



**EVALUATING THE IMPACTS OF COVID-19
ON KNOWLEDGE EXCHANGE IN AGRICULTURE
SYNTHESIS REPORT
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1. Introduction

This report synthesises the analysis of the data from the survey, workshop and interviews conducted as part of the rapid appraisal methodology (see separate reports for details). This analysis identified a number of interconnecting themes (Figure 1) which collectively reveal a high level of adaptability cross the AKIS but some challenges as well. The themes were common to all the analysis, thus providing a level of consensus and validation. Although there was a strong consensus, there was a different emphasis given to some themes, and specific issues raised, by the two key groups of respondents (farmer and other stakeholders); these are highlighted below.

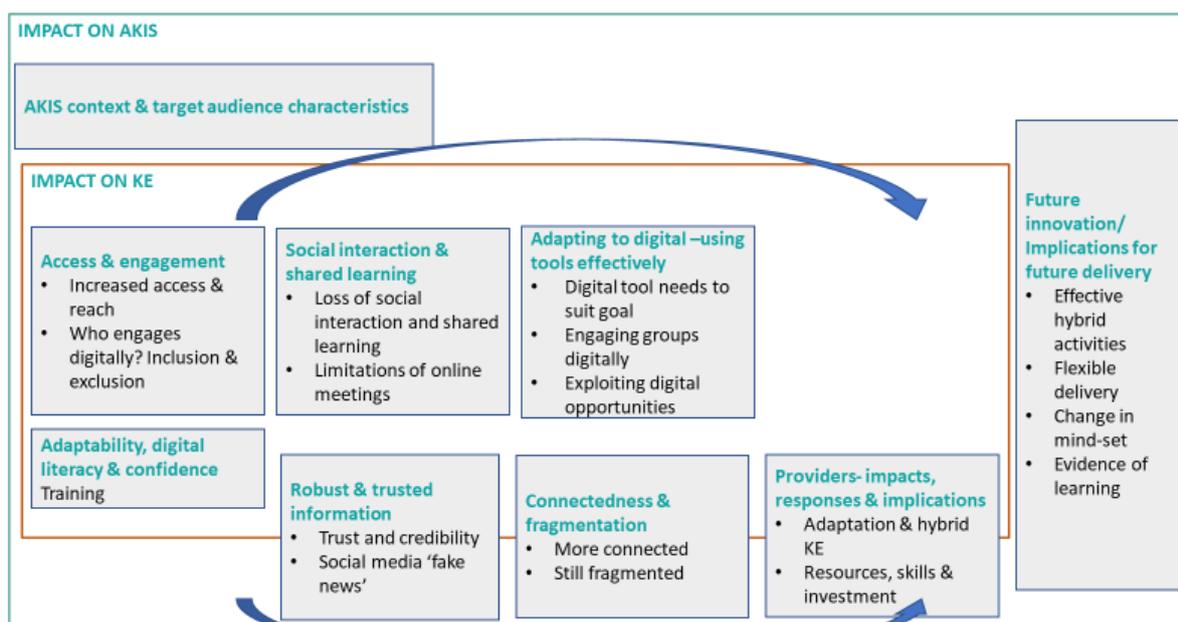


Figure 1. Key themes revealed in the analysis

2. Access and Engagement

Greater access and opening up knowledge

There was a strong level of consensus in the survey, interviews and the workshop analysis that the increased online knowledge exchange (KE) delivery in response to COVID restrictions has improved access for the majority of farmers. Farmers value the convenience and time saved with the reduced need to travel. Overall stakeholders felt that the outcome was positive, both in terms of more numbers and greater diversity of people engaging. This has opened up access to knowledge for farmers (and other stakeholders) to multiple sources, including experts across UK and internationally. The value of accessing a range of information online was emphasised by farmers in the open comments in the survey.

This was further supported by survey data, with farmers (~80%) and stakeholders (~90%) agreeing that access to new sources of information, the flexibility to use them when convenient and savings on time and travel costs present opportunities, ranking these in the top three opportunities offered by digital media and tools.

Survey data also confirm that use of online KE and digital methods and tools has increased both in terms of accessing and providing information and advice. The increases (averaged for farmers and stakeholders) were: video telecommunications (~60%), webinars and online conferences (~30%), online farmer forum (TFF) (10% farmers only), podcasts (~14%), video sharing (e.g. YouTube, Twitch) (~12%).

