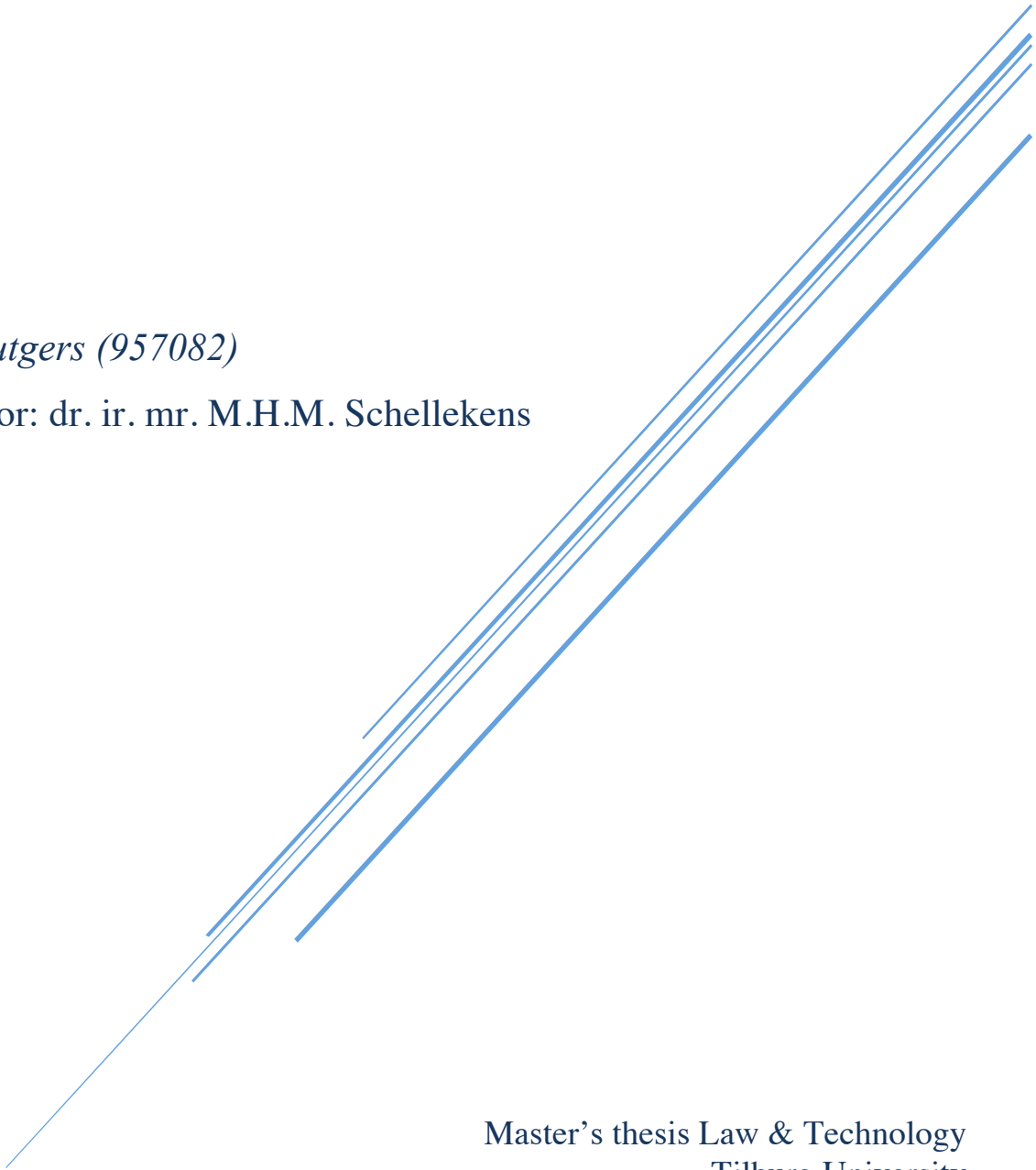
Who owns intellectual property created by students?
An assessment of the Dutch legal system

Frank Rutgers (957082)

Supervisor: dr. ir. mr. M.H.M. Schellekens



Master's thesis Law & Technology
Tilburg University
13 July 2017

Index

Introduction

Background

Educational institutions are a hotbed for new inventions. A lot of young eager minds being taught by scholars about the latest developments on their respective area's of activity. A result of this activity is that a lot of value is created in these institutions, mainly in the form of intellectual property (hereafter: IP). Educational institutions in the Netherlands have the task of transferring this value to the market; this is called valorisation. Valorisation can either be done by existing companies or by the creator of the IP through creating an own company (i.e. start-up). Especially for the second situation only limited regulation is in place, whilst this practice is being used more and more frequently.[1] The ways educational institutions deal with IP that is created at their institution, differs per institution.[2] Many Dutch educational institutions regard themselves at least partly owner of the IP that is created by their students.[3] There are Universities that differ from this practice, like for instance Tilburg University.[4] These different policies lead to difficulties for students to understand their rights regarding IP. In many cases there is limited clarity for students about who owns the IP they have created. Research shows that legal ambiguities are one of the main factors that lead to failure of start-ups. The unclarity students face could become a factors that hinders entrepreneurial successes at educational institutions.[5]

Educational institutions generally claim (a part of) the right over IP that employees[6] of the institution develop.[7] The legal basis for this claim can be found in article 12 Dutch Patent Act.[8] Article 7 of The Dutch Copyright Act gives educational institutions a legal basis for claiming all copyright created by their employees. But what happens when a student creates valuable IP within a university or college[9] setting? These students are definitely not employees of this institution; on the contrary, they have to pay a tuition fee to be enrolled at their institution. Consequently, this leads to the question whether a university can claim the IP rights over the content created by students?

University practices

To gain more insight into how educational institutions deal with the questions raised above, interviews were conducted with entrepreneurs that started a business with IP that was (at least partly) created during their time as a student at an educational institution. The entrepreneurs that were interviewed all came from universities. Because universities in most cases took equity in the startups of the interviewed entrepreneurs and these entrepreneurs thus have to work with the universities closely, the information used from these interviews has been written down in anonymous form. The particular cases are not described in any detail; only general conclusions are drawn from the information given by the entrepreneurs.

---

[1] Richtsnoer omgang met intellectuele eigendomsrechten (IER), 2016, VSNU, NFU, KNAW en NOW, p.3.
[2] Pilz 2012, p. 22.
[3] See for instance: https://www.tue.nl/en/education/studying-at-tue/admission-and-enrollment/undergraduate-programs/enrollment/intellectual-property-rights/ or article 3(a) jo. article 1(b) Regeling Valorisatie 2014 UvA (available at: http://www.uva.nl/over-de-uva/uva-profiel/beleidsstukken/valorisatie/valorisatie-bij-de-universiteit-van-amsterdam.html).
[4] After contacting the university about what IP rights they claim from students, they stated that the basic principle is that students become the rights holder over the intellectual property they create at the university.
[5] Richter et al. 2016, p. 8.
[6] Including PhD students
[7] This situation is comparable to the situation an employee develops a new product for a company.
[8] Rijksoctrooiwet 1995
[9] Ducth: hogeschool

Most entrepreneurs that were interviewed followed their study at the Technical University of Eindhoven (hereafter: TU/e). This university obliges students to sign a contract before they can start their study, which includes the following text:

> *"The undersigned also agrees to concede all intellectual property rights to the TU/e concerning their work, models, drawings, or inventions created in the context of their studies."*[10]

Considering that students pay for their education and the position a university has in the public domain, this clause on itself already raises questions. How to interpret "in context of their studies" for instance? And what is the reason for the university to claim this IP? Because most interviewed students were from the TU/e and the contract of the TU/e is very explicit about IP, this universities policy is taken as an example throughout this thesis.

Based on the interviews conducted, a couple elements in the cooperation between TU/e Innovation Lab and entrepreneur were identical for (almost) all entrepreneurs. When a student had a brilliant idea and the TU/e or the student saw business potential, the student would be redirected to TU/e Innovation Lab.[11] TU/e Innovation lab is the institution at the TU/e that has to the task of commercialising IP created at the university. When a student with a good idea or product would get in contact with the TU/e Innovation Lab, the first step of TU/e Innovation Lab in the process would be assigning a contact person to the student. This contact person was introduced as the person that would help the student in setting up a business, someone they could trust and would work in their best interest. When patent files or other documents had to be drafted, TU/e Innovation Lab would help after the cooperation started.

In most cases TU/e Innovation Lab presented itself as being there to help the entrepreneurial students in developing its business. It would help with formalities and other urgent matters that a starting business faces. At this point TU/e Innovation Lab did not create the impression to be a possible future shareholder of the entrepreneurs' business. The role of TU/e Innovation Lab however changes when the business was almost formally established and shares were about to be created. In all cases where TU/e Innovation Lab actually helped an interviewed entrepreneur, TU/e Innovation Lab at some point in time presented a shareholder agreement. The same person that had helped the students with setting up his business would present the shareholders agreement. The shareholders agreement would state that the TU/e would become shareholder in the new company. It was only at this point the entrepreneur realized that the TU/e would want shares in the company they were setting up.

The presented shareholders agreement as such would be presented as being the standard way of arranging these types of cooperation's between students and educational institutions. The entrepreneurs, mostly still student of the TU/e, did not possess extensive knowledge of legal documents like a shareholders agreement. They were asked to consider the shareholders agreement. At no point they were informed that it would be wise to contact a lawyer or other legal professional to review the offer.

Inequality between parties

The most disturbing part in the interviews might be the way the TU/e approached the negotiations with the students at that point in time. Almost all entrepreneurs stated that they were taken by surprise when the TU/e came up with the first shareholders agreement. All entrepreneurs stated

[10] https://static.studiegids.tue.nl/fileadmin/content/centrale_content/Organisatie/Studentenadministratie/formulieren_2016-2017/Enrollment_form_for_students_with_Dutch_degree_2016-2017_ENG_01.pdf
[11] https://www.tue.nl/en/innovation/about-innovation-lab/

that since they were dealing with their university, they expected the TU/e intended the best for both parties. They expected the TU/e to be transparent about their intents. After receiving the offer from the university the entrepreneurs were very disappointed in how things played out. One of the entrepreneurs said: *"the most despicable about the entire thing is that I expected them to help me. You don't expect them to come in only to get as much money out of you as possible. What happened was very bad for my trust in the university."*[12]

After the entrepreneurs processed the turn the cooperation with TU/e Innovation Lab took, the entrepreneurs ended up in a full-grown contract negotiation with TU/e Holding BV[13]. In some cases, entrepreneurs called in legal support, but in most cases they could not afford legal help. One of the interviewed entrepreneurs stated that he showed the offer to a befriended lawyer to see if the offer of the TU/e was good or not. The lawyer was unhappily surprised by some of the clauses in the contract; he stated that there were multiple clauses in the shareholders agreement that would endanger the viability of the company even before it would be established. The TU/e would get a significant share with a lot of priorities that would normally not be in a contract like this. In cases where entrepreneurs negotiated with TU/e Holding BV about the terms of the cooperation, the equity the university took in their venture was reduced with thirty up till seventy per cent from the initial offer.[14] Whilst clauses that would potentially endanger the companies were in most cases removed.

Educational institutions will in most cases be repeat players that see a lot of entrepreneurial students, while student will in most cases be a first time entrepreneur. Also financially educational institutions will in most cases be in a better position to get (legal) support. Educational institutions have the money to pay for setting up legal documents made in their favour, while in most cases students will only have limited possibilities to pay for legal support to secure their position in the relationship. Since most educational institutions serve a public goal, it is questionable whether this imbalance is desirable. It is questionable whether Dutch public law does not contain rules to mediate for this inequality.

