EDUCATIONAL ASSESSMENT
Digital Humanities

An evaluation of the quality of the Advanced Master of Science in Digital Humanities at KU Leuven

vluhr

PREFACE BY THE VLUHR QA BOARD

The assessment panel reports its findings on the Advanced Master of Science in Digital Humanities. This programme is assessed in the autumn of 2017 on behalf of the Flemish Higher Education Council (VLUHR).

First of all, this report is intended for the programme involved. This assessment report provides the reader a snapshot of the quality of the programme and is only one phase in the process of the ongoing concern for educational quality. After a short period of time the study programme may already has changed and improved significantly, whether or not as an answer to the recommendations by the assessment panel. Additionally, the report intends to provide objective information to a wide audience about the quality of the evaluated programme. For this reason, the report is published on the VLUHR website.

I would like to thank the chairman and the members of the assessment panel for the time they have invested and for the high levels of expertise and dedication they showed in performing their task. This assessment is made possible thanks to the efforts of all those involved within the institution in the preparation and implementation of the assessment site visit.

I hope the positive comments formulated by the assessment panel and the recommendations for further improvement provide justification for their efforts and encouragement for the further development of the study programme.

Petter Aaslestad
Chair VLUHR QA Board

SECTION 1
General Section

PART I
Educational assessment
Digital Humanities

1 INTRODUCTION

In this report, the assessment panel Digital Humanities announces its findings with regard to the Advanced Master of Science in Digital Humanities at KU Leuven. This study programme was assessed in the autumn of 2017 on behalf of the Flemish Higher Education Council (VLUHR).

This assessment procedure is part of the VLUHR activities in the area of external quality assurance in Flemish higher education which are meant to ensure that the Flemish universities, university colleges and other statutory registered higher education institutions are in compliance with the relevant regulations imposed by law.

2 THE ASSESSED STUDY PROGRAMME

In accordance with its mission, the assessment panel visited

KU Leuven
– Advanced Master of Science in Digital Humanities:
  from November 13 to 14, 2017.

3 THE ASSESSMENT PANEL

3.1 Composition of the assessment panel

The composition of the assessment panel Digital Humanities was ratified on February 16 and March 22, 2017 by the VLUHR Quality Assurance Board. The NVAO sanctioned the panel composition on June 19, 2017. The assessment panel was subsequently installed by the Quality Assurance Board by its decision of October 6, 2017.

The assessment panel had the following composition:

– Chairman of the assessment panel:
  - **Jacques Van Remortel**, former director of the Research and Innovation department of Alcatel-Lucent-Bell, Antwerp.

– Other panel members:
  - **Gregory Crane**, professor of Digital Humanities and professor of Classics.
  - **Gerhard Lauer**, professor of Digital Humanities, University of Basel.
  - **Liesl Van Britsom**, bachelor of Arts in Linguistics and Literature, Master's student in Theatre and Film Studies, University of Antwerp.

Klara De Wilde, coordinator of the Quality Assurance Unit of the Flemish Higher Education Council, was project manager of this educational assessment and acted as secretary to the assessment panel.

The brief curricula vitae of the members of the assessment panel are listed in Appendix 1.

3.2 Task description

The assessment panel is expected:
– to express substantiated and well-founded opinions on the study programme, using the assessment framework;
– to make recommendations allowing quality improvements to be made where possible;
– to inform society at large of its findings.

3.3 Process

3.3.1 Preparation

The study programme was asked to compile an extensive self-evaluation report in preparation for the educational assessment. An assessment protocol, with a detailed description of the expectations regarding the content of the self-evaluation report, was presented by the Quality Assurance Unit of VLUHR for this purpose. The self-evaluation report reflects the accreditation framework.

The assessment panel received the self-evaluation report a number of months before the on-site assessment visit, which allowed for adequate time to carefully study the document and to thoroughly prepare for the assessment visit. Additionally, the members of the assessment panel were asked to read a selection of recent Master's theses.

The assessment panel held its preparatory meeting on September 29, 2017. At this stage, the panel members were already in possession of the assessment protocol and the self-evaluation report. During the preparatory meeting, the panel members were given further information about the assessment process and they made specific preparations for the forthcoming on-site assessment visit. Special attention was given to the uniformity of the implementation of the accreditation framework and the assessment protocol. Also, the time schedule for the assessment visit was agreed upon (see Appendix 2) and the self-evaluation report was collectively discussed for the first time.

