Mapping Normative Frameworks of Ethics and Integrity of Research

D.5.4 Delivery of the first RE+RI scenario as input for the platform

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Project details	
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Table of Contents

1. Deliverable Summary

This report includes the first research ethics and research integrity scenario to be uploaded to the online platform. In addition, the report includes:

- Details regarding the purpose of the scenarios;
- Details regarding the development of the scenarios;
- Details regarding the presentation of the scenarios on The Embassy of Good Science.

2. Description of Work

As part of Task 5.4, WP5 are required to:

1. Develop a set of RE+RI scenarios for educational purposes and in order to stimulate strategic thinking about RE+RI.

One of the outputs of task 5.4 is this report (**D.5.4 'Delivery of the first RE+RI scenario as input for the platform'**).

3. Developing the Scenarios

3.1 The Basis for Developing the Scenarios

One of the aims of developing an innovative, user-friendly open access and open source Wiki-platform is to increase awareness of best research practices and create preconditions for scientific excellence. Furthermore, the unique feature of the EnTIRE project 'is the iterative, "bottom up" approach, making explicit normative experiences of local stakeholders and principles embedded in local rules and practices, and enabling the structuring of data in a way that fits in with research and evaluation practice, providing useful, accessible information for local users' (Widdershoven et al. 2015, 5).

Bearing in mind the 'bottom-up', user-oriented approach to the online platform, WP5's aim with this task is to provide users with a set of scenarios that facilitate opportunities to gain knowledge of best practice and to discuss complex practical issues in relation to RE+RI with other users. Another aim is to allow users to focus their reflection on certain core principles and research contexts that enshrine good research practice as well as their local rules and practices.

To these ends, WP5 have decided to develop the scenarios on the basis of, and with a view to helping users become better acquainted with, *The European Code of Conduct for Research Integrity* (ECCRI). However, these scenarios will also allow users to reflect on their own national and institutional research ethics and research integrity codes as well as other key regulatory documents and guidelines where appropriate.

The reasons for focusing the scenarios and associated reflection on the ECCRI are:

1. According to the European Commission, the ECCRI articulates the highest standards of research integrity (Widdershoven et al. 2015, 4);
2. Resources and cases on The Embassy of Good Science are already being tagged and made searchable using the four central principles presented in the ECCRI;

3. The ECCRI is a supranational regulatory document, endorsed internationally by institutions from more than 40 countries (ALLEA 2017);
4. The ECCRI is applicable to research in all scientific and scholarly fields (ALLEA 2017);
5. The ECCRI is intended to be used in conjunction with a user's national and institutional regulatory documents (ALLEA 2017).

3.2 The Purpose of the Scenarios

The scenarios are being developed for educational purposes and in order to stimulate strategic thinking about research integrity.

WP2's stakeholder consultation identified three different types of stakeholders: researchers; research ethics committees and research integrity offices; and research administrators (Evans, Veldkamp, Valentini et al. 2018). Each scenario will be devised in such a way as to encourage each of these groups to engage with it for educational purposes and in order to stimulate strategic thinking about research integrity.

The scenarios are educational in three ways. Firstly, in terms of their structure, they take the form of a hypothetical narrative interspersed with questions and resource suggestions that help guide user deliberations concerning the issues raised by the narrative. Secondly, in terms of their content, the scenarios develop upon and extend extant educational scenarios in order to allow users to gain knowledge of, and reflectively apply, the ECCRI as a regulatory document that articulates the standards of good research practice. Thirdly, in terms of the way that the scenarios will be presented on The Embassy of Good Science, users will have the opportunity not only to employ them as learning instruments in a classroom setting, but to engage in discussion and constructive debate with other users regarding the answers to the scenario questions in the online 'Discussions' forum.

Strategic thinking is defined as a mental process applied by an individual in the context of achieving a goal or set of goals (Wikipedia contributors 2019). The goal in this context is for the user to gain knowledge of the standards associated with good research practices and to make sense of these standards in different research contexts. To achieve these ends, the user will use reflection to understand and apply the four central principles of the ECCRI in combination with the rules, prescriptions and principles of their own national and institutional research ethics and research integrity codes. The four central principles of the ECCRI are:

1. **Reliability** in ensuring the quality of research, reflected in the design, the methodology, the analysis and the use of resources;
2. **Honesty** in developing, undertaking, reviewing, reporting and communicating research in a transparent, fair, full and unbiased way;
3. **Respect** for colleagues, research participants, society, ecosystems, cultural heritage and the environment;
4. **Accountability** for the research from idea to publication, for its management and organization, for training, supervision and mentoring, and for its wider impacts.

