



Nuffield Farming Scholarships Trust

The Jill Willows Award

Communication with farmers

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Introduction

I am not a farmer, a farmer's daughter or a land-owner. Until the age of 22, the closest I had ever been to a farm was to buy potatoes from a local farmer's shop.

But in 2005, after I had graduated from the University of Sheffield with a degree in Journalism and a Masters in Political Communication, I got a job which completely changed the path I expected my career to take.

As a graduate trainee journalist with one of Europe's largest publishing companies, I was sent from London to the north of England to spend four months working at the *Farmers Guardian*.



It was as big a shock to me as it was to anyone else that I had not actually pulled what other trainees had dubbed the 'placement short-straw' by being sent to the wild north to write about what they thought was a bucolic, backward industry. It turned out it was actually the urban view of agriculture which was stuck in the past. Writing about agriculture was exciting, fast-paced and I realised I loved it.

Before my year-long graduate scheme had come to an end, a job had come up at *Farmers Weekly* and I moved companies to work as a financial reporter on the business desk.

Less than two years later I was promoted to Deputy News Editor and it was through this role that the idea for my Nuffield Scholarship came to me.

Even in the six years in which I had been working in journalism, the media landscape has changed beyond recognition.

Gone are the daily or weekly deadlines, the idea that you can spend days researching an article and even longer writing the piece up. Budgets have been cut, journalist numbers have reduced but the workload has continued to grow and readers expect the same high standards of content.

At *Farmers Weekly*, as well as producing a weekly magazine of well over a hundred pages, we have to maintain an online news site which has an insatiable appetite for new content. Videos, podcasts, galleries and rolling news are all expected elements of news websites and the expectation is that *Farmers Weekly* will keep up with the mainstream media.

My skills have evolved to include filming, presenting, video editing, camera interviews, blogging, Tweeting and 'community building' through social media like Facebook and chat rooms. At the same time I have to be able to write accurate news stories as quickly as possible so we can compete with other trade publications, national news outfits like the BBC and newspapers like the *Daily Telegraph* and the *Guardian*.

While it has made my job more varied and exciting, it has made it increasingly more demanding and often stressful. As I try to juggle more and more tasks I worry that at some point the quality, accurate information we strive to produce might start to slip and farmers will be left with a service which does lots of things adequately, but nothing fantastically.

Another concern is whether the array of things I spend my time producing is actually of any use to farmers. It is widely accepted that mainstream audiences are moving away from newspapers and magazines towards online content, but is that true of agriculture? Are farmers really shunning traditional print media in favour of online news? Do they really have the time to sit in front of their computers to watch videos and join in with online discussions? And if they do, do the types of 'new media' we offer them fulfil their information and entertainment needs?

With these questions in mind I decided to investigate whether there is a 'best' way to communicate with farmers. I wanted to discover if I was doing all I could for my readers by bringing them the information they need to help them do their jobs in a format which suited them.

By travelling to Canada, the United States, India and Australia I wanted to see how other agricultural media organisations were dealing with their readers' needs and learn if there were other methods of communication I should be using.

1. Sticking with tradition

Read any article or academic paper on the future of the media and the message is apparently clear – print is dead (Higgins, 2009).

Over the past decade newspaper and publishing companies across the world have seen readerships fall by as much as 10% a year as people turn to online news (Weber, 2008).

The assumption is that people want news in their hands or on a screen immediately, as it happens, with pictures and real-time video. And they want it for free.

This change in audience demand is not one which fits with newspapers and magazines, with their daily, weekly or even monthly publication deadlines, high costs of production and their (perceived) expensive cover prices.

For the past few years the majority of publishers have looked elsewhere for their revenue, assuming - in some cases, quite rightly - that the demise of their print products is just around the corner. Many print publications have been driven into the ground as journalists' efforts are pushed entirely onto their publication's online output.

This is perhaps the right thing to do in many markets – for example, does it really make sense to publish a magazine on the computer industry when your readership spends their entire working days in front of a computer screen and has formed a habit of online news consumption?

But does this 'demise of print' model really fit agriculture?

In the UK, agricultural publications have a prominent position in the farming industry, indeed figures from agricultural market researchers Agridata indicate some 90% of farmers still rely on farming media for their information needs (Agridata, 2011). Having worked for both *Farmers Guardian* and *Farmers Weekly*, I have also learned that the publications are close to their readers' hearts in a way that is not comparable to other national newspapers.

While *Farmers Weekly* has seen a slight drop in readership over the past few years, in comparison to other publications in its publishing group (Reed Business Information) and with the mainstream media, the decline has not been as concerning as it could have been.

Indeed, in 2010 almost 65,000 copies of *Farmers Weekly* a week were sold. As research has indicated that each magazine has a 'hand-on rate' of three (that is, the magazine is shared around a farm, business or home between an average of three people), the publication has over 200,000 readers every week (ABC, 2010).

Looking at these figures, it would appear that the farming community is not turning its back on print media. But according to one publishing executive, it will happen eventually and that time is not too far away:

“It’s inevitable that FW’s print readership will start to wane once farmers get comfortable with using online news sites. FW has a traditional, older readership in comparison to other markets and buying the annual subscription is something of a family habit – the magazine’s been around for more than 75 years, your granddad bought it, your dad did and you carry on the tradition. But the younger generation are more used to social media and online news and haven’t got the time to sit down and look at a magazine. They want news immediately – they want it to their laptops, in their tractor cabs, on their mobile phones. The decline hasn’t started yet but it will do – it’s all a matter of getting readers comfortable with using a new style of media.”

