Suicide Prevention and Social Media:

A framework for Young Australians using Community of Inquiry (CoI)

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Abstract

Suicide among young Australians is a serious public health problem which demands a fresh approach. The usage of social media to replace most other channels communication amongst the younger generation is an upward trend. However, the research nexus between social media and suicide prevention isn't well established. This paper is then motivated by this factor and attempts to conceptualise the role of social media in addressing suicide prevention. Key participants in the community and their interaction are also represented through the Community of Inquiry (CoI) framework which has three major components: Cognitive presence, Social Presence and Teaching presence. These components are used as the theoretical foundation for this paper. It is anticipated that CoI would extend existing knowledge on suicide prevention and this paper will be beneficial to researchers who work in mental health, social issues involving young Australians and their usage of social media.

Keywords:
Suicide Prevention, Social Media, Community of Inquiry (CoI) framework, Young Australians

INTRODUCTION

The growth of social media usage amongst the younger generation has been unprecedented. In support, a study by Burns et al. (2010) showed that the use of internet by young Australians rose considerably. This significant increase in usage has presented a new set of challenges in the field of suicide prevention (Robinson et al., 2014, Katz et al., 2014). Though social media usage has been linked to many useful and creative outcomes fears have been expressed with regards to deviant users and their effect on young minds. Cases of cyberbullying are rife within the social media space and the numbers of victims are alarming (Price and Dalgeish, 2010; Robinson, 2012). This is further exacerbated by the link cyberbullying has to suicide ideation (Schenk and Fremouw, 2012). Suicidal ideation or *'having thoughts of self-injurious behaviour variable suicidal intent'* is an early indicator of a future suicide attempt (death by suicide) (Luxton, June, and Kinn, 2011). Apart from cyberbullying, social media sites that glorify suicide have also been known to contribute to suicide ideation (Sisask and Varnik, 2012). It has been established that careless and inapt media reports about suicides can provoke suicidal copycat behaviour called the *'Werther effect'* (Luxton et al., 2011). However, if suicides are reported carefully in media, it could significantly facilitate the much needed awareness on the suicide prevention (the *'Papageno effect')*. That being said, the challenge of reporting suicide and suicide related information becomes much complicated with the advent of social media.

To address these issues the Australian government, has, through many initiatives created programs targeting the younger generation. It has been noted that young people develop a stigma in seeking formal help (Rickwood et al., 2007; Wilson and Deane, 2010; 2013 ReachOut Survey, 2014; Rodriguez et al., 2014) which further complicates the issue. Despite understanding the nature and gravity of the problem, there still lacks proper research and accepted approach to deal with suicide prevention despite the ever increasing use of social media by young Australian (Robinson et al., 2014). Using this as the motivation, our work builds on existing literature and employs the Community of Inquiry (CoI) framework to study the role of social media in suicide prevention. The CoI is deemed suitable for this research because this framework proposes a "wholesome" approach through the interaction of three elements such as the Cognitive presence, Social presence and Teaching presence. While Garrison et al., (2000) originally intended the concept of the CoI as a way to model the natural sciences, the concept has been adapted and applied in many different fields. Sinnappan and Zutshi (2011) linked the framework to social media usage where they have embraced social integration amongst users, crowd sourcing

and authoritative guidance. The adaptation of the framework exemplified how social media is a good fit. More discussion on the proposed framework for this paper is presented in the subsequent section. Rest of the paper is structured as follows:

Firstly, the paper presents discussion on suicidal ideation and reports on relevant statistics in the context of young Australian. Secondly, the role of communication media in suicide prevention is addressed. Thirdly, the paper draws on the downside of social media usage by young people. Role of social media is then discussed before presenting a conceptual framework. Finally, the paper is concluded with the conclusion and future research section at the end.

