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D1 - EUREA Work Package 2: Inventory of Digital Resources Final Report

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Introduction

General Context

The inventory of our universities' digital resources takes place in the framework of the work package "Mutual Knowledge" whose objectives are:

- To allow the partners to gain enough mutual knowledge of their ICT skills and competencies, as well as of their existing e-resources,
- To elaborate and test a methodology of description of the e-resources.

This work aims at enabling us to identify the most appropriate technical, managerial and business systems. The work all the partners have done for this inventory is therefore a key element in the development of the EUREA project.

Global Methodology

As planned in the proposal of the EUREA project, a first set of standard grids of description of the digital content was elaborated via a collaboration between the ULP and the University of Helsinki. It was distributed among the partners.

Quite logically, as the universities were processing the inventory, some questions were raised by several of them regarding the grids and how to fill them in. As a coordinator and as the university in charge of this work package, we had to find solutions to be able to reach our objectives: this was a "trial and error" process, which is quite normal considering the number of partners and the complexity of the experiment. We made some suggestions to improve the description grids by making some changes. We took into accounts all the remarks that had been made by the partner universities and came up with 3 new grids that you can find in the appendix to this report. These grids were sent to each university and posted on the platform ACOLAD, as well as a comprehensive guideline and a word file presenting classic examples, in the form of a FAQ that we tried to enrich with the situations met by the participants.

To reach our objectives, we had to compromise because of the number of participants and also because of the differences between our 9 universities. It was important to find a common denominator to be able to make the most of our inventory.

Among the main changes we brought are:

- Online and offline resources

The processing of the inventory helped us see its limits. The scope of the inventory was initially restricted to online resources. It appeared too limited for such a project. A lot of teachers have a huge number of digital resources (that could be of great interest for the project) that they never had the opportunity to post online. We thought it would be regrettable to loose all these data. We did not ask the partners to

're'conduct their inventory, because that would have been a waste of time, but to take into account that they had the possibility to add offline resources in their next inventory (2nd academic field).

From this perspective, we suggested that we add a column to indicate if the resource is on- or offline.

- Number of items

Initially, the collection grid did not mention the number of items included in a collection. The idea behind this was to describe each element of a collection at the unit level. We could have then deduced the number of elements of a collection by crosschecking with the unit level grid. However, it appears that it is a tremendous and useless task to give this "individual description" of elements that are part of a collection in every case. Therefore, we suggested adding a column that will specify the number of items in each collection.

However, we realized that teachers sometimes had very small collections that they could precisely describe (for instance, 4 courses in a text format). Considering that the inventory we are conducting can also be used within the university, for internal purposes, and not only for the EUREA project, we thought this information could be of some interest for each university. This description of some collections on the Unit level was ABSOLUTLY NOT mandatory.

- Creator of content

The initial grid was user-oriented, that is to say that we considered all the resources used as a teaching support. However, this point of view leads us to a lot of useless redundancies. We suggested restricting our inventory to resources created by the university staff, and adding a column that would specify if the resource was created by one or several persons.

- Multiple Values

Except for the Learning Level Section and the Pedagogical / Research Section, we decided not to accept multiple values. Indeed, in some categories, the possible combinations of values were too numerous to envisage a realistic analysis of the data thus gathered.

- Description

Some of you insisted on the necessity to provide at least a short description of the digital resources. We suggested that we add a column "Comments" that would allow an (optional) short description of each resource. This column could of course not be taken into account in the automatic data processing.

- Academic field classification

The classification of academic field we would use in the framework of this inventory gave rise to several discussions. At first, we thought of proposing the DEWEY classification that is used at the ULP. However, it appeared that most of the consortium's libraries used UDC. During a weekly meeting on Acolad, we agreed on using the latter, on its third level.

I – LOCAL METHODOLOGIES FOR THE INVENTORY OF E-RESOURCES

As we started receiving the partners' first sets of data, we realized that the kind of resources thus gathered varied greatly. It appeared that these differences were not only the result of the diversity of use of digital resources among the universities.

The methodology established inside each university to conduct this inventory is indeed extremely important to understand and to interpret this mass of information. This is why we suggested that we set up a questionnaire that would help us know the different steps the university teams took to complete the inventory as well as the general background to this mutual knowledge work package.

All the universities that participated in the inventory sent us back the questionnaire; we can therefore have a quite comprehensive overview of the process at work. Each methodology has its drawbacks and its advantages; this assessment is in no way a value judgement on the methodologies employed by each partner, but rather an exchange of "good practices" in order to improve the process from the perspective of a future implementation.

We are providing you below with a recapitulative grid of the results. Here are our main remarks:

Approach

The inventory had not been conducted before, except in 2 universities. Therefore, we can say that this inventory not only had an interest in the framework of the EUREA project, but also on an institutional level, for each university. The chosen approach is the result of this situation: for some universities, the "teacher approach" was also a way to review the use of digital resources in its own institution. This is for instance one of the reasons why the ULP included the teacher's personal data in this inventory. Furthermore, the 3 universities that followed this approach contacted their teachers individually (either by phone, email or mail). This was also a way for our partners to introduce the project to their teaching staff and to involve them in its completion.

The fact that most of the universities did not have their data gathered in central database is another interesting information. The EUREA project could give them the opportunity to make progress in that matter.

Investigated Fields

The range of investigated fields is wide, and the reasons that prevailed in the choice of a specific field vary. However, out of 6 universities (Geneva and Stockholm excluded), 3 of them mention the degree of interest of the department in the project:

- Anglistics for Heidelberg,
- Physics for the ULP,

- Behavioural Sciences for Helsinki.

This appears as a good sign of their possible involvement in our next steps towards the implementation phase.

Costs

The costs generated by the processing of the inventory are dependent on the approach chosen, and on each university's history in the use of digital resources.

4 universities hired extra staff to conduct the inventory. An interesting fact is that the universities' technical staff was not always asked to participate (4 universities out of 8).

Generally speaking, the universities' personnel has been widely involved in the process, among which we can notice the participation of pedagogical and e-learning experts (Milan, Leiden, Helsinki and Munich). Coordination actions also seem to remain necessary to make sure that things go smoothly: 5 universities refer to the participation of their managing personnel.