The entrepreneurial student

Problems as stated above will probably become more common in the years to come. A significant growth can be seen in the number of entrepreneurial programmes within educational institutions.[15] Pilz (2012)[16] gives some examples of universities in America where the number of students participating in entrepreneurial related activities rose by 2500% between 2007 and 2012. It is not said that The Netherlands will follow the same pace, but there are indications that the number of entrepreneurial students in The Netherlands is growing.[17]

One of the reasons that more and more students involve themselves in entrepreneurial activities is the increased accessibility of some highly profitable markets. Due to the Internet, Cloud computing and open source software, most markets have become a lot cheaper to enter than a decade ago.[18] On the other hand, this also means that the role of universities in the co-creation of these new enterprises will diminish.[19] Where students once were dependent of the facilities of the

[12] The actual interview was in Dutch, the entrepreneur stated the following: "Het meest verachtelijke aan de manier waarop de TU/e gehandeld heeft, is dat je er vanuit gaat dat jouw universiteit het beste met je voor heeft. Je gaat er niet vanuit dat de universiteit als een soort geldwolf jouw ideeën probeert uit te melken. Dit was erg slecht voor het vertrouwen in de TU. Dit gaat niet in de koude kleren zitten."
[13] This is the entity that would eventually hold the shares in the companies that were created.
[14] Initial offers of the university ranged from around 10% to 20% of the equity.
[15] Winkel 2013, p. 313-314.
[16] Pilz 2012, p. 5.
[17] Bedrijfsleven 2015, *jaaroverzicht ondernemend Nederland,* Kamer van Koophandel.
[18] Ibidem
[19] Katz 2016, p.156.

university to set up companies, they now only need a laptop and a good idea and they are ready to start.

Money

What is the reason that educational institutions interfere with the businesses and IP of entrepreneurial students? A possible answer to this question could be that they see a lot of potential money in student's inventions. An example of the "easy" money that is potentially in student companies for educational institutions comes from Stanford. Google founder Larry Page created the algorithm underlying Google's search engine in a research project at Stanford. Due to the IP policy of Stanford University, the algorithm Page created belonged to the university. The patent was exclusively licenced to Google in exchange for equity in the company. Only eight years later Stanford sold their Google shares for $336 million.[20]

It is understandable that an educational institution does not want to give away IP rights, in which they have invested heavily, for free. If for instance a student invents a chemical component that could potentially be worth millions of Euros, but it was created using machinery owned by the university, costing hundreds of thousands of Euros, it is understandable that the university wants to profit from potential revenue. In this case the institution has made a major investment in the invention and the institution carried the (financial) risk for the used machinery. But the case is a lot different when this same student creates the chemical component by using only knowledge from the classes he took and open source simulation software. The question in this case arises whether the university could still claim the IP rights over the chemical component? And if so would this be fair towards the student?

Valorisation

Another morally more acceptable reason for universities to claim IP rights created by students is valorisation. Valorisation is described as: *"The process of value-creation out of knowledge, by making this knowledge suitable and available for economic or societal utilisation and to translate this into high-potential products, services, processes and industrial activity."*[21] By claiming all the IP students create, educational institutions could assure that knowledge that is created at the university is allocated optimally. But this way of looking at IP raises a number of questions. Are educational institutions the appropriate party to establish who would be best suited to valorise IP? Is taking IP from students that want to start a business with it themselves the correct way to assure optimal use? This thesis will not allow for in-depth analysis of these questions, but this thesis will try to answer how much freedom educational institutions have to allocate IP to start with.

Central research question and sub questions

The introduction of this thesis seems to indicate that students are often short-changed in the relationship with their educational institution, especially regarding IP. Since both parties do not seem to be equally powerful in this relationship, the question is whether existing Dutch law creates enough security for students in the relationship with their educational institution. To answer this question the following central question will be assessed in this thesis: what are the guiding principles for the assessment of contracts between universities and students when it concerns IP? This central question is twofold: on the one hand an assessment will be made of the legality of obligatory IP contracts as entry condition for education, on the other hand it will be assessed what rules are applicable to private law contracts between entrepreneurial students and

[20] Katz 2016, p.156.
[21] Vereniging van Universiteiten in Nederland (undated)

educational institutions. By answering these two questions an overview will be created of how law balances the relation between students and educational institutions regarding IP.

To answer the central questions three different domains of law will be assessed: 1) intellectual property law, 2) civil law and 3) public law. IP law will be assessed to create a clear understanding on what rules apply to IP created by students. More specifically, this thesis will assess under what conditions (future) IP can be transferred and who becomes the rightful owner of IP created in an educational setting. Civil law will be assessed to look into how IP should be transferred, more specific: whether the requirements for transfer under Dutch law are met and whether transfer under given conditions is allowed in contract law. The final part of the thesis will look into public law in two domains: firstly, an assessment is made on how contracts like the obligated one of the TU/e regarding IP relate to the rules regarding public financing of educational institutions. Secondly, this thesis will look into the obligations an educational institutions has towards its students. Of special interest for this last part will be the principles of sound administration[22]. An overview of the chapters looks as follows:

- *Intellectual property law*
    - *What is Intellectual property?*
    - *What does the Dutch Copyright Act 1912 say about copyright and students?*
    - *Is there any influence of the new Authors Contract Law?*
    - *What does the Patent Act 1995 say about patents and students?*

- *Private law*
    - *Property law*
        - *Is a student able to deliver Intellectual Property to the educational institution before it starts its study?*
        - *Is there a valid legal basis for the transfer of intellectual property?*
    - *Contract law*
        - Could intellectual property be transferred legally?
        - Could this contract be seen as a contract with standard terms and conditions?
            - If so are they unreasably onerous?

- *Public law*
    - Is forcing a student to sign a contract in which he or she gives up future intellectual property compatible with education law?
        - Could the forced transfer of intellectual property be seen as part of the tuition fee?
        - *Is demanding this transfer of future intellectual property compatible with public financing?*
    - *The principle of sound administration.*
        - *Do the principles apply to all educational institution entities?*
        - *Are there violations of the principles of sound administration?*

Significance

In the past year, I came across several students of the TU/e that have used, or wanted to use IP they created during their college years. These students (wanted to) start their own businesses with the innovative machinery, newly found algorithms, or revolutionary optimization methods they created during their studies. When these students consulted the university about business possibilities, they tended to encounter significant problems concerning the ownership of the IP they wanted to use in their business.

[22] Dutch: algemene beginselen van behoorlijk bestuur

An assumption can be made that one of the biggest accomplishments for educational institutions is that students are motivated and aspired to start their own business, even when they are still studying. Based on this assumption, students do not take into account that their educational institution would interfere with their business plans by claiming the rights over their self-created IP. Not only does this happen based on positive legal grounds, but educational institutions also force their students into heavily burdening contracts. The question can be raised whether students knew what the implication signing such burdening contracts could have for their future.

The implications of contracts regarding IP became very clear when interviewing entrepreneurs that started their business while studying at the TU/e. In most cases newly graduated students encountered problems with a clause in the TU/e contract, after they had given notice to the TU/e that they wanted to use their self-created IP. They were motivated to start their own businesses based on inventions created during their studies, but awaited harsh negotiations with the university before they could even start their business. Since I spoke with only a limited number of students/entrepreneurs and it is not the focus of this thesis to conduct an empirical study on the modus operandi of the TU/e or any other educational institution, the information above stated must be seen only as an introduction to the problem that this thesis will try to address.

When looking at the current literature on IP rights created in educational institutions, very limited Dutch literature can be found.[23] In America a few articles are written in the past[24] and the topic is currently starting to gain more attention. Especially due to the fact that many new big tech-companies were started by students[25] more attention is drawn to Universities IP ownership. In the past five years a number of publications have been written on this topic, but the subject is currently in a premature phase. There does not seem to be a general consensus about what the best way of dealing with this topic is. By describing the problem of the current situation at Dutch educational institutions, this thesis hopefully creates awareness of the challenges the Dutch IP system faces. After describing the situation, the current legal situation related to IP created by students at universities will be described. The entrepreneurs that were interviewed for the purpose of this thesis indicated that it was hard to find detailed information about their rights regarding the IP they had created. Hopefully this thesis can give these and future entrepreneurs insight into their rights.

Methodology

The aim of this research is to give insight into the legal position of students regarding their IP. This research will have a dual approach: firstly, interviews were conducted with a number of founders of companies that originated mainly at the TU/e: a university that claims all IP created by students. This information gave insights into how rules regarding IP are enforced in practice. Secondly, doctrinal research is done to understand how the different elements in the contract between student and educational institution need to be interpreted. This research will not just focus on IP law but will additionally take the Dutch Civil Law and Public Law into account regarding the topic.

Overview of chapters

To answer the general question, four substantive chapters are written. Chapter 2 of this thesis will describe the current law on IP in the Netherlands. The focus will be on copyright and patent law.

[23] The following search terms were used: "Intelectual property universities, Intellectual property students, Intellectual property, Intelectueel eigendom universiteiten, Intellectueel eigendom studenten and Intellectueel eigendom", in the following search engines: Google Scholar, Legalintellegence and Worldcat.
[24] McSherry 2001, p.-
[25] Think of companies like: Facebook, Google, Reddit, Netscape, among other.

A special assessment will be made on how these IP rights are treated in an educational setting. Chapter 3 will focus on the civil law implication of the relationship between students and educational institutions. This chapter will look into the requirements for the transfer of IP. This chapter will also look into the contract between students and educational institutions, since these contracts are mainly governed by civil law. Chapter 4 and 5 will focus on public law. In Chapter 4, the central question will be whether universities can oblige their students to sign of their IP as a requirement for following a (publically financed) study. Chapter 5 will focus on the way educational institutions should behave in the relationship with students. The rules laid down in the principles of sound administration will be used as guideline in Chapter 5.

Intellectual Property Rights

What is intellectual property?

IP rights are subjective rights: they are proprietary rights on non-material objects. IP rights are transferrable and belong to article 3:6 of the Dutch Civil Code.[26] Dutch IP laws can be divided into two main groups: 1) copyright law and 2) industrial property law. Copyright consists of literary, artistic or scientific work. Industrial property refers to ownership of commercial product and services including for instance patents, industrial design rights and trademarks among others.[27] IP can hold value and is tradable. This means that rules have to be made on how to deal with IP, just like we make rules for trading material products.

Although IP law falls in the private law domain, it is not regulated in the Dutch Civil Code.[28] The rules on IP in Dutch law are laid down in a number of separate acts. In this thesis, the focus will be on three Dutch Acts: the Dutch Copyright Act 1912, the Authors Contract Act and the Dutch Patent Act 1995. The first two acts are about copyrights, the Patents Act focuses on patents. The focus will be on these three acts because most of the work created at universities will fall in the ambit of one of these three acts.

Copyright

From all the immaterial goods that are related to IP, Copyright protects original works in the field of literature, art and science.[29] [30] In the past years computer programs and databases have found their way into copyright law as well.[31] Contrary to patent law and trademark law, copyright comes into existence without registration or other formalities.[32] Copyright is regarded to be both an economic right as well as a moral right related to the work.[33] The division between these two types of rights can also be found in the Dutch Copyright Act 1912 (hereafter: Copyright Act). There are exploitation rights (entrepreneurial copyrights): the right to publish (article 12 Copyright Law) and the right to duplicate (article 13 and 14 Copyright Act). Additionally, there are the personal rights[34]: the right to be named the creator, the right to forbid changes to the work and the right to amend the work, among others (Article 25 Copyright Act). Kur, et al. note that Copyright is gaining importance as a marketplace tool, the result of this is that Copyright is more and more used as a legal instrument.[35]

The maker

According to the first article of the Copyright Act, copyright belongs to the maker of a work or its successor[36].[37] The person(s) that has created the work will always be the maker of a work; this does not mean that the (entrepreneurial) Copyright of the work also belongs to the maker. Copyright can belong to the following parties:

---

[26] Kooij 2016, p. 9.
[27] Ibidem
[28] Kooij 2016, p. 16.
[29] Article 1 Dutch Copyright Act.
[30] Kur, et al. 2013, p. 241.
[31] Ibidem.
[32] Ibidem.
[33] Ras 2009, p. 23.
[34] Moral rights are personal rights that connect the creator of a work to their work.
[35] Kur 2013, p. 242.
[36] The Dutch word "rechtverkrijgende" is used in article 1 Dutch Copyright Act, this could also translate to: legal assignee or cessionary.
[37] Article 1 Dutch Copyright Act: Copyright is the exclusive right of the maker of a literary, scientific or artistic work or his successors in title to make the work public and to reproduce it, subject to the limitations laid down by law.

