

The UOC's Code of Good Practice in Research and Innovation (CBPRI)

UOC Doctoral School

December 2014

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Preamble

The UOC's Code of Good Practice in Research and Innovation consists of a series of recommendations and undertakings on research and innovation-related activities to ensure upright behaviour by research staff and the quality of the knowledge produced. This commitment, undertaken by the University, is also subject to the ethical commitments and principles that its research staff must abide by.

Research is often performed at the UOC within the framework of a collaboration between people, groups or institutions that places research staff in specific political, legal and ethical situations. Given this context, it is necessary to define a code to ensure both effective functioning of the research community and the wellbeing of its members. The principles governing the code are the foundations on which the quality of the activities performed within this community is built, and the actions arising from them cannot be subordinated to any personal or group interest; therefore, they can only be ethically justifiable if they are universally applicable and valid.

The ethical principles that govern research and innovation practices at the UOC seek to:

- Safeguard the dignity, rights, security and wellbeing of the people who take part in research.
- Show the University's institutional commitment to a high level of quality and transparency.
- Provide adequate guidance in research ethics to the University's staff.
- Foster a research culture based on good practices.
- Avoid possible conflicts arising from research practice.
- Improve the quality of research.

These principles include the following:

Honesty

The research staff must be honest, both in their own research activities and in their response to other people's activities. Honesty is necessary throughout the research process, both in the phases in which funding is requested or the research protocol is designed and in the phases where data are collected, analysed and interpreted, and when the results are finally published and exploited. Research data cannot be fabricated, distorted or falsified.

Honesty means avoiding conflicts of interest in each stage of the research process.

Rigour

Scientific rigour is the ability to use the information, rules, and procedures to attain the quality standards effectively and precisely and in accordance with the values and strategies determined by the science and technology system. Rigour dispels uncertainties, as it is linked to the scientific procedure and the requirement to control all of the factors that impact on a research's results.

Integrity

Like any other human activity, research is basically grounded on trust. The academic community accepts a scientific result as valid on the basis of trust and society trusts that the research's results are an honest contribution to knowledge that helps describe the world without bias. This trust is intrinsically related to ethical, upright behaviour by the scientific community.

Transparency

Sharing information and resources, being open to new ideas and criticism, assures research transparency and traceability. In the specific case of data, it must be possible at any given time to state their origin, their ownership and to guarantee access to them. The University must ensure that this transparency principle is upheld with respect to third parties by means of appropriate mechanisms.

Respect for intellectual and industrial property

Respect for intellectual and industrial property is necessary and reference must always be made to the author or his or her consent must be requested when using published results, methods and data. Plagiarism is not justifiable and, in any case, adequate credit or recognition must be given to everyone who has contributed to the research, in the list of authors, the acknowledgements or the list of references.

Commitment

The research staff taking part in a research project tacitly accept the agreement to take part in it, and their involvement until the goals that have been set are achieved and the results obtained are published. The research staff's principles are complemented with the participants' rights. Anyone taking part in a research activity that requires interaction with people or organizations has a series of rights:

- > Confidentiality of the personal information or identifying data, which must not be disclosed without the participant's consent. Privacy during the research process and security of the data must be guaranteed.
- > Minimum exposure to risk.
- > Entitlement to know the research's results once they have been published.

The ethical principles presented and the Code of Good Practice complement currently valid laws and rules and, although they are not part of the research staff's contract, they must be observed and adhered to, like any other rule or code of the University. However, this does not imply any limitation or restriction on academic freedom, quite the contrary: it is assured by the good practices.

The following pages present this document's main goals and a series of guidelines for good practices in research and innovation that include mechanisms for mentoring trainee research staff, co-participation in research projects with industry, obtainment and management of personal data, and research review, publication and dissemination practices.

Objectives and scope

This Code of Good Practice establishes the general framework of action for performing research, innovation and transfer activities ¹ at the UOC.

It has three main goals:

- > Uphold the quality of the research carried out at the University.
- > Establish the procedures that guarantee integrity of research at the UOC.
- > Guarantee adequate mentoring of trainee research staff at the University.

This code is applicable to all members of the UOC community who carry out any manner of research activity and, therefore, includes administrative staff who perform research and people who are not University staff but take part in the institution's research activities².

