2011).
- **Urbanization:** As societies shift from rural to urban settings, the close-knit ties once held in small communities can become strained (Lynn 2020).
- **Individualism:** Modern societies place a higher value on personal success and independence, which can reduce the emphasis on communal bonds (Chen 2021; Chelstowski 2012).

The Role of Individualism in Atomization

Deeply held concepts of individualism play a significant role in increasing social atomization (Chen 2021; Chelstowski 2012). Aaron Lynn (2020) writes that Individualism leads to atomization because:

Individualistic culture creates a sense of competition and performance demands. As a result, we end up focusing heavily on achievement and forget to connect with the people around us.

Given this, it is important to have a clear understanding of the tenets of Individualism. At the heart of many philosophical, political, and societal debates lies the concept of individualism. As a philosophical idea, Individualism emphasizes the moral worth and rights of the individual as opposed to the collective or state. It champions personal freedom, self-reliance, and independence. Throughout history, various thinkers have weighed in on the topic, resulting in a rich tapestry of perspectives on the role and value of the individual in society.

One of the most seminal figures in the discourse of individualism was John Locke, who emphasized the importance of individual rights, particularly life, liberty, and property. Locke posited that the state's primary role is to safeguard these rights. He wrote, ‘Every man [sic] has a property in his own

person. This nobody has a right to, but himself' (Locke 1689). This foundational belief in the sanctity of individual rights became a cornerstone for liberal democracies worldwide.

Another notable figure is Alexis de Tocqueville, who, in his work *Democracy in America* (1835), observed the rise of individualism in the United States. He defined it as 'a calm and considered feeling which disposes each citizen to isolate himself from the mass of his fellows and withdraw into the circle of family and friends' (Tocqueville, 1835). While recognizing its advantages, Tocqueville (1835) also warned of potential pitfalls, suggesting that unchecked individualism could lead to social fragmentation.

The ideas of self-reliance and personal independence were eloquently championed by Ralph Waldo Emerson in his essay, "Self-Reliance." Emerson argued that individuals should trust their intuition and not conform blindly to societal expectations. He proclaimed, 'Whoso would be a man must be a nonconformist' (Emerson 1841). For Emerson, individualism wasn't merely a political or societal stance, but also a spiritual and personal one.

While individualism has been celebrated for promoting freedoms, critics argue that it can also foster isolation, competition, and disregard for collective welfare. Karl Marx, for example, criticized the kind of individualism that arises from capitalism. He believed that it reinforced class structures and created a society where individuals are in constant competition, leading to alienation.

Ayn Rand, on the other hand, defended a radical form of individualism in her philosophy of Objectivism. She believed that one's own happiness and moral purpose should be the guiding principles of life. In her words, 'The individual must exist for his own sake, neither sacrificing himself to others nor sacrificing others to himself' (Rand 1964). For Rand, individualism was tied intimately to self-worth and the pursuit of personal happiness.

Modern discussions around individualism often revolve around its role in a globalized, interconnected capitalist world. With increasing connectivity, there's a tension between maintaining individual identities and navigating collective responsibilities.

Individualism, as a philosophical concept, has been both lauded for its emphasis on personal freedom and critiqued for its potential to prioritize the self over the collective. As societies continue to evolve, the balance between individual rights and collective responsibilities remains a pertinent debate. Unfortunately, a Capitalist informed notion of Individualism which reduces individual agency down to mere acts of consumerism and sees the individual only as a unit of production and consumption is currently dominant throughout the developed world. This model of individualism undermines notions of collective and the community, of acts of interpersonal kindness having value beyond monetary

measures, and encourages individuals to think primarily about themselves and those closely linked to themselves through family, work and political or religious persuasion.

What Are The Negative Effects Of Social Atomization?

The consequences of social atomization can be severe. Isolated individuals might experience increased rates of depression, anxiety, and other mental health challenges. Moreover, a fragmented society can lead to reduced social cohesion and trust, which can, in turn, weaken the foundations of democracy.

Addressing social atomization requires a multidimensional approach. Efforts could include promoting community-based activities, fostering inclusive public spaces, and leveraging technology to reinforce, rather than replace, genuine human connections.

