

## **Creating global village of agricultural practices through Social networking: opportunities and threats**

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### **Abstract:**

*This paper examines the core competencies that can be achieved through social networking sites such as Facebook, Twitter, Blog, Flickr, Ning and tries to harness the same for creating a global village of agricultural practices for research, education, business and knowledge management with special reference to people who lack digital access to social networking sites. The study is based on the survey of staff, faculty and research scholars in selected national agricultural institutes in India and their usage pattern of social networking sites in their day-to-day life. The findings reveal that social networking sites are gaining popularity among youths. The electronic resources, regardless of their dependability and authenticity of information, are being preferred to print sources. There appears to be a growing tendency to resort to blogs and professional forums instead of classroom discussion of academic problems. The survey found that agriculturists in Indian villages lack infrastructure, technical support and devices. This paper attempts to advocate the value of social networking sites for farmers in Indian villages for better use of agricultural innovations.*

## ***Introduction***

The precedent years has been characterized by agrarian despondency. Promises put forth by the developments in agricultural sector did not materialize at its optimal level. The fruits of productivity offered by the green revolution turned sour with the overindulgence of pesticides and resulting in pollution. Agricultural practices rests on natural resource base which is poor and deteriorating which has infested the growth of productivity. The failure of agriculture to deliver than expected has shifted the attention of donor organization to education and health. However there is an urgent need of resiliency in agrarian practices. Agriculture constitutes the main source of employment of the majority of the world's poor. In total, the share of agriculture in total employment in developing countries constitutes 53% of the total workforce in 2004. In Sub-Saharan Africa 60% of the economically active population works in the agricultural sector (*World Developmental Indicators (WDI), 2006*)

Agriculture is a diverse and dynamic industry. As conditions vary from place to place, 'one size will not' fit all'. Agricultural investments must be tailored to the specific conditions and actors in different locations. Just as there is no one technology that will work everywhere, technology in and of itself is only part of the answer. (*Oxfam briefing paper, 2008*) The blurred fate of agriculture can bounce back with the implications of social networking to agrarian practices; as it rests on experience and exposure which has to be shared to create a global village of agrarian practices.

## ***Social networking: drivers of change***

During the first decade of the current millennium, the term "social networking" has become almost ubiquitous in certain circles. Active interaction between people has made it an interesting proposition. The metamorphosis of the computing power from Web 1.0 to Web 2.0 can be viewed as a cyclical gyration of centralization versus decentralization. The transition of computing power can be divided into five categories: Web 1.0 (publication of hypertext documents), Web 2.0 (social and co-created web), Web 3.0 (Semantic and intelligent web), Web 4.0 (mobile, machine and object web), and Web 5.0 (sensory-emotive web) (*Kambil, 2008*).

## ***Social Networking websites***

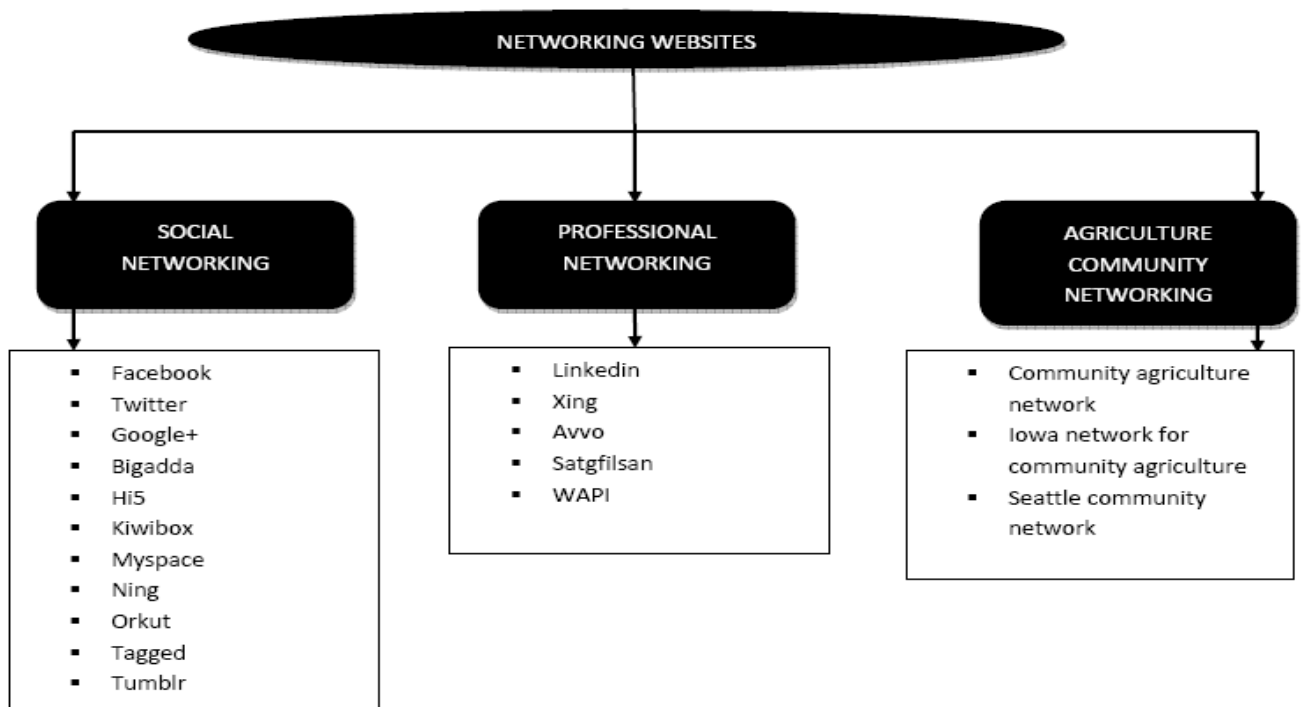
It refers to an online service for building social relation among people who share their activities and interests. It constitutes representations of the user through profiles along with his links and added services.

