Harnessing Social Media for Agricultural Development
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About the Publication:
Extension Digest is a publication from the National Institute of Agricultural Extension Management (MANAGE). The purpose is to disseminate information on extension systems and practices, research on extension methods, efficient organisation of technology transfer and current concerns in the area of agriculture.

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I am glad to inform that “Extension Digest” is revived after a gap of 16 years with a timely theme on “Harnessing Social Media for Agricultural Development”. Social Media have now become an important means of communication for everyone in all the sectors.

These tools are impacting the agriculture sector too. Social Media applications are providing new opportunities for Agricultural Research, Extension, Education and Marketing Organisations to communicate and collaborate and enabling exchange of information and networking among agricultural officers and farmers.

More importantly, Social Media platforms such as Facebook, LinkedIn, Blogs, Twitter, WhatsApp, YouTube, Skype etc., are not only enabling scientists and extension professionals share information but also empowering farmers to link to markets and consumers for better profits. Social Media also provide opportunity to farmers to share their farm practices, challenges and the great service they are doing in order to feed the population.

There is a need to harness Social Media for agricultural development by all actors especially the agricultural extension professionals who play a major role in disseminating technologies and innovations to farmers. It is necessary to equip extension personnel on Social Media concepts, applications and communication strategies in order to harness Social Media for effective sharing of agricultural information.

This issue of the Extension Digest focuses on Social media and application in agriculture and allied sectors and also shares cases which demonstrate the power of Social Media in effective sharing of agricultural information and knowledge and networking.

I am sure that this Extension Digest issue will be helpful for all actors in agriculture sector in general and agricultural extension professionals in particular in understanding and using Social Media for agricultural development.

Smt. V. Usha Rani, IAS
Director General, MANAGE
Harnessing Social Media for Agricultural Development

Technological advances in Information and Communication Technologies (ICTs) are providing opportunities to share and access agricultural information at a much faster pace to a wider audience through a variety of user-friendly platforms. New tools like Web 2.0 and Social Media are transforming the way people connect with each other and the way in which information is shared and disseminated. Web 2.0 is defined as a second generation of the World Wide Web that enables collaboration and information sharing. Social Media are based on Web 2.0 technologies and include media that allow one to create and exchange content, communicate and interact with other individuals and groups.

Social Media

Social Media are “a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0 and that allow the creation and exchange of user-generated content (Kaplan and Haenlein, 2010). Social Media refers to Internet-based tools for sharing and discussing information among people. Social media also refers to the content: user generated information, opinion, video, audio, and multimedia that is shared and discussed over digital networks (Andres and Woodard, 2013).

Individuals have been using social media to share information, express their opinions, search for information, network with others. Organisations have been using social media to improve their visibility and reach, improving access to their programs and projects, transparency and also engaging with their clientele. Companies are building their brands on social media. Social media connect people, they also help in joint planning, doing tasks together, sharing resources and communicating. Social media are also compatible with most smart phones.

Networks provide the medium through which people learn of an innovation. Adoption then initiates a chain reaction of adoptions through the network. Social media platforms change the dynamics of social networks in at least three ways - by encouraging expansion of the scope and density of networks; speeding the diffusion of information between links and increasing the visibility of opinions and behavior across the network, according to World Bank Report (World Bank, 2016).

Social Media in Agriculture

Social Media has been impacting on various sectors including the Agriculture sector. Platforms like Twitter Facebook, WhatsApp are encouraging interaction among users and in sharing of information. Earlier, farmers used to exchange information and tips on farming when they got together at a meeting place in the village or depended on newspapers, television and radio for news. Today, farmers are using Facebook, Twitter and other tools to access news and also spread the news. Farmers have been sharing pictures of their farms on Facebook; selling products on Twitter and connecting with experts on WhatsApp. All this is happening thanks to the social media revolution.

These tools are empowering agricultural professionals, transforming agricultural organisations and connecting farmers.

Empowering Agricultural Professionals: Agricultural professionals have been utilizing social media to disseminate information on agricultural technologies, innovations, good practices and network with other professionals. Researchers are collaborating on joint projects. Extension personnel are able to reach a larger number of farmers in lesser time and in a cost effective manner. Agricultural extension officers have been enabling farmers groups using WhatsApp and Facebook, facilitating them to connect with officers and share their concerns.
Transforming Agricultural Organisations: Agricultural research and extension organisations are using social media to disseminate information. A number of national and international agriculture organisations are sharing information about their initiatives, schemes and programs and also connecting with stakeholders.

The Department of Agriculture Cooperation and Farmers Welfare http://agricoop.nic.in, Ministry of Animal Husbandry, Dairy and Fisheries http://dahd.nic.in/, institutions under the Indian Council of Agricultural Research (ICAR), MANAGE, Krishi Vigyan Kendras (KVKs) and other departments under the Ministry of Agriculture, Government of India, have been using some of the Social Media platforms to share latest developments and information on schemes. State Agricultural Universities have been sharing information about their programs on these platforms. Some of the State Agriculture departments in Kerala, Tamil Nadu, etc. have started integrating social media into their agricultural projects. The Kerala State Agriculture department has integrated social media with Karshika Vivara Sanketham project.

International Organisations like World Bank, FAO, CGIAR, USDA are using these platforms to share developments, information on their projects, promote their work, engage in a dialogue with stakeholders, and reach communities.

Connecting Farmers to Farmers and Consumers: Using social media, farmers are connecting with other farmers and sharing tips, practices and success stories. Some farmers are connecting with consumers directly and also marketing their produce using tools like Twitter and WhatsApp.

According to a report published by the Internet and Mobile Association of India (IAMAI) and the Indian Market Research Bureau International (IMRB), the usage of Social Media in rural India has grown 100 percent during 2016 with 25 million people using Internet to access Twitter and Facebook. Urban areas showed a growth of 35 percent with 118 million users as on April 2015. Facebook emerged the leading social media website with 96 per cent of urban users accessing it, followed by Google Plus (61 per cent), Twitter (43 per cent) and LinkedIn (24 per cent). (IAMAI & IMRB, 2016 http://www.iamai.in/media/details/3673).

Social Media Platforms

Some of the Social Media platforms include:

- Social Networking Services
- Blogs
- Microblogs
- Messaging platforms
- Media sharing sites
- Voice over Internet (VoIP) Applications
- Document sharing/ Collaboration/ Knowledge sharing
- Academic Networks and other platforms for Information exchange
Social Media in Agriculture

Given here are some of the Social Media platforms with a few examples of how these are facilitating agricultural information transfer.

Social Networking Services

Social Networking services are used for networking with friends and colleagues. Popular platforms are Facebook, Google Plus and LinkedIn.

Facebook

Facebook http://www.facebook.com is a social networking platform accessible through computers and mobile networks and currently has over one billion accounts globally. Facebook enables users to connect, share information through pictures, video and chat. The platform allows one to create individual or institutional Pages, Events, and Groups of like-minded professionals.

