The Global Ethics Observatory (GEObs) is a system of databases with worldwide coverage in bioethics and other areas of applied ethics in science and technology such as environmental ethics, science ethics and technology ethics. The observatory maps existing ethics infrastructures around the world, and is designed as a collaborative, consultative and comparative tool for the purposes of:

- Building capacity for ethical decisions and actions in science and technology at the national, regional and global levels by facilitating the creation of linkages among policymakers, ethicists, researchers, scientists, civil society and the private sector. This is particularly important for countries looking to reinforce their ethics infrastructure, and also for people and institutions looking for partners, especially in developing countries.

- Focusing UNESCO’s current and future capacity building activities for ethics of science and technology in areas of need.

These databases collectively provide a valuable resource hub of ethics activities, thus establishing a crucial platform upon which UNESCO can support and advance such activities around the world.

New databases are in planning, and would come online in the future.

In addition to a search function for each database, the system also provides users with an Interactive Geographical Search option. These search functions are outlined in more detail in this booklet.

The system is freely accessible online to the general public at: www.unesco.org/shs/ethics/geobs

It was officially launched in December 2005, and has since been continuously expanded and updated by UNESCO.

From the GEObs Home Page (see Figure 1), users are able to access the different databases by clicking on the associated buttons or links. Within the system, the databases are designated as GEObs1, GEObs2, GEObs3, GEObs4 and GEObs5 respectively. A button for the Interactive Geographical Search option is also available on this page.

The GEObs databases are available in the six official languages of UNESCO: Arabic, Chinese, English, French, Russian, and Spanish. Users are able to switch between the languages by using the Language Selection Tool (see Figure 2) located on the top right hand corner of all GEObs screens.
The Who's Who in Ethics database is a compilation of information regarding ethics experts around the world. Experts are determined via a peer review process, based on a combination of factors, including the quality and focus of recent publications in ethics of science and technology; involvement in ethics-related activities; involvement in ethics of science and technology research projects; and the level and extent of ethics component in the individual’s educational and professional background. This database seeks to efficiently connect specific needs and requests to the appropriate experts, as well as to encourage collaboration among experts at the local, regional and international levels.

SEARCH TOOL

With the GEObs Search Tool (see Figure 3), users are able to search for experts within the database using one or more of the following criteria:

- Name (text search by First name or Surname)
- Country (UNESCO member and observer states)
- Region (UNESCO regions)
- Professional background (e.g. Medicine, Nursing, etc.)
- Activities in Ethics (e.g. Teaching, Research, etc.)
- Affiliated Institutions (e.g. NGO, University, etc.)
- Areas of Interest in Applied Ethics (e.g. Medical Ethics, Nursing Ethics, etc.)
- Expertise in Ethics (e.g. Bioethics, Environmental Ethics, etc.)
- Institutional Involvement in UNESCO (e.g. Member IBC, Member COMEST, etc.)

**Figure 3: GEObs1 Search Tool**
When users click the “View” link on the Search Results Page, a View Page is generated as a pop-up window. On this page, data of a particular ethics expert is displayed. This includes:

- Full Name of Expert
- Title
- Workplace and Function
- Contact Information
- Professional Background
- Activities in Ethics
- Institutional Affiliations
- Expertise in Ethics
- Areas of Interest in Applied Ethics
- Institutional Involvement in UNESCO
- Current Research Projects
- Recent Publications (Journals, Chapter in Books, Books)

On this page, the options to Print and Email Data are also available to users.

The Print function will generate a PDF file, which can either be saved to a local drive or be sent to a printer.

The Email Data function will generate an email with a hyperlink to the specific entry, sent to an email address of the user’s choosing.
The Ethics Institutions database provides information on departments, institutes, centers, commissions, councils, committees, review boards, societies, associations and other relevant entities in the area of ethics of science and technology. Institutions within the database have been validated against their mission, activities and publications as a confirmation of their active involvement in the field of ethics of science and technology. This database provides a platform for connecting institutional expertise to specific needs, and for exchanging expertise and experiences among institutions.