University	Number of Fields Covered	Methodology
UHEI	All faculties	"With regard to EUREA we've already had pre-produced a database in January. Our prorektor had then disposed a circular letter to all professors asking to participate in the inventory (describe the projects via a web form). Afterwards we've contacted projects we already knew of that had not reacted to the letter, that was done via email / phone. We've tried to get more information of unknown project of some faculties but we are still waiting for results from the persons that we asked to participate."
UniGe	One faculty	"At the Geneva Medical School, the teaching is organised as "teaching units" and most of these teaching units have a website where learning resources are available for the student. I just listed these websites in the UNIT level as described in your document "Digital Resources Inventory – Classic Examples"
Helsinki	All faculties	"We contacted the specialists of educational technology in each faculty, who are responsible for the supporting functions for educational technology (email, phone)."
Milan	One Faculty	"We started from the very beginning as we had no inventory made yet. The steps of our methodology in the conduct of this inventory are listed as follows: 1) we discussed Eurea guide lines to better understand the criteria to be followed in the inventory filling 2) we designed a map to collect the items of our e-Resources archive, based on the guide lines given by Eurea 3) we selected the items to be listed in the Eurea Repository of eResources 4) we made a sample description and checked it 5) we searched through the items of our Archive and selected and decribed the e-Resources Main problem we faced: lack of metadata to describe our resources; we had to describe each item with url."
KI		"The board of education and the department LIME has as a duty to collect info about and to make teachers positive to eLearning. Therefore we know a lot about what is going on at KI. Additionally, much of the eLearning material that is produced at KI is produced at my department LIME, so it is rather easy to know a lot about many projects and systems at KI."
Leiden	Two faculties	"I interviewed two staff members of the Faculty of Linguistics of the Leiden University. They work in their faculty on the creation of electronic media and learning objects. They also give their effort on distribution of the objects, through networks and applications like repositories. These staff members have a good overview of the content within their faculty. I filled in the questionnaires based on the information I got from the staff members."
ULP	One faculty	"After having received the support of the Dean of the Faculty of Medicine, we asked the Professor in charge of the development of ICT to send an email describing the project to all the teachers of the faculty and telling them that we would contact each of them individually by phone. A team of hired students contacted each teacher by phone.""
LMU	All faculty	"For the inventory we chose the e-learning an digital library projects and sent the grid files to our well-known experts, together with the request to complete them quickly and give it back to the local project management."

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			UHEI	UNIGE	UNIMI	KI	LEIDEN	ULP	HELSINKI	LMU	Total No	Total Yes
Approach												
1) Inventory already done			N	N	N	Y	N	N	Y	N	6	2
2) Teacher approach			Y	N	N	N	N	Y	N	Y	5	3
	2.1 Individually		Y					Y		N		2
	2.2 How ?											
		2.2.1 Email	Y					Y		Y		3
		2.2.2 Mail	Y					N				1
		2.2.3 Phone	Y					Y		Y		3
3) Data in central databases			Y	N	N	N	Y	N	N	N	6	2
4) Teachers' personal data			Y	N	N	N	N	Y	N	N	6	2
Academic Fields												
1) 2nd field											7	1
	Anglistics		Y									1
	Computer Science				Y						7	1
	Medicine						Y				7	1
	Physics							Y			7	1
	Behavioural sciences								Y		7	1
	Linguistics and language									Y	7	1
	Civil Law, Labor Law, Public Law									Y	7	1
2) Why ?												
	2.1 Department's degree of interest		Y					Y	Y		5	3
	2.2 Strategic nature				Y						7	1
	2.3 ICT project already conducted									Y	7	1
	2.4 Other		Y				Y				6	2
	Quality of material		Y								7	1
	Language of the content		Y								7	1
	Use of online learning material						Y				7	1
Human resources												
Staff hired for the project			N	N	Y	Y	Y	Y	N	N	4	4
Technical centre staff			Y	Y	N	N	N	Y	N	Y	4	4
University staff			Y	N	Y	Y	Y	Y	Y	Y	1	7
	Librarian		Y								7	1
	E-learning Experts						Y		Y	Y	5	3
	Web appointee / Computer science student		Y		Y						6	2
	Pedagogical Experts				Y				Y		6	2
	Medicine Department						Y	Y			6	2
	Digital Library Experts									Y	7	1
	IPR Experts									Y	7	1
	Coordination				Y	Y		Y	Y	Y	3	5

Detailed list of University Staff :

librarian	Medicine department
web appointee	Planning officer / coordination
project manager	Digital Library Experts
instructional designer	eLearning Experts
phd student in computer science	Pedagogical Experts
ICT linguistics staff	IPR Experts

II - DATA ANALYSIS

Data Considered

We considered the data from: Helsinki, KI, UHEI, UNIMI, UniGe, Leiden, LMU and ULP.

- KU Leuven was not able to conduct the inventory, because of a lack of cooperation from their medicine faculty.
- This analysis takes into account:
 - o the inventories conducted in the field of medicine by all the universities,
 - o the inventories conducted in another field of their choice by the universities of Leiden (linguistics) and Milan (computer science),
 - o the inventories conducted in every field by the universities of Heidelberg, Helsinki and Munich.
- It does not take into account the second inventory of the ULP because it has not been completed yet.

Chronological Methodology

As we explained it above, the results cannot be interpreted without referring to the methodology elaborated to gather the data.

When getting the first results, it appeared obvious that we needed to proceed in two phases:

1. **A first analysis that would focus on online resources**, for several reasons. First of all, most universities restricted their inventory to online resources. Secondly, the question of access policy is crucial in the framework of the EUREA project. Analyzing the online content can give us a first overview of the current access policy that is led among our universities and of the difficulties that will arise when moving to the implementation phase. Finally, these resources are immediately available, and are the most likely to be introduced first in the database.
2. **A further analysis that would only take into account the offline resources**. This analysis does not immediately concern all the partner universities, since generally speaking the ULP is the only university that inventoried offline resources. However, we believe that this information can be of great interest for the whole Consortium, especially when comparing to the online resources.

Analysis Methodology

- In order to provide you with a comprehensive analysis, we decided to consider 3 levels of resources:
 1. The Unit Level Grids will be referred to as “**Single Resources**”, in order to differentiate them from the “Unit resources” extracted from the collection level thanks to the “Number of Items” column (when analyzing the Unit level, we did not take into account the collections that were described in the Unit grid so as not to include twice the same data);

2. The Collection Level Grids that describe “**Collections**”;
3. The “**Global Unitary Resources**” that will refer to the sum of “Single Resources” and “Unit resources” that were extracted from the Collection Level, when this specific level was significant with regard to our project.

We were given information on the number of items per collection for only about 80% of them. Our margin of error is therefore 20%. We would like to underline the importance of giving at least a rough estimation of the number of items included on this level.

This information is therefore to be handled very carefully. Yet, we still wanted to provide you with this level of description, because we think it is actually relevant to really realize the potentialities of the Consortium.

NB: The repository level will be treated separately because of its specificities (very few items, not the same kind of information).

- The information gathered on the digital resources can be classified in 3 great categories:
 - a) What is the **type of resources** we are talking about? (text, images, etc. ; is it shared creation)
 - b) What are the **educational characteristics** of the collected data? (level, purpose, field, language)
 - c) What is their **level of organization**? (is it part of a repository, a collection, is it online content, what is the access policy, what is the level of description of the data).