<table>
<thead>
<tr>
<th>Features</th>
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<tbody>
<tr>
<td>● Profile: Once a user registers at <a href="http://www.facebook.com">www.facebook.com</a>, they can create their profile indicating their name, educational institutions attended, occupation, etc.</td>
</tr>
<tr>
<td>● Timeline: Timeline on the homepage chronologically lists all personal activity and posts shared by friends/connections.</td>
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<tr>
<td>● Friends: After creating a profile and setting up the timeline, one can search and add friends.</td>
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<tr>
<td>● Newsfeed: the homepage is a continuous Newsfeed which updates posts from friends, pages, groups and events.</td>
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One can ‘Like’ favourite organisations, posts, videos, photographs posted by friends and share information. Users may also join common-interest user groups or create a new group to share messages within the group. The ‘Pages’ option allows one to create institutional pages. With ‘Events’ one can organize gatherings and send notifications. Messenger is another feature which allows one to one messaging.

Facebook in Extension

Facebook can be part of Communication in Extension activities, program implementation, education, and marketing (Mains, et al, 2013). Facebook can help extension professionals develop connections between individuals and the community, enhance educational efforts, marketing programs. This allows professionals to build social networking capacity with their clientele online. Facebook interactions can help in enlarging the network of supporters of local program goals. Educational efforts can be enhanced through the use of Facebook Groups and Pages. Groups can be created around specific topics and allow information sharing. The use of Facebook allows extension professionals to reach a larger and more diverse audience in a cost-effective way in a manner that is easily accessible, and timely say the authors. (Mark Mains et al. Effective Use of Facebook for Extension Professionals In Journal of Extension Vol 51(5) Oct 2013).
How to use Facebook for Agriculture

Facebook can be used to:

- Share agricultural information and messages.
- Post photos and videos of activities at the field level, demonstrations, interaction with farmers, and application of technologies.
- Share / highlight success stories of farmers
- Advertise events, exhibitions, conferences, seminars, training programs and meetings related to agriculture.
- Popularize Govt. schemes.
- Send alerts in case of emergency, announcement for input supply, marketing opportunities for farmers and consumer preferences.
- Create professional groups on a specific theme and share knowledge; Connect with other groups, organisations
- Encourage farmers and Farmers’ Producer Organisations (FPOs) to create Facebook pages and connect with agricultural officers, other farmers and groups.

Agricultural Organisations and Professionals on Facebook

Recognizing the potential of this tool, almost all major agricultural organisations and professionals across the world are sharing information on their activities on Facebook. A few examples are presented here.
The Department of Agriculture, Cooperation and Farmers Welfare and Department of Animal Husbandry, Dairying and Fisheries, are on Facebook at https://www.facebook.com/agriGoI/ and https://www.facebook.com/DOAHDF/sharing information on schemes and programs.

**Food and Agriculture Organization (FAO)** is on Facebook https://www.facebook.com/UNFAO/ illustrating its mandate and priorities.

**Consultative Group on International Agricultural Research (CGIAR)** shares developments and research updates at https://www.facebook.com/CGIAR-270424969671619/.
National Institute of Agricultural Extension Management (MANAGE) has been regularly sharing information on training, programs and schemes at https://www.facebook.com/National-Institute-of-Agricultural-Extension-Management-258224801187342/

Users on Facebook can create groups or Join a group of like minded professionals and share knowledge and connect with other groups and organisations.

MANAGE Agricultural Extension Network (MAEN) is a group on Facebook created to share training information, research updates, publications and enable sharing of extension innovations, best practices and facilitate development dialogue among MANAGE Faculty, extension professionals, farmers, researchers, agripreneurs, farm input suppliers and other agricultural development stakeholders. One can join MAEN at https://www.facebook.com/groups/610069809167737/
Agricultural Extension in South Asia (AESA) is a portal on Agricultural extension in South Asia which facilitates sharing, learning and networking for building effective and efficient extension and advisory services. Its group page on Facebook, posts links to publications on extension and advisory services, announcements of workshops and conferences, major policy decisions on extension, reports of meetings and workshops, examples of good practices, cases, tools and frameworks relevant for extension personnel. The group has around 18000 members. (https://www.facebook.com/groups/428431183848161/)

Livestock Information and Marketing Centre Group, Tamil Nadu, India https://www.facebook.com/groups/Livestock.TN/ has over one lakh members including farmers, extension personnel, consumers, etc. sharing information related to livestock production, management, marketing, etc. There is a separate page for marketing group members’ livestock and related products. (https://www.facebook.com/Livestock.Market).

Global Forum for Rural Advisory Services (GFRAS) https://www.facebook.com/groups/gfras/. The Global Forum for Rural Advisory Services GFRAS aims at enhancing the performance of advisory services so that they can better serve farm families and rural producers. Their group page provides space for advocacy and leadership on pluralistic, demand-driven rural advisory services.

Farmers connect on Facebook

Turmeric Farmers on Facebook: When turmeric prices dropped due to oversupply, it became a difficult situation for turmeric farmers in Sangli, Maharashtra. Then, one of the local farmers created a group on Facebook https://www.facebook.com/Turmeric-Farmers-Association-Of-India-124263890989811/?pnref=about.overview to connect to other turmeric farmers. They discussed the situation and decided not to participate in the local auction. The news spread on social media, and 25000 turmeric farmers of Sangli stayed away. A protest that would have earlier taken months to organize now occurred within 10 days. When the farmers resumed selling their produce, the prices doubled from Rs 4 per kg to Rs 8 per kg. (Ghoshal, Sutanuka, 2012).

Farmers Marketing on Facebook Shri Prashant Kshirsagar, a farmer from Nasik, Maharashtra joined a farmer’s market group on Facebook. He received a good response within a few days, and sold the raisin that he produced, without stepping out of his farm he says. Shri Vinay Ketkar, from Thane, is
part of a group of farmers named ‘We Farmers’. Using social media platforms, he helps market the fruits and dry fruits grown by the farmers in this group. Ms. Kavita Mukhi who started a Facebook group called ‘The Farmer’s Market’ for organic fruits and vegetables in 2010, connects Mumbai with organic farmers across Maharashtra and has over 18,000 members mostly from Maharashtra in the group, including farmers and consumers (Anagha Sawant).

Case

Vivasayam Karkalam - Creating Awareness on Technologies on Facebook

Shri Madhu Balan, an Agriculture Officer from Dharmapuri, Tamil Nadu, during his field visits, studied practical difficulties faced by farmers and decided to create awareness about new technologies among farmers. He started Vivasayam Karkalam ‘Let us Learn Agriculture’ page on Facebook (https://www.facebook.com/vivasayamkarkalam) in 2012 to cater to the information needs of farmers.

He shares information on different aspects of farming, from sourcing seeds to marketing, in the local language. Farmers also share their experiences and problems on the platform. The group is popular among farmers and students and has 16,000 members. Members exchange information on improved farm technologies, discuss with other farmers and extension personnel, share information and photos on best practices, government schemes, etc.

Content is mostly in Tamil. Shri Balan also shares information on progressive farmers with contact details so that users can contact them directly. Through Vivasayam Karkalam farmers also learn about the market requirement which helps them to plan the cultivation of crops.

He posts the requirements of his Facebook friends and has created an interactive portal where marketing has also become a little easy for farmers. Under his guidance, millet growers in Dharmapuri have started a federation to market their items.

Through the Vivasaya Karkalam pages, successful farmers have become popular and increased their business. The story of Mr. Muthu shared on Facebook gained him many visitors and now he is one of the most sought jasmine and citrus producer in India. Mr. C. Jayakumar a Jamun grower from Dindugal has increased his business after his story went viral on Vivasayam Karkalam. Mr Madhu Balan says, that his dream is to make this the “Biggest Social Service Network” that connects people in Agriculture and creates a Win-Win situation for all.

