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Open Access in France

A State of the Art Report - April 2010

Table of content

Introduction

This report has been collaboratively produced by representatives of several bodies:

- the scientific and technical information and libraries network Unit of the Ministry of Higher Education and Research (Francis ANDRE, Rachel CREPPY)
- the academic consortium Couperin (Emilie BARTHET, Jean-François LUTZ, Mariette NAUD),
- the Institute for scientific and technical information INIST-CNRS (Anne-Marie BADOLATO, Jean-François NOMINE, Christine WEIL-MIKO).

It is the wish of the SELL consortium (Southern European Libraries Link) to produce a state of the art of Open Access in the participating countries. It will serve as an input to an international seminar aiming at establishing a set of actions favoring Open Access in southern European countries.

The first part of the report provides some background information on the French public research environment, which is essential to understand the national development of Open Access.

The second part gives an historical overview on the development of both the green and golden roads to Open Access. It is not intended to be exhaustive but to highlight the major institutional entities in the French Open Access movement.

The third and fourth parts respectively describe and comment on the current situation of French Open Access journals and Open Access repositories.

The fifth part describes the major mass digitisation programs which are related to Open Access.

Part 1. Institutional background

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1. The French environment of public research

It is important to shortly present the French environment of public research in France as it differs significantly from other European countries and because it has many impacts in the area of Open Access.

At the national level three major types of institutions are involved in the research process:

- France has 86 **universities** (including the three "Instituts nationaux Polytechniques") which gather most researchers. Due to this aspect, French universities are often small or medium-size when compared with other countries. An important milestone in the French higher education system was the adoption in August 2007 of a law granting increased autonomy to universities in terms of budget and human resources (*Loi sur les libertés et responsabilités des universités* – LRU). Meanwhile, a process of consolidation was undertaken by many universities, either in the form of a PRES (*Pool of Research and Higher Education)* i.e. a federation of different institutions on a regional basis) or as a merger of several institutions (as in the case of the university of Strasbourg in January 2009);

- *Grandes Écoles* have been designed historically to train engineers for the civil service. In 2010 France has around 230 *grandes écoles* that train students in the fields of engineering, commerce or humanities and have the particularity to recruit their students through competitive exams. While some of the *grandes écoles* do not have a research structure of their own, research is a significant part or their activities (e.g. Ecole Polytechnique, Ecole Normale Supérieure);

- Unlike universities and *grandes écoles*, **research organisations** have no teaching departments and focus on research. With the exception of CNRS which works in many subject areas, most organisations have a chosen field like computer sciences (INRIA), life sciences (INSERM), marine sciences (IFREMER), etc. They vary in size a great deal, with CNRS being the biggest one with ten institutes, some 20 000 scientists and bringing together 48 000 researchers in units jointly run with universities and other research organisations. It is interesting in terms of scholarly communication ecology to stress that some of these institutions also play the role of publishers either in through a university press (e.g. the universities of Lyon, Rennes or Strasbourg) or as a standard publisher (like Quae, for instance).

Number of researchers by institution type and subject (2005).

Research operator	Life sciences	Material sciences	Humanities	All fields
Universities and *grandes écoles*	16 010 (56 %)	20 628 (49,4 %)	21 252 (76,8 %)	57 890 (59,1 %)
Research Organisations	12 581 (44 %)	21 129 (50,6 %)	6 420 (23,2 %)	40 130 (40,9 %)
	28 591	41 757	27 672	98 020

Les compétences scientifiques et techniques de la France, OST, 2008, p. 73

This distinction in three separate sets looks somewhat blurred when one takes the research structure level into account. It is indeed very common for a single laboratory to belong both to one university or more and to a research organisation, and possibly also to a *grande école*. The human resources and funding of the laboratory come from these different sources, but the research work is conducted in joint teams. In this case the laboratory is called a "joint research unit" (*Unité Mixte de Recherche* – UMR).

One should finally mention the three public bodies central to the consolidation of the French academic research at national level. The main institution is of course the Ministry of Higher Education and Research which defines the French **research strategy** and relies on two nationwide agencies for:

- o **Funding** with the ANR (*Agence Nationale de la Recherche* - National Research Agency),
- o **Assessment** with the AERES (*Agence d'Evaluation de la Recherche et de l'Enseignement Supérieur* - Research and Higher Education Assessment Agency).

2. Publication activity of affiliated researchers in France

The two series of figures below compile the number of publications by researchers affiliated to French institutions. A few points should be kept in mind about the data in these tables:

- Figures were extracted from the Scopus database and are therefore closely linked to the scope of this database where both Humanities and Social Sciences and French-language journals are underrepresented;
- The document types taken into account are articles and conference papers only. It is important to mention this characteristic, because one can find a wider variety of document types in open archives (book chapters, research reports, posters, electronic theses and dissertations).

a. The first table shows the annual number of articles and conference papers published by researchers affiliated to French research institutions and referenced in the Scopus database from 2003 to 2009.

Total of publications from institutions affiliated in France							
2003	2004	2005	2006	2007	2008	2009	TOTAL
54 194	56 115	60 824	64 168	67 911	71 085	68 843	427 821
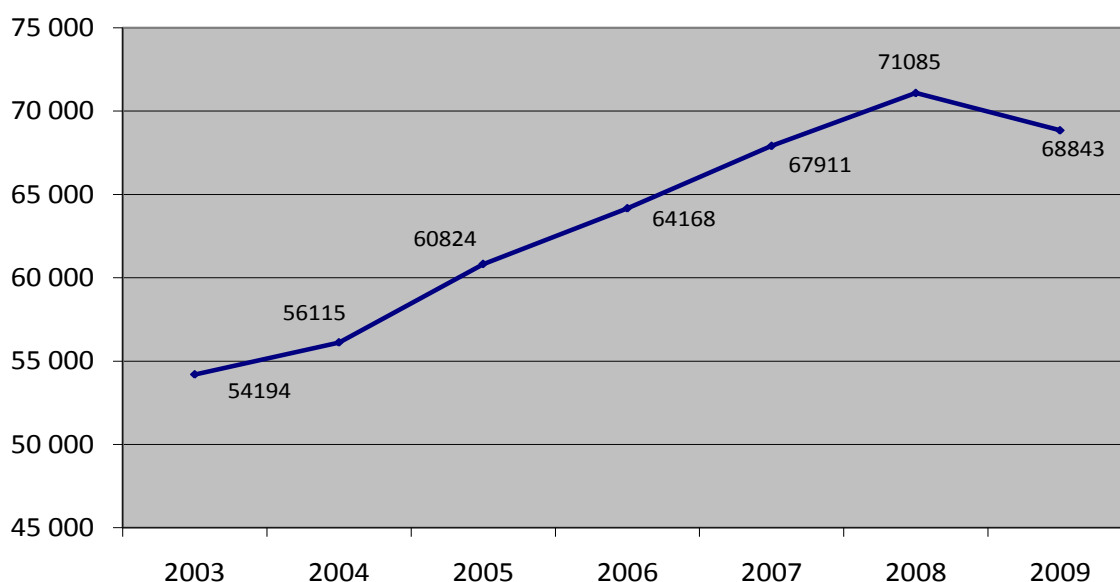
b. The second table shows the number of articles, conference papers and papers in press published by researchers affiliated to French research institutions and sorted by subjects. The subjects used here are those of the Scopus database which do not represent the distribution of the number of publications very clearly in terms of research institution type. It would also be worthwhile analyzing this distribution.

Some publications titles are indexed with several subject headings, which is why the number of publications by subject is greater than the total number of publications by year.

	2003	2004	2005	2006	2007	2008	2009
Medicine	12165	10767	12033	12552	13734	15307	16588
Physics and Astronomy	10061	11144	11459	9677	12567	13875	14855
Biochemistry, Genetics and Molecular Biology	9146	8714	8916	8964	10981	11861	11096
Engineering	6566	9525	10501	11023	10227	9975	10345
Chemistry	5528	5150	5546	6139	6634	8904	9065
Materials Science	5340	5300	5215	5981	6266	7720	8525
Mathematics	4176	4402	4411	5339	5806	7000	8075
Computer Science	3330	3268	3839	5114	5804	6946	7533
Agricultural and Biological Sciences	4101	4095	4319	4839	5128	5565	5870
Earth and Planetary Sciences	4005	3881	4200	4773	4918	5226	4635
Immunology and Microbiology	2724	2580	2829	2906	2961	2986	3098
Chemical Engineering	1926	2101	2112	2572	2620	2881	2671
Neuroscience	2020	1888	1915	2039	2202	2192	2204
Pharmacology and Toxicology	1787	1535	1724	1749	1985	2163	2010
Environmental Science	2023	2027	2240	2587	1919	2014	2006
Social Sciences	1192	1129	1284	1608	1753	1820	1894
Energy	616	645	730	923	1244	1377	1670
Psychology	654	697	757	823	959	1062	1135
Health Professions	711	680	750	741	848	865	884
Economics, Econometrics and Finance	382	456	508	572	677	796	877
Decision Sciences	311	310	341	478	615	778	838
Multidisciplinary	393	387	509	488	527	554	735
Veterinary	430	459	468	443	491	509	627
Business, Management and Accounting	245	230	254	324	487	508	522
Arts and Humanities	323	344	408	434	435	489	469
Nursing	127	100	250	291	311	459	345
Dentistry	75	69	116	97	141	165	130

Note: As previously mentioned, these figures are extracted from Scopus, where French-language and HSS academic journals are underrepresented.

