

The success of social network in global awareness about e-waste reduction

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Abstract - It is known that e-waste management is among the highest challenges to implement green IT from its definition. Due to its toxicity, human life and environment will be in danger if we fail to reduce the amount of e-waste generated nowadays. The sensitization should focus now on end users and make them realize the problem. As a result, this will help people to change the culture of throwing away some assets which may be needed by neighbors or keep unused devices, while other people are looking for similar ones. In this situation, Social networks are suitable tool that may work better for that awareness process to reach many people instantly. The success of social networks is based on the fact that people have the specific ways to talk and understand each other on their respective groups. And this is an opportunity that will make awareness to be successful once introduced by one member among the group.

Keywords: *Green IT, E-waste reduction, Awareness, Social networks.*

I. Introduction

With the increase of electrical and electronic waste (e-waste), Green IT has come a long way but more has to be done. People and companies have not yet embraced the idea that throwing away non obsolete electronic devices is wastage of resources and causes great damage to the environment. Nowadays, e-waste becomes a global challenge due to the fast growing waste streams. In developing countries where “market penetration” by large corporations is on the increase, “replacement market” in developed countries and “high obsolescence rate” make e-waste as one of the fastest growing waste streams [7]. Besides that, e-waste contains hazardous materials like lead, mercury, cadmium and chromium which

are harmful to human life and can destroy the environment if are not managed properly.

So many initiatives have been taken to deal with the matter where manufacturing companies are required to implement green production and come up with a scheme to recycle obsolete products. Governments also have responsibilities to set up policies and guidelines for waste management including recycling techniques and other methods to protect the environment. Despite the measures taken, quantity of waste is still increasing considerably. ITU report [5] predicted that the quantity of e-waste will triple in 2010. There are two reasons behind this growth:

- 1) **The market penetration:** The ICT penetration is growing faster. As reported in measuring the information society by ITU [6], the subscription in ICT passed from 40% in 2000 to 70 per cent by 2009 in developing countries. And the penetration rate exceeded 100 per cent in developed countries. This is a good indicator of development but is still a problem in managing those assets once they are no longer in use.
- 2) **Throw away culture:** People like to explore new technology by nature. We now simply replace items that are no longer functioning or are no longer wanted because there is a new replacement. Exploring new technologies deserves its benefits but how do we deal with the replaced items. Some people prefer to keep both old items and new ones and others prefer to throw away the old items to find a free place for

new coming items. We have to think that old fashion for some people seems to be new for others depending on life style. We should extend our network and give other people the opportunity to use the replaced items if they are still working. The estimation of computer obsolescence from USA in 2006 is over 150,000 pieces every day which makes e-waste the fastest growing part of the waste stream [8]. The question we need to ask is are all those computers no longer functioning? The waste quantity is high just because people want to enjoy new items with up-to-date technology.

The end user is still problematic in this process of e-waste management. Probably, most people are not aware about the impact of e-waste for human beings and the environment. We should not diminish the role played by international Non-Governmental Organizations and local institutions to manage e-waste and protect the environment, including human life. However, it is reasonable to strengthen the awareness media, and use the most successful media of our days which is social networks. People should be informed of their role and responsibility for sustainable solutions.

II. The power of social network

Power is the most fundamental process in society, since society is defined around values and institutions, and what is valued and institutionalized is defined by power relationships [1]. Though different people have adopted different definitions of social networking depending on the context they want to explain or describe, in this article we define social networking as “social structure made up with individuals (or organizations) tied with one or more

dependencies such as friendship, kinship, common interest, financial exchange, dislike, sexual relationships, or relationships of beliefs, knowledge or prestige”. From this definition, there are three key points that will be described in detail: **Shared content, interaction and common interest.**

