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Abstract

Mentoring may be viewed as a relationship where an experienced and wise individual assists in the growth and development of another person (Hart, 2009). Today mentoring has taken many forms and is known to be associated with favorable behavioral, health-related, motivational, and career outcomes (Eby, et al. 2007). In present times of Covid 19 pandemic, there has been lot of unrest and anxiety among people of all age groups. Here mentoring, which has come to be recognized and accepted as an effective tool for positively influencing people (Eby and Dolan, 2015) may come to their rescue (Bordes and Arredondo, 2005).

Caring, supportive and healthy relationships have become crucial in current times. When the world is challenged by the greatest pandemic of the century, virtual mentoring and the use of artificial intelligence to make mentoring relationship more effective and productive, is being looked at seriously. Also, informal mentoring relationships which are considered to be more effective, can they be replaced by virtual mentors? The present study seeks to explore the possibility if conventional mentoring can still remain relevant in this current times of advanced technology and distress.

Keywords: Mentoring; Artificial Intelligence; Covid 19; Virtual mentors

Introduction to the Topic

The dictionary (Oxford) meaning of the word mentor is “An experienced and trusted adviser”. Mentor is also looked as someone who helps the mentee (protégé) in his or her journey of self-discovery and mastery by developing their skills, enhancing knowledge, and understanding oneself (Raina, 2002). The mentoring relationship may involve a variety of **socio-emotional** (e.g. friendship, counselling) and **career development** (e.g., role modelling, career guidance) functions that the mentor offers to the protégé (Kram, 1985; Scandura, 1992). With an open mind and willingness to learn and grow, mentoring can be a vehicle for personal development for both the mentee and the mentor.

Non routine interaction is at the heart of the human advantage over machines. Mentoring which is viewed as the most powerful and intense one-on-one developmental relationship (Wanberg et al., 2003), can be an important tool to manage the emotions in current times of distress. Mentoring is not just about career and promotion – it’s rather about developing one’s potential as a professional and as a human being (DeLong et al., 2009). As the world tries its best to navigate this pandemic, emotional support is vital and mentorship fits squarely within the domain of emotional stewardship (Tarr, 2020).

In current times of stress and anxiety amidst Covid 19, there are people across the globe who need counselling and mentoring, like never before. Today, where computer science programming is used to emulate human thought and action; the relevance and effectiveness of conventional mentoring needs to be relooked. During this unpredictable time, e-mentoring focuses on communicating using technology like face time, video chat, conference call and texting. Now, when people have learned and are learning alternative ways of doing things, will it be correct for us to assume that technology can also substitute the mentoring relationship between network of people? Also, informal mentoring relationships which are considered to be more effective, how can they be replaced AI induced or virtual mentors?

In the developed countries, mentoring is a familiar and renowned concept within the business and educational fields too. AI enabled systems are capable of learning, taking decisions and solving problems like any sane and logical person (Ghosh et al., 2018). Amidst and post Covid 19 world,

artificial intelligence (AI) as disruption to make mentoring relationship more effective and productive is being looked at seriously. Many platforms for virtual mentoring for students, employees and others in distress are considered to reduce the anxiety created by uncertain future. However, the effectiveness of these platforms where proximity is missing needs to be studied. Amidst sparse literature available on the use of technology for mentoring, the present study seeks to explore how feasible is it to replace this relationship with a mechanism where there is no or limited face to face interaction between the mentor and the protégé.

Review of previous Literature

Formal versus Informal Mentoring

While formal mentors are assigned and imposed by the institutes, informal mentoring relationships develop naturally and are maintained on a voluntary basis. Informal mentorships are not administered, structured, nor formally recognized. Traditionally, they are spontaneous relationships that occur devoid of external involvement from the organizations. Informal mentoring develops on the foundation of perceived capability and interpersonal comfort (Eby et al., 2007).