Research protocols

- All research must be set down in a written protocol before it is started. The report for a research project with competitive funding or the research plan for a doctoral thesis are possible examples of written projects.
- Under no circumstances should a research protocol, or any part of it, be accepted as secret. This should be differentiated from the situation where, for competitiveness and confidentiality reasons, it may be agreed to temporarily restrict distribution of certain protocols or parts of them.
- Development of an additional or previously unplanned research question will require writing the corresponding complementary protocol before starting work on it.

¹ From now on, when we talk about research, we will do so in a broad sense and will take as understood that we are referring to research, innovation and transfer.

² The primary function of the UOC's affiliated teaching staff is to provide tuition at the University. Therefore, research-focused tasks require notification and authorization by the University.

- Any research protocol that involves using other organizations' facilities or any equipment or research equipment that is not exclusively for one's own use will require prior approval by the person responsible for the institution, centre, facility or equipment to be used.
- When it is planned that different groups from the same centre or from different centres will take part in a research project, the scope and terms of the joint collaboration must be set down in writing.

Research projects sponsored by the industry or other for-profit organizations

- This type of research must further the training, intellectual development and professional expertise process, helping it to progress in line with the research staff's abilities and level of involvement.
- The research staff will ensure transparency and primacy of interests. When knowledge and technology are being exchanged or transferred with other organizations, the public interest must always prevail and agreements will be made with total transparency. Research results should always be independent of personal, group, business or institutional interests.
- When the research staff taking part in a project sponsored by industry make essential contributions to its design and execution, the necessary agreements will be made with the sponsoring organization to regulate the corresponding intellectual and industrial property rights.
- The University will also define the necessary measures to protect its research staff's intellectual freedom and intellectual property, avoid disproportionate confidentiality undertakings or unjustified restrictions on publication of the results obtained. Guarantees of confidentiality, discretion and the good sense imposed by the undertakings acquired with possible organizations should prevail.
- There can be no collaboration, in any capacity or circumstance, with organizations that are known to pursue illicit purposes or encourage violence, discrimination against people or environmental damage.
- All the agreements made between the sponsoring organization and the University's research centres, groups or staff will be recorded in the corresponding covenant or contractual agreement by the sponsoring organization and the *Fundació per a la Universitat Oberta de Catalunya*. It will necessarily include: a) everything that refers to the financial remuneration directly or indirectly related with the research; b) the intellectual and industrial property system; and c) the planned procedure for validating the good practices protocol. These agreements will be accessible to the bodies, committees and people who have responsibilities with respect to the matter agreed.
- All sponsoring organizations must be informed of this code's ethics contents, compliance with which is mandatory for everyone who is a participating member of the research project.

Obtaining, registering, documenting, storing, safekeeping and sharing data and results

- The research protocol must include everything related with obtaining the data, and the plan for their safekeeping, storage and dissemination. The University will provide the means so that this can be done. The research staff must plan for and be actively vigilant against the risks of identification or non-compliance of privacy and confidentiality protection agreements posed by the various information storage and processing systems used in research, including computers, paper documentation, email, photographic material, audio and video recordings or other forms of information in which names or data appear that enable identification of the participants in the research.
 - > The research protocol must establish the system for collecting, registering, safekeeping, storing, and disseminating the research data.
 - > In the case of data stored on electronic media, the protocol must include a specific backup and physical location plan.
- The data and materials produced by a research project must be public and must be shareable by third parties, except those cases where restrictions arising from their possible marketing have been established. In the event of assignment of the data, the person requesting such assignment must state beforehand the use that he or she wishes to make of the data and the research team must approve a research protocol form. Assignment may be restricted for availability or confidentiality reasons. The material or data obtained from people must be shared without it being possible to identify the source subjects; otherwise, the subjects will have to specifically consent to assignment of their data.

FUOC Intellectual and industrial property regulations in RDI activity

- Everyone who is member of the research team must be able to access the information on the data obtained and their interpretation, in accordance with the goals and purpose of the research performed.
- Data storage period:

All the information stored as a result of any research project must be kept for at least 10 years after the first publication of the results, excepting those cases where the law allows shorter periods or requires longer periods. If the centre allows it, the information and the material can be stored for longer periods and their use will always require the approval of the person responsible for the research.
- As regards personal data, the following points should be considered:
 - > Collection, storage, disclosure and use of research data by the research staff must follow the guidelines set forth in Law 15/1999, of

13 December, on [Personal data protection](#), and the regulations developing it, pursuant to internal regulations.

- > The participants' confidentiality and anonymity will be preserved and their privacy will also be respected. The participants' identity will not be revealed without their explicit consent or in those cases where the events and texts analysed are public domain (newspaper articles or press statements). In the case of research carried out in virtual environments, the participants must be explicitly informed that their communication or behaviour will be recorded and may be analysed. In addition to this notification, participants must also give their consent to use of their personal data (record of activity, images, communications such as emails or postings in forums, etc.) in those cases where the data are not public domain or the outcome of a public action (classroom activity is considered a private environment). Avoid unnecessary collection and use of personal data. Use the [research protocol form](#) to describe the processes related with collection and protection of the data and the participants, in those cases where this is required or it is wished to formalize them.