**SEARCH TOOL**

The GEObs2 Search Tool (see Figure 6) enables users to search for ethics institutions using one or more of the following criteria:

- Region or Country
- Type of Organization (selecting a type will unlock further search options as follow: Type of Institution, Level of Operation, Founding Institution, Membership Composition, Meeting Frequency and Type of Secretariat)
- Foundation Date
- Areas of Applied Ethics (e.g. Ethics and Law, Food Ethics, etc.)
- Activities (e.g. Advocacy, Case Consultation, etc.)

![Figure 6: GEObs2 Search Tool](image-url)
SEARCH RESULTS

The GEObs2 Search Results Page (see Figure 7) contains all the features outlined previously, and entries can be sorted by Official Name and Country Classification.

VIEW PAGE

The GEObs2 View Page contains the following information:

- Official Name of Institution
- Contact Information
- Website (if available)
- Type of Organization and associated data, such as Type and Name of Founding Organization, Scope of Operation, Number of Members, Meeting Frequency and/or Type of Secretariat
- Foundation Year
- Head of Organization
- Areas of Ethics
- Types of Activities
- Types of Publication (if available)
The Ethics Teaching Programmes database contains descriptions of existing teaching programmes within the field of ethics of science and technology. Teaching programmes have been collected and validated during meetings of ethics teaching experts held in various parts of the world. This component is strategically positioned to support and encourage collaboration in the design of ethics curricula.

SEARCH TOOL

The GEObs3 Search Tool (see Figure 9) includes the following search options:

- Country or Region
- Area of Ethics
- Name of Teacher (text search)
- Faculty/Department/School
- Entry Requirement/ Academic Background of Students
- Level of University Teaching
- Course Language
- Number of Students
- Teaching Hours
- Student Working Hours
- Status of Programme
- Objectives of Programme
- Mandatory Study Materials
- Recommended Study Materials
- UNESCO Documents Used
- Topics in Syllabus
- Teaching Methodology
- Evaluation of Students

Figure 9: GEObs3 Search Tool
On the GEObs3 Search Results Page, entries can be sorted by Title of the Course, University, Level of University Teaching, Area of Ethics and Country.

**VIEW PAGE**

The View Page for this database displays the following items:

- **Level of University Teaching**
  (e.g. Graduation, Master, etc.)
- **University Name and Location**
- **Faculty and Department where the course resides**
- **Title of the Course**
- **Area of Ethics**
  (e.g. Engineering, Dental Ethics, etc.)
- **Contact Information of Responsible Teacher**
- **Information of Teaching Team**
- **Logistics of the Course, including Language, Entry Requirements, Number of Students, Number of Credit Points, Distribution of Hours, Number of Student Working Hours and Course Status**
- **Education Objectives**
  (e.g. Good conduct, Critical reflection, etc.)
- **Details of Programme/Syllabus**
  (e.g. Mandatory, Optional, etc.)
- **Teaching Methodology**
  (e.g. Lectures, Seminars, etc.)
- **List of Mandatory and Recommended Study Materials (if available)**
- **UNESCO Documents Used**
- **Evaluation of Students**
  (e.g. Written Test, Essay, etc.)
- **Evaluation of the Course**
- **List of Topics in Syllabus**
  (selecting a topic will unlock further options within that topic)
- **Additional Information (if available)**
This database is designed as a comparative tool of ethics related legislation and guidelines introduced within various countries to normalize activities in the fields of science and technology. The descriptions of legal instruments in this database have been carefully compiled and analysed by legal experts working with UNESCO on this initiative. It establishes a valuable platform for sharing of knowledge and experiences in policymaking and management of ethical issues in science and technology.

