

## FORMATION OF THE NEXT GENERATION OF SMART MOBS USING MOBILE NETWORKS

\*Hassan Aghaee<sup>1</sup>, Jalal Rezaeenour<sup>2</sup>, Roghayeh Najjari Alamuti<sup>3</sup>, Ali Nakhaee<sup>1</sup>, Saman Dehghanian<sup>1</sup>, Mohammad Jafarabad<sup>2</sup>

<sup>1</sup>Department of Computer engineering, Payame Noor University, Iran

<sup>2</sup>Department of Technology and Engineering, Qom University, Qom, Iran

<sup>3</sup>Department of Computer engineering, Darolfonoon University, Qazvin, Iran

\*Author for Correspondence

### ABSTRACT

People can cooperate in a large-scale with each other for making a Smart Mobs at a time and in a place mass for rule making their opposition which taken from the identities, interests and their needs. this is because of Capacity which is created by the communication technology. Nowadays, whit using of social networks, mobile phones and the Internet, a group of strangers or organizations can act in a group very fast and based on a predetermined scenario. They also eliminate the boundary between private and public by the Protests spread in public. This paper also describes the conditions which are created by these population and will be examined the effects of it in protests in the Philippines.

**Keywords:** Smart Mob, Social Networking, mobile communications

### INTRODUCTION

In the spring of 2000, Howard Ringwald, ICT analyst noticed a new phenomenon in Tokyo, People did not talk with their cell phones, but typing short messages. Ringwald found that a new type of social organization based on intelligence capabilities through mobile phones is emerging. He called this new social system, "Smart Mobs". Smart communities are composed of people who are able to participate in a coordinated move as a group, without get to know each other.

Organization of social networks helps users to provide useful work together. So, the idea of creating a social campaign has many benefits for Mobile social network users. The campaign can be limited to a specific geographic location. This can prevent of Flooding in mobile networks. With this grouping, you can design policies that, just members who are in region of Campaign or are interested in the topics, can receive contents.

Nearly, a decade after the definition of the Smart Mobs phenomenon. Exchange short text messages via mobile phones has led to the emergence of subcultures in Europe and Asia and to date, at least one government because of the clever use of the mobile network, has collapsed. Also Rituals, dating teens, political and corporate management styles have changed in unexpected ways.

### Infrastructure for smart mobs to create change in the community's future

Industrial Revolution in England in the mid-eighteenth century with the idea of using machines instead of man power, was created a huge transformation in human social life. Increase in social welfare due to this revolution occurred, also electrical equipment of factories and mass production took place in these years. With the arrival of personal computers and its changes over the next few decades and also high speed and portable computers, we got to fundamental changes in everyday life and technology. This development, separate from capacity, dramatically reduced costs

When the bodies of economic and technical aspects are combined with a social network, the result is an infrastructure that enables certain areas of human activities which doing these acts has never been possible before. People which make smart mobile devices, can connect to Information on other devices by mobile devices. Very cheap microprocessors began to penetrate in the car, at work, and even walls and

### **Review Article**

buildings so we can connect to the Internet or other networks very quickly. Also Hand held communication devices have changed to remote control.

Today's mobile devices over the past decade are not only smaller and lighter, even nowadays they have become the small internet multimedia terminals. Today's video conference calls through mobile phones third generation and fourth generation is possible and also "aware of the situation" in cell phones also been established. Communication devices will help people around the world to coordinate their activities with each other. Groups of people with using these tools will receive new forms of social power and new ways of organizing transactions within the scope of the entire world. To be applied based mobile communications and ubiquitous computing technology, it took nearly a decade. Some of the changes made by smart mobs are capable and useful and some of other features have deleterious targets.

A large number of small groups, using new equipment for their personal benefit, to do the actions which disrupt the lives of individuals or the dissolution of many business leads. Symmetric and paradoxical effects of smart mobs are more likely. People may gain new powers and at the same time, we will lose our previous freedoms. New public goods can be found, and other public goods may disappear.