- The maker himself (art. 1 Dutch Copyright Act);
- The fictional maker (art. 6 and 7 Dutch Copyright Act);
- The one to whom the Copyright is transferred (art. 2 Dutch Copyright Act);
- The heir of the rights holder, after the rights holder has passed away (art. 2 Dutch Copyright Act)[38].

In this thesis, the focus will mainly be on the second and third category. The second category is about Copyright created under the direction and supervision of another person[39] or Copyright created in an employee-employer relationship[40]. In both cases, the copyright will (under given circumstances) not go to the physical creator of the work but to the supervisor or employer. The third category is about the transfer of Copyright. Article 2(1) Copyright Act indicates that Copyright is transferable. Sub 3 of the same article states that the transfer of copyright needs to be done by means of a deed, executed for the purpose of transferring the copyright.

The fictional maker

Article 6 Dutch Copyright Act is a legal ground on which someone who did not physically make a copyright protected work can become the maker of a work. There does not need to be a transfer of creatorship for the shift of creatorship to happen. If there is a situation where a professor uses students to solve a problem with an idea or theory he proposes, he becomes the maker. Even if the students partially use their own creativity to further solve the problem.[41] This can be derived from the Explanatory Memorandum of the Dutch Copyright Law, which states that: "when brain and hand work separately, the brain prevails over the hands."[42] Later in time there was added that even when the hand at the same time performs any creative act, the brain still prevails over the hand.[43] A relationship that is explicitly mentioned is that of a teacher and a student writing a thesis. In the case of the student and the teacher, the presumption is that the teacher is the maker of the content the student has created.

The fictional maker could be a legitimate way for universities to claim the copyright created by a student. The Copyright created under the instruction and supervision of a teacher would be assumed to belong to the teacher. Since the teacher is an employee of the university and thus falls under article 7 Dutch Copyright Act, work created by the teacher (in line with his contract with university) would belong to the university. This transaction does not have to be laid down in a contract, because there would be no legal transaction from the student to the university. The copyright in this case will be assumed never to have been owned by the student.

When reading the (complete version of the) TU/e IP clause on the university website, this clause does not seem to only refer to the work that is created under the direction and supervision of a TU/e employee.[44] The clause states all works created in context of study. This is a broader scope then article 6 Dutch Copyright Act seems to imply. It can be concluded that either there is no

[38] Kooij 2016, p. 23 – 24.
[39] Article 6 Dutch Copyright Act: If a work has been made after the design by and under the direction and supervision of another person, that person is taken to be the maker of the work.
[40] Article 7 Dutch Copyright Act: Where labour which is carried out in the service of another consists in the making of certain literary, scientific or artistic works, the person in whose service the works were created is taken to be the maker, unless the parties have agreed otherwise.
[41] Kooij 2016, p. 25.
[42] Memorie van Toelichting Auteurswet 1912, the original Dutch text is as follows: Waar brein en hand afzonderlijk arbeid verrichten, hebbe die van het brein den voorrang.
[43] Verkade 2016, Artikel 6.
[44] The clarification of the clause in the website states the following: On signing the enrolment form you also agree to concede all intellectual property rights to the TU/e concerning your work, models, drawings or inventions created in the context of your studies (and/or whilst working on projects carried out by the TU/e or third parties) during your enrolment at the TU/e (or otherwise working for or with the TU/e). (Source: https://www.tue.nl/en/education/studying-at-tue/admission-and-enrollment/undergraduate-programs/enrollment/intellectual-property-rights/)

reason for a contract transferring IP, because the creating student will never own the IP that the clause targets. Or the contract goes beyond the scope of article 6 Copyright Act. This would imply that there would be a transfer of (possible) future IP. It can be concluded that article 6 Dutch Copyright Act does legitimise a part of the IP clause in the TU/e contract, but that additional grounds are needed to legally support the wide definition of the TU/e IP clause. This extra support could possibly be obtained in Dutch Civil Law, as IP is transferable.

The transfer of Copyright

Article 2 of the Dutch Copyright Act states that the transfer of copyright may only be carried out by means of a deed executed for that purpose. The deed that is needed for the transfer of the Copyright is described in article 3:95 of the Dutch Civil Code.[45] This can either be done by simply signing the deed or by signing a deed at a notary.[46] The transfer of the copyright falls under article 3:84 Dutch Civil Code[47], so requires: 1) a formal delivery, 2) pursuant to a valid legal basis and 3) must be done by someone with power of disposition over the IP. Future copyrights can be transferred based on article 3:97 Dutch Civil Code.[48]

Article 2 Dutch Copyright Act might give a legal basis for the transfer of future copyrights from students to their educational institution. The questions that should be answered to get clarity are: is the contract of the TU/e sufficient for a formal delivery? And is there valid legal basis for the transfer? Since these are questions regarding Civil law, they will be further discussed in chapter 3 of this thesis.

Authors Contract Act

The Dutch Authors Contract Act came into force at the first of July 2015. The Authors Contract Act is no separate law; it is an addition to the Dutch Copyright Act 1912. It adds new clauses to this law and amends existing clauses. The main aim of the Authors Contract Act is to strengthen the position of the author of a copyright protected work in his relation with the exploiter of his work.[49] The lawmaker signalled that the author of a work is mostly the weak party in the relationship between exploiter and the author. A 2004 research showed that the relations between well-organized exploiters and less experienced authors, structurally led to unequal bargaining positions. This inequality stems from the fact that exploiters are mostly financially strong repeat players, whilst authors only get into contract negotiations a few times in their lives and have to work with limited resources. The result of which is that the authors are often forced to sign one-sided mostly standard form contracts.[50]

Can the university be seen as the exploiter of the work?

An important distinction must be made when looking at the Copyright Act between the fictional maker and the transfer of copyright. When an employee of an educational institution is seen as the maker of a work, the amendments made by the Authors Contracts Act do not affect the exploitation rights of the university. When the copyright is transferred, the university will be seen as the exploiter of the work. In that case the Authors Contract Acts is of influence on the rights of the student that made the work.

[45] Kooij 2016, p. 48.
[46] Dutch law differs between “authetieke akte” and “onderhandse akte”.
[47] Kooij 2016, p. 48.
[48] Ibidem
[49] Explanatory Memorandum Dutch Authors Contract Law, 2012, p. 1.
[50] Auteurscontractenrecht: naar een wettelijke regeling? Research done for WODC (Ministry of justice), institute for information law, august 2004.

How does the Authors Contract Act influence the position of the student author?

The changes that the Authors Contract Act brings, are most of influence on students from whom work is commercially exploited. For a thesis this will not occur frequently, but for instance software also falls under copyright law. As the introduction of this thesis has shown, computer code can potentially be very valuable.[51] Therefore, the effects of commercial exploitation of copyrighted works are worth mentioning in this thesis.

The first change that is of significance for the student maker, is the change in article 25c (6) Copyright Act, which states the following:

> *"If the author has granted exploitation rights for a manner of exploitation that is not yet known upon conclusion of the contract and the other party commences exploitation, the latter will owe the author additional fair compensation for this."*

This means that if a student maker would make a copyright protected work that is exploited by his educational institution, this institution will owe this student a compensation fee. This is as indicated above only the case when the work is transferred contractually, not when the educational institution is the fictional maker. Next to this compensation fee, an obligation to pay an additional fee can be mandatory when the work turns out to be an unforeseen big success. Article 25d (1) Copyright Act states the following:

> *"The author may claim additional fair compensation in court from the other party to the contract if, having regard to the performance delivered by both parties, the agreed compensation is seriously disproportionate to the proceeds from the exploitation of the work."*

For both these clauses, the law stated that when the right is transferred to a third party, the maker could claim fair compensation from a third party.

A very important article for the relation between student and educational institution that is added to the Copyright Act is article 25f. This article states:

> *"A clause stipulating rights to the exploitation of future works of the author for an unreasonably long or insufficiently determinate period is voidable."*

The only case law in which article 25f Copyright Law was used until now was about musicians disagreeing with the life long contract they had with their label.[52] This case is incomparable with the relationship between student and their educational institutions. If a student would want to challenge an IP contract of the TU/e, this article should be taken into consideration as a possible ground to base a claim on. This clause could serve as a basis for the student who created copyright protected work that is contractually transferred to an educational institution, to invalidate this contractual claim. The TU/e clause is a very broad clause without a determined period; this clause could potentially be voided with the help of this article.

Patent Law

The majority of Dutch patent law can be found in the Dutch Patent Act 1995 (hereafter: PA). The ratio of patent law in general is that by granting an inventing party a temporary monopoly on an

[51] Google example
[52] Dutch Supreme Court 21st of April 2017, ECLI:NL:PHR:2017:321.

invention, overall innovation will be stimulated.[53] A couple of mechanisms make sure this innovation is stimulated: the temporal monopoly gives the inventor the chance to earn his R&D-costs back, patent specification will be published so people can see the invention in detail and the inventor will be protected against others that copy his invention for a limited term.[54]

Patents need to be filed, unlike copyrights; they do not come into existence at the time of creation of a patentable good. A patent is generally granted nationally: for a Dutch patent a Patent application must be filed at the Dutch Patent Office. When a patentee wants to obtain a patent in more than one country, filing can be done for a European patent or an international patent. These patents for more than one country are a bundle of national patents. The approximate costs for filing a patent differentiate widely between €6000 for a national patent[55] up to €75.000 for an international filing.[56]

Because of the complexity and the high costs associated with filing a patent, it is desirable that educational institutions help students in this procedure. Educational institutions will be repeat players in this field, while students are not likely to file large amounts of patents during their studies. Another reason why educational institutions may help in the patent procedure is future valorisation. Apart from whether the inventor or third party will use an invention, the value of the invention will in some cases be better exploited when there is only one rights holder. The question that arises when a patent filed by a student is granted is: who owns the rights over this patent?

Who owns the rights of a patent?

A right to a patent is treated equal to a patent as such.[57] In 2007 The Netherlands Enterprise Agency[58] presented a report that stated that the owner of a patent preferably is the inventor of the patent. It also noted that most of the time this was not the case.[59] The basic rule is that the inventor is the rights holder to a (right to) patent; the reality is that most of the time companies or other institutions are entitled to the patent.[60] Article 12 PA arranges the ownership of patents that are created in special relations. It has a provision for the relation between:

- Employee – employer (art. 12(1) PA)
- Student – third party (art. 12(2) PA)[61]
- Employee – University (art. 12(3) PA)

For this thesis the focus will be on the second category. Article 12(2) PA states that an educational institution is entitled to all patents that are created in context of the study of a student, unless the patent does not have a connection to the subject of activities. Article 12(4) PA states that different agreements can contractually be agreed upon. Article 12(2) PA generally means that if a student creates a patentable work under the supervision or under instruction of an educational institution (or the employee of this institution) that the patent will belong to the educational institution. The rule laid down in the Patent Act seems to follow the same logic as the Copyright

[53] Kooij 2016, p. 59.
[54] Ibidem
[55] The website of the Dutch Patent office approximates the price between €2000 and €10.000. (source: http://www.rvo.nl/onderwerpen/innovatief-ondernemen/octrooien-ofwel-patenten/octrooi-anders-beschermen/octrooirecht/kosten-octrooi)
[56] The website of the Dutch Patent office approximates the price between €50.000 and €100.000. (source: http://www.rvo.nl/onderwerpen/innovatief-ondernemen/octrooien-ofwel-patenten/octrooi-aanvragen/de-wereld/kosten)
[57] Article 64 (1) Dutch Patent Act 1995.
[58] Rijksdienst voor Ondernemend Nederland (RVO)
[59] Octrooien, Een inleiding voor gebruikers, The Netherlands Enterprise agency, 2007, p.14.
[60] Octrooien, Een inleiding voor gebruikers, The Netherlands Enterprise agency, 2007, p.16.
[61] The text of the article is as follows: If the invention for which a patent application has been filed has been made by a person who performs services for another party in the context of a training course, the party for whom the services are performed shall be entitled to the patent unless the invention has no connection with the subject of the activities.

Act; the brain prevails over the hands. But what falls under brain is determined more explicitly in patent law. The Patent Law also explicitly excludes the educational institution from being regarded the fictional maker when the created IP is not subject of the service, so for instance part of the course program.