- > All the data, resulting materials and primary documentation obtained in the course of a research activity belong to the Fundació per a la Universitat Oberta de Catalunya (FUOC). Their registration, storage and safekeeping are carried out subject to the criteria and under the responsibility of the project leader and may be specified in the corresponding section of the research protocol form. The institution will provide sufficient means and materials and suitable storage media to the research and trainee staff to store the data obtained so that they can be accessed by third parties if necessary. If the researcher ceases to be affiliated with the institution, and if he or she should so request, he or she will be given a copy of the existing information (data collected, electronic information, databases, etc.) by the project leader. If it is the research leader who changes institution, this process will be carried out under the responsibility and supervision of the office of the vice president.

- Databases of people

Any research activity that involves the use of institutional computer files or creating databases with information about people must guarantee the participants' anonymity and must comply with current regulations on database records (Law 15/1999).

- Data on the UOC's activity

In the case of research data that originate from the UOC's Virtual Campus (or any other tool used for the University's educational activities) or its users (particularly students, affiliated teaching staff, faculty and research staff), irrespective of the data collection mechanism used (automatic, such as the data on the use of the Virtual Campus' services; or semi-automatic, such as those obtained from a survey), it will be necessary

to follow the protocol drawn up for this purpose by the eLearn Center, which will ensure that the necessary mechanisms (which can be technological, organizational or ethical) to obtain, maintain, store and share them are used correctly.

Participation in publication and dissemination

Publication and dissemination practices

- The results of scientific research must always undergo a peer-review process. Thus, publishing the results in journals or other media that use peer review is an indispensable part of the research protocol.
- The research staff must strive to publish the results and interpretations of their work openly, honestly, transparently and accurately, including the results that contradict the hypotheses proposed.
- The research staff must not delay publication of research results obtained with public funding, except when their legal protection renders this necessary. In the case of research financed using public funds, non-publication of the research results may constitute serious misconduct due to misappropriation of resources.
- If the results obtained in a research activity may lead to inventions or applications whose commercial interest may justify their protection, the research project leader must notify this to the centre's management and take this possibility into account when arranging publication of the results in scientific journals.
- Fragmented publication of a single body of research is only acceptable if it is done for length reasons. Submission of the same project to more than one publication is considered inadmissible.
- Duplicate or redundant publication is considered unacceptable.
- Secondary publication is only justified in the terms established in the Vancouver Group's Rules³.
- The sources and original data used in the research must always be referenced. Both in publications and in patent or utility model filings, reference must be made to all the papers that are directly related with the research while avoiding unjustified or honorific references. Reference to third parties' work must sufficiently acknowledge their merit.
- A publication's "acknowledgements" section must be written scrupulously. The people or institutions alluded to are entitled to refuse mention. Some journals require written authorization by the people who will be mentioned in the acknowledgements. The same practice is applicable to the mentions stated as "personal communication".

³ See the criteria on "Acceptable secondary publication" in *Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Writing and Editing for Biomedical Publication*. Updated February 2006, International Committee of Medical Journals Editors, <http://www.icmje.org/>

- In any type of publication of the results of a piece of research, the following must be explicitly indicated: *a)* the affiliation institutions or centres of the paper's authors in accordance with the affiliation rules; *b)* details of the grants, support or financial sponsorship received. If the research protocol has been supervised, the independent Ethics Boards involved, and the specific authorizations obtained, must be mentioned.
- The UOC has instituted an **institutional open access policy** to promote visibility of its scientific output through institutional open access repositories, stating in this policy that "The members of the Universitat Oberta de Catalunya's research community must deposit their research publications (journal articles, texts presented at congresses, scientific-technical documents, books or book chapters, search reports, etc.) produced in the course of their activity at the UOC in the University's institutional repository".
- Research staff must disseminate the results of the research to society, communicating the contents in a manner understandable by a non-specialist audience. When publicly presenting results in communication media, the author's name must always be associated with that of the UOC and, whenever possible, the grants and support received will be mentioned.
- It is not considered acceptable to communicate and disseminate the results of research in mass communication media before they have undergone a peer-review process, that is, before they have been accepted for publication or have been presented at certain types of congress.