(Based on inputs from Shri N. Madhu Balan, who may be contacted on 0-97515-06521 and email: balmadhu@gmail.com).
Google+ http://plus.google.com is a social networking service operated by Google.

**Features**
- **Profile**: One can create a personal profile, connect with acquaintances, post photos and status updates and share information.
- **Circles**: One can group different types of relationships into Circles. This is a feature that enables users to organize people into groups for sharing across various Google services. Once a circle is created, a Google+ user can share specific private content to only that circle.
- **Multi-person instant messaging feature, text and video chat called Hangouts, events, location tagging, and the ability to edit and upload photos to private cloud-based albums.**

**How to use Google+ for Agriculture**
- **Connect with stakeholders**: Audiences can be segmented and relevant content can be shared with interested groups.
- **Disseminate information** on new projects and programs
- **Share ideas** and encourage others to share their ideas and engage with stakeholders
- **Post photographs, videos of activities** and share blog content
- **Mobilize support** for the work you do
- **In addition to Google Plus**, other Google resources like Communities, YouTube, Gmail, Google Maps, Hangouts, can also be used

**Organisations using Google+**
Organisations are using Google+ to interact with stakeholders, disseminating information. Users who like what they see can “+1”(similar to “like” on Facebook), comment on posts or reshare the information in their own profile. Users become followers when they add a page to one of their “circles”.

The Food and Agriculture Organization illustrates its mandate and priorities on Google plus.

United States Department of Agriculture (USDA) shares news, interesting blog content, photos and video on Google+. One can also engage with USDA officials on topics related to food, agriculture, natural resources etc.
LinkedIn

LinkedIn https://in.linkedin.com/ is a professional network which allows connections on a professional level. This is a social networking service mainly used for professional interaction. LinkedIn helps one connect with other professionals, look for jobs, or post one. It is an online directory of professionals and organisations/companies. Individuals use LinkedIn for networking, job search, company research, and connecting with alumni and exchanging information and experiences. Companies use LinkedIn for hiring and connecting with other companies. This network has over 460 million+ members across the world.

Features

- **Profile**: One can create a professional profile – including skills, employment history and education.
- **Find and add connections**: Network members are called Connections. One can use email contacts to search for professional contacts either friends, or co-workers and connect with them.
- **Create and Join groups**: LinkedIn permits the creation of groups that share interest in specific initiatives or projects. One can search for groups or professional pages, join groups and connect with other professionals.
- **Content through articles, PPTs etc. can be shared.**
- **Skills and endorsements**: One can endorse skills listed on someone’s profile. Skill endorsements give recognition to a connections' skills. The name and picture of the person who endorses will appear next to the skill on that person's profile and they also receive an email.

How to use LinkedIn for Agriculture

- **Personnel in an organization can connect with others in their fields.**
- **Share knowledge and resources and exchange experiences with other professionals.**
- **Create groups and share developments in agriculture and allied sectors.**
- **Organisations can search for experts for involvement in specific projects or programs.**

Professionals are connecting with prospective organisations for employment opportunities. Organisations are also reviewing LinkedIn profiles to seek experts and potential employees. CGIAR, World Bank, FAO are sharing updates on LinkedIn and enabling others to connect with their employees. The **Rural Development Network** on LinkedIn https://www.linkedin.com/groups/862657/profile connects people involved in rural development, in developing and developed countries. It is a forum for exchange of ideas and has over 23,000 members.
Blogs

A blog (or web log) is an easy-to-publish web page where contributors can post news, thoughts, comments, etc. Wikipedia defines a blog as "a Web site, usually maintained by an individual with regular entries of commentary, descriptions of events, or other material such as graphics or video". Blogging is an easy way to communicate knowledge. A Blog is also called an online diary.

Features

- A blog combines text, images, and links to other blogs, web pages, related to the topic. One can create Posts and upload or embed photographs, video. Entries in a blog are usually displayed in reverse-chronological order with the latest entry at the top.
- One can subscribe to someone’s blog, follow others blogs and also post comments.
- A Blog can have one or many authors. The person who creates the blog is the primary author. More authors can be added and the blog can be collaborative.
- Settings can make a blog public, private or select few for viewing.

There may be different kinds of blogs like personal blogs where bloggers express their thoughts, ideas, reflections; project blogs where project team members can share frequent updates on a project; organization’s blog documenting initiatives, event blogs to update on an event; thematic blogs for sharing thoughts, ideas on a thematic focus area.

Blogs are an effective way for organisations and individuals to share stories from the field, opinions and experiences.

How to use Blogs for Agriculture

- Expressing opinion on a topic
- Sharing information within an organisation quickly. Instead of sending emails to everyone, one can publish news to a blog.
- Sharing new developments, initiatives and practices in agriculture and allied areas with other professionals. Regular blog posts can complement newsletter and website and sharing news on a blog would be faster than the time it takes for it to be published in a newsletter.
- Blogs allow different ways to communicate ideas, like recording a podcast or a video and posting that in their blog with a short summary.
- Posting frequent, short updates on a topic.
- Sharing and validating your work before finalisation. Security options can help ensure different users have different access rights.
- Comments allow greater interaction between authors and readers.
- Blogs improve visibility of the work much faster.


There are some free blogging platforms, like Blogger (www.blogger.com), WordPress (www.wordpress.com). These allow one to create, edit, publish posts, photos, videos. Blogger uses Gmail account and allows an individual to create upto 100 blogs on an individual account.

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Creating a Blog on Blogger.com

- One can log in at http://www.blogger.com with a Google account or click on the “Sign Up” button and register for a Google account.
- Click on “New Blog”
- Fill in the Blog name (the system will indicate if the blog name is being used by someone else and suggest alternatives) and address and choose a template.
- Click on “Start Blogging” link
- Enter the content and click on “Publish”. There is also an option to “Preview” content before Publishing and see how it appears online by “Viewing” the Blog.
- Settings allow one to edit the Blog address, give permissions to others to edit content, set whether the blog is open to the Public, Private or only select readers.

Creating a Blog on WordPress

- Move to WordPress at https://wordpress.com/ and click on the “Get Started” link.
- Fill out the online form. Type the proposed web address for your blog. The service will look up if the name is available or will display available alternatives. One can choose one of those options or try a different domain name.
- Click “Create Blog” and wait for the confirmation email. After confirmation, click the link and then sign into WordPress with username and password.
- Choose a Theme for the blog, click on the Theme and fill in the fields on the General Settings screen.
- “Settings” tab can be used to set whether the blog is to be private or public.
- Click the “New Post” tab and enter the content and “Publish Post.”
This is a Blog by Mr. Nandakumar from Palakkad, Kerala on his farming related experiments and experiences. The Blogger is an Engineer and also a part-time farmer engaged in natural farming in his 9.25 acres of land in Palakkad since the last 5 years.

**My Experiments With Farming**

**Saturday, May 14, 2017**

**A talk by Devinder Sharma on silver jubilee meeting of Jaiva Karshaka Samithi**

Today on May 14th, it was held the silver jubilee celebration meeting of the group. The meeting was successful and everyone had a great time. The talk was delivered by Dr. Devinder Sharma, who is an expert in the field of organic farming.