The question can be raised how the text of article 12 PA relates to the text used in the TU/e contract. When looking at the text of the TU/e contract[62], it states the following:

> *"On signing the enrollment form you also agree to concede all intellectual property rights to the TU/e concerning your work, models, drawings or inventions created in the context of your studies (and/or whilst working on projects carried out by the TU/e or third parties) during your enrollment at the TU/e (or otherwise working for or with the TU/e)."*[63]

This seems to be completely in line with the Dutch text of article 12(2) PA[64]:

> *"If the invention for which a patent application has been filed has been made by a person who performs services for another party in the context of a training course, the party for whom the services are performed shall be entitled to the patent unless the invention has no connection with the subject of the services."*[65] [66]

However, there is one essential part missing in the TU/e contract that is added in the Patent Act. The nuance that the last part of article 12(2) PA makes is left out of the TU/e contract. This is the part where works that fall outside of the scope of the subject are excluded. By not including this part, the interpretation of the clause could be widened in favour of the university.

Transferability of patents

Patents created by students under supervision or instructions of an educational institution are by law presumed to belong to the institution that supervised (article 12(2) PA). For these patents there is no need to setup a contract to transfer them to the educational institution, they are presumed never to become in the possession of the student. The patents that fall outside of the scope of article 12(2) PA will need to be transferred, because the initial ownership will be at the inventor (the student). As stated above, patents are subjective rights: they are proprietary rights on non-material objects. Under Dutch law these rights are treated as property. The transferability of patents is arranged in Book 3 of the Dutch Civil Code. This is the same as for copyright and shall be discussed in the chapter hereafter. Furthermore, article 64(1) PA determines that Patents and rights to patents are transferable.

---

[62] https://www.tue.nl/en/education/studying-at-tue/admission-and-enrollment/undergraduate-programs/enrollment/intellectual-property-rights/

[63] Dutch text: Door akkoord te gaan met je inschrijving aan de Technische Universiteit Eindhoven doe je afstand ten behoeve van de TU/e van alle intellectuele eigendomsrechten op door jouw gemaakte werken, modellen, tekeningen of gedane uitvindingen in het kader van je studie (en in het kader van door de TU/e of derden uitgevoerde projecten waarbij je betrokken bent) gedurende de periode dat je als student bij de TU/e ingeschreven staat (of anderszins voor of met de TU/e werkzaam is).

[64] Dutch text: Indien de uitvinding, waarvoor octrooi wordt aangevraagd, is gedaan door iemand die in het kader van een opleiding bij een ander werkzaamheden verricht, komt de aanspraak op octrooi toe aan degene bij wie de werkzaamheden worden verricht, tenzij de uitvinding geen verband houdt met het onderwerp van de werkzaamheden.

[65] Dutch text: Indien de uitvinding, waarvoor octrooi wordt aangevraagd, is gedaan door iemand die in het kader van een opleiding bij een ander werkzaamheden verricht, komt de aanspraak op octrooi toe aan degene bij wie de werkzaamheden worden verricht, tenzij de uitvinding geen verband houdt met het onderwerp van de werkzaamheden.

[66] Non-official translation made by The Netherlands Enterprice Agency.

General conclusion regarding intellectual property right law and students

The lawmaker has tried to define the line between the student that creates IP in context of its study and the student that created IP with the knowledge of its study. In copyright law, this is done implicitly by mentioning the teacher as fictional maker in the student – teacher relationship. Within patent law, the distinction is made explicitly in article 12(2) of the Dutch Patent Act. This article defines that all work made in the context of the study belongs to the educational institution, while work that falls outside of the subjects of the services of the institution is excluded.

Article 12(2) PA and article 6 Copyright Act also have effect without a contractual IP property clause between student and educational institution. So the IP created under the supervision or instruction of an educational institution will automatically belong to that institution, no transfer of rights is needed. The question is how this relates to the clause that the TU/e makes their students sign to follow a study at the institution. If the clause only encompasses IP created under the supervision or instruction of the university, then the clause would by design be valid. One could question what the significance of the clause is, since the university is already entitled to the IP by law. It would only serve as a notification towards students that the university is following the law.

It seems more likely that the TU/e with its contract wants the clause to encompass a wider definition than article 12(2) Dutch Patent Law and article 6 Copyright Law describe. This means that students transfers (potential) future IP to the TU/e when signing the admission contract. This transfer is a transfer of goods and thus falls under book 3 of the Dutch Civil Code. If this is the case, the IP must be transferred in accordance with article 3:84 Dutch Civil Code. Especially article 25f of the Dutch Copyright Act 1912 seems to resist against the transfer of (future) copyright in the situation of students. For patent law no explicit exclusion can be found in Dutch patent law. The next chapter will explore whether students can lawfully transfer future IP to educational institutions under Dutch Civil Law.

Private law

When there is a contractual relationship regarding IP between an educational institution and its students, this relationship will mainly fall within the private law domain. To have a legal transfer of IP the rules of property and contract law have to be followed. This chapter will examine what private law rules govern the contractual relationship between universities and students.

Property law: transferring future intellectual property

As we have seen in chapter 2 of this thesis, IP rights are subjective rights; they are proprietary rights on non-material objects. IP rights are transferrable and fall under article 3:6 of the Dutch Civil Code (hereafter: DCC).[67] IP rights are legally treated as goods according to article 3:1 DCC.[68]

There is an on going discussing about whether IP rights are registered property[69] or non-registered property. The dominant view on this is that IP rights are non-registered property.[70] The entire IP system is also designed to treat IP as non-registered property. When, for instance, a security right on IP is obtained, this will be done in the form of a pledge[71], used for non-registered property and not in the form of a mortgage[72], used for registered property.[73] In this thesis we presume that IP rights are non-registered property.

The transfer of property is primarily arranged in article 3:83(1) and 3:83(3) DCC. Article 3:83(3) determines that goods other than ownership rights, limited property rights and debt-claims are only transferable when the law indicates so. This means that all IP rights need to have their own legal basis in law to be transferable. In chapter 2 of this thesis, this legal basis for the transfer of the main IP rights of interest for this thesis: patents and copyright, was described.[74]

Dutch law permits the transfer of future (intellectual) property; article 3:97(1) DCC states the following:

> *"Future property can be delivered formally in advance, unless it is prohibited to make it the subject of an agreement or it concerns registered property."*

In chapter 2 the conclusion was that the IP of interest is transferable and thus can be made subject of an agreement. This means that future IP can be transferred under the condition that the requirements for transferability are met.

The requirements for the transfer of property are laid down in article 3:84(1) DCC. These requirements are:

- A formal delivery;
- A valid legal basis for the transfer;
- By the person with power of disposition over that property.

This chapter will focus on researching whether or not these requirements could be met in the contract regarding IP between students and educational institutions.

---

[67] Kooij 2016, p. 9.
[68] Mijnssen, et al. 2006, p. 48.
[69] Dutch: registergoederen
[70] See for instance: M.W. Wiegerinck 2014, p.482; Domingus 2003, p. 142-145.
[71] Dutch: pandrecht
[72] Dutch: hypotheekrecht
[73] M. Fetter-Kuijt 2012, p.-
[74] Article 64(1) Patent Act and article 2 Copyright Act.

A formal delivery

Because future IP does not fall within article 3:89-94 DCC and it is not excluded from transfer in article 3:83(3) DCC it falls within article 3:95 DCC. According to Bartels, et al. article 3:95 DCC is especially of interest for property that is not yet in the possession of the one delivering it.[75] This is clearly the case with students signing a contract regarding their future IP. The formal delivery of copyright and patents needs to be done by deed executed for that purpose.[76] According to article 3:95 DCC, for a transfer of property there needs to be a written contract transferring the (intellectual) property. In case of the students this would be the contract they sign to be admitted to the educational institution. The deed in article 3:95 DCC does not have to be an authentic deed, which would mean that the act should be registered at a notary to be valid.[77] Article 156(1) Civil Procedure Act[78] states that a (non-authentic) deed is a signed document that could be used as proof. According to the parliamentary history of book 3 of the DCC a deed signed by the delivering party is legally valid, as long as the receiving party accepts the content of the deed. This acceptance is not bound to any formal requirements.[79] The further content of the deed is not bound by any formalities. The only requirement is that the subject matter that is being transferred is described sufficiently.[80] This last requirement will be discussed hereafter.

From the above can be concluded that the contract that the TU/e obliges their students to sign, could according to property law serve as a deed as required in article 3:95 DCC.

A valid legal basis for the transfer

The requirement of a valid legal basis for transfer serves the purpose of preventing non-righteous transfer of wealth.[81] The valid title should give a valid ground for the future transfer of the IP.[82] Normal valid titles commonly used are: purchase agreement, exchange agreement and financial security agreement, among others. It is questionable whether the transfer of IP in exchange for education at an educational institution could be regarded as valid legal basis for transfer.

A second requirement for a valid legal basis is specified in article 84(2) DCC. This article determines that the property that is being transferred needs to be defined sufficiently. Dutch law makes a difference between absolute and relative future property. The first category of property entails property that does not exist yet and is therefore not yet owned by the transferring party. The second category indicates that the goods already exist but are not yet in the ownership of the transferring party.[83] The transfer of future IP by students to educational institutions relate to the first category: absolute future property. This future property is transferable, although it cannot be described in great detail. The rule regarding "being defined sufficiently" in case of absolute future property, is that the transferring party must know what is being transferred at the moment that it comes in existence.[84] For the IP it is clear what falls under this term, thus when it comes into existence all parties know that the contractual transfer will come into existence at this point. Article 84(2) DCC will thus not be a problem for the transfer of future IP.

[75] Bartels et al. 2013, p.-
[76] Article 2(3) Copyright Act and article 95 Dutch Civil Code.
[77] Peter 2010, p.-
[78] Dutch: Burgerlijke Rechtsvordering
[79] MvA II, *Parlementaire Geschiedenis Boek 3 NBW*, p. 395.
[80] Reehuis 2006, nr. 117.
[81] Keirse, et al. 2014, Artikel 84.
[82] Reehuis 2012, nr. 113.
[83] S.E. Bartels 2013, p.-
[84] Schuijling 2016, nr. 138-143.

When educational institutions want students to sign of their IP rights, they will have to be able to define a legal basis for this transfer of future property. Looking at the requirement for a valid legal basis, this might be hard, but not impossible. If a valid legal basis would be defined, it would look something like: the student will get education in exchange for a tuition-fee and all the IP he creates in context of his study. The limited scope of this thesis does not allow for in-depth research into whether this could be a valid legal basis for transfer.

Invalidating the legal basis for transfer

An invalid legal basis for transfer could lead to the invalidation of the entire transfer of the IP. Invalidation of the transfer, because of an inadequate legal basis for the transfer would legally mean that the transfer has never taken place (article 3:53(1) DCC). Looking at the contracts regarding IP and students, the most important ground for invalidation is: conflict with law, morals or public order (article 3:40 DCC). When on of these grounds is approved, the legal basis for the transfer would be invalid. This ground will be described more in-depth in the part about contract law, because this ground plays an important role in this field of law.

Additionally, there are grounds that could give the transferring party the option to make the legal ground invalid[85]. This means that the transferring party could choose to invalidate, but could also choose to keep the transfer valid. Grounds for invalidatabillity that could be of interest are: misuse of circumstances (art. 3:44 DCC) and delusion[86] (art. 6:228 DCC). An extensive analysis of these grounds in context of IP clauses would have to be made to give a conclusion on whether or not these grounds could apply to this contract. Misuse of circumstances will shortly be highlighted in Chapter 5. Extensive empirical research would have to be done to give a conclusion on whether or not students would be deceived by contracts like the one of the TU/e.

Looking at the above grounds for invalidation or invalidatabillity of the legal basis for the transfer of IP, there is at least one ground that could be of interest for the TU/e contract. The misuse of circumstances could be the case since the university does not allow students to study at the university without consenting to the IP contract. Since there are only 3 technical universities in the Netherlands and these universities are relatively wide spread, at least some of the (to be) students will have no choice but to accept the terms and conditions of the TU/e contract. Whether or not this is reconcilable with the public function a university serves will be explored in the fourth chapter of this thesis.