→ **We will follow this categorization in our report.**

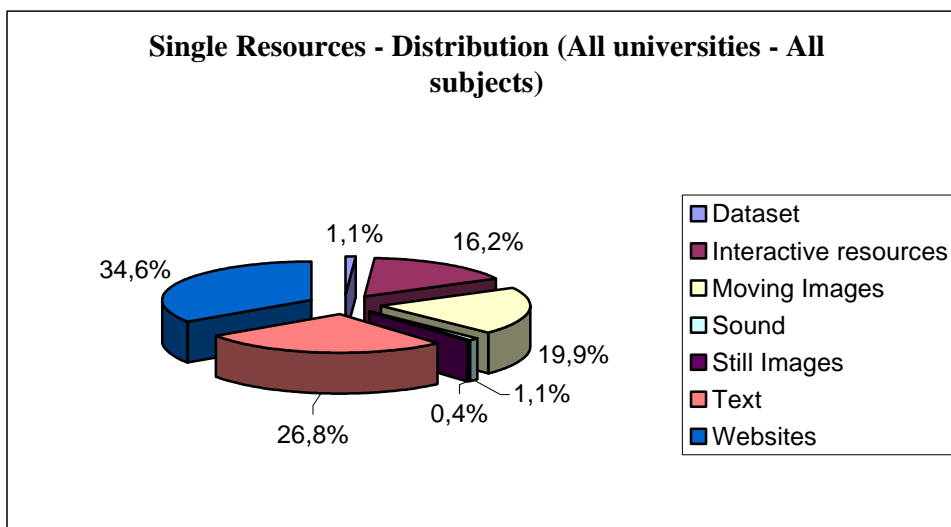
2.1 GENERAL ANALYSIS (Online Resources)

The general analysis includes all subjects and all types of resources. Its aim is to give a general overview of the data that were gathered. Even though such an analysis needs to be completed, it still remains necessary as a first step to understand further results.

2.1.1 Type of resources

2.1.1.1 Single Resources

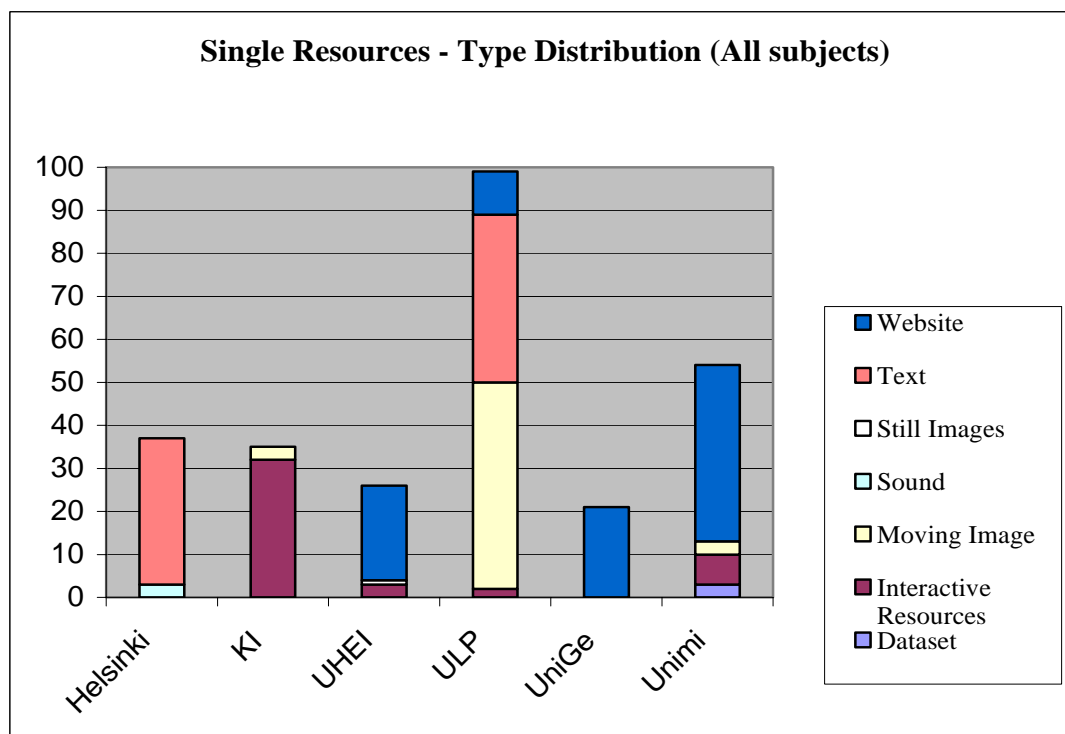
- The total of our online resources goes up to 272 items, divided in the following way:



NB: We remind you that we excluded all the single resources that were merely the description of collections that appeared in the collection grid.

The repartition between the partner universities is presented in the bar graph below. The variation in the number of items is closely linked to the gathering process. We can also see that in general, each university's resources are not evenly distributed among the different types:

- Text resources are mainly provided by Helsinki and the ULP,
- Films by the ULP,
- Websites by Heidelberg, Milan and Geneva,
- Interactive Resources by Stockholm.



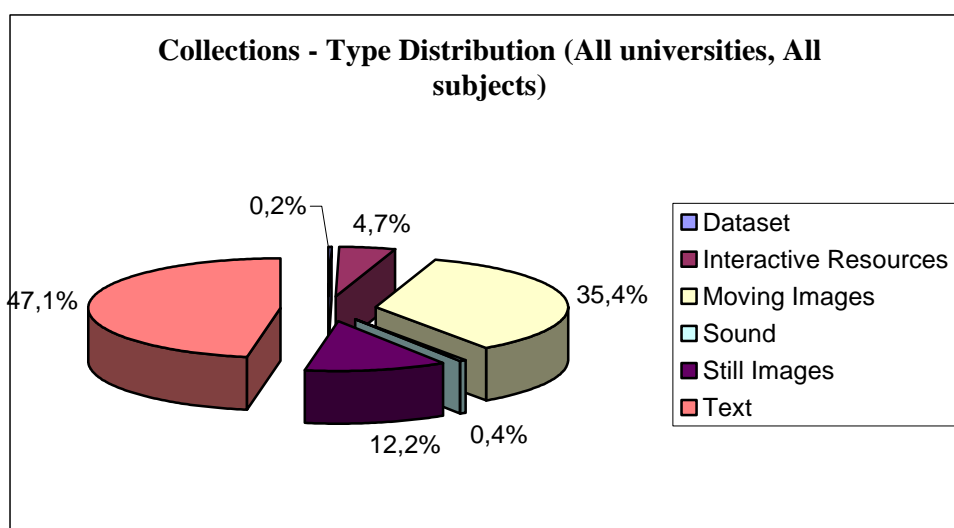
Three types of resources are barely represented: images, sound and dataset. However, as far as images are concerned, we can say that they are usually not unit resources, but are rather gathered in collections.

- Regarding the creation issue, the information was not provided in 27% of the listed resources. Out of the 73% left, 55% is shared creation. This is important information to consider, especially as regards IPR issues.

2.1.1.2 Collections

- The number of online collections is 469. The most represented type is “text” (47%). Then come collections of moving images (35%). As we suggested it earlier, the number of collections of still pictures is also significant (12%).