3.3.2 On-site visit

During the on-site visit the panel interviewed all parties directly involved with the study programme. The panel spoke with those responsible for the study programme, students, teaching staff, educational support staff, alumni, and representatives from the professional field. The conversations and interviews with all these stakeholders took place in an open atmosphere and provided the panel with helpful additions to and clarifications of the self-evaluation report.

The panel visited the programme-specific infrastructure facilities, including the library, classrooms, computer facilities, and laboratories. There was also a consultation hour during which the assessment panel could invite people or during which people could be heard in confidence.

Furthermore, the institution was asked to prepare a wide variety of documents to be available during the on-site visit for the assessment panel to consult as a tertiary source of information. These documents included minutes of discussions in relevant governing bodies, a selection of study materials (courses, handbooks and syllabuses), indications of staff competences, testing and assessment assignments, etc. Sufficient time was scheduled throughout the assessment visit for the panel to study these documents thoroughly. Additional information was requested during the on-site visit when the assessment panel deemed that information necessary to support its findings.

Following internal panel discussions, provisional findings were presented by the chairman of the assessment panel in conclusion of the on-site assessment visit.

3.3.3 Reporting

The last stage of the assessment process was the compilation of the panel's findings, conclusions, and recommendations into the present report. The panel's recommendations are separately summarised at the end of the report.

The study programme director was given the opportunity to reply to the draft version of this report. The assessment panel considered this response and included elements of it into the final version when deemed appropriate.

PART II
Table with scores

The following table represents the assessment scores of the assessment panel on the three generic quality standards set out in the assessment framework.

For each generic quality standard (GQS) the panel expresses a considered and substantiated opinion, according to a two-point scale: satisfactory or unsatisfactory. The panel also expresses a final opinion on the quality of the programme as a whole, also according to a two-point scale: satisfactory or unsatisfactory.

In the report of the study programme the assessment panel makes clear how it has reached its opinion. The table and the scores assigned ought to be read and interpreted in connection to the text in the report. Any interpretation based solely on the scores in the table, is unjust towards the study programme and passes over the assignment of this external assessment exercise.

Explanation of the scores of the **generic quality standard**:

Satisfactory (S)	the study programme meets the generic quality standard
Unsatisfactory (U)	the generic quality standard is unsatisfactory

Rules applicable to the final **opinion**:

Satisfactory (S)	The final opinion on a programme is 'satisfactory' if the programme meets all generic quality standards.
Unsatisfactory (U)	The final opinion on a programme is 'unsatisfactory' if all generic quality standards are assessed as 'unsatisfactory'.
Satisfactory for a limited period (S')	The final opinion on a programme is 'satisfactory for a limited period', i.e. shorter than the accreditation period, if, on a first assessment, one or two generic quality standards are assessed as 'unsatisfactory'.

	GQS 1 Targeted outcome level	GQS 2 Learning environment	GQS 3 Outcome level achieved	Final opinion
Advanced Master of Science in Digital Humanities	S	S	S	S

SECTION 2
Report of
the study programme
and Summary

KU LEUVEN
Advanced Master of Science in Digital Humanities

SUMMARY OF THE ASSESSMENT REPORT
Advanced Master of Science in Digital Humanities – KU Leuven

From 13 to 14 November 2017, the Advanced Master of Science in Digital Humanities at KU Leuven has been evaluated in the framework of an educational assessment by a peer review panel of independent experts. In this summary which describes a snapshot, the main findings of the panel are listed.

Profile of the programme

The Master of Science in Digital Humanities is an advanced master's programme, organised by KU Leuven.

The rationale behind the programme is the growing impact of digital tools and techniques in society at large. This impact not only affects the IT industry but all areas of society, including those that were traditionally less IT-related such as publishing, media, arts, libraries, medicine and education. The advanced master's programme aims to develop the digital competences of graduates in the Humanities and Behavioural Sciences. These competences will allow them to add digital dimensions to their own domain expertise.

The programme is intended to be of added value for at least two groups of graduates. The programme will enable research oriented graduates to support and enhance their research competences by means of non-trivial use of digital techniques such as modelling and querying databases,

interconnecting and querying web resources, text-encoding and e-publishing, mining repositories and data visualisation. Professionally oriented graduates will be able to apply non-trivial digital techniques in professional contexts related to Humanities such as publishing, media, arts, libraries, medicine and education.