By a person with power of disposition over the property

The power of disposition over the future IP will not be established at the moment of signing the contract, because the IP does not yet exist. This does not mean that there cannot be a future delivery. The delivery as such will not yet take place. The future delivery means that the delivery as such is done at the moment that the property comes in the disposition of the transferring party.[87] For students this means that when they acquire IP rights they will automatically deliver these rights to the educational institution they signed an agreement with. Note that here the assumption is made that the IP at some point comes into the possession of the transferring party. As mentioned in the second chapter this will not be the case when IP is assumed to be created by the university (or employee thereof) itself.

[85] Dutch: vernietigbaar
[86] Dutch: dwaling
[87] Keirse, et al. 2014, Artikel 84.

Contract law

It can be concluded that there are some questions related to the legal grounds for the transfer of property from students to educational institutions. These questions focus on whether IP could be transferred using a contract signed prior to starting a study. The conclusion was that future IP could be transferred legally with a deed, for which the contract between educational institutions and students would be sufficient. This conclusion is made based on property law. It could very well be possible that contract law lays down rules that influence the contract between educational institutions in a different way property law does. Dutch law has extensive law on what can be contracted and what should not be part of a contract.

The first this part of the chapter will explore whether contract law allows the transfer of future IP and what principles should be taken into account. The second part will elaborate on the rules regarding standard terms and conditions. This is interesting because the clause in the TU/e contracts looks like a standard term and condition for admission to the university.

What are the basic rules of contract law?

Dutch contract law is based on freedom of contract, this freedom has two aspects.[88] The contracting party has the freedom to determine with whom to contract. The other aspect is that the contractor has the freedom to determine about what he wants to contract.

The first aspect is limited by the fact that sometimes only limited contracting parties are available. When someone for instance wants to send a satellite into space, there are only a handful of companies he could contact to launch his satellite. In the private market sphere this is normally no problem, because the parties are free to contract with whom they want and ask for the price they want (market competition). But in the Dutch public domain, other rules apply for these limited resources. Because in the Netherlands a lot of essential facilities are publically regulated (drinking water, railways, education, etc.) rules have been made to share these facilities equally. Instead of market principals other rules apply for the parties governing these resources. They fall under public law principles. These principles must, amongst other, assure that citizens have equal access to basic facilities, that they are treated equally and that citizens can trust the government is not misusing its position.[89] That these principles apply in in contract law, which is mainly govern by private law principles, is due to article 3:14 DCC. Article 3:14 DCC limits the contractual freedom of public institutions, in order to guarantee a certain level of security for citizens.

Questions could be raised whether a contract like that of the TU/e, that obliges students to sign of their IP, would comply with these limitations. A question could be raised whether forcing students into contracts they might not want, in order to participate in the limited resource of payable education, complies with contractual limitations public authorities should comply with? This chapter will give insights into this question, but due to the limited scope of this thesis, no conclusive answer will be given.

The requirements for a legal contract are formulated negatively in article 3:40 DCC. This article states that the content of a contract should not be in conflict with law, morals or public order. When a contract does not comply with article 3:40 DCC it is deemed to be void or voidable. A contract that obliges students to transfer future IP to their educational institution could both be in conflict with law, as will be assessed in chapter 4, and in conflict with morality. This thesis will not allow for an analysis into the morality of this IP contracts like this, as this is a very complex analysis and the scope of this thesis is limited. More specific legislation contract law is laid down

[88] Hijma, et al. 2013, p. 152.
[89] Ibidem

in standard terms and conditions. Since IP clauses seem to be a standard for entering some educational institutions, this thesis will look into how regulation about this topic could influence the legality of IP clauses.

Standard terms and conditions

Dutch law has extensive regulation regarding standard terms and conditions; this regulation is codified in article 6:231-6:247 DCC. Article 6:231 DCC defines what kind of terms and conditions fall under the standard terms and conditions regime. The primary condition for being regarded as standard terms and conditions is that one terms and conditions is used in multiple contracts. Since the university is using the standard terms and conditions regarding IP for all their students, this seems to be the case.[90] The second criterion is that the terms and conditions cannot be part of the core of the agreement. It should not be taken into account whether one of the parties sees the term or condition as a very important part of the contract.[91] Neither should be taken into account whether or not one of the parties considers the terms as a core principle of the contract.[92] The only thing to consider may be objective benchmarks for whether or not the terms and conditions are part of the core of the contract. The core of the agreement is the part of the contract without which the contract would under no circumstances be concluded. Treating terms and conditions as core of a contract should be applied as restrictively as possible.[93]

For the TU/e the IP clause can probably be seen a standard term laid down in contracts. The core of the contract arranges that the student gets education and that the student will pay a tuition fee for this education. The contract would in most cases still be concluded when the IP clause was not in the contract. The question that now remains is whether the clause could be considered unreasonably onerous?

Unreasonable onerous terms and conditions

There are two grounds for voiding terms and conditions according to article 6:233 DCC. The first reason is inability for the consumer to take notice, the second is unreasonable onerousness. The first category is violated when the educational institution does not provide the student with the written terms and conditions, this must either be done by handing it over at the moment of signing or by sending the entire terms and agreements to the student.[94] An educational institution should keep this in mind when laying down standard terms and conditions for studying at their institution. To determine whether terms and conditions are unreasonably onerous, content of the agreement, the way the contract was established, the interests of the parties and the other circumstances must be taken into account.[95] Article 6:233 DCC should be seen as equally protecting as the broader article 6:248(2) DCC about reasonableness and fairness.[96] When an IP-clause would not be presented as a standard term and condition, article 6:233(a) DCC would not be an option, but article 6:248(2) DCC would in that case be a good substitute to base a claim of unreasonable onerousness on. Also when an IP-contract as such would not be judged as

[90] See: https://www.tue.nl/en/education/studying-at-tue/admission-and-enrollment/undergraduate-programs/enrollment/intellectual-property-rights/ and https://static.tue.nl/fileadmin/content/studeren/1_Studeren_aan_de_TU_e/Toelating_en_inschrijving/Intellectual_property_rights.pdf
[91] MvA II, Parl. Gesch. BW Inv. 3, 5 en 6 Boek 6, p. 1527 and HR 21 februari 2003, NJ 2004/567 (Stous/Stichting Parkwoningen)
[92] MvA I, Parl. Gesch. BW Inv. 3, 5 en 6 Boek 6, p. 1566.
[93] Tekst & Commentaar Burgerlijk Wetboek, Begripsbepalingen bij: Burgerlijk Wetboek Boek 6, Artikel 231, Deventer: Kluwer
[94] Article 6:234 BW
[95] Hijma, et al. 2013, p. 250.
[96] Hijma, et al. 2013, p. 252.

unreasonably onerous, but the outcome of the contract would be, a claim on 6:233(a) DCC would not flourish whilst the option for article 6:248(a) DCC would still be open.[97]

To ensure a high level of consumer protection, the Dutch legislator has set out a list of standard clauses that are assumed to be unreasonably onerous towards consumers. These clauses are on the so-called black[98] and grey[99] list in the DCC. The black list contains things that will by default be seen as unreasonably onerous, whilst the grey list contains terms and conditions that are suspected to be unreasonably onerous. Because the unreasonable onerousness in article 6:237 DCC is only suspected, the contracting party has room to proof the opposite. If (a part of) terms and conditions is unreasonably onerous it is invalidatable according to article 6:233(a) DCC.

Both the black and the grey list do not contain any articles that could invalidate an IP contract between student and educational institution. Since article 6:233(a) DCC is an open norm, there is still the possibility that such a contract is deemed void due to the fact that it is unreasonable or unfair. Because of the limited space in this thesis, no extensive analysis can be made of whether or not an IP-clause or contract would by default be deemed unreasonably onerous. But, it can be concluded that article 6:233(a) or 6:248(1) DCC could possibly be called upon to void an IP-clause as presented by an educational institution.

General conclusion regarding private law and student contracts

Looking at property law, the general conclusion is that there is a possibility for the transfer of future IP, but that the legal basis for this transfer between students and educational institutions might be lacking. Chapter four will focus on the public position that an educational institution fulfils, especially how it's public function interacts with the arrangements it makes in the private sphere. This might give more insight into the question whether or not an educational institution could obtain suficient legal grounds for contractually claiming IP in exchange for education. Another point of interest is the misuse of circumstances of article 3:44 DCC. If a student that has IP that falls outside the scope of Article 12(2) Patent Act and article 6 Copyright Act he or she might be able to prove that an educational institution misused its position to get hold of its IP, this would be a way of invalidating the transfer.

For contract law only a general assessment could be made. The conclusion is that a contract a student signs for enrolling an educational institution could functions as a sufficient basis for a formal delivery of IP. However, the question arises whether an (public) educational institution can lawfully oblige a student to sign a contract for this purpose. Not only can questions be raised whether such a clause or contract is legally and morally justified, it could also be assessed whether it would pass a test of reasonableness and fairness. This can be done under normal contract law norms or under the norms for standard terms and conditions. The IP clause of the TU/e looks like a standard terms and conditions for the enrolment of the university. If the IP clause is deemed a standard terms and conditions, the terms and conditions should not only be reasonable and fair, but the terms and conditions should be provided either in hardcopy or send electronically to the students. Failing to do so would mean the clause would be voidable to start with.

[97] Hijma, et al. 2013, p. 253.
[98] Article 6:236 DCC
[99] Article 6:237 DCC

Public Law, the IP contract

The previous two chapters have made clear that educational institutions have a legal basis to claim IP that is created by students under their supervision. They will automatically be seen as the fictional maker of the IP as long as the IP is created under their supervision and instruction. However, educational institutions need a specific legal basis to claim any IP that is not created in context of a course or under their instruction and supervision. In the previous chapter, the conclusion was that the most likely legal basis for this transfer would be the transfer of IP in exchange for education. This chapter will clarify how the Dutch educational works legally. After which an analysis will be made on how the obligatory transfer of IP by students relates to the rules regarding financing of public educational institutions.

Dual approach Dutch educational system

The Dutch educational system has a dual approach regarding education.[100] A division is made between public and special education.[101] The basis for this division can be found in article 23(5) and 23(6) of the Dutch Constitution.[102] Public educational institutions have a legal basis in law. Public education completely falls within the public law domain.[103] Special educational institutions are founded by a private initiative and are governed by their own regulations and statutes. These institutions work as a legal entity with complete legal competence.[104] The governance of special educational institutions falls, with the exemption of giving out diploma's, in the private law domain.[105] 11 of the 14 universities in the Netherlands are designated as being public institutions.[106] All graduate schools[107] and three universities[108] are designated as special educational institutions.[109]

Financing of education by the state

Article 23(5) and 23(6) of the Dutch Constitution only apply to education that is financed by the government.[110] This means that all the laws that have been derived from this legal basis for education apply to financed education. Public and special education institutions can both offer publically financed education. The rules regarding the financing of special and public education are treated equally under Dutch law.[111] Completely private educational institutions like Nyenrode University fall outside the scope of this thesis because they are privately financed.

To receive financing from the state, educational institutions must comply with the requirements of article 1.9 of the Higher Education and Scientific Research Act[112] (hereafter: HESRA). Sub 3(d) of article 1.9 HESRA states that to qualify for financing by the state: "an educational institution must comply with the provisions regarding the offered education, registration, the education, examinations and promotions. The provisions regarding these topics are further defined in the later articles of the HESRA. Section 7 of the HESRA defines the requirements regarding education.

