

Educational Level:

HDR / Graduate research students

Subject Area (s)

Research training

Time required

12 hours

Adobe Skill Level:

Beginner - Intermediate



Use Images with Integrity for Research Visualisations

Overview

In this 12-hour online module, graduate research students will produce a visual narrative using Adobe Express to promote their original research in social media and then, to ethically self-evaluate their use of imagery. Through this project, they need to address questions relating to image integrity as it pertains to the dissemination of their original research. The research visualisation narrative and evaluation are scaffolded across the following three parts:

1. Researching and reporting on disciplinary norms for image use;
2. Developing awareness of copyright regulations; and,
3. Creating a visual research narrative and an accompanying reflective evaluation.

This project could be used in other higher degree training, and adapted for use with other Adobe programs. For instance, students familiar with Adobe Illustrator could be encouraged to use it to create or manipulate their visualisations. However, because Adobe Express is an entry level program, it enables all users to create visualisations that are easily shareable. Adobe Express therefore, offers a way to conduct an evaluation of image use, which empowers students to demonstrate their understanding of public dissemination of research in a meaningful way.

To achieve this, students need to align their visualisation to the framework provided within the Australian Code for the Responsible Conduct of Research, 2018. Image integrity in this context is taken to mean using images honestly, accurately and responsibly, so that others can have trust and confidence in what the images show. This project therefore aims to develop a deeper understanding of image integrity in order to bolster the critical digital literacies of emerging researchers.

Students should be advised that visualisations submitted via Adobe Express will be accessible by anyone with the shareable link. Therefore, students who do not want to make their research visualisation publicly available should be asked to create an offline version and upload it to the Learning Management System (LMS) or as per their teacher’s instructions.

Before embarking on this project, students are recommended to complete the ‘Designing infographics for research visualisation’ module (also on the Adobe Exchange).

Supporting tools and resources

- [Adobe Express tutorials](#)

Outline

This project is intended to be delivered as a three-part module which is scaffolded across three separate student learning activities.

Step	Time	Description
Part 1: Researching and reporting on disciplinary norms for image use		
		<p>For Part 1, explain to students that they will research and report on disciplinary norms for image use in their field. In addition, they will need to investigate relevant publication codes for image use in their field and prepare a personalised checklist.</p> <p>Recommended approach:</p> <ol style="list-style-type: none"> 1. Present general guidelines for image use in research dissemination and demonstrate how to find publication image use guidelines in reputable research journals. (This can be done in class or online via two short videos.) 2. Encourage students to check best practice for image collection, storage, management and usage with their supervisory/laboratory team. Make sure they can access Australian Code for the Responsible Conduct of Research, 2018 and its guides and that they have the contact details of the relevant university Research Integrity Advisor. 3. Students may not yet know likely publication avenues for research dissemination; encourage them to reach out to the relevant Disciplinary Liaison Librarian and/or to check with their supervisory team.
Learn	120 min	
Evaluate	60 min	Student Activity Part 1

- Instruct students to research and investigate disciplinary and publication norms and codes relevant to their own field of research
- Based on the students' research and evaluation, students will need to create a personalised checklist and submit it to the online submission portal.

Tip: Share exemplars when outlining the activity. For instance, students could share and discuss their provisional checklists using an online discussion board.

Part 2: Developing awareness of copyright regulations

Learn 120 min In Part 2, students will need to become familiar with [copyright regulations](#) for image use, while also learn how to ethically source and attribute copyright-compliant images for use in their research narratives.

Recommended approach:

1. Present [university guides](#) to copyright and image usage rights. (This can be done in class or online via short videos.) Encourage students to check with Disciplinary Liaison Librarians and university Copyright Advisors. Make sure they can access the university Research Copyright Tool.
2. Initiate a discussion about the reasons for attribution (transparency, reproducibility, trust, etc). Provide guidance on [avoiding image plagiarism](#). Demonstrate how to access [the university referencing guides](#).
3. Share examples of correct image attribution. Students may not yet know the citation system/s used in their research field; encourage them to reach out to the relevant Disciplinary Liaison Librarian and/or their supervisory team to check.

Create 60 min **Student Activity Part 2**
Encourage students to source and fully reference a copyright-compliant image for use in their research narrative, and to submit the image including the reference to the online submission portal.

Part 3: Creating a visual research narrative and an accompanying reflective evaluation

Learn 120 min In Part 3, students will research avenues of public outreach and [media promotion](#) relevant to their field of research in order to create the four-image visual narrative and produce an accompanying 500-word reflection (More information in 'Student activity 3' below).

Recommended approach:

1. Initiate a discussion of the role of the media in research dissemination, by presenting examples of research [misinformation](#). Ensure that you highlight university guidelines for social media use in research dissemination, and encourage students to check best practice with their supervisory team and investigate [ethical aspects of research journalism](#), focusing on the use of [images](#) and [graphics](#). You may also need to demonstrate how to [decide on social media platforms \(if any\)](#) and ['follow' relevant research leaders](#).

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2. Check and assess students understanding of the relevant sections of the Australian Code and the university's Media and Communications policy and guidelines with some quiz questions.

Evaluate
& Create

240 min

Student Activity Part 3

Students will need to create a four-image visual research narrative [adapted for use in social media](#) or a [research visualisation competition](#), and also provide a 500-word reflective ethical evaluation of their visual research narrative or research competition. This written evaluation should align with the Publication and Dissemination of Research guide supporting the Australian Code for Conducting Responsible Research.

Tips: Students should use their images from Part 2 of this module (one option would be to incorporate any the visualisations they created earlier in the 'Designing infographics' module). The reflective 'Ethical evaluation' activity asks them to reflect on the potential impact of [modifying their research for different audiences](#).

They are also asked to refer to the Australian Code for the Responsible Conduct of Research while addressing the following questions:

1. Who is your research audience and what do you expect them to gain from your presentation?
2. How have you made sure you sourced your images ethically and kept records of their collection and any manipulation?
3. Have you attributed images correctly? How?
4. How have you taken into account disciplinary norms and dissemination codes in your visualisation?
5. How have you maintained accuracy, accountability and authenticity in your visualisation while delivering a clear message?

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