Social network sites are web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those

made by others within the system. *Boyd, D. M., & Ellison, N. B. (2007)*. The nature and nomenclature of these connections may vary from site to site.

What makes social network sites unique is not that they allow individuals to meet strangers, but rather that they enable users to articulate and make visible their social networks. This can result in connections between individuals that would not otherwise be made, but that is often not the goal, and these meetings are frequently between "latent ties" (*Haythornthwaite, 2005*) who share some offline connection.

There are three categories of the networking websites: social networking sites (that cater to social use), professional networking (for a particular domain of professionals) and agriculture community networking (for the needs of a particular community). The following diagram illustrates the same in a best possible manner:



### ***Competencies of social networking***

- **Social**

Social networking websites fosters a healthy virtual social landscape where one can voice his concern and socialize with others informally. These are intended for social consumption. Active involvement in social networking leads to the sharing of tacit knowledge. One should express his opinions and experiences unselfishly.

- **Participatory**

One of the vital elements of social networking is the active participation. One should be actively involved in it and should strive to outsource his experiences and ideas to benefit a large section.

- **Collaborative**

Social networking is a collaborative effort where everyone should participate. Large number of collaborative hands will catalyze the information flow process and the interpretations or ideas will be subjected to huge contestation and evaluation providing a distilled information.

- **Easy to Use**

Social networking websites are user friendly and easy to use. They are basically web based programs which does not require any hardware or software support. One can easily register in social networking websites like Facebook, Ning or Twitter and start socializing virtually.

- **Community Environments**

Social networking environment consists of various communities. Depending on the interest and the field of practice one can join a particular community. The added advantage of this is that all the practitioners are brought to a common global platform breaking the shackles of geographic boundaries.

- **Web 2.0 Culture**

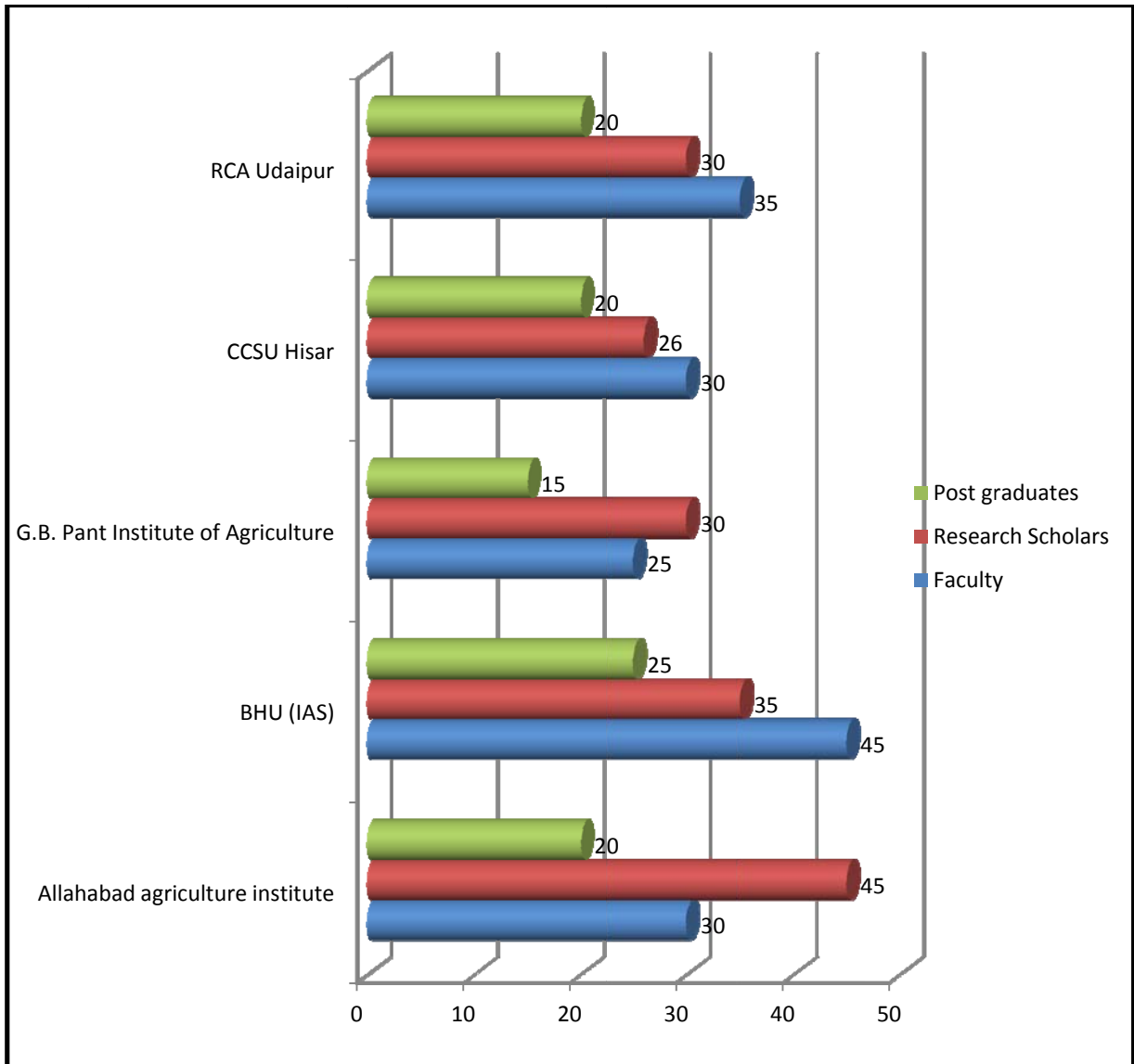
Web 2.0 has brought us into active communication as well as participation on the web unlike the first web. It is an informal attitude not a technology. It has developed web as a platform for outsourcing services as well as information.

