



## Mobile Usage by Student Intergraded with GIS to Study Behavioural Pattern

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*Abstract- Any student uses mobile either to listen music /speech or to view cinema/pictures or to browse academic related matters or participating in social messaging /chatting with known or unknown people. It could affect his behavior or attitude as days goes on. In order to evaluate his/her attitude, we capture data of audio, video, Academic studies, social networking. At equal intervals of time, the current content of the mobile is updated in the SD Card along with Geo-Location of the mobile. Collected data are used to evaluate the amount of time being spent for Entertainment ,Social Activity denoted ,Academic Activity denoted .Geo locations is noted down for analyzing the occurrence of event such as entertainment ,social networking and academic it may help in to study about leaning attitude and their environment .*

*Keywords— Energy gain, Energy lose GIS, SDcard,*

### I. INTRODUCTION

As a predominant technology among our student bodies (with smart phones and tablets), along with the growing market for Android or iPhone developers, students are yearning for opportunities to develop apps and interface with mobile devices. [1]

The term “mobile” means a variety of things to people. For some, it is merely the act of taking a communication device off a wired infrastructure. Others see it as moving electronic content from a larger device to a smaller one. Those most invested in exploiting mobile devices to deliver training and learning opportunities see the term as something entirely different — a complete paradigm shift in the way we learn with supporting devices.[2][9].The Instancy Platform and Mobile App framework supports offline content delivery, tracking and synchronized about a student activity in the SDcard. This App will automatically synchronize student activity for student analysis on the usage of mobile leaning attitude, listening attitude, aptitude, gain or loss of mental energy.

informal education, irrespective of the academic background. Mobile Learning or M-Learning is a type of e-learning that delivers educational contents and learning support. [3][13]

In addition to accepting the value of context, there is a growing interest in developing mobile technologies to enable location-based education. One part of framework when the learner is mobile is location, both in terms of where the learner is physically located and what the learner can use in the location. Brown (2010, p. 7) writes, “The distinguishing aspect of mobile learning is the assumption that learners are continuously on the move. This is not just their physical mobility, but also how learners are active in different contexts and how frequently these might change, depending on an individual’s location.[2][11]

### II. PROBLEM DEFINITION

#### *Geo-Location*

The ports altogether will be the main key goal of the app. Students may use the different ports from various locations. The main objective of this app is to trace the geo-location based on the latitude and longitude. Students will use the ports from different location are traced.

#### *Saving in SD-Card:*

Whatever the students access the Mobile will be traced by its geo-location and the details will be saved in the memory card (sd-card). Thus we get a survey of which port is used for regularly by the student. This will be saved automatically in the database. The survey is taken about the different ports how much do the students use. The survey is to calculate whether they use the academic port while travelling, or at home etc. App will be get geo-locate all the activities that are done by the student. Start time and end time to each activity also the geo-location is to trace whether he do use while travelling or in a place where they live.

### III. METHODOLOGY

This App s installed in a mobile at least for a week energy gain or loss due to entertainment. Let T be the total time taken for all activity.

Let  $t_i$  be time taken for Entertainment where ( $i=1$  to  $n$ ) on different interval of dates. Classify it as good or bad .Which are denoted as  $Gt_i$ ,  $Bt_i$

Let  $Gt_i$  is Time Taken for Good Entertainment where mind is enriched.

Let  $Bt_i$ . is Time taken for bad Entertainment where mind is gloomy.

$$\sum_{i=1}^n t_i = \sum_{i=1}^n gt_i + \sum_{i=1}^n bt_i$$

$$EGE = \text{Energy gain} = \sum_{i=1}^n t_i - \sum_{i=1}^n gt_i$$

$$EGE = \text{Energy lose} = \sum_{i=1}^n t_i - \sum_{i=1}^n bt_i$$

Let  $Y_j$  be time taken for social activity. Where ( $j=1$  to  $n$ ) on different interval dates. Classify it as good or bad. Which are denoted as  $Gy_j$ ,  $By_j$ .

Let  $Gy_j$  is Time Taken for Good Entertainment where mind is enriched.