In conclusion, organic farming is the way to go. It promotes biodiversity, improves soil health, and reduces the use of synthetic chemicals. It is a win-win situation for both the farmer and the environment.

**Organisations using Blogs to disseminate Agricultural Information**

The potential of Blogs has been recognized by a number of development organisations and academic institutions:

The International Institute for Environment and Development (IIED) blogs on a range of topics related to their work.
The **International Food Policy Research institute (IFPRI)** has a number of blogs at http://www.ifpri.org/blogs related to various projects and current developments. One of the Blogs is on “Strategies for preventing recurring famines and building resilient food systems”.

**World Bank** https://blogs.worldbank.org has a number of blogs, focusing on current developments. Eg “How can developing countries make the most of the digital revolution?”.

**Agricultural Extension in South Asia (AESA)** http://www.aesa-gfras.net/genesis.php hosts various Blogs on Agriculture and allied aspects to invite opinions and points of view on some of the policy issues confronting extension and advisory services in South Asia. Some examples are “Are cellphones useful as learning tools for students?”, ‘Online Strategies to market farm Produce’ and other blogs.

There are a number of blogs by extensionists, researchers and academicians.

**Some Tips for Bloggers**

- It is important to choose a theme and decide the content which one wants to blog about.
- Some research is needed before posting content to be included in a blog.
- Regular updates are important to keep the reader engaged and interested.
- Visually appealing content attracts more attention.
Microblogs

Microblogging is a form of blogging that allows users to write brief text updates (not more than 140 characters) and publish them. These can be viewed by anyone or by a restricted group chosen by the user. Microblogging started out as a tool to answer the question “what are you doing right now”.

Microblogging is being used by organisations to share resources, ask questions and to increase visibility of their programs and projects.

Twitter

Twitter http://www.twitter.com is a microblogging platform. It is a web and mobile phone based short messaging system that allows users to send and receive short text messages (Tweets) in 140 characters (including spaces and punctuation). Twitter is being used for social reporting. A group of participants at an event can interactively and jointly report through tweets, in text, photos, images or video. Microblogging of events increases visibility and outreach of the knowledge. One can ‘Follow’ an organization or individual’s tweets and keep getting updates on developments or news.

To set up an account, one can go to www.twitter.com and sign up, giving basic details, choose a user name and start following organisations and people you want to get updates from.

Features

- @ Sign denotes a particular twitter user. For eg. @AgriGoI is the Twitter handle of the Ministry of Agriculture & Farmers Welfare, Govt of India.
- “Retweet”; enables one to share someone’s tweet with one’s followers. One can re-post someone else’s message using “RT” or “Retweeting” in front of the message.
- Hashtags #, are used to identify keywords in tweets. These can be used for searching, which brings together tweets on a particular topic.
- Direct Message (DMs) can be directly sent to the person who follows you and vice versa. Direct Messaging helps when we want to contact someone on twitter but don’t want others to see the messages.
- One can upload photos, video with a tweet or links to pages or photos can be included in a tweet. There are also URL shortening programs (bit.ly, tinyURL) which shorten the URL so that it can be included within the message.

How to use Twitter for Agriculture

- Follow individuals in the agriculture sector who share their insights and influence agricultural issues.
- Follow Agricultural institutions which regularly share their information, events and news.
- Disseminate agricultural innovations and technologies for wider reach.
- Tweet about government announcements, newspaper articles, farmers’ schemes, events etc., with links to original sources.
- Share photographs and images which demonstrate technologies and practices.
- Encourage farmers to tweet their issues, problems and post photos from the field.
- Encourage farmers to publicize their products and other details for consumers.
- Organise and Participate in Twitter chats or conferences on topics of interest.
A number of national and international agricultural organisations, ministries, development organisations, agricultural officers, farmers are using Twitter to update and share information and connect with stakeholders.

**Organisations on Twitter**

@AgriGoI, (https://twitter.com/agrigoi) is the official Twitter Handle of the Department of Agriculture, Cooperation & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Government of India. The department is sharing news and updates about schemes and programs on this platform.
@icarindia https://twitter.com/icarindia is the twitter handle of the Indian Council of Agricultural Research (ICAR), Ministry of Agriculture, Govt. of India.

@AgChat (https://twitter.com/agchat). The AgChat (Twitter online discussion group by the AgChat Foundation) started in 2009 by a group of American farmers is used in USA, UK, Australia, New Zealand and Ireland for facilitating discussions of industry issues between farmers and agribusinesses. Its mission is to empower farmers and ranchers to connect communities through social media platforms. As their Twitter page says – “A weekly conversation for folks involved in business of growing food, fuel, feed and fiber”.

@GFRAS (https://twitter.com/infogfras) Global Forum for Rural Advisory Services (GFRAS) provides information related to advocacy and leadership on pluralistic, demand-driven rural advisory services on Twitter for extensionists, development practitioners, researchers, policy makers.

@USDA (https://twitter.com/USDA), U.S. Department of Agriculture shares latest news, events, videos and information in agriculture with farmers, extensionists, development practitioners.

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Messaging Platforms

A Messaging platform allows exchange of messages for communication. There are a number of platforms like WhatsApp, Telegram, Facegroup messenger etc.

WhatsApp

WhatsApp Messenger is a cross platform messaging app which allows users to exchange messages, audio, video, photographs. This can be downloaded to a smart mobile phone with internet data access. Over 1 billion people are using WhatsApp to stay in touch with colleagues, friends and family. With WhatsApp on the web and desktop, one can sync all chats to the computer and one can chat on whatever device is convenient.

Features

- **Chats**: WhatsApp has most of the functions of popular mobile messaging apps, with text messages and emoji, a camera button for sending off quick selfies and snapshots. A file attachments menu (paperclip icon) can share photos, videos, audio and even your location. There’s also a provision for voice messaging in the form of a microphone icon that you hold down to record quick voice messages.

- **Group & Broadcast Messages**: Users can create a group of up to 256 users who can then message each other and share media in a chat room like environment. The creator of the group also becomes the group admin, with the ability to add new participants, remove existing ones and appoint new admins. One has choice to leave a group. There’s also a New Broadcast feature through which a message can be broadcast to a list of recipients.

- **Calls**: WhatsApp provides a powerful feature to make free phone calls to other users through their data connection, bypassing call time and long distance call charges.

How to Use Whatsapp for Agriculture

- **Encourage scientists, Extension workers, progressive/innovative farmers to create WhatsApp Accounts to network & share information.**

- **Scientists, Extensionists, University Faculty, NGOs may create WhatsApp groups for quick sharing of information within their groups.**

- **KVKs, Department of Agriculture and Allied Departments may create WhatsApp groups to send/share alerts - release of new varieties, meetings, office orders, details of Government Schemes, visits of senior officers etc.,**

- **Scientists and Extension personnel can join important WhatsApp groups to disseminate innovations.**

- **Encourage farmers to form commodity specific WhatsApp group to share information and network with experts and input agencies related to those commodities.**

- **Special emphasis may be made to create WhatsApp groups by farmer leaders, innovative farmers, farmer friends. Sending information to farmers through WhatsApp groups is very easy.**
There are many innovative ways to share on WhatsApp. The cases mentioned illustrate some practices followed by several users of WhatsApp.