SUICIDAL IDEATION

Literature notes that both young men and women in Australia are at risk of suicide ideation; however the risk is skewed higher for men. Reports show nearly 1 in 10 young men have thought about taking their own life at some stage with 4% reportedly making plans while 2% attempted suicide (Burns et al., 2013). Death caused by suicide, other than motor vehicle accidents and violence, is one of the major killers of young men in Australia (Burns et al., 2013). According to Australian Bureau of Statistics, the highest rate of suicide reported over the last two decades was in the age group of 20-30 years old where 350 people committed suicide during 1997-1998 (Australian Bureau of Statistics, 2012). Research suggests that significant predictors of suicidal ideation include unemployment and 'moderate' to 'very high' psychological distress. Figure 1 below shows the number of suicides committed by men and women in Australia in year 2010. Men have been reported to be in higher numbers than females in all categories of age. LiFE (2007) reported that men have four times more tendency to commit suicide than females.
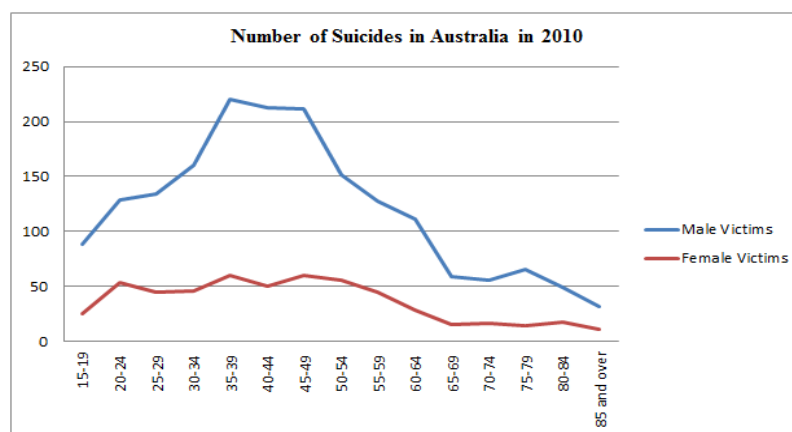

Figure 1: Suicide rates per 100,000 population across various age groups in 2010 (ABS, 2012)

Close to 80% of all suicides committed in Australia are by men (1,816 of 2,361 in year 2010) and it is the cause of death with the highest gender disparity (333 male deaths for every 100 female deaths (ABS)). Suicide is the number one killer of men who are less than 44 years. The highest death rate for males in year 2010 was observed in the aged between 35 to 49 years (approximately 27.5 per 100,000). Although suicides by younger men between the age 15 to 24 years age group occurs at a lower rate (13.4 per 100,000), it accounts for close to one quarter of all male deaths in this age bracket which is extremely worrying. Careful examination of suicidal cases in young people suggests continuous increase in suicidal ideation as a main cause of committed suicides. For instance, the young people between 16-18 years of age, the suicidal ideation is 13.2%, for 19-21 years old, the suicidal ideation is 14.8% and for people between 22-25 years of age, rate of suicidal ideation is 18.7%. Furthermore, an examination on the trends towards suicidal ideation in young Australians suggests anxiety and stressful lifestyle. It is estimated that around 15% of young people have 'high' to 'very high' psychological distress, while 28% have 'moderate' psychological distress. Similarly almost 50% of young people said coping with stress was their biggest issue (Burns et al., 2013).

Why young people especially between the ages of 16-25 years are more vulnerable toward psychological distress that may lead toward suicidal ideation? One of the reasons as reported by Australia's National Survey of Mental Health and Wellbeing confirmed lack of professional intervention. Reports show that while 23% of them reported experiencing a significant mental health problem in the last 12 months, 87% of them did not receive any professional help (Burns et al., 2013). Although the reasons for this are unclear and complex, there are a number of factors that may contribute toward suicide ideation, for instance:

- Young people are easily influenced by media, fictional movies and characters. Most of them (especially men) believe that they are strong enough to deal with any problem without any external help or assistance
- Young people's unwillingness to seek help is contributed partly by negative beliefs about the usefulness of therapy and therapists or having no experience of previous professional mental health care (Jarkon–Horlick and Morrissey, 1997)
- The higher level of suicidal ideation predicts lower intention to seek help from both formal (Rickwood et al., 2007; Wilson and Deane, 2010) and informal sources and higher intention to seek no help at all (Fergusson and Horwood, 2010)
- It is also reported that even when professional care is received, timely and evidence-based treatments are only encountered by a small proportion (Sanderson, Corry, and Lapsely, 2000)

