

Design of an Online Platform for the Agriculture Community to Localise Scientific Knowledge and Foster Sustainability

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Abstract - Sustainable agricultural practices are critical to emerging global hunger and environmental issues. Knowledge is the key to improving such practices. In agriculture, knowledge is categorised as local and scientific, where both have their potential. Within the agriculture community with respect to knowledge, there are creators and consumers. Scientists and extension officers who disseminate scientific information can be seen as knowledge creators and farmers as knowledge consumers. This separation leads to a mismatch between the creators' and consumers' contexts, leading to scientific knowledge not applying to the local context. Further, such knowledge disregards practical local knowledge. The challenge is to bring both contexts together and enable knowledge co-creation in a scalable manner to generate context-specific crop recommendations. We designed an online community platform to combine knowledge creation and consumption to enable knowledge co-creation. This will help to generate context-specific crop recommendations while overcoming the tyranny of space and time. First, we identified characteristics of a conducive knowledge creation space through a literature review and designed an enabling space for the agriculture community to develop farming practices. Then we identified user stories for community members. Next, we designed a prototype where scientists, extension officers, and farmers could develop practice packages (PoP). The community knowledge creation process can be initiated with published farming practices. Then, based on the context, the agriculture community can build dialogue to find unavailable information, verify available information based on practicality and finalise the PoP. This intervention will bring knowledge creation contexts closer to where knowledge is put into action and facilitate the agriculture community to harness the power of both local and scientific knowledge to perform farming practices better.

Keywords - *farming practices development, knowledge creation, knowledge co-creation, online community platform, virtual space*