The study programme is supported by four different faculties. Three of them belong to the Humanities and Social Sciences Group: the faculties of Arts, Psychology & Educational Sciences and Social Sciences. The fourth is the Faculty of Science from the Science, Engineering and Technology Group. The programme is embedded in the Faculty of Science which provides the programme with the necessary administrative and organizational support.

Programme

The Master of Science in Digital Humanities is a one year advanced master's programme. The programme (60 ECTS) includes all major areas of Digital Humanities. The general structure of the programme is organized around six components. The Introductory component provides an introduction to Digital Humanities and the required background to engage in Digital Humanities research and application development. The Management component focuses on the relationship between IT and management. The Advanced digitization component familiarizes the students with emerging technologies and applications in Digital Humanities. The component Tools for the digital world provides background in the student's selection of additional technological tools, for human-computer interfacing, web information systems, data-mining or data visualization. In the component Application domains, students select courses, corresponding to their interests, to the required technological tools they selected in the previous component and to their own background in the Humanities and Behavioural Sciences (HSBS). Finally, in the Master's thesis the student shows the ability to integrate the competences achieved in the other components to deliver a new scientific contribution.

The Master's thesis is the corner stone of the programme in which the students tackle research questions in one of the domains of Digital Humanities. This research can be performed in a research unit of KU Leuven and since last year also in another organization by means of an internship. The research topics are proposed by the staff but students can propose alternative topics based on their expertise in HSBS.

The programme is set up as an international programme. Lectures, courses and communication are in English. Three lecturers are non-Flemish. The programme explicitly aims at attracting international students, preferably in balance with the number of Flemish students that enrol. The amount of international students and staff adds great value to the programme.

Students can enter the study programme after a positive evaluation of the selection committee. Candidates submit an application containing detailed information on their prior studies, work experience, additional competences, proof of proficiency in English and a motivation statement. The candidates are holder of a Master's degree in Humanities, Social and Behavioural Sciences. Students with a strong background of IT are advised not to enrol in the programme. For each candidate, the decision of admission is also based on the ability of the programme management to determine a trajectory that fits the student's background and expectations.

Evaluation and testing

The programme uses a good variety of assessment forms, such as projects, papers, reports, presentations, web page and blog/forum entries. They are in line with the general teaching and learning methods. The majority of the components have some form of permanent assessment.

The assessment of the Master's thesis includes the evaluation of a written text and an oral defense in front of a jury. The jury consists of the supervisor of the thesis and two additional readers. To increase the objectivity, one of the readers is selected from a research unit outside the unit in which the thesis is done. The evaluation by the jury members is done by means of an assessment roster based on the following criteria: process, content, form and defense. A scale of appreciation is available to guide the jury members on how to come to an overall mark.

The assessment of the internships follows the same procedure. The mentor in the company takes part in the assessment, together with the supervisor and an assessor. The assessment roster has slightly been changed with respect to the internships. The requirements on the research dimension are reduced and compensated by a new dimension that focuses on actively integrating competences in a working environment.

Services and student guidance

The programme makes use of the infrastructure and the educational equipment of the involved faculties. Panel and students are satisfied with the infrastructure provided to the students.

Students receive the necessary information concerning the programme and their study path. The small size of the group allows for very easy contact between students and staff. The interaction between students and teaching staff is found to be very stimulating. The students appreciate that the teaching staff is easily accessible.

Study success and professional opportunities

Students and alumni are enthusiastic about the programme. They were well informed and the programme me(e)t(s) their expectations. The discussion with professionals and graduates showed how much the learning outcomes of the programme fit the needs and demands of the professional field. Graduates of this study programme are welcomed in many digital humanities projects in Europe, North America and beyond.

Preface

This report concerns the advanced master's programme Master of Science in Digital Humanities organised by KU Leuven. The assessment panel (further referred to as the panel) visited the programme from the 13th till the 14th November 2017.

The panel assessed the programme based on the three generic quality standards of the VLUHR programme assessment framework. This framework is designed to fulfil the accreditation requirements, applied by the Accreditation Organisation of the Netherlands and Flanders (NVAO). For each standard the panel gives a weighted and motivated judgement on a two-point scale: "unsatisfactory" or "satisfactory". In assessing the generic quality standards, the concept of 'generic quality' means that the programme meets the quality standards that can reasonably be expected, from an international perspective, of a Master's programme in higher education. The score "satisfactory" means that the programme meets the expected generic quality and thus demonstrates an acceptable level of quality for a particular standard. The score "unsatisfactory" indicates that the programme does not attain the expected generic quality for a particular standard.