### **Trust the smart mobs to fight tyranny**

Smart mobs are groups of people who can organize navigate Social, economic and political communication using electronic media .Technological convergence have the potential to open new prospects of cooperation for human affairs. But smart mobs, as they have been named, are not always helpful and can be as much as reinforce a sense of altruism, can also increase aggression and violence.

Former mutations in the power of technology and social networking, Has led to people be able to improve the lives and freedoms in some way and deteriorate in some other parts of life. This technology also has the potential to use as weapon for social control, on the other hand in can to be a tool for social resistance against governments. As a rule of social life, the beneficial effects can have side effects.

### **Transparency, threats and opportunities in Smart Mobs**

Social networks are platform of Smart Mobs. This technology has helped a lot of people who previously were not Social and cultural human, to be one of personal and high performance humans. In this section we will evaluate Levels of public confidence to these networks.

In the future, communities and communication practices and actions will be different. We may be able to know who in around of us like the things that we want to sell or who sell what we want to buy or know more about what we need today, also kind of political or social that we expect, can be notified to the government or company. Even the power to control our behavior and decisions can be increase to the level of the power of large institutions.

Recognize someone reliable to do a project team is crucial. In unison with each other, if a stigma or violence occurs, it can quickly accumulate power bat. Prestige is nuclear of collective actions. Validation of a system for controlling communication in social networks is essential. In small communities, all people know each other and everyone know about others person's life. However, the level of trust in these online communities is not apparent. The validation of the system by the collective views of the users is a Parameter to measure public confidence in the system.

Lack of privacy secured perhaps is the most hidden aspects and cons of collaborative systems technology. To engage with people we need to know them more and people will not work in the network without providing their confidence. Tools that enable collaboration are able to carry confidential information about each of us.

Sure, inexpensive devices in the coming years will be available in everywhere. Which they can be powerful spy with high efficiency. In addition, the government can monitor the behavior of a set of performance-minute on smart grid community. Both positive and negative power potential of traceability will be accurate traceability in the environment. Suppose terrorists and criminal organizations have this technology and they use it for malicious actions, naturally this will have negative consequences on the

### **Review Article**

place. Intrusion on privacy and freedom of the people by the government and hostile policies is another conceivable negative effect of increased participation in smart grid.

The human is moving rapidly towards the world that there will be the insertion possibility of spying devices inside any object that uses it. Disadvantage of technology, can be noted the emergence of the next generation of home appliances and buildings that could be converted to an inescapable network of surveillance cameras and hidden microphones that are directed by some agency, This equipment may simply be vulnerable against hackers and viruses. In the near future, we can imagine using sensors even in the home furnishings. Economic and scientific infrastructures, which have made a few decades and the social side effects, will begin eruption soon. The physical, social and virtual worlds are colliding, merging and balancing now.

Ringweld believes that our fate has not been determined by technology yet and the freedom and quality of our life, still have not been sacrificed by networks technology. Unlike Ringweld some other believes that the world will always be in a boundary and the technology never will go to the point that our lives be managed by rich corporations of technology manufacturer in the world. The most important factor is government regulation of social behaviors sets in intelligent networks. And this can be achieved if governments do not be corrupt.

It should be noted that technology has threats for society persons; the first issue that we place our affect is an awesome think. When we are connected to a computer or browsing the internet, we remain a trace of bytes, therefore we can be pursued. Unless we are strong enough in technical skills otherwise we cannot be able to remove our footsteps in the computer world. Is Private life threatened? When you are walking in the street our pictures can be taken. Wireless satellites are circulating above us and take pictures at any time. Our phone calls and emails are monitored. Every student in the class has a mobile phone, and most new models of them have digital cameras. When I am crossing near an accident on the road, I usually see some people who are taking quick pictures. These images might be sent to the world of the Internet through the air. A careful study about Smart populations will open our eyes to the ways that threaten life.

