On Role of Intelligent Communities in Learning: A survey

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Abstract-   The accessibility of social media has altered the global learning perception. Today people are using social media tool and technologies to share their daily lives and learn new skills that can be useful to them in their daily lives. This is possible because of the power of social media and the connectivity enabled by it. The social media also acts as an enabler in sharing your skills with others and give you useful exposure. Social media tools are also employed by businesses to get better exposure and customer support. The field of education and learning is no exception to this trend. This is mainly because of intelligent communities on different social media platforms. An intelligent community is defined as a group of people with similar interests. These intelligent groups can play an important role in creation and dissemination of specific knowledge that can open up new paths for learning and education. In this research, we show the adaptability of intelligent community powered by social media tools by the students and professionals. We begin discussion with introduction on intelligent communities. To identify user's learning needs when one is learning with social media we carried out a survey. The results of the survey shows importance of intelligent communities and its utility in learning new skills by students and the teachers.

Keywords – Social Media, Distance Learning, Intelligent communities, E-Learning, Social networking

I. INTRODUCTION

Today, the social media has cemented its place as one of the most essential communication technology globally. Social media users are found across all age, genders, races, religions and geographies. Social media tools are utilized for collaboration, teaching and learning by its many users. The group of people with similar interests and common goal on social media can form a community that can be categorized as intelligent community [1]. The traditional teaching-learning process in the classroom can result in slower and more cumbersome learning experience [2]. The intelligent communities can supplement the traditional class room learning by providing interactive learning environment by enabling students to learn interactively by graphics, videos and discussions among peers [3] [4]. To understand the impact of learning through social media and requirements of users learning through social media we also undertook a survey.

The paper is divided into six sections. We begin with introduction to the topic at hand. In next section, we discuss social media and its impact on traditional teaching-learning. In third and fourth section, we present the concept of intelligent community and discuss the drawbacks of traditional teaching-learning process. In section five, we discuss the survey and results. Lastly, we present the conclusion.

II. SOCIAL MEDIA

Social media has been able to grow in popularity by enabling people to communicate and share their daily activities with each other. Social media has been employed by businesses to build relations with their customers. It is utilized for learning new skills, creating brand awareness, develop deepen the relationships with existing customers and attract new customers. Social media tools and technologies enable specialist to sway customers and retain users in a brand resulting in a mutually beneficial relationship.

We will now discuss some major social media platforms that enable its users in engaging with other users resulting in vibrant interactions. The foremost social platform globally is facebook [5]. It enables its user to build a virtual relations with other users, businesses and brands free of cost. The facebook is popular due to some of the major features built into the platform such as find a friend, business promotion, low cost advertising, building up the presence and easy and free communication. With find a friend feature the user can find his/her friends from school, college or a geographic location. This is one of the core features of facebook that makes it users interact with friends hence creating interactions and increasing time user spends on the platform. Businesses can create their pages to interact with their customers and keep them updated on latest products and offerings. The facebook monetizes by

offering advertisements to the businesses targeted at specific users. This enables businesses to avoid some users while serving ads to only those users that meet specific criteria [6]. It also enables you to build your digital presence [7]. Perhaps the most important feature of facebook is that it provides tools for easy and free communication between users [8]. This results in encouraging interactions and learning between the users of the platform [9]. However, there are still some privacy issues with facebook.

Twitter is another example of popular social media platform. It is a micro blogging site where users can post messages for their followers to see [10]. Users can also repost the messages known as tweets [11]. Twitter's core functionality is to share short messages and quickly get responses on this message [12].

III. INTELLIGENT COMMUNITIES

An online community with a precise goal is termed as an intelligent community. An intelligent community usually contains only people with specific skills or interests as its members. This allows members to interact among themselves and discuss different problems with common interests [13].

An intelligent community can be characterized [14] by being connected with people having right skills and interests. Identification of peer groups that enables rapid collaboration. Building skills through mentoring and sharing of knowledge. Reduction in efforts to find the correct information across hierarchy or independent of organizational structure.

In facebook this can be achieved by using group feature or page feature. In twitter, you can achieve this by using hashtags that enables you to cross post and tag other people in your posts [15].