**SEARCH TOOL**

Users are able to search this database using one or more of the following terms (see Figure 12):

- Region or Country
- Bioethical Themes (currently covering medical research with human beings; access to healthcare and essential medicines; genetic counselling; protection of future generations; freedom of scientific research; human cloning (reproductive and therapeutic cloning); organ transplantation; biobanking; non-discrimination in health care; protection of genetic resources; and ethics committees)
- Topics from UNESCO Declarations (selecting a declaration will unlock further search options to enable refined searches according to specific articles of the declaration)
- Legal Categories (covering Treaties, Constitution, Domestic Laws, Authoritative Case Laws and Guidelines)
The database currently covers the following UNESCO declarations:

- **Universal Declaration on Bioethics and Human Rights**
- **International Declaration on Human Genetic Data**

All bioethical themes have been linked with specific articles within the UNESCO declarations, and all legal instruments have also been linked with specific bioethical themes and their associated articles of the UNESCO declarations. Linking of instruments to articles of the UNESCO declarations is intended to provide a clearer picture of how the declarations are impacting the legal repertoire of countries.

In terms of legal categories, the following should be noted:

- **Treaties** refer to a limited list of international normative instruments, each of which is linked to bioethical themes and articles of the UNESCO declarations. This cross-referencing is available via the “List all Treaties” option on the search tool.
- **Domestic laws** include all binding instruments that have a clear enforcement mechanism, while all non-binding instruments are classified as **Guidelines**.
- **Authoritative case laws** are limited to influential cases only.

Additional bioethical themes, legal categories, treaties and articles of other ethics related UNESCO declarations could be added in the future.

**SEARCH RESULTS**

Entries on the GEObs4 Search Results Page are displayed with indications of applicable bioethical themes selected by the user, and can be sorted by Country, Title and Legal Category (see Figure 13).

**VIEW PAGE**

The GEObs4 View Page (see Figure 14) consists of the following data items:

- **Title of instrument**
- **Legal Category**
- **Country**
- **Years of adoption, entering into force and publication**
- **Applicable topics from declarations**
- **Short description**

Under the **Applicable topics from declarations** section, bioethical themes are listed with the associated articles from the UNESCO declarations that are applicable to the instrument.

The **Short description** section provides excerpts of provisions within the instrument as related to specific articles of the declarations, organized by bioethical themes.

If specific theme(s) and article(s) are specified for the search, the **Short description** section will only display the provisions related to the requested theme(s) and article(s). This feature allows users to filter and focus the information within the database for very specific purposes.

In order to assist users to place the legal instruments within the appropriate national legal contexts, the database provides brief explanations of national legal systems, accessible by clicking on a country’s name, either on the Search Results Page or View Page. Whenever available, these explanations are provided via official websites. Otherwise, non-interpretable descriptions are provided.

Furthermore, neutral and objective explanations of the instrument or a particular provision are included through the various “comments” links if these are deemed necessary to enhance users’ understanding of the information. Whenever available, a link to and official website containing the full text of the instrument are provided.

Although this database can be used as a comparative tool of ethics related legal instruments across various countries, it should be clarified that it is not meant to be a checklist or reporting tool of different countries, but rather an inspirational and educational tool.
### The Jordanian Constitution and its amendments

<table>
<thead>
<tr>
<th>Theme: Medical research with human beings</th>
<th>Declaration: Universal Declaration on Bioethics and Human Rights</th>
<th>Article 03: Human dignity and human rights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Declaration Art. 03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Art. 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Personal freedom shall be guaranteed.</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
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<table>
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<th>Declaration: Universal Declaration on Bioethics and Human Rights</th>
<th>Article 03: Human dignity and human rights</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>Art. 8</td>
<td></td>
<td></td>
</tr>
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<td><em>No person may be detained or imprisoned except in accordance with the provisions of the law.</em></td>
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<table>
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<th>Declaration: Universal Declaration on Bioethics and Human Rights</th>
<th>Article 03: Human dignity and human rights</th>
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</tr>
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</tbody>
</table>
This database functions as a comparative tool for codes of conduct related to the ethics of science and technology issued by professional entities in the private and public sectors. These codes have been collected by or submitted to UNESCO for analysis so that common principles can be identified. It is designed to facilitate the exchange of information and experiences, as well as to assist professional entities seeking to establish their own codes of conduct.