Part 2. Historical background

1. Research organisations

In November 2000, prior to the various statements related to the Open Access movement, CNRS created the Centre for Direct Scientific Communication (CCSD). The Centre developed the HAL platform which is used by many research organisations to build their institutional repository. The initial idea was to create an open archive similar to arXiv but open to all disciplines.
The French institutions began to express their strong commitment in October 2003 when CNRS and Inserm were the first in the country to sign the Berlin Declaration on Open Access to Knowledge in the Sciences, Life Sciences, Social Sciences. Other French research organisations signed the Declaration in the following years, the first university to sign the Declaration in 2006 being the University of Lyon 2.

This commitment to Open Access brought about the setting up of archives (generally linked to the national platform HAL) by several other institutions: Institut Français d'exploitation de la mer (Ifremer) with *Archimer*, Institut national de la recherche agronomique (Inra) with *Prodinra* archive, the Institut de recherche pour le développement (IRD) and *Horizon / Pleins Textes*, to name a few.

All these archives are visible through the repositories access service established under the European project DRIVER.
Following an international conference held in Paris in January 2003 "Open Access to Scientific and Technical Information: State of the Art and Future Trends", Inist-CNRS launched a website (www.openaccess.inist.fr) aiming at raising awareness on OA issues amongst the scientific and information professional communities.

The second road (gold road) advocated by the Budapest initiative is also being explored by the research organisations, particularly in the life sciences area. Thus the Department of Life Sciences of CNRS and Inserm supported both BioMedCentral and PLoS initiatives.

In the field of Humanities and Social Sciences, CNRS and the Ministry of Higher Education and Research have supported since 2000 the Revues.org project, promoting Open Access scientific publishing. This service, operated today by the Centre pour l'Edition Electronique Ouverte (CLEO) gives access to more than 240 electronic publications and represents a successful collaboration between CNRS and higher education institutions and research (EHESS, University of Provence and Avignon). This success relies on the software platform Lodel developed by the CLEO.

The launch in 2003 of the Persée digitisation program by the Ministry of Higher Education and Research was also an important milestone in the French Open Access landscape (see page 32).

Since 2006, CNRS is also involved in the SCOAP3 initiative - led by CERN - through the IN2P3 institute dedicated to research in nuclear physics and particle physics.

2. Universities

The University of Lyon 2 is typical of the involvement of universities in Open Access. It was one of the first universities to develop an archive, it was also involved very early in a project of online theses called Cyberthèses and was the first university to sign the Berlin declaration in 2006. In 2008, the Presses Universitaires de Lyon became a partner in the OAPEN European project which aims to publish books in Humanities and Social Sciences as "a model of print and digital publishing in Open Access."

During this period, several academic institutions developed local archive of electronic theses: INP Toulouse, University of Strasbourg, Paris Tech *grandes écoles*, University of Lille 1, INSA Lyon, etc. Some of these local archives are now linked to the national archive HAL.

To manage the production of scientific and learning materials more efficiently, universities launched some software development projects: document management software (ORI-OAI for example) or GRAAL, more oriented towards research activities management. These platforms are designed to be connected to HAL as well.

In the area of electronic publishing in Open Access, the University of Nice launched in 2004 a service of online electronic journals called Revel, based on the already mentioned Lodel software. This was also the time when the Couperin consortium published a manifesto calling for promoting "open and alternative publishing", of which Revel appears as the first example.

After having set up of a large working group on open archives (2007-2008), Couperin has been continuing to work on Open Access issues both along the green road with its involvement in the EU-funded OpenAIRE project (2009-2012) and along the golden road of Open Access through a partnership with DOAJ (2010).
Since 2008 Couperin has been operating a website dedicated to open archiving (www.couperin.org/archivesouvertes), to foster the development of open archives in higher education institutions.

3. Funding agencies

The main French funding body, the Agence Nationale de la Recherche (ANR) stated that "all publications produced during funded projects have to be deposited by researchers in the HAL open archive system with which it will collaborate".
For the ANR, HAL contributes "to strengthen the visibility and attractiveness of French research" and simplifies "monitoring and evaluation to avoid multiple entries of information and making records easily accessible to all researchers involved in various stages of these processes ". HAL is now seen as the centralised archive on behalf of the ANR.

4. Publishers

The publishers' national union (SNE) took positions based on the recognition of their role in the promotion of research, pointing up the cost of the publishing process. They stressed the importance of considering Open Access according to scientific

disciplines, and the need to build the dissemination of scientific and technical information process on a viable and sustainable economic model.

The SNE also agreed in 2010 to work with other Open Access stakeholders on the establishment of a "French Romeo database" that would offer information on the publishers' policies towards depositing in open repositories.

Beyond the "moving wall" model tested by some publishers, or the "author-pays" model set up by some research institutes which fund the publication of articles of their researchers in Open Access journals, their concern is that the implementation of Open Access to scientific publications, may put the economic viability of their industry at risk.

5. Towards a national policy

In order to coordinate the political achievements and to support the Open Access movement, the major research institutions, the CPU (Conférence des présidents d'universités) and the CGE (Conférence des grandes écoles), signed in July 2006 a MEMORANDUM OF UNDERSTANDING for "a coordinated approach on a national level to open archiving of scientific output" (see Annex).

This memorandum stated that the signatories wished to acquire the necessary means to identify, disseminate, develop, promote and monitor the scientific output of their researchers and faculty members, within their research units and laboratories and, where applicable, of affiliated research teams. Joining forces to acquire a common platform for archiving scientific findings seemed at that time the best way to maximize the chances to achieve this goal.

Signed for a period of two years, this agreement has not been renewed. Nevertheless, it paved the way to the development of many institutional repositories in connection with the HAL platform, which was to be inevitably necessarily tailored to the needs of different organisations (especially so, by linking HAL-Inserm and PubMedCentral repositories and interconnecting the universities' local systems).

However, this agreement did not lead to a common statement - not even at each institution level - for the implementation of depositing in an archive or supporting Open Access journals. France has not yet implemented any mandates regarding article deposits. Some research institutions merely have filing requirements, while some agencies, universities or disciplinary entities enforce more or less effective incentive policies (INRIA, HSS, etc.).

The Berlin7 conference held in Paris in December 2009 gave the opportunity for the major stakeholders to reassert their willingness to cooperate. Moreover the open archiving issue is part of a ministry program to establish a large digital library for scientists and researchers in state-run institutions.

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Part 3. Open Access journals in France

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1. How the list of Open Access journals was compiled

- Sources used: this list of 168 Open Access journals has been established from four different sources:
  - The Directory of Open Access Journals (DOAJ) where an important part of the listed titles is missing in the database,
  - Ulrich's Periodical Directory database for double-checking,
  - The website of Revues.org (a large platform in Humanities and Social Sciences, see page 8 of this report for a more detailed presentation),
  - The website of I-Revues (dissemination platform operated by INIST-CNRS, see page 22 for more details),
  - Some publishers' websites (EDP Sciences in particular).

- Selection criteria: only full Open Access journals have been listed, i.e. journals with no embargo period, the latest issues of which are freely available online. Six of them only are referenced in the Thomson Journal of Citation Report. They are indicated by an asterisk.

2. List of French Open Access journals (March 2010)

Journal Name	Scientific field	Publisher	Language	First OA issue	Publisher type
@ctivités	Psychology	Association Recherches et pratiques sur les activités	French, English	2004	Scientific society
Abstracta Iranica	Languages and Literature	Institut français de recherches en Iran	French, English	2000	Revues.org
Actes de colloques du musée du quai Branly	Anthropology, History	Musée du Quai Branly	French	2009	Public institution
Adansonia. Sér. 3 *	Botany	Museum national d'histoire naturelle	English, French	2000	Public institution
African journal of neurological science	Neurology	Pan African association of neurological science	English, French	2002	Scientific society
Alizés : Revue angliciste de la réunion	Languages and Literature	Université de la Réunion	English, French	1996	Public institution
ALSIC - Apprentissage des langues et systèmes d'information et de communication	Linguistics, Education	Université Marc Bloch	French	1998	Revues.org
Amerika	Languages and Literature	LIRA	French, Spanish	2010	Revues.org
Amérique latine : histoire et mémoire	Migration, History	Université de Paris VIII	French, Spanish, Portuguese, English	2000	Revues.org
Amnis	Anthropology	Université de Bretagne occidentale	English, French, Spanish	2001	Public institution
Annales de toxicologie analytique	Public Health	EDP Sciences	French, English	2000	Private publisher
Annuaire de l'EPHE, section des sciences historiques et philologiques	History	EPHE	French	2008	Revues.org
Annuaire de l'EPHE, section des sciences religieuses	Ethnology	EPHE	French	2006	Revues.org
Anthropology of food	Nutrition and Food Science	Anthropology of food	English, French	2001	Revues.org
Apparences	NR	IRHIS-Septentrion	French	2007	Revues.org
Argumentation et analyse du discours	Languages and Literature	ADARR	French	2008	Revues.org
Articulo - revue de sciences humaines	Multidisciplinary, Social Sciences	CEPS/INSTEAD	French, English	2005	Revues.org
Astérion	Philosophy	Ecole normale supérieure - LSH	French	2003	Revues.org