- **Shared content:** Through social network, people spread their ideas, opinions, practices worldwide with a high probability of getting feedback from different corners of the world. Shared content motivates critical thinking by viewing things differently and this may be a source of new ideas and innovations. People learn more from other cultures, and are exposed to lifestyles from different societies. Compared to ordinary emailing or messaging websites, social networks have a particularity to allow a specified group of people to share thoughts on a given topic and view the input from every member of that group. The reason may be social, political, educational, etc.
- **Interaction:** Nowadays, virtualization has a big impact to put people together and with high confidentiality and trust. There are many testimonials of people who met on social media like Facebook and decide to tie their friendship. Guardian website [5] posted an article about a couple who met on Facebook and decide to marry “Facebook couple with same name to marry...”; And datingservicereporter.com [2] published more cases of people who met on social network and became true friends.
- **Common interest:** At the beginning social networks were very broad in terms of target group. Recently, all social networks are adding

features more specific to interaction goals. And other social networks are dedicated to specific interaction goals such as: Last.FM (Music), Xing (Business), LinkedIn (Business), Plazes (Geotagging), and Flickr (Photos). In these networks the user's interaction is focused on a common interest rather than broad personal profiles. Others are still broad like Facebook, Twitter etc, but users have the option to create groups and add people with the same interest.

The power of social media is increasingly contributing to the achievement and success of many projects. It has been applied in many domains such as: learning, research, leadership, socialization, business, democratization, and the list goes on. However, if not well managed, it may be a powerful tool for distraction. Some people waste most of their time on chatting and forget their daily activities or their work performance is compromised.

An example of the most recent successful event through social network is the revolution in some Arabic countries. It has been repeatedly reported by famous big media such BBC, CNN and so on... that the majority of these young people who recently have played a key role in ending dictatorship regimes (Egypt, Tunisia, Libya, and Yemen just to state few), have used social networking web sites to form groups and in many cases are being coordinated by their friends residing in western countries. So, information technology through social networking has, and hopefully will continue to help democratization of the countries still under dictatorship.

III. Green IT awareness through social Networks.

Social network should be used as a successful mechanism that focuses at each group with the common interest and enables all members to share information. This kind of awareness will make people to get all the required information about e-waste toxicity. What we do today, determines what tomorrow reserves for us. If we destroy our environment, we should also prepare our future for a miserable life. It is not a simple and easy science that everybody may understand, but this is the time to motivate the start of intensive debate and discussion among consumers or all contributors. The best approach is to meet people at the place where they are ready to understand and want to share their ideas in the group.

At this level, it will be more effective to encourage people to share the experience of how e-waste is a problem in their respective places, what they do to manage e-waste and share the challenges that they are facing. The best innovative ideas from each group should be rewarded and this will motivate people to pay attention and increase creativity about fighting that scourge.

III.1. The success of using social media

The statistics of Facebook.com accessed online on 25/April 2011[4] , showed that at least More than 500 million active users, 50% of active users log on to Facebook in any given day, Average user has 130 friends and people spend over 700 billion minutes per month on Facebook. And Twitter has 175 million registered users. Considering this number and other statistics, we can imagine what will happen if mobilization of these users is well organized. In addition to that, these users are potential consumers of IT and potential source of e-waste generation.

Once these people are convinced that e-waste is a vital problem caused by them, they feel concerned to solve it. At this stage, we have already fifty per cent of solution, as said by the philosopher Socrates that “*understanding a question is half an answer*”[5]. And the other fifty per cent will depend on effort used for progressive mobilization of people.

This can be achieved by contacting the administrators of these social networks to publish an awareness of e-waste such as throw away culture. With this, people with common interest will pick it up from there and friends of friends will understand the importance of reducing e-waste, especially those that are illiterate towards the subject matter. Message, video, audio, and photo post will facilitate the awareness. People will concentrate on it and come up with various innovations which may help in various ways. Even some short online competitions should be organized with some reward to motivate people for participation. If some people decide to give their life to reverse the dictatorship; they will do the easiest action to make their life better as long as they understand the consequences of not doing so.

IV. Conclusion

After careful evaluation, it is clear that social networks should be used as potential media which reach many people worldwide instantaneously. People are ready to listen and act towards a just cause. As a result, people and corporations will be encouraged to reduce electronic wastage and fulfill their social responsibility to go green. Technology and its use are developing rapidly, we should be prepared for both positive and negative impacts of this growth and deal with them accordingly.

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