**SEARCH TOOL**

The database can be searched using one or more of the following criteria (see Figure 15):

- Text Search (search for specific words in the titles or providers of the codes)
- Region or Country
- Geographical coverage
- Profession and/or discipline (ILO ISCO-88)
- Nature of the code
- Field of activity (e.g. Information Technology, Psychology, etc.)
- External principles (common principles identified thus far)
- Internal principles (common principles identified thus far)

In order for a code to be included in the database, the following criteria must be met:

- **Provider of the Code:** The code must be issued by an entity dealing with science and technology issues, with the intention to regulate/inspire/educate the behaviour of its own members (individuals and/or institutions) or addressing scientists in general. Regulations issued by legislative bodies, and thus addressing all citizens, have been excluded from the collection.

- **Addressee of the Code:** The code must concern professionals within scientific professions or disciplines in any area of science. The addressees should be members/employees of the organization providing the code or scientists in general. Codes that exclusively concern non-professionals, for example students, have not been included in the collection.

- **Content of the Code:** A code must have a normative content: ethical principles, values, norms, rules of conduct.
Under geographical coverage, the term global refers to codes issued by organizations which are represented in many (but not necessarily all) countries.

Under nature of the code, the system uses the following classifications proposed by Mark S. Frankel (Journal of Business Ethics, 1989; 8: 109-115):

- **Aspirational**: “(...) a statement of ideals to which practitioners should strive. Instead of focusing on notions of right and wrong, the emphasis is on the fullest realisation of human achievement.”
- **Educational**: a code that serves to enhance understanding of its provisions with extensive commentary and interpretation demonstrating how it can be helpful in dealing with ethical problems associated with professional practices.
- **Regulatory**: a code that “includes a set of detailed rules to govern professional conduct and to serve as a basis for adjudicating grievances. Such rules are presumed to be enforceable through a system of monitoring and the application of a range of sanctions.”

External principles are related to the social context and responsibility towards society. Internal principles refer to scientists’ individual professional behaviour on ethical issues.

**SEARCH RESULTS**

Users are able to sort GEObs5 search results by Title of Code, Provider of Code, Profession and/or Discipline, Country and Geographical Coverage (see Figure 16).

**VIEW PAGE**

Data elements displayed on the GEObs5 View Page include (see Figure 17):

- Title and Provider of code (websites if available)
- Country and Geographical coverage
- Profession and/or discipline
- Nature of code and date published
- Membership of organization, commitment to code, sanctions, and disciplinary body
- Fields of activity
- Applicable common external and internal principles, including extracted texts from the code relevant to the specific principle.
The Interactive Geographical Search feature provides an integrated overview of all GEObs databases, represented in terms of data intensity on a world map (see Figure 18).

REGIONAL MAPS

The world map is divided into the following five regions of UNESCO:

- Africa
- Arab States
- Asia and the Pacific
- Europe and North America
- Latin America and the Caribbean

When a particular region is selected, the map changes to provide a closer view of all the countries within that region (see Figure 19).

When a country is selected on the regional maps, a pop-up window displaying all the entries of the selected database(s) for that country is activated (see Figure 20). Users can then choose to view individual data items displayed on this page. This feature provides users with a means of quickly obtaining an overview of all ethics experts, institutions, teaching programmes, legal instruments and codes of conduct within the GEObs databases.

It should also be noted that the collection of data for GEObs is a continuous process, and the absence of data for a particular country in any of the databases does not necessarily mean that data does not exist. It most probably means that further efforts to seek out that particular information is needed, and users should check the system again at a later date.
SEARCH TOOLS

Users are able to navigate the regional maps and the system as a whole by using the tools below:

This tool allows users to select the databases to be searched and displayed on the map.

![Database Selection Tool]

This tool shows how many entries in the selected databases are available for a particular country.

![Entries Display Tool]

This tool allows users to change the map view by zooming in or out.

![Zoom Tool]

This tool is only available once users have zoomed in on the map. It allows users to move the map in the zoomed in view. Users can also move the map using the grey arrows on the sides of the map.

