

Additional Assessment Media Technology

Leiden University

Quality Assurance Netherlands Universities (QANU)
Catharijnesingel 56
PO Box 8035
3503 RA Utrecht
The Netherlands

Phone: +31 (0) 30 230 3100
Telefax: +31 (0) 30 230 3129
E-mail: info@qanu.nl
Internet: www.qanu.nl

Project number: Q574

© 2016 QANU

Text and numerical material from this publication may be reproduced in print, by photocopying or by any other means with the permission of QANU if the source is mentioned.

CONTENTS

Report on the master's programme Media Technology of Leiden University.....	5
Administrative data regarding the programme	5
Administrative data regarding the institution.....	5
Quantitative data regarding the programme	5
Composition of the assessment panel.....	5
Reasons and context.....	6
Working method of the assessment panel.....	6
Summary judgement.....	8
Description of the standards from the Assessment framework for limited programme assessments	9
Appendices	13
Appendix 1: Curricula Vitae of the members of the assessment panel.....	15
Appendix 2: Graduation forms.....	17
Appendix 3: Herstelplan Media Technology	21
Appendix 4: Programme of the site visit	25
Appendix 5: Theses and documents studied by the panel.....	27

This report was finalised on April 26th 2016

Report on the master's programme Media Technology of Leiden University

This report takes the NVAO's Assessment Framework for Limited Programme Assessments as a starting point.

Administrative data regarding the programme

Master's programme Media Technology

Name of the programme:	Media Technology
CROHO number:	60206
Level of the programme:	master's
Orientation of the programme:	academic
Number of credits:	120 EC
Specialisations or tracks:	-
Location(s):	Leiden
Mode(s) of study:	full time
Expiration of accreditation:	27 November 2016

The panel meeting Media Technology took place on 16 March 2016, interviews with representatives of the degree programme took place on 12 April 2016.

Administrative data regarding the institution

Name of the institution:	Leiden University
Status of the institution:	publicly funded institution
Result institutional quality assurance assessment:	positive

Quantitative data regarding the programme

Quantitative data regarding the programme are not included in this report, but can be found in the report Computer Science February 2014

Composition of the assessment panel

The panel that assessed the master's programme Media Technology consisted of:

- Prof. dr. J. Paredaens, University of Antwerp, chair;
- Prof. dr. S. Mullender, University of Twente, panel member;
- Prof. dr. E. Postma, Tilburg University, panel member.

The panel was supported by dr. B.M. van Balen, who acted as secretary.

Appendix 1 contains the curricula vitae of the members of the panel.

Reasons and context

The master's programme Media Technology has been assessed in the cluster assessment of the academic Computer Sciences programmes in the Netherlands in 2013. The initial visitation of the programme took place on 7 and 8 October 2013. The assessment panel found the vision and the objectives of the programme clear and believes that the Media Technology programme is a unique programme in the Netherlands. It assessed Standard 1 as good and Standard 2 as satisfactory. The panel however established two problems concerning Standard 3 (Assessment and achieved learning outcomes) and had to assess this standard as unsatisfactory. The panel was unable to make a proper assessment on the quality of the theses. Essential information regarding the creative work and the process was not available. The scientific texts alone did not show sufficient evidence of scientific research. The panel recommended three essential improvements for the assessment system of the master theses and also formulated three recommendations that will further improve the quality of the thesis and its assessment. Immediately after the site visit the programme management started with implementation of improvement measures. The panel established during the second site visit that five of six recommendations mentioned have already been implemented as of January 2014. At that moment, however, the panel could not yet verify if the measurements had led to improvement of the theses.

The programme was granted an improvement period by the NVAO on the basis of the improvement plan. Leiden University has to apply for reaccreditation before 30 May 2016 and has to attach a report of the assessment of standard 3 by an independent panel of experts.

Working method of the assessment panel

Preparation

The director of education and all staff members involved in the Master Media Technology provided a self assessment report covering the developments of the master programme to date, since the site visit of 7 and 8 October 2013. This report was made available to the panel members on 1 March 2016. A selection of nine theses was made out of a list of 37 graduates since September 2014. These theses and the assessment forms were also made available on 1 March 2016. The panel members studied the theses and decided in the meeting on 16 March 2016 to also have a look at the other 28 theses.