## ***Methodology***

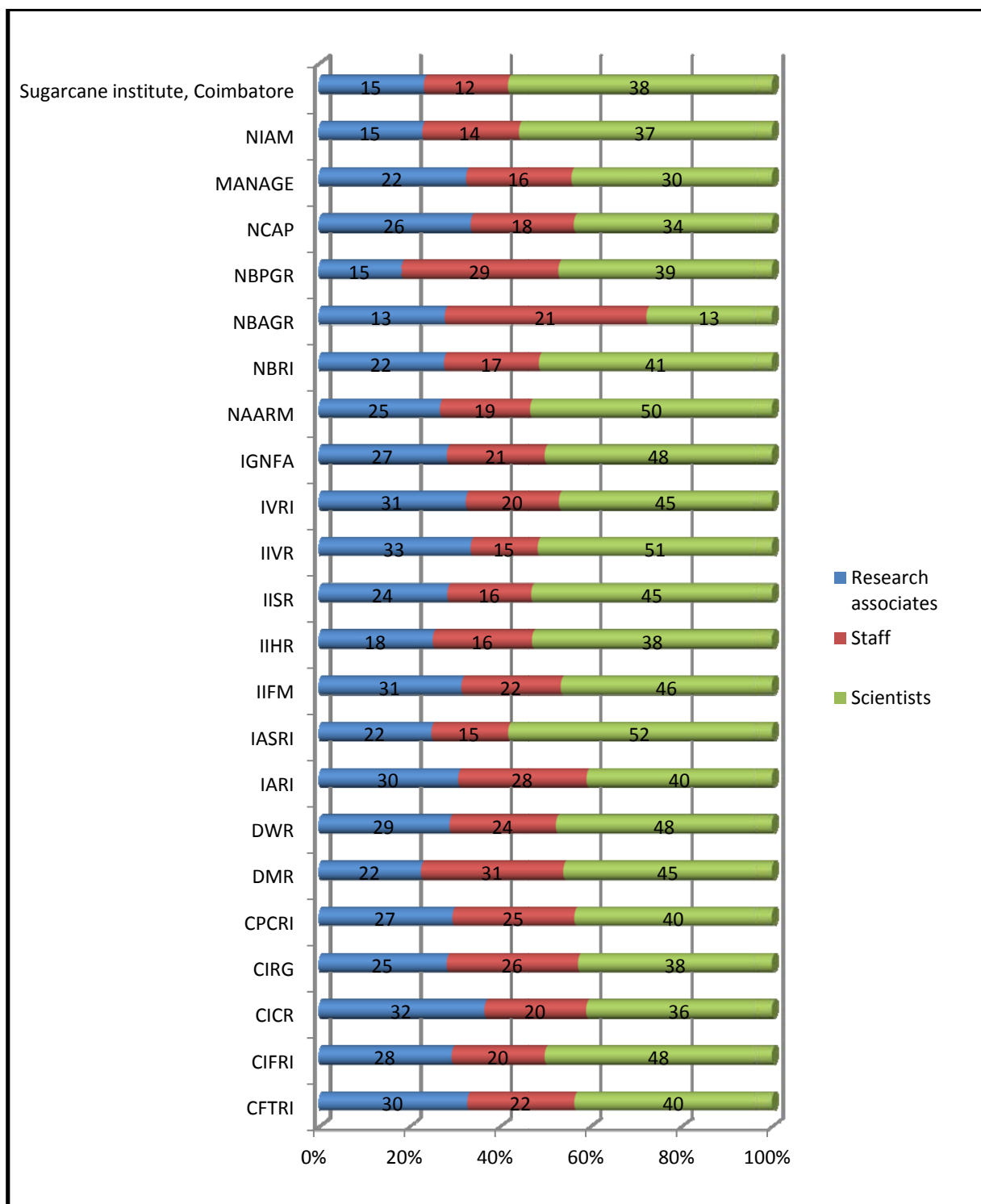
The present study is based on the survey of staff, faculty members and scholars of agricultural institutes of national fame of India and the usage pattern of social networking sites in their daily life. Questionnaire was sent to the respective institutions which were also hosted on Google Docs (forms) and surveymonkey.com. On the basis of the responses and feedbacks the study was carried out for creating a global village of agrarian practices.

