

## **Bologna, the Netherlands and information science**

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This paper addresses the development of the department of Information Studies at the Universiteit van Amsterdam over the years and especially the impact of the Bologna Agreement on the content and educational form of the curriculum. It includes both outlines of the programmes as well as reflection on the educational methods. The accreditation procedures are also described. The paper ends with a reflection on the outcomes of the aims of the Bologna agreement. The text is an extension and elaboration of the paper presented at the EUCLID conference 'Restructuring and adapting to European standards: overcoming regional variations in needs and interests in education for LIS'. 16–18 October 2002. Thessaloniki, Greece.

### **1. Introduction**

The need for academic training opportunities for librarians was not met in the Netherlands until 1948. In that year a programme for 'young academic employees in libraries' was set up at the Koninklijke Bibliotheek (Royal Library) in The Hague in collaboration with the Universiteit van Amsterdam. This programme proved to be the beginning of a post-graduate programme at the Universiteit van Amsterdam. A regular Master's degree programme in Information Science was added in 1991, which is still the only academic programme in this field in the Netherlands. Several years later a programme in Archival Science was added. These programmes have been adapted and extended regularly, bringing them in line with technical and social developments. Some changes were also related to changes in the structure of the university educational system. In the academic year 2001-2002, the Master's programme was offered for the last time within the so-called major/minor structure.

In addition to the programmes at the Universiteit van Amsterdam, six polytechnics have offered LIS education at vocational level since 1964. Since 1997 the Erasmus Universiteit Rotterdam has offered a 14 month post-graduate course in 'Integral Document Management'. The latter programme is not financed by the Minister of Education, so students don't get any government financing. Outside the formal education system the 'GO', an independent institute set up in 1950 with strong connections with the information field, offers a great variety of courses, workshops and training at all levels for library, archive and documentation work. These are

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relatively short, part-time programmes, with a strong professional orientation, aimed at students already working in the information field. In the same sector the SOD offers courses oriented to practical work in document management and archival work.

In September 2002 the new Ba/Ma (Bachelor/Master) structure has been introduced in a number of Dutch universities. The EU Bologna agreement on higher education, which requires universities to adopt this new structure, provided an opportunity to reflect on both the content and educational methodology of our programmes. As a result an Information Science programme is being offered in which the former 'Archivistics' and 'Information Science' programmes are integrated. The Information Science bachelor programme will prepare students for separate master programmes in Information Science and Archival Science,

This paper evaluates the programmes at the Universiteit van Amsterdam and consists of three parts. Firstly the historical background of the programmes is described, then the new curriculum is introduced in more detail, and finally the objectives of the Bologna agreement are discussed.

## **2. Historical background**

### *2.1. Post-graduate programmes*

The initial post-graduate programme was set up in 1948 as the 'OWB'-programme (Course for Scientific Librarians). The programme was financed under the regular university system. In 1975 two main streams were introduced:

- Book and Library Science
- Library and Information Science

Both programmes shared a number of courses. Students in regular Master programmes were allowed to take part in the post-graduate programme as an elective. The programme proved to be very popular, attracting more than 100 applications annually for the 40 places available.

As a result of a change in the financial system in 1986, post-graduate courses had to become financially self-supporting. With an initial grant from the Ministry of Education a new programme was developed in which recent developments in the library and information field were incorporated. This 'ODI'-programme ('Information Science Programme') was very ambitious: a two-year part-time programme with two days of lectures per week. The programme offered a broad orientation with three specializations: Libraries, Publishing and Information Resources Management.

After the first year it became clear that the costs of the programme were too high. Therefore the programme was reduced to a one year, one day per week course.

A attempt to develop a new programme was aborted in 1997 when it became clear that insufficient numbers of students would be able to follow the programme, due to a change in the grant system. So after nearly 50 years there came end to the post-graduate programme.

## 2.2. *Master's programme*

In 1991 a regular master degree programme in 'Book and Information Science' was initiated. This programme consisted of a preliminary year to be taken in any subject, followed by a three year programme with two specialisation options: 'Book Science' and 'Information Science'. In 1996 'Archival Science' was added as a third option [1]. The Information Science specialization offered a special programme for graduates of the Dutch vocational schools for library and information science.

