STUDY GUIDE Master Thesis Project

HUMAN-TECHNOLOGY INTERACTION IE&IS

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Contents

1 Introduction

A Master thesis is an individual report on an individual research project conducted as an assessment of academic proficiency. In the thesis, the students demonstrate that they are capable of analyzing a problem in the field of Human-Technology Interaction. An HTI researcher will provide guidance as supervisor, but the student is expected to act proactively and with a considerable degree of independence. The student also shows their ability to present the gained insights in oral presentations and, most of all, in a written report. The level of the thesis reflects the goals of an academic master's degree in Innovation Sciences, Human-Technology Interaction. This study guide contains a description of the final project of the Master of Human-Technology Interaction (HTI).

If you have questions about the final project, you can contact the following people:

- In case you have questions about the general organization of the MTP, please contact the MTP HTI coordinators Uwe Matzat and Kynthia Chamilothori at masterthesisHTI@tue.nl
- In case you have questions about administrative issues (including questions about enrollment), please contact the Education Administration IE&IS: ieis.csa@tue.nl.
- In case you have questions about the content of a project, please contact the researcher who is responsible for the project.

More information about the HTI graduation process is available at
https://educationguide.tue.nl/programs/graduate-school/masters-programs/human-technology-interaction/curriculum/graduation-project

2 The Final HTI master project in the curriculum

The MTP is the final project in the master program; the student should have in principle completed all other courses before starting this final project. Since it is a full-time project of one whole semester, it is formally planned in the last (fourth) semester of the master program. The student is not allowed to start the MTP HTI if more than 10 ECTs are left open in the program (see section 3.2 Prerequisites).

2.1 Day, time and place

The final project starts twice a year: in the second year in quartile 3 in February and alternatively in the quartile 1 in September. The final project has a study load of 30 ECTS, which means 840 hours in 22 weeks or about 38 hours per week. The project lasts for five months.

Prior to the start, students will be informed about the set-up of the course and the projects that are available to them. These projects will be offered by HTI teachers. Students need to express their preferences for a limited number of specific projects. Taking into account the students' preferences, they will then be allocated by the MTP coordinators to a specific project before the start of the course.

Students who still are abroad in early February (or early September) but return within the first four weeks of the project can start their MTP. All preparatory activities (information meetings for students, allocation, etc.) take place online. The very first meetings with supervisors can also take place online, if necessary. However, students need to make sure that they can spend sufficient time on their project. Students who return after the first month of the project or students who cannot devote enough time to their project during the first month cannot follow the MTP in that semester. These students need to conduct their MTP in the subsequent semester.

Students who plan to conduct a double-degree HTI Master project also can participate in the course. Depending on the second Master program that they follow, the standard timeline of the project (see section 4.2) may need to be adjusted. Therefore, these students need to approach the study advisor in advance with their plans, preferably one semester earlier. Several months before the start, the student and study advisor, together with the HTI Program Chair and the MTP coordinators, will define a project and find a supervisor. The student needs to submit a description of this project, including an adjusted timeline, to the Examination Committee before the start of the project in month 1. While the timeline may be adjusted, the learning goals and rules of the final examination (section 5.2-.5.4) do hold for the MTP. The student can start with the project only after the EC has accepted the project description before Q3 or Q1.

2.2 Relationship with other courses

The final project concludes the Master study program and aims at integrating insights and skills that the student has acquired throughout their study. Among others, disciplinary theory development will be integrated with methods and techniques of data analysis, and with the interpretation of results. The problem that the student analyzes fits into the technical domain that they have chosen (ICT, Robotics, Living, Energy, or a combination of those domains). In the interpretation of the results of the project, it is important to pay special attention to the scientific and societal implications of the results. The societal relevance (societal implications) refers to the design of technology, the use of technology, or the handling of the consequences that technology has for individuals, their social relationships, or society. The scientific relevance (scientific implications) refers to the new knowledge that the MTP creates. Thereby, it adds new insights to the scientific discussion in a specific research area that the student has been made acquainted with in one of the HTI courses of the study program.