Journal Name	Scientific field	Publisher	Language	First OA issue	Publisher type
Atalaya	Languages and Literature	ENS LSH	French, Spanish	1998	Revues.org
Atelier du centre de recherches historiques	History	Centre de recherches historiques	French	2008	Revues.org
Ateliers du LESC	Ethnology	Laboratoire d'ethnologie et de sociologie comparative	French	2005	Revues.org
Atlas of Genetics and Cytogenetics in Oncology and Haematology	Biology, Health Sciences	Association pour la Recherche sur les Maladies génétiques et le Handicap Mental	English	2010	I-Revues
Balkanologie	Multidisciplinary, Social Sciences	Association Francaise d'Etude sur les Balkans	French, English	1997	Revues.org
Boletin de la asociación para el Fomento de los Estudios Históricos en Centroamérica	History	Asociación para el Fomento de los Estudios Históricos en Centroamérica	Spanish	1998	Scientific society
Bulletin Amades	Anthropology	Association Anthropologie Médicale Appliquée au Développement et à la Santé	French, English	2001	Revues.org
Bulletin de l'Académie Lorraine des Sciences	Multidisciplinary	Académie Lorraine des Sciences	French	2010	I-Revues
Bulletin de l'Académie Nationale de Metz	Multidisciplinary	Académie Nationale de Metz	French	2010	I-Revues
Bulletin des bibliothèques de France	Library and information Science	French School of Librarianship and Information Science	French	1985	Public institution
Bulletin du centre d'études médiévales d'Auxerre	History	Centre d'études médiévales d'Auxerre	French	2003	Revues.org
Bulletin du centre de recherches du Château de Versailles	History	Centre de recherches du Château de Versailles	French	2002	Revues.org
Bulletin du centre de recherches français de Jérusalem	NR	Centre de recherches français de Jérusalem	French	1997	Revues.org
Cahiers "Mondes anciens"	History, anthropology	UMR 8210 Histoire et anthropologie des mondes anciens	French	2009	Revues.org
Cahiers d'Asie centrale	Social Sciences	Institut Français d'Etudes sur l'Asie Centrale	French, English	2001	Revues.org
Cahiers de civilisation espagnole contemporaine	History	Revues.org	French, English, Spanish	2007	Revues.org
Cahiers de l'URMIS	Ethnology	URMIS-UMR 7032	French	1995	Revues.org
Cahiers de narratologie	Languages and Literature	CIRCES	French	2004	Public institution
Cahiers mondes anciens	History	ANHIMA-UMR 8210	French	2010	Revues.org

Journal Name	Scientific field	Publisher	Language	First OA issue	Publisher type
[Carnets de géologie](#)	Earth Science, Geology	Carnets de géologie	English, French, Italian, Spanish, German	2002	I-Revues
[CeROArt](#)	Multidisciplinary, Arts	Association CeROArt	French	2007	Revues.org
[Champ pénal](#)	Social and Public Welfare	Champ pénal	French, English	2004	Revues.org
[Chrétiens et société](#)	History	Religions, Sociétés et acculturations	French	1994	Revues.org
[Chroniques yéménites](#)	NR	Centre français d'archéologie et de sciences sociales de Sanaa	French	1994	Revues.org
[Clefs CEA](#)	Physics	EDP Sciences	French	2008	Private publisher
[Cognitextes](#)	Linguistics	Association française de linguistique cognitive	French	2007	Revues.org
[Colloques sur le Traitement du Signal et des Images - GRETSI](#)	Physics	GRETSI	French, English	2009	I-Revues
[Communicating astronomy with the public journal](#)	Astronomy	International astronomical union	English	2007	Scientific society
[Confins](#)	Geography	Revues.org	Portuguese, English, French, Spanish	2007	Revues.org
[Conserveries mémorielles](#)	History	IHTP	French	2006	Revues.org
[ConTEXTES](#)	Sociology	ConTEXTES	French	2007	Revues.org
[CORELA](#)	Linguistics	Cercle linguistique du centre et de l'ouest (CERLICO)	French, English	2003	Scientific society
[Creolica](#)	Linguistics	Groupe européen de recherches en langues créoles	Portuguese, English, French, Spanish	2003	Public institution
[Cultures et conflits](#)	Political Science	L'Harmattan	French	1990	Private publisher
[Current psychology letters](#)	Psychology	Centre PsyCLE	French	2003	Revues.org
[Cybergeo : European journal of geography](#)	Social Sciences	Université de Paris, Institut de Géographie	English, French	1996	Revues.org
[Déméter](#)	Music, Arts in general	University of Lille	French	2002	Public institution
[Développement durable et territoires](#)	Environmental Sciences	Réseau développement durable et territoires fragiles	French	2002	Revues.org

Journal Name	Scientific field	Publisher	Language	First OA issue	Publisher type
Diotime - l'Agora	Philosophy	Editions Alcofribas Nasier & CRDP Montpellier	French, English, Spanish	1999	Public institution
Discours	Linguistics	Laboratoire LaTTice	French	2007	Revues.org
Discrete mathematics and theoretical computer science*	Computer Science, Mathematics	Discrete mathematics and theoretical computer science	English	1997	Scientific society
DTIP conferences	Physics, Electronics, Engineering Sciences	EDA Publishing Association	English, French	2008	I-Revues
EARSeL eProceedings	Physics, Earth Sciences, Geology-Environmental Science	European association of remote sensing laboratories	English	2001	Scientific society
EchoGeo	Geography	CNRS UMR 8586	French	2007	Revues.org
Economie publique	Economics	Institut d'économie publique	French, English	1998	Revues.org
Electronic Design Automation	Physics, Electronics, Engineering Sciences	EDA Publishing Association	English, French	2008	I-Revues
Electronic journ@ls for history of probability and statistics	Statistics	EHESS	English, French	2005	Public institution
E-Mémoires de l'Académie nationale de chirurgie	Surgery	Académie nationale de chirurgie / BIUM	French	2002	Public institution
ENS conferences	Physics, Electronics, Engineering Sciences	EDA Publishing Association	English, French	2008	I-Revues
EPJ Web of conference	Physics	EDP Sciences	English	2009	Private publisher
E-Polymers*	Chemical Engineering	European polymer federation	French	2001	Scientific society
ERCES : Online quarterly review	Social Sciences , Social and Public Welfare	The European and international research group on crime, ethics and social philosophy	English	2004	Scientific society
E-rea	History, Political Science	LERMA	French	2003	Revues.org
ESAIM Proceedings	Applied mathematics	EDP Sciences	English	1996	Private publisher
Espaces temps.net	Philosophy	Revues.org	French, English, Spanish, German, Italian	2002	Scientific society
E-Spania	History	Séminaire d'études médiévales hispaniques de Paris-Sorbonne	French, Spanish, English, Italian	2006	Revues.org

Journal Name	Scientific field	Publisher	Language	First OA issue	Publisher type
Ethnographiques.org	Ethnology	Ethnographiques.org	French	2002	Scientific society
Etudes caribéennes	NR	Université des Antilles et de la Guyane	French	2005	Revues.org
Etudes episteme	Languages and Liter.	Ecole doctorale des études anglophones	French, English	2002	Public institution
Etudes photographiques	Multidisciplinary, Arts	Societé française de photographie	French	1996	Revues.org
European journal of American Studies	NR	European Association for American Studies	English	2006	Revues.org
European Journal of Turkish Studies	Social Sciences	Association pour la recherche sur le Moyen Orient	English, French, German, Turkish	2004	Revues.org
Europhysics News	Physics	EDP Sciences	English	2000	Private publisher
Field actions science reports	Environmental Sciences	Institut Veolia Environnement	English	2008	Revues.org
Flaubert	Languages and Literature	ITEM	French	2009	Revues.org
Genre et histoire	Sociology	Association Ménmosyne	French	2007	Revues.org
Genre, sexualité et société	Sociology	IRIS-EHESS	French	2009	Revues.org
Geodiversitas*	Earth Science, Geology	Museum national d'histoire naturelle	English, French	2004	Public institution
Histoire @politique	History, Political Science	Centre d'histoire de Sciences-Po	French, English	2007	Public institution
Hydroécologie appliquée	Aquatic ecology	EDP Sciences	French, English	1989	Private publisher
ILCEA	Linguistics, Languages and Literature	Institut des Langues et des Cultures d'Europe et d'Amérique	French, English	2009	Revues.org
Images re-vues	Anthropology, History, Visual Arts	EHESS, INHA	French	2005	Public institution
Impressions d'Extrême-Orient	Linguistics, Languages and Literature	Université de Provence - Aix-Marseille 1	French, English	2010	Revues.org
Information sciences for decision making	Media and Comminication, Computer Science	Université du Sud Toulon Var	French, English	1997	Public institution
Information, interaction, intelligence journal	Computer Science	CEPADUES	French, English	2001	Private publisher
International journal of multicultural societies	Social Sciences	UNESCO	English, French	1999	Public institution
Journal of electrical systems	Electrical and nuclear Engineering	ESRGroup	English	2005	Scientific society