**Data analysis:**

Various survey from different perspectives were carried out to study the user behavior towards social networking and to harness the same for agrarian practices. First of all survey of faculty members and researchers were done to find out the awareness and use of social networking sites in India:

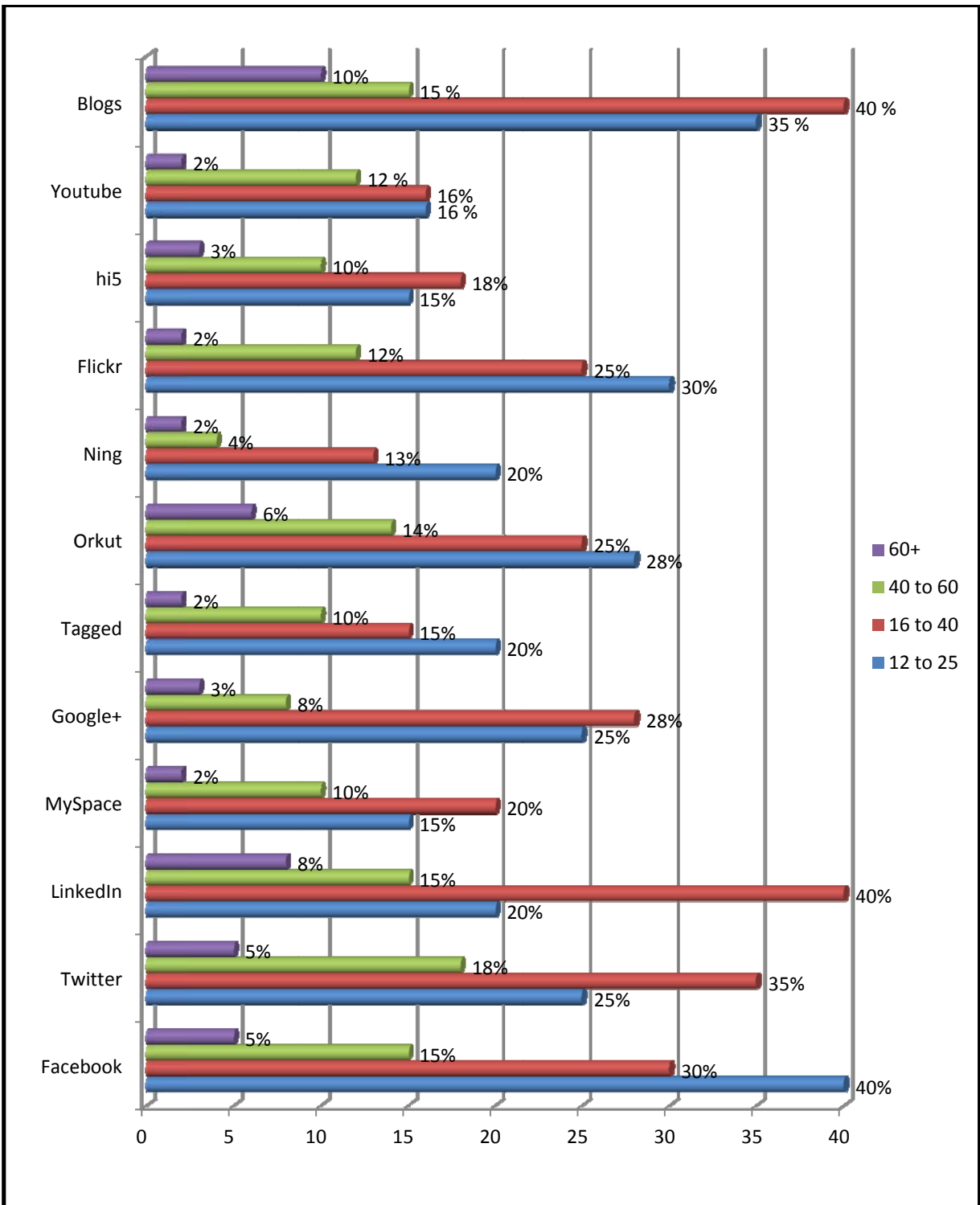


Survey of selected agricultural institutes in India



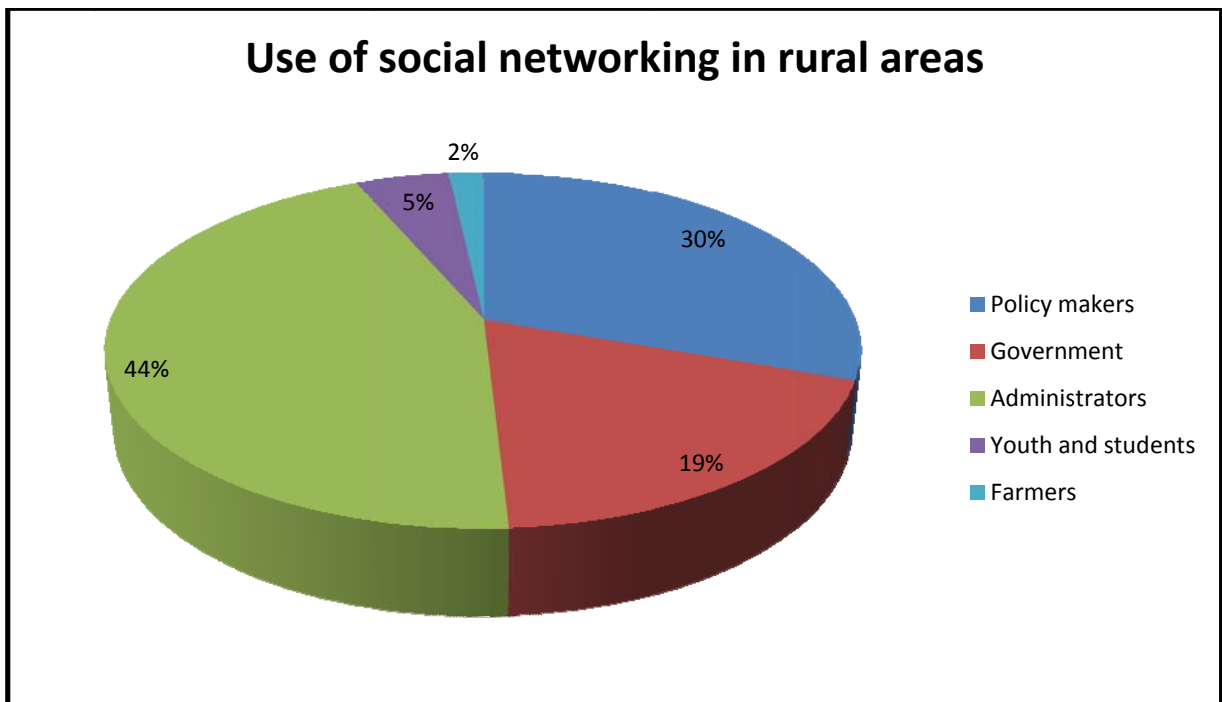
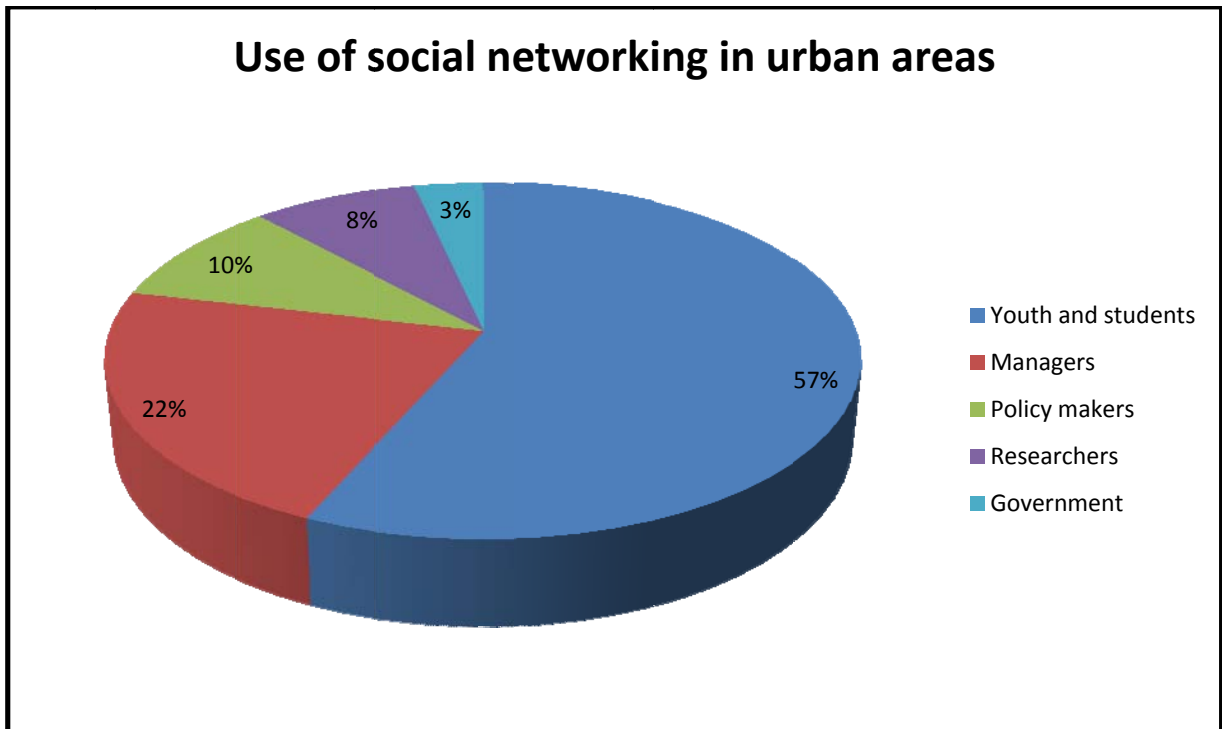
Survey of selected research institutes in India

Secondly, survey was done to find out the age group in which the practice of social networking is more.