2.3   Relevance for the Master Program

In this final project, the student goes through the entire theoretical-empirical cycle (problem-theory-empirical research) and examines an empirical research question in a relatively independent way. Knowledge from various disciplines is integrated and the student applies research methods and statistical tools that they have learned to a relevant problem or research question. It is important that the student shows that they have learned how to conduct good research and to apply social or psychological theories and findings to the domain of human-technology interaction. Also, the student needs to demonstrate their professional skills of communicating in a team, presenting, self-organizing, and planning their activities, and, of course, writing. In the MTP, the student should demonstrate that they have reached the learning outcomes of the Master program (see section 3.1 for the learning goals of the Master program Human-Technology Interaction).

3 Aims and learning goals of the Master thesis project HTI

The student conducts a study that covers the whole empirical research cycle (problem-theory-empirical research). The student critically examines a well-defined problem or research question and relates it to the relevant theoretical literature, sets up a research design to examine this question, collect data, and analyze it. In the discussion of the findings, the student devotes attention to the implications that the findings have for the design of a technological product, for its use, or for handling the effects that technology has for humans, their social relationships, or society ("societal relevance"). Furthermore, the student clarifies what new insights the study generates and in what sense it contributes to the academic discussion in the research field ("scientific relevance"). To do so, the student needs to integrate knowledge from various disciplines and practice areas that perform research on a technology-related problem. The knowledge will be linked to the technical specializations in the Master HTI: Robotics, Living, or ICT, Energy. The student demonstrates to have knowledge about both psychological and technical components that play a role in the relation between humans and technology.

3.1 Learning goals

The final Master Thesis project (MTP) Human-Technology Interaction is a large, individual and multidisciplinary research project. In the 0HM170 HTI Research Project, students are involved in a semester-long research project within a group, but in the MTP each student will work individually (sometimes within a group of students who study similar research questions) in a larger project.
The intended learning outcomes of the MTP are specified as follows in terms of knowledge and skills of the graduates:
1) Competent in scientific disciplines
   a. Knowledge of and insight into technological systems and their components in a specialized area of their background engineering domain.
   b. Thorough knowledge and understanding of concepts, theoretical frameworks and methodologies of psychology and the complex human-technology interactions.
   c. Thorough knowledge of and advanced skills in the techniques of observation, data collection and analysis techniques in the human-technology domain, and an ability to critically reflect on the scope and limitations of these methods.

2) Competent in doing research
   a. Ability to formulate research problems in terms of concepts and theories of psychology and human-technology interactions.
   b. Ability to independently develop and execute a research plan.
   c. Ability to contribute independently to the development of scientific knowledge in the area of the human-technology interactions.
   d. Ability to identify and analyze problems typical for human technology interaction by integrating technological and psychological perspectives.
   e. Ability to appraise relevant scientific evidence on its usefulness in addressing research problems.
   f. Consolidate the understanding of the ethics of psychological / user research, and has both the ability and attitude to adhere to these rules.

3) Competent in designing
   a. Ability to formulate design problems in terms of concepts and theories of psychology and human-technology interaction.
   b. Ability to develop and execute a sound plan for formulating design requirements.
   c. Ability to integrate existing knowledge, or identify gaps therein, on technological requirements for human-technology interactions in the (re-)design of (requirements for) products or systems.

d. Ability to integrate the technological and psychological domains, merging knowledge, methods and concepts.
e. Ability to make decisions with respect to design requirements where they pertain to the interaction between the user and the system or product, and to justify these decisions in a systematic manner.

4) A scientific approach
   a. Ability to document the result of psychological or user requirement research for the development of knowledge within the field and beyond.
   b. Ability to apply and critically examine existing theories, concepts and models in the human-technology interaction domain in a systematic manner.
   c. Ability to look beyond the borders of a specific discipline, to be sensitive to the relative contributions of various disciplines and to understand the knowledge demands of a specific discipline.
   d. Understanding of the practices and principles of science, and knowledge of current debates about this.

5) Basic intellectual skills
   a. A reflective attitude, with an ability to critically and independently reflect on own thinking, decision making, and professional behaviour.
   b. A critical mindset and the ability to ask constructive questions regarding complex problems in the field.
   c. Ability to read and write scientific texts and build a solid argumentation.
   d. Ability to think in abstract terms, including the ability to develop formal models of phenomena and processes in the domain.

6) Competent in co-operating and communicating

   a. Capability of reporting and communicating the results of one's learning and decision making –including one's research outcomes--, both verbally and in writing, with academics and engineers in various domain, users, and the general public.
   b. Ability to recognize and deal with differences in work practices between scientific disciplines and academics from other cultural backgrounds.
   c. Ability to take a leading role in multi- or interdisciplinary teams of engineers and academics.
   d. Ability to listen, read, talk and write in English on a professional level.