A significant change to the programme became necessary in 1998, when the faculty adopted a new curricular system based on majors (main subject), minors (complementary package of courses) and electives. This not only required an important reorganization of the programme, but also offered an opportunity to modernize the curriculum and adapt it to developments in the field and the requirements of an expanding professional field of information work.

For both post-graduate and Master's programme over the years a development from 'applied science' to 'pure science' took place as well as a shift in orientation from 'institutional' to 'functional'.

## 3. **The new curriculum**

As a consequence of the Bologna Agreement the universities in the Netherlands are now introducing the new bachelor/master structure. At the Universiteit van Amsterdam the Faculty of Economics & Business and the Faculty of Humanities have initiated the bachelor/master structure in the academic year 2002–2003. The other faculties will follow one year later. The university is also switching from the current trimester system to a semester system in order to bring us in line with common practice in Europe. The academic year will be divided into two semesters of 20 weeks each. Starting dates will be around 1 September and 1 February.

Another change is the introduction of the ECTS (European Credit Transfer System according to the Sorbonne declaration). In ECTS, 60 credits represent one year of study (in terms of workload); normally 30 credits are given for six months (a semester) and 20 credits for a term (a trimester). According to this system students obtain 10 EC credit points per full module. Our programme consists of modules of 5 and of 10 EC-pts. A 10 EC-pts module has classes during 14 weeks, a 5 EC-pts module has classes for 7 weeks (the rest of the period is for preparation and exams). As students participate in three modules per semester, each module has a study load of approximately 13 hours a week.

### 3.1. *Bachelor's degree programme*

The bachelor's degree programme is a three-year programme leading to the Bachelor's degree. The programme consists of a 'major' (main subject), 'minor' (optional

Table 1  
General structure Bachelor program

Bachelor program	Study load
Initial year	60 EC-pts
Years 2 + 3	
– Subject specific modules	40 EC-pts
– Philosophy of Science	10 EC-pts
– Thesis	10 EC-pts
– Minor	30 EC-pts
– Electives	30 EC-pts
Total years 2 + 3	120 EC-pts
Total Bachelor	180 EC-pts

course profile, i.e. an individual student's chosen combination of optional subjects) and 'electives'. The general structure of the Bachelor program at the Faculty of Humanities at the Universiteit van Amsterdam is given in Table 1.

The first year gives a broad introduction and orientation in the scientific field of the chosen programme. In this year students follow an extensive course in academic skills, including research skills and argumentative writing, related to the chosen field of study.

The introduction of the new structure offered a new opportunity to reflect on the content and educational methodology of the programme. The outcome of this is a single, integrated programme at the bachelor level, incorporating both information science and archival science. We feel that both theoretical considerations and developments within the professions justify this approach. A further outcome is that Book Science – which in practice was heavily oriented towards book history – is no longer offered within our department. It will now be offered as a minor by the department of cultural history. The new, integrated bachelor programme is simply called 'Information Science'. Its structure is outlined in Table 2 [2].

A number of course are taken jointly by students from the information science and media programmes (including film studies, television studies and new media), e.g. Philosophy of Science, Culture and Society, and Technology and Cultural Memory. The electives have to be taken from other programmes than that of the student's main field of study.

Formerly, course modules were developed and taught by individual members of the department. This tended to be problematic in terms of 'knowledge management': there was a lack of overall design, co-ordination between modules and knowledge sharing between staff. For the bachelor/master programme, we decided to do things differently. We have set up a project in which all members of the teaching staff participate and share responsibility for the overall programme. Individual modules are assigned to teams consisting of two members of staff. They prepare proposals that are submitted to the project group, develop the course in detail, and also share teaching responsibilities for the module. For these proposals a format as in Box 1 was used.

Table 2  
Bachelor Information Science

BA Information Science			
Year: bachelor 1 (Propedeutic)			
Semester 1		Semester 2	
Block 1	Block 2	Block 1	Block 2
Academic Skills I	Academic Skills II	Culture and Society	Information Map
Information and Society		Information sources	
Information Law		Media technology and cultural memory	
Year: bachelor 2			
Semester 1		Semester 2	
Block 1	Block 2	Block 1	Block 2
Information and organisation		Minor 1	
Minor 2		Minor 3	
Philosophy of Science		Representation and retrieval	
Year: bachelor 3			
Semester 1		Semester 2	
Block 1	Block 2	Block 1	Block 2
Elective		Bachelor thesis	
Elective		Information Technology and Information systems	
Research Methodology		Elective	

The result was a detailed description on a week to week basis as is illustrated in Box 2 for the module ‘Information and Organisation’.