IV. INTELLIGENT COMMUNITIES

Learning is process of understanding new ideas and applying them in solving problems. Learning is a skill essential for human. Learning by example, learning by practice, learning by experience are some examples of how humans learn. Learning a new skill also depends on many factors such as learning environment, learning method, learner mindset, learning difficulty etc. The current learning process includes techniques like, positive relationships, cooperative engagement, active learning, constructive feedback, mutual respect, communication skill etc.

Today, large number of students are learning through traditional method only [16]. A small number of students are aware of the learning through social media platforms and different tools and technologies. Even these students are not aware of intelligent communities. This results in slow learning which can lead to loss of interests on the learner's part.

The drawbacks of the current learning process can be mitigated with new learning process.

V. INTELLIGENT COMMUNITIES

It is possible to adopt the new innovations in technology and switch from classroom teaching to online lectures. Social media platforms can be applied to design and develop and innovate pedagogy. In this section we will present facebook and twitter as case study to highlight some innovative teaching learning methods.

Facebook can be used by teachers to create a group or a page of the course enabling students to start conversations and discussions among themselves and the teacher [17]. Students can also posts their doubts that can be answered by their peers or the teachers [18]. Sharing of images and videos can also boost the learning activity. The teacher can also record video sessions and share on the page or the group on facebook and students can learn from watching it.

The user can send short messages regarding doubts or difficulties they are facing on twitter with appropriate hashtags and can quickly get reply. It is also available across different platforms making it easy to access. Users can also post images or videos to augment learning process further.

VI. SURVEY AND ITS RESULTS

We have undertaken a survey and in order to understand student awareness on learning through social media and their expectations in future. In this section we will discuss regarding this survey and its result.

In this survey we asked student on their presence on one social media platform or the other. We also asked them how frequently they access one or the other social media platforms. Lastly we asked them the purpose of using social media.

We received total of 226 responses to our survey. As per the figure 1, out of 226 users 210 users are using one or the other social media platform which forms about 93 percent of total responders. 16 users which forms about 7 percent of users does not use any social media platforms.
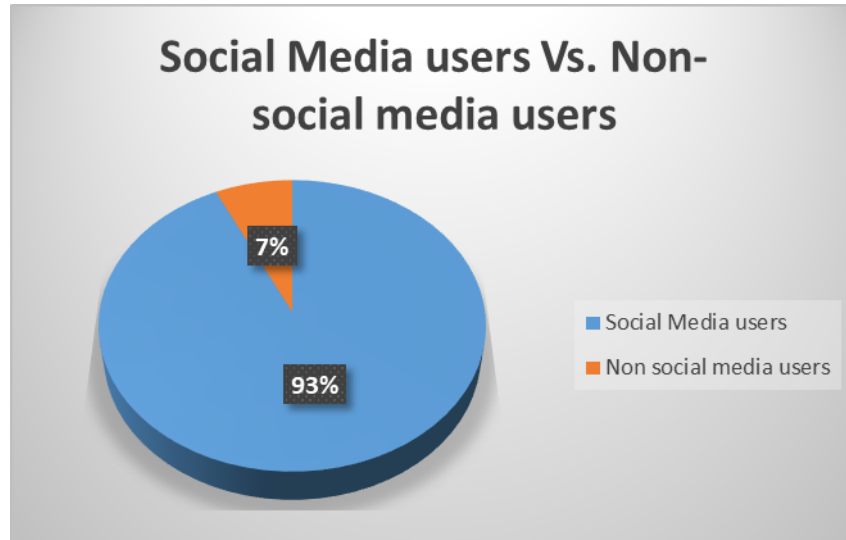