7) Takes account of the temporal, technological and social context:

   a. Ability to reflect on the relation between the use of scientific knowledge and technology, the implicated social, normative and ethical issues, and the way in which knowledge and technology development is influenced by its social and historical context, and the ability to integrate such relations and implications in their professional work.
   b. Understanding of the different roles of engineers and related professionals in society, and the ability to determine one's own place as a professional in society.

3.2 Prerequisites

A student is allowed to start with the MTP only if the following criteria are met (please note that an approved **Form 02 HTI Electives** is necessary):
1. All other units of the master's degree program have been completed (with the exception that a maximum of 10 credits still may be open, the program unit '0HM170 HTI Research Project' not included).
2. Regarding the 0HM170 Research Project, if the student has not passed the course, they need to have a pass grade for the interim report and to have submitted their final report (first attempt).

Students are expected to devote their full time to the MTP. Students with 10 remaining ECTS may have to retake an exam, but it is strongly encouraged to avoid following a full course in parallel with the MTP. A predefined extension will be granted for students with remaining ECTS based on the study load: a 3 week extension for 5 remaining ECTS, and a 6 week extension for 10 remaining ECTS.

A student who has been allowed to take Master courses without having been formally admitted to the program is not allowed to start with the Master Thesis project before formally having been admitted to the Program.

3.3 Description of projects

In the Master Thesis project, the student will investigate a scientific and/or practical problem with both a social-scientific and a technical component. The supervisor formulates a problem or (general) question for a project that leaves room for the student to demonstrate an academic level of thinking. Each project fits with (at least) one of the technical specializations of the Master HTI: ICT, Robotics, Energy, or Living. Some projects may contain elements of more than one specialization. The projects are in line with research conducted by staff of the HTI group. An essential aspect for the project is that integration takes place between the technological domain and the (psychological or behavioral) theoretical-empirical research performed in this project.

The Master Thesis Project also has the following requirements:

1. The topic and methodology should be within the domain and capabilities of the first supervisor.
2. The research proposal meets accepted international research standards. This is secured by the fact that the first supervisor must be a qualified mentor in the master program in question, preferably approved by the research school that is linked to the master program.
3. The design orientation of the thesis is ensured. This implies that the project should not only result in an analysis, but also in a theoretical or applied design to address the problems identified in the analysis.
4. The size and depth of the project is such that it can be completed to a "pass" grade (≥ 6) by an average successful student of the program within a period of 21 weeks (net), with a study load of 840 hours.
5. The motivation, embedding, and conclusions of the thesis proposal should not only take into account the detailed research focus of the thesis, but should cover a wider area of the research in the corresponding research field.

Students can indicate their preferences for a specific project out of a list of projects that are available. These projects have been proposed by HTI teachers who will act as supervisors. Furthermore, students can propose their own project. The MTP coordinators allocate students to projects, considering the students' preferences. However, students cannot claim any right to get a specific project.

4 Organization

The final project is organized by the IE&IS department. The tasks have been distributed as follows:

1. The Education Administration takes care of all administrative matters (including enrollment) of the final project and collects all reports. The administration controls whether a student meets the requirements to start the MTP when students submit their MTP starting form (Milestone 1 for student).

2. The coordinators of the MTP are Dr. Uwe Matzat and Dr. Kynthia Chamilothori; they take care of linking students, supervisors, and projects. They are responsible for the allocation of students to projects and supervisors, taking into account the students' stated preferences and the teachers' availabilities.

3. The group Human Technology Interaction (HTI) group ensures that proposed projects fit the scope of the MTP, are feasible to conduct in 5 months, and allow for enough room for the student to demonstrate the learning outcomes of the HTI program, including a sufficient academic level of thinking.

4. The supervisor(s) is/are responsible for the guidance of the student(s) and is/are the first contact(s) for the student regarding the content of the project. Also, the supervisors, together with a third assessor, form the graduation committee and are responsible for the final grading.

5. The Exam Committee Innovation Sciences (EC IS) controls the feasibility of the research question that the student submits to the EC as a proposal (Milestone 2 for student), as well as the scientific and societal relevance. Also, the EC is responsible for assessing and granting the extension that students need to request if they cannot finish the MTP within the period of five months.