It is a view that has seemingly been adopted not just by UK agricultural publications, but also in the United States. A news editor of one of Illinois agricultural newspaper said his team was struggling to get to grips with what farmers wanted and the path their publishing group thought they should take:

“We have an editorial team of 15, but that’s not enough to be able to produce the weekly newspaper, special editions and supplements we have to make and cope with all of the online content. We’re told by our bosses that things are moving online, but as soon as we try to hold back on any of the print things our readers are up in arms. It feels like we’re at odds with what our readers want and what our publishers think. If print’s really on the way out, I’m not seeing it yet.”

Indeed, anecdotal evidence suggests many farmers in developed countries are still embracing print media (see case studies below). But rather than struggling to make the modern media model fit the agricultural market, several organisations in Australia and Canada have instead decided to embrace their readers’ more traditional media preferences.

Outback Magazine is published by iconic Australian rural clothing company RM Williams. While it is not a core farming publication, the Sydney-based magazine covers agricultural issues such as worker shortages, as well as anything that’s happening in rural life, such as country artists, places to visit, environmental issues and so on.

Read by about 250,000 people, the majority of whom live in rural areas, the magazine attracts readers from a variety of backgrounds and incomes by having one key theme – it’s stories have to be positive - even if they are tackling tough issues such as depression - and solutions-driven.

Printed on quality paper, the coffee table-style magazine includes features of up to 6000 words which are accompanied by large pictures.



Outback magazine

Aside from having high production standards, the magazine's editor, Mark Muller and his team have a clear understanding of what their readers want, the direction the magazine should take and what they should devote their energies towards.

Articles are not published online, not because Mark is a web philistine, but because being online does not make economic sense – advertisers are still willing to pay for space in the magazine and they have not yet expressed any interest in online advertising. Instead, the information inside the magazine is promoted as a premium product that people should pay for. Mark has plans to create an online version of an Outback sister paper, which he will trial before considering whether to do the same with Outback, but it will be a paid-for service. He is confident people will pay for it thanks to the reputation of the RM Williams brand, the magazine and its content:



"People are often surprised that we're doing so well in a time of declining print readership," says Mark (pictured left). "But it shows people are still interested in print and willing to pay for it, if you target it properly. I think too many newspapers and magazines have tried to be everything to their readers - offer them advice,

information, entertainment and then trying all the online things too. They should just focus on doing one or two things really well and really get to know what their readers want. At the moment Australian rural audiences are really committed to magazines so we're making something they will enjoy looking at, find interesting and think is nice enough to keep."

Case studies:

Steve is an arable farmer in Champaign, Illinois. Like the majority of farmers in the state, Steve grows corn and soya on his 1000ha unit. He spends a lot of time working in his community and with local grower groups in a scheme which attempts to teach children about where their food comes from. Much of the communication he does with other farmers is done via email and he takes part in an online group to help collect and share learning resources with teachers, but he still prefers to use his local newspaper to find farming news.

"I find I can't get the information I need online without doing a lot of searching," he says.

"My local newspaper caters specifically for a rural audience because it knows exactly who we are and what we want. If there's a law made at a national level, very often you don't get to hear about how it will really affect you until it's reported in our local press. I wouldn't be without it."

Brent farms sheep and turkeys in Ontario, Canada. While he is only 39 - and therefore of an age where he might be expected to use online media - he prefers to read his state agricultural newspaper.



Brent farms sheep and turkeys in Ontario, Canada

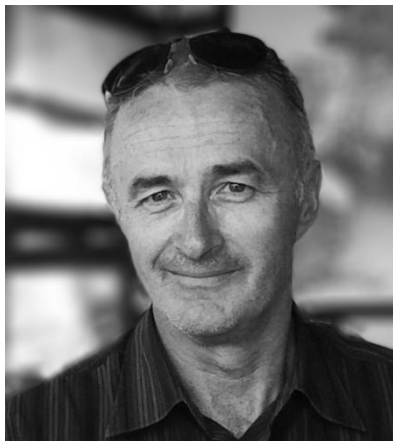
"I've never really been interested in sitting in front of a computer at the end of the day," he says. "My wife does the bookkeeping and any of the other admin work, so I don't really have a reason to use the computer. I help the kids out with their homework but I don't want to sit in front of the thing for any longer than I have to. My dad and I take a couple of papers and swap them between us, it's a social thing – I enjoy it, I get all the information I need and I don't really feel any need to change."

Coretext is another Australian rural publishing company which is growing its agricultural print portfolio despite the perceived decline in print audiences.

The company writes and publishes *Ground Cover*, a 32-page tabloid newspaper which is distributed to the 44,000 farmer members of Australia's Grains Research and Development Corporation.

For Brad Collis, Coretext editorial director, producers' need for print publications is actually growing rather than diminishing, as newspapers and magazines offer something different to online media.