Type	Helsinki	KI	LMU	Leiden	UHEI	ULP	UniGe	Unimi	Total
Sound	0	0	0	1	1	0	0	0	2
Dataset	0	0	0	0	0	0	0	1	1
Interactive Resources	0	3	0	0	4	1	0	14	22
Text	48	0	52	36	2	59	0	24	221
Still Images	0	0	0	4	1	1	2	49	57
Moving Images	0	0	0	2	1	0	0	163	166
Total	48	3	52	43	9	61	2	251	469



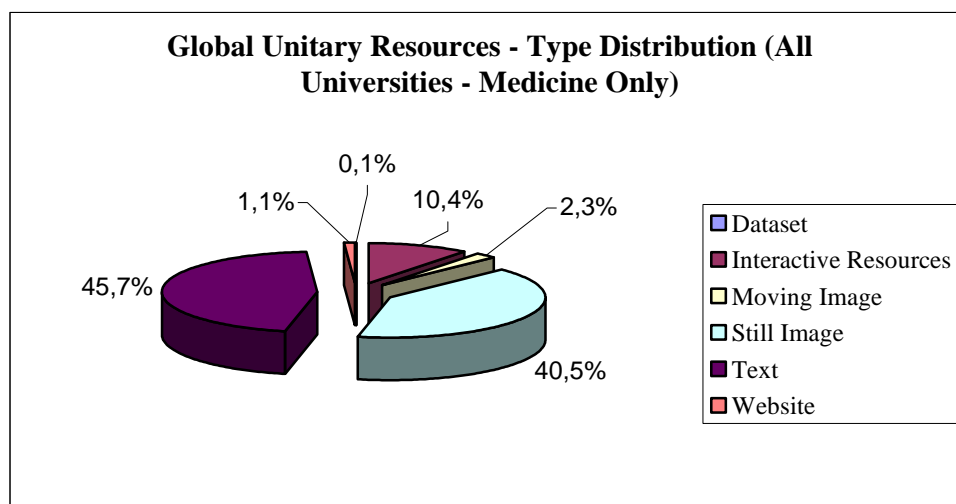
Like the Single Resources, we can notice that each university mainly has collections of one specific type: text collections for Helsinki and the ULP, moving images and still images for Milan.

- 48% of these collections are shared creation.

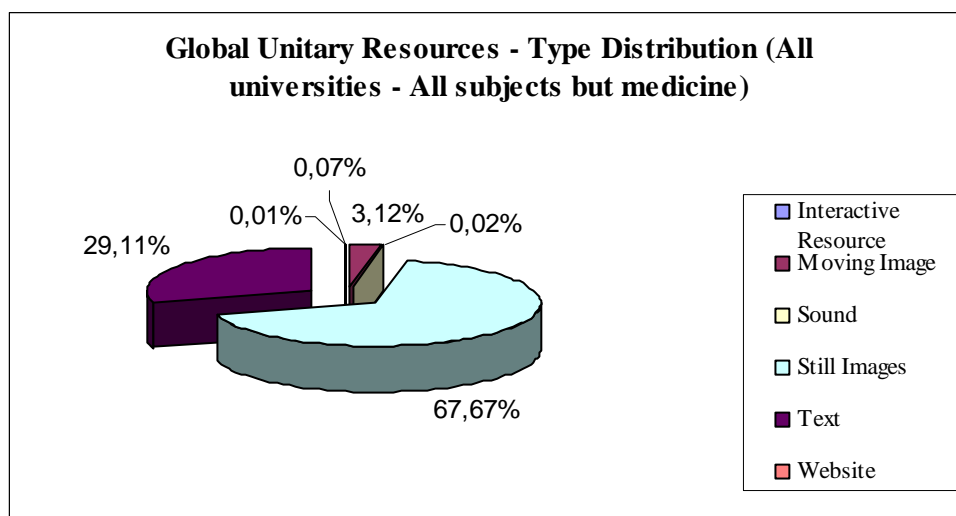
2.1.1.3 Global Unitary Resources

As we said before, it was hard to bring out clear information about the number of items on this level. Keeping in mind that we have a 20% margin of error, we gathered 27134 unitary resources that are divided up as follows: 7553 resources for medicine and 19581 resources in the other academic fields. Here are 2 bar graphs giving you an overview of the Global Unitary Resources per university.

As suggested above, we can see that the number of still images available is substantial, as well as the textual documents.



In the other fields, the distribution according to the type of resources is globally the same.



Type	Helsinki	KI	Leiden	UHEI	ULP	UniGe	Unimi	Total
Dataset	0	0	0	0	0	0	6	6
Interactive Resources	0	197		363	102	0	122	784
Moving Image	0	3	0	40	48	0	694	785
Still Image	0	3250	0	10001	400	2239	419	16309
Text	847	250	277	5086	2587	0	106	9153
Website	0	0	0	22	10	21	41	94
Sound	3	0	0	0	0	0	0	3
Total	850	3700	277	15512	3147	2260	1388	27134

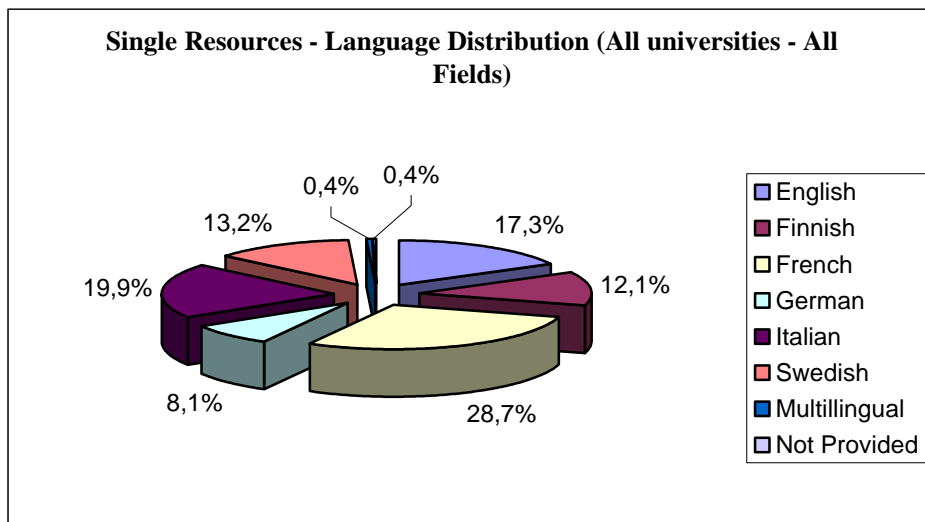
NB : One single collection from Heidelberg gathers 10 000 pictures.

2.1.2 Educational Characteristics

2.1.2.1 Single Resources

- As far as the academic field is concerned, 64 specialties are represented. 82% of the resources belong to the field of medicine. A few subjects are mainly represented: thoracic surgery, dentistry and the general category "Medical Sciences". Those 3 fields represent 39% of the medical resources.
- 77% are used in a pedagogical context, while 21% are used both in pedagogical and research contexts.

- They are intended to be used at a bachelor level (96%). In the field of medicine, 53% are at the undergraduate level and 18% for both levels (undergraduate and postgraduate).
- The information on the resources' language is strongly linked to the number of e-resources listed by the universities, since most of them are produced in the national tongue. The majority of the resources are in French.