Journal Name	Scientific field	Publisher	Language	First OA issue	Publisher type
Journal of language contact : Evolution of languages, contacts and discourses	Linguistics, Education, Media and Comminication	Chaire IUF Dynamique du langage et contact des langues	English, French	2007	Public institution
Journal of physical mathematics	Mathematics	Ashdin publishing	English	2009	Private publisher
Journées de la Société Française de Sénologie et Pathologie Mammaire	Medicine, Phamarcology	Société française de sénologie	French	2009	I-Revues
Knowledge and management of aquatic ecosystems	Aquaculture and fisheries	EDP Sciences	English, French	1928	Private publisher
La revolution française	History	institut d'histoire de la révolution française	French	2009	Public institution
La revue de l'IRES	Social Sciences	IRES	French	1998	Scientific society
La revue des lettres modernes : Gustave Flaubert	Languages and Literature	Centre Flaubert	French	2001	Public institution
La revue du MODULAD	Statistics	MODULAD	French, English	1988	Scientific society
La revue LISA	Sociology, Anthropology	Maison de la Recherche en Sciences Humaines	English, French	2003	Revues.org
Lapurdum	Linguistics	Centre de Recherches IKER-CNRS	French, Basque	2008	Revues.org
Les Cahiers de Psychologie Politique	Social Sciences	Association Française de Psychologie Politique	French, Spanish	2010	I-Revues
Les Cahiers du CEDIMES	Social Sciences	CEDIMES	French, English	2010	I-Revues
Les dossiers du Grihl	Languages and Literature	EHESS	French	2007	Revues.org
L'espace politique	Geopolitics	Université de Reims Champagne Ardennes	French	2007	Revues.org
Lexicometria	Linguistics	André Salem, Serge Fleury	French, English	1997	Scientific society
Lianes	Sociology	Lianes association	French, English	2005	Scientific society
Linguistica occitana	Linguistics	Association linguistica occitana	Occitan, Catalan, English, French	2004	Scientific society
Loxias	Languages and Literature	Centre trandisciplinaire d'épistémologie de la littérature	French	2003	Public institution
M@nagement	Business and Management	DMSP Research center	English, Spanish, French	1998	Scientific society
M@ppemonde	Geography	Maison de la géographie	French	2004	Revues.org

Journal Name	Scientific field	Publisher	Language	First OA issue	Publisher type
Mandenkan : Bulletin semestriel d'études linguistiques Mandé	Linguistics	Langage, langues et cultures d'Afrique noire (Le Llacan)	French, English	2005	Public institution
Mathématiques et sciences humaines	Mathematics	Centre d'analyse et de mathématiques sociales de l'EHESS	French, English	2000	Revues.org
Médiamorphoses	Communication, Social Sciences	Institut National de l'Audiovisuel	French	2009	I-Revues
Mélanges CRAPEL	Education, Linguistics	CRAPEL, Université de Nancy II	French, English	1970	Public institution
Methodos : savoirs et textes	Philosophy	Savoirs et textes, UMR 8519	French	2001	Revues.org
Métropoles	Architecture	Revues.org	English, French	2007	Revues.org
Nuevo mundo - mundos nuevos	Anthropology, History	CERMA	French, Spanish, Portuguese, English	2001	Revues.org
NOVATECH	Environnemental Sciences	GRAIE - Groupe de Recherche Rhône-Alpes sur les Infrastructures et l'Eau (Lyon, France)	French, English	2010	I-Revues
Oil & gas science and technology*	Chemical Technology	Institut français du pétrole	English, French	1997	Private publisher
Oliviana	History	Groupe d'anthropologie scolastique (EHESS-CNRS)	French	2003	Revues.org
Paléo	Archeology	SAMRA	French, English	2000	Revues.org
Perspectives interdisciplinaires sur le travail et la santé	Internal Medicine	PISTES	French	1999	Public institution
Physio-Géo	Geography	Claude Martin	French	2007	Revues.org
Pratiques et organisation des soins	Public Health	Société française de santé publique	French	2006	Public institution
Préhistoires méditerranéennes	History	Université d'Aix en Provence	French	2002	Public institution
Recherches en psychanalyse	Psychology	Université Paris VII Diderot	French	2009	Revues.org
Revue archéologique du centre de la France	Archaeology	Fédération pour l'édition de la revue archéologique du centre de la France	French	2004	Revues.org
Revue de géographie alpine	Geography	Association de géographie alpine	French	2007	Revues.org
Revue de la régulation : capitalisme, institutions, pouvoirs	Economics	Revues.org	French, English	2007	Revues.org
Revue de recherche en civilisation américaine	Sociology	Université Bordeaux IV	French	2009	Revues.org
Revue d'études tibétaines	Anthropology	CNRS	French, English, Spanish, Italian	2002	Public institution

Journal Name	Scientific field	Publisher	Language	First OA issue	Publisher type
Revue géographique de l'Est	Geography	Université de Nancy 2	French, English	2004	Revues.org
Revue historique des armées	History	Service historique de la défense	French	2006	Revues.org
Revue internationale de pédagogie de l'enseignement supérieur	Education	Association internationale de pédagogie universitaire	French	2009	Revues.org
Rursus	Linguistics	Revel	French	2006	Public institution
Saint Jacques Info	Social Sciences, Religion	Association Ferpel and LAMOP (Laboratoire de Médiévistique Occidentale de Paris CNRS Paris I - Sorbonne)	French	2010	I-Revues
S.A.P.I.E.N.S.	Environmental Sciences	Institut Veolia Environnement	English	2008	Revues.org
Science et devenir de l'homme	Social Sciences	Association MURS	French	2009	I-Revues
Semen	Linguistics, Languages and Literature	Presses universitaires de Franche-Comté	French	1993	Revues.org
Séminaire lotharingien de combinatoire	Mathematics	Université Louis Pasteur	English	1981	Public institution
Sociétés et jeunesses en difficulté	Sociology	Ecole nationale de protection judiciaire de la jeunesse	French	2006	Revues.org
SociologieS	Sociology	Association internationale des sociologues de langue française	French	2006	Revues.org
Socio-logos : revue publiée par l'association française de sociologie	Sociology	Association française de sociologie	French	2006	Revues.org
South Asia multidisciplinary academic journal	Social Sciences	Centre d'études de l'Inde et de l'Asie du Sud	English	2007	Revues.org
STICEF	Education, Computer Science	ATIEF	French	2003	Scientific society
Tabularia, sources écrites de la Normandie médiévale	History	Université de Caen	English, French	2000	Public institution
Télédétection	Geography	Editions scientifiques GB	French	1999	Scientific society
Temporalités	NR	ADR Temporalités	French	2004	Revues.org
Texto ! Textes et cultures	Linguistics	Equipe sémantique des textes	French, Spanish, English	1996	Scientific society
The Arkeotek journal	Archaeology	Editions la Maison des sciences de l'Homme, éditions Epistèmes	French, English	2007	Public institution

Journal Name	Scientific field	Publisher	Language	First OA issue	Publisher type
The journal of power institution in post-soviet societies	Political Science	Centre d'études et de recherche sur les sociétés et les institutions post-soviétiques	French, English, Russian, German	2004	Revues.org
THERMINIC conferences	Physics, Electronics	EDA Publishing Association	English, French	2008	I-Revues
Tic & Société	Education, Computer Science	Tic & Société	French	2007	Revues.org
Trace	Languages and Literature	Centre d'études mexicaines et centroaméricaines	French, Spanish	2007	Revues.org
Traitement automatique des langues	Linguistics	Association pour le traitement automatique des langues (ATALA)	French, English	2006	Scientific society
Trajectoires	NR	Centre interdisciplinaire d'études et de recherches sur l'Allemagne	French	2007	Revues.org
Transatlantica : Revue d'études américaines	Social Sciences	Association française d'études américaines	French, English	2001	Revues.org
Transtextes et transcultures	NR	Institut d'Etudes Transtextuelles et Transculturelles	French, English	2006	Revues.org
Travail et formation en éducation	NR	NR	French	2008	Revues.org
Trivium	NR	FMSH Editions	Allemande	2008	Revues.org
VertigO	Environmental Sciences	VertigO	French	2000	Revues.org
Water alternatives	Political Science, Environmental Science	Water alternatives association	English	2008	Scientific society
Zoosystema*	Zoology	Museum national d'histoire naturelle	English, French	2004	Public institution

3. Comments

a. <u>Full Open Access journals</u>

Three major types of journals publishers among the ones represented in the list can be identified: public research institutions (universities, laboratories, etc.), scholarly societies or associations (including the 15 I-Revues journals) and "traditional" commercial publishers. In order to point out the importance of the Revues.org platform (which hosts journals from both public research institutions and scholarly societies), this fourth category has been taken into account in the table below .

