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PREVENTIVE DIGITAL DIPLOMACY IN INTERNATIONAL RELATIONS IN FUTURE

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Abstract—Offsetting complexity of societal dialogue, netizen has dripped down mollifying social contract – which is also redefining new context in international relations (IR) indeed. With emergence of the Internet, especially web 2.0, convenient media structure has been reshaping to meet expectation of public and new dynamics of social relations are also gaining new vibes which sometimes turns into conflict or into misunderstanding in civil, diplomats and state level affecting IR. The objective of this research is to explore understanding of conflict actualized by the Internet which is vital to enhance new version with conflict resolution in technical aspect. This study is initially designed to explore in three wider prospective of civic, diplomat and state in IR, but it would obviously concentrate on IR employing the Internet of things (IoT) to drag out possible result. Traces of negotiation between relations and enticing power in digital conflict are distinct results of this study however further discussion is plotted social cost of digital conflict as consequence with necessary implications of new version of the Internet incorporating technical resolution as preventive conflict mechanism. This study had revealed those connecting elements of the Internet which mediates social relations towards digital conflicts and drew implications for upcoming third generation web.

Keywords—Cost of Conflict, Digital Conflict, International Relations, Machine Civilization, Web 2.0

I. INTRODUCTION

Calculation of economic cost of digital conflict seems though measurable to some extent, quantifying social cost of the conflict needs descriptive tools to amplify social cost of individual, society and state to clarity [2]. This paper is an extension, as future research, of “Freedom of Expression in Digital Diplomacy” – Banepali, 2015 as stated in figure 1 which is a linear model of the digital conflict with payoff of socio-economic cost during the conflict. This paper tried to explore socio-economic cost of digital conflict using descriptive methodology of core observation of conflict episodes and prevention mechanism. Hence; literature has digital conflict, ICT for peace and preventive mechanism; result was scrutinized with careful analysis of involving actors, their activities and linkages of conflicts; discussion was paraphrased with thesis and synthesis of result; and future research was designed with limitation of this study as work in future. And this paper contributes in preventive stages of digital conflict in national and IR in days ahead.
II. LITERATURE REVIEW

Netizen intensifying machine civilization in politics – With significant participation of more than 55 per cent adult in the United States get their news, information, and enter political dialogues using digital technology which was revealed in presidential election in United Sates in 2008 spending 2.1 million dollar. Data visualization, extensive social media expedition and democratic political exercise with web 2.0 merging convenient media technology like TV, Radio were prominent tools used in political mission in presidential election. Hyper reality with stereo type [1], like in the presidential election, has a changing role of the Internet in 3 ways in politics.

Figure 1: Framework of social cost in post conflict (Cited from future research of Banepali 2015)

They are 1. Changing the nature of competition, 2. Creating convenient information channel, and 3. Changing market relationships. And as a result, the contemporary technology is challenging contemporary structural of media like paper, and changing relation dynamics in social conversations. In the election campaign, social media like YouTube, MySpace, Blogs and websites were though extensively used, Web 2.0 is not nearly as powerful shown in statistical data. However, likely in previous year’s social media like are not only center points in teen age, youth but also most of adult people are also engaged in social media to get information. Results of intervention of social media are an eye-opener and herald of upcoming new dynamics not only in social conversation but also in political relations of diplomats and among states in days ahead [11]. Netizen, not only in political movement but also in social conversation and trust building, is clearly visible in activities of individuals, diplomats and states level with their own digital social identities. Social conversations with difference in interest mediated by the Internet constitute source of latent conflict altering position and preference of actors, give rise to new actors, thus waging social cost of the conflict [2 and 9].

A. Social Cost of Conflict

The internet, in a contrast of fuelling conflict and as preventive approach, affords a venue to bring diverse people like “digital diaspora” fostering shared identity, liberal values and an ability to frame issues, which contribute to prevent the conflict. With understanding of three stages of prevention, 1. Conflict prevention, 2. Escalation prevention and 3. Post-conflict prevention, socio-economic of post-conflict could be described in a wide landscape for cost of conflict in which conflicting actors could minimize their loss in those preventive stages of digital conflict in a way of deescalating, reintegrating and rebuilding the social relations with their social capital. Resources as information and norms including psychological process like values, mutuality, charity, altruism, and trust building are social capital in social relationship. Absence of social capital, if the Internet fails to bridge and bond social capital during facilitating the rapid exchange of information in social network, is a cause of conflict [3]. Brinkerhoff, 2006, has demonstrated saving of social cost – Identity and social capital – in digital conflict with extensive reference of dialogues in Somalinet.com forum based on web 2.0, especially, portraying the scene of individual security threats generated between digital diasporas.