Site visit

In the panel meeting on 16 March it was decided to invite the supervisors/ examiners of one of the theses, the programme director and the Board of Examiners for an interview about thesis assessment and quality assurance. These interviews took place on 12 April 2016.

Report

After the meeting and the interviews, the secretary wrote a draft report based on the assessment panel's findings. Subsequently, this draft report was sent to the assessment panel for feedback. After processing the panel members' feedback, the secretary sent the draft report to the university in order to have it checked for factual irregularities. The secretary discussed the ensuing comments with the panel's chair and adapted the report accordingly before finalising it.

Decision rules

In accordance with the NVAO's Assessment Framework for Limited Programme Assessments (as of 19 December 2014), the panel used the following definitions for the assessment of both the standards and the programme as a whole.

Generic quality

The quality that, from an international point of view, can reasonably be expected from a higher education bachelor's or master's programme.

Unsatisfactory

The programme does not meet the current generic quality standards and shows serious shortcomings in several areas.

Satisfactory

The programme meets the current generic quality standards and shows an acceptable level across its entire spectrum.

Good

The programme systematically surpasses the current generic quality standard.

Excellent

The programme systematically well surpasses the current generic quality standards across its entire spectrum and is regarded as an international example.

Summary judgement

The panel that assessed the master's programme Media Technology of Leiden University in 2013 called the Master's Media Technology a unique programme with a clear vision, objectives and intended learning outcomes. It concluded however on basis of the studied graduation theses that it could not be guaranteed that all students have achieved the final qualifications.

The NVAO granted the programme an improvement period in which the programme implemented measures to improve the structuring and documentation of the graduation theses. In March and April 2016 a reassessment panel verified if these measures have resulted in the desired improvement. The 2016 panel studied the self-assessment report and a selection of 'new' graduation theses. Furthermore the panel interviewed supervisors, the Board of Examiners and the programme manager. It established that the programme has an adequate assessment system and that the level achieved by the students graduating is what can be expected of an academic master's programme.

The panel is pleased to see that the planning of the graduation project in the curriculum enables the students to make a good start with the research and that the students are adequately prepared to achieve the intended learning outcomes and to finish their project timely. The introduced graduation forms and the student's logging of the graduation process have definitely improved the documentation of the graduation projects.


The panel assesses the standards from the Assessment framework for limited programme assessments in the following way:

Standard 3: Assessment and achieved learning outcomes Satisfactory


General conclusion Satisfactory

The chair and the secretary of the panel hereby declare that all members of the panel have studied this report and that they agree with the judgements laid down in the report. They confirm that the assessment has been conducted in accordance with the demands relating to independence.

Date: April 26th 2016



prof.dr. J. Paredaens



dr. B.M. van Balen

Description of the standards from the Assessment framework for limited programme assessments

Standard 3: Assessment and achieved learning outcomes

The programme has an adequate assessment system in place and demonstrates that the intended learning outcomes are achieved.

Explanation:

The level achieved is demonstrated by interim and final tests, final projects and the performance of graduates in actual practice or in post-graduate programmes. The tests and assessments are valid, reliable and transparent to the students.

Findings

The panel that assessed the master's programme Media Technology of Leiden University called the Master's Media Technology a unique programme with a clear vision, objectives and intended learning outcomes. The panel believed that the programme is a valuable addition to existing fields of research and education. The vision on education is according to the panel 2013 translated into a well-structured curriculum with specific didactical characteristics that support the realisation of the objectives. The 2013 panel however concluded on basis of the studied graduation theses that it can not be guaranteed that all students have achieved the final qualifications.

The 2013 panel formulated three conditions for a positive assessment of standard 3:

1. Documentation of the entire project needs to be accurately and guidelines for documentation of the entire project should be specified beforehand.
2. All theses should reflect the scientific character of the master programme. This requires a clear defined problem statement, a scientific methodology and research based conclusions.
3. Students should keep a diary to document their progress on their research project. This diary is enclosed in the thesis and is part of the final assessment.