While information about government agricultural policy and legislation is likely to move online, Brad (pictured below) says people will continue to turn to magazines and newspapers to gain a sense of community:



“Farmers are becoming more isolated and remote and part of the reason they pick up Ground Cover is that they are curious about their peers and what issues they are facing. We are not about ‘do this and this is the answer’. It’s opening the window on people’s lives. It bridges issues and helps farmers remember they are smart, competitive and part of an industry that’s moving and adapting.”

Much of Australia’s rural media is dumbed down, Brad says and tells farmers what they want to hear, rather than the information they need to help them do their jobs better. Agricultural newspapers and magazines can still be useful, compelling and entertaining without constantly portraying the industry as being in a perpetual battle with politicians, campaigners and so on:

“What’s required is really high-quality information that can bring complex issues to the average farmer – it might be anything from genetics to how the deregulated market is working. A publication like Ground Cover needs to make sure it provides information on how to operate in a new environment – what are the strategies and techniques farmers need to adopt? I think it’s probably true that general interest magazines are going backwards but in agriculture we have a niche which is still best-served by print media. It’s wrong to write it off.”

SPARK is a project which has been run at the University of Guelph – one of Canada’s most eminent agricultural colleges – for the past 20 years. Run by agricultural communications expert Owen Roberts, SPARK stands for Students Promoting Awareness of Research Knowledge and is a quarterly magazine written by agriculture and science students who study at the university. Aware that there was little in the way of teaching about agricultural journalism, Owen decided to run extra-curricular sessions to teach interested students how to take complicated subjects in farm science and write about them in a simple and understandable way.

The magazine is sent out to alumni as well as government agencies and organisations that provide funding to explain what scientists at the university are working on. Owen says the magazine justifies

research expenditure, but also makes it clear how the university's work can be transferred in the real world:

"The magazine format works really well as people wouldn't necessarily know what to search for online, or think that science would necessarily have any relevance to them on their farms. But by sending people an actual magazine they are more likely to have a flick through it, find something that catches their eye and actually read and absorb the information. Producing a physical magazine also gives the students ownership of a product – they take pride in the publication and enjoy trying to write the best stories and making the best magazine they can. Websites are great for some things, but for the audience we're targeting and the subject we're focusing on, print is best."

2. Farming goes digital

While there are still advocates of traditional media, for many the future of agricultural media and exchanging information is the internet.

Despite the assumption that farmers have neither the inclination nor capabilities to go online, there is growing interest for online farming news and entertainment across a wide cross-section of the industry.

According to most recent figures, tens of thousands of people regularly use *Farmers Weekly's* website, www.fwi.co.uk, for news and information, amassing a total of 1.3 million page-views a month.

The social element of the website is also hugely popular, with more than 15,000 members posting photos and using the online forums, FWiSpace, to ask for advice, discuss rural issues and chat to friends (see social media section below).

The development in online news has been one of the biggest changes in the media since the invention of the television. While TV was widely believed to mark the death of radio and newspapers, so too has the internet has been claimed to be the end of newspapers and magazines.

Online news offers something print media cannot hope to compete with – immediacy, endless space for words, pictures and videos, searchability and the ability to reach audiences wherever they are either via their computers, portable laptops, mobile phones or hand-held devices.

On top of that, the majority of news content is free. While some newspapers such as *The Times* have attempted to move their online content behind a paywall [i.e. a subscription service], it has not been seen as a particularly successful model, with audiences falling by as much as 90% (BBC 2010).

It is a problem for news organisations, particularly farming ones, as they are pumping huge amounts of manpower into a website to produce news, videos, podcasts, blogs [online diaries] and galleries, but are struggling to make a substantial profit from it all by securing advertising or sponsorship.

However with audiences becoming increasingly used to using online news sources, publishers see their websites as one of their core products (*Online Journalism*, 2009).

Farming audiences have been keen to embrace online news sites as sources of information. The UK has seen an explosion of online news sites, from the major farming press such as *Farmers Weekly* and *Farmers Guardian*, to the National Farmers' Union's *British Farmer and Grower* site and

government information services from the Department of the Environment, Food and Rural Affairs. According to 2011 figures from independent farming research organisation Agridata, which questioned 500 farmers about the types of media they use, some 77% of producers have internet access, with 42% using websites to gain information and advice – a jump of more than 10% from the previous study conducted in 2007 (Agridata, 2011).

Case study: The Dutch perspective



Boerderij is one of Holland’s most successful online farming services. Part of a wider agricultural publishing group, it used to sit alongside several other websites which offered farming news, business information and more light-hearted ‘farming entertainment’ such as humorous videos and ‘farm girl’ photos.

Recognising that the website was perhaps more tabloid in appeal than the other sites, in 2011 the site’s editors decided to move the content behind a paywall – meaning readers can only access it if they subscribe. As one senior editor explains:

“We know they like the more light-hearted content and for us we’ve realised that’s our premium service. People form reading habits and have got used to coming to the site, plus we’re the only one in Holland to produce the kind of articles and videos they like. We offer different content to the magazine. Our readership dropped off slightly when we introduced the paywall, but it’s not concerning to me – the signs so far are that we are making money from the website.”

Indeed, UK agriculture's move towards the online world is likely to only get stronger.