Technology has a great impact on all aspects of human life. Mobile phone with portability and handling as well as wireless communication has caused we can be able to connect to others in every second of a day. However, based on the information that is given to operators through tracking the location of mobile phone, privacy may be invaded. Terrorist attacks indicate that an intelligent society or a group organize face to face mobile operations are not necessarily sane or compassionate people. Sometimes the thought comes to mind that if only social networks have a power to come people with evil intentions together? It should be noted that any media, including electronic media or newspapers will have the power to develop Knowledge and democracy in the country or in the other direction will be caused wars and conflicts. We must be aware that a new literature, new communication channels and new ways of employing those literature and direction, also create new risks. On the other hand we should not forget that the same technologies and social practices create new opportunities too. Now we are familiar with the totality of threats and opportunities so discuss about the mobile device and its positive and negative effects on smart society.

### **Threats via cell phone in intelligent communications**

Each phone can be turned into a weapon in the hands of your enemy. Although a lot of articles have been released about the possible influence of personal information using smart phones, but it seems that these phones is too smart to do damage to their owners. Each intelligence agency in the world that has a group of IT experts and the necessary funds can control your cell phone when communicating with a telecommunications networks.

Intelligence agencies are able to remotely control mobile phones, even when phones are switched off. It's scary, but they are able to aware of all the mobile phone owner activities. They will know about His lifestyle and concerns of the mobile phone owner and what other phones are even close to him. They even know if the owner of the phone has been with someone other than his wife. So they can access all the information on mobile phones.

### **Review Article**

The data obtained from cell phones is used to track people and discover the relationships between them. Corrupt governments will have the power to prosecute owners of mobile phones movements by collecting their phone data and calls. Analysis of these data by using advanced computer can determine connections between persons. Much of this information is collected by detectors which have been placed on mobile phone networks. Therefore the mobile phone networks are able to record location data while people are moving.

### **Opportunities for development of the intelligent communication via cell phone**

If Internet services have attracted the public trust, make it possible that millions of people organize their actions and political movements through phone mobile. Human rights organizations seeking to uncover the intelligence information systems with the goal of maintaining privacy of individuals. Among these efforts can be pointed to "black phone" manufactured by companies Silent Circle of America and Geeks Phone of Spain to keep citizens safe. Manufacturers claim intelligence services and hackers cannot access any conversations that are made with this phone. It allows mobile users to communicate through images, text or voice calls on IP with encrypted manner networks.

Opportunities come in the form of smart users of smart phones will help people find a new path to achieve their demands. Opportunities come in the form of the users of smart phones and smart crowds will help people find a new path to achieve their demands. In this section we briefly review three of these opportunities.

1- Mobile phones which make it possible for children to come together, to exchange news and to share their personal experiences without physically meeting together. According to psychologists' studies when this phenomenon expands, many people also prefer virtual connections even to meeting. Larger are freer, especially for expressing feelings and sharing private details of their lives freely as text than talking face to face. Mobile communications can help people understand what is going on around them, even in critical situations.

2- Political protests March 13, 2004 in Madrid, Spain, Spanish citizens launched the spontaneous protests on the streets of Spanish cities. It was for this reason that the Government covered up on the perpetrators of the March 11 terrorist bombings. These protests revealed the power of political movements' synchronization through SMS messages to people. However political protests are complex enough that if people participate in it, can be successful. If a few people take part in, not only fail but will cause trouble.

3- Filipino group to takes down the corrupt politician in 2001, which we will review in the next section completely.

So if there is confidence and people come to the conclusion that they will not lose their private and public lives in the end, popular revolutions will emerge by smart population.

### **Intelligent population in Philippines**

The world's greatest anti-war protests that took place in 2003, Certainly shows the power of SMS messages to organize the large groups of people political activities. CNN website believes that in Asia and Europe SMS is a powerful tool for political activists. In January 2001, Joseph Estrada, Filipino President was the first powerful figure in the history who had Surrendered his authority to the intelligence community. The more important question is whether they actually have the communication power needed to achieve social, political and economic changes?