6. The Ethical Review Board (ERB) of the HTI group controls ethical issues and the research design of experimental studies. MTPs involving studies with human participants or analysis of combined datasets need to be approved by the ERB through an ERB proposal submission (Milestone 3 for student). After approval by the ERB, the Daily Board of the HTI group decides about the financial support for the data collection.

4.1 Set up of the course

The MTP HTI is an individual project (under supervision) in which the student writes and presents an individual thesis, leading to an individual assessment along the criteria of a pre-defined rubric. The student goes through the entire research cycle, starting with a well-defined research question and finishing with theoretical and practical implications of the project findings. In this way, the student contributes to the body of scientific knowledge on a limited and specific problem. The student is responsible for the progress of the project, as well as for the quality of its execution, including re-stating the research question in theoretical terms, as well as choosing and executing the research methods. Two supervisors support the project and provide guidance and feedback to the student.

Two supervisors are always needed for the MTP. The first supervisor needs to be a member of the HTI staff. The second supervisor can also be a (qualified) PhD student, or a qualified teacher from another faculty or university (Assistant/Associate/Full professor). The supervisors evaluate the process of writing the final report, the presentation, and the final report itself. The student and the supervisors should agree upon a scheme for regular meetings during the master thesis period.

In addition, a third assessor from the HTI staff (who can be selected later in the project) evaluates the final report. The two supervisors and the third assessor form the graduation committee of the MTP and use the pre-defined criteria of the MTP HTI rubric for the evaluation of the project (see Section 5.4).

For some projects, it may happen that more than one student is allocated to the same project. These students can conduct one overarching project under the guidance of a supervisor (depending on the project). They may collect data as a group. However, each student needs to have their own specific research question. Defining the specific question, data analysis and reporting must be carried out individually. It may also happen that for some projects a company employee participates in the project. The company employee does not have the right to assess the student. However, the supervisors may decide to consult the company employee for assessment of specific aspects of the research process.

4.2   Timeline of the project

each starting quartile is shown in Fig. 1, and the different milestones are explained below.
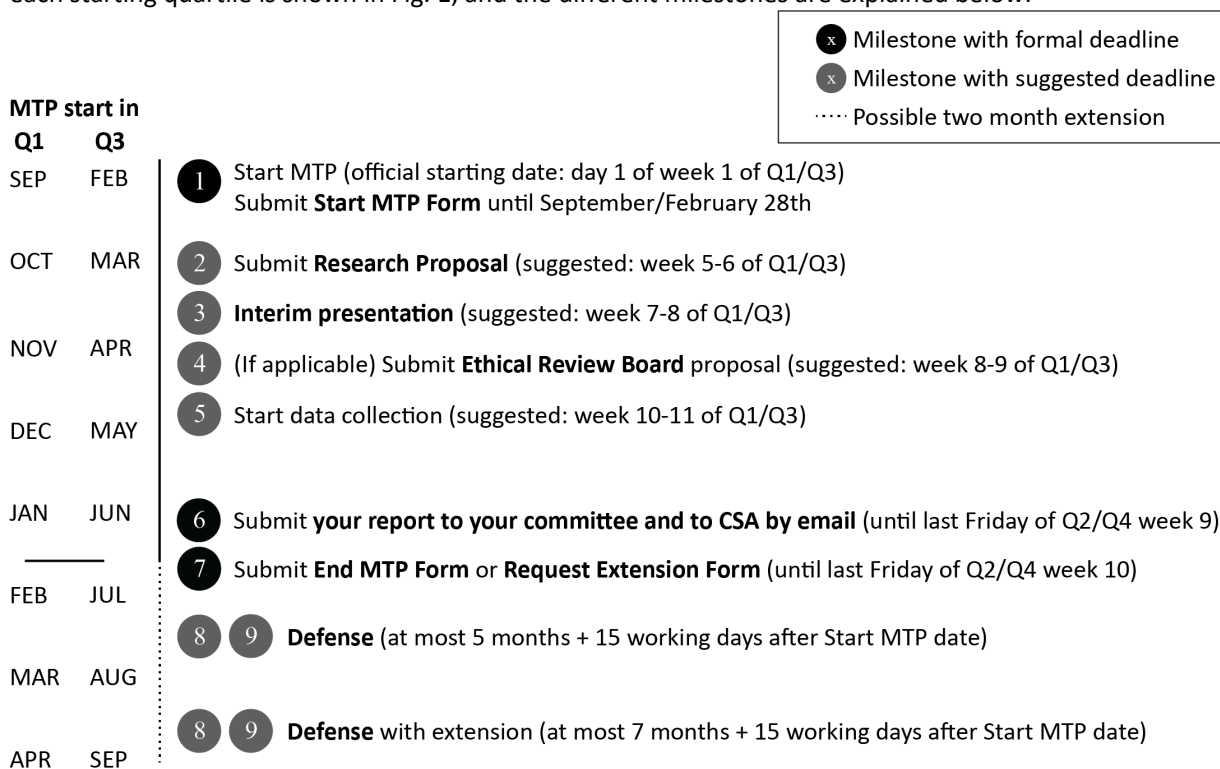
Fig. 1. Timeline and milestones for MTP starting in Q1 and in Q3.