Recommendations made to DEFRA in May 2011 by an independent taskforce say agriculture could be simplified by moving paperwork online:

"While we are aware that not all farmers currently have access to broadband, we endorse the Coalition Government's new policy of 'digital by default' and aspire to a digital future. We welcome steps by DEFRA, its agencies and delivery partners to move more services online and the positive results that this has had. In the light of this ... we recommend that:

- DEFRA, its agencies and delivery partners aspire to create a comprehensive system of pre-populated forms and encourage take-up of opportunities to complete 'paperwork' electronically as part of good management practice;*
- The Government sets a goal of 100% quality broadband access in rural areas and encourage farmers and food-processors to use online facilities, whether or through a third party including call centres; and*
- IT training for farmers should be a priority for training providers."*

(Farming Regulations Taskforce, 2011)

It is a move which is continuing to cause some controversy within agriculture, largely because internet access in rural areas is deemed to be inadequate. According to the Country Land and Business Association, some 20% of Britain's farmers cannot access broadband internet, meaning they are disadvantaged in terms on form-filling, communication, dealing with business online and collecting information.

Charles Trotman, CLA lead advisor on rural broadband, says many farmers can only get online using expensive satellites and that the slow speeds of the internet that is available to them means getting information online and responding to it is often impractical:

"Farmers have to sit in front of a computer and wait. Without broadband capacity getting information is difficult and inefficient. By 2015 the government is expecting to get broadband to everyone and with improved mobile phone networks - if people buy smartphones - that could well be possible. But our concern is the government doesn't have a clear strategy of how it's going to roll it out. A patchwork of technological solutions is being suggested but so far there's been a breakdown in communication as to how it will work."

But there is a concerted effort to turn things around. In March 2011, DEFRA announced a £20m rural broadband fund in a bid to get upland farmers online (FWi, 2011) and the Government has committed to implement universal broadband by 2015 (The Communications Union, 2011).

Farmers in Australia have faced similar problems with broadband connectivity, but the majority have decided that their geographical remoteness and need to do business online overrides the expensive costs of satellites. Graham Daniels, who farms beef cattle in Rockhampton, Queensland, says paying the \$100/month fee for satellite internet is worth the money.

"It is expensive, but I couldn't be without it. I look for cattle to buy online, I email my vet and traders and I fill in paperwork the government asks me to do. My wife is from Wales so she is always online talking to her parents on Skype or emailing her friends and the kids need the internet for school because they're taught remotely."

In a move which will hopefully cut Australian farmers' costs, in March 2011 the Australian senate also passed the Broadband Bill, a \$36m scheme which will see the implementation of a national broadband network.

Case studies

Paul (picture right) runs an arable enterprise, grain storage and farm supplies unit in Guelph, Canada. In a move to make his business and life simpler, he has decided to turn his entire office digital.

He mainly communicates with clients via email, stores his paperwork digitally and only reads online news:

"My dad still reads the newspaper, but I don't touch it. I don't need to when I have all the email alerts I want sent straight to my Blackberry every morning. I have tailored the types of stories I get sent, I get news alerts to changes in the market, weather reports, emails from clients – everything is sent to my Blackberry."



It means I can do business better as I'm able to respond to things straight away and so far my clients have all said they prefer dealing with me online as it cuts their paperwork too Plus I don't have to pay for online news – what's the point of spending \$200 a year on a newspaper subscription when I get it in a format I prefer for free?"

But while some farmers seem to prefer it, many journalists have struggled to get to grips with producing online news. The Illinois news editor mentioned in Chapter 1 says he feels his news team is being spread too thinly trying to cater for web demands on top of producing a newspaper:

"We've had to learn all these new skills like videoing and editing because it's what's expected of us, but not everyone on the team feels comfortable doing it. We end up producing videos which I don't think are the best quality because we're not entirely sure what we're doing and we're not getting good viewing figures on them any because farmers don't have the inclination or the broadband speed to sit down and watch a video. At the same time we're worrying what our competitors are doing in terms of news writing, so we rush out stories which in the past we wouldn't publish – either because they're not worthwhile or because they're not as well-researched or written as they could be. It's a real headache."

3. Social media

For media academics, the internet opens up an array of arguments as to what benefit it actually provides audiences. On the one hand it allows the free exchange of information and ideas, removing barriers of things like distance, time zones and even language. It can offer real-time data, photos and even videos, allowing audiences to be as close as they possibly can be to an event without actually being there. But on the other hand it is an untamed, unregulated place, where people can spread rumours and false information and make untrue claims – maliciously or unintentionally.

With the internet, everyone can become a journalist or a reporter. Some have welcomed the freedom that brings, while others are horrified that people can hide behind claims of expertise or knowledge and publish what is in fact, nonsense.

Regardless of the arguments, there is no denying that the internet has opened up an entire world of new audiences and information. As a journalist, I no longer write with just British farmers in mind – from the emails I receive I know farmers in the United States, Australia, India and the wider world read my articles. When I write an article I often get in touch with colleagues in Holland, France and the rest of Europe to see how European farmers feel about a certain issue.

The internet has also changed how I interact with readers. Now when I write or research an article I post either on the *Farmers Weekly* forums or on micro-blogging site Twitter and ask for opinions on the story, how the article should be developed or what questions farmers would ask next. I have built relationships with readers online which I believe allows me to do my job better and hopefully gives them an improved service by finding out the things that really matter to them.