To answer this question, Continue to investigate the intelligence of the population was established in the Philippines and led to the ouster of President Estrada in 2001. The first time that the intelligence community was discussed, It was a case where the results of the theoretical concept of "public contrast" discussed as a way to test the strength of the communication power of Filipino Intelligence Community. In October 2000, news regarding the possibility of Estrada's involvement in financial abuse and illegal activities were revealed.

### **Review Article**

Following the news, Senate impeachment against Estrada. the president after being summoned to the court, and charges of bribery, corruption, betrayal of public trust, violence in the Constitution and embezzlement, he was found guilty. More than 40 people testified against him at trial and three of the observers of the trial were dismissed by Senator Santiago. During the trial, according to some, announced Estrada has kept a significant amount of his illegal assets in several bank by the pseudonym Joseph Vlard. And it was probably millions of dollars in these accounts exist, A team of legal prosecution to prove president corruption charges formed and the decision was made to review the bank's financial statements.

On January 15, 2001, When 11 senators voted against reopening and review suspicious bills.

The trial was collapsed. Many Filipinos believe that these 11 senators are bought by Estrada. As a result of this, the prosecution was prevented from continuing to investigate. And Senator Avrta (one of those eleven senators) Happily said Estrada success in the courtroom, in front of TV cameras. People were very angry. And political unrest to overthrow Estrada began on January 16. And on January 20 he relinquished the power, Text messages were a major factor in the success of the protests. messages Gatherers were protesters which use the text messages to mobilize ordinary citizens and people with the same idea with them to come together in the largest temple at the capital of the Philippines, called "Adsa" The number of text messages sent was very high. For example, one of the largest mobile operators "Smart Communications", has announced a 70 million text messages during the protests. Another operator "Global Telecommunications", said text messages sent over the second protests of the "Adsa" Probably more than 30 million people. At the conclusion, the overall number of text messages sent per day, at least 100 million were reported! As a result of this millions of text messages, hundreds of thousands of people in the "Adsa" for Estrada's resignation came together.

Another important subject is the story of Estrada news, good or bad, because access to the Internet, cell phones and text messages were transmitted faster than ever. The new and essential equipment has important role in spreading discontent and organizing huge masses of people in the shortest time (as much as the time it takes to push a button). Former Philippine President (Aquino) also acknowledged that: People Power in the protests "Adsa" to overthrow President, in the absence of new technology, especially text messaging and mobile communications, was not successful.

We can conclude that intelligent societies are able to organize large groups of people. The important question is whether "the communication power can make changes in the economic, political, social Issues, or not" Need to research and test. Using the concept of "public contrast" is a way of understanding the communicative power in intelligent communities, as exemplified in the Philippines. Ms. Fraser possibility that this concept is derived from a review of Habermas's theory- the public sphere - In which 4 argument bet for democracy is measured and evaluated.

The public sphere theory has a concept and image of the middle-class society. These assumptions are:

1. People in public places have equal rights , social equality and the right to have thought and inquiry.
2. public environment is Better consists of several phases of activity.
3. The deliberate and assess is about issues of public and private issues is not connected.
4. Between civil society and government should be separate.

When processing is done in the course of argument, the public pyramid rather than encouraged to participate and be involved, prohibits it.

Fraser( 1992)believes that, historically, to announce the deal, saying the problem is not the product of rational debate and discussion in the fields of spontaneous such as forums, private gatherings, activities, protests, demonstrations and community will be.

Millions of text messages sent during the protests in the Philippines, serious messages are included to call to the speed up the protests and declared the public to insist on the removal of Estrada.



### **Review Article**

These messages cause the formation to address the grievances expressed by impeachment trial and the exoneration of Estrada. The main that was declared is the issue of confronting the state of democracy in the Philippines. Many Filipinos believed that the collapse of the trial was a blast for the Democratic Republic of them.

Followed by strong feelings of the people to some senators were in court. While previous messages had a serious tone, Other messages clearly rougher nature (including political assassinations, respectively).

It has the potential to coping many of the people of the Philippines, because of the assassination of Senator Nino, Senator Bnjynv and Senator Avkvyyinv led to First protests in front of the Temple "Adsa". And created a new era in Flypyn politics.