The scenarios will stimulate thinking by providing questions concerning the good and bad aspects of the research practices invoked by the hypothetical narratives. The thinking will be strategic because, in order to answer the questions and thereby gain knowledge of the standards associated with good research practices, the user is required to understand and apply these ECCRI principles to different research activities and contexts in combination with the contents of their local regulatory documents.

3.3 Comprehensive Set of Scenarios

WP5 are required to provide a *comprehensive* set of scenarios. According to the ECCRI, there are eight categories of research 'contexts' that are covered by the standards of good research practice:

1) Research Environment
2) Training, Supervision and Mentoring
3) Research Procedures
4) Safeguards
5) Data Practices and Management
6) Collaborative Working
7) Publication and Dissemination
8) Reviewing, Evaluating and Editing

According to the authors of the ECCRI, these categories cover as broad a range of pertinent research activities as possible whilst still allowing for local or national differences in the implementation of the code (ALLEA 2017). Consequently, in order to ensure that the set is comprehensive, we will develop one scenario for each of these eight categories of research contexts. The scenario we have developed in section 4 relates to the 'Publication and Dissemination' context.

3.4 Incorporating the Scenarios on the Online Platform

Although the question of how these scenarios will be presented on The Embassy of Good Science is beyond the scope of this deliverable, initial cross-consortium discussions indicate that the scenarios will be incorporated in two ways. Firstly, it has been proposed that a version of each scenario will made available on the 'Resources' section of the platform so that trainers, instructors and committees can employ them in a classroom or training setting. Secondly, it has been suggested that a version of each scenario and its associated questions will be uploaded to the 'Discussions' section of the online platform. Not only does this approach permit individuals to tackle the scenarios in the absence of colleagues, peers and team members, it facilitates an online dialogue that allows users to learn from one another and to debate complex issues that arise in the narrative. It, therefore, promotes user engagement and improves the online user experience.

3.6 Section References

ALLEA. *The European Code of Conduct for Research Integrity: Revised Edition*. Berlin: ALLEA, 2017. https://ec.europa.eu/research/participants/data/ref/h2020/other/hi/h2020-ethics_code-of-conduct_en.pdf. Accessed 11 September 2019.

Evans N, Veldkamp C, Valentini E, et al. D.2.3 Stakeholder Consultation: Report. [Unpublished Project Report]. EnTIRE Project; 2018.

Widdershoven G, et al. EnTIRE Mapping Normative Frameworks for EThics and Integrity of Research. [Unpublished Research Proposal]. H2020-SwafS-2016-17, European Commission Research and Innovation Proposal Submission Forms. Brussels: European Commission; 2015.

Wikipedia contributors. Strategic thinking. Wikipedia, The Free Encyclopedia. September 30, 2019. https://en.wikipedia.org/w/index.php?title=Strategic_thinking&oldid=918798442. Accessed 28 October 2019.

4. Scenario 1: Publication and Dissemination

4.1 Background

A postdoctoral researcher specializing in experimental research at the intersection of technology and education has recently taken up a position at a government think-tank. He is part of a six-man team conducting research into the effects of Virtual Learning Environments on the educational experiences of young children. The new project is coordinated by a professor in social science and public policy employed by the University of Adversshire.

The postdoctoral researcher has developed an adversarial relationship with the professor. Other team members have heard the professor refer to the postdoc as 'disrespectful' on several occasions. However, the professor recognizes that the postdoc, in collaboration with one of the other team members, has done a great job in analyzing the data for the study using a particularly novel statistical method. As a result, the professor asks the postdoc to submit the manuscript (M1) on behalf of the six-man team to the *Journal of Virtual Education and Development* with the postdoc as lead author and the professor as last author. The postdoctoral researcher submits M1 in early May.

4.2 Issue 1

The Journal of Virtual Education and Development is an extremely popular, high-impact education journal with a reputation for taking longer than most other journals to review manuscripts. As a result, the professor asks the postdoctoral researcher to submit the same manuscript to the tech-focused *Journal of Tech and Mech*, which is known to have a much shorter turnaround period for reviews. The professor suggests that they could withdraw the manuscript from the redundant journal once it has been accepted by the other journal.