Type of Publisher	Number of journals	Percentage
Commercial publisher	11	6,5 %
Public research institution	33	19,5 %
Revues.org platform	86	51 %
Scholarly society	38	23 %
Total	168	100 %

Three major comments can be made:

- publisher type and business model: the major role of Revues.org in terms of online dissemination of French Humanities and Social Sciences journals clearly appears in this table. As previously mentioned, Revues.org is funded by public research institutions and hosts a very large part of publicly funded journals. This means that if one adds the Revues.org titles and the public research institutions' journals, it appears that more than 70 % of French Open Access journals rely mostly on public funding. Two conclusions can be drawn:

  o the "author-pay" model that is very often associated to Open Access journals is clearly hardly used for the financial sustainability of French Open Access journals. Such a conclusion concurs with the one made on a global scale by Peter Suber in his *Open Access Newsletter* (April 2009). He indicates that studies show that between 67 % and 83 % of Open Access journals do not charge any fee (either on the author or the reader side) and rely on other subsidies.

  o with the notable exception of EDP Sciences, French commercial publishers are clearly not engaged in an Open Access policy. This is certainly because there are only a few French STM publishers, but this reason could also be used to facilitate an Open Access transition to increase international and online visibility.

- in terms of scientific fields: the journals list confirms the fact that a vast majority of French Open Access journals cover Humanities and Social Sciences related subjects. STM disciplines as well as Economics or Law are clearly underrepresented. This clearly contrasts with the predominance of these areas in the list of repositories (see part 4 of this report). An explanation of this situation is that open archives are mainly set up by organisations with an interest to disseminate their scientific output but which are also integrated in the classical publication process traditionally held by commercial publishers.

- in terms of journals visibility: the main international database for Open Access journals, the DOAJ, only refers to 86 out of the 168 French academic journals,

which is slightly over half of the total. Revues.org journals are especially under-referenced as only 29 out of the 86 journals are in the DOAJ (33 %). These figures are somewhat worrying because the DOAJ database is used worldwide to automatically feed e-journals lists or library catalogs. Hence the visibility of French OA journals is sensibly undermined. A cooperation with the DOAJ team could prove helpful in solving this issue. This is the main goal of the partnership established between Couperin and DOAJ in 2010.

b. Embargoed journals

As the main scope of this report is about Open Access as defined in the Budapest Declaration (both green and gold Open Access roads), no comprehensive list of online journals that are freely available after an embargo period has been worked out.

However, the three following major French platforms that host such journals should be mentioned:
- Revues.org which offers access to 87 embargoed journals besides the 86 full Open Access titles. Journals are free to define the extent of their embargo, which goes from 3 months up to 4 years. Revues.org hosted journals are encouraged by the CLEO either to lower the duration of the embargo or to move towards full Open Access, but these changes are not compulsory. It also important to say that Revues.org does not give access to the embargoed material through a subscription system, as opposed to Cairn.

- I-revues, operated by INIST-CNRS which offers access to 9 embargoed journals and 15 fully Open Access. The service is designed to help anyone wishing to put a journal online through all steps of the technical electronic publishing process including the digitisation of back issues. Although the final decision is left to the journals, they are encouraged to move to Open Access.

- Cairn, a platform that offers access to 242 journals, especially in the fields of Humanities and Social Sciences and of Economics. Cairn offers a subscription model for institutions in order to get access to the journals' latest issues. Journals are freely available online once the embargo period defined by their publisher is over. Cairn works with some important French and Belgian academic publishers like *De Boeck*, *L'Harmattan* or the *Presses Universitaires de France* (PUF).

c. Hybrid journals

To our knowledge, there are currently very few French publishers offering a hybrid publishing model, i.e. an author-fee enabling the article to be freely available online even if the rest of the journal is not Open Access at all.
It is worth mentioning that EDP Sciences publisher has an Open Access option for some of its journals. Moreover, in an original way, the same publisher offers for some journals (EJP AP European Physical Journal Applied Physics Journals for example) the "Latest articles Free" model, which allows access to full-text articles and references in HTML of the most recent issues. This could be seen as a "reverse embargo" model.

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Part 4. Open Archives in France

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1. How the list of repositories was compiled

- Sources used: this list of 68 repositories has been established using two main types of sources: the OpenDOAR and ROAR registries and the list of portals hosted on the HAL platform. One should note that the visibility of French repositories in international tools like OpenDOAR can still be enhanced as they do not cover many HAL portals yet.

- Selection criteria: the list includes all institutional, central and thematic repositories launched and managed by French institutions. Those repositories allow self-depositing by the researchers themselves and host recent scholarly publications (articles, conference papers, thesis, monographs…).
The repositories set up at laboratory level have not been taken into account. There were more than 200 of them at the beginning of 2010, a vast majority being hosted by HAL like the Centre d'Etudes Supérieures sur la Renaissance (University of Tours and CNRS).

- Domain of publication: it proved quite difficult to add a column taking the subject fields of publication into account, as OpenDOAR and HAL do not use the same typology. For instance, HAL does not identify each repository with a general area of knowledge, but goes into details and lists all the subject areas covered by the repository. We have tried to mention only the most represented subjects for each repository in this table, but it would probably be very interesting to get more accurate statistics about this matter.

- Number of full-text publications and references: the figures indicated for each repository, and especially for those hosted in HAL, must be taken cautiously because the same publication can be counted in several entries. For instance, an article about History or Sociology could be found in the general list of HAL, in the subject-based repository HAL-SHS dedicated to Humanities, and in one of HAL institutional portals.

2. List of French open repositories (updated March 28th, 2010).

Repository	Institution	Subject field	Software	Language	Full text	Refs
Scholarly publications (mainly articles) - Central or thematic repositories						
ArchiveSIC	CNRS/CCSD	Library and Information Science	HAL	French, English	1 127	NR
Archives EduTice	Fondation de la maison des sciences de l'Homme	Computers and IT, Library and Information Science	HAL	French, English	1 721	NR
Artxiker	CNRS/CCSD	Language and Literature	HAL	French, Basque	298	NR
Hyper articles en ligne (HAL) *Note 1*	CNRS/CCSD	Multidisciplinary	HAL	French, English	138 866	268 509
HAL-SDE	CNRS/CCSD	Ecology	HAL	French, English	4 593	11 608
HAL-SHS	CNRS/CCSD	Arts and Humanites	HAL	French	23 265	NR
Scholarly publications (mainly articles) - Institutional repositories						
Productions scientifiques de l'AFSSA	Agence française de sécurité sanitaire des aliments	Life Sciences	HAL	English, French	51	109
CemOA	CEMAGREF	Environmental Sciences, Engineering	Cadic Integral	English, French	1 081	21 710
Archive ouverte CIRAD	CIRAD	Environmental Sciences, Engineering	HAL	English, French	883	NR
Articles scientifiques du CEA en libre accès	Commissariat à l'énergie atomique	Chemical Sciences, Engineering Science	HAL	English, French	2 973	10 117
Publication de l'IRSN	Institut de radioprotection et de sûreté nucléaire	Sciences of the Universe, Life Sciences	HAL	English, French	69	NR
Archive ouverte HAL-IRD	Institut de recherche pour le développement	Multidisciplinary	HAL	English, French	1 662	NR
IRD Horizon - Plein Texte	Institut de recherche pour le développement	Multidisciplinary		French	42 000	72 000
ArchiMer	IFREMER	Biology, Ecology, Geography	NR	French, English	6 057	NR
Institut Jean Nicod	Institut Jean Nicod	Humanities and Social Sciences	HAL	French, English	674	NR

[HAL-INSERM](#)	Institut national de la santé et de la recherche médicale	Life Sciences, Health	HAL	English, French	2 781	2 409
[HAL-INERIS](#)	Inst. nat. de l'environnement industriel et des risques	Engineering Sciences, Life Sciences	HAL	English, French	71	NR
[HAL-IN2P3](#)	Institut national de physique nucléaire et de physique des particules	Physics, Chemical Sciences	HAL	English, French	4 307	5 366
[ProdINRA](#)	Institut national de recherche agronomique	Agriculture, Food and Veterinary	ProdINRA	English, French	4 729	123 515
[HAL-INRIA](#)	Institut national de recherche en informatique et automatique	Computer Science, Mathematics	HAL	English, French	16 016	9 422
[INSEP archive ouverte](#)	Institut national du sport et de l'éducation physique (INSEP)	Biology and Biochemistry, Education	Archimedes	French	477	NR
[HAL-INSU](#)	Institut national des sciences de l'univers	Environmental Sciences, Chemical Sciences	HAL	English, French	12 790	17 530
[HAL-Pasteur](#)	Institut Pasteur	Chemical Sciences, Life Sciences	HAL	English, French	267	1 216
[HAL-MétéoFrance](#)	Météo France	Sciences of the Universe, Environmental Sciences,	HAL	English, French	170	263
[HAL-MNHN](#)	Museum national d'histoire naturelle	Life Sciences	HAL	English, French	380	NR
[Archive de l'Observatoire de Paris](#)	Observatoire de Paris	Sciences of the Universe, Physics	HAL	English, French	484	NR
[HAL-RIIP](#)	Réseau international des instituts Pasteur	Life Sciences	HAL	English, French	20	80
[Archive ouverte du SSA](#)	Service de santé des armées	Life Sciences	HAL	English, French	35	NR
[Ecole nationale supérieure des Mines de Saint Etienne](#)	Ecole Nationale Supérieure des Mines de Saint-Etienne	Environmental Sciences, Engineering	HAL	English, French	240	1 106
[Ecole Normale Supérieure de Paris](#)	Ecole Normale Supérieure de Paris	Multidisciplinary	HAL	English, French	3 007	5 049