Among the millions of messages are sent, there were messages funny commentary against Estrada and 11 Senator support him. Messages based on the success of former president released.

Objection against the multitude of people, especially when every single mobile phone is viewed as the general public, it can be argued that there is no monitoring and tight control over information.

This issue is particularly problematic for the government. In the case of the Philippines, some of the text messages were based on hearsay and baseless. Clearly, the effect of such messages.

If someone wants to disperse spread fear among the people, it is enough to send a message and it's intimidating for a friend to send it to anyone who wants to know.

The government has no way to stop the flow of messages spreading dangerous rumors, but mobile operators can cooperate with governments. Permeability refers to the boundaries of public coping and stated that the words "public" and "private" are not stable. "Content and content categories of the public and the environment before they respond. Words such as "public" and "private" are incorporated in the social dialogue And even affected essential conditions, selectively, from any state are conceptual. »(2007 Asen & Brouwer). ”

Clearly, in these circumstances, and on many levels, words, and public and private behaviors are merged. Millions of personal message were discussed and explored general dimintion from the public and private life. Personal messages were invitation for many public protests. Cell Phones were private device from the general public who created public from private phone. When disagreement are being Spreading, every single text message to any mobile phone can be considered as the general public. When disagreement are being Spreading, every single text message to any mobile phone can be considered as the general public.

As each person's strength and ability to write, send and re-send messages objection, it is very important And significant. The media's role as gatekeeper for the evaluation will be reduced. Anyone can publish information via text messages and in some cases, This information can be invited to the gathering. The topic of intelligent communities of Filipinos, millions of messages will result in the realization of these goals and awareness of the protests, was raised. Alternative identities for characters such Estrada and 11 infamous senators were made. Specifically, presentation was performed at a time of national crisis.

while establishing a national border fence - state, it will find their citizens increasingly in pressure, so that citizen groups will form. As the amount of citizens' cooperating to increase in number and effectiveness, the state's legitimacy and law are becoming increasingly blurred" . (2007 Asen & Brouwer) this was a unique fact of the Filipino community. While government efforts to impeach President entirely by 11 Senators did not get any result, millions of people gathered message individually, resulting in the formation of several protests "Adsa" which eventually resulted in the selection of another president. These incidents occurred only as a result of Estrada decline to resign under pressure from the Supreme Court. "After a wide examination on constitution, the judges find a sentence that would allow the evacuation order issued by the office of the presidency due to the poor quality."( Spillius, 2001) While text messages protests on "adsa" led the Cardinal Gamie sin Fidel Ramos and former President Estrada has played a prominent role in the overthrow and led to an increase in government responsibility.

As the subject was described in intelligent communities of Filipinos, the deal was made public by technology and communication technology can be said of ordinary citizens in different ways to empower civil society. People can collaborate by creating the capacity to their large-scale cooperations and

### **Review Article**

enrolment the oppositions, which is derived from the identities, interests, and their needs, their issues (the issues discussed in the media norm of society is not discussed), are expressed. They also diminish the boundary between "public" and "private" published by the public outcry. By means of Unity, it can exert the pressure on government and the owners imposed the rudder and make them more responsible to the people.

Extension of successful performance in social networks, is not necessarily good news for the government. Following the events of smart communities led to the deportation of Filipino Estrada, government regulators are attempting to find ways to control the communicative power of the text messages. In the absence of obstruction to the flow of offensive text messages, the Philippine government adopted a procedure during which the middle transgressive operator companies is required to report such messages to the authorities. When the report was presented, the judicial process can be result in a ban instruction to disable SIM mobile phone of transgressive agent.