COMMUNICATION TECHNOLOGIES AND SUICIDE PREVENTION

Over the last few years, the frequency of internet usage by young Australians has been increased significantly. According to (Burns et al., 2010) the use of internet by young people rose considerably from year 2008 to 2012, growing from 95% in previous national data sets to 99%. During this period, the rate of internet usage also increased from 2.0 to 3.4 hours per day. Similarly the proportion using the internet after 11:00 PM increased from 44%- 63% (Burns et al., 2010). An increase in this proportion would lead to overall weekly increase of 14 to 23.8 hours. This can be considered as a sizable part of young Australians weekly life.
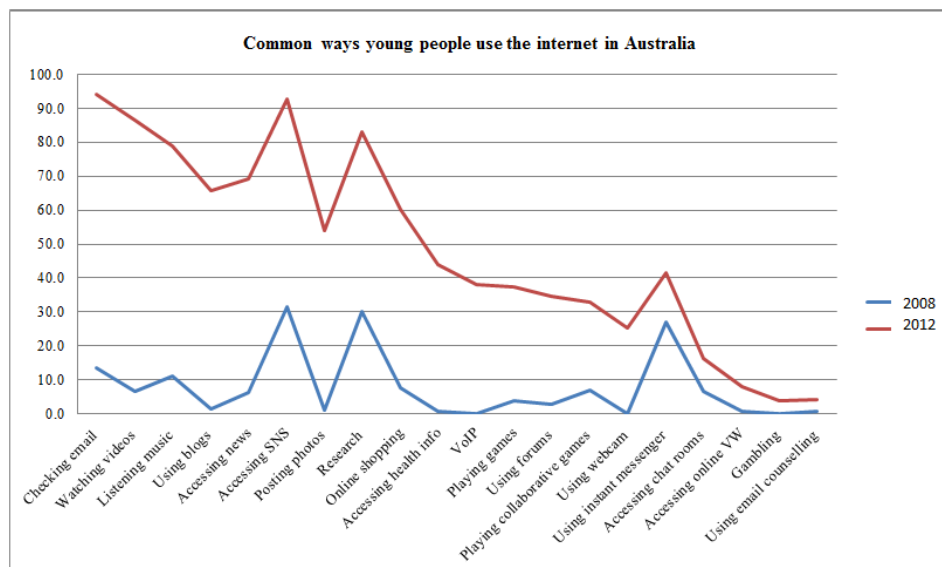

Figure 2: A comparison of daily internet usage among young Australians between 2008 and 2010.

Although there is significant increase in the use of the internet in various ways (as shown in Figure 2) the first Young and Well National Survey reluctantly suggests only a marginal increase (from 55% to 66%) for any physical health related usage as most would be inclined towards 'fun' related. Additionally, a slight decrease (from 45% – 43%) is observed in situations where internet is used to find information about mental health, alcohol or other substances use by young people (Burns et al., 2013). It is also observed that young people are more inclined toward using search engines to find information for mental health and alcohol as compared to accessing dedicated websites developed for this purpose. This may attribute to either ignorance of the existence of these types of websites, lack of effort or underestimating the detriment of poor health habits or failure by health authorities in marketing these services. In reality, internet technologies have the potential to increase the awareness and providing relevant information about suicide prevention (Luxton et al., 2011). Web-based outreach and prevention programs provide access to information any time of the day and are not limited to conventional business hours. These websites are described as anonymous, engaging and informative, while providing a space where young people can feel empowered and confident to share sensitive issues like psychological distress, alcohol consumption and suicidal ideation (Burns et al., 2010; Webb et al., 2008). Studies have shown that web-based programs are also known to offer more privacy and anonymity as compared to telephone helpline or seeking help in person (Luxton et al., 2011; Oh, Jorm, and Wright, 2008). One such program is offered via the website - Australian Suicide Prevention Foundation (*www.aspf.com.au*). It offers assistance and information for any individual who is experiencing significant distress without the requirement of

disclosing their personal identity. There are other similar programs offered by Sane Australia (*sane.org*), Suicide Prevention Australia (*suicidepreventionaust.org*) and Lifeline Australia (*lifeline.org.au*).

Apart from websites related to suicide prevention, email services have also been suggested as an effective way to contact the people at-risk (Luxton et al., 2011). There are some suicide prevention organizations such as Samaritans (*samaritans.org)* which currently uses email to contact and provide assistance to large a number of people. Samaritans provide a volunteer operated email service by which users receive personalized responses from counsellors within 12 hours of initiating a contact. Similarly, there are a number of other success stories arising from the usage of emails to reach people who are in need for information, help and support in dealing with distress. In the context of suicide prevention, email–based communications have been proven to be quite successful for people like military personnel and university students (Haas et al., 2008; Luxton et al., 2011).