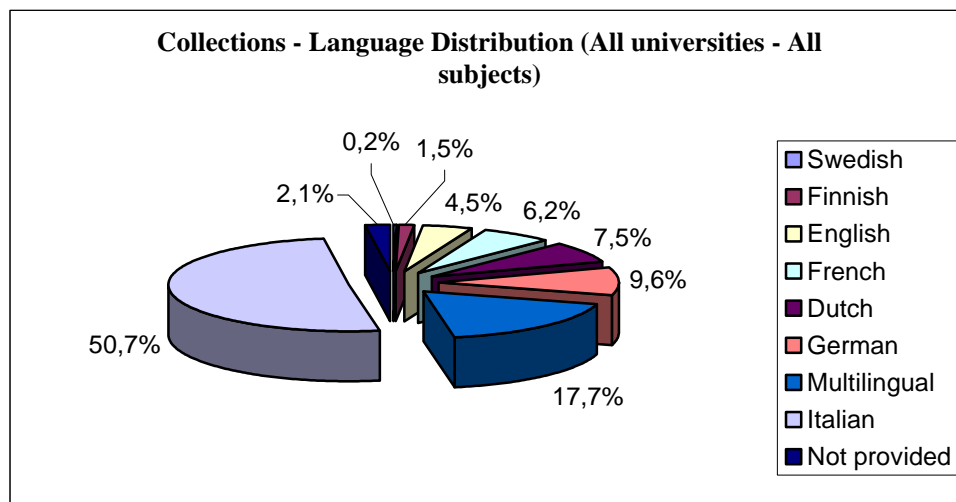


Only 17% of the resources are available in English. This is not surprising if we consider that 97% of the resources are pedagogy-oriented and do not have as a main purpose to be spread outside of their home-country.

2.1.2.2 Collections

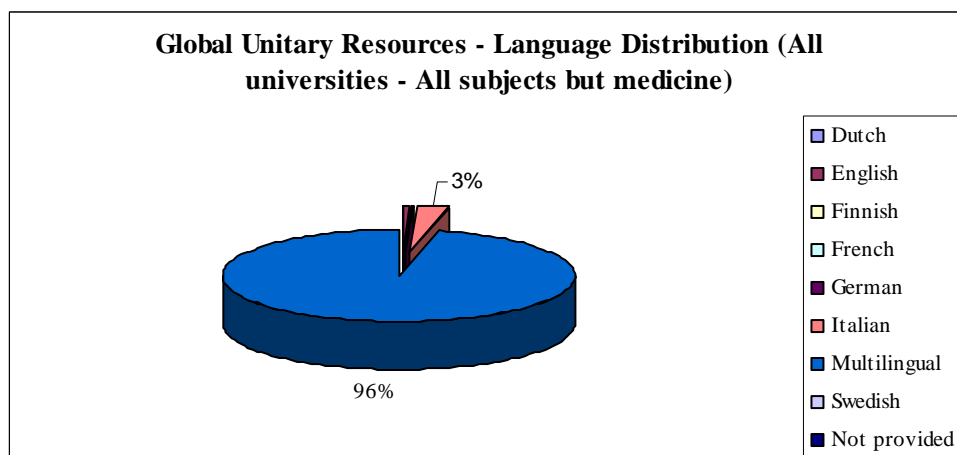
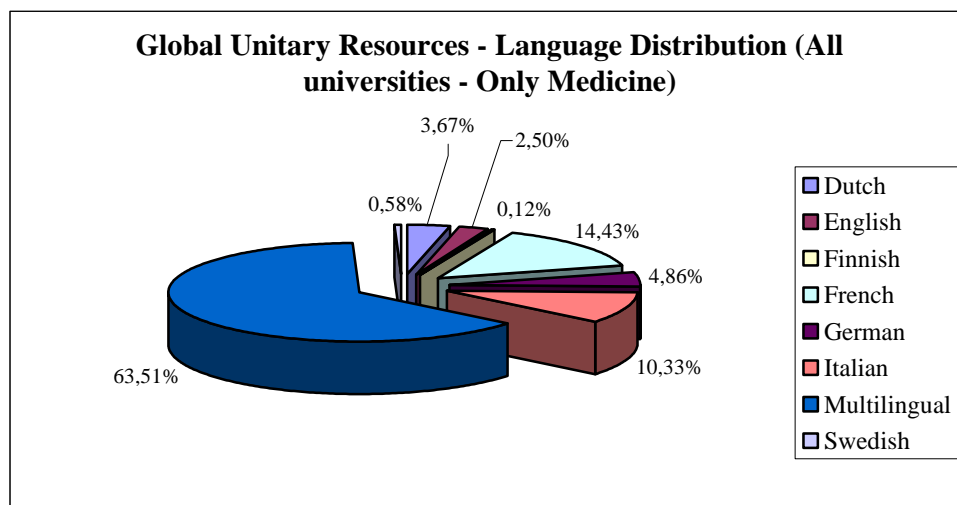
- 49% of the collections are covering the field of medicine, with a few major subjects: gastroenterology, dentistry, and clinical biology. As regards the other fields, the most represented are software, computer architecture and mathematics.
- 91% of the online collections are used in a pedagogical context.
- Their learning level distribution varies slightly from the previous ones: 50% of the medical resources are on the undergraduate level (27% for both levels) and 85% of the other fields are on the bachelor level.
- As we demonstrated it above, the language repartition of the digital resources is dependent on the number of resources gathered by each university. Italian is therefore the most represented language. However, the number of multilingual collections is also significant: 18%. This gives us an idea of the number of collections that are available in English. Indeed, quite logically, very few unilingual collections are produced in a language different from the national tongue. When they are provided in different languages, one of them is English. The percentage of collections available in English is therefore more important than what appears at first glance.

This explanation is of course restricted by the fact that we do not know what part of the collection is provided in English (10%, 50 %?).



2.1.2.3 Global Unitary Resources

- The educational contexts in which the resources are used vary according to the fields considered. As far as medicine is concerned, 62% of the resources are pedagogy-oriented. The trend changes when we consider the other fields: 77% of the resources are research-oriented.
- Generally speaking, as regards the learning level, a significant percentage of the resources can be used on several levels at the same time: 18% in medicine are used both for undergraduate and postgraduate students, while in the other fields, 53% are used both on bachelor and master levels, and 20% are used at the 3 defined learning levels (Bachelor, Master, Doctorate).
- The distribution of the global unitary resources according to the language is also interesting. We can notice that most of the resources are produced in at least 2 different languages (multilingual values).



This information finds an explanation when checking the language distribution among the different partner universities. Heidelberg inventoried most of the resources, and in their great majority, they were produced in several languages (multilingual).