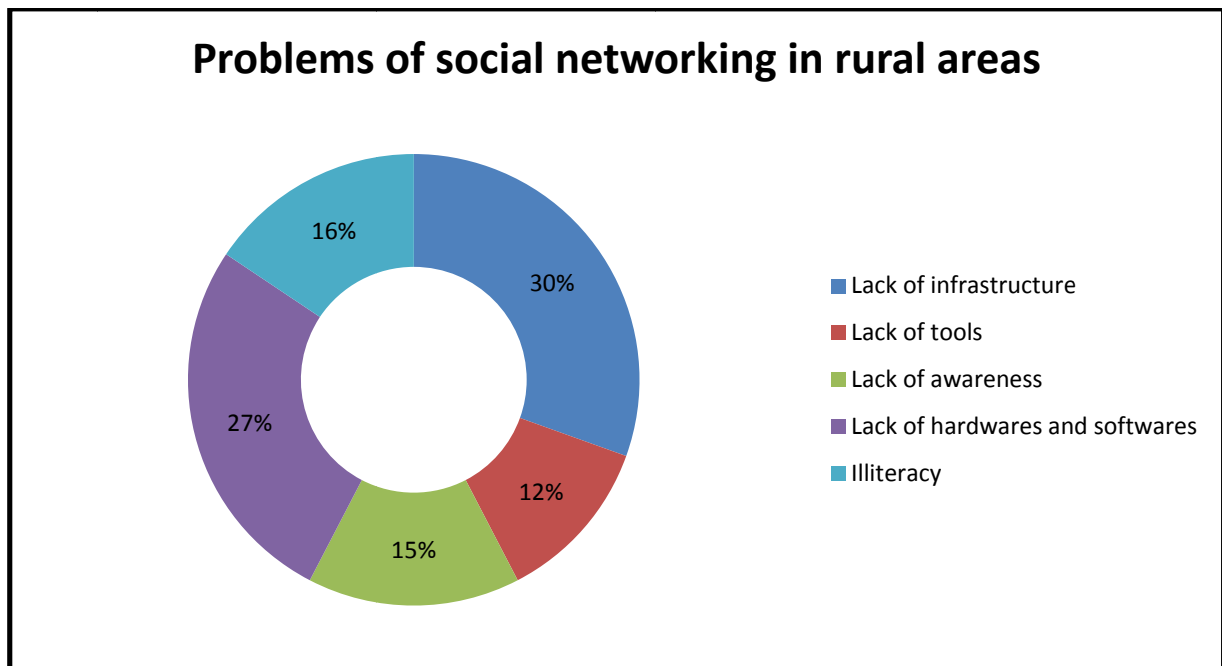
Survey of different age groups of usage of social networking sites

Thirdly, usage pattern of social networking in urban as well as rural areas was identified.

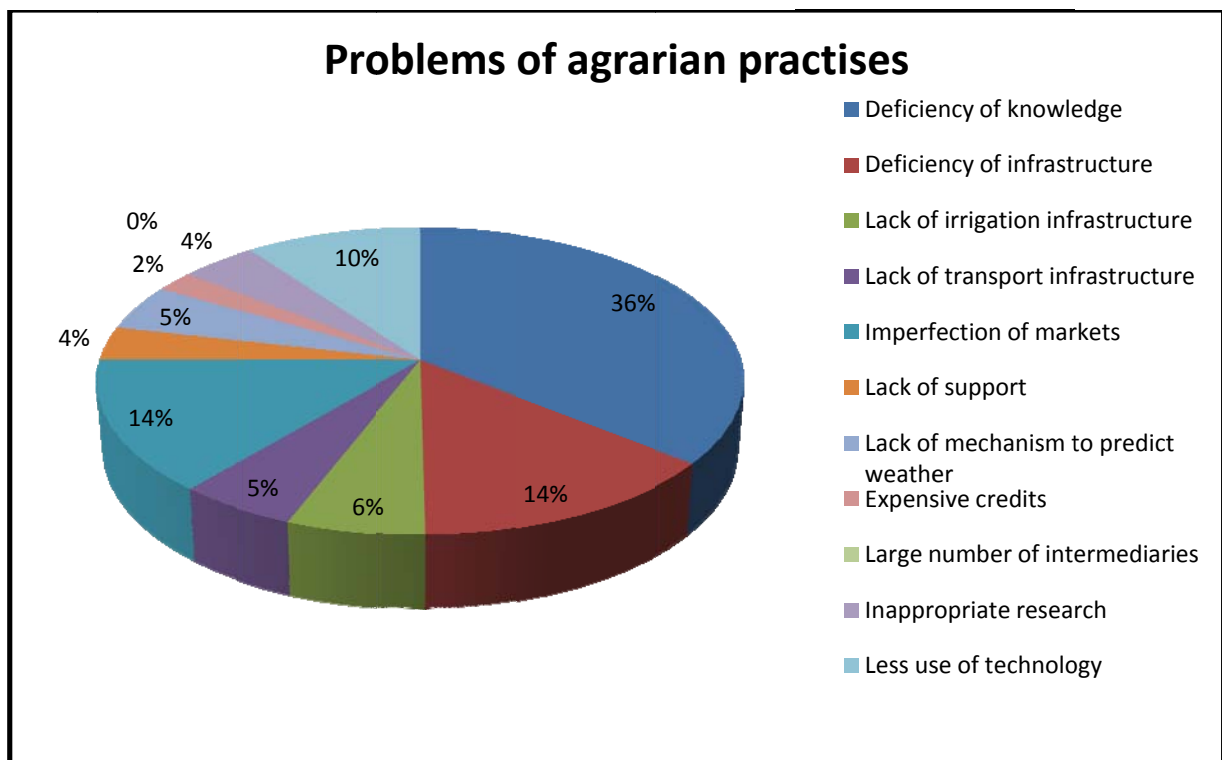




Finally, the problem of social networking in rural areas was surveyed.