Next to these conditions the panel formulated three recommendations:

- Add an external expert on the subject matter to assess the entire research project;
- Plan the start of the final project earlier in the academic year;
- Invest in the quantity of staff.

On basis of the second site visit of the initial (2013) panel in January 2014 the respective panel already concluded that the programme implemented two of the three conditional improvement measures and reacted positively to the three recommendations. These conclusions are confirmed by the reassessment panel. Although the reassessment is only aimed at standard 3, the reassessment panel is very pleased to see that the recommendation of the 2013 panel to invest in the quantity of staff for the programme has also been met in the improvement period.

The Improvement Plan of the programme focused on five aspects regarding the thesis trajectory. In the Self-assessment report 2016 is described that the curriculum of Media Technology gradually builds up to the graduation project. Since 2014-2015 the kick-off of the Graduation Project is scheduled in the beginning of the third semester. Now students have

the opportunity to pick their selective courses on the basis of their Graduation Project. Additionally only two graduation dates were introduced in 2014-2015. When a student has to redo the graduation project, there is a retake possibility in August.

At the start of the graduation project students have to write a proposal using the Graduation Form 1. Using the form enables the students to be more concrete in translating their research subject into a research question. The programme also introduced a Graduation Form II which concerns the research question, methodology and documentation (logging). Graduation Form III covers the assessment of the graduation project. The forms are included in the Appendix B.

The panel is very pleased with the introduction of the forms and the way the graduation project is structured.

The panel made a selection of nine graduates out of a list of 37 students who graduated since the initial assessment in 2013 and studied the theses, the related assessment forms, the logs and all other documentation connected to the theses. The selection of the nine graduates was made on basis of the final marks for the theses. It included three theses in the lowest range of passing marks, three in the middle range and three in the higher range.

After studying the selection of theses the panel doubted the quality of one of them and decided to read all 37 theses of the graduates in the improvement period. Furthermore it discussed the assessment of the respective thesis with the supervisors, representatives of the Board of Examiners, and the programme director. During these discussions it became clear that further specification of the tasks of the supervisors in assessing theses is desirable. Both the creative as well as the scientific assessment criteria need to have attention and can be more transparent. The programme director agreed that it could be helpful to assign one of the supervisors to pay attention to the creative quality of the thesis and one of the supervisors to have an eye for the scientific quality.

The academic level of all other graduation theses is what can be expected of an academic master's programme. The panel assessed some of the theses as very good, which is in line with the finding described in the assessment report 2014: 'The committee has seen some very good theses and agrees with the programme management that the master programme stimulates the good students to do innovative and creative research. In the theses of the good students the success of this unique programme can clearly be identified'.

The panel has established that the planning of the graduation project in the curriculum enables the students to make a good start with the research, to achieve the intended learning outcomes and to finish their project timely. The introduced graduation forms and the student's logging of the graduation process have definitely improved the documentation of the graduation projects. The panel is very pleased to see that the transparency of the assessment of the graduation projects is enhanced.

Considerations

The panel established that the programme has an adequate assessment system. It however recommends to further specify the tasks of the thesis assessors to enable them to pay sufficient attention to both the creative and the academic quality of the thesis. The panel furthermore believes that the assessment system is well organized and established that the Board of Examiners is in control of the quality of the graduates and the interim tests. The level achieved by the students graduating is what can be expected of an academic master's

programme. The panel verified that the graduated students have achieved the intended learning outcomes.

Conclusion

Master's programme Media Technology: the panel assesses Standard 3 as 'satisfactory'.

General conclusion

In 2013 the assessment panel was positive about the intended learning outcomes of the master's programme Media Technology and assessed this standard as good. Standard 2 the teaching learning environment was assessed as satisfactory. In this additional assessment the panel came to the conclusion that standard 3 Assessment and achieved learning outcomes is satisfactory. The master's programme Media Technology is therefore assessed as satisfactory. The programme fulfils the criteria for accreditation.

Conclusion

The panel assesses the *master's programme* Media Technology as 'satisfactory'.