Previous research on mentoring (Chao, Walz & Gardner, 1992) suggest informal mentoring is more productive. To examine the role of informal mentoring in career success, a study was conducted by Okurame and Balogun (2005) in an African bank. Data were collected from 510 first-line bank managers through a survey of ten banks in four central business districts of Lagos State, Nigeria. Data was analysed using hierarchical regression analysis. Findings of this study revealed that informal mentoring accounts for a significant proportion of the variance in career success. On similar lines, Gupta (2017), in her study examined the relationship between (formal and informal) mentoring and job satisfaction among Indian bank employees. The findings suggested in case of formal mentoring the impact of mentoring functions (Career development, Social support and Role model) on Job satisfaction was not very significant. Contrary to this, in case of informal mentoring, there existed a strong association between the mentoring functions and Job satisfaction.

Contemporary Mentoring

The, the notion that a standardized mentoring system can solve ones problems is an illusion (DeLong et al., 2009). Today organization's realize that in mentoring relationships it's not one-size-fits all. Independent, achievement-driven personalities do not tolerate packaged mentorship; instead they look for more tangible, hands-on feedback from professionals who take a personal interest in their careers.

Developmental networks comprising of multiple mentors have substituted the traditional dyad mentoring relationships. Reverse mentoring and peer mentoring is being increasingly recognised and acknowledged as an important source of social support, learning, sincere guidance and collaborative work (De Castro et al., 2013; Santucci et al., 2008). In fact, in near future, the line distinguishing the roles of mentors and their protégés will be diminished, making it easy for both parties to switch roles fluidly, at interval (Morenikeji, 2017). Another contemporary form of mentoring is distance or **virtual mentoring** where technology and cognitive pairing of the mentor and protégé may increase the effectiveness of mentoring relationship (Miller, 2004).

Mental health and Mentoring

Mental health conditions (such as depression, anxiety, bipolar disorder, or schizophrenia) affect a person's thinking, feeling, mood or behaviour in a way that influences their ability to relate to others. It may also affect how one handles stress, relates to others, and make choices during an emergency. Today, when face to face interaction has been reduced or restricted, virtual mentoring may play an important role in acting as a barrier to anxiety and stress caused due to the fear of the unknown. As per data captured by YouGov Covid-19 tracker (Apr 15- Apr. 22), 49% of U. S. population showed signs of depression as against 37% under normal circumstances. Not only in America, this situation prevails across the globe, where many people are still trying to come in terms with their emotions

and feelings. In such trying times, staying connected even though virtually, may prove beneficial for both the mentor and the mentees.

Proximity and Closeness in Mentoring

Wanberg et al. (2003) view mentoring as a powerful one-on-one progressive relationship involving emotional involvement and close association. Closeness in mentoring relationships is seen to be associated with improvements in mentee development (Spencer, 2007). Studies conducted in this aspect, suggest that the success of mentoring interventions depends a great deal on the quality of relationship and closeness to the mentor (Rhodes et al., 2006).

Goldner and Mayseless (2009) conducted a study to find the relationship between the quality of mentoring relationships and mentoring success. The study was conducted in Israel and spanned over eight months. The sample consisted of 84 mentees ranging between the age of 8 to 13 years. The findings of their study suggest that closeness in the mentoring relationship serves as an important mechanism for protégé development. The study also provided cross-cultural evidence of relation between closeness in mentoring relationships and progress in mentees social and academic adjustment even during a short-term intervention.

The mentees' proximity to their primary mentors serve as an important factor in making the relationship last longer and being more effective (Higgins & Kram, 2001). Also, if the intensity of interaction between a mentor and a mentee is high, frequency does not play a vital role (Srivastava & Raj, 2014).

Empathy and Mentoring

Empathy may be defined as the capacity to understand or feel what another person might be experiencing. Studies assert that in order to achieve positive developmental outcomes of mentoring, empathy is required (Rhodes, 2002; Spencer, 2006). Wanberg et al. (2003) consider mutuality, trust, and empathy in the mentoring relationship as prerequisites to the mentee's social, emotional, cognitive, and identity development, which all contribute to positive outcomes. Other scholars like Mc Cann (2011), share similar thought and opine that empathetic stance is at core of a mentor's role. In-fact, in her recent article, Spencer (2018) also points out that empathy is a vital ingredient in the mentoring process. Without understanding the perspective of the mentee, the best of advice given by the mentor may also prove futile.