Increased reach but depth of engagement questioned

The benefits for stakeholders who provide information and advice, in terms of extending their reach beyond limited geographical areas were clearly articulated, and examples were given of large attendance numbers at online meetings compared to previous face-to-face events. However, there were questions raised about the nature of learning at such events, since these only require passive engagement, again this is supported with survey open comments suggesting that farmer experiences were mixed. Furthermore, digital fatigue was ranked as one of the top three challenges to digital tools and media by both farmers (57%) and stakeholders (65%) in the survey. However, some stakeholders appeared to think that farmers had not yet reached 'peak' online delivery.

Who engages digitally? Inclusion and exclusion

The numbers and diversity of people engaging has increased with more online provision attracting people who would/could not attend meetings previously. The anonymity of online meetings was also thought to encourage engagement for some previously reluctant farmers. However, equally, digital delivery is seen to represent a barrier for many farmers due to poor broadband connectivity, lack of confidence or unwillingness to engage, and concerns were raised about the exclusion of these farmers. In the workshop, the risks and long-term impact of losing touch with these farmers was seen to be problematic (as noted below). Most concern was voiced by the farmer survey respondents who stressed the need to consider all audiences in the future. The impact of farmer isolation on mental health for these farmers was also a point that came out strongly from survey comments.

Views about poor broadband connectivity in rural areas acting as barrier were strongly expressed by the farmers in the survey, ten comments were made on this topic. The survey analysis shows that 35% farmers and 18% stakeholders agreed with the statement 'I do not have reliable /adequate access to the internet' which is notable given that they represent a cohort of people who were able to respond to the survey online. Farmer membership organisation stakeholders agreed that broadband represents a major barrier for many farmers.

Although not considered in the interviews and workshops, the survey analysis suggests that the expense and inaccessibility of some online platforms due to subscription costs is another reason why some farmers might be excluded.

3. Adaptability, digital literacy and confidence

Digital re-set but not for everyone

The general sentiment from all respondents was that farmers have been adaptable and are positively engaging with new KE arrangements. The interview and workshop respondents agreed that there is willingness to try out digital tools to gain access to events across a range of farmers and sectors including the small-scale farms and the livestock sector, which has traditionally been seen to be more reluctant to engage online. There was agreement that COVID-19 has certainly 'focused people's minds' on the digital technology availability and the ability to use it, which would not have happened otherwise.

In support of this both groups of survey respondents (~ 70%) agreed that the industry has been adaptive and they have not had any KE problems. Also, some 57% of both farmers and 82% stakeholders agreed that they had prior experience and felt confident using digital tools and media.

Stakeholders providing KE on the whole appeared more positive than farmers about online delivery. This was supported in the survey with many more in the stakeholder group agreeing that that COVID-19 created opportunities (40%), compared to farmers (17%). Overall stakeholder opinions were more polarised than farmers with farmers being more indifferent ('neither/neutral responses') (42%).

Farmers' comments from the survey suggested that the process of adapting to new technologies was unavoidable, and a future inevitability that has been accelerated by COVID-19. Some farmers said that they were looking forward to returning to face-to-face events.

However, all respondents also pointed out that there is a cohort of farmers who lack confidence and digital skills. A number of respondents cautioned that those who were less IT capable or engaged could be left behind and this would have wider implications for the industry. This reinforces points made in the theme above. The workshop discussions noted that skills in some farming communities were low and training was not widely available. In the survey 36% of farmers and 21% of stakeholders agreed that a challenge to digital tools and media was not enough time to access them or support to learn how to use and access them, suggesting that this is not an insignificant issue for some farmers. Considering that all survey respondents were already able to some extent to respond digitally to the survey, this suggests that there are different levels of digital literacy.

4. Social Interaction and shared learning

Loss of social interaction and shared learning

It is clear from the survey data that face-to-face activities have reduced significantly since COVID-19 restrictions started. The decrease for respondents both providing and accessing information and advice respectively is (figures averaged): group events (e.g. discussion forums) ~59%; face-to-face communication with other farmers ~63%; and via individual face-to-face communication (e.g. from advisers or others) ~62%. Interestingly this latter figure contradicts to some extent views expressed in the workshop by stakeholders that advisers visits on-farm were continuing.

The consequences of this for reduced social interaction were widely discussed by all respondents. There was a strong consensus from all the analysis that online delivery cannot replicate the peer to peer learning that happens in face-to-face events, nor provide social benefits for isolated farmers. The value of group events in the field in particular was noted, although interestingly more by stakeholders providing advice than farmers.

The survey analysis supports this with both farmers (59%) and stakeholders (57%) agreeing that digital tools and media presents a challenge because they are too solitary allowing only limited interaction with others. This was identified as one of the_top three challenges of COVID for both survey groups. The value of social interaction was also emphasised in survey responses about future developments (see below).

