The case for opening up collaboration:

Supporting collaboration in early research and research communications via open research tools has the potential to bring real benefits: from speeding up discovery in research by making more aspects of the production of research available to other researchers; to providing recognition for more component parts of the research process; to helping to disrupt and improve the article publishing model; to making interdisciplinary work less challenging and more impactful. But what are the barriers to doing this, and how can the research community overcome them in partnership with publishers and other stakeholders?

The session “The case for opening up collaboration: speed, recognition, and impact” started that conversation through a workshop in 3 parts.

The first section shared an update on 2 areas where Cambridge University Press is working to encourage collaboration. The first is Cambridge Open Engage, which offers rapid dissemination of early and open research outputs including working papers, preprints, research reports, conference posters and presentations. In response to COVID-19, Engage also began to offer a service for sharing event outputs, as more events became virtual. We saw that there were opportunities to bring benefits to conferences by hosting their outputs with solid scholarly communications infrastructure and speed – meaning that those who cannot attend the conference itself can access outputs and provide feedback to authors, authors can version their research after the event based on that feedback, and the research is citeable and able to accrue impact and metrics outside of the constraints of the conference itself.

Work is planned to boost Engage’s collaborative utility by adding new spaces called “Communities”. These will bring together broad communities of researchers working in interdisciplinary fields and will augment informal collaboration tools with a fit-for-purpose area where researchers can share their work, discuss their ideas and practices, and find collaborators.

We will be starting with a community for Climate Change & Sustainability, where we will draw together researchers from across disciplines from the humanities to atmospheric science, on a free-to-use platform that offers infrastructure for collaborative work of all kinds.

- This area will include:

  - Curated & moderated discussion threads
  - Communities of practice-i.e. areas to share resources & learning on topics of importance to their professional competencies and/or research skills
  - Content alerts and invitations
  - Ability to invite commenters
  - Ability to find and follow contributors

The second example where we are supporting collaboration in research at Cambridge University Press was the innovative journal project Research Directions. These journals will publish high quality, high-impact open access research with global reach in interdisciplinary subject areas, with the author responding to field-specific curated research questions or hypotheses. Unlike traditional journals, however, which are structured around a descriptive scope, authors publishing in Research Directions will be invited to publish research that takes incremental steps to answering a set of distinct research questions, intended to be definitive to a specific field. The resulting published outputs will be broken down into discrete parts- results, analysis, impact- each of which will be indexed, receive a DOI and be considered a published and citable research item. This approach, of breaking down research into its constituent parts, will allow greater collaboration at
every stage of the research lifecycle. The published research outputs will be complemented by items on Engage (our preprint server) which would not usually be included in formal, peer-reviewed journal outputs. This might include items such as preprints, data sets, software descriptions, research posters and community briefs, giving visibility to the entire research journey as it progresses.

After these examples were shared, workshop attendees then spent some time identifying barriers to collaboration, logging the discussion in a Miro board. We focused on the following categories of scholarly collaboration, as defined by our Engage project team:

- **Network collaboration**: the way that researchers discover and share new ideas, meet one another and become familiar with one another’s work.
- **Project collaboration**: an example of this would be sharing documents across a large international research project where you have specific laboratory equipment in different places but need to share data with colleagues working on the same project.
- **Impact collaboration**: in this category we think of activities that synthesize research and aim to communicate it more effectively, which is often an effort undertaken by groups of researchers coming from disparate projects. In some cases, it might also involve collaborators and audiences outside of research entirely: for example, the public, policymakers or practitioners in industry.

Research completed by Cambridge University Press has shown that many scholars use informal tools around collaboration. A lot of this growth in tool use was fairly organic, dependent on existing networks, resulting in frequent use of largely basic tools like email. The pressure to find a complement to the conference model has been building for years, partly because access to conference travel budgets vary widely depending on access to funds and/or where a researcher is based in the world. The pandemic has only made it more critical that we find new ways to provide feedback, build networks, and workshop research findings in advance of publication.