---

[100] De Boer 2013, p.9.
[101] Ibidem
[102] Kloet 2012, p.7.
[103] De Boer 2013, p.9.
[104] Artikel 1.1 (h) and (i) Higher Education and Scientific Research Act
[105] De Boer 2013, p. 10.
[106] Appendix of Dutch Law on Higher Education and Research
[107] Dutch: hogescholen
[108] Tilburg University, Radboud University and University of Amsterdam
[109] Kloet 2012, p. 8
[110] Mentink 2010, p.-
[111] Mentink 2010, p. 68.
[112] Dutch: Wet op het hoger onderwijs en wetenschappelijk onderzoek

Tuition fees

Article 7.1 HESRA states that this chapter is about the financing of universities and graduate schools. Article 7.43(1) HESRA determines about tuition fees that: "for each academic year, a student has been enrolled by the institutional education board, the student owes to the institution the statutory tuition fee as referred to in sections 7.45 and 7.45a (…)." Article 7.45 HESRA determines that the height of the maximum tuition fee is determined by order in council[113]. The amount that is determined by order in council can only be overwritten if provided for by law. For the year 2016-2017 the height of the statutory tuition fee was between € 1.163 and € 1.984. If a publically financed educational institution wants to charge a higher tuition fee, it needs permission of the minister according to article 6.7(1) HESRA. The minister is only allowed to give permission for higher tuition fee under specific circumstances defined in article 6.7(3) HESRA. These circumstances are:

a) The application is for small-scale and intensive education, which is aimed at an above-average educational return and the activities within and outside the curriculum are linked; and
b) The permission does not affect the quality or accessibility of higher education.

It is clear that article 6.7(3) HESRA does not apply for the standard studies offered by the TU/e. Not only is there no information about the possible permission of the minister for the higher tuition fee in the registers. Also, the tuition fee of the TU/e is exactly as high as the maximum fee that can be charged by an educational institution under normal circumstances. Additionally, the website of the TU/e also states that it charges the statutory tuition fee.[114] This means that the TU/e is bound by the maximum fee laid down in the yearly order of council, in order to apply for the public financing of their studies.

How does a mandatory transfer of IP relate to the maximum tuition fee?

In the previous chapter, a legal ground for the transfer of IP from student to educational institution was defined. The intermediate conclusion was that this legal ground should look something like this: the student will get education in exchange for a tuition-fee and all the IP the student creates in context of his study. This would mean that the student does not only pay for his study in the form of a tuition fee, but also by transferring his future IP. An obliged (potential) transfer of IP could very well be seen as an extra payment for education. This would mean that the requirement regarding education of article 1.9(3)(d) HESRA would be violated. Section 7 HESRA is very clear about the maximum payment that can be required; this is the amount that is determined by order of counsel. So it is not the amount determined by order of council together with all the intellectual property that a student creates during his study. A violation of article 1.9(3)(d) HESRA should normally result in a refusal of public funding for an educational institution. If these kinds of extra payments would be allowed, an educational institution could ask for more besides the formally established tuition fee. Think of donations of third parties, working for partnering companies or other possibilities to generate income.

The Ministry of Education, Culture and Science of the Netherlands confirmed the above view explicitly in a letter to all higher educational institution send on the 28th of April 2015. This letter was about extra costs that educational institutions were redirecting towards students for working materials, administrative costs or things as such.[115] The Minister of Education stated the following about these extra charges:

[113] Dutch: algemene maatregel van bestuur
[114] https://www.tue.nl/en/education/studying-at-tue/study-costs-scholarships-and-grants/tuition-fees-2016-2017/
[115] Jett Bussemakers, Ministry of Education, Culture and Science of the Netherlands, 28th April 2015.

> *"An important principle of the Dutch education policy is accessibility. Registration for a program may not be subjected to any other financial contributions than the legal tuition fees (Article 7.50, first paragraph, of the HESRA). After registration, the student is entitled to facilities (Article 7.34 of the WHW). These include teaching, examinations, access to buildings and collections and use of student facilities and study guidance. No additional contributions from students may be required for such facilities."*[116]

The letter of The Ministry leaves no room for educational institutions to claim any additional contribution in exchange for the education it offers. This means that either the funding received from the government would be unlawful, or the contract regarding the transfer of IP would be. Since the income from public financing is far greater than that of IP incomes, it is likely that in case of violation, educational institutions would choose not to require the transfer of IP. Students that were forced to give up IP rights could also look into contract law for remedies to void the IP clauses or contracts. As we have seen in Chapter 3 of this thesis, a contract that leads to an unlawful or undesirable outcome could be deemed void in court.

Conclusion regarding the IP-clause and public financing

Considering the above, IP-clauses or contracts like the contract of the TU/e should be considered useless or non-compatible with public financing laws for educational institutions. When the university would decide to follow the IP regime as determined by IP law, a contract confirming these laws would have no legal implications. The IP that would belong to the educational institution according to law would never be in the possession of the student signing the contract, because the institution would be considered the (fictional) maker. The IP that would not belong to the educational institution according to law would belong to the student, but would fall outside of the scope of the IP contract, because it would otherwise violate Dutch Educational Law.

As described in chapter 2 of this thesis, the university is entitled to certain IP, based on provisions in the Dutch Copyright Act and the Dutch Patent Act. If the clause in the contract serves a purpose to inform students that these provisions bind them, the wording of this clause is at least ambiguous. Not only is the wording of the clause broader than the wording of the law, in its appearance it also seems to lay an extra burden on the student. It would be advisable to either remove the clause at all, or write it in such a way that it is clear that it is just to make students aware of the positive law on this topic. A clause stating: "hereby you sign that you agree with the IP policy of the TU/e, this policy follows the rules laid down in Dutch law", would for instance signal far more trust.

The previous chapter dealt with clauses regarding IP. It did not look into the cooperation between educational institutions and students regarding entrepreneurship. In the introduction of this thesis a couple of cases were described where the TU/e negotiating contracts with entrepreneurial students. The way the university approached these negotiations seemed very business orientated, but also fairly vague in terms of what students could expect from the university. The first part of this chapter concluded that the TU/e is considered to be a public institution that falls under public law regulation. The remainder of this chapter will focus on to what extent educational institutions can operate in the private law domain and under what conditions they can interact with student in this domain.

[116] Dutch text: Een belangrijk uitgangspunt van het onderwijsbeleid is de toegankelijkheid. De inschrijving voor een opleiding mag niet afhankelijk worden gesteld van andere geldelijke bijdragen dan het collegegeld (artikel 7.50, eerste lid, van de WHW). De student heeft na inschrijving recht op voorzieningen (artikel 7.34 van de WHW). Daaronder vallen onder andere het volgen van het onderwijs, het afleggen van tentamens, de toegang tot de gebouwen en verzamelingen en gebruikmaking van studentenvoorzieningen en studiebegeleiding. Voor dergelijke voorzieningen mogen geen extra bijdragen van studenten worden verlangd.

Public Law, the educational institution as shareholder

In the previous chapter the conclusion regarding the obligated IP clause was that this clause was either redundant or non-compatible with public financing. This means the ground for claiming IP of students will in most cases cease to exist. However, in many cases educational institutions still have ownership over the IP created by students. When students in these cases want to start a company, they will still need to come to an arrangement with their educational institution. As can be seen in the introduction of this thesis the way educational institutions negotiate with students is sometimes non-transparent, inconsistent and very business oriented. For students this attitude is not what they expect from their educational institution. But is this naivety well-grounded or should students have been aware that they were dealing with a commercial party? Dutch public law has laid down principles to govern the behaviour of public institutions: the principles of sound administration. These principles set (moral) rules that institutions with a public task are obliged to follow. This chapter will look into the principles of sound administration laid down in Dutch public law. The main question will be: do (and if so, when do) the principles of sounds administration apply to educational institutions? And how do these principles influence the way educational institutions can operate in the private law domain with students? The chapter will conclude with applying the findings on the modus operandi of the TU/e described in the introduction chapter of this thesis.

Principles of sound administration

Governmental institutions are required to follow the principles of sound administration in all their acts and decisions.[117] The principals of sound administration can be seen as behavioural norms for publicly governing institutions and persons.[118] The most principles of sound administration are codified in the General Administrative Law Act (hereafter: GALA). The GALA came into act in 1994, in this act the jurisprudence up to that point about the relation between government and citizen[119] was codified. One of the reasons to do this was to control the growing freedom of policy of public authorities.[120] According to Van der Heijden the principles of sound administration balance expectations, protect individual rights and assure legitimate public governance.[121] Next to the principles in the GALA there are a few unwritten principles and principles that can be derived from the Civil Code.[122] The main principles of interest for this thesis are:

- Prohibition of détournement de pouvoir (Abuse of power) (art. 3:3 GALA)
- Duty to balance interests (art. 3:4(1) GALA)
- Proportionality principle (art. 3:4(2) GALA)
- Principle of equality (unwritten)
- Principle of trust (unwritten)

Most western legal systems have some form of principles of sound administration. On European Union level some principles equal to the Dutch principles can be found in the European Convention on Human Rights.[123] The question is whether and in what cases, these principles apply to educational institutions? And what the implications of the different principles are for the relation between these institutions and students.

[117] Schlössels 2010, p. 126.
[118] Schlössels 2010, p. 385.
[119] Dutch: burger
[120] Schlössels 2010, p. 388.
[121] Van der Heijden 2001, p. 247.
[122] Schlössels 2010, p. 385.
[123] Schlössels 2010, p. 386.

Legal qualification of Dutch educational institutions

For Dutch public law principles to be applicable, an institution must be qualified as an administrative public authority[124].[125] Article 1:1(1) GALA defines two sorts of administrative authorities: a-authorities and b-authorities[126].[127] A-authorities are administrative authorities that have a legal basis in Dutch Law. A-authorities are also institutions that have been deemed a legal entity by law; examples of such entities are the public universities.[128] All actions a-authorities take fall under the GALA.[129] This means that when an a-authority performs an act within the private law domain, this action should also comply with the rules laid down in the GALA.[130] B-authorities are entities that preform a public task that has a legal basis in law.[131] For b-authorities different rules apply than for a-authorities. B-authorities don not perform a public task all the time and thus are not subjected to public law norms and rules all the time[132].[133] However, these institutions have received public authority to perform a public task towards citizens in a given domain. This means they can perform some activity that influences the position of citizens one-sided.[134] Under Dutch law this does not mean that b-authorities only fall under the principles of sounds administration regarding the public task they have been given. Also actual acts[135] and actions regarding private law that are related to the given public authority fall under the public law principles.[136]

Public universities fall completely under public law as a-authority. This can be derived from article 1.8(2) HESRA in combination with article 2:1(2) DCC.[137] According to the makers of the GALA all the entities that fall under an a-authority should be considered being a-authorities as well.[138] These entities fall under the same rules as the a-authority itself.[139]

To be considered a b-authority as described in article 1:1(2) GALA, an institutions or person needs to have public authority.[140] The relation between students and special educational institutions is primarily considered to be private.[141] But it seems obvious that publically financed educational institutions fulfil at least some public authority.[142] Case law has determined that the institutional management of special education institutions should be considered as an administrative public institution when making decisions regarding the issuance of diplomas or degrees to students.[143] This means that all the actions connected to issuing of degrees fall under public law norms. Another reason to suspect that the relation between special educational institutions and students is governed by public law norms comes from a publication by Jacob Boer

[124] Dutch: bestuursorgaan
[125] Michiels 2014, p. 54.
[126] Dutch: a-organen en b-organen
[127] Article 1:1(1) GALA: 'Administrative authority' means: an organ of a juristic person governed by public law, or any other person or body vested with public authority.
[128] Michiels 2014, p. 55.
[129] Ibidem
[130] Ibidem
[131] Michiels 2014, p. 54.
[132] Dutch literature speaks of the “as long as” (”voor zover”) rule, which means that the institution is considered a public authority as long as it is performing its public task.
[133] Schlössels 2010, p. 126.
[134] Michiels 2014, p. 56.
[135] Dutch: feitelijke handelingen
[136] Schlössels 2010, p. 126.
[137] Schlössels 2010, p. 122.
[138] Parliamentary history HESRA I, p.142.
[139] Schlössels 2010, p. 123.
[140] Schlössels 2010, p. 123.
[141] ABRvS 19 juli 2006, LJN AY4273, Examencommissie Hogeschool Zuyd II.
[142] Schlössels 2010, p. 124.
[143] ABRvS 19 juli 2006, LJN AY4273, Examencommissie Hogeschool Zuyd II

and Paul Zoontjes.[144] In a 2016 article they indicate that many conflicts between students and special educational institutions are not brought to private law courts, but rather to the College of Appeal for Higher Education.[145] This special College of Appeal falls under GALA regulation.[146] This is an indication that the relation between student and special educational institution is governed by public law norms.