Publications de la Recherche Universitaire de l'ENS de Lyon (PRUNEL)	Ecole Normale Supérieure de Lyon	Multidisciplinary	HAL	English, French	1 479	NR
Grenoble Ecole de Management	Grenoble école de management	Humanities and Social Sciences	HAL	French, English	90	30
HAL-HEC	HEC	Political Science, Economics	HAL	French, English	23	NR
HAL-Institut télécom	Institut Télécom	Computer Science, Mathematics	HAL	English, French	457	1 516
Archives ouvertes Mines ParisTech	Mines ParisTech	Engineering, Physics	HAL	English, French	856	2 742
Paris Tech archive ouverte Note 2	PRES Paris Tech	Multidisciplinary	HAL	English, French	3 969	7 711
Ecole polytechnique-Archive Ouverte	Polytechnique	Multidisciplinary	HAL	English, French	1 922	5 805
Spire	Sciences Po	Political Science, Economics	Spire	English, French	2 740	NR
SUPELEC	Supélec	Engineering Sciences	HAL	English, French	939	NR
HAL-Artois	Université d'Artois	Multidisciplinary	HAL	English, French	119	326
HAL-Université de Brest	Université de Brest	Multidisciplinary	HAL	English, French	515	3 360
Iris (mainly ETDs)	Université de Lille 1	Sciences	Dspace	French	940	NR
HAL-Université de Limoges	Université de Limoges	Multidisciplinary	HAL	English, French	275	3 338
HAL - Université Lumière Lyon 2	Université Lumière - Lyon 2	Humanities and Social Sciences	HAL	English, French	2 155	7 772
HAL-Université Jean Moulin - Lyon III	Université Lyon III	Humanities and Social Sciences	HAL	English, French	531	982

[HAL-Université de Nantes](#)	Université de Nantes	Multidisciplinary	HAL	English, French	1 843	6 982
[HAL-Université de Nice Sophia-Antipolis](#)	Université de Nice	Multidisciplinary	HAL	English, French	2 063	NR
[HAL-Université Panthéon-Sorbonne - Paris I](#)	Université Paris I	Humanities and Social Sciences	HAL	English, French	2 397	5 790
[HAL-Université Descartes - Paris V](#)	Université Paris V	Multidisciplinary	HAL	English, French	801	NR
[Base de publications de l'université Paris Dauphine](#)	Université Paris Dauphine	Mathematics, Economics, Social Sciences, Management	Dspace	English, French	1 466	3 722
[HAL-Université de Rennes 2](#)	Université de Haute Bretagne - Rennes 2	Multidisciplinary	HAL	English, French	329	1333
[HAL-Université de Savoie](#)	Université de Savoie	Multidisciplinary	HAL	English, French	1 555	6 052
[HAL-Université Saint-Etienne](#)	Université Jean Monnet - Saint Etienne	Multidisciplinary	HAL	English, French	569	NR
[HAL-Université Paul Sabatier Toulouse III](#)	Université Paul Sabatier - Toulouse III	Science, Technology, Medicine	HAL	English, French	2 677	NR
[Open Archive Toulouse Archive Ouverte (OATAO)](#)	INP Toulouse, ISAE and ENVT	Multidisciplinary	Eprints	French, English	2 760	NR
[Artur-FC](#)	Université de Franche-Comté	Multidisciplinary	NR	French	264	NR
Electronic Theses and Dissertations						
[Thèses en ligne (TEL)](#)		Multidisciplinary	HAL	French, English	16 596	NR
[Bibliothèque numérique de l'ENSSIB](#)	ENSSIB	Library and Information Science	NR	French	14 200	NR
[Consultation en texte intégral des thèses en réseau (CITHER)](#)	Centre de documentation scientifique Doc'INSA, Institut national des sciences appliquées de Lyon	Multidisciplinary	NR	French	694	NR

ParisTech service de thèses en ligne (PASTEL thèses)	ParisTech	Science, Technology, Management	Eprints	French, English	2 331	NR
Thèses de l'ULP	Université de Strasbourg	Multidisciplinary	Eprints	French, English	965	NR
Thesesups	Université de Toulouse III	Multidisciplinary	Eprints	French, English	564	NR
Les mémoires en ligne de l'institut d'IEP de Lyon	Institut d'IEP de Lyon	Geography, History	NR	French	966	NR
Les thèses électroniques	Université Lumière Lyon 2	Multidisciplinary	NR	French	1 336	NR
INP de Toulouse Theses	INP Toulouse	Science, Technology, Medicine	Eprints	English, French	584	NR
Books and monographs						
Les livres en ligne des PUL	Université Lumière Lyon 2	Multidisciplinary	NR	French	21	NR
Research reports						
Libre accès aux rapports scientifiques et techniques (LARA)	INIST-CNRS	Multidisciplinary	Dspace	French, English	1 032	NR
OpenSigle	INIST-CNRS	Multidisciplinary	Dspace	English, French	NR	NR

Note 1 : the figure 138 866 in the "Full text" column is the total amount of full text documents available in the HAL open archive, including all subject-based or institutional portals (respectively like HAL-SHS or HAL-INRIA). Among them are 16 596 electronic theses (on March 28, 2010), 41 973 articles transferred from the *Journal de Physique* and 7 464 INRIA research reports. This is why the number of scholarly publications amounts to 72 833 items.

Note 2: the Paris Tech open archive gives access, on one portal, to research publications from the 12 *grandes écoles* pooled into the Paris Tech PRES. Some of its members institutions (HEC, Ecole Polytechnique and Ecole des Mines) also have an institutional portal in HAL.

3. Comments

The repository list has been divided into four major categories, depending on the type of content hosted:

Document type		Number of repositories	
Scholarly publications (articles, proceedings…)	Central & subject-based	6	56
	Institutional	50	
Electronic theses and dissertations			9
Books and monographs			1
Research reports			2
Total			68

ETDs: regarding ETDs management and open dissemination, it is important to mention that French universities are moving towards an electronic-only deposit scheme with a systematic online dissemination if accepted by individual authors, . A common tool called STAR has been established by ABES (French higher education bibliographic agency) in 2008. It enables universities both to perform long-term archiving of their digital material and to send the ETD to a dissemination website such as HAL-TEL.

Books and monographs: It must be mentioned that the only institution currently involved in the Open Access movement is the Presses Universitaires de Lyon, also a partner in the OAPEN European initiative.

Scholarly publications (mainly research articles): 56 out of the 68 repositories listed are mainly dedicated to the deposit and open dissemination of scholarly publications (peer-reviewed articles, conference proceedings, reviews…). It is interesting to have a closer look at the 50 institutional repositories in order to see the distribution in terms of research institution type:

Research institution type	Number of institutions in France	Number of repositories	Percentage
University	86	17	20 %
Grande école	around 230	11*	5 %
Research Organisation**	around 36	22	61 %

* Note that some repositories collect material from more than one *grande école* like the ParisTech (12 institutions) or the Institut Telecom (4 institutions). The percentage may then lie somewhere between 10 % and 15 % of all *grandes écoles*.

** Research organisations are to be understood as institutions officially chartered as "Public Institutions with a Scientific and Technical Character", or so-called EPSTs (CNRS, INED, INRA, IRD, CEMAGREF, INRETS, INSERM, INRIA, LCPC), EPIC (ADEME, ANDRA, INERIS, CNES, CEA, IFREMER, IRSN, BRGM, ONERA, CIRAD, IFP, LNE), EPA (AFSSA, CEE, CEREQ, IGN, INRP, INRAP, Météo France), or as "Higher Institutions" (*Grands Etablissements*) (MNHN, Observatoire de Paris, INSEP), as Public Interest Groups or GIP (ANRS, Genopole, IPEV) or as Foundations (Institut

Curie, Institut Pasteur) which are assigned with important research missions in addition to the higher education system of universities and grandes écoles.

These figures show very clearly the fact that the current situation regarding repositories is very different depending on the type of research institutions:

- A large part of the major research organisations set up an institutional repository. As previously mentioned, these institutions adopted HAL as their open archive platform after its launch in 2001.
  Some of them collect metadata from HAL (articles references for instance) and use them in a locally managed information system (e.g., IRD, CEMAGREF, INRA) where publications references are consolidated with other data.
  IFREMER (a French research organisation for marine sciences) built an important self-managed repository called Archimer which collects around 80 % of its current research output (October 2009).

- Universities and *grandes écoles* followed suit at a somewhat slower pace in the construction of open archives. The figures speak for themselves, as only a minority of institutions joined the movement.
  This very slow uptake contrasts with conclusions that could have been drawn from the 2007 survey on open archives projects conducted by Couperin. Among the participating institutions of this study (almost only universities and *grandes écoles*), 64 had either a running open archive or intended to launch one at short or medium-term. The scope of some of these projects was only concerning ETDs, but one is bound to consider that there is an important gap between their intent as expressed in the survey and actual availability three years later.
  It would be risky and long to try in this report to find explanations for this situation, but one can assume that one reason is a lack of political incentive at local level.

It is possible to distinguish three ways and lines of action likely to be explored to encourage research institutions to set up open archives:

- After the non-renewal of the 2006 agreement (see page 10 and Annex), a new impulse regarding Open Access at national level is now sought by all stakeholders. This renewed movement could hopefully follow up the Berlin 7 conference held in Paris in December 2009 and should, among others, address the issue of governance for HAL, now that its central role has achieved recognition and needs to be strengthened.
The fact that some institutions (Sciences Po and INP Toulouse) have recently connected their local repository to HAL could also be a strong incentive to help universities and *grandes écoles* build new open archives.