Authorship of scientific papers, publications and patents

- To fully qualify as author of a publication or patent, it is necessary:
 - a)* to have contributed substantially to the creative process, that is, to its conception and design, or to analysis and interpretation of the data, *b)* to have contributed to preparing the resulting communications, reports or publications, and *c)* to be able to present in detail the personal contribution to the research and discuss the main aspects of the research activity as a whole. The authors must accept in writing the final wording of the original manuscripts that are submitted for registration or publication.
- Mere participation in obtaining resources or collecting data, for example, supplying routine data or providing study subjects, does not necessarily justify authorship status, although it should be recognized in the acknowledgements section. In those research activities in which it is planned to use third-party samples, analyses or opinions, it is advisable to establish beforehand a communication and authorship plan that takes into account the potential intellectual contribution to the project and any other aspect that is relevant for copyright.
- A person linked to a research team who asks to be included as *ex officio* author on the grounds of hierarchical position or work relationship infringes academic freedom and commits an act of injustice, or even abuse of power. Conversely, not including as author any person who has made a proven contribution constitutes an act of misappropriation of intellectual property by the other authors.
- Publications of technical or working reports or any other document targeting third parties must always include the list of the people who carried out the research or enquiry, the

centre or centres they work for and the financial support received, in the same terms as if it were for a scientific publication or patent.

- When an intellectual work is created in which it is not possible to separate the different contributions, each participant will be considered a co-author.
- The order in which the authors are listed follows the criterion agreed and established by the people involved at the beginning of the research project.
- However, as a general rule, this code recommends that a) the first person be the person who has made most effort in the research and has written the first draft of the article, b) the senior person who directs and/or holds ultimate responsibility in the research protocol is the last author, and c) the other authors may be listed by order of importance and, in certain cases, in alphabetical order. The author who takes responsibility for correspondence is the person holding responsibility during the entire editorial process and also in the interactions that may take place in the future as a result of publication of the paper.
- When there is an author who cannot take responsibility for the entire content of a publication, this author's specific contribution will be identified separately, except for those cases where this matter is already covered by editorial rules.
- In scientific publications, there exists the right to justify the order in which the authors sign. Some journals are already asking for it as a prior condition for publication.
- When two or more authors have devoted the same effort to the project and shared the work of preparing the manuscript, they will both be considered first authors. This circumstance will be stated explicitly in the publication of the original. The same criterion can be applied in the case of intermediate and senior authors.
- Before disseminating the research, the research staff involved in it must agree on the conditions in which this dissemination will be carried out. This will mean that:
 - > As a general criterion, it is stipulated that anyone who has taken part in the research performed, irrespective of his or her status at the University (principal investigator, researcher, research assistant, etc.), is considered an author and this will be stated in the dissemination of the research.
 - > There may be cases when a person who has taken part in the research cannot be considered an author because he or she has not generated any contribution.
 - > It must be decided whether the publication's acknowledgements will include the people who have taken part in the research even though they have not been directly involved in that publication.
 - > The necessity to state the research's sponsor will be subordinated to the agreements established beforehand with it. If this is not provided for in any agreement, the researcher(s) must consider and agree whether or not they make an express mention of the sponsor in the publication.

- If a person does not wish to be included as author in the dissemination of the results of the research, in spite of having taken part in them, he or she must expressly waive inclusion beforehand in writing.
- Those people who have not complied with the University's Code of Good Practice within the framework of a specific research activity may not be considered authors. Consequently, they will not be stated as authors in any dissemination of the results of the research.

Performance of the peer-review process

- The activities related with the assessment, examination or criticism of manuscripts sent for publication, or with protocols, reports, etc., that are entrusted to staff considered experts or similar, must be objective and based on scientific criteria and not on personal opinions or ideas.
- A review will not be accepted if conflicts of interest are detected or when the person invited to perform this task is not considered sufficiently qualified to carry out the review.
- The reports and documents submitted for review are always considered confidential and inside information. Consequently, this documentation: *a)* cannot be used for the benefit of the person performing the review until the information has been published, *b)* cannot be shared with any other colleague except for very specific reasons or the publisher or the research agency has given its express authorization, and, *c)* cannot be withheld or copied unless authorized by the people responsible for the editorial process or the agency. Once the process has been completed, it is common practice to destroy or return the material.