There are many negative aspects of social atomization. The key aspects are:

- **Social isolation:** the feeling of being alone and disconnected from others, even when surrounded by people, which can seriously impact both physical and mental health (Wigfield et al 202; Chen 2021; Kroll 2022; Pomeroy 2019).
- **Social alienation:** the loss of a sense of belonging and identity, often caused by political, economic or cultural factors (Chen 2021; Redaelli 2019).
- **Social fragmentation:** the breakdown of social bonds and norms, leading to a loss of cohesion and solidarity (Chen 2021; Dizikes 2020).

The Contribution of Social Media to Atomization and Its Ill Effects

Social media can be a powerful tool for communication, information sharing, and social connection, but it can also have negative effects on individuals and society. Social atomization is the process of weakening or breaking the bonds between people, resulting in isolation, alienation, and loss of community (Chen 2021). Some scholars have argued that social media contributes to social atomization by reducing face-to-face interactions, creating echo chambers, and fostering narcissism (Dizikes 2020).

The advent of social media has revolutionized the way we communicate and interact. However, it has also contributed to social atomization. When individuals are socially atomized, they often turn to their phones as a major source of stimulation-(Chen 2021, Lynn 2020). This reliance on technology for social interaction can lead to poor communication skills and boundaries-(Chen 2021, Lynn 2020).

Social atomization can result in a state of individual loneliness, interpersonal disorganization, moral disintegration, social alienation, and public isolation (Chen 2021). It is a social crisis caused by the

disintegration or absence of one's most important mechanism of social connection—the intermediate group (Chen 2021).

Social media platforms allow users to connect with others virtually. However, this virtual connection often lacks the depth and intimacy found in face-to-face interactions. This can lead to feelings of isolation and loneliness despite being connected to hundreds or even thousands of people online (Lynn 2020).

Furthermore, the use of social media can lead to a focus on individual needs and concerns over public benefits (Chen 2021). As noted earlier, this focus on individualism can further contribute to social atomization (Chen 2021; Chelstowski 2012).

Some of the negative social and health impacts of social media include increased risk of depression, anxiety, low self-esteem, body image issues, stress, and poor physical health (Zsila & Reyes, 2023; Chen 2021; Boroon, et al 2021; Columbia University 2021). These impacts may be more pronounced for young people, who are more vulnerable to peer pressure, cyberbullying, and online harassment (Columbia University 2021).

Other studies have shown that social media can have negative effects on people's mental health, such as depression, anxiety, loneliness, self-harm, and suicidal thoughts (Zsila & Reyes, 2023; Chen 2021; Boroon, et al 2021; Columbia University 2021). Social media can also lead to cyberbullying, body image dissatisfaction, phubbing, and reduced self-esteem (Zsila & Reyes, 2023; Chen 2021; Boroon, et al 2021). Recent studies referenced by The Child Mind Institute and The National Center for Health Research suggest people who frequently use social media feel more depressed and less happy with life than those who spend more time on non-screen-related activities (Stabler 2021). Social media use has also been linked to biological and psychological indicators associated with poor physical health among college students (Gambini 2022). Another study showed that Instagram worsened body image issues for one in three teenage girls (Columbia University 2021).

An outline of research and scientific studies about the harmful effects of social media follows:

1. **Mental Health:** Excessive use of social media has been linked to an increased risk for depression, anxiety, loneliness, self-harm, and even suicidal thoughts (Robinson & Smith 2023). Higher social media use has been correlated with poorer mental health, including depression, anxiety, feelings of loneliness and isolation, lower self-esteem, and even suicidality (Robinson & Smith 2023; Hemendinger 2023; Boroon, Abedin & Erfani 2021).
2. **Physical Health:** There are also physical detriments associated with heavy social media use (Wigfield et al 2023; Robinson & Smith 2023; Boroon, et al 2021).

3. **Productivity:** Studies have found that excessive use of social media can negatively impact work or school productivity-(Robinson & Smith 2023).
4. **Security and Privacy Issues:** Users of social media networks face security and privacy issues (Boroony et al 2021).
5. **Body Image and Eating Disorders:** Research shows that social media, with its endless promotion of unrealistic standards of beauty, has had a negative impact on millions of young people, leading to body image issues and the development of eating disorders (Hemendinger 2023; Boroony et al 2021; Columbia University 2021).
6. **Negative Experiences:** A systematic review of research into the dark side of social media use has identified 46 harmful effects, ranging from physical and mental health problems to negative impacts on job and academic performance-(Boroony et al 2021).