Let  $By_j$ . is Time taken for bad Entertainment where mind is gloomy.

$$\sum_{i=1}^n j_i = \sum_{i=1}^n gy_i + \sum_{i=1}^n by_i$$

$$EGE = \text{Energy gain} = \sum_{i=1}^n t_i - \sum_{i=1}^n gt_i$$

$$EGE = \text{Energy lose} = \sum_{i=1}^n t_i - \sum_{i=1}^n bt_i$$

Let  $K_m$  be time taken for Academic activity. Where ( $m=1$  to  $n$ ) on different interval dates. Classify it as good or bad. Which are denoted as  $GK_m$ ,  $BK_m$

Let  $GK_m$  is Time Taken for Good Entertainment where mind is enriched.

Let  $BK_m$ . is Time taken for bad Entertainment where mind is gloomy.

$$\sum_{i=1}^n j_i = \sum_{i=1}^n gy_i + \sum_{i=1}^n by_i$$

$$EGE = \text{Energy gain} = \sum_{i=1}^n t_i - \sum_{i=1}^n gt_i$$

$$EGE = \text{Energy lose} = \sum_{i=1}^n t_i - \sum_{i=1}^n bt_i$$

$$T = \sum_{i=1}^n ti + \sum_{j=1}^l Yj + \sum_{m=1}^n Km$$

$$V1 = \text{Average time spent on Entertainment} = \frac{\sum_{i=1}^n t_i}{T}$$

$$V2 = \text{Average time spent on Social Activity} = \frac{\sum_{i=1}^n y_i}{T}$$

$$V3 = \text{Average time Spent on academic activity} = \frac{\sum_{i=1}^n km}{T}$$

Where Let by  $j$

$$\sum_{j=1}^l y_i = \sum_{j=1}^l gy_j + \sum_{j=1}^l by_j$$

$$EGS = \sum_{j=1}^l y_i - \sum_{j=1}^l gy_j$$

$$EGS = \sum_{j=1}^l y_i - \sum_{j=1}^l by_j$$

If  $EG > EL$  then a student had gain a benefit out of social act

$$EGA = \sum_{m=1}^x k_m - \sum_{m=1}^x gk_m$$

$$ELA = \sum_{m=1}^x k_m - \sum_{m=1}^x bk_m$$

If  $EG > EL$  then a student had gain a benefit out of Academic act

Total Energy gain is  $EGE+EGS+EGA$

Loss is  $ECE+ELS+ELA$

Participants in the first workshop iteration were supported through state-level grant funds. Many participants completed all assignments; others did not, particularly the assignments that occurred after the intensive workshop was completed. The resulting differences in skill level, confidence, and transfer were obvious; a stronger incentive was

necessary to encourage full participation by all participants. In subsequent workshops all participants were required to register for either university graduate credit or state-department continuing credit.

Additionally, a school site fee to send a team of up to three participants was assessed, as well as an extra individual fee for each team member thereafter. While it may seem counterintuitive, both of these requirements acted as participant motivators. Fewer participants dropped out during the workshop timeframe and all participants completed the assignments.

In return for paying the registration fees, school site licenses of the GIS software and The Prairie to Mountain Explorer were provided. Several participants indicated that having the school administrative support reinforced both the value of the experience as it applied to their teaching and their feeling of self-worth as professionals

Pearson seeks to better understand how students use mobile technology for learning. As more and more students have access to tablets, smart phones, and other mobile devices, Pearson wants to know how students use the mobile devices they currently have for learning.

- ❖ Student Mental activities
- ❖ Energy gain or lose
- Mental steadiness

**The survey**

Current usage, ownership and purchase intent of mobile devices by college Students; How college students currently use mobile devices for school work, Entertainment ,Games, Personal and ect. Students’ attitudes towards mobile and tablets for learning.

**Support Structures**

Providing multiple levels of support increased the effectiveness of the professional development experience. Support provided by the professional development team evolved to include:[4] [5]

1. Maintaining a Web site for participants to share ideas and problem-solve concerns.
2. Providing individual e-mail or phone access to participants who had questions.
3. Making personal on-site visits upon participant request.
4. Distributing support manuals and handouts detailing and generalizing the skills covered in each workshop session.
5. Checking out GPS units to teachers wishing to use them in their classrooms

