## REVOLUTIONARY STEPS IN MOLDOVA IN THE FIELD OF ETD

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#### **Abstract**

Toward the end of 2002, the Academy of Sciences of Moldova (ASM) made its first steps in the field of Electronic Theses & Dissertations. A team working on the development of a web-based information portal for ASM publications proposed to use their existing infrastructure to create an experimental database of theses and dissertations. The initial report of the project has already been published [1].

Moldavian theses and dissertations represent some of the least accessible scientific publications available, yet are considered the quintessence of long-term work of many of the most active scientists in several subject areas within the country. They also can be used to establish priority in many areas of science.

The current ETD project has the support of the High Attestation Committee of Moldova. During this year (2003), provided the project obtains the necessary financial support, all steps and materials in the defense of Ph.D.s and Doctor habilitat will be included in the Mediateca Intended for Researchers database (MIR -www.mir.acad.md).

The development and introduction of the SYSTEM assumes several stages of fulfillment of work. In the first stage, a prototype database containing only materials obtained in Ph.D. programs and summaries of the Doctor habilitats will be deployed. The second stage will focus on the creation of data acquisitions and access control mechanisms to all steps and the full texts of the materials in defense of Ph.D. and Doctor habilitat.

The project developers intend to follow the suggested guidelines based on OAI, OAF and best practices of other successful ETD implementations to establish the most advanced areas of a science in any scientific - educational, research center.

# First steps

First steps in direction of Electronic Theses & Dissertations (ETD) in Moldova was made in duration of the creation of an information SYSTEM for the management of information contained in scientific monographs, journal articles, and the other publications issued in the Republic of Moldova. The name of this SYSTEM is "Mediateca Intended for Researchers" - MIR. The Mediateca web site (http://www.mir.acad.md/) and its related underlying software provide a platform for the maintenance, acquisition, sorting, and extraction of data in three languages (English, Romanian, and Russian). This interactive database,

containing information on scientific publications produced by Moldavian scientists, has been developed under the initiative of the Academy of Sciences of Moldova and with funding support (grant MX2-3027, 2001-2003) from the US Civilian Research and Development Foundation (CRDF) and Moldova Research and Development Association (MRDA).

The results of our work were present on scientific conferences BIT+ 2001, 2002, 2003, RCDL 2001 and 2002. It was publishing on two big articles and six theses.

The our main idea is to build a mediateca that is the main technological tool for access to the scientific sources in XXI century. One of the most important objective of this mediateca would be to create a "scientific content" comfortable, interesting for all participants. Applications of this mediateca would target to offer interesting and up to date scientific and educational information and would intend to encourage spreading of knowledge about science. This SYSTEM would be very useful also to raise public awareness of the importance of science.

Our site was registered on UNESCO Electronic Theses and Dissertations (No 22)

During 2002 year in Moldova was present 354 proposal on scientific title, inclusive:

- 1.26 proposal from citizen of Moldova which obtained his scientific title abroad of Moldova
- 2.25 on doctor habilitat;
- 3. 164 on doctor;
- 4. 16 on profesor;
- 5.86 on associated profesor (docent);
- 6.37 proposal on high level researchers.

Presentation scientific titles (doctor habilitat and doctor) in the fields of sciences:

Sciences	Dr habilitat (25)	Dr (164)	
Mathematics	I	5	
Physics	I	3	
Chemistry		7	
Biology	7	17	
Technical Sciences	2	6	
Agricultural Sciences	2	2	

History	I	1
Economical Sciences	2	29
Philosophy	2	3
Filology	I	4
Geografy		2
Law		21
Pedagogy, Psihology	I	26
Medicine	2	29
Pharmaceutics		3
Sociology		1
Political Sciences	3	2

Mean value of post-graduet students every year around 1200, inclusive people which studies with money. Humanities and Social Sciences have more students from year to year 1999 - 145, 2000 - 172, 2001 - 281. In Economical Sciences their number increase from 44 up to 104, in Law from 63 up to 149. In another fields of science total number decrease from 38 to 28. In ASM from 41 post-graduate students in field of economy only 3 researchers, 13 from University's and 25 businessmen and employers; in field of Law from 99 - 2 researchers, 46 from University's and 51 businessmen and employers.

31 man abroad of Moldova obtained scientific titles in Republic of Moldova in 2002: 18 - from Romania, 8 - from Jordan, one from Ukraine, one from Belarus, one from SUA, one from Turkey and one from Vietnam.

Field of Science	Number of doctor habilitat 1995 (a)	Number of people which obtained title of doctor habilitat 1992 - 2002 (b)	Coeficient (r = b/a)	Number of doctor 1995 (c)	Number of people obtained title of doctor 1992 - 2002 (d)	Coeficientul (r = c/d)
Total	572	242	0,42	4208	1403	0,33
Physics and Mathematics	82	24	0,29	500	103	0,21
Chemistry	24	7	0,29	214	34	0,16
Biology	55	34	0,62	491	180	0,37
Geology and mineralogy	3	0	0,00	21	0	0,00
Tehnical	58	23	0,40	611	79	0,13
Agricultural	67	14	0,21	423	65	0,15
History	29	9	0,31	207	44	0,21
Economy	31	25	0,81	390	217	0,56
Filosofy	21	4	0,19	126	23	0,18
Filology	27	16	0,59	205	47	0,23
Geografy	3	2	0,67	19	9	0,47
Law	6	4	0,67	53	77	1,45
Pedagogical	4	4	1,00	193	115	0,60
Medicine	150	58	0,39	656	302	0,46
Veterinary	5	I	0,20	29	11	0,38
Architecture	0	0	0,00	1	0	0,00
Sociology	0	3	!	8	14	1,75
Pharmaceutics	3	2	0,67	13	17	1,31
Political	0	8	!!	4	22	5,50
Psihology	0	2	!	5	24	4,80
Military	0	0	0,00	3	0	0,00