Lastly, problem of agrarian practises in rural areas were identified:



## ***Research findings and Conclusion***

It was sheer astonishing to found that social networking sites have become a rage particularly among youths. Instead of using print sources people are making much use of electronic resources irrespective of the accountability as well as authenticity of information. Further instead of discussing their problems in classrooms they have developed a tendency to do so in their blogs or professional forums. Ironically, with various problems in rural areas social networking is in use. Agriculture is a field which relies on experience as well as practices. This knowledge has to be shared globally to taste the fruits of higher productivity. Through social media a platform can be developed for sharing as well as expressing ones core concerns.

There was a time when farmers discussed together at the *chaupal* or *gram panchayat* or *local feed mill*, and talked about the weather, what's happening in the world of agriculture and in the neighborhood. Back then, communicating with others was called socializing. It was done face to face and it was generally local. Now people, farmers included, spread the word - whether personal or business - using social media tools, such as Facebook, Twitter, YouTube, MySpace and blogs. Wisconsin state farmer webinar Social media is agriculture's newest survival tool (2011). Some agriculture advocates say these social media tools are not just a fad or a way for farmers to amuse themselves. They say social media is agriculture's newest survival tool.

## ***Techno-Agriculture alliance***

We are living in a technological age where all our old beliefs and thoughts are dead and technology is the path to virtual salvation. Advancement of Web 2.0 culture has severely gripped the mindset of people. Farmers are also not deprived of the same. Although not substantially yet a larger section of farmers are harnessing the technology for agrarian practices. Venkateswaran (2012) has put forth issues on which agrarian practices are to depend in future:

1. Farmers, Fishermen and Plantations using smart phones extensively to connect to others and the external world.
2. Transfer of information in the form of applications to be used on the phone.
3. More and more entrenchment of social media especially with the rise of vernacular versions of some of the networks.
4. Social media becoming a way of life for the farmers for sharing best practices with other farmers across the globe.
5. Finally farmers selling direct to consumers through forums like Community Supported Agriculture.
6. Crop prices to sharing best practices and also forming co-operatives for collective bargaining.

Finally, some of the technology based solutions for the agrarian practices have been mentioned below:

### ***Techno-solutions for the ailing agrarian practices***

#### **1. Deficiency of knowledge**

Knowledge deficiency can be checked by the use of mobiles as well as social networking media which gives a platform for sharing the skills as well as can be used to share knowledge resides in ones brain. A crop database as well as crop and equipment`s information inquiry system and service can be developed to monitor the knowledge. Further mobiles can be used to disseminate latest knowledge through SMS.

#### **2. Deficiency of infrastructure**

- Lack of irrigation infrastructure
- Lack of transport infrastructure

Nowadays, everything is available on the internet right from the government policies to higher officials to the national bodies looking after the agrarian practices. One can use the social networking as a medium to voice his concern as well as can share his plight with the others. It is the best platform to fight for a cause having a unified practice.

#### **3. Imperfection of markets**

The problem of looking for markets and selling products can be best resolved by using mobile and social networking technology through which farmers can know about the prices and keep themselves abreast of the price variations. Further, they can go for online trading of their commodities.

#### **4. Lack of support**

Social networking is a platform which unites the people with similar interests. With the availability of government websites containing policies as well as authorities one can interact with them and can draw his attention virtually which may not be possible physically as well as will be time consuming.

#### **5. Lack of mechanism to predict weather**

Farmers can use social networking or mobiles to update their status and can use mobile technology to predict weather and inform their relatives and friends. They can monitor over the same through collaborative efforts preventing any disaster. Also, during disasters they can share the knowledge to overcome the same.

#### **6. Expensive credits**

Expensive credit system can be resolved by looking for sponsors and organizations that can fund the same. Farmers can draft their problems as well as proposals by means of social networking which can be highly beneficial for the fate of agricultural activities.

#### **7. Large number of agricultural intermediaries**

With the passage of time agrarian activities has lost motivation due to the failure of delivering the productivity than expected. One of the driving forces for poor agricultural activities is the involvement of large number of intermediaries which involves huge capital and is time consuming. But through social networking one can directly come in contact with the desired person without the role of intermediaries.

#### **8. Inappropriate research**

Agricultural research is crippled with the lack of sponsoring bodies and motivation. Further, variations in agricultural practices make it more problematic and there is a need to gaze into the problem deeply. Students and researchers can draft through proposals for research. Further, social networking can be used as a platform for data collection also.