- As it was demonstrated several times at a global level, deposit mandates prove to be very useful, if not essential, in order to feed repositories with scholarly material (see, as examplified in Europe, the Liège and Minho repositories). In France there are still no institutional nor funder deposit mandates imposed.
However, it should be noted that the ANR has issued an Open Access policy in November 2007, strongly encouraging, but not mandating, the deposit of funded publications in open archives systems and in HAL in particular. Only the CNRS Humanities and Social Sciences department adopted a stronger policy mandating systematic deposit of publications in HAL-SHS.
Regarding institutional policies, some research institutions strongly encourage their researchers to deposit their publications, as in the case of INRIA, INSU and the ISAE *grande école*.

- The involvement of French research institutions in European projects can also be a powerful way of fostering open repositories. Here are two examples:
  - Three French universities (Sciences Po, Paris Dauphine and Toulouse 1) are members of NEEO, a network of universities in the field of Economics which leads the Economists Online project. In this context these three universities had to set up an open archive to contribute to the project;
  - When the European Commission's decided to mandate deposits of funded publications for 20 % of the FP7 budget, the OpenAIRE project set up plans to establish a European-wide infrastructure designed to help researchers in complying with this European mandate. This could be a very interesting opportunity and leverage for the promotion of Open Access and open archives in French higher education and research institutions.
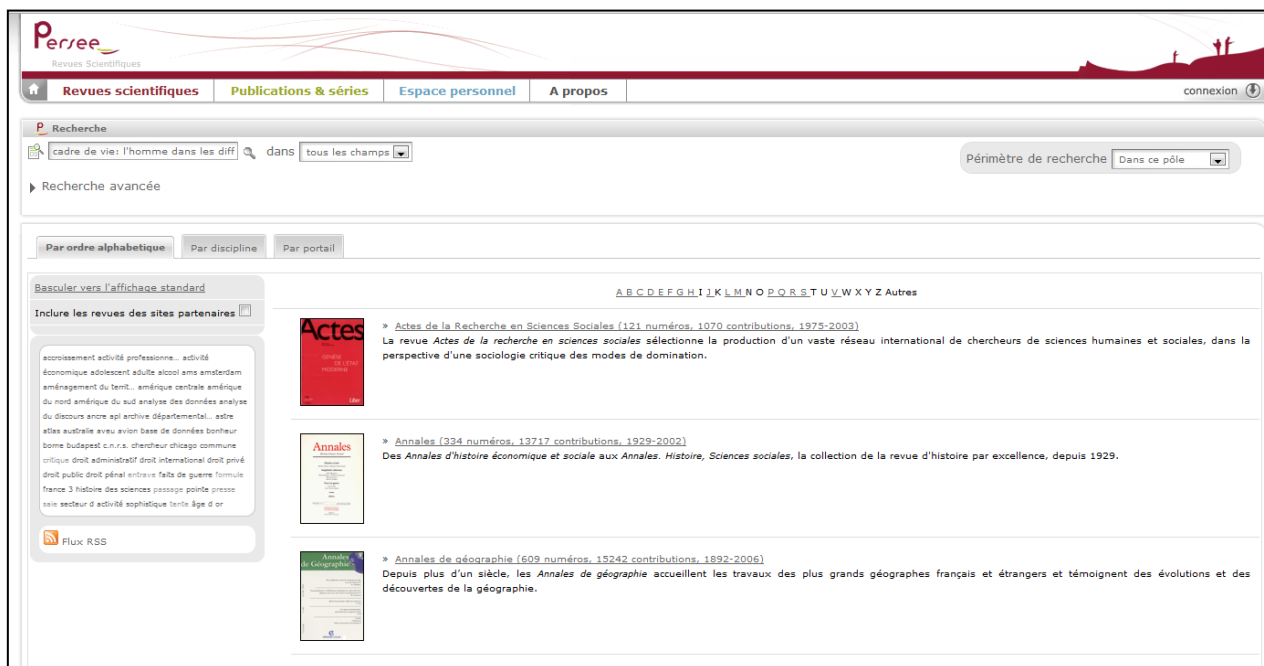
Part 5. Large digitisation programs

1. Persée

Persée, a large digitisation program of scientific journals in Humanities, was launched in 2003 by the French Ministry of Higher Education and Research. In March 2010 Persée gives access to 89 journals. The printed collections of these journals are entirely digitised and published online and are selected by an editorial board, thereby guaranteeing the scientific coherence of the collection. Persée is mainly run at the University of Lyon 2 and since 2008 at the University of Paris Descartes.

One of the goals of Persée, beyond digitising the printed journal collections and giving online access to them, is to provide tools and services enabling enhanced browsing of the documents such as full-text searches, thus offering the same type of technological features as electronic journals from commercial publishers.

The main goal of Persée project is to widely disseminate the French scientific output in Humanities on the internet (also note that Persée has an OAI-PMH compliant repository). Considered as a part of the French heritage, these collections can be freely accessed by anyone often back to the first issues of the journals. As to recent publication years, all of the journals hosted on the Persée portal imposed an embargo period (2-5 years) during which issues are not freely available online in order to maintain paper subscriptions at a sufficient level.

2. Numdam

A second example of large digitisation projects is the Numdam platform specialised in the online dissemination of French mathematical research journals. Operated by the MathDoc unit in Grenoble, Numdam gives access to 30 journals and 29 seminars.

Numdam is an initiative which shares common features with Persée:

- Journal collections are very often digitised starting from the first issue. This aspect is very important as backfiles are quite important for researchers in Mathematics as well as in Humanities and Social Sciences.

- The latest issues are not available. Numdam has digitised journals issues up to 2000. After this date, articles can be accessed through a subscription system.

- Numdam is expected to maximize the visibility of the digitised content through good practices (persistent URLs) and an OAI-PMH repository.

Numdam differs from Persée in its origin in that this project emerged from the French community of mathematicians which is very active in the field of academic publications and scientific information and technology.

3. Gallica

Launched in 1997, Gallica is the digital library of the Bibliothèque nationale de France (BnF). As opposed to Persée or Numdam, its main focus is not on academic journals but on a large variety of document types (books, press titles, maps, recordings, etc.) that are useful for researchers and others. A vast majority of Gallica's content is non-copyrighted material and hence freely accessible online through a web 2.0 search interface.

From 1997 to 2007 digitisation followed a roadmap planning to digitize 5 to 6 000 documents per annum. In 2008 a major change in policy occurred and led to a new workplan aiming to digitize 100 000 per annum in coordination with other European partners involved in the Europeana project.

In 2010, Gallica is the largest French digital library (offering also metadata harvesting through an OAI-PMH compliant repository) with more than 300 000 documents online.

Conclusions

The development of Open Access in France is already a long story full of twists, alliances, statements not always followed by achievements, full of aborted projects but also widely acclaimed successes. This report reflects this diversity and richness, without claiming to be exhaustive.

The movement towards Open Access unquestionably finds a rational and convergent support from higher education and research institutions, which is to be reflected into common general principles applicable to all researchers, but also allowing for adjustments to the specificities of individual disciplines.

The availability of the national scientific output centrally through the HAL platform is complementary to the legitimate ambition of academic institutions to make their scientific results (and educational materials) public. This complementarity should be expressed fully and sustainably. This implies to revitalize the dynamics of national cooperation for both open archives and Open Access journals.

The French Open Access policy should constitute a credible part of a sustainable infrastructure for scientific and technical information by:
- Supporting researchers in the dissemination process of their research outputs,
- Encouraging deposits in open archives,
- Raising long-term funding and hiring permanent staff

These are the current challenges we are facing.

A few significant references:

- Ministère de l'Enseignement Supérieur et de la Recherche. *Rapport sur les politiques nationales de recherche et de formations supérieures. Annexe au projet de loi de finances pour 2009*.

- Ministère de l'Enseignement Supérieur et de la Recherche. *L'état de l'Enseignement supérieur et de la Recherche en France, 35 indicateurs*. N°3, décembre 2009.

- Observatoire des Sciences et Techniques. *Indicateurs de sciences et de technologie*. Rapport biennal, 2008.

- Couperin. *Les archives ouvertes pour les établissements d'enseignement supérieur et de recherche.* Available at < http://www.couperin.org/archivesouvertes/>

- *Directory of Open Access Journals*. Available at <http://www.doaj.org>

- *Hyper Articles en Ligne – HAL*. Available at < http://hal.archives-ouvertes.fr/>

- INIST-CNRS. *Libre accès à l'information scientifique et technique*. Available at < http://openaccess.inist.fr/>

- *Open Directory of Open Access Repositories – OpenDOAR*. Available at < http://www.opendoar.org/>

- *Registry of Open Access Repositories – ROAR*. Available at < http://roar.eprints.org/>

- *Revues.org*. Available at <http://www.revues.org>

Annex:

MEMORANDUM OF UNDERSTANDING for a coordinated approach on a national level to open archiving of scientific output

In 2006, French Research Institutions, Universities and prestigious Higher Education Establishments have signed a Memorandum of Understanding for the joint development and management of a shared platform for scientific outputs.
You will find below the English version produced by INIST-CNRS.

