# Fact sheet: Digital irrigated agriculture workforce futures

Digital literacy is a key skill for current and future workforces in the irrigated agriculture industry throughout the Murray–Darling Basin. This includes, but is not limited to, producers, technicians, agronomists, managers and labourers. The challenge is how to deliver 'point of need' and effective digital education for all users in suitable and accessible formats for a wide cross section of learners with varied backgrounds.

## Key points

This project will contribute to current and future workforce skill sets with a focus on the digital literacy requirements for irrigated agriculture. The project objectives are to:

- Support the improvement of digital uptake through increased awareness, understanding, confidence and proficiency;

- Define practical digital literacy (skills and capabilities) required for confident adoption and optimal use of digital irrigation technologies;

- Identify the attributes of a digital workforce that can respond to emerging, unconventional or disruptive technologies.

- Define educational models that support the learning and development in irrigated farming digital literacy; and

- Integrate and test ideas and technologies in location to optimise experiential educational outcomes in training.

## The challenge

To prepare learners and industry for a digital agriculture workforce, education providers need to equip them with the knowledge and capabilities that enable them to:

(a) confidently acquire, interpret and derive knowledge from digital technology, and

(b) adapt as the sector continues to rapidly change.

The challenge for education providers is developing knowledge, skills and understanding for the best ways to deliver education and training that is 'fit for purpose' and addresses current and future needs.



## The opportunity

- To work with 'on the ground' users of irrigated agriculture technologies in defining the educational requirements of learners to achieve and maintain "practical" (hands-on) digital literacy, while covering all stakeholder groups in the irrigated farming sector;
- To identify and define what it means to be digitally literate to enable all users, current and future, to be able to use, maintain, and make the most of irrigated agriculture technologies such as sensors and data aggregation methods; and
- To develop educational frameworks and training which is suitable for the learner's current and future needs, building on current knowledge, skill sets and interests.

# Our research

The focus is developing improved understanding of the educational digital literacy needs for people in the digital irrigation sector. It includes creating educational frameworks for delivery of digital literacy learning needs, by building on best practice delivery models to equip the future workforce. This includes the ability to rapidly respond to changing needs for use of technology, as well as understanding the social cost benefit of agricultural education pertaining to digital literacy.

While the research focusses on irigated agriculture it is anticipated this research will inform the broader agricultural communities where digital information is acquired and used for decision support.

This project forms part of a larger project with two other components:

- Redefining the value, and experience of digital irrigation technologies; and
- Digital Irrigation Advisory Systems: Enabling extension and advisory services for agriculture's digital irrigation transition.

This project work links to the One Basin CRC Program 2: Technology and Opportunity https://onebasin.com.au/research/

# Outcomes

- Understanding various levels of digital literacy for stakeholders and learners. This will inform the development of a learning framework, and consequently currciulum structures and relevant course content;
- Education programs that are codesigned with industry, educators, on-the ground users, First Nations groups and learners themselves, to be relevant, adaptable and sustainable;
- Trial programs that ensure the developed models and frameworks are fit for purpose; and
- An analysis of the social cost benefit of irrigated agricultural education pertaining to digital literacy.

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# Next steps

The project is looking for people interested in discussing what digital skills and education are needed throughout the entire irrigated agriculture ecosystem; educators, primary producers, agronomists, vendors and providers, logistics and First Nations peoples.

To register interest or for project updates:

Or reach out to Dr Pauline Rogers, progers@csu.edu.au to discuss.

## Key personnel

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