While working on the new curriculum it was decided to change the traditional teaching method based on lectures and work groups to a more competence and task based or problem solving methods. This concept is illustrated for the same module in Box 3.

In this concept students are confronted with a case in which an organisation having an ‘information problem’ is described. The students are required to develop competencies, both academic as well as subject oriented, which enable them to develop an information policy and information plan for the organisation. While doing this they must identify and solve problems on an academic level regarding (among others) the context of the organisation, the business process, functions of information in organisations, origination, user context, management context, business processes.

Box 1  
Format Modules

<b>Bachelor 'Information Science'</b>			
<i>Module description</i>			
<b>Subject: Information and Organisation</b>			
OSM:	Year: 2002-2003	Semester: 1	Version: xxxxx
Staff:			
<b>Background of the module</b>			
[Describe why the module is given, relevance for de profession, relation with other subjects and so on.]			
<b>Enrol requirements</b>			
[Which requirements and why]			
<b>Content of the module</b>			
[Describe the layout of the module and which subjects are discussed]			
<b>Targets of the module</b>			
[Described in terms of knowledge, insight and skills]			
<b>Week program:</b>			
Week	Theme	Specific subject	
1		•	
2		•	
...		•	
13		•	
14		•	
<b>Didactical elaboration</b>			
[Didactic forms, activities, tasks]			
NB: Students are supposed to spend circa 10 hours a week to 'home work'.			
<b>Assessment</b>			
[Examination types, evaluation of tasks]			
<b>Prescribed literature</b>			
<b>Background literature</b>			
<b>Other requirements</b>			

In this concept the teacher is a guide who also monitors the quality of the process, especially regarding the theory – practice relation.

This first year in the new structure can be characterised as a process of introducing and testing these various changes, which will evolve into a continuous process of reviewing and updating the programme and our teaching methods.

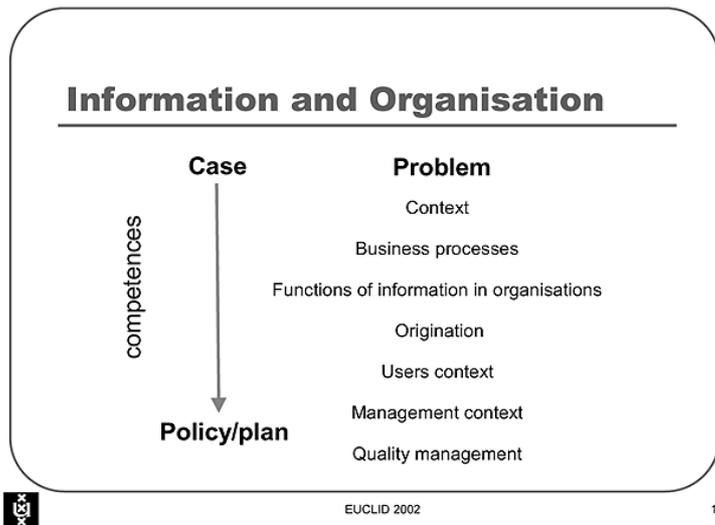
### 3.2. Master's degree programme

On successful completion of the Bachelor's degree programme, the student may begin the Master's degree programme with the emphasis on specialisation. Depending on the subject, the Master's degree programme may take one or two years.

Box 2  
Format 'Information and Organisation'

Date	Col	Theme	Specific subjects
3-9	1	Introduction module	
10-9	2	Information economy and information sector	<ul style="list-style-type: none"> <li>• Informatisation of society</li> </ul>
17-9	3	Organisations	Central question: what type of organisations do exist: <ul style="list-style-type: none"> <li>• Concepts</li> <li>• Mainstreams in management theories</li> <li>• Processes of strategic change</li> </ul>
24-9	4	Functions of information in organisations: contexts of origination, management and use	Central question: why use, create and store people and organisations information? <ul style="list-style-type: none"> <li>• Development society and business users groups</li> </ul>
1-10	5		<ul style="list-style-type: none"> <li>• quality requirements from groups</li> <li>• values of information (administrative, technological, cultural-historical, social, legally)</li> </ul>
8-10	6	Development of information policy based on analysis of information needs in the organisation	Central question: how are quality requirements converted into? <ul style="list-style-type: none"> <li>• Process analysis</li> <li>• Information logistics</li> <li>• Selection of information</li> <li>• Indexing</li> </ul>