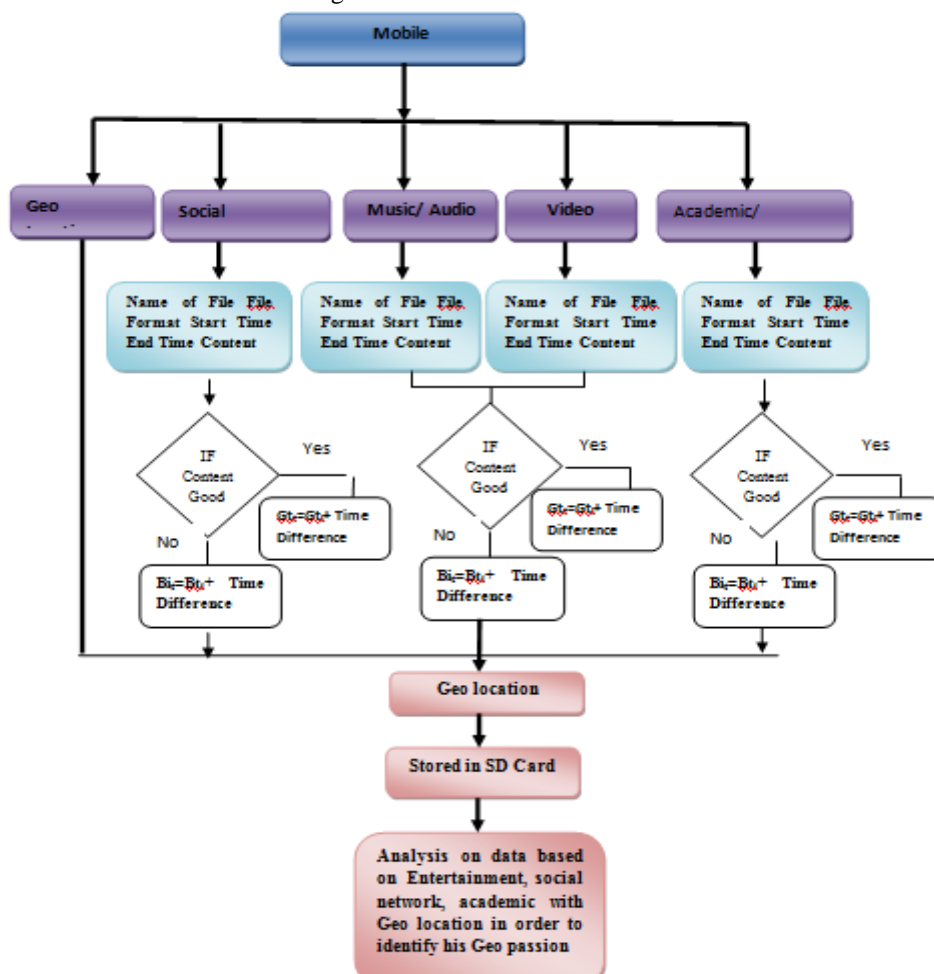


Fig. 1 Mobile usage by student intergraded with GIS architecture

In concert with the professional development team assistance, peer support structures were created, including building-level partnering and focus groups. Additionally, participant selection criteria and fee structures were modified to encourage each school to send a team of teachers. Having two or more teachers from the same site provided a locally situated support group.[4] [5]

#### IV. RESULT AND DISCUSSION

As if Students' Facebook addictions weren't poor enough when they were restricted by computer. the uses of portable social media devices in their pockets. The board diagonally checks students who are having smart phones with use social media apps like Facebook, Twitter, and Tumblr. Social media networks have adapted their offerings to fit a mobile network mass as well. It includes the advanced features like location identification and status updates. Students use their smart phones to broadcast their location as well as what they're doing to all of their friends.

Table I Mobile usage for student s

S.No		Mobile Usage
1	Entertainment	30%
2	Social networking	33.3%
3	Games	15%
4	Personal	33.3%
5	Official	15%
6	Leaning	2%

Games From Angry Birds to strategy games to social games like Draw Something and Words with Friends, students have their phones loaded with games to fill lulls in the day.

- ❖ Personal
- ❖ Official

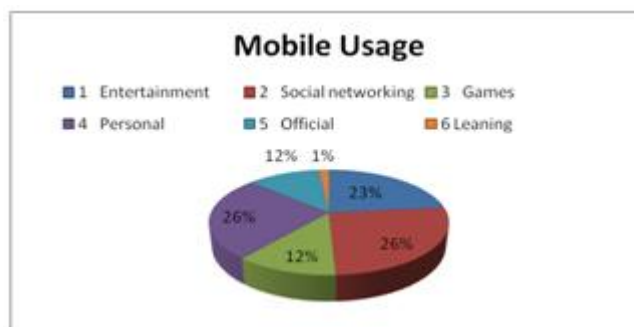


Fig. 2 Mobile Usage for Students

Students use mobile for various purpose such as social ports, video ports, music ports and in academic ports.