Farmers in Punjab, are getting immediate advice on crop health to seed procurement, soil health, use of fertilisers and pesticides, on WhatsApp. Dr Amrik Singh, an agricultural officer in Gurdaspur, Punjab has set up a group “Young Innovative farmers, connecting over 100 farmers and experts. Some farmers upload photos of their disease hit crops to seek advice from experts. Farmers are also sharing good agricultural practices.

Mr K Venkitesh, owner of Vijay Farms in Villupuram district, Tamil Nadu, gets a call from a customer in Rajasthan for buying goats for Bakrid. He sends the photos of the goats through Whatsapp and the customer places the order. When the money is credited into his account, the goats are packed off to the buyer. http://www.thehindu.com/todays-paper/farmers-ask-whats-up-on-whatsapp/article6492889.ece.

Case - 1

Marketing Vegetables on WhatsApp

Shri Santhosh Kittur and Shri Abhijit Kamath, young farmers from Belgaum district of Karnataka are using Whatsapp for marketing their vegetables. In order to ensure a good range of produce, each grew different varieties of vegetables like ridge gourd, bitter gourd, cucumber, cluster beans, beans, cabbage, tomato, green chillies, capsicum, onions and garlic. Once they had sufficient produce for sale, they created a WhatsApp group called ‘Chemical-free produce’ for local residents. Currently there are 3 groups and around 100 members including farmers and regular customers.

On the previous day before the market day they post information on the available produce, along with quantity and price. Based on the request from members they pack the required quantity. Home delivery is on request. Members can even pick up as per their choice. The first preference is given to the members of the group. They give regular updates on farm activities, from sowing to harvesting with photographs, to farmer members.

They say that this technology saves their time, eliminates middlemen and ensures direct delivery to customers in response to requests. However there are some problems too. Sometimes there are no buyers as they have found vegetables at lower prices elsewhere. At times the produce gets over quickly in the market and does not reach regular customers. They feel that while this method of reaching out to buyers on Whatsapp is good it is important that all are active on the group. Shri Santhosh Kittur and Shri Abhijit Kamath may be contacted on 9901563210, 9916274492. (Based on a discussion and inputs from Mr Santosh Kittur).

WhatsApp group - ‘Baliraja’ has members across Maharashtra. Its primary aim is to offer information and advice to farmers. Farmers in Maharashtra are connecting on the group to share best practices, seek advice, connect with experts and explore new markets. The issues relating to plant nutrition, soil problems, crop rotation and market prices are discussed on WhatsApp. The case of Baliraja is given in the box.
Extension Digest
Harnessing Social Media for Agricultural Development

Case -2

‘Baliraja’ WhatsApp Group

‘Baliraja’ which means ‘Farmer King’ in Marathi was initiated by Mr. Anil Bandawane, an engineering student turned farmer from Junnar near Pune who started the group to discuss about exotic vegetables like broccoli, zucchini which are in demand in urban markets. Initially, the group had 100 members including experts, which increased to 400 and the admin had to form three more groups to accommodate farmers who were keen to join from all over the state. Today, there are almost 20 groups of which 17 communicate in Marathi, one in Hindi, one is for admins and one is especially for natural and organic farming, says Mr. Anil. Each group has on an average around 150 to 250 members. In addition to farmers the groups also have other members with varied backgrounds giving advice. As the group was growing, Mr. Anil shared the admin rights with other members who take care of different responsibilities.

Shared Responsibilities by Group Admins

Mr. Vilas takes informs about untimely rain and other details about the weather in the group.

Mr. Krishnat Patil owns a fertilizer firm and he and Mr. Anil Bandawane, provide information about fertilizers, pesticides and latest technologies about farming.

Mr. Sujay is a chef and a guest lecturer in various Hotel management institutions and into farming too. He educated the group about the vegetables like broccoli and zucchini used in continental cuisines and the methods of growing them.

Mr. Yunus Khan, is working with ‘Agri Clinics and Agri Business Centres’, Akola which provides training. He shares his experiences of visits to agricultural exhibitions.

Mr. Amol Sainwar, the founder of an NGO HOPE, supports the farmers in various respects. When the farmers talked about the loss they are facing due to unavailability of a warehouse. Mr. Amol with the help of his NGO and farmers is now ready to build one.
**Supporting Farmers**

Through the group they are also providing moral support to farmers.

‘Amhi vasare vasare, muki upasi vasare’ (we are calves, dumb hungry calves),

Gaya panhavato amhi, chor kalatat dhar (we tend to the cows, thieves walk away with milk
and cream), Tapa tapa gham unarato, unarato bhuivar (we sweat and sweat on fields),

Moti pikavato amhi, tari upasi lekare (we cultivate pearls, but our children remain hungry),

- Late Shri Krishna Kalamb, Farmer poet

Late Shri Krishna Kalamb was a farmer who committed suicide due to untimely rains. ‘Baliraja’ came out with some solutions in order to support these farmers. Members have tried to stop suicides by sending messages on the group. “We helped a group member come out of depression and saved him from committing suicide just through the moral support of the group members”, says Mr. Sujay. The aim of the group is to reach out to more farmers by helping create more such enabling groups.

Only a few farmers own smartphones but each member of Baliraja stays in touch with 20-30 farmers in the village. This ensures that their problems are communicated to the group.

**Collaboration**

Baliraja is collaborating with a start up ‘Happy Roots’ for alternative income during off season and is also set to collaborate with ‘Catalyst Labs’ a start up which works with small farmer groups to connect them to the market and organized retail. In order to manage all the groups and answer questions on time, a website is planned, to have a common forum for all the members in the various groups of Baliraja.

**Impact**

An expensive fertilizer was used for the growth of pomegranate plants in Ekambe village, Satara district. When an article on Baliraja was published, they received a request from a horticulture expert to join; he suggested a cheaper alternative for the same plantation. “The farmers are happy with this new fertilizer” says Mr. Sujay Kumthekar (Admin from Ekambe village).

In Shegaon Village: Through a packaging factory owner who joined the group, members learned about packaging and now they have their own brand of wheat- Ganesh Wheat, which is grown, processed and packed by them.

Influential people who can help the farmers are also a part of the group now and can directly converse with the farmers. The Sarpanch of Ekambe Village, Satara is a member of Baliraja Shakha No.4. The villagers can now discuss their problems. The working president of RTI Society Kej, Beed, is in Group 2. He appealed to farmers to inform him if they came across any case of corruption. Dr. Ankush Chormule, a researcher on Agricultural entomology updates members with his research work. The group has also listed problems and come out with possible solutions relating to price of goods, crop insurance, infrastructure, direct connectivity to market by the government and they plan to write about these to the Prime Minister and Chief Minister of Maharashtra.

To get in touch with Baliraja, please write to amol.sainwar@gmail.com.

(Based on inputs from Mr. Amol Sainwar)

(Katoch, Manabi.In One of India’s Most Suicide-prone Areas, Whatsapp Is Bringing Hope & Support. http://www.thebetterindia.com/21703/farmers-rural-maharashtra-bringing-about-the-next-green-revolution-whatsapp/)
Case - 3

“Shetkari Mitra” (farmers’ friend) is a WhatsApp group in Yavatmal, Maharashtra, sharing information on agriculture, marketing, animal husbandry and government schemes. This group was created by M.S. Swaminathan Research Foundation’s Village Resource Centre, with over 130 farmers from different villages.