4.2.1 Questions for Researchers

If you are a researcher working as part of a research team or in collaboration with other scholars, you may find it useful to attempt to answer the following questions. There is no single fixed way of answering the questions though you may find it useful to refer to the suggested resources provided at the bottom of this page, the European Code of Conduct for Research Integrity and/or your own institution's code of ethics or research integrity guidelines.

You may also find it particularly helpful to discuss and answer these questions in a group context.

1. Faced with the professor's request to make a dual submission of the manuscript, what should the postdoctoral researcher do?

2. By referring to the four principles of good research practice detailed in The European Code of Conduct for Research Integrity, what could be the reasons for not submitting the manuscript to a second journal, despite the fact that the latter has a different target audience?

4.3 Issue 2

The postdoctoral researcher decides not to submit M1 to the *Journal of Tech and Mech* as he thinks that by making a dual submission he may be found to have violated research integrity standards. Concerned that his failure to follow through with the professor's request will be seen as disrespectful, the postdoc does not inform the professor about his decision.

4.3.1 Questions for Researchers

1) Is the decision not to inform the project coordinator the best course of action? What are the reasons for your answer?

4.4 Issue 3

The professor learns that the postdoc has not submitted M1 to the *Journal of Tech and Mech*. Subsequently, the professor submits another manuscript (M2), employing a different method to analyze the same data set, to the *Journal of Tech and Mech*. The professor lists themselves as leading author. The author list includes all team members except the postdoctoral researcher. All team members apart from the postdoc are aware that the postdoc has not been included on the author list. The manuscript is submitted in early June. The *Journal of Tech and Mech* accepts and publishes M2 in late June.

Whilst reviewing M1 for the *Journal of Virtual Education and Development* in early July, an anonymous reviewer comes across M2 published in the *Journal of Tech and Mech*. Noting the similarities between the two manuscripts, the reviewer informs the Editor in Chief (EiC) of the *Journal of Virtual Education and Development*. The EiC suspends the review process and informs the postdoctoral researcher, who is the lead author of, and point of contact for, M1.

The postdoctoral researcher compares M1 with M2. He notes that he has not been included on the author list for M2. He also observes that there is no clear, visible reference to M1 in M2. To the postdoc, it appears as if there is extensive overlap between M1 and M2. M2 incorporates the same experimental design, is written according to the same structure and includes some recycled texts with only superficial differences. However, M2 employs a different method for analyzing the same data. Nevertheless, the conclusions reached in M2 are the same as those in M1. The postdoc also notes that M2 was submitted to the *Journal of Tech and Mech* some four weeks after he had submitted M1 to the *Journal of Virtual Education and Development*.

The postdoctoral researcher submits a formal complaint against the professor to the Research Integrity Office (RIO) of the University of Advershire. The RIO undertakes an initial investigation that confirms the postdoctoral researcher's findings above.

4.4.1 Questions for Research Ethics Committees and Research Integrity Offices

If you are a member of RIO or REC, you may find it useful to attempt to answer the following questions. There is no single fixed way of answering the questions though you may find it useful to refer to the suggested resources provided at the bottom of this page, the European Code of Conduct for Research Integrity and/or your committee's guidelines and regulations.

You may also find it particularly helpful to discuss and answer these questions in a group context.

1) Based on the results of the initial investigation, what are the next steps for the RIO?

2) By referring to The European Code of Conduct for Research Integrity, what (if any) are the grounds for the complaint? What standards of good research practice has the project coordinator violated (if any)?

3) If there are grounds for a case against the professor, what additional details would the committee require in order to reach a conclusion?

4) Assuming you have all the necessary information relating to the complaint, what would be an appropriate verdict for your committee to come to? Why have you come to that conclusion?

4.4.2 Questions for Research Administrators

If you work in an administrative capacity for a RIO or REC, you may find it useful to attempt to answer the following questions. There is no single fixed way of answering the questions though you may find it useful to refer to the suggested resources provided at the bottom of this page, the European Code of Conduct for Research Integrity and/or your committee's guidelines and regulations.

You may also find it particularly helpful to discuss and answer these questions in a group context.

1) Based on the results of the initial investigation, what are the next steps for the RIO?