The panel's judgements are supported by facts and analyses. The panel makes clear how it has reached its judgement. The panel also expresses a final judgement on the quality of the programme as a whole, also according to the same two-point scale.

The panel assessed the quality of the programme at the time of the site visit. The panel based its judgement on the self-evaluation report and the information that arose from the interviews with the programme management, with lecturers, students, representatives of the professional field, alumni and personnel responsible at the programme level for internal quality assurance, internationalization, study guidance and student tutoring. The panel has examined course materials, Master's theses, test- and evaluation assignments and standardized assessment criteria, and relevant reports. The panel has also visited the facilities such as classrooms, laboratories and the library during the site visit.

In addition to the judgement, the panel also formulates recommendations with respect to quality improvement. In this manner, the panel wants to contribute to improving the quality of the programme. The recommendations are included in the relevant sections of the respective standard. At the end of the report there is an overview of improvement suggestions.

Context of the study programme

The Master of Science in Digital Humanities is an advanced master's programme, organised by KU Leuven.
The rationale behind the programme is the growing impact of digital tools and techniques in society at large. This impact not only affects the IT industry but all areas of society, including those that were traditionally less IT-related such as publishing, media, arts, libraries, medicine and education. The advanced master's programme aims to develop the digital competences of graduates in the Humanities and Behavioural Sciences. They will allow them to add digital dimensions to their own domain expertise.

The study programme is supported by four different faculties. Three of them belong to the Humanities and Social Sciences Group: the faculties of Arts, Psychology & Educational Sciences and Social Sciences. The fourth is the Faculty of Science from the Science, Engineering and Technology Group. Decisions regarding the programme are made in the Programme Committee of Digital Humanities, with representatives of the involved faculties. The programme is embedded in the Faculty of Science, which provides the programme with the necessary administrative and organizational support.

The programme received an initial accreditation (TNO – toets nieuwe opleiding) in 2014. The programme was first organised in 2015-2016 numbering 14 students. In 2016-2017 20 students were registered and in 2017-2018 24 students.

Generic quality standard 1 - Targeted Outcome Level

The assessment panel evaluates the targeted outcome level for the Master of Science in Digital Humanities as "satisfactory".

The Master of Science in Digital Humanities aims to develop the digital competencies of graduates from Humanities and Behavioural Sciences (HSBS). They will allow them to add digital dimensions to their own expertise. The programme is intended to be of added value for at least two groups of graduates. The programme will enable **research oriented** graduates to support and enhance their research competences by means of non-trivial use of digital techniques such as modelling and querying databases, interconnecting and querying web resources, text-encoding and e-publishing, mining repositories and data visualisation. **Professionally oriented** graduates will be able to apply non-trivial digital techniques in professional contexts related to Humanities such as publishing, media, arts, libraries, medicine and education.

The programme management explained during the site visit that the formulated **domain-specific learning outcomes (DSLO)** are based on an international study of the learning outcomes of other existing master's programmes in Digital Humanities. The DSLO were also discussed with colleagues from other universities and with senior professionals of larger companies in Flanders in the field of Digital Humanities. In doing so, the programme fulfils the international requirements and expectations, in a field which is still very young and in process of developing a distinctive identity. Consequently, the DSLO are rather generic. They do not include a definition of 'Digital Humanities' itself.

The programme management has concretized its own profile in the **programme-specific learning outcomes (PSLO)**. The coverage of the DSLO by the PSLO is made visible by means of a matrix. Two PSLO have no matching DSLO and are related to the understanding of and the skills in relating IT to management in the field of Digital Humanities.

The PSLO emphasize a more practical, hands-on orientation, instead of focussing on the conceptual and theoretical aspects of many Digital Humanities programmes abroad. The programme management explains that this was a deliberate choice. The programme is conceived as a joint initiative and explicit collaboration between the Faculty of Science and a number of Faculties of HSBS and is therefore clearly distinguished from

existing Computer Sciences programmes. Students should not become software engineers, in the view of the programme management, but must be able to analyse and understand the user's needs in the field of the HSBS and to contribute to solutions in combining their expertise as a master in the HSBS and their competences with respect to IT tools.