Box 3



The master programmes will not be introduced in the faculty until September 2003. The department will offer different types of Master programmes: a (regular) Master, a Professional Master and a Research Master as described in Table 3 will be

Table 3  
Types of Master programmes

<i>(regular) Master</i>	
– Subject specific modules	40 EC-pts
– Thesis	20 EC-pts
Total master	60 EC-pts
<i>Professional Master</i>	
– Theoretical modules, incl. thesis	60 EC-pts
– Internship / traineeship	20-60 EC-pts
Total professional master	80-120 EC-pts
<i>Research Master</i>	
– Core modules	30 EC-pts
– modules from regular master	30 EC-pts
– Tutorials	30 EC-pts
– Thesis	30 EC-pts
Total Research Master	120 EC-pts

offered [3].

Although initially a 2-year Master programme was expected, the financing of this proved to be a problem and the university opted for 1-year regular programmes. The additional 20-60 ECTS for professional masters is derived from a traineeship funded by employers. The Research Master will be offered together with other departments in the information and media domain, and has not yet been fully developed. The two main programmes to be offered by the department are a regular Master programme in Information Science and a Professional Master in Archivistcs. These are described in more detail in the following tables:

### 3.3. Quality assessment and accreditation

In addition to the existing quality procedures for both the universities and the polytechnics ('hogescholen') an accreditation system will be introduced. All existing programmes will receive accreditation for a period of six years, after that period there will be an evaluation by an independent accreditation body established by law. New programmes need to be pre-tested. The accreditation body will consist of independent members, appointed by the minister of education. They must have expertise in the field of higher education and/or professional practice. The evaluation will consist of quality assessment, self-evaluation and peer review. For the accreditation the following aspects of quality are to be taken into account:

- the level of the programme;
- the content of the programme;
- the education process, the returns on education, sufficient facilities and an adequate quality assessment method.

A programme will be accredited either as academic or higher professional and bachelor- and master programmes will have to be accredited separately.

Table 4  
Master Information Science

Master: Information Science			
1st semester		2nd semester	
Information logistics	10 pts	Integration module	10 pts
Information retrieval	10 pts	Thesis	10 pts
Evaluation of information services	10 pts	Thesis	10 pts

Table 5  
Master Archivistcs

Professional Master: Archivistcs				
Year	1st semester		2nd semester	
1	Record Keeping processes	10 pts	Dual period: work while learning and learning while working, which includes a educational module "Application of Record Keeping Systems"	30pts
	Information retrieval	10 pts		
	Social context of archives	10 pts		
2	Comparative Archivistcs	10 pts		
	Thesis	20 pts		

The accreditation of a programme will be a condition for funding, student aid and legal degrees at public and private institutions. As for the international aspects of accreditation, the body has to co-operate internationally in drawing up an accreditation protocol.

### 3.4. Titles

Under the old system graduates from the Dutch Polytechnics (Hogeschole) received no title. In the new structure the graduates will be awarded the title Bachelor (B). If the institution offers a Master's degree programme, the title of Master (M) is awarded after completion.

Under the old system University graduates got either one of the following titles: doctorandus (drs.), engineer (ir.), meester (mr.) or, after successfully defending a Ph.D.-thesis, doctor (dr.). These titles are protected by law. In the new structure, on successful completing the Bachelor programme an academic student is awarded a Bachelor's degree, either a BA (Bachelor of Arts) or a BSc (Bachelor of Science). On successful completion of the Master's programme, the student is awarded a Master's degree, either an MA (Master of Arts) or an MSc (Master of Science). However students are allowed to opt for the old Dutch academic title of drs., ir. or mr., but not in addition to the new titles.

## 4. And for the future . . .

The main aims of the Bologna Agreement are to obtain comparable degrees throughout Europe and to enhance student and staff mobility. As for the comparability of the degrees, two obstacles might play a role: different solutions for the

bachelor-master sequence and different course content under the same course titles (and vice versa).