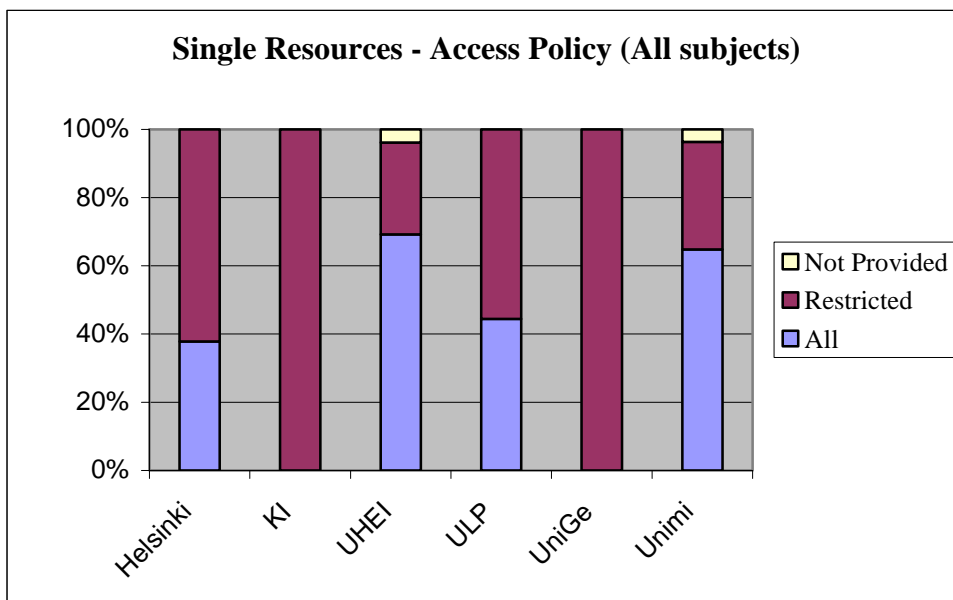
2.1.3 Level of Organization

2.1.3.1 Single Resources

- o 44% of the resources are part of a repository.
- o 44% of them are described with metadata.
- o 41% of the online resources are freely accessible without any restriction, which is not without effect for the continuation of the project, since the access policy is one of the main questions that we will have

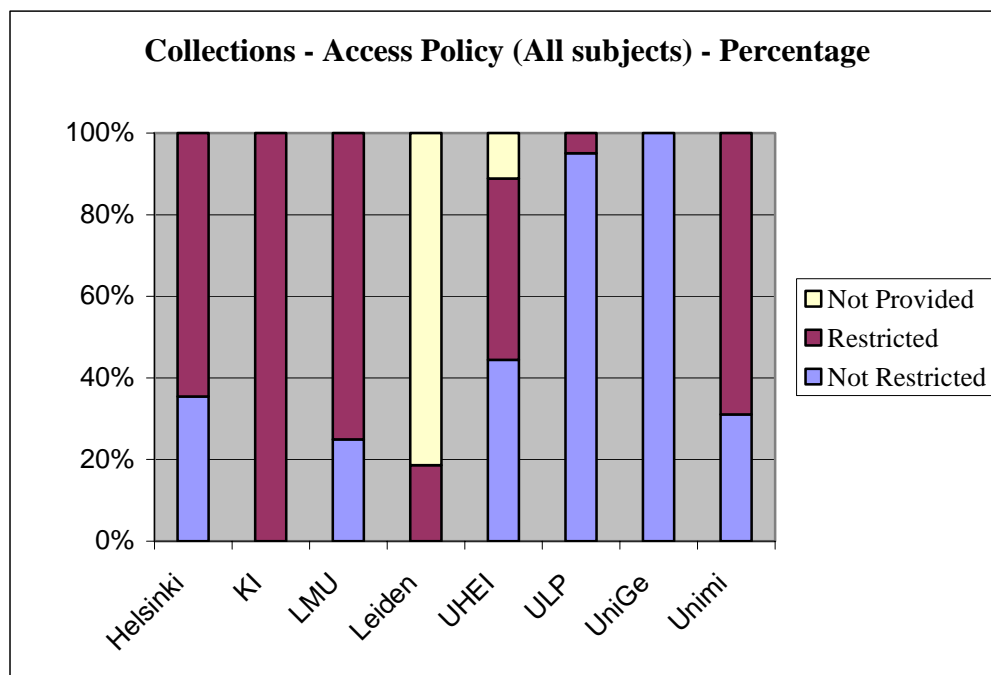
to answer. What resources to leave totally accessible, what resources to keep under a restricted access?

52% of the resources that are under a restricted access are available to researchers, groups of students and other university users. The pay-per-view system has not been used so far within our universities.



2.1.3.2 Collections

- 85% of the resources are part of a repository.
- 35% of the online collections are described with metadata.
- 56% of the collections have a free access.



2.1.3.3 Global Unitary Resources

- We cannot use the information on metadata because 50% was not provided.
- 80% of the resources are already part of a repository.
- Regarding the access policy category, we will focus on the main distinction between freely accessible resources and restricted access. 79% of the resources, all fields taken together, have a free access.

2.1.4 Repository Level

Because of the small number of repositories inventoried, our analysis will not be as developed as on the 2 previous levels. Five universities inventoried one or several repositories (17 items):

- Leiden (3 repositories)
- Munich (4 repositories)
- UHEI (3 repositories)
- ULP (1 repository)
- Unimi (6 repositories)

	Dutch	German	French	Italian	English	ML	Total
Medical Sciences	0	0	1	4	0	2	7
General	1	2	0	0	0	1	4

Linguistics and Literature	0	0	0	0	0	4	4
Computer Science	0	0	0	1	1	0	2
Total	1	2	1	5	1	7	17

7 repositories are described with metadata.

Metadata	Leiden	UHEI	ULP	LMU	Unimi
YES	3	0	1	3	0
NO	0	3	0	1	6
Total	3	3	1	4	6

Out of the 17 repositories listed, 6 have a restricted access.

Restricted Access	Leiden	UHEI	ULP	LMU	Unimi
Y	2	1	0	1	2
N	1	2	1	3	4
Total	3	3	1	4	6

For 6 repositories, the rights are defined, 6 are not.

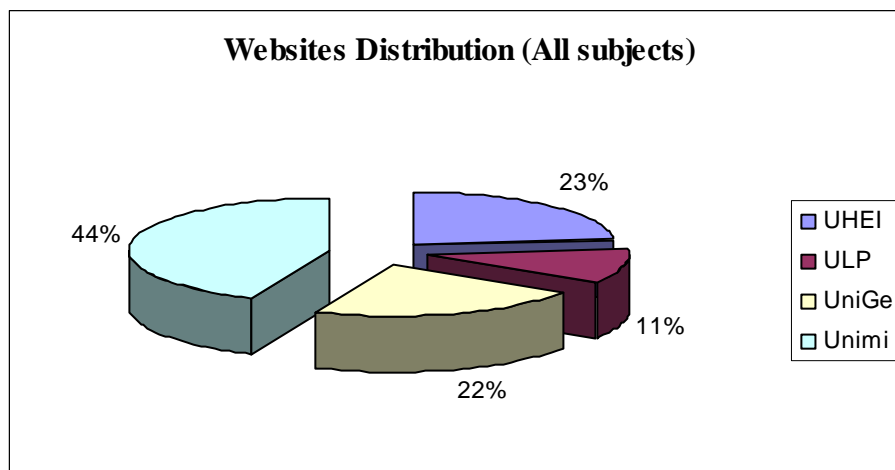
Rights defined	Leiden	UHEI	ULP	LMU	Unimi	Total
Y	2	0	0	4	0	6
N	0	0	0	0	6	6
Not Provided	1	3	1	0	0	5
Total	3	3	1	4	6	17

2.2 ANALYSIS PER TYPE (Online Resources)

In order to have a more complete overview of the characteristics of our universities' digital resources, we will now have a closer look at each type of resources, focusing on the most represented resources: texts, websites, still images, moving images and interactive resources. The very little number of datasets and sound files does not enable us to produce a statistical analysis.