Limitations of online meetings for social interaction

There was a shared perception that online events have limitations with respect to fostering engagement and social interaction. This was noted in all the analysis. Those delivering advice agreed that it is more difficult to build a rapport with farmers online particularly when they do not have a prior relationship. Farmers themselves concurred in the survey. This is compounded by the sense of digital fatigue which was strongly expressed in the survey.

5. Adapting to digital – using digital tools effectively

Engaging groups digitally – enabling social interaction

Interviewees and workshop participants agreed that KE delivery needs to be suited to the aims of the meeting, the form of knowledge being communicated, the context and the audience. It was emphasised that physical events cannot just be replicated online, different approaches are needed that create a good social experience. There was some discussion amongst workshop participants about the opportunities to enhance social interaction and networking in larger online meetings using interactive online platforms. In smaller groups, stakeholders agreed that social interaction is easier to manage and that these can be more effective in terms of KE, although it was stressed that facilitation needs to be adapted to online delivery.

Adapting with hybrid/blended approaches

Stakeholders providing KE have adapted their approaches extensively over the last year drawing on their own learning experiences and feedback from audiences. Several examples of creative hybrid activities (non-simultaneous) where face-to-face and online are combined to complement each other were described as effective by participants. These demonstrate the adaptability of the stakeholders (and farmers) and the considerable thought and planning that they have undertaken to ensure that KE activities continued during COVID-19. The participants highlighted the effectiveness of 'little and often' online events, in some cases supported with digital tools such as Whatsapp in-between to maintain group connectivity and ensure continuity. Videos and podcasts were described as popular (supported by survey data to some extent), but it was pointed out that these need to be targeted and produced to a high quality.

6. Robust and trusted information

Trust and credibility

The importance of credible and trusted information in online delivery was raised a number of times as an issue in the survey open comments. Farmers see the proliferation of social media as a concern, as well as the risk of bias from commercial information sources. This point was reinforced in the survey analysis, with 'a trusted, credible source of advice' ranked in the top three of what both respondent groups (50% farmers and 60% advisers) would like to see in the development of digital media and tools in the future. However, somewhat contradictorily, only 25% farmers and 8% stakeholders agreed that they don't trust advice from this source, while 31% farmers and 41% agreed that digital tools and media produce more reliable, robust data than other sources and are more transparent.

Interviewees did not express strong opinions about this and felt that farmers could be discerning between social media and more authoritative sources, often maintaining their own trusted sources but through a different communication channel. However, the workshop participants did note the emerging 'spheres of influence' in social media which could be persuasive.

Some level of concern about data security was expressed in the survey with 45% farmers and 21% stakeholders agreeing with the statement 'I feel that my data is not secure' and ranking this as a top five challenge with using digital tools and media.

7. Connectedness and fragmentation

More connections

Overall there is a sense of stakeholders being better connected by online KE delivery than before due to opportunities for networking and linking up with each other. This was particularly highlighted by the workshop and interview stakeholders suggesting this was potentially of more benefit to them than farmers (it was not mentioned in the survey open comments).

Still fragmented

This connectedness does not appear to translate into greater integration within the AKIS. Increased online provision is seen by all respondents to create additional complications to the existing fragmentation in the AKIS as there are now multiple platforms as well as providers.

This was raised as a particular concern in the survey open comments with frequent mention by farmers of being overwhelmed by too much disconnected information. This view is supported in the survey analysis which found that fragmentation of tools/media, was one of the top challenges for digital tools and media for both groups (59% farmers and 69% stakeholders agreeing). Several comments suggested more coordinated delivery amongst organisations was needed. The survey data supported this with some 30% of both farmers and stakeholders agreeing that 'a one stop shop where I can access all the information I need'; and 20% farmers and 30% stakeholders agreeing that 'somewhere that collates new knowledge', are what they would most like to see in the development of digital tools and media.

The fact that some information is privatised and inaccessible is also an issue for integration in the AKIS. This was noted in the comments and supported in the survey data showing that 40% of both farmers and stakeholders agreed that a challenge for digital tools and media was that it is expensive to sign up to different providers.

8. Providers: impacts, responses and implications

This theme captures a number of issues in relation to stakeholders who provide KE, mainly revealed in the interview analysis which focused more on aspects of organisational resources and capacities and capabilities.

The implications of increased digital provision for business were reportedly positive for some, particularly for those dealing in data management, providing marketing or advertising services online.

More efficient use of resources and flexible planning was highlighted as a benefit for a number of organisations. The opportunity for a wider reach for reduced cost and pressure on staff was mentioned and compared to previously inefficient systems of extensive travel to meetings, where often there was poor attendance. In addition, new analytical tools allow those delivering KE to evaluate interest and engagement and to be responsive to target audiences' needs on a more flexible basis.