After allocation to a project, students start in September (Q1) or February (Q3). The official start date is the first Monday of week 1 in Q1 (or Q3). Under extraordinary circumstances, and only in collaboration with the supervisor, they can start up to four weeks later, but no later than the 28th of September (Q1) or February (Q3). Students who start a few days later than the first Monday of week 1 need to compensate for this delay within their five-months thesis duration. The deadline for milestone 6 (submission End MTP form/Extension form) is not extended for them.

Formal Milestone 1: The first supervisor arranges the appointment of the second supervisor to the MTP. The student then submits the filled-in and signed *Start Form MTP HTI* (Downloads of the Timeline Master Thesis page) to the Education Administration. The administration informs the student and supervisor whether the student meets all requirements and is allowed to start with the MTP. Students need to submit this form within the first month (***deadline 1***), as they are not allowed to schedule a defense date within the first 16 weeks after submission of the form. Students who do not keep deadline 1 fail and cannot continue with the MTP.

(Informal) Milestone 2: The student submits a research proposal to the IS Examination Committee (EC). The EC can accept the proposal (with or without comments) or reject it with comments. Rejected proposals need to be revised and resubmitted as soon as possible. While there is no fixed deadline for submission, many project proposals should be submitted within the first five weeks.

(Informal) Milestone 3: The student presents their progress in a public interim presentation. The first two supervisors provide feedback on the presentation, the research question, and the planned design of the study. While there is no fixed deadline for the interim presentation, for many projects the presentations should be scheduled within the first seven weeks.

(Informal) Milestone 4 and 5: If the MTP includes the collection of data or the merging and analysis of multiple existing datasets, students need to submit a proposal to the HTI Ethical Review Board (Milestone 4) that includes, among others, the details of the research design and that takes into account any potential ethical issues. The Ethical Review Board (ERB) proposal consists of two documents, the Study Proposal and the Informed Consent Form, and is submitted to the ARCHIE system by the supervisor(s). Templates and more information about the ERB procedure for HTI students can be found here (VPN or TU/e WiFi access). The ERB

may accept or reject the proposal. Rejected proposals need to be re-submitted. The student can start with the data collection or analysis (Milestone 5) only after acceptance of the proposal by the ERB. While there is no fixed deadline for the submission of the ERB proposal, for many projects the submission of ERB proposals should take place within the first nine weeks.

Formal milestone 6: The student submits an electronic copy of the thesis in PDF format to the graduation committee via email before the official deadline, Friday of week 9 in Q2 (or Q4), at least a week before their defense date (see Formal Milestone 7). This deadline changes to two months later if the student received an extension; see Formal Milestone 7.

Formal Milestone 7: Students need to schedule a date for the exam session (defense) of their Master Thesis Project until the Friday of week 10 in Q2 (or Q4). To schedule this date, students need to submit the signed *End Master Thesis Project Form HTI* (see Downloads of the [Timeline Master Thesis](#) page) digitally to ieis.csa@tue.nl. The submission of this form will determine the members of the graduation committee and the exam session date and time.

The defense needs to take place at least 5 and at most 15 working days after the submission of the *End Master Thesis Project Form HTI*. The defense date determines the corresponding Diploma Award Session (see *Diploma Award Session* in [Dates for the final examination sessions](#)). If the assessors are unavailable within this period of 15 working days then the oral defense, but not the submission of the written report (Milestone 6), may be postponed until they are available.