As for the structure the following options are allowed:

1. To enrol in a Master course a Bachelor in the same field is required;
2. To enrol in a Master course a Bachelor in another field is required, students with a Bachelor in the same field are not allowed to enrol;
3. A Master in a field is open to students with any academic Bachelor;
4. A Master in a field is open to students with any academic Bachelor after completing a deficiency programme
5. A Master in a field is open to students with a vocational Bachelor in the same field after completing a deficiency programme
6. A Master in a field is open to students with any vocational Bachelor after completing a deficiency programme

In the Dutch situation options 1, 4 and 5 are relevant. The Master 'Information Science' is an extension and elaboration of the bachelor phase (option 1). For students who have finished a four year vocational LIS education programme, a deficiency programme of one year is required for enrolling in the Information Science Master (option 5). For the Archivistics programme another deficiency programme is currently being developed (option 4).

In the UK however, there is a strong tradition of offering Master's degree courses as 'conversion courses' for students from one discipline moving into another field (option 2). For example a Master's degree in 'Information and Library Studies' (ILS) is for students whose first degree was in any discipline other than librarianship. But other Master's degrees in the information and knowledge management field are open to graduates in ILS (or in any other discipline). Similarly, a Master's degree programme in Publishing would not admit students with a Bachelor's degree in Publishing. But they would be admitted into the Master's degree in Electronic Publishing [3].

In Denmark students completing the 3-year Bachelor of Library and Information Science course can apply for admission to the two-year postgraduate Master of Library and Information Science degree programme (M.L.I.Sc.), and thus they study Library and Information Science (LIS) for five years altogether with an in-built progression in terms of subjects offered and the levels of study (option 1). Students from other universities in Denmark with an undergraduate degree in engineering, biology, history, German, archeology, administration, sociology etc. can apply for admission to the postgraduate 2-year LIS programme as well. There are no specific entry requirements relating to those with a subject discipline bachelor from another university but they are subjected to a specific individual evaluation of their pre-entry qualification, i.e. the subject contents of their previous degree, course elements and themes studied, thesis, etc. (option 3) [5].

In Spain the adaptation of the Bologna Agreement has not yet started as the Ministry of Education has not yet given directions for restructuring the university.

Since the beginning of the 1990's there are two formal university programs in LIS, one at the undergraduate level and one at the postgraduate level. The postgraduate programme admits students with a diploma in the undergraduate programme (option 1) and students with diplomas in other disciplines. However, those students who have diplomas in other disciplines have to take 40–45 credits in basic LIS courses to prepare for the postgraduate program (option 4). Here it is still uncertain how the situation will change once a structure according to the Bologna Agreement is implemented [6].

In the Flemish part of Belgium a Master 'Information and Library Science' will be offered as from October 2003. As there is no Bachelor programme in this field, the Master will be open to all holders of an academic bachelor (option 3) [7].

As for the orientation on the content of the curriculum, the LIS schools in the EU can be described according to two characteristics (Box 4):

- Type of educational institute: from applied to academic;
- Educational orientation: from institutional to functional orientation.

It is not clear how compatible the extremes in this field will be.

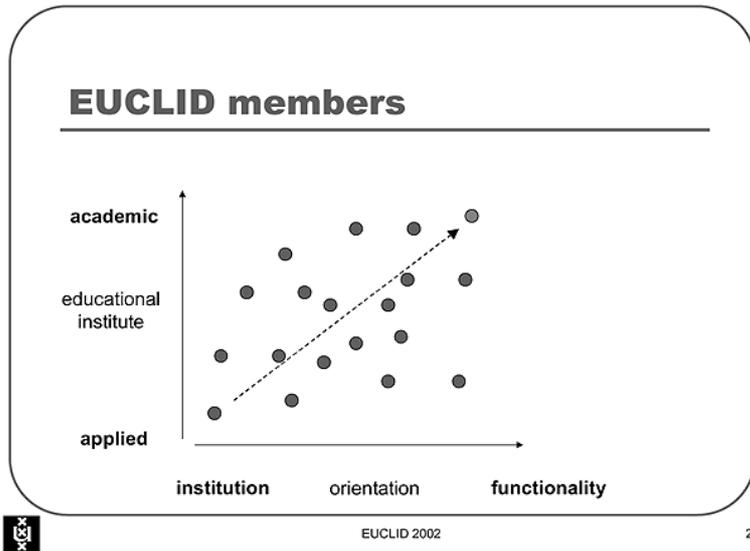
Different interpretations of the continuity in the educational process (as materialized in access rules) and different orientations as to the content of the curriculum, lead to differences in outcomes in the various EU member states. This could well mean that the objectives of the Bologna Agreement in terms of comparability and exchange might prove to be difficult to obtain.