Apart from email based outreach, another (a relatively 'traditional method') technology that is used for communication is *'text messaging'* or *'texting'* by using mobile phones. Texting is generally considered fast, economical and simple communication between users. Considering the easiness and the popularity of *'texting'* especially among young people, it is currently used as an important mode of communication for suicide prevention in United Kingdom and United States where organizations are using anonymous text messaging helpline programs for adolescents and school going students. In such cases, users can anonymously send text to report incidents and seek help during distress or crises (Luxton et al., 2011). Over the recent years, the proliferations of communication technologies have revolutionized the way communication has traditionally been conducted. With the emergence of smart phones and various hand–held mobile devices; digital means are now a cultural standard for communication. *Apps* (applications) designed for these devices such as Automatic Thought Record can be used to help users self-assess and monitor their psychiatric symptoms such as suicidal ideation. Similarly, there are number of other apps such as *'Hope Box'* or *'Survivor Kit'* that include multimedia pictures, letters, poetry, coping cards and prayer cards that acts as cues of pleasant events that communicate the *'life is worth living'*. The advancement seen in digital communication, technology uptake and usage of social media among general public allude that young Australians are (digitally) a well-connected community. Perhaps it could be claimed that young Australians are better connected and have assimilated themselves well with communication technology than any other age groups. This form of connection supports the idea of using social media as a platform for community support. In fact, numerous Information Systems (IS) literature linking theories such as Communities of Practice (CoP) and Community of Inquiry (CoI) concur and acknowledge this as strength of social media owing to the Web 2.0 culture.

YOUNG PEOPLE AND THE DOWN SIDE OF SOCIAL MEDIA

The emergence of social media applications such as social networking sites as mentioned previously has transfigured communication norms especially among young people. The presumed ubiquity and power of these applications allow their users to be in touch with anyone anytime, anywhere and to transmit range of cues such as text, audio, video, picture etc. For instance, on social networking sites such as Facebook, users create web–based personal profiles and link to their friends' profiles that allows users to communicate within personalized social networks by posting text, instant messages, emails, pictures, videos and links to other sites and resources (Luxton et al., 2011). Drawing from Burns et al. (2010), in year 2008, instant messaging (61%) was the most popular way of communication whereas social networking (59%) was the second and email (51%) was the third. However, in 2012, social networking sites were the most popular choice of communication (93%) for young people whereas email and using instant messages had dropped to mere 33% and 25% respectively. It was also interesting to note that young Australians continued to use the internet as a platform to discuss about their personal problems which was measured to be stable over the 5 years from 2008 to 2012. These statistics confirm a growing trend toward the use of social media by young people who embrace open online social culture as mentioned by Robinson (2012). Though there are many creative and useful benefits of social media, there are notable threats where vulnerable young minds can get entangled with. Viner (2005) noted that young people are incapable of estimating risks and often have poor decision making skills leading to negative consequences; cyberbullying as an example.

Funding and resources commitment by Australian government in initiatives such as BoysTown (2010) and the Young and Well Cooperative Research Centre (2014) apart from others has brought cyberbullying to the forefront as one of the main issues faced by young internet users in Australia. Though the prevalence of cyberbullying is hard to be established it has been reported as common occurrence by many (see BoysTown 2010, Robinson, 2012). For the purpose of this paper cyberbullying could be framed according to Vandebosch et al. (2007) and Pearce et al. (2011) which could be stated as *'bullying which occurs online over time through various devices and means of communication such as images, videos, texts and messages with ill intend'*. Though cyberbullying is not the same as offline bullying (i.e. physical) there are many similarities such as power differences, intent to cause harm, spreading rumours, derogatory comments apart from same reasons causing

someone to act. The differences, nowadays, are very marginal as often both are interrelated and the anonymity factor which helps the online perpetrators escape is often made apparent by their physical actions (JSCCS, 2011).