If there are (or have been) circumstances outside of the control of the student that have led to a serious delay and that would negatively affect the final assessment, then students can submit a request for an extension of up to two months to the IS Exam Committee through the form *Extension Master Thesis Project Form HTI* (Downloads of the [Timeline Master Thesis](#) page). In this request, students need to explain why they ran into the delay, and what detailed activities they plan to make sure that they can finish their thesis within the extension period. The first supervisor needs to agree and sign the request. Students need to submit their request in advance to make sure that at the end of the regular period of five months they either have an extension or a scheduled defense date. Otherwise, students fail and cannot continue with their MTP anymore. Students who receive an extension need to schedule a defense date after an extension of two months (5+2 months since the start of the MTP). Otherwise, they fail and cannot continue with their MTP anymore.

The student also submits a Press Release (see files *Format Press Release* and *How to write a press release* in the [Timeline Master Thesis](#) page), a high-resolution photograph of themselves, and a signed declaration of the Code of Conduct (if not submitted earlier) to the Education Administration via email to ieis.csa@tue.nl. An electronic copy of the thesis in PDF format for the library must also be handed in at the Education Administration via email at least 5 working days before the exam committee meets for the MTP defense to be assessed in the coming exam committee meeting.

Milestone 8: The defense of completed Master Thesis Project takes place. As described in section 5, the two supervisors, in collaboration with a third assessor, will grade the report, the defense, and the process. The first supervisor hands in the outcome of the (Assessment Form MTP HTI in the [Timeline Master Thesis](#) page) to the Education Administration.

Students who fail their MTP (see section 5.4) are not allowed to start with the same MTP again or to continue with it. They need to register for the course anew at the next possible moment and will be allocated to a new supervising team and a new project. If the second attempt of the MTP (second project) is again unsuccessful, then the student has no longer right on guidance and supervision time from a supervisor and has to stop.

4.3   Distribution of the study load

The student must demonstrate a high level of professional skills by planning and organizing the research process pro-actively. The student, with support and under guidance of the supervisors, needs to make sure the distribution of the workload is as evenly distributed as possible over the semester. Usually, students will be asked to write thesis drafts on a regular basis that the supervisors provide feedback on. The details of the research process have to be discussed between the supervisors and the student.

The student is the person who is responsible for organizing meetings with the supervisor(s) and setting the schedule for the meetings. The milestones and the deadlines provide some help for setting up a first rudimentary schedule that students regularly have to update and to discuss with the supervisors who will provide feedback.

4.4　　　Formatting of the Master thesis project report

The cover page for Master Thesis reports in IE&IS is fixed (see folder 'TUe_IEIS_Master' at this link) and uses an InDesign template; please use this template for your thesis. The remainder of the thesis should be formatted using the American Psychological Association (APA) style formatting guideline (here is a tutorial and an report formatting example). Only if both supervisors agree, students are allowed to use another established standardized formatting guideline.

5   Evaluation

5.1   Deadlines and Milestones

The MTP has milestones and deadlines. Milestones provide guidance to the student when a deliverable should be ready. Not all of them are connected to a deadline. The schedule for reaching these milestones has to be determined between the student and the supervisors. Milestone 1, Milestone 6, and Milestone 7, however, have a deadline (see 4.2: timeline of the project). Students who do not keep these deadlines will fail.

The evaluation of the MTP takes place at the end of the MTP, immediately after the final defense. The graduation committee evaluates the written report, the defense, and the research process leading to the report and informs the student about the evaluation.

5.2   Type and date of examination

There is one final examination conducted by the graduation committee. The graduation committee consists of the two supervisors and a third assessor who is determined by the HTI group. The supervisors may decide that other participants (e.g., a company supervisor) may be involved in the grading process. These other participants can have an advisory role, but they are not part of the graduation committee. The grades are determined by the members of the graduation committee.
The graduation committee evaluates the following elements:
1. Individual written report (in English)
2. Oral defense of the graduate, including a 20–30 minutes presentation and a subsequent questioning of and discussion with the student.
3. The process leading to the MTP report which, among others, covers professional skills.