In a contrast of digital conflict, modernists trust future digital peace, not only in nations but also in IR along with its rapid extensive expansion around the world. However, many scholars are not in dilemma with possible consequences from the conflict actualized by the Internet, but not likely similar consequences of nuclear technology, trusting the Internet as preventive measures of nuclear technology too. The Internet as an internal change-maker has morphed not only state-actors but also prevailing actors of IR into new forms in other hand fortified by information power [8]. Smart power, which balance hard power and soft power, as information technology, coined by Joseph Nye in 2003, has also morphed significant military structure into digital infrastructure over public computer network to protect its own information-related, which is likely military success, operations while attacking enemy [13 and 8]. In addition, along with digital conflict within military, Healey, 2011, has predicted five futures of cybernetic conflicts and cooperation connecting state actors of IR, and their action for prevention of the digital conflict in upcoming days. Imminent five broad categories – Status Quo, Conflict Domain, Balkanization, Paradise and Cybergeddon – are future digital conflicts in global geopolitical sphere [4].
B. Status Quo

Hyper reality and rising of new actors in cybernetic loop would create their own identity including government delivering public e-services in extensive cyberspace as much as today in which conflict and cooperation also seem likely today’s assuming cyberspace as secure place. However, prediction of expert cannot deny imminent of catastrophic attacks in underwent business of digital actors. Loss of digital social identity reflecting societal identity and loss of social values are major causes of a conflict [4].

C. Conflict Domain

As the world is in other “warfighting domain” of air, land, space and maritime, cyberspace rises as a conflicting domain but not only with malicious actions and actors. Traditional physical exercise of military operation for nation defence and cybernetic warfare become realistic. Likely, the operation would turn into mental workout with adequate intelligence in a capacity of cybernetic capabilities than ever combating anonymous or terrorists who operate mission for disruption and news headlines like stated by science fiction writer todays. Like; information existed before the information age. But, the information age changed the information realm’s characteristics so that widespread military operations with cybernetic capabilities became practical [4].

D. Balkanization

National interests – coexist with information weapon, crime, information terrorism – are enough determinants to defragment of the global Internet into internet grid of nations’. Strong national firewall cut off other nations and harmful content against their national interests, socio-political, and core mission of governance. Some nations have already demonstrated a prominent movement towards this direction. For example, Shanghai Cooperation Organization in 2008, comprising China, Russia and central Asian nations have tunnelled down to the Internet according to the concern of national security, spiritual and moral alongside with socio-cultural spheres of other States. Future conflicts in balkanization is barking necessity of international instruments for preventive conflict mechanism like the United Nations (UN) International Telecommunication Union (ITU) for a governance to govern global internet traffic. International instruments for governance of global internet might control over the internet through international inter-governmental organization like the UN in future to mediate prominent future disputes among multiparty stakeholders. Those current stakeholders are partial involvement of US government, individuals, corporations and non-profit groups [4].

E. Paradise

Advancement of preventive technology of cyber security nowadays and then would create sphere with absence of cybernetic conflict – is known as paradise – enriching capabilities of service providers clamping down denial of service attacks but not limiting future conflict of Status Quo, Conflict Domain and Balkanization in cyberspace since paradise would be constructed with acceleration of technology advancement rather than national interest, dynamics of socio-cultural and IR [4].

F. Cybergeddon

During digital supremacy of human being in future, Cybergeddon is one of the worst cyber context slashing trust among nations and international actors on the Internet for social, economic, national and international activities due to attacks by not only anonymous but also by organized crime groups or national militaries. Advancement of technology will fail to address imminent attacks in this stage losing the trust between actors – nations, non-government organizations – resulting few possibilities of cooperation to resolve the conflict. Lassitude behaviour making easy choices on the part of government and individual, though heed of many warnings of coming catastrophes in cyberspace, is putting in line of cybergeddon future. However, it is fortunately not likely [4].

III. METHODOLOGY

Socio-economic cost in digital conflict are dragged out from social media, political movement and prediction of latent future conflict in text where cooperation and preventive measures were also drawn in result with scrutiny of conflict and digital technology.

Especially, small narratives of actors from online news, like of killing of 14 Nepalese in Kabul, Afghanistan from 20 June 2016 to 24 June 2016 including Nepali and English sources, were closely scrutinized to find out relation of social media with the terrorist attack. As well as online posting of Gorkha army which is related to Taliban andiller of Gorkha army were also considered for finding linkages to the attack.

Modern context has been viewed with postmodern lens to construct future with present preventive measures and care of social and technological advancement so then micro narrative and small observations are included to represent big and complex picture of future and recent social cost in latent digital conflict.
IV. RESULT

G. Conflicting Parities in Intensified Machine Civilization

Latent future digital conflicts have fascinated new social relations among convenient social actors and upcoming new actors, constructed by digital technology, waging out socio-economic cost of digital conflict in intensified machine civilization. Series of conflicting actors from civil to state are clearly visible in those conflict likely nowadays whereas Balkanization is such future research with national interest which could play vital role in digital conflict in future resulting blocking the Internet. No sector is immune from increasing digital technology nowadays and its intensification is dramatically increasing shouting as an internal variable of IR.

H. Societal vs Civitas cost

Social capital bore by individual as societal cost and social capital governed by national law as civitas cost are future cost of digital conflict which would be magnified more in post conflict scenario. Status Quo and Conflict Domain would lead scenario to Balkanization when a state feels to compromise national interest and national security to prevent collective values, norms and law and order. Healey, 2011, has not shown any loss of social capital in “Paradise” whereas “Cybergeddon” was described as end of everything. Loss of social cost of individual in Status Quo is easily noticeable even nowadays as mentioned into SomaliaNet forum whereas action of some states for Balkanization to protect national interest and values is example of protecting conflicting civitas cost because such cost might be burden together with additional responsibilities and rights which is public entity.