A study conducted for the National Centre for Telehealth and Technology on cyberbullying established a credible link to increased suicide rates. The study confirmed that while there are several consequences when it comes to internet use and increased suicide rates, cyberbullying contributed to increased suicide risks, particularly among teenagers. This situation is magnified by the availability of information on suicide. There are a lot of information on 'how to' methods for committing suicide. For instance, video sites, such as YouTube, are increasingly playing a role in providing uncontrolled access to pro-suicide and self-harm contents. The lack of governance over content in YouTube and other social media applications have been a real challenge to control and minimize the inappropriate information. Regardless to continues improvements in the privacy and security arrangements of these applications, threats to users' privacy and confidentiality is still far from perfection. Several studies have revealed how media reports tend to 'advertise' dramatic and highly lethal suicide methods (Lee at al., 2002) such as self-immolation, charcoal burning, shooting, jumping, railway and subway suicides. Media reports are also found not to represent official suicide data and tend to exaggerate sensational suicides in majority of cases. The vast majority of studies scrutinising media reporting on suicidal behaviour and actual events of suicidality (actual or suicidal ideation) show a strong link between both; further suggesting their association (Sisask and Varnik, 2012).

The statistics on cyberbullying are rather deplorable especially when young Australians are the victims. Price and Dalgeish (2010) conducted a survey with 548 young people and found that 49% of them experienced cyberbullying when aged between 10-12 years. 52% when aged 13-14 years and 29% when aged 15-16 years. There were number of young people who were cyberbullied at multiple ages while growing up, which explains why the total sum of percentages is greater than 100%. The results of the survey also reported that cyberbullying occurred on multiple avenues on the cyberspace including emails, online chat rooms, social networking sites and websites. For young Australians, the social networking sites are the more dominant form of cyberbullying for victims aged 13 years and above, increasing in prevalence from 41% in 13-14 years old to 53% among 15-16 years old and was highest (57%) among 17-18 years old. Bullying in general has proven to have strong adverse effects on young people. It is construed to be vile due to its ties with completed suicides and thus considered is one of the most important contributing factors in suicide ideation especially in young people. Though it is unlikely that experience with cyberbullying by itself leads to youth suicide, but it certainly has the tendency to embellish instability and hopelessness in the minds of young people who are already struggling with challenging times in their lives and vulnerable to take any extreme step (such as suicide) caused by the nerve-racking life circumstances (Hinduja and Patchin, 2010). However, it should also be acknowledged that most of the young victims who committed suicide after experiencing any sort of bullying had other emotional and social issues in their lives too. For instance, a young person was suffering from low self-esteem and depression and was on medication for depression when committed suicide (Hinduja and Patchin, 2010). Similarly, another victim attended special education classes in elementary school and struggled both socially and economically before taking a decision to end his life. These forms of compounded life issues together with bullying have proven to push young people to commit suicide (Dietrich, 2012; Hinduja and Patchin, 2010; Jarkon–Horlick and Morrissey, 1997). Understanding the complications involved in identifying cyberbullying have propelled most Australian schools to adapt a more responsible approach towards the use of computers within and outside school hours. The approach requires commitment from both parents and students with clear guidelines specifying consequences for unacceptable behaviours. This is similar to the policies adapted by schools in UK - Office for Standards in Education, Children's Services and Skills (OFSTED, 2010).

ROLE OF SOCIAL MEDIA IN SUICIDE PREVENTIONS

In general, social media includes a variety of applications which allow users to *'post'*, *'tag'*, *'digg'*, or *'blog'*, and so forth. The content generated by these applications include a variety of new and emerging sources of online information that are created, circulated, and consumed by users with the intent of educating each other about products, brands, services and issues (Xianga and Gretzelb, 2010). An advantage of using social media applications for suicide prevention and outreach is that they facilitate social connections among peers with similar experiences (Luxton et al., 2011). Collin et al. (2010) argue that '*strong sense of community and belonging fostered by social media has the potential to promote resilience, which helps young people to successfully adapt to change and stressful events'*. Social media applications have the potential to foster supportive interactions with others and create a community among those who are coping with similar challenges. Other notable advantages are their ability to update users on recent medical information including sources of help, provision of self-assessment and also the opportunity for real-time intervention (Robinson et al., 2014). Applications like Facebook have far reaching influence with its number of members amounting to more than the population of Europe. In Facebook, there are number of pages related to suicide prevention (such as '*Suicide*