For the Dutch situation, the present educational reform is the latest in a whole series in which the structure changed from a semester to a trimester system and back and in which a major-minor system was introduced. This has complicated life for staff and students alike. In some cases students have graduated in an entirely different programme from the one on which they started.

The current changes have not been initiated because of an internal need to adapt the curriculum, but as a result of the Bologna Agreement. We took the opportunity to re-think the curriculum and to adapt it according to new theoretical and practical insights. In a later phase in the migration project specific attention was given to the educational aspects. By focusing on competences and on task or problem oriented teaching methods, we hope to increase the active participation of students. In the end, we believe that the external stimulus created by the Bologna Agreement has resulted in a far better curriculum for information studies and archivistics at the University of Amsterdam; however the proof of the pudding will be in the eating.

One of the aims of the Bologna agreement is to obtain a system of comparable degrees and to promote widespread student mobility. When the system will have been implemented throughout the European Union by 2010, 'Bologna' is supposed to be the 'Euro of Education'. Students should be able to seek out those programmes that offer the highest quality and fit their educational needs, wherever they may be offered. Whether that will be the case, remains to be seen. No doubt it will become easier to compare programmes from a wide range of institutes. But this isn't the first

Box 4  
Educational continuum



time an attempt has been made to increase comparability of academic programmes and to promote mobility of students.

There are significant differences in the structure and orientation of the bachelor-master programmes as discussed above.

Our most severe reservation, however, concerns the outcome of the mobility of students. To be successful in a university programme where the language of tuition is not the first language of the student requires better language skills than many students exhibit. Over the years, our department has had programmes for student mobility with the Universities of Loughborough, Northumbria (Newcastle) and City (London), the Free University of Brussels and the Spanish universities of Barcelona and Malaga. Credits from the various participants were accepted by the student's home university. Over the years just two students from Spain came to Amsterdam with the intention to study English and two student students from the Universiteit van Amsterdam department (out of a potential of 80) went to City University (London) for one trimester.

There are several reasons for the low mobility of our students. One of them is that many of them already have jobs which they are unwilling to give or are unable to take a leave for a substantial period. Secondly, in the trimester structure two modules were studied. Often timetabling restrictions meant that a student could take only one module at a foreign university, meaning that he/she was unable to follow the other module in that semester. This resulted in an extension of the study period needed to acquire the necessary credits. In the semester structure, students have to take

three modules. As modules are only offered once a year, going abroad could mean that a student has to extend his/her studies by a full semester. And maybe the most important factor for staying 'at home' is the social commitment of students to their local environment.

As long as such factors are not taken into account, the more technical changes induced by the Bologna agreement will probably, and unfortunately, not increase student mobility in a significant way.

## **References**

- [1] In 1994 the Rijksarchiefschool (State Archive School) became an independent institute under the name of Archiefschool ([www.archiefschool.nl](http://www.archiefschool.nl)). This is a foundation that offers vocational training for archivists and the Hogeschool van Amsterdam (Amsterdam Polytechnic), and an academic programme at the Universiteit van Amsterdam.
- [2] 'Documentaire informatie' (Documentary Information) is a Dutch expression which is used in the professional field to distinguish the scope from Communication Science. Unfortunately the term isn't clear to outsiders.
- [3] Names of the different types of Master are still subject to changed by the faculty.
- [4] Private conversation with Ian Johnson (The Robert Gordon University, UK).
- [5] Private conversation with Leif Kajberg (Royal School of Library and Information Science, Denmark).
- [6] Private conversation with Assumpci  Estivill (Universitat de Barcelona, Spain).
- [7] Private conversation with Egbert de Smet (Universitaire Instelling Antwerpen, Belgium).