2.2.1 Websites

94 websites have been inventoried, according to the following distribution among universities:



- Most of them are shared creation (82%).

2.2.1.1 Educational Characteristics

- These websites mainly have a pedagogical use (88%), and are intended for undergraduate students in medicine (77%), and bachelor students in the other fields (100%).
- As far as language is concerned, the websites are unsurprisingly provided in the national language of the providing country.

2.2.1.2 Level of Organization

- 70% of these websites are part of a repository.
- 36% are described with metadata. Below is a recapitulative chart of the metadata description per university:

Metadata	UHEI	ULP	UniGe	Unimi
NO	77,27%	0	0	100,00%
YES	9,09%	100,00%	100,00%	0
Not Provided	13,64%	0	0	0
Total	100,00%	100,00%	100,00%	100,00%

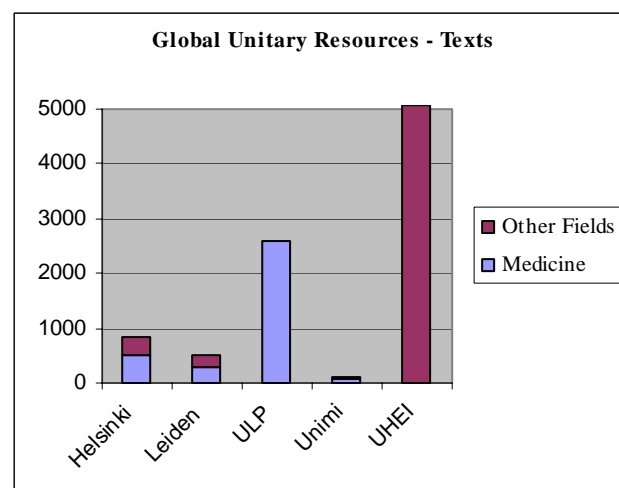
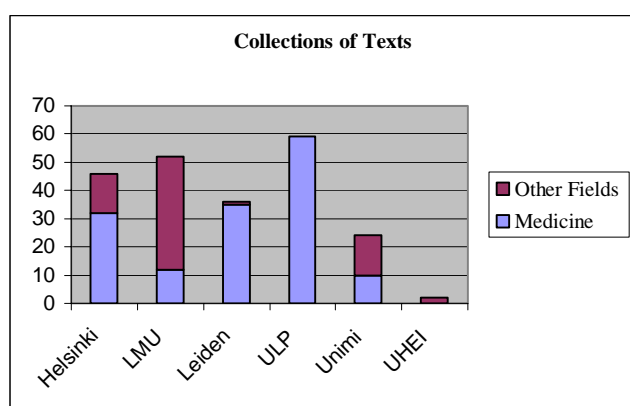
- 49% are freely accessible. Here is a recapitulative chart on the access policy per university:

Restricted Access	UHEI	ULP	UniGe	Unimi
NO	71,43%	70,00%	0	61,54%
YES	28,57%	30,00%	100,00%	38,46%

Not Provided	4,76%	0	0	5,13%
Total	100,00%	100,00%	100,00%	100,00%

2.2.2 Texts

73 texts were inventoried as single resources, 219 collections of texts, for a total of 9153 texts. 148 collections belong to the field of medicine (3453 global unitary resources). Collections of texts are composed, on average, of 42 texts.



Here is a recapitulative tab of the main features of the textual resources. We must be wary of the global unitary resources figures, because in this case, one collection of 5000 texts can change significantly the results:

	Collections (219)		Global Unitary Resources (9153)	
	Medicine	Other Fields	Medicine	Other Fields
1. Educational Characteristics				
Pedagogy-Oriented	81%		51%	11%
Learning Level	Both Undergraduate and Postgraduate = 43%	Both Bachelor and Master = 49% (not provided = 31%)	Postgraduate = 71%	Both Bachelor, Master and Doctorate = 90%
Language	Multilingual = 32%		Multilingual = 58%	Multilingual = 99%
2. Level of Organization				

Part of a Repository YES	70%	60%
Metadata Described YES	79%	69%
Free Access YES	42%	42%

What specific features can we identify as regards textual documents compared to the general trends that we mentioned so far?

- We can notice that an important percentage of the resources are intended for several learning levels at the same time, and this whether we consider the collection level, or the global unitary resources level.
- Texts also appear to be widely described with metadata (79 and 69%), which is a strong specificity compared to the other types of resources.
- As regards languages, below is a chart presenting the percentage of textual resources per language per university, all subjects taken into account:

Language	Helsinki	Leiden	ULP	Unimi	UHEI
Dutch	0	52,56%	0	0	0
English	0,12%	0	5,41%	0	0
Finnish	6,61%	0	0	0	0
German	0	0	0	0	0,10%
French	0	0	36,72%	0	0
Italian	0	0	0	100,00%	0
Multilingual	93,03%	47,44%	57,87%	0	99,90%
Swedish	0,24%	0	0	0	0
Total	100,00%	100,00%	100,00%	100,00%	100,00%

2.2.3 Still Images

57 collections of still images were inventoried, most of them in the field of medicine (52), for a total of 16309 global unitary resources. The distribution between medicine and the other academic fields on this

last level is important to consider. Although most of the collections of still images are medicine related, when considering the total number of pictures, 80% of them belong to other fields. This is due to two collections inventoried in Heidelberg (Ancient history) and Leiden (Linguistics) that gather 13500 pictures.

	ULP	UniGe	Unimi	Leiden	UHEI	Total
Medicine	400	2239	419	0	0	3058
Other Fields	0	0	0	3250	10001	13251

Because of these two collections, it is difficult to propose a comprehensive statistical analysis on this type of resource. However, a few features can still be highlighted:

- All the resources are part of repositories.
- Almost 100% (except for Unimi) are inventoried as “multilingual resources”, which means that the repositories where the pictures are gathered are available both in English and the national tongue.
- 91% of the collections are freely accessible.

2.2.4 Moving Images

785 films were inventoried on the global unitary resources level, 174 in medicine and 611 in other fields (mainly in computer science) according to the following distribution:

Subject	KI	ULP	Unimi	UHEI	Total
Medicine	3	48	123	0	174
Other Fields	0	0	571	40	611
Total	3	48	694	40	785

Leiden inventoried 2 collections of moving images, but did not give information on the number of items included in each of the collections.

The inventoried films follow the general trends.

- They are predominantly intended for undergraduate students (65%) or bachelor students (77%).
- Most of the films are in Italian (76%), but the second most used language is English (18%).
- 94% are pedagogy-oriented.
- 93% of the films are part of a repository.