Prevention Australia') that have formed communities containing thousands of members. Such online communities encourage their members to share their personal stories such as by uploading images of loved ones who have committed suicide and allowing others to share views on those pictures. Similarly, suicide survivors can also share their personal endeavours in combating distress and depression and their motivational stories on how they returned to life. Burns et al. (2013) presented an evidence based literature review of over 50 cases examining the use of social media by young people that showed significant benefits to their mental health by delivering educational outcomes; facilitating supportive relationships, identity formation and promoting a sense of belonging and self-esteem. This shows that social media applications are great in promoting social inclusion, access to material resources and freedom from discrimination and violence. Understanding the intricacies of the role played by social media in reaching out to the society might pave the way forward in adopting it as a strategic communication tool in addressing suicide prevention. To address this public health issue, a framework is proposed below which attempts to leverage social media for suicide prevention.

PROPOSED FRAMEWORK

It is apparent from the discussions above that social media is here to stay and it needs to be somehow leveraged to address this phenomenon. Thus it is imperative that all parties concerned are somehow brought to together to address this concerning public health. Here, we propose a framework that harnesses the open social collaboration aspect that aligns well with younger people. The framework, called the Community of Inquiry (CoI) model was first proposed by Garrison, Anderson and Archer (2000) and has been used extensively in education research. The CoI model as shown in Figure 3 proposes that learning occurs through the interaction of three elements, viz. cognitive presence, social presence and teaching presence. Cognitive presence refers to the extent to which the participants in the community are able to construct meaning through their rich communication. Social presence is the extent to which participants within CoI project their personal characteristics to the community. This goes beyond a simple notion of a sense of belonging that previous work had focused on (Garrison et al. 2009). The teaching presence refers to the dual functions of design and facilitation of educational experience. However, consequent studies have adapted the framework to be applied to various other domains. One such study, Sinnappan and Zutshi (2011), has successfully linked the framework to social media usage where they have embraced social integration amongst users, crowd sourcing and authoritative guidance. Though the research was focused on Twitter data alone the adaptation of the framework exemplified how social media is a good fit. Considering the issues we have at hand and the pressing need to include social media in the equation we adapt Garrison et al (2000) framework to represent suicide prevention via the interaction between three elements: Social presence, Cognitive presence and Guidance/Structure
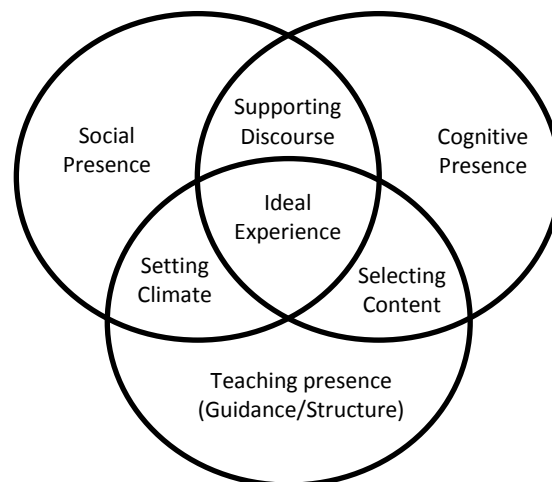

Figure 3: Garrison et al. (2000) COI model used for addressing suicide prevention

In principle, social media applications could be leveraged to enhance all three types of presence in addressing suicide prevention as presented below:

- **Social Presence** is characterized by young people's ability to participate in various online social environments. This allows them to assume an identity while developing valuable links with the community for socio-emotional support. Studies have shown that young people are known to practice open collaborative social interaction (Robinson, 2012). Social presence is particularly important as

young are immature in decision making (Viner, 2005) however they do need to establish a healthy online social life without adverse elements like cyberbullying which has strong relationship with suicide ideation (Schenk and Fremouw, 2012).

- **Cognitive Presence** is enhanced through social media's ability to crowd source various ideas and approaches to overcome suicide prevention. Though they are numerous studies and research in progress not all has been successful in reaching young people. Different social media applications as mentioned by Kaplan and Haenlein (2010) would require unique but concerted effort. This would facilitate vulnerable young people to build meaning through ongoing communication involving other individuals experiencing the same situation. This collective knowledge also helps social exploration of ideas to combat suicide prevention mainly in reducing suicide ideation (Eichenberg, 2008; Harris et al., 2009). This space can include external research organisations that are not affiliated with the Australian government such as the National Suicide Prevention Lifeline (*www.suicidepreventionlifeline.org)* or American Suicide Prevention Foundation (*www.aspf.org*).