Section Summary

While social media has brought about new levels of convenience and global connectivity, it has also inadvertently contributed to the rise of social atomization. It is crucial for individuals and societies to recognize this impact and find ways to foster genuine connections and community in the digital age.

In conclusion, while the relationship between social media and social atomization is complex, a multipronged approach that combines individual awareness, platform design changes, and societal initiatives can help mitigate the negative impacts. As social media continues to evolve, it's essential to ensure that these platforms, which hold immense potential for global connection, foster genuine bonds rather than exacerbate feelings of isolation.

Erosion of Social Cohesion and Kindness

The growth of online interactions has not necessarily translated into increased kindness and compassion. Instead, online environments can be rife with negativity, hostility, and polarization, which has repercussions in the real world. The diminishing social cohesion and compassion impact not only online interactions but can lead to significant negative outcomes. The erosion of social cohesion, which refers to the weakening of the bonds that hold a society or community together, can have profound negative impacts at both societal and personal levels. This phenomenon can contribute to a range of social, economic, and psychological problems that ultimately undermine the well-being and functioning of individuals and communities. The negative impacts associated with the erosion of social cohesion include both societal impacts and person impacts.

Societal Impacts:

- **Polarization and Conflict:** A lack of social cohesion can lead to increased polarization, where people become divided along ideological, political, or cultural lines. This polarization often results in heightened tension and conflict within societies, hindering constructive dialogue and collaboration (Bliuc, Ayoub & Kallam 2021; Esteban & Schneider 2008).
- **Diminished Trust:** Social cohesion is closely linked to trust within a society. When trust erodes, people are less likely to cooperate, engage in community activities, or have faith in institutions. This can hinder economic growth, hinder effective governance, and increase social unrest (Zhang, Zhang & Yang 2023).
- **Social Isolation:** Communities with low social cohesion may struggle to provide a sense of belonging and connectedness. This isolation can lead to feelings of loneliness, depression, and anxiety among individuals, negatively affecting mental health (Wigfield et al 2023; Chen 2021; Kroll 2022; Pomeroy 2019).
- **Reduced Civic Engagement:** A lack of social cohesion often results in decreased participation in civic activities, such as voting, volunteering, and community organizing. This weakens the overall social fabric and can lead to apathy towards societal issues (Chen 2021).
- **Inequitable Resource Distribution:** A cohesive society is more likely to ensure that resources, opportunities, and benefits are distributed fairly. In contrast, a fragmented society may lead to disparities in access to education, healthcare, and other essential services (Chen 2021).

Personal Impacts:

- **Loneliness and Isolation:** When social cohesion deteriorates, individuals may experience increased feelings of loneliness and isolation. This lack of social support can negatively impact mental and emotional well-being (Wigfield et al 2023; Hemendinger 2023; Boroan, et al 2021).
- **Reduced Sense of Belonging:** People thrive when they feel connected to a larger community. When social cohesion diminishes, individuals may struggle to find a sense of belonging, which can lead to a sense of alienation and detachment (Williams, Maguire, Morrissey 2020).
- **Decreased Psychological Well-being:** Humans are inherently social beings, and strong social connections are crucial for psychological well-being. A lack of social cohesion can contribute to stress, anxiety, and even depression (Wigfield et al 2023; Robinson & Smith 2023; Hemendinger 2023; Boroan, Abedin & Erfani 2021).
- **Weakened Social Capital:** Social cohesion contributes to the development of social capital, which encompasses networks of relationships, trust, and shared norms. Social capital is vital

for accessing resources, opportunities, and social support (Chen 2021; Williams, Maguire, Morrissey 2020).