The panel reviewed the PSLO in depth and concludes that the targeted PSLO are positioned on the required master level and orientation as defined in the Flemish qualification framework and comply with the validated DSLO. It is the panel's opinion that the learning outcomes are very much state of the art in the field of Digital Humanities. A great deal of work has gone into welcoming and supporting humanists and behavioural scientists with minimal computing background. The program provides numerous learning outcomes that serve students from different backgrounds.

The panel appreciates that the programme management has adjusted the PSLO according to the recommendations of the initial assessment (the so-called TNO). The PSLO were reformulated using a higher degree of abstraction but remain closely related to the specific learning outcomes of the different courses. The panel agrees with the motivation of the programme management to do so. Hence, the outcomes should be easily verifiable and understandable to all concerned.

During the conversations with professionals and graduates, the panel observed how much the learning outcomes fit the needs of the academic research as well as of the professional field outside higher education.

To conclude, it is the panels' opinion that the targeted programme-specific learning outcomes fit the domain-specific outcomes and the Flemish qualification framework. The targeted programme-specific learning outcomes also match the current programme content requirements. They have been established internationally by both academic and other professionals. In sum, the targeted outcome level is judged as "satisfactory" by the panel.

Generic quality standard 2: Educational Learning Environment

The assessment panel evaluates the educational learning environment for the Master of Science in Digital Humanities as "satisfactory".

The Master of Science in Digital Humanities is a one year advanced master's programme. The **programme** (60 ECTS) comprises six components:

– The Introductory component consists of three mandatory courses of 5 ECTS each. One provides an introduction to Digital Humanities. The other two courses provide the required background to engage in Digital Humanities research and application development.

– The Management component contains one mandatory course of 3 ECTS, which focuses on the relationship between IT and management.

– The Advanced digitization component (3 ECTS) familiarizes the students with emerging technologies and applications in Digital Humanities.

– The component Tools for the digital world contains four optional courses (6 ECTS each), providing background in the student's selection of additional technological tools, for human-computer interfacing, web information systems, data-mining or data visualization. The student selects between 6 and 18 ECTS from the component.

– The component Application domains contains nine optional courses (between 4 and 6 ECTS each). Students select between 6 and 18 ECTS from this component, corresponding to their interests, to the required technological tools they selected in the previous component and to their own background in the HSBS.

– The Master's thesis (15 ECTS) is the central component of the programme in which the student shows the ability to integrate the competencies achieved in the other components to deliver a new scientific contribution.

A matrix shows the relationship between the programme-specific learning outcomes and the components.

It is the panel's opinion that the programme includes all major areas of Digital Humanities. All the programme components are needed in a well-balanced curriculum. The panel also appreciates the flexibility which the programme offers. It gives students the opportunity to grow and mature in the domains of their interest. KU Leuven is fortunate - the panel states - to be able to offer such a wide range of subjects. The courses on management, on publishing and on web information access are particularly interesting additions to standard subjects such as NLP (natural language processing), visualization, data-mining, etc. The panel was able to augment the

general readings and discussions with the instructors by seeing the course materials in Toledo (the electronic learning environment of KU Leuven). This gave the panel a good view on the different teaching and learning activities and the quality of them.

The panel was also very interested to hear how the different components are interconnected. The programme management confirms that this is a point of continuing attention. After the first year, the interdependencies between the tools and application courses were inventoried and strengthened. The discussions with the students, alumni and staff convinced the panel that the links are in place and that students are aware of the contribution of each component to the programme.

The **Master's thesis** is the corner stone of the programme in which the students tackle research questions in one of the domains of Digital Humanities. This research can be performed in a research unit of KU Leuven and since last year also in another organization by means of an internship. An internship corresponds to a duration of 12 weeks but is mostly spread over 16 weeks to allow the student to attend the courses as well. The panel as well as the students appreciate the opportunity to do an internship, but until now, only a few students choose actually to do so.

The research topics are proposed by the staff but students can propose alternative topics based on their expertise in HSBS. In the latter case, these topics need approval from the programme management. Other organisations can also propose research topics; they need approval as well.

In the discussions, alumni pointed out that they received the information and expectations concerning the thesis only in the second semester, what they perceived as rather late. This was probably due to the start-up of the programme. The information is now extensively communicated in the first semester, so the students told. The same problem occurred with the introduction of the internship. Concerning the guidance of the master's thesis, the students and alumni experienced differences between the lecturers regarding their follow up and felt not always well guided. In the discussions the panel learned that the lecturers have strengthened the procedures for guidance and made the guidance more uniform. The suggestion of the students to have group discussion sessions on the theses was followed up.