## ***Abbreviations:***

Some of the acronyms used in the paper are mentioned below:

1. BHU- Banaras Hindu University
2. CCSU- Chaudhri Charan Singh University, Hisar
3. CFTRI- Central Food Technological Research Institute
4. CICR- Central Institute for Cotton Research
5. CIFRI- Central Inland Fisheries Research Institute
6. CIRG- Central Institute for Research on Goats
7. CPCRI- Central Plantation Crops Research Institute
8. DMR- Directorate of Maize Research
9. DWR- Directorate of Wheat Research
10. IARI- Indian Agricultural Research Institute
11. IAS- Institute of Agriculture
12. IASRI- Indian Agricultural Statistics Research Institute
13. IGNFA- Indira Gandhi National Forest Academy
14. IIFM- Indian Institute of Forest Management
15. IIHR- Indian Institute of Horticulture Research
16. IISR- Indian Institute of Sugarcane Research
17. IIVR- Indian Institute of Vegetable Research
18. IVRI- Indian Veterinary Research Institute
19. MANAGE- National Institute of Agricultural Extension Management
20. NAARM- National Academy of Agricultural Research Management
21. NBAGR- National Bureau of Animal Genetic Resources
22. NBPGR- National Bureau of Plant Genetic Resources
23. NBRI- National Botanical Research Institute
24. NCAP- National Centre for Agricultural Economics and Policy Research
25. NIAM- National Institute of Agricultural Marketing
26. RCA- Rajasthan College of Agriculture, Udaipur

## References

1. Adamic, L. A., Büyükkökten, O., & Adar, E. (2003). A social network caught in the Web. *First Monday*, 8(6). Retrieved Jan 15, 2012 from [http://www.firstmonday.org/issues/issue8\\_6/adamic/index.html](http://www.firstmonday.org/issues/issue8_6/adamic/index.html)
2. Boyd, D. M., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13(1), article 11. <http://jcmc.indiana.edu/vol13/issue1/boyd.ellison.html>
3. Cabral L. (2007): 'Funding Agriculture: not 'how much?' but 'what for?' *ODI opinion*.
4. Charnigo, L., & Barnett-Ellis, P. (2007). Checking out Facebook.com: The impact of a digital trend on academic libraries. *Information Technology and Libraries*, 26 (1), 23.
5. Crop insurance in developing countries. Retrieved Jan 15, 2012 from <http://www.fao.org/docrep/008/y5996e/y5996e02.htm>
6. Dorward, A. and C. Poulton (2008) 'The Global Fertiliser Crisis and Africa', available at [www.futuresagriculture.org](http://www.futuresagriculture.org)
7. Fraser, Arbella (2009) Harnessing agriculture for development: Oxfam international research report September.
8. Haythornthwaite, C. (2005) Social networks and Internet connectivity effects. *Information, Communication, & Society*, 8 (2), 125-147.
9. Kambil, (2008) what is your web 5.0 strategy? Retrieved Jan 15, 2012 from [homepage.mac.com/akambil/KambilHome/papers/JBSweb.pdf](http://homepage.mac.com/akambil/KambilHome/papers/JBSweb.pdf)
10. Kasper, G and Scarce, D (2008) Working Wikily: How networks are changing social change, Monitor Institute.
11. Kinkade, S and Verclas, K (2008) Wireless Technology for Social Change, UN Foundation – Vodafone GroupFoundation, Washington, USA
12. Knowledge Sharing Toolkit: Social media tools in the research and development context. Retrieved Jan 15, 2012 from <http://www.kstoolkit.org/>
13. Liu, H., Maes, P., & Davenport, G. (2006). Unraveling the taste fabric of social networks. *International Journal on Semantic Web and Information Systems*, 2 (1), 42-71.
14. NTEN, Common Knowledge and ThePort (2009), Non-Profit Social Network Survey Report, accessed 13Jan 2012 at [www.nonprofitsocialnetworksurvey.com](http://www.nonprofitsocialnetworksurvey.com)
15. Oxfam briefing paper, 2008 Investing in poor farmers pays- Oxfam international paper, London: ODI. Retrieved Jan 15, 2012 from [www.oxfam.org/sites/www.../bp-129-investing-in-poor-farmers.pdf](http://www.oxfam.org/sites/www.../bp-129-investing-in-poor-farmers.pdf)
16. S. Maxwell, I. Urey, and C. Ashley (2001) 'Emerging Issues in Rural Development: An Issues Paper', London: Overseas Development Institute.
17. Shanthi Kannan (2009) Harnessing technology for farmers. Retrieved Dec 20, 2011 from <http://www.hindu.com/2009/03/15/stories/2009031555101000.htm>

18. ShareFair (2012) Knowledge sharing fair involving FAO, IFAD, CGIAR and other research and development partners. Retrieved Jan 15, 2012 from <http://www.sharefair.net/>
19. Txteagle: Empowering the largest knowledge workforce on Earth. Retrieved Jan 22, 2012 from <http://txteagle.com/index.html>
20. Venkateswaran (2012) How Social Media is Revolutionizing the Agriculture Retrieved Jan 20, 2012 from Sector<http://trak.in/tags/business/2012/02/13/social-media-indian-agriculture-sector/>
21. Web2forDev (2012) Social media learning and sharing experience in the context of development work. Retrieved Jan 21, 2012 from <http://www.web2fordev.net/>
22. What Role for Ministries of Agriculture in the 21st Century? Retrieved Jan 15, 2012 from [http://www.futureagricultures.org/pdf%20files/Briefing\\_MOA.pdf](http://www.futureagricultures.org/pdf%20files/Briefing_MOA.pdf)
23. Wisconsin state farmer webinar (2011) Social media is agriculture's newest survival tool. Retrieved Jan 15, 2012 from <http://www.wisfarmer.com/news/115906494.html>
24. World Developmental Indicators (WDI) (2006) Accessed on Jan 10, 2012 from <http://devdata.worldbank.org/wdi2006/contents/index2.htm>