- **Limited Opportunities for Personal Growth:** In cohesive communities, individuals are more likely to be exposed to diverse perspectives and experiences, fostering personal growth and learning. When social cohesion erodes, these opportunities may become limited (Williams, Maguire, Morrissey 2020).
- **Adverse Health Outcomes:** Research suggests that strong social ties are associated with better physical health. The erosion of social cohesion may lead to poorer health outcomes and a reduced ability to cope with stress (Wigfield et al 2023; Chen 2021; Kroll 2022; Pomeroy 2019).

Mitigating the Social Atomization Effects of Social Media

Addressing the erosion of social cohesion requires concerted efforts from individuals, communities and institutions. Fostering open communication, promoting inclusivity, and nurturing shared values can help rebuild social bonds and create healthier, more resilient societies. Social media, lauded for its power to connect individuals across the world, has also been implicated in the rise of social atomization – a feeling of isolation despite apparent connectivity. Ironically, platforms designed to enhance interpersonal connection have sometimes fostered feelings of loneliness, envy, and disconnection. However, recognizing these challenges, scholars have explored various strategies to mitigate the adverse effects of social media engagement.

Some possible ways for individuals to mitigate these effects are to limit the time spent on social media, follow accounts that inspire and uplift, seek professional help when struggling with mental health issues, and engage in offline activities that bring joy and connection-(Robinson & Smith 2023). Fostering genuine connections and community in the digital age can be a challenge, but it's certainly possible. Here are some further strategies based on the research:

1. **Awareness and Education:** One of the primary strategies revolves around building awareness about the negative effects of excessive social media use. A study by Primack et al. (2017) found that high social media use was significantly associated with increased feelings of social isolation among young adults. By educating users about such potential risks, they might be more inclined to moderate their use or engage more mindfully. Media literacy programs can equip individuals with skills to critically evaluate online interactions and discern genuine connections from superficial ones.
2. **Encouraging Real-life Socialization or Face-to-Face Connections:** Another mitigation strategy emphasizes balancing online interaction with real-life socialization. A study by the Pew

Research Center found that while social media doesn't necessarily cause isolation, it can exacerbate feelings of loneliness if it replaces face-to-face interactions (Hampton et al., 2011). Encouraging individuals to prioritize in-person interactions can help restore a sense of community and reduce feelings of atomization. Platforms can also be designed to facilitate real-world meetups, much like how some interest-based groups on platforms like Facebook organize offline events. Despite the digital age, face-to-face interactions are still powerful. Offline events, workshops, and meetups provide unique opportunities to connect with your audience on a personal level (Engaj Media 2023).

3. **Digital Detox:** Periodic disengagement or "digital detoxes" from social media can also help alleviate feelings of isolation. Studies suggest that intentional breaks from social media can lead to improved well-being. A study published in the Journal of Social and Clinical Psychology found that limiting the use of social media to 30 minutes a day resulted in significant reductions in loneliness and depression, especially for those who started with higher levels (Hunt et al., 2018).
4. **Partnerships and Alliances:** Collaborating with other organizations or individuals can help build a stronger community-(Engaj Media 2023). Consider local and regional community-building efforts as these can help foster a sense of belonging and connection (Engaj Media 2023).
5. **Authenticity:** To build a strong online community, businesses must be genuine, transparent, and value-driven. Authenticity builds trust, which is the foundation of any meaningful relationship (Engaj Media 2023).
6. **Meaningful Interactions:** It's not merely the use of social media, but how it's used that determines its impact on social connections. The trick lies in shifting from passive consumption to active, meaningful interactions. Burke and Kraut's (2016) research suggests that direct interactions on social media, like personal messages or comments, can enhance social support and well-being, while passive activities, like scrolling through feeds without interaction, might not have the same positive effects. Value every connection and create emotional relationships (Engaj Media 2023).
7. **Platform Design Changes:** Social media platforms can incorporate design changes that promote meaningful interactions and discourage passive consumption. This might include algorithms that prioritize content from close friends and family or features that highlight and encourage real-world activities or interactions. Features that offer users insights into their

usage patterns, reminiscent of screen time analytics, can further promote healthier engagement (Smith & Heger 2021).

8. **People-centric Digital Culture:** Leaders should work collaboratively to enable innovation and foster a people-centric digital culture (Smith & Heger 2021).