The programme is set up as an **international programme**. Lectures, courses and communication are in English. Three lecturers are non-Flemish. The programme explicitly aims at attracting international students, preferably in balance with the number of Flemish students that enrol. In the first year that the programme was organized, this objective was met: 8 out of 14 students were non-Flemish. The second year however the programme could only attract two foreign students. This academic year the numbers of foreign and Flemish students are more in balance again. The panel agrees that the amount of international students and staff adds great value to the programme.

The panel is satisfied with the **teaching and learning methods** that are used in the different courses. A wide variety of educational methods is used. Nearly all courses include interactive forms of teaching and learning. Most courses use project assignments, often combined with reporting (papers, reports, presentations or defenses). The courses that aim at skill development, have worked with practical hands-on group sessions. The panel would consider having the students develop portfolios for their work in the programme as a whole. Such programme-general portfolios would, in turn, impact the course specific work. However, the various course projects seem already well-organized and already interact. The panel believes that modifications to move towards a coherent programme portfolio would not be difficult.

The programme makes use of the **infrastructure and the educational equipment** of the involved faculties. The panel got a view of the library, classrooms and general infrastructure of the Computer Science campus and was impressed by the infrastructure provided to the students. This view was endorsed by the students and alumni.

The **lecturers** directly involved in the programme come from different faculties and departments:
– 5 lecturers of the Faculty of Science – Department of Computer Science;
– 6 lecturers of the Faculty of Arts;
– 1 lecturer of the Faculty of Social Sciences;
– 1 lecturer of the Faculty of Psychology and Educational Sciences;
– 2 lecturers of the Faculty of Engineering Science;
– 1 lecturer of the Faculty of Medicine.

Furthermore, the programme can rely on a number of colleagues from the Faculty of Arts and of the Faculty of Psychology and Educational Sciences to be (co)promoter of master's theses in case the subject is related to their

research. Finally, teaching assistants help students during lectures and exercises sessions. The panel was impressed with the range and number of instructors who help the students during their studies. The quality and variety of competences and expertise represented by the staff fit the needs of the enrolling students. Compared to the small number of 20 enrolled students, the number of staff members is sufficient. Increasing numbers of students would not be a problem for the existing staff.

Because the programme is organized by four faculties, the panel appreciates the appointment of three staff members specifically for Digital Humanities: one of the Faculty of Arts, one of the Faculty of Psychology and Educational Sciences and one of the Department of Computer Science. They are the key members of the Programme Committee. Besides teaching, they conduct a substantial body of research and manage the interdisciplinary cooperation between the involved faculties and departments. The panel was interested to hear how the coordination within the teaching staff was done. The panel learned that there is a formal interaction in the Programme Committee; however, the lecturers also interact informally such as in research projects. The panel appreciated how various lecturers were able to interact with each other and present their work as complementary.

Students can enter the study programme after a positive evaluation of the selection committee. Candidates submit an **application** containing detailed information on their prior studies, work experience, additional competences, proof of proficiency in English and a motivation statement. The candidates are holder of a Master's degree in HSBS. Students with a strong background of IT are advised not to enrol in the programme. For each candidate, the decision of admission is also based on the ability of the programme management to determine a trajectory that fits the student's background and expectations. This includes evaluating whether a staff member is able to guide a master's thesis topic related to the interest of the applicant. By this, the programme prepares itself each year to start with a heterogeneous group of students.

Until now the programme attracts approximately 20 students but everything is in place to welcome more students. It is the panel's opinion that the programme could gain more attention. Apart from the obvious communication channels, the panel believes that the best way to promote the programme is to show the output of the students. The panel encourages the programme to look for ways to make the work of the students more visible. The students would like to see an extra platform on which they

could present their own work to different stakeholders and on which they could learn more about the projects of other students.

To conclude, it is the panel's opinion that the curriculum, staff and facilities link very well together to make up a coherent and effective learning environment. The panel considers the programme to be a best practice of how to develop a Humanities programme in the 21st century. The programme is well balanced with all the necessary components of Digital Humanities. The interdisciplinary angle and the cooperation of the different faculties and departments are exemplary. The amount of international students and staff adds great value to such a Humanities programme. The panel suggests looking for opportunities to promote the programme in order to attract more students.

