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Convergence! Collision! Bridging the Gap Between Research and Practice

Andrea Powell
CABI, a.powell@cabi.org

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How Mobility Liberates Content From the Library and Puts it in the Hands of the Users

by Andrea Powell (Executive Director, Publishing, CABI) <a.powell@cabi.org>

For over a century, CABI has been publishing authoritative, quality-filtered information about the latest research and development in agriculture and related disciplines. Our efforts to ensure quality and comprehensiveness in our field have resulted in a database of over ten million records, drawn from tens of thousands of serial sources and a wide range of other non-serial publications, and all indexed with terms from our controlled vocabulary, the CABI Thesaurus. Our customers have typically been institutional libraries across the globe, where specialist librarians initially mediated access to these information resources, helping their patrons to get the best results from such highly structured and indexed databases. The arrival of the Web and, most recently, smartphones and Internet-ready mobile devices, has transformed access to online databases and has created new pressures on database providers to develop user-friendly search interfaces and products which are optimised for use by non-specialists outside the library and even (sometimes literally, in our case) in the field. In the past few years, CABI has been embracing this challenge with enthusiasm, with a particular focus on two key user groups:

Veterinary practitioners and technicians, who require access to research information for professional reasons but who typically no longer have access to the rich and varied resources they enjoyed while at university

Smallholder farmers in developing countries, for whom the mobile telephone is a transformational technology, opening up access to a world of knowledge where previous face-to-face advisory services were unreliable and sometimes completely dysfunctional

These are two very different user groups with a common need — to receive, digest and act upon highly targeted and specific nuggets of information without trawling through vast piles of unfiltered and unstructured information, and to do this “on the job,” in the clinic or in the field. This is a very different challenge from that of providing a vast database to a research community, which by and large wants to do its own exploration and information discovery.

Information Needs in the Veterinary Practice

Our research with the veterinary profession identified a significant demand for on-going access to the research literature, both to support continuing professional development (CPD) and to demonstrate evidence-based best practice to the paying clientele. We could be confident that, in the developed world, almost all newly qualified veterinarians would have used the comprehensive CABI veterinary databases during their time at university but equally confident that they would not be able to access these resources from their practice or clinic. In consultation with some of the main veterinary professional bodies and CPD providers, we devised a way to repackage our core veterinary resources to make them more relevant and useful to the busy vet. This led to the creation of a brand new product, VetMed Resource (VMR), and the addition of a “smart searches” feature, which takes the hard work out of running an accurate search on a large dataset. Smart searches identify highly topical research questions and embed a well-constructed search strategy behind an HTML link so that all the user has to do is click the link to get the most up-to-date results. This feature can be customised to meet the needs of a CPD provider, so that, instead of providing an out-of-date bibliography to support a module, the instructor can simply link the students to a dynamic search and be confident that the references are always current and accurate.

VMR also integrates reference material from our Animal Health & Production Compendium, our veterinary book list and feature articles written by our editorial specialists. The Website was designed specifically for the non-academic end-user (see Figure 1), while still retaining some of the features that more experienced searchers might expect, such as faceting, lateral searching and the use of a controlled vocabulary. Crucially, all content included in VMR is consistently indexed using the CABI Thesaurus so that we create relationships and offer “more like this” linking across the full range of content types. Product enhancements planned for 2014 are a mobile-optimised version and an “instant access” purchasing option which again will be optimised for mobile devices. This will create seamless convergence between the desktop version of VMR used in the clinic or at home and the mobile edition for use on the move or on the farm.

VMR provides a way for veterinarians to make the transition from school to practice without losing the “comfort blanket” of a reliable, authoritative reference tool. In order to facilitate this transition, we work closely with the vet school librarians to provide user training and support in the students’ final year, and have struck deals with many of the professional associations...
Empowering Smallholder Farmers with Actionable Information

Another target user group for CABI is the many millions of smallholder farmers around the world who are responsible for growing up to 80% of the food consumed by the world’s growing population. In the struggle to increase production and efficiency, the transfer of relevant and trustworthy knowledge to farmers is a key enabler, but can only be achieved at scale through the use of modern technology and mobile devices. CABI has pioneered the use of mobile technology to deliver “actionable” agro-advisory information, using our long pedigree of content management and database construction and our understanding of how knowledge is consumed and acted upon in developing world communities. The explosion in mobile handset availability means that we can now reach vast user groups with highly targeted services and upgrade those services over time as the devices grow in sophistication.

The first generation agro-advisory services delivered via 2G handsets (still used by millions in certain parts of the world) are simple, voice-based systems which send pre-recorded messages to subscribers at regular intervals throughout the day. This approach overcomes illiteracy and is non-intrusive for the user, since the mobile phone is usually kept about the person and is therefore easily accessible. The messages are constructed by a trained intermediary, typically an agronomist or extension agent, who has access to a wide range of useful, relevant and authoritative resources, such as weather forecasts, market prices, pest management techniques, plant disease identification toolkits and animal husbandry guides. He uses his information management skills to craft a series of advisory messages, translates them into the relevant local language and records them with the central call centre. At a pre-determined time each day (often several times per day), the messages are broadcast to the subscribers as automated phone calls. Once again, the challenge here is to extract relevant nuggets of information from a large corpus of reference material and convert it into a format and language that is most accessible to the target audience. Such mobile value-added services are growing rapidly in countries like India, Bangladesh, Pakistan and Kenya, where farmers are happy to make micro-payments for such valuable and actionable information. One of the services with which CABI is involved is an information provider, IKSL, services over four million farmers in 18 states in India, with a basic messaging service topped up with call-back options, dedicated help lines, phone-in programmes and mobile quizzes.

Another recently launched mobile advisory service in India is called Café Móvel, and targets the 100,000 coffee growers in some of the most isolated parts of the country. It is funded jointly by the Coffee Board of India, the Common Fund for Commodities and the International Coffee Organisation, and is maintained and implemented by CABI. This service is more sophisticated than a simple voice or text-messaging offering, and includes interactive learning and personalised Q&A. We expect initiatives like Café Móvel to become sustainable businesses over time, and to become a vital component in the transfer of knowledge to food producers and smallholders.

Organizational Convergence

For the first 100 years of its existence, CABI operated two quite separate programmes, a commercial academic publishing business and a donor-funded agricultural development programme, with the profits generated from publishing subsidising the mission-oriented development work. The relationship between the two “halves” was almost entirely financial, with seemingly little in common between the respective staff, customers and activities. The arrival of the knowledge economy and, in particular, the spread of telecommunication networks and mobile devices, changed all this. Information transfer and capacity building became core components of CABI’s project activities, with international donors increasingly recognising the power of information and communication technologies and the ability to measure the impact of new initiatives more effectively. CABI has been extremely well placed to develop knowledge management as a core capability thanks to its century-long pedigree in database development, controlled indexing and content aggregation. We see the future as being increasingly integrated, with the skills we have as a publishing house adding value to our mission as an agricultural development organisation. Seemingly “old fashioned” skills such as Thesaurus management and Boolean searching have become “sexy” again, and we find that we are able to work much more closely with our scientific colleagues as they develop and implement programmes aimed at raising living standards within smallholder farmer communities in the developing world.