5.3   Examination procedure

The final defense starts the supervisors introducing the defense and the student presenting their MTP work in a presentation of about 20-30 minutes, covering the motivation, aims, method, results, and conclusion of their work, followed by a public discussion with the audience that lasts for 10-15 minutes. Then the graduation committee continues with a private interrogation of the student (30-45 minutes), followed by a private deliberation on the grade (15-30 minutes) using the Assessment MTP form, where the student is not present. The graduation committee may decide that external supervisors (e.g., of a company) can participate in the interrogation and, in an advisory function, the private deliberation on the grade. Only the members of the graduation committee can determine the grade. Finally, the final grade and the explanation about this decision is announced by the first supervisor publicly or privately, as desired by the student (15 minutes). The defense is an examination and as such, its outcome is not known in advance. The student must be aware that it is not a foregone conclusion that they will pass the examination. The graduation committee will grade the student according to specified evaluation criteria (see Section 5.4) which correspond to the aims of the MTP

5.4   Evaluation of the Master Thesis project

The graduation committee evaluates the MTP and the graduate, using the criteria that are explicitly mentioned in the *Assessment Form MTP HTI* (Downloads of the Timeline Master Thesis page). These cover the quality of the written product/thesis (70% of the final grade) as well as the process, presentation, and defense (30% final). The evaluation criteria are closely aligned with the learning outcomes of the HTI Master program, which can be found in the document *Intended Learning Outcomes MSc HTI (*Downloads of the Master Human-Technology Interaction page).

The graduation committee rates each of the criteria on the following scale: 'insufficient – sufficient – good – excellent'. The candidate passes if all criteria are marked as at least 'sufficient'.

The committee then assigns a final grade to the master thesis project between 1 and 10 (half grades are allowed, e.g. 6.5 or 7.5).

• Excellent (9-10 = top 10%): The thesis shows deep understanding of the topic, a substantial degree of creative engagement; faultless exposition, is clearly structured around a central thesis, and has clear signs of independent thought.

• Good pass (8): Very clear and accurate exposition, good understanding of topic, structured around a central thesis, signs of independent thought.

• Sufficient (7 or 6): Reasonably clear and accurate exposition, structured around a central thesis, adequate grasp of topic, transcending the course materials. Exhibits rather basic, but still acceptable, level of relevant knowledge and understanding. Faults in exposition may to some extent be compensated for by evidence of independent thought.

• Insufficient (< 6): Fails to make low pass grade because of insufficiency in one or more of the criteria.

If the student does not pass, the graduation committee gives the student the opportunity to improve the Master Thesis work, and decide on a second (and final) oral exam, which should take place within two months after the initial oral exam.

For the second defense the same rules and procedures are valid as for the first defense. If the student does not pass the second defense then the graduation committee discontinues the project and fails the student. In this case, the graduate needs to register to the course anew. The student will then be allocated to another project and another supervisory team. It is not allowed to let the student continue with the earlier project.

6   Anti-plagiarism

Plagiarism is forbidden and will be severely punished. See below for more details:
When anyone submits work under their own name, they are asserting ownership of that work. When using ideas of another person, it is necessary to give that person appropriate credit through referencing. Referencing serves multiple purposes: (i) it allows readers to further explore sources that have been consulted, (ii) it shows the depth of one's own thinking and process of inquiry, (iii) it allows the writer and the readers to compare and contrast different positions, agreeing with some, disagreeing with others, and (iv) it gives proper credit to the hard work of many other scholars.

Plagiarism is a specific type of fraud. Following the IS Examination Regulations, plagiarism is taken to mean:

- using or copying another person's texts, data or ideas without providing a full and correct source reference, such as the copying of work of other students or passing it off as your own, or handing in work that was acquired from a (commercial) institution or work that was written or produced by someone else whether or not for payment
- the failure to indicate clearly in a text, for example by means of quotation marks or a specific format, that other works are quoted literally or almost literally, even if a correct source reference is provided
- paraphrasing another person's text without providing a proper source reference
- copying other persons' media files (or parts thereof) or other sources, software source codes, models and other diagrams, and passing them off, without source references, as one's own work
- submitting text that has been submitted before (or text that is similar to it) for assignments of other parts of the degree program without giving references.

Master's theses are checked for plagiarism with plagiarism-detection software. The Examination Committee is also authorized to check submitted work for plagiarism, and may use detection programs for that purpose. When plagiarism is confirmed, the Examination Committee can decide to check whether work previously submitted by the student contains plagiarism and, if this is the case, it can impose sanctions for previous plagiarism.

For further information, please consult the Exam Regulation of the School of Innovation Sciences:
https://studiegids.tue.nl/opleidingen/graduate-school/masters-programs/human-technology-interaction/regulations