With all mitigation strategies it is important that the central goal is to use digital tools to enhance human connection, not replace it. It's about finding the balance between online and offline interactions and creating a people-centric digital culture.

People-Centric Digital Culture

A people-centric digital culture is an approach to digital transformation that places people at the center of its strategy. It emphasizes the importance of human interaction, collaboration, and innovation in the use of digital tools and data-powered insights-(World Economic Forum 2021; Waller 2020). Here are some key aspects of a people-centric digital culture:

- **Human-Centric Approach:** This approach asserts that people have the right to determine what happens to them. In the digital age, it can be argued that the data generated about us is deeply connected with our lived personhood (World Economic Forum 2021B).
- **Customer-Centricity:** Organizations with a strong digital culture use digital tools and data-powered insights to drive decisions and focus on customer needs-(World Economic Forum 2021; Waller 2020).
- **Innovation and Collaboration:** Strong digital cultures are created by leaders who work collaboratively to enable innovation (Smith & Heger 2021).
- **Organizational Practices:** Existing organizational culture often has to change to align with digital culture. This includes recognizing behaviors, mindsets, values, and practices that inhibit or promote its adoption-(World Economic Forum 2021).
- **Goal Setting:** A people-centric approach involves effective goal setting both internally and with customers-(Lind 2021).
- **Connect all the dots with technology:** Invest in intelligent, automated, and integrated technology systems that connect data into a single unified view and help your employees be more productive in their work (Solis 2021; Smith & Heger 2021).
- **Decide what's essential:** Prioritize the most important aspects of your digital culture (Solis 2021; Smith & Heger 2021).
- **Give every employee autonomy:** Empower your employees to make decisions and take ownership of their work-(Solis 2021).

- **Choose metrics with care:** Leaders can exert a powerful effect on behaviour by artfully choosing what to measure and what metrics they expect employees to use (Waller 2020).
- **Data-driven culture starts at the top:** Companies with strong data-driven cultures tend have top managers who set an expectation that decisions must be anchored in data-(Waller 2020).
- **Long-term Vision:** Try to keep a long-term vision for every connection. Value every connection and create emotional relationships (Solis 2021).

In essence, a people-centric digital culture is about leveraging technology to enhance human connection and collaboration, rather than replacing it. That being said, creating a people-centric digital culture is not just about using technology, but about leveraging it to enhance human connection, collaboration, and innovation. The proposed online platform (or community) of MettaVerses can go some way in creating a people-centric digital environment that addresses and hopefully reverses the negative social and personal effects of social media and atomization through the application of loving-kindness, or *metta*.

The Metta in *Mettaverses*

Metta is a Pali word that is often translated as "loving-kindness" in English. It refers to a benevolent and unconditional love or friendliness that one cultivates towards all living beings. In the Buddhist tradition, metta is one of the four "*Brahma Viharas*" (Divine Abodes) alongside compassion (*karuna*), empathetic joy (*mudita*), and equanimity (*upekkha*). These are considered to be ideal states of mind to cultivate on the path to enlightenment. Loving kindness is the alleviation of suffering through the act of giving. In *A Blueprint for Life*, Hsing Yun defines acts of loving kindness as 'selflessly serving and assisting with wisdom,' and 'giving charity without expecting anything in return' (2008: 73). Unconditional loving kindness is extending friendship to all, as we recognize the interconnectedness that we share with one another and the Earth (Salzberg 2011: 78).

Metta (Loving-kindness) refers to both a cognitive or emotional state and forms of meditation. In terms of emotion or attitude, it is an attitude of genuine goodwill and a heartfelt wish for the well-being of others, without expecting anything in return. It is free of any selfishness or partiality. As a meditation Practice, known as *Metta bhavana*, it is a form of meditation where one systematically cultivates loving-kindness, first toward oneself, and then towards others in expanding circles (e.g., loved ones, acquaintances, neutral persons, and even perceived adversaries). The ultimate goal of metta practice is to develop an unbounded and universal love, free of any conditions or limitations. It transcends differences, discriminations, and judgments.