Appendices



Appendix 1: Curricula Vitae of the members of the assessment panel

Prof. em. J. (Jan) Paredaens was a professor at the University of Antwerp and is now dean of the Faculty of Design Sciences at the same university. He graduated as a mathematician from the Free University of Brussels and was awarded his doctor's degree in 1974 from the Free University of Brussels. He worked until 1979 in the research centre of the company MBLÉ in Brussels. In 1979 he was appointed lecturer in Informatics at the University of Antwerp. He filled various positions, including Dean of the Sciences Faculty. He has already been a member of the Informatics review committee in the Netherlands. His scientific specialisation is 'Databases and Data mining', on which he has published over 100 international scientific articles. He has also organised a number of international conferences in his subject and is a member of the 'Executive Committee of PODS' in the USA. He was member/chair of numerous Belgian and international committees and panels.

Prof. E. (Eric) Postma is professor Artificial Intelligence at Tilburg Center for Cognition and Communication (TiCC), Tilburg University. His main research interests are Artificial Intelligence (AI) and cognitive modelling. He received his education at the Radboud University Nijmegen. In 1989 he performed his M.Sc. research during an internship at Leiden University on a connectionist model of implicit and explicit memory. Thereafter he started his Ph.D. research at Maastricht University. In 1993, it resulted in a biologically inspired model of covert attention. This research line has been an almost inexhaustible source of inspiration for his further investigations. Currently, he is focussing on machine learning and models of active vision. Among others Eric Postma was also: Member of the Scientific Committee of SIKS2 (1999-present); Co-organizer of the Image Processing for Artist Identification (IP4AI), MoMA, New York, United States, 2010; Member of the Programme Committee of the European Micro Aerial Vehicle Conference (EMAV 2009), Delft University of Technology, Delft, The Netherlands, 2009.

Prof. S. (Sape) Mullender is technical leader at CISCO and an extraordinary professor of computer science at the University of Twente. He has conducted research in the field of operating systems, multimedia systems, wireless systems and now works on the integration of data processing, communication and storage. He was a founder of the Amoeba distributed system, collaborated on the Nemesis multimedia operating system, Plan 9 from Bell Labs and Inferno. He was awarded his doctor's degree from the Vrije Universiteit in Amsterdam and worked there as scientific staff member until 1983. From 1984 to 1990 he was head of the distributed systems and computer networks research group at the Centre for Mathematics and Informatics (CWI) in Amsterdam. From 1991 to 1998 he was full professor in Twente; now he is an extraordinary professor there. From 1992 to 1997 he was the world's most northerly professor of Computer Science at the University of Tromsø in Norway. In 1998 he began working at Bell Labs. Sape Mullender has published on file systems, high-performance RPC protocols, locating migratable objects in computer networks, and computer security, and has led a series of advanced courses in the field of distributed systems — Arctic'88, Fingerlakes'89, Bologna'90, Karuizawa'91, Lisboa'92, and Redmond'93. Until 2014 he was Director of Network Systems in Alcatel-Lucent's Bell Laboratories.

Appendix 2: Graduation forms

Graduation Form I

Media Technology Graduation Form I

Research Project Theme Proposal

This form has to be filled in by student and submitted to the Media Technology Board. The form has to be signed by a Board member and primary supervisor of the Research Project. When the form is signed by primary supervisor, student has to hand it in to the coordinator of Media Technology.

Student name		
Student number		
Submission date		
Research theme and working title	Describe the scientific domain of which your study is part. Specify the starting points for your research, and place them in their scientific context.	
Motivation	Specify what makes your question or statement relevant, or explain why you chose it. Moreover, motivate how your research fits within the Media Technology program.	
Related work	Tell us about work done by other scientists that relates to the theme that you are submitting.	
References	Mention the scientific literature that relates to your submitted theme.	
Date Board Meeting	(This field is filled in by Board)	
Feedback from the Board	(This field is filled in by Board)	
Approved or Denied	(This field is filled in by Board)	
Signature Board		
Name 1st supervisor		Date: Signature:

Graduation Form II

Media Technology Graduation Form II

Research Project Working Methods

This form has to be filled in by student and signed by all supervisors within a month after the Media Technology Board has approved the Research Proposal (Media Technology Graduation Form I). Then the form has to be handed in to the coordinator of Media Technology.