2) By referring to The European Code of Conduct for Research Integrity, what (if any) are the grounds for the complaint? What standards of good research practice has the project coordinator violated (if any)?

3) If there are grounds for a case against the professor, what additional details would the committee require in order to reach a conclusion?

4.5 Issue 4

The RIO informs the postdoctoral researcher of the outcome of the initial investigation. The postdoc, subsequently, contacts the EiC of the *Journal of Virtual Education and Development* with details of his comparative assessment of the two manuscripts. The editorial board of the *Journal of Virtual Education and Development* confirms the postdoc's assessment. In addition, it contacts the EiC of the *Journal of Tech and Mech* to determine whether the authors of M2 have – in the letter of submission – disclosed the fact that the manuscript contains, in part, material located in M1. The board also asks whether the authors of M2 have signed over copyright to the *Journal of Tech and Mech*.

The EiC of the *Journal of Tech and Mech* confirms that the letter of submission does not reference any prior publication or submission. The EiC also confirms that the authors of M2 have all consented to hand over copyright to the publishers of the *Journal of Tech and Mech*.

4.5.1 Questions for Researchers

There is no single fixed way of answering the questions though you may find it useful to refer to the suggested resources provided at the bottom of this page, specifically, the details provided by COPE and the ICMJE.

You may also find it particularly helpful to discuss and answer these questions in a group context.

1) Should the editorial board of the *Journal of Virtual Education and Development* continue to suspend the review of M1? What are your reasons?

2) If favorably reviewed, should the editorial board of the *Journal of Virtual Education and Development* publish M1? What are your reasons?

3) Should the editorial board of the *Journal of Virtual Education and Development* provide details of the case to the editorial board of the *Journal of Tech and Mech*? What are your reasons?

4) Should the article be retracted from the *Journal of Tech and Mech*? What are your reasons?

4.5.2 Questions for Research Administrators

There is no single fixed way of answering the questions though you may find it useful to refer to the suggested resources provided at the bottom of this page, specifically, the details provided by COPE and the ICMJE.

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4) Should the article be retracted from the *Journal of Tech and Mech*? What are your reasons?

4.6 Suggested Resources

For Researchers:

ECCRI: The European Code of Conduct for Research Integrity

COPE: Suspected Plagiarism in a Published Manuscript

COPE: Suspected Redundant Publication in a Submitted Manuscript

COPE: What to do if you suspect a reviewer has appropriated an author's idea or data

ICMJE: Defining the Role of Authors and Contributors

ICMJE: Copyright

ICMJE: Overlapping Publications

For Research Administrators:

ECCRI: The European Code of Conduct for Research Integrity

COPE: Suspected Plagiarism in a Published Manuscript

COPE: Suspected Redundant Publication in a Submitted Manuscript

COPE: What to do if you suspect a reviewer has appropriated an author's idea or data

ICMJE: Defining the Role of Authors and Contributors

ICMJE: Copyright

ICMJE: Overlapping Publications

For Research Ethics Committees and Research Integrity Offices:

ECCRI: The European Code of Conduct for Research Integrity

ICMJE: Copyright

ICMJE: Overlapping Publications

ICMJE: Defining the Role of Authors and Contributors

4.7 Related Scenarios

This scenario has been inspired by the following case studies:

American Physical Society, 'Dual Submissions', https://www.aps.org/programs/education/ethics/publication/dual-submissions.cfm. Accessed 18 July 2019.

Committee on Publication Ethics ('COPE'), 'Duplicate Submission and Authorship Dispute', https://publicationethics.org/case/duplicate-submission-and-authorship-dispute. Accessed 18 July 2019.

Committee on Publication Ethics ('COPE'), 'Self-Plagiarism and Suspected Salami Publishing', https://publicationethics.org/case/self-plagiarism-and-suspected-salami-0. Accessed 18 July 2019.

Elsevier, 'Multiple, Duplicate, Concurrent publication/Simultaneous submission Case study 2', https://www.elsevier.com/__data/assets/pdf_file/0017/70226/casestudy_multiple_publication_case2.pdf. Accessed 18 July 2019.

Elsevier, 'Multiple Publication Case Study 1', https://www.elsevier.com/__data/assets/pdf_file/0016/70225/casestudy_multiple_publication_case1.pdf. Accessed 18 July 2019.