Regarding the applicability of public law norms on educational institutions, the following can be concluded. For universities it is clear that the principles apply in every interaction they have with students, so also negotiating shareholders agreements. For special educational institutions it is clear that these principles apply when determining under which conditions a student can receive education and a degree. But, it is not clear whether special educational institutions also fall under public law principles when interacting with students in the private law sphere. The scope of this thesis does not allow for an in-depth analysis of to what extend principles of sound administration apply to special education institutes in this relation. For the remainder of this chapter the analysis will be based on the situation where the principles of sounds administration would apply in private law negotiations between special educational institution and students regarding private law interactions.

Public law principles in the private law sphere

When an educational institution signs a contract with a student about the shares of a company, this is clearly a private law act. The question arises how public law principles influence the private law interaction in this transaction. To answer this question two articles are very important: article 3:14 DCC and article 3:1(2) GALA.

Article 3:14 DCC states the following:

> *"A right or power that someone has by virtue of civil law may not be exercised in defiance of written or unwritten rules of public law."*

This article makes clear that the principles of sounds administration also apply when an institution performs a private law action that is related to a right derived from public law. This article also emphasizes that both written and unwritten public rules apply. Article 3:1(2) GALA contains an almost similar rule from a public law perspective:

> *"The provisions of divisions 3.2 to 3.4 apply mutatis mutandis to acts of administrative authorities other than decisions to the extent the nature of the act permits."*

Since giving education cannot be seen as a decision as is meant in this article, while giving publically financed education falls within the description of article 1:1 GALA, the provisions of the divisions 3.2, 3.3 and 3.4 GALA also apply for educational institutions. All the written principles of sound administration of interest for this thesis fall within (or are related to) the given divisions.

The articles mentioned above are the result of the codification of a number of rulings by the Dutch Supreme Courts, the Ikon-case[147] in particular. In this case the Dutch Supreme Court considered that the principles of sound administration apply in private law domain as strict as they do in public law domain for companies that serve a public function.[148]

[144] Zoontjens 2016, p.-
[145] Zoontjens 2016, 184.
[146] Ibidem
[147] Dutch Supreme Court 27 maart 1987, ECLI:NL:HR:1987:AG5565.
[148] Boogers 2014, p. 9.

The view that public authorities are always bound by public law norms is in line with the dominant view on private law participation of public institutions in the Netherlands: the editing legal doctrine[149].[150] This doctrine states that the legal practice is that public institutions can participate in the private law domain, especially in property law. However, that they, other than natural persons or private entities, will always be bound by public law norms.[151] This means that educational institutions in all their activities regarding students, should comply with these norms. For public universities, the scope of the principles is even broader: they should comply with the principles in all actions they take.

The TU/e is an a-authority since it derives its legal entity directly from the HESRA.[152] Therefore, the TU/e will fall under the principles of sound administration in all its acts. All the entities that are related to a public university are also considered public entities and thus fall under the same regime.[153] This means that TU/e Innovation Lab and TU/e Holding BV, which negotiate with students about becoming a shareholder in their company, are also obliged to comply with the principles of sound administration. As mentioned earlier in this chapter, the same is assumed to apply to special educational institutions with regards to the interaction with students.

Applying the principles

The principals of sounds administration apply to public universities and in some cases to special educational institutions. Based on this conclusion, an analysis will be made of the most important principals. Because of the limited scope of this thesis, it is not possible to discuss the implication of all applicable principles of sound administration separately. The focus will be on the principles that seem to be applicable to the cases of the interviewed entrepreneurs.

Prohibition of the abuse of power

The starting point of this principle is that a public authority should not use the authority it is given for other purposes than described by law. This principle is best applicable when there is a well-defined public competence. According to Schlössels and Zijlstra this principle does not apply to situations regarding private law.[154] However, this principle has a counterpart in private law in article 3:13 DCC[155] (abuse of right). The most important part of article 13 DCC is in the middle part of sub 2:

> *"A right could be abused, among others, (…) when the use of it should, given the disparity between the interests which are served by its effectuation and the interests which are violated as a result thereof, reasonably could not have been exercised.*

Case law regarding this principle mainly revolves around financial claims. Multiple cases have been brought to court where a debtor owes a creditor an amount of money. Due to immediate financial problems the debtor cannot repay the debt at the given moment. Instead of accepting a lower amount of payment, the creditor demands the entire amount knowing that this would mean

[149] Dutch: invullende rechtsleer.
[150] Schlössels (2010), p. 525.
[151] Ibidem
[152] Appendix of Dutch Law on Higher Education and Research
[153] Poot 2010, p. 386.
[154] Schlössels 2010, p. 404.
[155] Article 3:13 Dutch Civil Code 'Abuse of right': A person to whom a right belongs may not exercise the powers vested in it as far as this would mean that he abuses these powers.
A right may be abused, among others, when it is exercised with no other purpose than to damage another person or with another purpose than for which it is granted or when the use of it, given the disparity between the interests which are served by its effectuation and the interests which are damaged as a result thereof, in all reason has to be stopped or postponed.
The nature of a right may implicate that it cannot be abused.

bankrupting the debtor. In some cases refusing to come to an agreement with the debtor could lead to abuse the right of the creditor.[156]

Theoretically it is imaginable that a situation would occur in which an educational institution would jeopardize the continuity of a student's enterprise by claiming the ownership of the IP that the student is using. It is questionable whether this situation would fall under abuse of right, especially when the IP is lawfully not owned by the student. As indicated, the situation where a student develops something under the supervision of a university will never become the owner of the invention. Therefore, a claim on the IP would be a claim on someone else's property. Such a claim is not very likely to flourish.

Another situation that could occur, that would possibly suffice for a claim on the abuse of right, is the situation where an educational institution would promise a student to transfer the ownership of certain IP. Or maybe, as happened to some of the interviewed entrepreneurs, a university could have created the impression that the student would be able to gain ownership of certain IP. When the student formed a company this IP is in most cases is the reason that there is a company at all. When the educational institution misuses this knowledge to demand a share in the company, this could possibly lead to a situation of abuse of rights.

From the examples it becomes clear that this principle will only apply in very specific cases. So influence of this principle on the relationship between students and educational institutions will likely be limited.

Fair Play principle

The Fair Play principle is a highly moral principle that is connected to the principles of non-prejudiceness (article 2:4 GALA) and carefulness. The Fair play principle should be taken into account in all contacts of public authorities with citizens.[157] This principle states that the government should always be open and fair in its communication, should always inform adequately about procedural options, should not keep citizens in suspense and should not pressurize citizens in any form.[158]

In Dutch case law the term 'Fair Play' is rarely used. In case law unfair play is normally translated into an unlawful act[159], which grants the basis for a legal claim based on the Dutch Civil Code. In a 2005 case the Dutch Ombudsman ruled that public authorities should inform a citizen about the consequences of their choice.[160] Especially when this choice has big future consequences. This could also obligate educational institutions to inform students about what consequences working with an institution like TU/e Innovation Lab could have. An argument used by this TU/e institute for claiming IP in one of the cases was that they helped the student setting up his company and that the student should have known that this would not be done for free. It could very well be argued that TU/e Innovation lab in this case should have informed a student about the consequences of working with them in realizing their company.

Duty to balance interests (article 3:4 GALA)

The duty to balance interests is defined negative as the prohibition of arbitrariness. A public authority should balance the interest of all involved parties before making a decision. This means

[156] Dutch High Court 12 augustus 2005, *NJ 2006/230*, m.nt. P. van Schilfgaarde.
[157] ABRvS 2 juli 2008, JB 2008, 182
[158] Schlössels 2010, p. 398.
[159] Dutch: onrechtmatige daad
[160] National Ombudsman 30th of December 2004, ECLI:NL:XX:2004:AS7258, m.nt. P.J. Stolk.

that the authority needs to acquire sufficient information about what effects its decisions might have. When balancing the possible decisions, the authority should always take the individuals interests into account. A decision should never be inappropriately negative for one of stakeholders. A very important principle that is related to the duty to balance interests is the principle of speciality. Public authorities get certain authority to fulfil their public task. When making use of their authority they should always relate their decisions to the given task. If there is no specific task, they should serve the public interest. In the introduction chapter it was concluded that the public tasks for the educational institutions were: education, research and knowledge valorisation.

In case a student would want to start a company with IP owned by the university but created by him, the university needs to decide what to do. In the TU/e cases, the university claimed ownership over the IP and used this to gain a percentage of the shares in the student company. It could be argued that an educational institution that uses its right to claim IP that is developed by a student, to sell it back to the student for a percentage of their company, could be seen negligent regarding this principle.

Principle of equality

The principle of equality is based on Aristotle's equality principle: "treat like cases as like"[161].[162] This principle is unwritten in public law, but has a basis in article 1 of the Dutch Constitution.[163] Article 1 Dutch Constitution states:

> *"All persons in the Netherlands shall be treated equally in equal circumstances. Discrimination on the grounds of religion, belief, political opinion, race or sex or on any other grounds whatsoever shall not be permitted."*

In the assessment whether this principle is complied with two phases can be distinguished. Firstly an assessment is made of to what extent two cases are alike. Secondly it is assessed whether cases are treated differently and whether this different treatment can objectively be justified. Especially when public authorities operate in the private law domain, this principle is brought forward in court. For instance in cases where municipalities sell soil to private parties.[164] If selling soil to different parties, it is expected from a public institution it will not differentiate the price between parties.

If two startups would negotiate over the percentage that an educational institution will get in their company and they are similar, the educational institutions should offer them the same percentage. If one of the parties gets a reduction because they negotiate harder, it could be expected from the institution that it would lower the price for the other startup equally. The hard thing about this principle is that it is very hard to assess whether two cases are really the same. The main reason to honour a claim on this principle is when the motivation for a decision is lacking. The best way to make sure that no claim based on non-equality can flourish, is the presence of a good policy by the public authority.[165]

In the introduction chapter of this thesis it became clear that the terms under which the TU/e would participate in different student companies varied widely. There were two main reasons for this difference; the fact that the offer was different and that after the first offer there was room for

[161] Aristotle, *Nicomachean Ethics*, V.3.
[162] Schlössels 2010, p. 420.
[163] Schlössels 2010, p. 421.
[164] Dutch High Court 18 maart 2005, ECLI:NL:HR:2004:AO9556 m.nt. Nijholt.
[165] Schlössels 2010, p. 424.

negotiation. This means that there is room for equal cases to be treated differently. As mentioned in the previous paragraph, a well-defined policy could be the solution to make the treatment of student entrepreneurs equally.

Principle of trust

The underlying thought of this principle is that citizens should be able to anticipate on what a public authority will do and what the implications of their own actions are.[166] This principle works in the private and public sphere.[167] Whether to trust that a citizen is justified, depends on the knowledge of the citizen.[168] That the principle also holds in the private sphere follows from its codification in the Dutch Civil Code (art 3:33 and 3:35).[169] Article 3:35 DCC states the following:

> *"Against him who has reasonably attributed another ones statement or conduct, in accordance with the intension which he could reasonably attributed to it under the circumstances, as a declaration addressed to him by the other, no absence of a the will of this statement can be acknowledged."*[170]

There are two ways how this principle could influence the way educational institutions should work with students in the private law sphere. On the one hand there is justified trust from the student in the educational institution. In the literature it is argued that justified trust could arise from the basic attitude the public authority shows.[171] Related to the TU/e cases, the university first helped the students setting up a company and securing IP, nothing was mentioned about the IP belonging to the university. It could be argued that the university signalled ownership of IP by the student by helping them setup a company and never mentioning that the IP was still owned by them as university. The student might have had justified trust in the fact that the IP was actually his, because of the initial attitude of the university. Additionally, the fact that TU/e Innovation Lab does not disclose anything regarding its participation in companies on their webpages, while they disclose that they are there to support "entrepreneurship in (techno)starters" could be seen as a confusing practice.[172] This signals something different than being an institution that earns money for the university by participating in student enterprises.