Student name		
Student number		
Documentation	Describe how you will document your research process (e.g. through a logbook, wiki, blog). In particular, specify the planning of this documentation (when will you document what?). Explain how the final results will be documented (e.g. user reports, spreadsheets, databases, videos, photos). Finally, mention how this collected documentation will be provided at the end of your project. For the requirements of your documentation, see the online graduation guidelines.	
Research question or statement	A concrete, answerable (scientific) question or clear statement. It is typically a specification of your research theme, captured in one or two sentences.	
Method of work	Describe your approach to answering the question or illustrating the statement. If you cannot yet concretize this, then specify the bounds within which you will operate.	
Evaluation	Describe how you will evaluate whether (and to what extent) your question was indeed answered or your statement was indeed illustrated.	
Critical reflection	Summarize the conclusions and discussions as it will likely appear in the graduation thesis.	
Agreed primary supervisor	Name:	Date: Signature:
Name 2nd supervisor	Name:	Date: Signature:
Other assessors	Name:	Date: Signature:

Graduation Form III

Media Technology Graduation Form III

Research Project Assessment Form

This form has to be filled in by the primary supervisor, and signed by both supervisors to support the final assessment of M.Sc. project at LIACS Media Technology.

After signing this form, the primary supervisor has to hand it in to the coordinator of Media Technology as an official proof of the grade of the Research Project.

The final grade will be processed only when the student has handed in to the coordinator of Media Technology the following documents (in a digital format):

- 1) Complete Research documentation,
- 2) Week-book,
- 3) Thesis.

Student name and student number		Department: Media Technology
Project title		Number of EC's 30
Name 1st supervisor		
Name 2nd supervisor		
Other assessors		

Category	Arguments in favor and against (pro's and con's)	Grade
Thesis work (including software, paper)		
Publications that came out of the project (if any)	Please mention authors, title, conference/journal and whether the paper has been accepted	
Project execution		
Final presentation		
Defense		
Other items delivered (poster, exhibit, ...)		
Conceptual abilities		
External orientation		
Learning abilities		
Presentation skills		
Overall grade	Grades can be 'halves' except for 5.5.	
<i>Did you consider to submit the article to a journal or conference, and did you consider to upload the article abstract to the Leonardo repository?</i>		
Name 1 st supervisor: Date: Signature:	Name 2 nd supervisor: Date: Signature:	

Criteria that are used to quantify the result:

- Quality of the thesis:
 - originality of the research question,
 - creativity in creating a solution,
 - soundness of the approach,
 - quality of the reporting (structure of the thesis, grammar),
 - critical Thinking: the student does not take presented information for granted, but challenges this,
 - contribution to scientific knowledge (has a publication been realized?).

- Characteristics of executing the project:
 - the student has made a good planning and largely stuck to this planning,
 - autonomy (self-propelling): student has performed the work largely autonomously with little input required from the supervisors,
 - systematic application of methods and techniques.

A guideline for the relative weights of the categories for grading is: Thesis work 50%, Project execution 20%, Final presentation: 10%, Defense: 10%, Other items delivered: 10%.

Herstelplan Media Technology

22 juni 2014

Prof. dr. Bas Haring, Opleidingsdirecteur Media Technology; Prof. dr. Thomas Baeck, Opleidingsdirecteur Informatics Institute LIACS; Prof. dr. Han de Winde, vice dean Faculty of Science, Leiden University.

Dit herstelplan is een reactie op de bevindingen van de visitatiecommissie na twee bezoeken van deze commissie aan de masteropleiding Media Technology van Universiteit Leiden. De commissie had drie eisen geformuleerd:

- 1. Documentation of the entire project needs to be accurately and guidelines for documentation of the entire project should be specified beforehand.*
- 2. All theses should reflect the scientific character of the master programme. This requires a clear defined problem statement, a scientific methodology and research based conclusions.*
- 3. Students should keep a diary to document their progress on their research project. This diary is enclosed in the thesis and is part of the final assessment.*

Daarnaast deed de commissie drie aanbevelingen:

"The committee has also formulated a set of recommendations that will further improve the quality of the thesis and its assessments. The committee suggest (4) to add an external expert on the subject matter, to assess the entire research project. The committee also suggest (5) to plan the start of the final project earlier in the academic year. This has two benefits. First of all students will be able to select their free choice courses more in line with their research project. Secondly, the programme will be able to assess the whether the student has started a feasible research project. A third recommendation (6) is directed to the faculty and concerns the quantity of the staff."