Loving-kindness meditation has also been shown to have a variety of positive impacts on well-being. Certain forms of loving-kindness meditation are especially well-known for increasing positive

emotions (Zeng et al., 2015), but it also has been shown to increase feelings of social connection (Hutcherson, Seppala, & Gross, 2008), mindfulness, and self-compassion, and even reduce PTSD symptoms (Kearney et al., 2013). Overall, loving-kindness meditation appears to be good for well-being.

Loving-Kindness Meditation (LKM) focuses on developing feelings of goodwill, kindness, and warmth towards others (Salzberg, 1997). The positive outcomes of cultivating metta are multiple and include reducing anger, animosity, and hostility. It also fosters empathy, compassion, and a harmonious coexistence with others. This form of meditation foregrounds emotions or mental states that are fundamental for human beings (compassion, kindness, and empathy). Indeed, research shows that Loving-Kindness Meditation has benefits far beyond creating positive mental states, including providing relief from illness and improving emotional intelligence (Seppälä 2014).

In terms of general well-being, Loving Kindness Meditation has been shown to increase positive emotions and decrease negative emotions (Seppälä 2014). In a landmark study, Barbara Frederickson et al (Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008) found that practicing seven weeks of LKM increased love, joy, contentment, gratitude, pride, hope, interest, amusement, and awe. These positive emotions then produced increases in a wide range of personal resources; for example increased mindfulness, purpose in life, social support, and decreased illness symptoms, which, in turn, predicted increased life satisfaction and reduced depressive symptoms. A recent review of mindfulness-based interventions (MBIs) concludes that Loving-Kindness Meditation may be the most effective practice for increasing compassion (Boellinghaus, Jones & Hutton, 2012). Likewise, Klimecki, Leiberg, Lamm, and Singer (2013) found that Loving-Kindness Meditation training increased participants' empathic responses to the distress of others, but also increased positive affective experiences, even in response to witnessing others in distress. Yet another study, by Shahar et al (2014), found that Loving-Kindness Meditation was effective for self-critical individuals in reducing self-criticism and depressive symptoms, and improving self-compassion and positive emotions. These changes were maintained three months post-intervention.

LKM also increases "vagal tone" which increases positive emotions and feelings of social connection (Seppälä 2014). A study by Kok et al (2013) found that individuals in a Loving-

Kindness Meditation intervention, compared to a control group, had increases in positive emotions, an effect moderated by baseline vagal tone – a physiological marker of well-being. Furthermore, LKM has been shown to help with severe physical or mental ailments (Seppälä 2014). A recent study by Tonelli et al (2014) demonstrated the immediate effects of a brief Loving-Kindness Meditation intervention in reducing migraine pain and alleviating emotional tension associated with chronic migraines. LKM also decreases chronic pain. In a pilot study of patients with chronic low back pain who were randomized to Loving-Kindness Meditation or standard care, LKM was associated with greater decreases in pain, anger, and psychological distress than the control group (Carson et al., 2005).

A study by Kearney et al (2013) found that a 12-week Loving-Kindness Meditation course significantly reduced depression and PTSD symptoms among veterans diagnosed with PTSD. Another study showed that LKM decreases schizophrenia-spectrum disorders symptoms (Seppälä 2014). This study, by Johnson et al. (2011), examined the effects of Loving-Kindness Meditation with individuals with schizophrenia-spectrum disorders. Findings indicated that Loving-Kindness Meditation was associated with decreased negative symptoms and increased positive emotions and psychological recovery (Seppälä 2014).

A number of studies have shown that regularly practicing LKM activates and strengthens areas of the brain responsible for empathy and emotional intelligence (Hutcherson, Seppala & Gross 2014; Hoffmann, Grossman & Hinton 2011).

There are a wide range of other physiological benefits to Loving-Kindness Meditation. LKM increases grey matter volume in areas of the brain related to emotion regulation (Leung et al 2013; Lutz et al 2008; Lee et al 2012). LKM has an immediate relaxing effect as evidenced by increased respiratory sinus arrhythmia (RSA), an index of parasympathetic cardiac control (Law, 2011). Hoge et al (2013) found that women with experience in Loving-Kindness Meditation had relatively longer telomere length compared to age-matched controls, which suggests LKM slows aging.