![Move Tool]

This tool allows users to return to the main page (world view) of the Interactive Geographical Search feature.

![World View Tool]

Figure 19: Regional Maps
### Figure 20: Country Overview Page

#### GEObs1: Who’s Who in Ethics

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Surname</th>
<th>First name</th>
<th>Middle name</th>
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<tr>
<td>View</td>
<td>Akabayski</td>
<td>Akira</td>
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<tr>
<td>View</td>
<td>Akiba</td>
<td>Etsuko</td>
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<tr>
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<td>Kyosuke</td>
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<td>Alireza</td>
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<td>Ryuichi</td>
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<td>Yasuhiko</td>
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<td>Makina</td>
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<td>Jio</td>
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<td>Aiko</td>
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<td>Shinzo</td>
<td>Nobuyoshi</td>
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<tr>
<td>View</td>
<td>Tauchida</td>
<td>Tomoaki</td>
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<tr>
<td>View</td>
<td>Yamaguchi</td>
<td>Tomiko</td>
<td></td>
</tr>
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</table>

#### GEObs2: Institutions

<table>
<thead>
<tr>
<th>Official Name</th>
<th>Acronym</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan Association for Bioethics</td>
<td>JAB</td>
</tr>
<tr>
<td>Research Center for Moral Science, The Institute of Morality</td>
<td>RCMS</td>
</tr>
</tbody>
</table>

#### GEObs3: Teaching Programmes

No entries.

#### GEObs4: Legislation and Guidelines

<table>
<thead>
<tr>
<th>Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civil Law</td>
</tr>
<tr>
<td>Constitution of Japan</td>
</tr>
<tr>
<td>Criminal Code</td>
</tr>
<tr>
<td>Ethical Guidelines for Human Genome and Genetic Research</td>
</tr>
<tr>
<td>Ethical Guidelines on Clinical Research</td>
</tr>
<tr>
<td>Fundamental Principles of Research on the Human Genome</td>
</tr>
<tr>
<td>Guidelines for Genetic Tests</td>
</tr>
<tr>
<td>Guidelines on Clinical Research</td>
</tr>
<tr>
<td>Medical Act</td>
</tr>
<tr>
<td>Regulation on standard of clinical trial of new drug</td>
</tr>
</tbody>
</table>

#### GEObs5: Codes of Conduct

<table>
<thead>
<tr>
<th>ID</th>
<th>Title of the Code</th>
<th>Provider of the code</th>
<th>Profession and/or discipline</th>
<th>Geographical coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>View</td>
<td>114 Code of Ethics</td>
<td>Atomic Energy Society of Japan</td>
<td>Architects, engineers and related professionals</td>
<td>National</td>
</tr>
<tr>
<td>View</td>
<td>30 Japan Information Technology Services Industry Association Code of Ethics</td>
<td>Japan Information Technology Services Industry Association</td>
<td>Computing professionals</td>
<td>National</td>
</tr>
</tbody>
</table>
CONTRIBUTING TO GEObs

We invite you to enrich GEObs by providing data you would like to see included in any of the databases. For this and for further information, please contact:

UNESCO
Division of Ethics of Science and Technology
Social and Human Sciences Sector
1, rue Miollis
75732 Paris Cedex 15
France

Phone: +33 1 45 68 37 81
Fax: +33 1 45 68 55 15
E-mail: geobs@unesco.org
Website: www.unesco.org/shs/ethics/geobs

DIVISION OF ETHICS OF SCIENCE & TECHNOLOGY

The Division of Ethics of Science and Technology embodies the priority UNESCO gives to the promotion of ethics of science and technology, with emphasis on bioethics.

The Division’s actions include providing support for Member States of UNESCO that are planning to develop activities in the field of ethics of science and technology.

The Division also functions as the executive secretariat for three international ethics bodies, namely the World Commission on the Ethics of Scientific Knowledge and Technology (COMEST), the International Bioethics Committee (IBC) and the Intergovernmental Bioethics Committee (IGBC).

Website: www.unesco.org/shs/ethics