With respect to capacities and capabilities, new online and hybrid delivery arrangements were described as demanding on staff digital skills and time, and the need to professionalise and upskill was emphasised in both the workshop and interviewees.

9. Future innovation/Implications for future delivery

Hybrid activities

Although digital delivery has been widely embraced and offers many learning opportunities and other benefits, there was universal agreement amongst all respondents that the future of KE will be a balance between face-to-face and online provision. These views were supported by survey data with >90% of both farmers and stakeholders agreeing with the statement 'I hope to use a mix of in-person and digital media and tools in the future'.

However, how the balance between the two is managed is a point of debate. Flexible delivery is required to suit the audience and context. There are a number of creative hybrid adaptations already in operation which can serve as good examples for the future delivery. Participants stressed that any hybrid delivery has to be done well and there were many concerns about simultaneous hybrid delivery raised by stakeholders, in terms of the quality, effectiveness and the additional workload and resources required.

Although stakeholders agreed that that advisers would remain a key element of future delivery, 21% of farmers in the survey agreed with the statement 'I do not have to employ an adviser anymore' seeing this as an opportunity that digital tools offered.

Evidence of learning is needed

A number of stakeholders highlighted the fact that there is limited evidence of learning from online activities and little is known about how much of the information circulating is being translated into knowledge. This point was also strongly expressed in the workshop and identified in the survey open comments. Evaluation of the nature and extent of learning and behaviour change as a result of online and hybrid approaches would allow a more nuanced evaluation of the high figures recorded for online participation in some meetings and could inform future KE development.

Managing information and integrating platforms

Aligned to the theme about connectedness and fragmentation, there was consensus that the proliferation of platforms and information since COVID started has compounded problems in an already fragmented AKIS. The need for a more coordinated and joined up approach to delivery was advocated, although some challenges with reconciling different organisation's objectives was also identified. Overall the sense was that digital delivery required strong knowledge management and curation with signposting, making all information (including videos, legacy recordings) easy to find and accessible.

Reappraisal

A common theme across all the analysis was that the pandemic has prompted farmers and those providing KE to reappraise their knowledge requirements. For some, COVID has prompted a 'long overdue digital re-set', with many stakeholders and farmers adapting and improving their digital literacy, arguably leading to an upskilled cohort of practitioners for the future. Both groups in the survey (67% farmers and 77% stakeholders) strongly agreed with the statement that the disruption has presented an opportunity to rethink how they access or provide advice. Although more stakeholders were more likely to agree (44%) that they would not go back to the way they used to provide advice compared to farmers (34%) (accessing advice) suggesting that advisers have adapted to the changes to a greater extent overall.

10. Future opportunities

There have been high levels of adaptability and positive engagement with online KE delivery since COVID-10 restrictions started, and an appreciation of the many benefits it provides. This presents a number of opportunities for the future. However, there is a strong feeling that this should not be at the expense of the social interaction, shared learning and social support offered by face-to-face activities. Furthermore, there was concerns about those who have been excluded from online delivery, for whatever reason, and the implications this has for their future. When planning KE delivery, it is important that the needs of some farmers and sectors are not compromised as organisations look for resource efficiencies. The following key opportunities were identified, building on the lessons and adaptations outlined in this study, captured in the Figure 2:

- KE will need to be flexible and responsive, and depend on objective, context and audience building on the opportunities offered by analytical tools and other means of feedback
- Use opportunities to build on and foster the: digital re-set, the upskilled cohort of practitioners, and the reappraisal of knowledge requirements and methods that COVID has prompted
- Continue to identify where digital delivery is most effective (e.g. KT) and focus on facilitating social interaction online with new interactive platforms and appropriate facilitation
- Integrate face-to-face and online methods (hybrid) ensuring well balanced and appropriate delivery using the many lessons and experiences gathered over the last year
- Build on knowledge of who does, and who does not, engage in new forms of delivery and consider how to support the disengaged
- Build on, and continue to invest in, organisation and individual capacities and capabilities to ensure professionalisation and skills to support new forms of delivery
- Look for opportunities to manage knowledge, given the proliferation of sources and platforms. Easy access, signposting and a high level of credibility are seen as priorities, as is the need for coordinated delivery through shared platforms or a one-stop-shop
- Evaluate the nature and extent of engagement and learning achieved through online and hybrid delivery methods to ensure that these are optimised and used in the appropriate context.



Figure 2. Opportunities for future KE delivery