Figure 1.   . Social media users vs. non-social media users

Based on figure 2 out of 210 users 156 users are daily visitors of social media platform of their choice. 46 users visit their choice of social media platform once in a week and rest visit social media platform rarely.
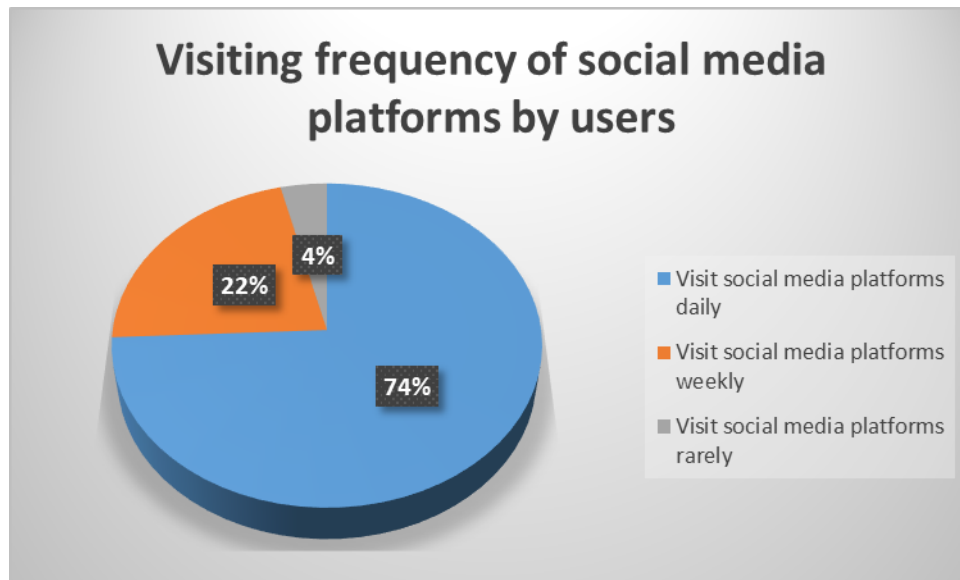

Figure 2.   Visiting frequency of social media platforms by users

We can say from figure 3 that out of the 210 responses, 169 users have no knowledge on intelligent communities on social media platforms. 30 students have some knowledge on intelligent communities and 11 users have good knowledge of intelligent communities and are part of one or the other such community.

Knowledge on inellegent comunities among social media users

- No knowledge of intellegent communities
- Some knowledge on intellegent communities
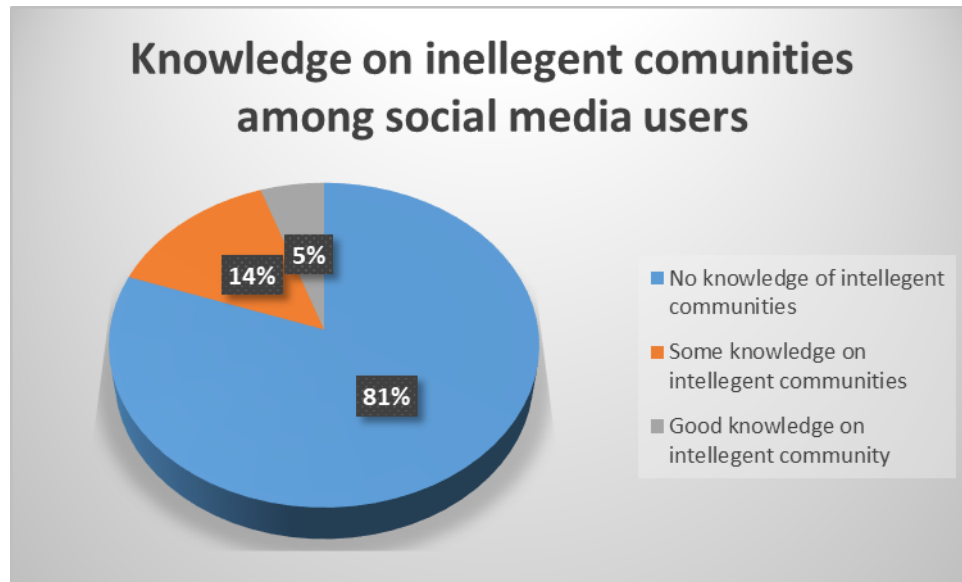- Good knowledge on intellegent community

14% 5% 81%

Figure 3.   Knowledge on intelligent communities among users

VI. SURVEY AND ITS RESULTS

In this paper we studied about the social media and its role in developing virtual intelligent communities with global user base as its audience and participants. We also discussed various features on different social media platforms that can be utilized for learning. While current learning process has its drawbacks it cannot be replaced completely but some of its drawbacks can be overcome by using social media platforms.

Based on our analysis we can conclude that more features can be added on social media platforms to make teaching learning process more effective.

Based on our survey we can conclude that there is a need to create awareness among users regarding learning opportunities and tools available on social media platforms and its effective utilization.

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