Hieronder volgt ons herstelplan opgedeeld naar bovenstaande zes punten van kritiek. Alle genoemde maatregelen zijn feitelijk al genomen en bij haar tweede bezoek heeft de commissie haar vertrouwen uitgesproken over de verwachte effectiviteit ervan.

1) Project-documentatie

"Documentation of the entire project needs to be accurately and guidelines for documentation of the entire project should be specified beforehand."

Archief

Van alle afstudeerwerken wordt project-documentatie zoals foto's, video's en beschrijvingen gearchiveerd op een centrale server (naast het afstudeerartikel, dat altijd al gearchiveerd werd). Deze server is alleen toegankelijk voor staf. Het archief is met terugwerkende kracht zoveel mogelijk gevuld. De richtlijnen voor de studenten inzake het type documentatie dat zij moeten aanleveren zijn opgenomen in de *graduation guidelines* en deze zijn besproken tijdens de gemeenschappelijke kick-off van de afstudeeronderzoeken.

Afstudeerformulier

We gebruiken een nieuw afstudeerformulier dat studenten dwingt resultaten te documenteren. (Het formulier is bijgevoegd.) Dit afstudeerformulier is in december 2013 goedgekeurd door de opleidingscommissie en door de examencommissie. Bovendien is het in een plenaire bijeenkomst met alle studenten doorlopen.

Het formulier bestaat uit drie hoofddelen: een deel over het onderwerp van onderzoek en dat ingevuld wordt bij aanvang van het afstuderen; een tweede deel over de onderzoeksmethodiek en in het bijzonder de documentatie; en een derde deel voor de beoordeling van het afstudeeronderzoek. Na de zomer van 2014 wordt het formulier geëvalueerd en zo nodig aangepast.

De opleidingscoördinator en de afstudeerdocent beheren het formulier. En er zijn heldere procedures die ervoor zorgen dat formulieren op het juiste moment worden aangemaakt, volgbaar zijn, en ook weer worden afgesloten. Dat laatste gebeurt als de project-documentatie is gearchiveerd.

Jaarrooster

Met ingang van september 2014 zijn er jaarlijks nog slechts twee afstudeermomenten plus één herkansingsmoment. De opleiding zelf zal presentaties en demo's op deze momenten via video documenteren en is daar al mee begonnen.

2) Heldere vraagstelling & wetenschappelijk methode

"All theses should reflect the scientific character of the master programme. This requires a clear defined problem statement, a scientific methodology and research based conclusions."

Afstudeerformulier

Het eerdergenoemde afstudeerformulier dwingt studenten om een brede afstudeerthematiek te vernauwen tot een concrete afstudeervraag, en dwingt hen daarna een concrete onderzoeksmethode te beschrijven. Bovendien vraagt het formulier de studenten een academische context te beschrijven, via onder andere verwijzingen naar gelijkend werk en artikelen. De dagelijkse leiding van Media Technology geeft via hetzelfde formulier feedback op de onderzoeksthematiek van de student en waarschuwt voor eventuele valkuilen.

Monitoring

Twee maal per jaar (ongeveer een maand voor de afstudeerpresentaties) komen alle bij Media Technology betrokken docenten bijeen om met elkaar alle afstudeerders te bespreken. Al het materiaal dat er dan is komt op tafel en wordt gezamenlijk gelezen en becommentarieerd. Het kwaliteitscriterium dat steeds gehanteerd wordt is "is dit in principe publiceerbaar?"

Onderwijs

In het vak *Creative Research* – dat zich in eerste instantie richt op de vrijheidsgraden die wetenschap heeft – zal meer nadruk worden gelegd op de beperkingen en randvoorwaarden die in de wetenschap gelden.