Training in research

The University will guarantee that the research staff involved in the research activity have the necessary training to take on the responsibilities arising from it.

Mentoring trainee research staff is based on the figure of the mentor/tutor. Thus, a mentor/tutor will be assigned to each person affiliated with the University by means of a contract or grant with an educational purpose.

The mentor/tutor must devote effort and skills to inspire new researchers and encourage them to carry out quality research. Accordingly, he or she will carry out the following functions and obligations:

- > Interact personally and regularly with the trainee staff he or she is responsible for so that he or she can supervise the tasks given and guarantee their fulfilment.
- > Provide the necessary information and resources to enable trainees to learn about research both within the University (for example, explaining the University's different faculties, areas and centres that are involved in research, providing the Code of Good Practice, etc.) and in a more general context (regulations governing scientific praxis).
- > Ensure the best terms of employment for trainees.
- > Guarantee a good work atmosphere, ensuring knowledge exchange and sharing between the mentor/tutor, the research team and the trainee (regular meetings).
- > Ensure that the trainee does not spend time on other tasks that do not contribute to his or her training in research.
- > Encourage the participation of trainees in those activities or forums that may be considered interesting from the point of view of their training process (invite them to meetings, courses, etc.).
- > Provide staff receiving training with the latest information about the regulations currently in force that affect scientific praxis.

The total number of trainees supervised by a single mentor/tutor must be appropriate and compatible with the scope of their obligations and commitments.

The responsibilities of trainee research staff are the following:

- > Abide by the terms set forth in the contract or grant and follow the instructions given by the mentor/tutor assigned to them.
- > Share the results they obtain with their mentor/tutor.
- > Take part proactively in the research activities organized within the framework of the University.

The rights and duties of doctoral students and thesis supervisors are specified in each [doctoral programme's doctoral candidate agreement](#).

Organization of the research teams

Research and innovation at the University can be organized through inter- and intrauniversity research teams and also individually by affiliation with one of the UOC's faculties.

If the research activities are organised within the framework of a team, the team must have a person in charge (the project's or team's principal investigator, or the doctoral thesis supervisor) who will perform leadership and representation functions. The research teams may also be co-directed. In these cases, it will be necessary to agree which tasks are carried out by each person, in accordance with the following basic management functions:

- > foster an inspiring work atmosphere that is conducive to research activity;
- > help develop the group members' aptitudes and promote knowledge exchange and attainment of common research goals;
- > encourage cooperation with other research teams in order to facilitate circulation of ideas and people.

The research teams must clearly establish their communication channels and the basic framework for decision making. They must also define the responsibilities associated with the research activities. Their members must participate actively in the activities organized and proposed by the group and in achieving the goals that have been decided between them.

The research teams' doctoral students, and their mentors, are not only bound by these good practices but also by the doctoral programme's doctoral candidate agreement, which they sign when starting their research activity.

Integrity of research and innovation

The function of fostering knowledge and implementing the CBPRI corresponds to the Research and Doctoral Committee. When addressing an issue that may affect the integrity of research and innovation, it will invite a representative from the University's Legal Office, particularly when it is necessary to mediate in consultations and conflicts.

Accordingly, in order to guarantee the integrity of research and innovation, it will be necessary to: *a)* ensure observance of and compliance with the precepts included in this CBPRI, *b)* act as an arbitration body to settle uncertainties or conflicts that may arise with respect to the integrity of research – in this respect, the decisions are binding for any person who submits his or her conflicts to the Research and Doctoral Committee, *c)* inform and make research staff aware of the events, needs and guidance regarding the ethical and deontological aspects of research and innovation, and *d)* be attentive and receptive to new problems related with the integrity of research and propose updates of the CBPRI's contents to the University's governing bodies.

With respect to the above functions, the Research and Doctoral Committee, together with the Legal Office representative who is assisting in integrity matters, will guarantee at all times diligent management, independent action, anonymity and confidentiality in the processing of personal data, veracity of the information produced, impartial deliberation and just decisions, and also the possibility of appealing against them.

Notifications to the Research and Doctoral Committee will be processed in accordance with the procedures specified in the *Research and innovation* section of the UOC's Virtual Campus. In the event of doubts or potential conflicts, it is advised to first consult personally and informally with a Committee member. This is particularly recommended before making any type of formal communication.

However, even during these prior consultations, the Committee members, and the Legal Office representative, are required to preserve anonymity and confidentiality in processing personal data and any other information received.