In order to increase the number of farmers who can benefit from this instant messaging platform, the Village Resource Centre (VRC), Yavatmal organized a one-day workshop for farmers on android mobile-based application for agriculture and oriented 20 farmers. The farmers were oriented about different applications such as weather forecasting, pest & disease management, weed management, irrigation management and market prices, etc. The members of these groups share agri-based information on crop damage, new irrigation techniques, crop pattern, pesticide use, new cultivation methods, preventing crop diseases, increasing yield and taking care of domestic animals. The group also includes scientists, experts and consultants who guide members on animal diseases.

The farmers regularly send their queries on the group and receive advisory. This service was started for farmers in June 2016, and now there are over 130 farmers in this group from different villages of Vidarbha region. The farming community in the region is finding the information beneficial. Mr. Gajanan Mahajan, a farmer from Ralegon, Yavatmal District, says that he is using the WhatsApp service regularly and finds it very helpful as “earlier we need to physically go to the VRC with sample of infested crop for diagnosis but now I send crop images through WhatsApp & get recommendations saving time and money”. (Vijay S Thokre, Scientist, MSSRF http://www.mssrf.org/?q=content/maharashtra-farmers-%E2%80%98whatsapp%E2%80%99-agri-information).
Media Sharing Sites

These sites allow users to share videos, photographs and audio.

Video Sharing

YouTube

YouTube http://www.youtube.com is a Video sharing Web site where users can view, upload and share short videos or multimedia presentations.

Features

• Unregistered users can view most videos on the site, while registered users can also upload videos.

• Comments of viewers, related videos appear next to the video.

• Each video is also accompanied by the HTML code required to link to the video and/or embed it within another Web page (unless the video owner chooses to disable the embedding feature).

• Allows comments, feedback and rankings from visitors.

• Provide RSS feeds and automatic subscription options so that a visitor can be updated when new content of their interest is published.

How to use YouTube for Agriculture

• Encourage scientists and Extension Personnel who work at the field level to create YouTube accounts to share technology related videos, instructional videos, extension material and other agriculture-related videos.

• Encourage Extension workers, BTT, ATMs, Farmer friends to produce low cost videos on field level problems and local solutions and post them on YouTube.

• Encourage Extension personnel to download useful agri-tech videos from YouTube and screen them on computer monitors or pico-projectors to small groups of farmers during their visits.

• Encourage young farmers/agripreneurs to produce their success stories and best practices and upload them on YouTube.

• Promote use of relevant YouTube videos in building capacities of agricultural officers at the field level.

• Agricultural Experts and Resource person may produce their own short videos on important innovations/technologies and themes and upload on YouTube for sharing and re-using them for different purposes.
Agri Content on YouTube

MANAGE is sharing video lessons of all the modules of its Post Graduate Diploma in Agricultural Extension Management (PGDAEM), an online continuing education program, on YouTube.

MANAGE PGDAEM Video lesson on YouTube

ICAR organisations are sharing videos on YouTube.

TNAUs e-Extension Centre shares agriculture videos in the local language. Over 270 videos on Agriculture and allied aspects in Tamil have been uploaded on YouTube by TNAU Agritech at https://www.youtube.com/user/tnauagritechportal

TNAU Agritech Portal

CGIAR Research Program on Climate Change, Agriculture and Food Security (https://www.youtube.com/user/CCAFS) shares videos featuring stories of smallholder farmers, interviews with leading agricultural experts and innovative information on climate-smart agriculture.

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Digital Green (https://www.youtube.com/user/digitalgreenorg) has been creating and sharing videos for wider adoption of locally relevant agricultural practices in different languages to support rural communities. Short 8 to 10 minute documentaries which are localized in content, language, dialect are developed along with partners and village community. These are accessible on Digital Green website and also on YouTube.

Kissan Kerala is a project of the Department of Agriculture, Govt. of Kerala, conceptualised, designed and developed by Indian Institute of Information Technology and Management (IIITM-K), Thiruvananthapuram, which provides information and advisory services for the farming community across Kerala. The project gives access to over a 100 informative videos on Agriculture, Animal Husbandry, Fisheries and allied topics on YouTube at www.youtube.com/kissankerala.
Photo Sharing

Agricultural researchers and extension managers often depend on photographs to document plants, pests, diseases, etc. Photo sharing sites like Flickr, Instagram, Pinterest can help organise and share photos and images easily and also receive comments from others.

**Flickr**

Flickr [http://www.flickr.com](http://www.flickr.com) allows one to store photos on a cloud and share them for free up to a limit. The service is used by photo researchers and bloggers to host images that they embed in blogs and social media. Photos and videos can be accessed from Flickr without the need to register an account but an account is needed to upload content onto the website. Registering an account also allows users to create a profile page containing photos and videos that the user has uploaded.

**Features**

- **Accounts:** Registered users can upload content onto the website. The free option includes one terabyte of storage limited to 200 MB per photo and 1 GB per video with maximum length of 3 minutes.
- **Organization:** The images a user uploads go into their sequential “photo stream”. Photo streams can be displayed as a justified view, a slideshow, a detail view or a date stamped archive. Flickr provides code to embed albums into blogs, websites and forums.
- **Organizer:** is an application for organizing photos within a Flickr account which allows users to modify tags, descriptions and set groupings, and to place photos on a world map. Users can select and apply changes to multiple photos at a time.
- **Access control:** A user uploading an image can set privacy controls that determine who can view the image or comment. Private images are visible only to the uploader, but they can also be marked as viewable by friends and/or family.
- **Allows compatibility among platforms and browsers.**
- **A Flickr user can post comments to a Flickr photo on its photo page, if enabled by the uploader, and users can click “favorite”.**
- **Licensing:** Flickr offers users the ability to either release their images under certain common usage licenses or label them as “all rights reserved”.

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Instagram

Instagram http://www.instagram.com is a mobile, desktop, and internet-based photo-sharing application and service.

Features

- Sharing Pictures and Videos. Users can share pictures and videos either publicly or privately. Registered users can upload photos or videos and follow other users’ feeds.
- Add Effects. Users can apply various digital filters (that can make pictures look vintage, innovative, or photo shopped) and effects to their images, and add locations through geotags.
- Hashtags. They can add hashtags to their posts, linking the photos to other content on Instagram on the same subject or topic.
- Users can connect their Instagram account to other social networking sites, enabling them to share photos to those sites also.

How to use Photo Sharing tools for Agriculture

- Organisations can upload photographs to create a repository of images alongwith title, description, tags and organize them to reach target audience easily
- Organisations can embed a slide show presentation of their images on their Web sites. These images can be accessed through RSS, Twitter, Facebook, mobile devices, blogs, etc.
- Agricultural officers, Farmer friends can upload pictures from the farm depicting problems.
Pinterest

Pinterest http://www.pinterest.com is a pinboard style platform which helps in organizing and sharing visual information. One can share a story through pictures. It is a social network of visuals using pins and pin boards. Pinterest users ‘pin’ images to share on their personal boards.