Loving-Kindness Meditation also appears to enhance positive interpersonal attitudes as well as emotions (Seppälä 2014). For instance, Leiberg, Klimecki, and Singer (2011) conducted a study that examined the effects of Loving-Kindness Meditation on pro-social behaviour, and

found that compared to a control group, the Loving-Kindness Meditation group showed increased helping behaviour in a game context.

LKM also has a number of social benefits. It decreases bias towards others, as evidenced by a recent study (Kang, Gray & Dovidio, 2014) which found that compared to a closely matched active control condition, six weeks of Loving-Kindness Meditation training decreased implicit bias against minorities. Furthermore, LKM increases social connection (Seppälä 2014). A study by Kok et al (2013) found that those participants in Loving-Kindness Meditation interventions who report experiencing more positive emotions also reported more gains in the perception of social connection as well.

Loving-Kindness Meditation has been shown to be effective in immediate and small doses as well as having enduring effects (Seppälä 2014). Hutcherson, Seppala, and Gross (2008) found an effect of a small dose of Loving-Kindness Meditation (practiced in a single short session lasting less than 10 minutes). Compared with a closely matched control task, even just a few minutes of loving-kindness meditation increased feelings of social connection and positivity toward strangers. A study by Cohn et al (2011) found that 35% of participants of a Loving-Kindness Meditation intervention continued to meditate and experience enhanced positive emotions 15 months after the intervention. Positive emotions correlated positively with the number of minutes spent meditating daily.

Section Summary

To summarise this section, the positive outcomes of cultivating *metta* are multiple and include reducing anger, animosity, and hostility and fostering empathy, compassion, and a harmonious coexistence with others.

The MettaVerses Platform

As noted earlier, MettaVerses is conceived as an online platform rooted in the Buddhist concept of "Metta" (loving kindness), which can facilitate the creation and growth of online and real-world communities that prioritize compassion, social cohesion, and interconnectedness. The proposed platform will support and encourage the growth of online and real world communities based on Loving-Kindness. MettaVerses is a direct response to online social isolation and the increasing lack of social cohesion and their attendant negative effects discussed above that include a wide range of damaging social, personal and health impacts. Shi and Ewart (2023) describe the intention behind MettaVerses below:

When we, as human beings, break out of our individual cocoons and extend ourselves to assist others through *mettā*, we place ourselves in a position of sufficiency. As opposed to a position of lack, a position of sufficiency implies we understand that we have 'enough'. When we position ourselves this way, we are less likely to get caught in unwholesome mental states such as greed, hatred and delusion. This is because we no longer need to grasp to fulfil our sense of self and become 'whole'. *Mettā* is thus the solution to our internal crises that have caused the external problems we face today, such as environmental degradation and pandemics (p. 21).

Shi & Ewart (2023) argue that breaking the cycle of grasping through the generosity of *mettā* requires effort. Hence, a community of like-minded people with the same learning and practice goal can come together to encourage one another and develop strategies to break the self-centred habit together (Shi & Ewart 2023). Such communities practising *mettā* can be known as MettaVerses, a term first introduced at the 8th International Symposium on Humanistic Buddhism in November 2021. MettaVerses can be defines as:

.. the power of the gift of unconditional loving kindness is what will enable others to feel secure and the benefactor to confirm a position of sufficiency. The mindsets of security and sufficiency together can enable a practitioner to pause and exercise mindfulness, looking deeply into one's perception and cognition to recognize the emptiness and interconnectedness of all phenomena. This insight can then help practitioners to interrupt the cycle of greed, hatred, and ignorance. If compassion is the removing of suffering, then loving kindness is the path that enables compassion to remove the fundamental cause of suffering. MettāVerses are an engine to propel such action (Shi & Ewart 2023: p 21).

As a direct intervention to the social and personal atomisation and its attendant isolation exacerbated by social media, MettaVerses will be an alternative digital tool to promote kindness and connection

as a counterweight to the avalanche of negative effects of social media and dehumanising online spaces. At this point the form that MettaVerses will take is not yet determined and completely open, but we imagine that it will be:

- An app or website that helps us to measure our kindness index through speech, action and thoughts
- A tool for spreading kindness (through gifs, posters, images, and text) as digital blessings

The feasibility study, which will include a survey, will determine exactly what form MettaVerses will take.

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