Emotional Intelligence and Mentoring

Emotional intelligence as a concept may be perceived as an ability of individuals to combine empathy, intelligence and emotions to enhance thought and good understanding of interpersonal dynamics (Mayer, 2008). Coleman (2008) further elaborates by breaking down emotional intelligence in to four distinct abilities - perceiving, using, understanding, and managing emotions. Emotional intelligence is known to create confidence, optimism and friendliness in people (Saarni, 2001).

With new realities of temporary unemployment, working from home, home-schooling of children and lack of physical proximity with family members, friends and colleagues, it is important that we look after not only our physical health but mental health as well (WHO guidelines for Covid 19).

Chun et al. (2010) in their study examined the role of mentors' and protégés' emotional intelligence in enhancing the formal mentoring process. The participants of the study were 147 working students pursuing master's degrees in business and education at a public university in the North-eastern United States. The study used a web-based survey to collect matched reports from mentors and their respective protégés. The findings of their study suggest that emotionally intelligent mentors and their mentees, who are able to understand, regulate, and positively use their own and others' emotions may help overcome apparent inconsistency in formal relationships. In-fact it may also help in developing trust as a foundation for effective mentoring relationships.

In case of informal or natural mentoring the emotional support is embedded in the individual's social network in form of parents, family and friends. Now, in formal mentoring where mentors provide their mentees with various mentoring functions, their emotional intelligence serves as an essential emotional vehicle that enhances their belief about efficacy of mentoring (Allen, 2003; Sosik & Lee, 2002). Hence, particularly in-case of formal mentoring relationships, emotional intelligence is seen to be significantly important, as these relationships involve intimacy, trust, care and concern.

Artificial Intelligence and Mentoring

The gamut of Artificial Intelligence encompasses personalisation, user profiling and the use of machine learning practices (Montebelo, 2018). It is an understood fact that AI systems can perform as intelligently as they are designed to do so. The ability to learn is arguably the most fascinating aspect of human general intelligence and AI induced applications/machines can only implement a function that its clever programmer designs for it to compute (Tegmark, 2017).

An artificial intelligent (AI) mind having access to several algorithmic systems and data has made it possible today that machines are capable of delivering personalized advises, guidance and mentoring to individuals. These intelligent machines are capable of data-symmetry of people whom we admire and from whom we long to learn (Morenikeji, 2017). Through its sophisticated abilities, it is expected that AI will be capable of advising people based on the knowledge of whoever they admire. Artificial Intelligence and the way it can impact our lives is still an on-going topic of research worldwide. There has been disagreement between scholars when asked as to when they think machines will be able to achieve atleast 50% of human –level intelligence. In a conference held in Puerto Rico, when the same question was asked, the answer given by average number of participants was by the year 2055 (Tegmark, 2017). However, there were some researchers who said it might take hundreds of years or more.

Till recently, there was an ideological block that mentoring relationships cannot be replaced by machines. However, as AI technology matures, AI-driven mentoring is no longer thought as futuristic. Many start-ups are creating applications to aid mentoring programme (Gale, 2018). Especially in current scenario of distress and anxiety amidst Covid 19 pandemic, many are resorting to virtual mentoring. Combining an individual's natural empathy and creative capacities with AI's data processing and computational power, today individuals' and machines are working side by side to achieve the inconceivable things in all walks of life. One of the greatest advantages of this technology is its ability to connect to mentors and protégés across multiple geographical locations (Ramirez, 2019).

In India, Digital assistants, biometric recognition, personalised advertisements and online recommendation engines are among the common AI applications used today. AI induced applications are known to simulate human intelligence. To encash the immense benefits of mentoring relationships (Eby, et al. 2007), of late apps and links such as Mentor link, Mentorloop, MentorcliQ, MentorCloud, eMentorConnect, Chronus and eMentorConnect have been created. These offerings facilitate mentor-mentee matching, goal-setting along with maintaining dashboards and reporting features to track engagement and progress of the interaction between the mentor and the protégé.