Features

- **Pin:** It can be an image added from the web using the “Pin It” button which can be installed through the Pinterest page and allows one to post images easily.
- **Board:** A board is a set of pins – this can be on a specific subject titled “Pest management techniques”.
- **Re-pin:** One can search and re-post other images from other users’ boards.
- **One can also follow or unfollow boards or people and see what they are posting on their boards. It is possible to have up to 500 boards and 200,000 pins on one account.

Audio Sharing

One can upload and share music and audio with others. Podcasting is using Internet to make digital records available for downloading.

Sound Cloud, Podomatic are popular sound platforms.

SoundCloud

SoundCloud http://www.soundcloud.com is a podcast streaming platform that enables users to upload, record, promote and share their tracks.

Features

- **Artists can upload audio and receive a unique URL.**
- **Sound files can be embedded anywhere, and can be combined with Twitter and Facebook to reach audience.**
- **Registered users can listen to unlimited audio and may upload up to 180 minutes of audio to their profile at no cost.**
- **Registered Users can also post comments on a specific part of the audio track and these get displayed**
- **One can ‘Like’, ‘Repost’, and ‘Share’, to ‘Follow another user**
- **SoundCloud distributes music using widgets and apps.**
How to use SoundCloud for Agriculture

- Organisations can upload and share audio recording of important lectures, speeches, talks, interview, seminar or conference proceedings.
- Radio programs related to agriculture and Community radio programs can be uploaded and shared with farmers.
- Agriculture content producers can upload and share their audio content.
- Narrate stories from the farm.
Voice over Internet (VoIP) Applications

Voice over Internet Protocol is a group of technologies for the delivery of voice communications and multimedia sessions over Internet. Tools include Skype, Google Hangout which are used for connecting, video/text chatting.

Features

- **Calls**: One can make Skype to Skype calls, calls to mobiles and landlines, group calls by getting a group together (upto 25 people) on one call, get Skype calls forwarded to any phone. Skype to Skype calls are free, while calls to landline telephones and mobile phones are charged.

- **Video**: One can make one to one video calls or get a group together on a video call.

- **Messaging**: one can send text messages, video messages, voice messages or share messages, photos and location on your mobile.

- **Sharing**: Give access to files, photos, videos to contacts and keep all on the group informed. One can share the computer screen, or get everyone on the same page on a group video call or share contacts easily.

- **Other features include translating voice calls, video calls and instant messages.**

How to use Skype for Agriculture

- **Organizing online conferences, online sessions, monitoring, training** where the participants and faculty could be at different locations and yet have fruitful interactions. MANAGE has been using Skype for online sessions where participants interact with Guest faculty at various locations. MANAGE Faculty also interact with partner institutions to discuss on projects and with trainees at other institutions.

- **Monitoring progress of Schemes through regular interaction with stakeholders**

- **Skype can be used by farmers to communicate a specific problem to the agricultural officer** where he can also demonstrate a problem like a pest attack, plant disease etc.

- **Agricultural officers can discuss on various issues and current concerns.**

- **Organize an educational lecture, technology demonstration for farmers in a farm school by an expert at another location.**
Sharing Presentations

**Slideshare**

Slideshare [http://www.slideshare.com](http://www.slideshare.com) owned by LinkedIn is used for sharing, collaborating on presentations and editing. Users can upload files privately or publicly in PowerPoint, PDF, etc. It also supports documents, videos and webinars. Slide Share also provides users the ability to rate, comment on, and share the uploaded content. Subject experts and Faculty have been uploading slides related to their subject areas and sharing on the site with trainees and students.

Cloud Storage Applications

These applications can be used for storing and sharing files, photos and other documents in the cloud (remote servers where data is stored). One can view the files from a mobile phone, tablet or computer that's connected to the Internet. Popular cloud storage services include OneDrive, Dropbox, Google drive which give free storage space of 5GB, 2GB, 15GB respectively.

These allow one to upload files or folders and share files selectively with different people and make them available for editing.

Collaboration tools/ Knowledge Sharing platforms

These platforms allow content to be created jointly and collaboratively by users. Wikipedia [http://en.wikipedia.org/wiki](http://en.wikipedia.org/wiki) is a well known example. It is a multilingual, encyclopaedia project operated by the Wikimedia Foundation that allows any credentialed user to edit text. A wiki is a web page that allows registered users to add, edit and change content, insert comments and can be edited and maintained by several people. Many wikis can be altered by the general public without registering while others need user authentication for adding content, editing or even reading pages.

It also allows linking among pages. Each article has a discussion page where editors and readers can talk about the document. By looking at the history of a page, users can track changes and compare the versions of a document. Wiki can be an effective tool for collaborative writing, without emailing documents.

The Consultative Group on International Agricultural Research (CGIAR), the Food and Agriculture Organization of the United Nations (FAO), the United Nations Development Programme are creating a resource of knowledge sharing tools and methods to make these applicable in the context of development with a focus on agriculture, fisheries, food and nutrition, forestry and sustainable development. One can access and also contribute to the knowledge at [http://www.kstoolkit.org](http://www.kstoolkit.org).
Academic Networks and other Platforms for Information Exchange

Academic Networks

Academic Networks like Research Gate and Academia help in improve visibility of research.

ResearchGate https://www.researchgate.net/ and Academia.edu https://www.academia.edu/ are platforms which connect researchers with common interests. Users can create profiles on these services, and list their publications, share their research and other scholarly activities, upload copies of manuscripts they’ve authored, and build connections with scholars.

Discussion Forums, Platforms and Groups

A Discussion Forum is an online area where contributors can carry on debates and discussions by posting questions and observations and inviting responses from other participants. It is an open forum for exchange of information and ideas on selected topics and seek suggestions on various issues. To participate, one needs to subscribe to the discussion list. There are various electronic discussion groups representing different interests which offer researchers and development practitioners a virtual meeting place to discuss, and exchange views. A subscriber to the discussion forum receives in his/her email account a copy of each message that has been sent to the forum and can send a message, to other participants.

A forum may be moderated or unmoderated. In a moderated one, all messages go to a person acting as a moderator, who reviews each message and decides whether it should be posted to the group. Moderation involves filtering inappropriate, irrelevant messages, editing messages, approving messages, stimulating the discussion if it tends to slow down, not allowing a few to dominate and providing overall consistency. An unmoderated list is one where a message gets redistributed to all other users automatically. Moderation helps to organize and focus the discussion. One has the option of subscribing/unsubscribing to a forum.

There is a range of discussion software available for setting up Discussion forums. Some are free and can be set up at Yahoo Groups (http://groups.yahoo.com); Google groups (http://groups.google. com) and can also be created using Facebook.
Other Tools

RSS
Rich Site Summary or Really Simple Syndication http://www.rss.com allows users to access updates to online content. These feeds allow a user to keep track of many different websites through a single news aggregator. The news aggregator automatically checks the RSS feed for new content and allows the content to be automatically passed from the website to the user. Websites use RSS feeds to publish frequently updated information, such as blog entries, news headlines, audio, video. An RSS feed includes summarized text and information like author’s name, publishing date.

Social Media Management Tools
Social media management tools help in managing multiple social profiles, schedule messages and tweets etc. HootSuite is popular social media management tool where people can manage multiple social networks like Facebook and Twitter from one web-based dashboard. Others include Buffer, SocialOomph, TweetDeck etc.