- **Teaching Presence** represents guidance and structure provided by government, health department or people with authority given the mandate to curb suicide among young people. This involves the usage of social media to roll out properly structured programs for suicide prevention involving design, facilitation and monitoring of the activities with the aim to educate young people with the support of the legal framework. Programs such as BoysTown (2010), and Bullying.Noway (2014), and organisations such as the Orygen Youth Health (*oyh.org.au*), Australian Suicide Prevention Foundation (*www.aspf.com.au),* Sane Australia (*sane.org*), Suicide Prevention Australia (*suicidepreventionaust.org*), Beyond Blue (*www.beyondblue.org.au*) and Lifeline Australia (*lifeline.org.au*) would fall into this category.

The above gives us a base framework to work with various social media platforms and parties concerned. It is important to explore further into each overlapping sections between the three sections. Each overlapping section is important as it bridges at least two presence (or parties) and in the centre all three overlap. Following are the discussion describing each space:

- **Setting Discourse** is mainly characterised by young people reaching out to general public and non-governmental bodies about suicide prevention. Various social media applications play host to a range of forums run by qualified volunteers such as the International Suicide Prevention Wiki (*http://suicideprevention.wikia.com/wiki/Online*). Sites as this have discussion forums, live chats, videos, pictures and other interactive media allowing young people to share experiences and ideas from people around the world.

- **Selecting Content** could be described by government's action is identifying appropriate forums using the social media platform to encourage and allow public contribution. This would include joint programs with external bodies in addressing suicide prevention such as the Orygen Youth Health (OYH) which has connections to the public. The support it has garnered has made it popular and similar model has been emulated in other parts around the world including countries such as the UK, Canada, Switzerland, Norway, Denmark, The Netherlands, Hong Kong and Singapore (OYH, 2014).

- **Setting climate** exemplifies good government initiates in approaching young people on suicide prevention. This space represents attempt by government and health authorities to capitalise various social media applications to create appropriate spaces suitable for various groups of young people to participate. Programs such as Bullying.Noway (2014), Itsallright (2014) by Sane Australia, OYH Youth program (OYH, 2014) and Headspace (2014) are all good examples within this space.

- **Ideal Experience** represents best practice where all involved parties have successfully worked together using the social media platform in addressing suicide prevention. In the recent 2014 National Suicide Prevention Conference held in Perth, one such program stood out, ReachOut (*http://au.reachout.com/).* The ReachOut site have been exemplary with more than 1.3 million unique visitors each year which also highlights the major health challenge facing young Australians. A survey conducted on this program revealed that almost half (46%) of its visitors are more likely to seek additional help from other professional sources after visiting the service, reinforcing the critical and successful role ReachOut.com plays in reducing stigma (Robinson et al. 2014) and encouraging young people to seek further assistance (2013 ReachOut Survey, 2014).

Having categorised the three different presences it is then important to gauge the challenges that are presented by social media in addressing suicide prevention.

- The **Social Presence** space is huge and has no bounds, made up by various social media applications which include chat sites, 3D environments and more the popular applications such as Facebook, Twitter, Instagram, YouTube, MySpace and Pinterest. The increasing uptake of smart devices and

flexible platforms has in an unprecedented way reduced the barrier to interact and be part of the social scene. Though there are guidelines and policies it has been hard to enforce particularly as most of these social media applications based overseas which involves inter-jurisdictional legal issues (Katz et al., 2014). Monitoring all these sites is challenging where perpetrators can seamlessly move to other social applications and reoffend using other pseudonyms or assuming other alter egos. Other problems include, host site having poor resources or lack of accountability to curb deviant activities. Even when the host sites are responsible, some victims are so young and naïve that they are continuously bullied or discriminated over long periods of time without knowledge especially younger kids or new users (Robinson, 2012).