However, they differ from the rest of the resources on two points:

- Almost none of the films are described with metadata (94%).

- 81% have a restricted access.

2.2.5 Interactive Resources

784 interactive resources were inventoried (global unitary resources), almost all of them in medicine.

Subjects	KI	UHEI	ULP	Unimi	Total
Medicine	197	361	102	122	782
Other Fields	0	2	0	0	2
Total	197	363	102	122	784

- Like for the other types of resources, 74% are intended for an undergraduate level.
- Most of the resources are provided in one of the national tongues, with the exception of KI whose resources are at 76% available in more than one language.
- Almost all of them are used in a pedagogical context.
- The information on metadata was lacking for more than a third of the interactive resources.
- The access is restricted for 87% of the resources.

2.3 OFFLINE RESOURCES

As we said in the introduction to this report, most of the universities did not consider offline resources in their inventory, apart from the ULP and KI. However, we still wanted to analyze the characteristics of these resources and try to highlight a few general features, as well as to compare their characteristics to the online resources'.

Unsurprisingly, all the resources inventoried belong to the field of medicine. The chart below gives you an overview of the mass of resources that were inventoried. We gathered a total of 181 collections and 17972 global unitary resources.

Type	ULP		KI	
	Collections	Global Unitary Resources	Collections	Global Unitary Resources
Interactive Resources	2	131	5	55
Moving Images	3	69	0	0
Still Images	49	11864	0	0

Text	122	5853	0	0
Total	176	17917	5	55

Some facts remain the same for any type of resources.

- Quite logically, their level of organization is low, compared to the online resources: none of the resources belong to a repository; their access is restricted (100%); they are not described with metadata.
- Unlike online resources, our offline resources are available only in French or Swedish for all types of resources, except in the case of interactive resources, where 11% have been translated in at least another language (English, and Spanish for some of them).

As regards the other criteria, there is a wider range of results according to the type of resource considered.

- While the interactive resources and the text collections (respectively 100% and 88%) are mainly used in a pedagogical context, films and still images have a wider range of use, both as pedagogical resources and research-oriented resources.
- The resources are concentrated on the undergraduate and postgraduate level, none of them are used in a doctorate context:
 - Interactive resources as well as still images are intended for undergraduate students (70%),
 - Films are used in both context (undergraduate and postgraduate, 52%),
 - 46% of the inventoried text collections are used with postgraduate students, while 45% are used with undergraduate students.

CONCLUSION

The ambition of the EUREA project is tremendous: gather nine universities from 8 different countries, speaking 6 different languages and belonging to very varied institutional backgrounds, and have them share their top-quality educational digital resources.

We could not take up such a challenge without first achieving a better mutual knowledge of all the partners. The aim of the work package 2 was to “allow the partners to gain enough mutual knowledge of their ICT skills and competencies and of their existing e-resources”. But it also had another considerable outcome: it helped us to get to know each other’s way of working, our cultural and institutional functioning.

From this point of view, the initial report has been greatly enriched with two things: first of all, the inventory questionnaire on the methodologies followed by each university, and secondly the discussions we had during our median meeting in Helsinki. These two elements were crucial for us to understand the variety of resources that were gathered during the inventory.

As regards the implementation of the meta database, what general conclusions can we draw?

- The inventory is giving us the possibility to quantify the amount of econtent that we will be able to mutualize. It enables us to have a general idea of our potentialities.
- The second element that we can emphasize is the general very good level of participation of the institutions themselves. This is certainly one of the main achievements of this inventory: it is possible to involve the faculties and the teachers in our project. A significant number of them was extremely interested in collaborating and understood well the advantages of sharing their resources and expertise. This was quite an unexpected outcome considering the cultural and psychological barriers of academics towards the sharing of knowledge and the transparency of pedagogical practices. We can therefore expect a similar level of cooperation when tackling the implementation phase.
- The exhaustivity criterium in the inventory has not always been respected. For instance, a few universities only inventoried the resources that they considered as likely to be integrated to the EUREA meta database. This means that only part of the resources has been inventoried, and that our potential amount of digital content is underestimated.
- The specific approach led at the ULP (that is to say contact each teacher personally by phone to inform them about the project and inventory, if need be, their digital resources) should serve as an example for the implementation phase, because this type of approach will certainly have to be promoted, if we want to increase as much as possible our impact on the learning community.

Our Helsinki meeting also highlighted the limits of the process and the potential problems that we will have to overcome:

- The discussions pointed out that we still did not have the same idea of what a digital resource is. We used the same description terms, but we did not always understand them in the same way (same word but different concepts). This question has a strong impact on the way we will deal with quality issues when we will move to the implementation step. We are still trying to build a common vocabulary.
- This definition issue had an obvious consequence on the results of this inventory: not all the resources that have been gathered will appear in the meta database. This obviously tempers the general figures that we highlighted, some resources being unlikely to be included in the final meta database. However, the method that we used (inventory exhaustively all digital resources) remains pertinent, because it enabled us to discover material that can be of interest for certain universities, and also because it gives us an idea of the level of use of digital resources within the universities.

As regards the inventory itself, we will try here to focus on the issues that will have the main impact on the development of our project: language, level of description of the resources (metadata) and access policy.

- Language: Our study of the gathered data showed that quite surprisingly a significant part of the resources were available in several languages. Although our statistical analysis did not enable us to know if the whole material was available in 2 (or more) languages or if just parts of it were, this finding remains very positive. Some of the material will be immediately available to be integrated in the meta database.

The tab below presents the distribution of the global unitary resources (per university) according to the language they are provided in. The aim of this tab is to give us an idea of the translation effort that the universities would have to provide if we decided that the resources were to be proposed in English, keeping in mind the limitations that we evoked above¹.

Language	Helsinki	KI	Leiden	UHEI	ULP	UniGe	Unimi
Finnish	6,94%	-	-	-	-	-	-
Swedish	0,24%	22,00%	-	-	-	-	-
English	0,12%	3,00%	-	0,02%	5,75%	-	7,20%
Dutch	-	-	7,33%	-	-	-	-
German	-	-	-	2,49%	-	-	-
Italian	-	-	-	-	-	-	92,80%
French	-	-	-	-	33,97%	0,93%	-
Multilingual	92,71%	75,00%	92,67%	97,48%	60,28%	99,07%	-

¹ This tab includes all resources, all types taken together. Of course, we are aware that the amount of work varies a lot whether you have to translate a whole website or a PowerPoint presentation. We also know that only parts of the total number of resources will be integrated to the final meta database.

Not Provided	-	-	-	0,01%	-	-	-
<i>Total</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>

- Metadata: The percentage of resources described with metadata is around 30%, with great differences though between the types of resources and the university considered. This level of description is already relatively satisfying, and means that a few universities have already worked on this aspect.
- Access: The access policy led within the consortium is generally speaking rather flexible. Half of the e-resources are freely accessible and the pay-per-view system has not been developed at all on the inventoried resources. No commercial use of the resources is therefore done so far.

APPENDIX

1. Unit Level Grid
2. Collection Level Grid
3. Repository Level Grid



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