I. Preventive measures and cost sequel of cost

There is no doubt of bearing social cost in latent future digital conflict and it consequences in different stages which might be preventive protecting future loss de-escalating conflict. Three conflict prevention stages – conflict prevention, Escalation preventive and Post-conflict prevention – are conflict management tools in which technological advancement like in “Heaven” [4] and necessary action of cooperation and intervention of legal instruments in national and international level to enforce and mediate digital conflict are required in predicted future digital conflict.

J. International Relations

International lawful instruments and cooperation are keys to prevent, mediate and resolve digital conflicts not only in individual or within a group but also in IR enticing stagnation of states in digital conflict turning into digital race and war. Not only technical enforcement and innovation in computer science, but also innovative cooperation international scenario is equally necessary for smooth transition of digital conflicts in future as mentioned in Balkanization and Cybergeddon. Magnitude of social cost of latent future digital conflict with its emerging actors in local and international scenario with preventing measures is mapped in figure 2 and digital technology is no more external variable of IR changing context of the affairs, like emerging new actors, digital warfare, and changing relations among state actors and non-state actors.

According to figure 2, latent future conflicts – Status Quo, Conflict Domain, and Balkanization driven by social constructors – are between “Paradise”, which is full covered by technological advancement, and Cybergeddon conflict, which is predicted as worsen case of cybernetic war. Social cost of digital conflict has been recorded into different stages of conflict which could be prevented by intervention of national or international cooperation and instruments depending upon magnitude of the digital conflict. Not only physical layer but also artificial actors would be powerful to wage the digital war in the future.

V. DISCUSSION

Dialectics and digital dialectics – Acquiring knowledge of anything is based on environment to come to full, scientific knowledge of reality with the characteristic and logical structure of everything in reality. Multiple realities of everything including the social and political world have a dialectical structure constituted by both contradiction and resolution of contradiction [5]. Nature of learning to acquire the knowledge from an environment is known as constructivism [6]. Hyper reality – like in web 2.0 – nowadays is reflection of multiple realities, is to say technological constructivism [1, 5]. Beside productivity in machine intensified environment in future, such hyper in technological innovation would also wage future conflicts in variety of areas – like social, political, national and IR – with social capital and economic cost as USD10-USD100 electronic crime figures of bank account credential and EUR36,5 million of U.K. online banking fraud [7].
Cost of Conflict – Like of Status Quo conflict highlighting life threats in SomaliaNet, few influences as in Status Quo also hit mind of Taliban to attack 14 Nepalese in Kabul, Afghanistan [10] though it does not seem clear and strong bond of event with social media. The world has perception of Gorkha as veterans in military skills and they are hallmarks of good soldier, peacemaker and change maker in conflict zone till the end with bravery, mesmerized by formal ambassador Chris Alexander in his reporting time in Afghanistan [12]. Those bravery stories like a story of Gorkha, who fought with 15 Taliban to defeat, are being highly tended in social media. Those victim Guards were though military in the past but they are now civilian and not equipped like then. Taliban targeted those Guards to defeat Status Quo of Gorkha in warfare around the world. In such a way the cost of Status Quo conflict paid with lives too.

Digital race, which nobody would stop, is new beginning of the world creating cyberspace as new domain of welfare and warfare. Since then, new actors waging variety of costs are absolute future elements. Social cost and civitas cost are also significant in IR because like in Conflict Domain and Balkanization possess civitas cost in future digital conflict.

VI. CONCLUSION

Postmodernism identifies future ways and latent context to address issues in present so that the scrutiny resolves to reduce loss correcting today’s activities to make better future. It seems sometimes negative to present but scrutiny with microscopic lens is vital to prevent conflict decreasing cost of conflict not only in post conflict but also in sequel of conflicts and save future for humanity. Such method travels to future and explore the context being within future. This study though seems more reluctant to creativity or results; it shows appropriate or alternate paths to creativity saving future accident of creativity and pushing towards sustainability of creativity in action.

Preventive measures could be broadly divided into two categories – technological advancement and cooperation between actors of digital race. Digital dialectics are in less effectiveness implementing those preventive measures in present. Like nowadays, most of the technical advancements are preventing technical and social conflict which might have significant verity of costs whereas technical advancements are not sufficient to prevent latent digital conflict. Intervention of national and
international instruments are significantly necessary according to scope of digital conflicts during conflict management. Implementation of preventive measures viewing latent digital conflict is peacebuilding in intensified machine civilization in future.

VII. FUTURE RESEARCH

This study is limited to explore to portrait possible resolution of future conflict to address those conflict with preventive measures in present examining arise of new actors and digital dialectics. Exploring relations of societal, nations and international is future research when an ontology of a digital object in relation with other digital objects in semantic web generates new knowledge using thesaurus, vocabularies or rule sets, which is beyond of this study.

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REFERENCES