Whereas

- During the past few years, networks of disciplinary archives and institutional repositories for scientific findings and scholarly publications have been developing across the globe on an open archive basis ;

- ArXiv in the field of physics and PubMed Central in the field of life sciences are two representative examples of disciplinary archives ; also a number of European academic institutional archives (Lund, Southampton, Bielefeld, etc.) are good international examples and worthy of consideration ;

- At the institutional level, the open access movement is spreading across the continents and research institutions are looking for long-term preservation of their scientific output and for maximum visibility within international communities.

- Various French research institutions, such as CNRS (Centre National de la Recherche Scientifique)[1], INRA (Institut National de la Recherche Agronomique)[2], INRIA (Institut National de Recherche en Informatique et en Automatique)[3], INSERM (Institut National de la Santé et de la Recherche Médicale)[4] and IRD (Institut de Recherche pour le Développement)[5], have undertaken to adopt such an institutional approach to archiving after signing the milestone Berlin Declaration on open access to Knowledge in the Sciences and Humanities on 22nd October 2003, and have encouraged their researchers to post their scientific findings in open archives ;

- French universities support the open access movement and some have developed local archives or are in the process of doing so ;

- Access to scientific information is a major factor of development for emerging and developing countries ;

- On 5th July 2005, the French Academy of Sciences expressed its support for direct scientific communication ;

- The CNRS Center for Direct Scientific Communication (Centre pour la Communication Scientifique Directe - CCSD) introduced in 2001 the HAL server, a storage and dissemination tool for the self-archiving of scientific findings. The data in this shared repository can be uploaded directly, or via a special interface such as Hal-INRIA, or indirectly with the institution's own system, after smooth interfacing with HAL, whose recent developments, in partnership with INRIA, might lead to making it an open source software ;

- Organisation of the French public research system combines the main operators through joint units and joint projects ;

- The signatories of this Memorandum of Understanding, CEMAGREF[6], CIRAD (Centre de coopération internationale en recherche agronomique pour le développement)[7], CNRS, CPU (Conférence des présidents d'université)[8], INRA, INRIA, INSERM, Institut Pasteur[9], IRD, and CGE (Conférence des Grandes Ecoles)[10], (hereinafter "the Partners"), wish to acquire the necessary means to identify, disseminate, develop, promote and monitor the scientific output of their faculty members and researchers, within their research units and laboratories and, where applicable, of affiliated research teams. In order to maximise the chances of success of the project, the Partners have decided to join forces to acquire a common platform for archiving scientific findings which is interoperable with other open archives that meet the criteria for open access to scientific findings. The platform will allow researchers to communicate their findings directly to the international community via open archives ; it will enable research institutions (universities, public scientific and technical institutions (EPSTs)) and specialised higher education establishments (Grandes Ecoles)[11] to collect, publish, develop, promote and preserve their scientific findings, therefore improving the visibility of French research in general within the international scientific community ;

- The Partners wish to be joined by other research institutions and other players in the scientific research field.

The Partners have decided to sign the following Memorandum of Understanding :

Article 1 : Purpose

The purpose of the Memorandum of Understanding is to define the terms and conditions of a coordinated open archiving approach, particularly through the joint development and management of a shared platform for posting preprints and postprints.

The data can be uploaded to the platform directly, via a special interface, or indirectly with the institution's own system which allows data transfer to the joint platform and complying with the platform's data model. The joint platform must be as open as possible to other research and higher education establishments.

The partnership will be based on actions decided upon and monitored by the Strategic Committee as defined in Article 2 of this Memorandum of Understanding and implemented by a Scientific and Technical Committee defined in Article 3 of the Memorandum.

Throughout the agreement, the joint operating and interchange procedures between the shared platform and local self-archiving systems will be studied through pilot sites whose feedback will be used to validate the data archiving and interchange conditions.

At the end of the Memorandum of Understanding' duration, the above actions must enable the most appropriate framework to be defined for perpetuating the platform shared by the signatory Partners and any new partners.

Article 2 : Strategic Committee

2-1 Tasks

A Strategic Committee will be responsible for defining and monitoring the strategic objectives, defining a work plan for the actions to be undertaken and defining, at the end of the Memorandum, the most appropriate framework for perpetuating the shared platform. It will appoint the members of the Scientific and Technical Committee defined in Article 3.

2-2 Members

The Strategic Committee will comprise representatives of the Ministry in charge of higher education and research, and representatives of the following partners :

For the Ministry in charge of higher education and research :

- The director of higher education or his/her representative,
- The director of research or his/her representative,

- The director of technology or his/her representative.

For CPU

- The first vice-president of CPU or his/her representative,
- The president in charge of scientific and technical information at CPU,
- The president of the Couperin[12] consortium or his/her representative,
- The president of the Agency for the Mutualization of Higher Education Institutions (Agence de Mutualisation des Universités et des Etablissements de l'enseignement supérieur - AMUE)[13] or his/her representative.

For CNRS :

- The Director General or his/her representative,
- The chair of the open archive steering committee (Comité de pilotage des archives ouvertes - CPAO) at CNRS.

For INRA

- The Chair and Managing Director represented by the person in charge of innovation and IT systems.

For INRIA :

- The Chair and Managing Director represented by the person in charge of scientific information and communication.

For INSERM :

- The Director General represented by the person in charge of information and communication.

For IRD :

- The Director General represented by the director of the information and communication delegation.

The Strategic Committee will meet at least once every quarter and a revolving presidency system will be used.

The coordinator of the Scientific and Technical Committee (see below) will attend the meetings of the Strategic Committee without voting rights and will take the minutes of the meeting.

Article 3 : Scientific and Technical Committee

The Scientific and Technical Committee, consisting of scientific and technical representatives of the organisations involved in the actions to be carried out, will be responsible for implementing and carrying out the actions according to a work plan defined by the Strategic Committee. Some of the actions are given in the appendix, by way of indication and without being exhaustive.

The Scientific and Technical Committee will choose a coordinator from among its members to sit on the Strategic Committee, and give every three months a progress report on current actions.

The Committee can create working groups and appoint experts to help it to carry out its task.

Article 4 : Terms and conditions of actions

The actions defined in Article 1 (Purpose) may be the subject of specific agreements between the Partners (hereinafter called "Specific Agreements") which shall include, as applicable, the proposed budget, the human resources allocated and the infrastructure and equipment to be used for each of the Partners.

The Partners hereby agree that the resources provided by each of them may vary according to their particular administrative and/or budgetary constraints. However, they shall use their best efforts to maintain and increase the above resources whenever possible.

The specific agreements may, under special circumstances, take the form of an exchange of letters between the Partners' representatives, provided said letters explicitly refer to this Memorandum.

The said actions may be the subject of Specific Agreements designed to welcome new partners after approval by the Strategic Committee.

The said actions shall not interfere in any way with bilateral protocols between the signatories of this Memorandum.

The Partners shall develop a joint strategy and communication, in order to attract researchers.

The Partners shall each work in their particular field to encourage a maximum number of research and higher education organisations to join the project.

Article 5 : Term

This Memorandum of Understanding is concluded for a period of two (2) years. Any amendment or renewal of the Memorandum shall be subject to an amendment signed by all the Partners.

Signed in Paris on the sixth day of July 2006.

For CEMAGREF, the Director General

For CIRAD, the Director General

For CNRS, the Director General

For CPU, the First Vice-President

For INRA, the Chair and Managing Director

For INRIA, the Chair and Managing Director

For INSERM, the Director General

For Institut PASTEUR, the Director General

For IRD, the Director General

For Conférence des Grandes Ecoles, the President.

APPENDIX TO THE MEMORANDUM OF UNDERSTANDING

By way of indication, and without being exhaustive, the following actions may be undertaken :

- Campaign to raise awareness among the scientific community ;
- Naming of institutions and their component parts ;
- Nomenclature of disciplines ;
- Definition of core metadata ;
- Coordination of local systems (including local archives)/shared platform and data interchange ;
- Long-term archiving with definition of collaboration with CINES (Centre Informatique National de l'Enseignement Supérieur)[14] and ABES (Agence bibliographique de l'enseignement supérieur)[15] in this respect ;
- Definition of work procedures and complementarity of skills, particularly within establishments ;
- Definition of requirements in terms of assistance to researchers depositing in archives, particularly legal expertise.

Notes

1. National Centre for Scientific Research.
2. National Institute for Agricultural Research.
3. National Institute for Research in Computer Science and Control.
4. National Institute for Medical and Health Research.
5. Research Institute for Development.
6. Research Institute for Agricultural Engineering and the Environment.
7. International Cooperation Centre for Agronomic Research for Development.
8. Conference of University Presidents.
9. A non-profit private foundation which contributes to the prevention and treatment of disease, primarily infectious diseases, through research, education, and public health activities.
10. A non-profit organisation consisting of "Grande Ecole" higher education establishments, foreign universities and other higher education institutions and organisations.
11. Prestigious French specialised higher education establishment with a highly selective admission process.
12. University Library Consortium in France.
13. Organisation responsible for coordinating cooperation among French universities.
14. French national IT centre for higher education establishments.
15. Higher Education Bibliographic Agency, organisation responsible for management and development of the bibliographic catalogue for higher education establishments.

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