*Social ports* -Many students use their mobiles for the purpose of logging in the facebook or any other social network.

*Video and Audio ports*- Students may use the video ports for the purpose of watching films and many purpose with their own personal also. Similarly the songs of any new films are downloaded and listened even in online stream. This could be mandatory based on type and interest of students.

*Academic ports*- Students use the academic ports for the purpose of learning .some students will be fully interested on learning the different ways. The will use this port with different formats such as pdf or any other formats. They also read story books based on their interest. This port alone will fully depend on the students.

The Instancy Platform and Mobile App framework supports offline content delivery, tracking and synching data with a Student activity

#### V. CONCLUSION

Mobile usage App installed will be a mobile device and stored in the SDcord. This App will be synchronous to student activity record store for student analysis on the usage of that mobile leaning attitude, listening attitude, aptitude, Focus of main and mental energy optimizations

#### REFERENCES

- [1] Ani Nahaperian "Incorporating Development form mobile Devices When Teaching Software Engineering ",978-1-4673-5112-6/1231.002013 IEEE,Vol.3.No.3,2012
- [2] Judy Brown, Michael Hruska, Andy Johnson and Jonathan Poltrack "Educational Standards for Mobile Learning and Mobile Application Development" Increasing Access through Mobile Learning , Mohamed Ally

- and Avgoustos Tsinakos, Editors. Published by Commonwealth of Learning and Athabasca University, Vancouver, 2014.
- [3] Eileen Scanlon, "Mobile Learning: Location, Collaboration and Scaffolding Inquiry". Published by Commonwealth of Learning and Athabasca University, Vancouver, 2014.
- [4] Charitonos, K., Blake, C., Scanlon, E., & Jones, A. (2012a). Museum learning via social and mobile technologies: (How) can online interactions enhance the visitor experience? *British Journal of Educational Technology*, 43(5), 802–819.
- [5] Hafizul Fahri Hanafi ,Khairulanuar Samsudin "Mobile Learning Environment System(MLES):The Case of Android-based Learning Applications on Undergraduates' learning ", *International Journal of Advanced Computer Science and Application*, Vol.3.No.3,2012
- [6] Patricia A. McClurg and Alan Buss" Professional Development: Teachers Use of GIS to Enhance Student Learning, *Journal of Geography*106: 79–87 2007 National Council for Geographic Education
- [7] Student Mobile Device Survey 2013: National Report on College Students 1 04/17/2013
- [8] About.com. (2012). Cellphones. Retrieved March 5, 2015, from <http://cellphones.about.com/>
- [9] Advanced Distributed Learning (ADL). (2003, January 16). Overview. Retrieved March 5, 2015, from [www.adlnet.gov/overview](http://www.adlnet.gov/overview).
- [10] Brown, E. (2010). Education in the Wild: Contextual and location-based mobile learning in action. Report from the STELLAR Alpine Rendez-Vous Workshop Series. Nottingham, UK: Learning Sciences Research Institute, University of Nottingham
- [11] Dean, K. (2011, November 14). SEO best practices for HTML5: Truths, half-truths & outright lies. Retrieved November 12, 2012, from <http://searchengineland.com/seo-best-practices-for-html5-truths-half-truths-outright-lies-99406>
- [12] Coughlan, T., Adams, A., Rogers, Y., & Davies, S. (2011). Enabling live dialogic and collaborative learning between field and indoor contexts. Paper presented at the 25th BCS Conference on Human Computer Interaction, 4–8 July 2011, Newcastle Upon Tyne, UK.
- [13] Barbosa and Geyer (2005). Pervasive personal pedagogical agent: A mobile agent shall always be a learner. *Proceeding IADIS International Conference Mobile Learning, Malta* 281-285 Bobnano
- [14] Brown, H.T(2005),"Towards a model for MLearning", *International Journal on E-Learning*, 4(3),299-315
- [15] Winters, N.& Mor.Y (2008)'IDR: a participatory methodology for interdisciplinary design in technology enhanced learning' (*Computers & Education*, 50(2),579-600))