The above information shows how farmers, agricultural officers are using social media. These applications enable information dissemination and communication to a wider group in a timely and cost effective manner and also allow for feedback. Extension Officials could balance the use of these tools with traditional methods to reach the largest audience.
Integrating Social Media into the Communication Strategy

Social media should be integrated into the communications approach, along with other media. It is important to think about the needs of the project, objectives, people to be reached and what to tell them and decide on the tools and platform. One also needs to have a strategy regarding content creation and updation.

Developing Content for Social Media – Some Tips

Creating a social media account and uploading content may be easy. However maintaining it on a continuous basis with updated content is a challenge. Points to keep in mind are:

- Content needs to be packaged for a platform. Each platform has its own format and style. Authenticity is important.
- It should be focused on user/audience requirements.
- Simple statements are better along with conversational style.
- Posts may be kept short – statistics show that posts with less than 40 words get 60% more engagement.
- Posts need to be written in an informal style, without jargon.
- Active voice may be used in writing.
- Posts with visuals capture more attention.
- News about projects in the field, human interest stories get more attention.
- Asking interesting questions would encourage interaction.

Social media represents just one approach for achieving communications objectives. Integrating with other media would help widen the reach.

Some Do’s and Don’ts

- One needs to be sensitive about confidentiality.
- Accuracy of information needs to be ensured.
- A comment need not be deleted just because the author disagrees with the commenter’s point of view.
- If needed it may be clarified that the content represents your own views and opinions.
Social Media in Agriculture: Literature Update

There is a lot of literature available on Social Media in Agriculture. An attempt has been made to review some literature on recent research studies on Social Media in Agricultural Extension, challenges and opportunities for using social media for agricultural development, Guidelines and tips for use of social media in agriculture.

Social media: Shaping the Future of Agricultural Extension and Advisory Services

Social media can be a powerful aide in Extension if utilized to its potential, according to a study by Sucharidipta and Saravanan, 2016. Despite the advantages, its actual use in rural areas of developing countries is still low due to infrastructural difficulties, psychological barriers and lack of skills in using social media. A Global online survey by GFRAS on use of social media in agricultural extension and advisory services was conducted across 60 countries and 226 respondents. Results revealed that:

- Face book was found to be the most popular social media platform used by AEAS actors.
- The major activities on social media were sharing/ identifying news and events and exchanging knowledge in the form of discussions especially for agricultural professionals and practitioners.
- A major impeding factor for social media use was the lack of authenticity of information shared online.
- Development and publication of information socially by the users was considered as the most important feature of social media (95%).
- Ninety five percent of the respondents believed social media can play an important role in bridging the gap between stakeholders in Agricultural Innovation Systems (AIS).
- Personal mobile phones were the most used device by the respondents to access social media (68.2%).

Overall, the survey found that social media is a very useful tool in agricultural extension and rural advisory services. Some concerns for not using social media for agricultural information included: lack of authentic information; lack of awareness and competence on use of social media among extensionists; slow internet connection. According to the authors, mobilising actors to use social media needs to be addressed along with improving awareness. Further research into impact of social media on rural development and scaling up are needed at local and global level. The study concludes that a multi-level approach and initiatives at institutional and individual level are needed to make social media a reality in agricultural extension and advisory services. (Suchiradipta, B., and Saravanan, R., 2016. Social Media: Shaping the future of agricultural extension and advisory services, GFRAS interest group on ICT4RAS discussion paper, GFRAS: Lindau, Switzerland.)

Social Media in Agricultural Industry

Social media continues to grow in popularity with the increase in the number of smart phones, and its ease of use says Sophie Stanley. Social media brings the farmer, industry and consumer closer together so that there is more transparency, engagement, trust and authenticity in the supply chain, says the author in a report which assessed the value of social media for the New Zealand agricultural industry.
The key areas of value are:

1. Farmer-Farmer Networking via social media platforms (such as twitter) enables farmers & agribusinesses to meet and network with each other; provide knowledge and ideas from different sources, reduce social isolation for farmers.

2. Industry Knowledge, Extension & Marketing (Farmer – Agricultural Industry) Enables agribusinesses to connect with farmers online by providing content of value. Using social media tools Extension and knowledge transfer of agricultural practices may reach a wider audience.

3. Consumer Engagement (Farmer/Industry – Consumer). Consumers are using social platforms to make purchasing decisions so connecting and engaging with consumers enables farmers and the industry to understand consumer needs better and helps build trust.

4. Crisis communication strategies for the agricultural industry should include social media by using two-way communication.

It was acknowledged that social media adds value in conjunction with traditional methods. The author’s recommendations for getting the best value from social media include: More training for farmers and agribusinesses so that they understand the capabilities of the tools better; and utilising farmers more in social media marketing. (Sophie Stanley, 2013. “Harnessing Social Media in Agriculture” http://www.nuffield.org.nz/uploads/media/S_Stanley_2013_Final_Report.pdf)

Challenges in use of Social Media in Extension and Way forward

Social Media can be effectively used in extension and advisory services and help in enhancing interactions and information flow among different actors involved in agricultural innovation. However, lack of awareness and skills about its use are challenges which constrain its widespread use. The organisational culture within extension organisations also restricts exploitation of its full potential by extension professionals (Saravanan Raj and Suchiradipta Bhattacharjee, 2014).

The authors have listed some challenges in using social media for agricultural extension in developing countries and the way forward.

Challenges

1. Passive users: While many visit the group pages, only few post, share and discuss ideas and issues.

2. Irrelevant Information often gets posted along with useful information, which increases the need for monitoring.

3. Participation of agricultural stakeholders: Except for few groups, farmer participation is almost nil in groups

4. Limited ICT infrastructure and internet connectivity is still a major issue in rural areas.
Way Forward

Success of social media use in agricultural extension depends on ability of users to share relevant information with other users, say the authors. Some suggestions include the following:

1. There is need to create awareness among extension professionals and build their capacities to share more information through social media.
2. Institutionalising use of social media to help sustain momentum and result in better sharing and networking.
3. Research on Social Media is needed
4. Encouraging self publication and collective contribution
5. Choosing suitable mix of social media and appropriate content can help reach large number of extension stakeholders.
6. Diverse content is necessary as participants engaged in agricultural extension come from diverse backgrounds and have different needs and interests.
7. Extension organisations need to encourage stakeholders to use social media for interaction and obtaining feedback.


Guidelines for use of Social Media

A Social Media account establishes an organization’s online identity and offers opportunity to governments to engage with their stakeholders in real time. Organisations across the world and many government agencies in India are using various social media platforms to seek inputs into policy making, get feedback on service delivery, create community based programmes etc. With such media becoming popular, there are apprehensions related to authorisation to speak on behalf of their department, platform to be used for communication, roles and responsibilities, scope of engagement, communication strategy, existing legislations etc.

In order to encourage and enable government agencies to make use of this medium of interaction, a Framework and Guidelines for use of Social Media by government agencies in India has been formulated by the Department for Electronics and Information Technology, Ministry of Communications accessible at http://meity.gov.in/sites/upload_files/dit/files/Approved%20Social%20Media%20Framework%20and%20Guidelines%20_2_.pdf.

The guidelines provide a review of types of social media, their characteristics and challenges, framework and detailed guidelines.

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