The Philippines passed a law according to which the mobile subscriber is and will not allowed to publish any offensive context, rumor and whatever breaks public order. "These laws are enacted in purpose of making short messages writing to be valid and legal action. That people are thrilled that they can publish anything they want through SMS. However, this will not always lead to the evolution in science and industry, and certainly within the laws needs to be aware that people may be punished up to this message to send. Freedom of expression is not absolute and it is illegal to send obscene messages. " Obviously, if the law is applied on text messages written by Filipino intelligent communities, many of them will definitively outlawed because it was disrespectful and disruptive rumors and causing public order be torn apart., In 2008, two largest mobile phone operator, Globe Telecommunications and Smart Communications, soon expressed their opposition to this legislation. They assert that infringement of free speech restrictions on text messages has already been guaranteed by the constitution. In addition, they noted that the review of all text messages due to a mass of daily messages, is very difficult. While movements to regulate and limit the abilities of intelligent communities of Filipinos took place in text messages, they still are able to provide several forms of power relationships.

### **CONCLUSION**

Over the next decade, the main centers of population will be saturated with trillions of microchips. Some of these devices are phones, and some will be super computers with high processing power. Some devices will read the barcode and some will send a message to mark the Radio Frequency Identification. Some always will be equipped with wireless Internet and global positioning devices. As a result, in future many people will have smart devices, which most of them will have the ability to communicate with objects, places, people, processes and online content. And it's not strange, that you see your device on a street and it inform your next destination whit out asking any question. This is a kind of interaction with people who have common with you in the desired direction. In this paper, effect of mobile social networks for the creation of Filipino smart mobs have been discussed. people was able to spread the message of discontent which eventually grew into a change in the presidency. This was a new understanding of the impact of communication technology on civil society. The facts discussed in this population may be in earnest, obscene, violent, or are humorous. It certainly provides power for community groups to express and exchange of ideas, interests and their needs.

### **ACKNOWLEDGEMENT**

We are grateful to *Payame Noor University*, Kherame branch, for their useful collaboration.

### **REFERENCES**

**D. Cuff, M. Hansen, and J. Kang. 2008.** "Urban Sensing: Out of the Woods", in: *Communications of the ACM* / Vol.51, No. 3. March 2008.

**Review Article**

- J. Burke, D. Estrin, M. Hansen, A. Parker, N. Ramanathan, S. Reddy, and M.B. Srivastava, 2006.** “Participatory Sensing”, In: WSW'06 at SenSys '06, October 31, 2006, Boulder, Colorado, USA, 2006.
- Johansen, Bob (2012).** Leaders Make the Future: Ten New Leadership Skills for an Uncertain World, Second Edition, Revised and Expanded with Tools and Resources from the Center for Creative Leadership. San Francisco, CA: Berrett-Koehler Publishers, Inc.
- Joshua Goldstein (2007),** “The Role of Digital Networked Technologies in the Ukrainian Orange Revolution” Berkman Center Research Publication No. 2007-14
- Lehrer, Jonah. (2012).** Group Think: The Brainstorming Myth. The New Yorker, January 30, 22-27.
- Leander, Kevin M. Vanderbilt University, U. (2008).** Toward a Connective Ethnography of Online/Offline Literacy Networks. In J. Coiro, M. Knobel, C. Lankshear, & D. J. Leu (Eds.), Handbook of Research on New Literacies (pp. 33-66). New York: Lawrence Erlbaum Associates.
- Raphael O. Santos, Fabio Fabris, Magnos Martinello (2008).** JoinUs: Management of Mobile Social Networks for Pervasive Collaboration. Simp.sio Brasileiro de Sistemas Colaborativos 224 – 234
- Rheingold, Howard (2002).** Smart Mobs: The Next Social Revolution. New York, NY: Basic Books.
- R. Faris , Bruce Etling. (2008).** Madison and the Smart Mob: The Promise and Limitations of the Internet, the fletcher forum of world affairs, vol.32:2 p: 65-84
- Spillius, A. (2001).** ‘People power’ topples Estrada, deputy takes the helm as disgraced Philippine president is forced out. Sunday Telegraph (London).
- Surowiecki, James (2004).** The Wisdom of Crowds: Why the Many Are Smarter than the Few and How Collective Wisdom Shapes Business, Economies, Societies and Nations. New York, NY: Doubleday.