Latika Bourke is one of Australia's up-and-coming political journalists. In 2010 she won the Walkley 'Young Australian Journalist of the Year' award for her coverage of then Prime Minister Tony Abbott's taking over of the Liberal leadership. When she won the award, special mention was given to her 'pioneering' use of Twitter (pictured right) for breaking stories and finding leads.



She says using social media has allowed her to gain greater understanding of her readers so she knows what type of information would be of interest to them. Thanks to being able to instantly communicate with people via the website direct to their computers or mobile phones, she says it is

the perfect way to get out news alerts and updates – something farmers could benefit from and agricultural media would be foolish not to embrace:



“Twitter allows me to see what my audiences’ interests are and where the discussions are going,” says Latika (pictured right). “Once you start talking to people they will be more loyal and appreciate the interaction – they feel like they know me so when I ask a question or post a link to my story they tend to respond. It benefits me as a writer, but it also provides them with information that they could benefit from but haven’t got the time to find out. If I can explain a complicated policy to them - whether that’s agriculture or whatever - when they otherwise wouldn’t read about politics, that’s great.”

While there are positive sides to social media such as Twitter and chat rooms, Latika admits that thanks to the immediacy of new media, media organisations have a duty to take more care over their stories’ accuracy:

“Because of the news organisation I work for and my position as a lobby reporter, my readers feel like they can trust me and that I am providing them with the facts. But that throws up new issues. Media organisations are constantly competing to get news out there first, but there’s a risk that in trying to be first, we can be wrong. Social media is complicated as anyone can put rumour out there or claim to know the facts and if it circulates quickly and people believe it – whether those things were tweeted maliciously or not – it actually does more damage than good. Media organisations have got to strike a balance between accuracy and speed and it’s sometimes hard to do.”

3.1 Is social media really of any benefit to farmers?

As with internet forums and chat rooms, Twitter has become a surprise hit with the farming community. While there are no exact figures on the number of farmers who use the social networking site, databases of agricultural tweeters indicate there are thousands of people working in the industry who regularly tweet (Twitter, 2011).

Like many tweeting farmers I have spoken to, Hereford beef farmer Tim says he uses the site on his mobile phone to keep up with news, market information and other farming friends when he is out on the farm:

"When I'm waiting for trucks to be loaded or I'm out cutting silage, I'll have a quick look at Twitter on my mobile. I follow journalists and agronomists to find out about markets or the latest news, plus I'll have a chat with friends in Lincolnshire or Scotland to find out how they're getting on. I wouldn't necessarily feel like I could bother them with a phone call, but a tweet keeps me in touch with them. I feel like I'm being sociable even though I'm on the farm by myself."

According to the AgChat Foundation – a US-based group of farmers who are working to educate farmers about how to use tools like Twitter – social media is giving farmers a voice in wider circles, allowing them to push their own agenda and communicate more widely.

Michelle Payn-Knoper, AgChat's founder (pictured below), says there has been a "cultural shift" in agricultural communication which has seen farmers want to have a dialogue with both consumers and the wider media. But she says there is a risk of "information overload" for people in agriculture as they are bombarded with unregulated information:



"The next big thing for social media and farming is a way for information to be more effectively managed through social hubs. Many people are just at the point of information overload. Organisations like AgChat as well as established farming news organisations could really play a part in managing and regulating the information."

Farmers are also using twitter to their advantage on the commodities market and in turn are having an impact on trading.

Mike Coppeleck from the Chicago Board of Trade (pictured below) says traders are able to predict what will happen because they get an increasing amount of data and harvest information "straight from the horse's mouth".



“Farmers are using satellites, laptops and smartphones in their tractors and turning them into mobile offices,” he says. “They’re tweeting with other farmers about plantings, crop yields and weather and it gives us traders a better idea about what’s going on out there.”

But it is not just traders who are benefitting. John Reifsteck, who farms 1300 acres in the Illinois corn belt says farmers are good at adapting and taking on new technologies and that having mobile phones and laptops in their tractors has transformed how they do business:

“Email is my primary method of communication with my fertiliser seller – it’s easier because our hours are different and I’m busy doing things on the farm. But I look at markets and weather online and I look at tweets and other updates from my neighbours so I can gauge plantings, prices and so on. In the past I wouldn’t be able to react to changes in the market unless someone rang me or until I got back to the office, but now I can make decisions on an hour-by-hour basis if I want to. The traditional way of receiving information isn’t needed any more. For me Twitter is like a continuous newsletter being delivered to my laptop.”

4. Mobile technology

Fast on the heels of online communication, mobile technology is becoming a key way for farmers to communicate.

While not every farmer has a computer, laptop or adequate broadband, research suggests that 94% of UK farmers has access to a mobile phone (National Farm Research Unit, July 2011).

Agricultural news and farming organisations in the UK have started to adopt mobile technology as a simple way to communicate short messages to farmers, either via text message (such as BASF) or through applications for smart phones.