The latest entrant in this field is "Ellen", an advanced artificial-intelligence app from San Francisco-based NextPlay.ai. Viewed as the next breakthrough in HR technology and AI, Ellen uses AI to make immediate, internal mentor-mentee match recommendations. Unlike traditional mentoring programs where "visible leaders" made up the majority of potential mentors, one of the app's greatest benefits is its capability to connect "eager-to-grow" mentees to untapped mentors (Ramirez, 2019). The student community can encash on these benefits of AI induced technology to develop new mentoring relationships and enhance the existing ones.

However, again these AI backed mentoring apps can only aid or facilitate the mentoring process. *Proximity, empathy and emotional intelligence* which are corner stones of any mentoring relationship are found lacking in AI induced mentoring.

Discussion

From the available literature on mentoring, we understand that informal mentoring relationships which are formed spontaneously are found to be more effective (Gupta, 2017; Okurame & Balogun, 2005). *Proximity, empathy and emotional intelligence* between the mentor and mentee are the prerequisites for an effective mentoring relationship. When we talk about introducing e-mentoring or Artificial Intelligence to better reap the benefits of this relationship, it is still far-fetched thought that with the introduction of machine intelligence, human wisdom can be replaced and the factors of emotional intelligence are retained. During this time of heightened emotions, mentors can use technology to connect with mentees (through video chats, whats app call etc.). However, this at best can only serve as a substitute to understand and acknowledge emotions of mentees.

The mentoring applications (MentorcliQ, MentorCloud, Ellen etc.) are no doubt breakthrough in the field of mentoring and these AI backed apps have the potential to help those who are eager to learn, advance their career and are seeking specific support. However, in a conventional mentoring relationship, a mentor can closely relate to the struggles of a mentee and empathizes with them; providing scaffold for their holistic development. This by no means is the strength of AI aided mentoring and it is unlikely that one would feel close to machines the way one does with their mentors and coaches. An effective mentor, (be it in any organisation, service oriented industry or an academic institute) plays an irreplaceable role in understanding and connecting with their protégé as a person, providing socio-emotional support that no AI can do, nor it is expected to do anytime soon (Barney, 2018).

Career development (e.g. develop skills and knowledge, role modelling, career guidance) functions of mentoring may well be handled by AI. However, it would not be incorrect to assume that the socio- emotional aspects of friendship, trust, counselling may still be effectively tackled by mentors who are physically close to their mentees, are empathetic and emotionally intelligent. Also, AI may be barrier in mentoring since under many circumstances it may hinder the inclusion of the disabled, underprivileged and others who either do not have access to technology or do not know how to use it.

Scholars in the field of mentoring assert that formal mentoring programs should not be considered as a substitute for informal mentoring relationships rather they should be offered in conjunction with informal relationships (Gupta, 2017). When we talk about AI backed mentoring; the new offerings by some start-ups in the developed countries are known to facilitate the formal mentoring programmes initiated by organisations and institutes. This may be in terms of mentor- mentee matching, goal-setting, maintaining dashboards and tracking progress of the interaction between the mentor and the protégé. This is bound to create element of artificiality to the relationship by substituting face-to-face mentoring. From the available literature on this topic, there seems to be lack of clarity if virtual mentors will be able to replicate the empathy and emotional intelligence of human beings.

Just like a warm smile, a friendly pat, a dinner date with a friend can never be replaced by latest technologies (whatsapp chat, face time talks etc.) Similarly, technology will not be able to entirely substitute the impact and effectiveness of face to face interaction between the mentor and their protégé. Artificial intelligence should rather be viewed as something which aids formal mentoring rather than substituting it. The support may be in lines of building optimal mentoring structures, such as assigning and recording the duration of the mentoring period, suggesting mutual activities for mentors and their mentees and assessing the quality of mentoring. The AI backed mentoring structures may help in assessing and enhancing the quality of this relationship by alerting mentors on the importance of **closeness** in the mentoring relationship for prote'ge' development and assisting them to be develop empathy and emotional intelligence. Although, it is recommended for scholars and practitioners in any given setup, not to **entirely** rely on AI for designing mentoring programmes; in the current times of pandemic, when movement is restricted and face to face interaction has become limited, we still can take the help of this technology to connect virtually and have someone to share our feelings with.

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