- Challenges within the **Cognitive Presence** revolve around the issues of responding in time, finding the right resource, getting the proper assistance and the right intervention. The fleet of social applications and available sites complicate the delicate subject of addressing suicide prevention. Studies such as Rodriguez et al. (2014) noted that there many community sites built by volunteers, students, unqualified individuals and others who have been through suicidal ideation. Though their intent could be genuine they lack in the required skills in addressing the problem and they are not affiliated to government or health organisation. Given the stigma shared by young people about formal therapy (Rickwood et al., 2007; Wilson and Deane, 2010; 2013 ReachOut Survey, 2014; Rodriguez et al., 2014), these sites, need to be perhaps audited to ensure there is some credibility to ensure that genuine cases are appropriately channelled to receive formal therapy. Other issues faced by young people with social sites come down to poor communication. Due to lack of funding most of these sites are keener to promote about what they do rather than to actually deliver the service in hope to get sponsorship and get more traffic (Robinson et al., 2014). Responsibilities should also be taken by major social media platforms to address this crisis given the number of users and gravity of the issue. Accordingly a study in 2012 by Womble (2012) showed that social media giants such as Tumblr, Facebook, Twitter, YouTube and MySpace have lately taken a keen interest in placing safety and reporting mechanisms which connect their services to police and other government bodies.

- Shortages of funding, lack of understanding about the social media and lack of resources have been the major issues compounding the **Teaching presence**. Not all programs are successful as ReachOut despite the government's effort in addressing suicide prevention. It has also been obvious that there isn't sufficient research established to date to be modelled as an accepted practice using social media to deliver interventions while addressing the ethical concerns. Though there are several studies which are on the way, findings are still in early stages (see OYR, 2014; Young and Well Cooperative Research Centre, 2014).

In conclusion, though there are many benefits in using the social media platform to address suicide prevention there are equally challenges that require more concerted effort from all parties involved. The proposed CoI model helps towards achieving this by distinguishing the different spaces occupied by the parties involved with the social media realm.

CONCLUSIONS AND FUTURE RESEARCH

This paper addresses an important public health issue that is growing concerning young Australians. Number of factors that contribute toward completed suicides and suicide ideation are discussed in this paper. The above presented discussion also highlights the critical role of communication media especially the social media in suicide prevention as it proved as preferred way of communication by the youngsters alongside their stigma in seeking formal therapy (Rickwood et al., 2007; Wilson and Deane, 2010; 2013 ReachOut Survey, 2014; Rodriguez et al., 2014). Authors have approached the crux of the matter with social media and the ever changing communication norms driven by society's increasing desire to be digitally connected. Although social media poses few challenges but to a large extent it has the potential to play a significant role in suicide prevention especially when used strategically by the parties involved in the relevant communication. In principle, the existing infrastructure and usage witnessed in major social sites like Facebook, Tumblr and Twitter supports this (Robinson et al. 2014). To operationalize the role of social media, a CoI based framework is presented in this paper bringing together all parties involved. The framework identifies, firstly, the space different parties have occupied within social media using the three different *presence*. Secondly, the authors have then presented examples of effective interaction by using the overlapping regions between the *presence*. Thirdly, the framework presented in the paper also highlights what benefits can be brought forward by such interaction. For instance, young people can interact with general public and non-government bodies to get help and information on suicide prevention – as referred as Setting Discourse. Similarly, government organizations can offer information and support to the general public by interacting on social media – as referred as Selecting Content. Government and health authorities can create suitable environment on social media where young people feel comfortable to get information and gain support on suicide prevention referred as *Setting Climate*. However, the ideal situation also

referred as *Ideal Experience* (in terms of providing support for suicide prevention) can be generated by maximizing the interaction between the three elements such as *Cognitive Presence, Social Presence and Teaching Presence* via the use of social media. Our work extends research done within the Australian context such as by Katz et al., (2014), Robinson et al., (2014), OHY (2014), ReachOut (2014) and various other government initiates that were presented in the earlier sections.

There are several limitations with the proposed framework. Mainly, the CoI framework has yet to be validated against any social media application thus the authors are cautious not to over justify its contribution. We also anticipate that this would form the immediate basis for future research apart further in depth literature review on existing social media sites offering assistance in suicide prevention. Another limitation is concerning the social media domain, though it has been regarded as the 'favourite' place for young Australians to turn to in times of adversity, much of social media has yet to be established to deliver any intervention. At best, for now, social media could be used as an aide to traditional treatment therefore the framework does not hold a hearty answer to suicide prevention. Given the theoretical nature of the paper and issues discussed we find that this paper will be beneficial to a wide range of researchers who work within mental health apart from social issues involving young Australians and their usage of social media.

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