Mike Abram, *Farmers Weekly* deputy arable editor, says mobile apps specifically for farming are likely to grow in number over the coming seasons. Tools ranging from crop disease assessments, forecasts and information on how to set up fertiliser spreaders for fertiliser types are all available at farmers' finger tips:

"The use of computers and the internet is well-established on many farms and increasingly integrated into businesses and mobile technology is a logical next step. The rise in popularity of smartphones is already trickling through to the traditionally more conservative farming industry and while there are some issues of durability and robustness of smartphones to overcome for farmers, farmers are already responding by downloading the first commercial apps that have hit the market in 2011.

"Among these have been the BASF/Farmers Weekly Green area index app for oilseed rape, which helps growers assess whether to use growth regulatory sprays and fertiliser policy in the crop. The app allows the user to take a simple photo of a crop and then immediately receives what the green area index of that crop is. The app builds on a web tool built by BASF, which has proved popular with growers and advisers in previous seasons."

Mike says these apps are just the beginning, as commercial companies are beginning to realise the promotional and practical opportunities that developing apps to help growers use their products and services can bring.

"The mobile phone was voted by *Farmers Weekly* readers as one of the greatest innovations of the past 75 years in 2009," he adds. "The app revolution could make the smartphone the innovation of the next 75 years."

Thanks to the relative cheapness of mobile phones and their ease of use, mobile technology is really being utilised in rural India, where the internet has – as yet – failed to reach its full potential.

The country has been identified as a massive potential market for online companies, with half of the country under 25 and showing a growing interest in new technologies and the country's global IT market continuing to flourish. But while India is expected to have the third largest number of internet users by 2013 (*Times of India*, 2009), its use of mobile communications has seen the most impressive growth.

About 100m Indians (10% of the population) use the internet, but that figure is completely eclipsed by mobile phone use, with 400m people using wireless handsets. Poor infrastructure in Indian towns and cities mean the necessary phone lines and cables for the internet are often impossible to put in place in anywhere other than core urban areas. But privatisation of the country's mobile phone networks has led to increased competition between companies who are intent on providing impeccable service. As a result, mobile phone signal is excellent across the country – particularly in rural areas – with some companies claiming to be able to reach 98% of the population (Richardson, 2009).

Good signal, coupled with the relative cheapness of buying a phone handset and paying for calls and text messages, means farmers have quickly adopted mobile phones and are using them in their work. Private companies, research institutes and government agencies have all moved quickly to harness the potential of mobile communication within the country's vast rural population.



Anil Bahuman is managing director of Agrocom, a Mumbai-based IT company which specialises in helping connect rural communities using mobile phone technology (pictured left).

In 2000, as part of Mumbai University's Media Lab, which was carrying out research projects on how to educate farmers using new technology, Anil helped

establish a mobile information service called Any Questions Answered.

AQuA uses something called "crowdsourcing" to answer farmers' questions. It involves a team of 37 specialists and experts from 4 research institutions across the country answering any questions which are texted by producers from their mobile handsets to a main database.

When university funding for the project was pulled in 2002, Anil bought the rights to the company and has continued to develop the services offered to rural communities. It now answers questions from 18,000 farmers a month and is branching out to offer other mobile information services:

“The number of people with mobile phones in India is huge – 5 million SIM cards [electronic cards which are inserted into mobiles to store data] are being sold every month and there is still a huge amount of potential for that market to grow.

We wanted to find a way to empower farmers. There are many problems in rural India which have simple solutions, such as how to deal with crop disease and pests and we knew we could solve them easily if we could advise farmers what to do.

Poor infrastructure, accessibility to technology and a huge array of language variations means creating a search engine was impossible – we needed to find a way for farmers to get relevant, local information in a format they were comfortable with. That’s where mobile phones come in perfectly.”

Anil says his small company was unable to create an entire mobile community by itself, but by linking up with research institutions and mobile communications companies he was able to start getting information out to farmers.

“India’s rural community is huge, so mobile companies are happy to offer mobile deals to farmers at lower costs because there is a potential market out there worth billions of rupees,” he says. “It’s a long-term investment for them, but we’re getting farmers used to getting information on their phones and proving that using the service saves them money – we have calculated that farmers save up to 1000R/ha on spraying costs by being told about correct chemical use via an AQUA alert.”

The structure is one Anil is working to expand and he thinks it could work in any country – developed or otherwise. Having got farmers used to sending text messages to ask questions, he introduced a paid-for text alert service in 2006 which sees farmers subscribe to messages (costing between 1R [1.3 pence] a message to 100R [£1.30] for a monthly service) to receive information on market prices, weather reports and crop information:

“We now have 18,000 registered users, who receive text messages and call our special line which provides audio messages. And there’s still so much more potential for growth. If communities start making large-volume deals with communication companies they could get better handsets. Once they get smartphones we can start introducing how-to guides and produce videos which show them how to do things.

“If we bundle the videos together with other sponsored services – such as weather, insect ID tools and so on – we could create a subscription package with would be profitable for communication companies and help farmers save money. It’s a model that could work anywhere in the world – not just in developing countries like India.”

Case study:

Fruit and vegetable farmer Sangram Taware heads his local farming cooperative in Malegaon, Baramati. He and his 40 members gather once a month to chat about their farms, any problems they might be having with their crops, plan trips to local research centres and host talks.