3) Proces-documentatie

"Students should keep a diary to document their progress on their research project. This diary is enclosed in the thesis and is part of the final assessment."

Weekboek

In plaats van het voorgestelde "dagboek" (diary) verlangen wij een "weekboek". In dit weekboek houden de studenten hun voortgang bij: gelezen literatuur; overwogen onderzoeksmethodes enz. Richtlijnen voor dat weekboek zijn opgenomen in de *graduation guidelines*. We willen niet al te stringente eisen opleggen omdat iedereen zijn of haar eigen manier van werken heeft, en we daarin ook vrijheden gunnen. We bieden daarom ook geen standaard logging-tools aan. Wel geven we voorbeelden van een onze ogen goed geslaagde proces-documentatie – van eerdere studenten.

Afstudeerformulier

Op het eerdergenoemde afstudeerformulier beschrijft de afstudeerder hoe hij of zij het afstudeerproces zal documenteren (allicht in overeenstemming met de *graduation guidelines*).

Archief

Na het afstuderen wordt de proces-documentatie gearhiveerd in het afstudeerarchief. Dat betekent dat digitale documentatie volledig gedownload moet kunnen worden door de opleiding. En dat betekent ook dat eventuele analoge documentatie in de vorm van aantekeningen en schetsen door de student gedigitaliseerd moeten worden.

Beoordeling

Bij de eindbeoordeling van het afstudeerwerk telt ook het proces. Op het derde deel van het afstudeerformulier is hier apart ruimte voor.

4) Externe expert

"The committee suggest to add an external expert on the subject matter, to assess the entire research project."

In onze afstudeerwerkwijze maken wij altijd gebruik van zogenaamde "peers": studenten, docenten of externen die het afstudeerartikel lezen en het voortouw nemen in de discussie na de afstudeerpresentatie. We hebben hieromtrent twee wijzigingen doorgevoerd: (i) minstens één peer moet van buiten komen; (ii) de peers moeten minstens één keer, ongeveer halverwege het afstudeerproces, een rol hebben in het afstudeeronderzoek. Deze rol kan variëren: adviserend, sturend, luisterend.

5) Andere planning afstudeerproject

"The committee also suggests to plan the start of the final project earlier in the academic year."

Het afstudeeronderzoek begint voor het grootste deel van de studenten op één moment: in januari. In het nieuwe collegejaar, als het nieuwe onderwijs- en examenreglement ingaat wordt deze datum verschoven: naar de herfst. Bovendien komen er per volgend studiejaar twee afstudeermomenten plus een herkansing. Dat zorgt naar verwachting voor meer stok achter de deur.

6) Bemensing

"A third recommendation is directed to the faculty and concerns the quantity of the staff."

Betreffende de bemensing staat het instituut op het punt om een nieuwe senior aan de wetenschappelijke staf toe te voegen. Het is verwachting dat deze een actieve rol kan hebben binnen Media Technology. Bovendien worden samenwerkingen in gang gezet om onderwijs efficiënter te kunnen geven. Maar bovenal is een profielschets gemaakt voor iemand die het team komt versterken en die zowel een inhoudelijke, als een organisatorische taak zal krijgen.

Appendix 4: Programme of the site visit

Tuesday April 12th 2016 Dante Building Tilburg University

10.00 hrs internal panel meeting

10.30 hrs interview with supervisors Prof. dr. Bas Haring and Dr. Maarten Lamers

11.15 hrs interview with Board of Examiners Dr. ir. Fons Verbeek and Dr. Hans le Fever.

12.00 hrs interview with Prof. dr. Jaap van den Herik programme manager.

12.45 hrs internal panel meeting and conclusions

Appendix 5: Theses and documents studied by the panel

Prior to the site visit, the panel studied the theses of the students with the following student numbers:

1248154	1170708	1233998
1260243	1452045	1438026
1316575	1269577	1426931

The theses were accompanied by the filed graduation forms, the weeklogs and the presentations.

Furthermore the panel studied 28 theses of the graduated students in 2014-2016 without the graduation forms, weeklogs and presentations.