The scientists of Moldova, as well as in the whole world, need an operative access to the new information about scientific life and her results. This determines the next main goals of our work:

• the creation of a technological tool for navigation and access to ETD and software information sources;

- the organization of a center of network accumulation and exchange of scientific and educational information in Moldova;
- the integration of scientific and educational institutions, research and development collectives of Moldova into the worldwide informational field;
- the organization and the support of the direct connections with the keepers and productions of electronic information (scientific institutes, programmers, authors);
- the spread of the accumulated experience under the creation of ETD and software library and information about its possibilities among scientific and educational association.

ETD would target to accomplish following main objectives:

- to offer reliable scientific up to date information on main current scientific activities.
- to make possible wide access to all little known scientific publications,
- to create an open virtual space to all interested participants,
- to be a tool for fighting against scientific clans.

As a result of the successful fulfillment of the project it will be realized:

- Information Web-portal, on the basis of which there will be created the conditions for development of national information resources of ETD with the access through local networks and Internet;
- Virtual partnership and international cooperation in FTD:
- Database of ETD;
- User interfaces specification and implementation;
- The information on the availability of the SYSTEM, its resources will be directed to scientific libraries, leading universities and information centers;
- Created resources of ETD will become available for the research workers, post-graduates, students and specialists of Moldova and other countries.

The stored information of ETD will be available for all interested organizations and single users through the common links of dispatch (E-mail lists) or classified mailing lists according to interests branches (E-mail groups). The subscription of the users to include them into mailing lists will be exercised free-of-charge or according to the conditions of mutual exchange of information in the framework of contacts with the analogous information services of the interested scientific and educational organizations both inside Moldova and abroad.

The information of ETD and the guidelines on the work with it will be directed to all scientific libraries, institutes of the ASM, leading universities and information centers of Moldova.

The successful implementation of the project program has a long-term character and will promote to:

- the creation of conditions for the development of national information resources of ETD;
- the development of direct contacts and widening the interaction between American and Moldavian specialists on ETD.

This work realization presents an important aspect of the active integration of the scientific potential of Moldova into the world scientific and information space.

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## **Appendix**

#### The structure of ETD DB:

- Author's first and last name in three languages (English, Russian, Romanian)
- Contact information of the author (postal address, phone, fax, å-mail)
- Place of work of the author in three languages
- Post of the author in three languages
- Contact information the post address, phone, fax, åmail, web site
- Date of a birth
- Country
- UDK number (sections of science)
- Name of subject in three languages
- Code for subject
- Title of work in three languages
- Location the organization in three languages
- Location department in three languages
- Location room number
- Type of work (doctor's / habilitat)
- Place of performance of work in three languages
- Contact information: the post address, phone, fax, åmail, site
- Date of publication of the author's abstract
- Supervisor of studies first and second name
- Supervisor of studies contact information the post address, phone, fax, å-mail, site
- Supervisor of studies place of work in three languages
- Contact information phone, fax, å-mail, the post and electronic address
- Post of the supervisor of studies in three languages
- Rank
- First opponent first and second name
- First opponent contact information: post address, phone, fax, å-mail, website
- First opponent place of work in three languages
- Place of work postal address, phone, fax, å-mail, site
- First opponent post in three languages
- First opponent rank
- Three articles of first opponent on subjects of the dissertation
- · Second opponent first and second name

- Second opponent contact information: post address, phone, fax, å-mail, website
- Second opponent place of work in three languages
- Place of work postal address, phone, fax, å-mail, site
- Second opponent post in three languages
- Second opponent rank
- Three articles of second opponent on subjects of the dissertation
- Third opponent first and second name
- Third opponent contact information: post address, phone, fax, å-mail, website
- Third opponent place of work in three languages
- Place of work postal address, phone, fax, å-mail, site
- Third opponent post in three languages
- Third opponent rank
- Three articles of third opponent on subjects of the dissertation
- Attribute of replacement
- Information on replacement date, an occasion
- Fourth opponent first and second name
- Fourth opponent contact information: post address, phone, fax, å-mail, website
- Fourth opponent place of work in three languages
- Place of work postal address, phone, fax, å-mail, site
- Fourth opponent post in three languages
- · Fourth opponent rank
- Three articles of fourth opponent on subjects of the dissertation
- Name of the leading organization in three languages

- Contact information the post address, phone, fax, åmail, site
- Council code
- Contact information: postal address, phone, fax, åmail, website
- Scientific secretary of council first and last name
- Ranks
- Date of defence
- Time of defence
- Results of voting:
- For
- Against
- Refrained
- Who was absent, the reason of absence
- Date of entry into database
- Name of person
- Language of the interface
- Duration of entry
- Number of records

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