But alongside the official meetings, Sangram and the group make use of mobile technology, in particular AQuA, to have their answers questioned and to do business.



Producers in Baramati, India, using mobile phones to help them farm.

“I have my mobile phone with me all the time. It is very cheap to run and is my most useful tool. I have signed up to a local scheme where I am sent price data once or twice a week,” he says. “It helps me decide what I should take to local markets to sell and what prices I could get if I take my fruit to a larger distributor to export. I would never have known this kind of information so

regularly before. As part of AQuA, I can also contact agronomists and ask them about any diseases my crops might have, what kind of pesticides I should use and how much. I can't afford to have an agronomist come to my farm but this service saves me time and money."

Fellow co-op member Ajit Harpud also uses a mobile weather system to help him plan his farming activity.

"I pay a few rupees a week to have weather information sent to me," he says. "I farm guava and it is a big problem if they get wet when they are ripe. I can get detailed information on humidity and rainfall from weather experts now rather than having to rely on judgement, which saves a lot of my crop from being damaged.

"Although it costs me money to receive the messages, I share the information with my neighbour so we all benefit. The government gave our farmer group a grant to buy a community computer so we could go online, but we use it very rarely. We can get all the information we need through AQuA and it's much simpler."

5. Back to basics

Despite the developments in communication technology and the potential to exchange knowledge across the globe, face-to-face communication remains a key tool in farmers' learning and obtaining information.

It is the most basic method of sharing information, but wherever I went in the world farmers were still benefitting from the simple exercise of gathering together to talk through ideas and problems and to share expertise.

The UK, like all of the countries I visited, had a long history of agricultural extension work. Government, business and industry funding has traditionally been available to allow research agencies, government departments and experts the opportunity to share knowledge on a face-to-face basis with farmers.

But cut-backs in research, development and training budgets over recent decades means agricultural extension – and not just that in the UK – has often fallen by the wayside. Other studies (West, 2011, Hoffman, Lamers and Kidd, 2000) look at the role of ag extension work in more detail, so I do not want to go into too much history here, but from the farmers I visited, face-to-face communication is still proving to be one of the favoured methods of knowledge transfer on a local level between people in the industry.

According to Geoff Anthony, an agricultural extension officer in Queensland, Australia, it all comes down to trust:

“We can print off leaflets about new crops or techniques and hand them out to farmers, but what really makes them listen is grower testimony. Government or industry documents are very often met with scepticism – the assumption is we’ve been sponsored to say recommend something, but if someone from down the road stands up and says the same thing, then it’s trusted more.”

Geoff says he has started to utilise the ‘reliability factor’ between local farmers by incorporating them in his talks.

“When I’m looking at how to implement a project I look at the extension material I have in the office but also think about how I can work it into my local farmers groups by using local examples – whether its big businesses or small family units,” he says. “It adds a level of credibility which extension officers, no matter how long we’ve been working or are known in the community, just can’t have.”

Having a first-hand account of a situation also helps farmers understand how they can apply information to their farms.

Dairy and poultry farmer Baljit Redhu is chief executive of one of the largest dairy processing companies in Haryana state, India.



Baljit Redhu's dairy processing plant, Haryana state, India

About 15 years ago he decided to switch from a career in engineering to poultry and since then he has steadily built his enterprise to a 100,000 chick/day hatchery, a feed mill, a 2000-head dairy farm and a dairy processing plant, which he opened in 2010.

Baljit travelled all around the world before he invested in the processing facility so he could learn about animal health, welfare and hygiene, as well as herd genetics and machinery. As a result he's imported a parlour from Sweden, Holstein genetics from United States and has adopted welfare and feed plans he saw in the rest of Europe.

By seeing first-hand different methods of production and talking to experts around the world, Baljit has developed an ice cream market and roadside shops to sell it in – something that had never been seen before in northern India.



“I would not have understood the potential for ice cream and the kiosks (pictured left) had I not visited other farmers’ shops in America,” he says. “I much prefer to see things in action and get tips from other farmers. I trust them more than sales people.”

But visiting other countries to obtain information is too costly for the majority of farmers, while face-to-face information exchange is often deemed to not be cost-effective as it can require several officials and lots of man-hours before large audiences are reached. In India, the Krishi Vigyan Kendra project in Baramati aims to overcome this by empowering farmers to become teachers.



Farmers in taking part in the Krishi Vigyan Kendra project, Baramati, India

The government-supported but otherwise independent farm science centre offers help, training and advice to farmers in the region. The centre has various faculties looking at different areas of production such as soya, pomegranate and figs. The idea is that researchers test out the latest science and work out how producers can quickly apply it to their farms and help boost production.

Through workshops and training days, the centre passes all the latest crop science, technological advances and scientific research on to farmers. Producers who attend the days are then expected to

go back to their communities and hold similar training days so the knowledge is handed on. According to KVK researcher Sunil Potekar, the scheme means about 60,000 farmers every year are helped out.

While it is a method of communication many farmers favour, in reality it is not a practical way of disseminating information to a large audience. One of the members of DEFRA's independent red tape taskforce (mentioned in Chapter 1) says that while focus groups helped them raise ideas and discuss how they could be overcome, they still relied on the wider media to share information:

"We were able to talk to some farmers directly [about red tape], but the DEFRA website and the campaign Farmers Weekly ran online and in their magazine was a big help in informing farmers about what we were trying to do and generating ideas. And we're relying on the same media and government websites to now share our findings and find ways to meet the challenges. To really achieve things we need a several-pronged approach to our communication."