Generic quality standard 3 - Outcome Level Achieved

The assessment panel evaluates the outcome level achieved for the Master of Science in Digital Humanities as "satisfactory".

The study programme is embedded in the Faculty of Science. Hence, the programme adheres to the educational policy of this Faculty, which has a clear vision and policy regarding the assessments. The central principle is that assessments must allow to test if all learning outcomes are achieved by the students. In order to guarantee that students can reach all learning outcomes, appropriate guidance needs to be offered and adequate tests need to be used. Guidance is offered via formative tests with feedback. This enables students to monitor their study progress and to adjust this process if needed. Summative tests are indispensable in verifying whether the students achieve the intended learning outcomes. The panel observed that the programme management as well as the teaching staff and teaching assistants are fully aware of the difficult but important task to make the assessments transparent, valid and reliable.

It is the panel's opinion that the programme uses a good variety of assessment forms, such as projects, papers, reports, presentations, web page and blog/forum entries. They are in line with the general teaching and learning methods. The majority of the components have some form of permanent assessment, in line with the Faculty's policy and vision. The panel examined a sample of assessments and is very satisfied with the quality level of the assignments. In sum, the assessments represent a master's level.

The panel discussed the assessments with the lecturers and teaching assistants. Since the lecturers work in different faculties with different visions regarding the assessments, the panel was interested to hear how they define a common ground. The panel agrees that sharing experiences and learning from each other are the key factors here. The panel appreciates that for many assessments at least two experts are involved and that they work in team to reach an overall mark. For the projects and exercise exams, model solutions are available. The panel learned that in case a student comes up with a different but valid solution, this solution is accepted as well. Furthermore the panel heard that lecturers started to use peer assessment, especially in group assignments, in order to grasp the group dynamic as well as the individual contributions.

It is the panel's opinion that the assessment of the **Master's thesis** is well established. The assessment includes the evaluation of a written text and an oral defense in front of a jury. The jury consists of the supervisor of the thesis and two additional readers. To increase the objectivity, one of the readers is selected from a research unit outside the unit in which the thesis is done. The evaluation by the jury members is done by means of an assessment roster based on the following criteria: process, content, form and defense. A scale of appreciation is available to guide the jury members on how to come to an overall mark. Each jury member bases the assessment on this roster and discusses the findings afterwards to reach a consensus for the final mark.

The assessment of the **internships** follows the same procedure. The mentor in the company takes part in the assessment, together with the supervisor and an assessor. The programme management has slightly changed the assessment roster with respect to the internships. The requirements on the research dimension are reduced and compensated by a new dimension that focuses on actively integrating competences in a working environment. The panel agrees that the assessment roster of the internships is a good starting point, but encourages the programme management to monitor closely the feasibility of the roster for further fine tuning.

Before the site visit, the panel had the opportunity to read several master theses. The panel is convinced of the quality of the theses and agrees with the marks that were awarded. Several students presented their work on conferences or in publications, which demonstrates the quality of the students' research work, so the panel was told.

The panel was impressed by the enthusiasm of the students and alumni. In the discussions they expressed their satisfaction with the study programme. They were well informed and the programme me(e)t(s) their expectations. The interaction between students and teaching staff is very stimulating. The students appreciate that the teaching staff is easily accessible. They also appreciate the opportunities to give feedback on the programme, which the programme management follows up.

The discussion with professionals and graduates showed how much the learning outcomes of the programme fit the needs and demands of the professional field. To understand both 'sides' of a project, the computer sciences side and the humanities side, makes much sense for many employers. Graduates of this study programme are welcomed in many digital humanities projects in Europe, North America and beyond. The panel sees potentially a major development, if not a revolution, in the jobs that humanists can fill in.

This raises the question again how to attract more than the mere 20 students enrolling today. In the discussions the option of a PhD programme was suggested. The panel welcomes this option and encourages the programme management to explore this opportunity further. As mentioned before, the panel encourages the programme management to make work of making the students' achievements more visible. The panel suggests considering having the students making a portfolio of their work as a whole. This would create the publicity needed to attract more students.

To conclude, it is the panel's opinion that the study programme has an appropriate system of assessment, testing and examination and demonstrates that the targeted outcome level is achieved.

Final judgement of the assessment panel

As the generic quality standards 1, 2 and 3 are evaluated as "satisfactory"; the final judgement of the assessment panel about the Master of Science in Digital Humanities is "satisfactory", such according to the decision rules.