Conclusion and recommendations

Agriculture is going through a period of immense change. Farmers around the world are having to develop ideas on how to produce more food for a growing global population whilst using fewer resources and impacting less on the environment.

Achieving this change will rely on a great deal of learning and sharing of information between farmers, scientists and government agency not just on a national level, but internationally.

As such, the conduits for this information transfer have never been more important. But to add confusion to the picture they are also going through their own period of upheaval. The mainstream media is seeing audience's information demands and expectations change at a rapid pace as they get used to different kinds of technology and find needs for different types of information. For many people who, like me, work in agricultural news organisations, it can feel as though they are constantly playing catch-up to technological changes and that they are letting down their audiences by failing to keep up and trying to juggle too many things.

The assumption is that because there is a plethora of ways now available to communicate, that farmers want all of those methods available to them. But having visited and spoken to producers in the UK, India, Australia, Canada and the United States, I have come to the conclusion that this is not necessarily the case.

While someone could find information about market prices in a newspaper, on a blog, in a chat room, on the radio and via text alert, that does not mean to say that they want that information delivered to them in every format. At the same time, farmers are busy people who want accurate information delivered to them in an as timely way as possible. There is often little point quickly writing a news story for a website only for it to need to be rewritten an hour later once more facts have come through – a farmer will often only have time to read one of those stories and needs to act on the correct information. As one sheep farmer from Victoria, Australia, said to me: “We don't want more information, I'm swamped in it. I need accuracy and I need it to be concise”.

There is little doubt that as broadband internet is rolled out across the UK over the coming years, government paperwork is moved online and farmers become more accustomed to and comfortable with using computers, that the internet will become a primary method of communication for agriculture. In the meantime mobile communication will definitely be an area of significant development as more and more farmers adopt smartphone technology and companies develop applications to provide tools for producers.

But in all of this technological development, I have yet to be convinced that this means the end of traditional media such as newspapers as a way of communicating with people in agriculture.

Where the print media fails in terms of immediacy of news, I believe it should offer something different - for publications like *Farmers Weekly*, I think this should be in terms of analysis and comment. But this will rely on having writers who are knowledgeable in the industry, who are members of strong agricultural networks and who, in short, have the traditional communication skills that are being put at risk by changes in modern media because they have less time to leave their desks to talk to people in the industry. The farming press needs to ensure it does not lose sight of those traditional skills in its quest to produce more content, in quick time and with fewer resources.

Like the rest of agriculture, the farming media should be working to attract the best people to the industry and promote it as an exciting place for journalists to spend their career. As Brad Collis of Coretext says, the changes currently taking place in agriculture and the challenges it faces make it one of the most exciting industries to work in and by association writing about it is just as exciting and important. Developing courses in agricultural journalism at ag colleges and finding better ways to communicate what is going on in the world of farm science, such as programs like SPARK, would help develop the agricultural communicators of tomorrow.

I believe the role of farming media like *Farmers Weekly* and *Farmers Guardian* in the UK and the newspapers I visited in the US and Australia will continue to have a role in farming society, but their role is changing. I think they will increasingly be information hubs – not necessarily producing information, but as trusted monitors of discussions between farmers and output from government organisations and so on, checking for accuracy and providing comment and discussion.

In the meantime and before we get to that stage, the challenge for agricultural communicators is how to meet the needs of readers when each of them has such different expectations and needs from their information sources. I started out my study hoping that I would discover a 'best' way to communicate with farmers, but I do not think there is a 'one size fits all' solution. Farming media need to get better at knowing their audiences so they can tailor their output accordingly. They need to stop thinking their staff can do everything, identify niches and concentrate on doing certain aspects really well. Agricultural journalists I met repeatedly told me of feeling like they were being spread too thinly – it leaves them disheartened that they are not doing their job properly and left feeling that they are letting farmers down. Agricultural media has a position of trust in the farming community and it is important they do not betray that position by letting its standards slip.

Key recommendations for agricultural media:

- Develop use of social media as a way for journalists to learn more about readers and their requirements
- Look at ways of simplifying content so readers are not swamped with information and key information finds its way to farmers
- Consider ways to utilise mobile technology as a useful way of getting information to farmers quickly and easily
- Recognise the importance of traditional journalism skills like contact building and allow time for writers to talk to people in the industry
- Form better links with international farming press and agricultural organisations to share information, as well as best-practice on how to get information to farmers
- Form better links with agricultural and journalism colleges to generate interest in agricultural journalism and attract the best people to the industry

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Glossary

Twitter: a social networking and microblogging website which allows users to send and read messages called *tweets*. Tweets are text-based posts of up to 140 characters displayed on the user's profile page. The site is estimated to have 200 million users, generating 65 million tweets a day.

Smartphone: A mobile phone offering advanced capabilities, often with PC-like functionality such as email, word processing, photo editing and so on.

Mobile apps: software that runs on smartphones and mobile phones. Mobile applications are designed to educate, entertain, or assist consumers in their daily lives.

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