Summary of the recommendations for further improvement of the study programme

Generic quality standard 1 – Targeted Outcome Level
/

Generic quality standard 2 – Learning Process
– Stay attentive in order to strengthen the procedures for guidance of the master's theses and internship reports and to make the guidance more uniform.
– Consider having the students making a portfolio of their work as a whole.
– Look for opportunities to promote the programme in order to attract more students.

Generic quality standard 3 – Outcome Level Achieved
– Keep monitoring the assessment process of the internship and in particular the feasibility of the assessment roster for further fine-tuning.
– Explore the opportunity of a PhD programme in Digital Humanities. This could be an asset in attracting more students.
– Look for additional means to make the work attained by the students more visible. Seek the collaboration of the students. This could also help to attract more students.

APPENDICES

APPENDIX I
Curricula vitae of the members of the assessment panel

Gregory Crane

Gregory Crane combines classical philology and computer science in an innovative approach, applying computer science methods to systematise human cultural development. He completed his doctorate in classical philology at Harvard University and subsequently worked there as an assistant professor. Professor Crane owes his reputation as a pioneer of digital humanities to his development of the *Perseus Digital Library*, a comprehensive, freely accessible online library for antique source material. From 1985, he was involved in planning the Perseus Project as a co-director and is now its Editor-in-Chief. He was associate professor at TUFTS University and he is now Professor of Digital Humanities, Professor of Classics and Winnick Family Chair of Technology and Entrepreneurship. He was Alexander von Humboldt professor of Digital humanities at the University of Leipzig from 2013 through 2018. He has received, among other awards, a Google Digital Humanities Award for his work in the field.

Gerhard Lauer

Gerhard Lauer is currently Professor of Digital Humanities at the University of Basel. He worked on literary history, digital humanities and cognitive poetics and is known for his social cognitive approach in literary studies. Gerhard Lauer initially studied literary studies, philosophy and musicology at the Saarland University and University of Tübingen and completed his undergraduate degree at the University of Munich. He

was then trained in German and Jewish studies. He went on to complete his Doctor of Philosophy in 1992 on the history of scholarship in exile. In 2002 he became chair of Modern German Literature at the University of Göttingen. Professor Lauer is a fellow of the Göttingen Academy of Sciences and Humanities, was distinguished Max Kade visiting professor at the Washington University in St. Louis, senior research fellow at the Institute of Advances Studies/St Mary's College, Durham University, and is cofounding editor of the Journal of Literary Theory and associate editor of the journal Scientific Study of Literature.

Liesl Van Britsom

Liesl Van Britsom graduated as a Bachelor of Arts in Linguistics and Literature, specialisation English-Theatre, Film and Literature. She is a Master's student in Theatre and Film Studies at the University of Antwerp and she is member of the Student Council.

Jacques Van Remortel

Jacques Van Remortel studied electrical and mechanical engineering – option heavy current engineering and electrical engineering – option electronics at the Ghent University. He finished his Master of Science in Applied Mathematics and his PhD in Applied Mathematics at the Stanford University, California, USA. He started his career at Alcatel Bell in 1974 in the Research Center on Telecommunications. He worked at the development of an experimental telephone exchange and applied software techniques. In 1983 he got management responsibility for the development and the sales of end-user products (Local Area Networks, Videotex, UNIX). From 1985 on, he worked on Narrowband ISDN and in 1989 he became Product Manager for broadband products (Metropolitan Area Networks, ATM products and Interactive Video). In 1994 he became Sales Coordination Manager Full Service Network Products (Video on Demand). Since 1996 until his retirement in 2003, he was Director of the Research & Innovation Department, Antwerp and in parallel Director of the Strategic Program "Access".

APPENDIX II
Time schedule of the site visit

Monday 13 November 2017

12:00–14:30	Internal consultation + lunch
14:30–15:45	programme management
15:45–16:00	Internal consultation
16:00–17:00	students
17:00–17:15	internal consultation
17:15–18:15	teaching staff
18:15–18:30	internal consultation
18:30–19:30	graduats and professional field
20:00	diner panel

Tuesday 14 November 2017

09:00–10:00	programme-specific infrastructure
10:00–11:00	supporting staff
11:00–12:00	consultation hour
12:00–13:00	lunch
13:00–13:30	programme management
13:30–16:30	final consideration
16:30	oral report