Another application of article 3:33 and 3:35 DCC is the formal legal certainty principle[173].[174] This principle, that is also called the principle of clarity, states that a public authority should be clear about the policy it follows. It also stated that public authorities should not be vague in what the signal towards citizens.[175] In the introduction of this chapter it became clear that the TU/e failed to establish a clear policy at all, at least towards students. Entrepreneurial students did not know what rules applied regarding their IP; this (intentionally or non-intentionally) stayed unclear until the point that the students business was established. The fact that the students would work on its company in cooperation with TU/e Innovation Lab for a long time not knowing that they would face negotiations with this same institution, shows that there was very little clarity about the policy that was being followed. Also when the students got to know that TU/e Innovation Lab claimed a share in their company, or the ownership over their IP, it was unclear what the further

---

[166] Schlössels 2010, p. 426.
[167] Ibidem
[168] Schlössels 2010, p. 427.
[169] Ibidem
[170] Tegen hem die eens anders verklaring of gedraging, overeenkomstig de zin die hij daaraan onder de gegeven omstandigheden redelijkerwijze mocht toekennen, heeft opgevat als een door die ander tot hem gerichte verklaring van een bepaalde strekking, kan geen beroep worden gedaan op het ontbreken van een met deze verklaring overeenstemmende wil.
[171] Schlössels 2010, p. 427.
[172] https://www.tue.nl/universiteit/over-de-universiteit/organisatie/diensten/tue-innovation-lab/
[173] Dutch: formeel rechtszekerheidsbeginsel
[174] Schlössels 2010, p. 426.
[175] Schlössels 2010, 443 - 444.

proceedings would be. It looks like the university was trying to benefit from the fact that the students were in a situation that was totally new and unclear for them.

Contrary to prior principles the principle of clarity is used in court a lot. In a lot of cases decisions made on the basis of vaguely formulated policies or incomplete or incomprehensible considerations were deemed void.[176] The judge in these cases did a substantive test on whether or not the principle of clarity was met. It could very well be that the TU/e would be convicted of violating this principle when a claim based on this principle would be brought before court.

Conclusion regarding educational institution and student entrepreneurs

This chapter makes clear that all the actions of public educational institutions and some of the actions of special educational institutions fall under public law principles. This means that when negotiating with students in the private law sphere, these institutions are bound to stricter (moral) principles and regulation than a normal private company would be. Especially the fair play principle, the principle of trust and the related principle of clarity seem to be of great importance when considering how an educational institution should behave in relation to an entrepreneurial student. It is clear that non-clarity could serve a purpose when a company wants to negotiate about something like buying shares in another company. But, it should also be noted that public companies fall under public law principles and thus, should not engage in these kinds of business tactics.

It looks like the TU/e has (intentionally or non-intentionally) violated some basic principles of sound administration. The TU/e's modus operandi regarding students companies does not seem to have a clear policy and the university benefits from not informing the students adequately regarding the assets (IP) in the company or the role of TU/e Innovation Law after a company is established. It would be recommended if the university formulated a clear policy that is clearly communicated towards entrepreneurial students. Creating a well-defined policy would also prevent that equal cases will be treated differently and would signal that the TU/e is a transparent and trustworthy partner to start a business with.

[176] Schlössels 2010, p. 444.

General conclusion

To assess whether Dutch law provides for enough safeguards for students regarding IP in the relationship with educational institutions, the thesis posed the following general question: *what are the guiding principles for the assessment of contracts between educational institutions and students concerning IP?* To answer this question, two different situations have been assessed. The first question assessed was: are IP contracts between students and educational institutions, as a condition for registration, legal? The second question that rose in the introduction of this thesis was about the private law relationship between students and educational institutions. More specifically how the relationship between students and educational institutions in the private law sphere were influenced by public law principles.

IP-contracts between students and educational institutions

To answer the first question three fields of law have been assessed. IP law showed that there are two situations to be distinguished when a student creates IP. The first situation is that a student would invent something, which is patentable or falls under copyright, under the supervision and instruction of the educational institution. In this case the educational institution would become the fictional maker of the IP and thus the first rights holder. This results from article 12(2) Patent Act and article 6 Copyright Act. The guiding principle here was: "when brain and hand work separately, the brain prevails over the hands."[177] Later there was added that even when the hand at the same time performs any creative act, the brain still prevails over the hand.[178] This principle gives educational institutions a fairly broad basis for claiming IP created at their institution. The second situation that should be distinguished is the situation in which the student would create something that falls outside the scope mentioned above. In this case the IP rights would come into existence in the ownership of the student. If an educational institution would want to claim IP in this case, a transfer of ownership must take place.

Article 2(1) Copyright and article 64(1) Patent Act determine that IP is transferable according to article 3:95 Dutch Civil Code. For the transfer of property three requirements have to be met according to article 3:84(1) Dutch Civil Code. These requirements are:

- A formal delivery;
- A valid legal basis for the transfer;
- By the person with power of disposition over that property.

The formal delivery must be done by deed executed for that purpose. Since this does not have to be an authentic deed, a contract signed at the start of a study at an educational institution could be sufficient. The contract could for instance state that the student delivers all his future IP created during his study to the educational institution. The second requirement is a valid legal basis for the transfer. A student would most probably not transfer his IP to his educational institution for free. So there needs to be some trade-off. When asking for IP in exchange for education, the legal basis would look something like this: the student will get education in exchange for a tuition-fee and all the IP he creates in context of his study. This could be a legal basis for the transfer of IP. The last requirement deals with the fact that the student does not yet disposes over his/her IP. This means that there must be a delivery in the future. The future delivery means that the delivery as such is done at the moment that the property comes in the disposition of the transferring party.[179] It is possible to legally transfer future IP. Chapter 2 showed that a possible problem could arise because of the undefined and broad nature of the contract educational institutions propose to

[177] Memorie van Toelichting Auteurswet 1912, the original Dutch text is as follows: Waar brein en hand afzonderlijk arbeid verrichten, hebbe die van het brein den voorrang.
[178] Verkade 2016, Artikel 6.
[179] Keirse et al. 2014. Artikel 84.

students. Nevertheless, it is possible that student would deliver future IP when they start studying at an educational institution.

The final question that was raised concerning obligatory transfer of IP from students to educational institutions was: is this obligatory transfer of IP law compatible with public financing of education under Dutch law? The answer to this question is that is it not compatible. To be eligible for public financing educational institutions must comply with the requirements of article 1.9 of the Higher Education and Scientific Research Act.[180] Section 7 of this act sets the requirements regarding education. These requirements have to be complied with in order to comply with article 1.9. Section 7 determines that there is a maximum tuition fee that an educational institution can charge a student for each year of education. This law clearly states the boundaries regarding tuition fees that educational institutions must comply with in order be eligible for public financing. The fee for the year 2016/2017 can be between €1.163 and €1.984. Asking a student a tuition fee of €1.984 plus all the IP he will generate during his study, clearly does not fall within the boundaries set by law. This means that, would an educational institution claim the IP that came into existence as property of a student, this educational institution should not be eligible for public financing of its education.

Contracts between entrepreneurial students and educational institutions

The second interpretation of the general question focuses on the behavioural rules educational institutions and their daughter companies should follow in their interaction with students. The conclusion here was that public universities and their daughter companies, are always bound by public law principles. Special educational institutions, under which all publically financed graduate schools, are bound to these public law principles in their interaction with students. This means that when negotiating with students in the private law sphere these institutions are bound to stricter (moral) principles and regulation than a normal private company would be. The public (moral) behavioural rules are laid down in the principles of sound administration. Especially the fair play principle, the principle of trust and the related principle of clarity seem to be of great importance when considering how an educational institution should behave in relation to an entrepreneurial student.

This means that in most cases educational institution cannot approach a negotiation with a student the same as a negotiation with a partner company. In the entire process with the student they should be very open about consequences of certain actions, about possible other solutions for students, about what their intention is towards a student, etc. But they also have to make sure that, when they enter into a private law relation with a student, they must treat equal cases, equally. The best way ensure that equal cases are treated equally, is by having sufficient protocols about how to deal with situation like students that want to start a company with IP of the educational institution.

Final words

The conclusions of this thesis seem to indicate Dutch law has enough safeguards to ensure that students are not short-changed by their educational institution. The problem seems to be the practice of educational institutions, not the way law is defined. This thesis could help to create awareness for students, but also for educational institutions regarding student IP rights. The legislator has laid down legislation that draws a line between what IP an educational institution can claim and what IP they cannot claim. Public law principles define rules to ensure that educational institutions do not misuse their dominant position towards students. Educational institutions seemed to have overstepped the lines laid down by law in some cases. I hope this thesis will give students the clarity they need to stand up for themselves in similar cases.

[180] Dutch: Wet op het hoger onderwijs en wetenschappelijk onderzoek

Literature

Bartels, et al. 2013
S.E. Bartels & A.I.M. van Mierlo, Goederenrecht/Verkrijging en verlies, Deventer: Kluwer 2013.

De Boer, et al. 2013
J.A. de Boer, F.C.M.A. Michiels, W. den Ouden & P.J.J Zoontjens, Anders, of toch niet? Een onderzoek naar de mogelijkheden van meer Awb-conforme onderwijswetgeving, Rijksoverheid: 2013.

Boogers 2014
R.J. Boogers (2014), *Algemene beginselen van behoorlijk bestuur en privaatrechtelijk overheidshandelen,* Tijdschrift Voor Praktisch Bestuursrecht, p. 1-6.

Domingus 2003
Domingus, *Inschrijving van IE-rechten en rechtshandelingen betreffende IE-rechten: het blijft een lastig vraagstuk,* IER 2003, p. 142-145.

Fetter-Kuijt 2012
M. Fetter-Kuijt, *Intellectuele eigendomsrechten als zekerheidsobject, Een onderzoek naar de mogelijkheid tot het vestigen van een sterk zekerheidsrecht op intellectuele eigendomsrechten*, masterscriptie Open Universiteit, 2012.

Hijma 2004
Jac. Hijma, B. Krans, H. Snijders& J. Spier, Rechtshandeling en overeenkomst (Studiereeks Burgerlijk Recht), Deventer: Kluwer 2013.

Katz, et al. 2016
J.A. Katz & S.L. Wright, *Protecting Student Intellectual Property in the Entrepreneurial Classroom,* journal of Management Education, 2016, 40(2).

Keirse 2014
A.L.M., Keirse, Y.E.M. Beukers, Groene Serie Vermogensrecht, 52 Functie van het vereiste van geldige titel bij: Burgerlijk Wetboek Boek 3, Artikel 84, Deventer: Kluwer 2014.

Kloet 2012
P.C.D., Kloet, Rechtsbescherming van studenten in het hoger onderwijs inzake toetsen en beoordelen, Open Universiteit Faculteit Rechtswetenschappen, 2012.

Kooij 2016
P.A.C.E. van der Kooij, Intellectuele Eigendom, Den Haag: Boom Juridisch 2016.

Kur, et al. 2013
A. Kur & T. Dreier, European Intellectual Property Law, tekst cases and materials, 2013.

Mentink, et al. 2010
D. Mentink & B.P. Vermeulen, *'Artikel 23 Grondwet. Toelichting op het grondwetsartikel over onderwijs, mede aan de hand van ontwikkelingen in wetgeving, internationaal recht en jurisprudentie'*, Reader onderwijsrecht 2009-2010, Amsterdam: Vrije universiteit 2010.

Michiels 2014
Michiels, F.C.M.A., Hoofdzaken van het bestuursrecht, Kluwer: Deventer 2014.

Mijnssen, et al. 2006
F.H.J. Mijnssen, P. de Haan & C.C. van Dam, Goederenrecht, Algemeen goederenrecht, Deventer: Kluwer 2006.

Peter 2010
J.A.J. Peter, GS Vermogensrecht, artikel 95 Boek 3 BW, aantekening 4, Deventer: Kluwer 2010.

Poot, et al. 2010
M.R. Poot & B.P. Vermeulen, 'De Awb en het onderwijsrecht', in: T. Barkhuysen & W. den Ouden & J.E.M. Polak (red), Bestuursrecht harmoniseren: 15 jaar Awb, Den Haag: Boom juridische uitgevers 2010.

Pilz 2012
B. C. Pilz, *Student Intellectual Property Issues on the Entrepreneurial Campus,* Michigan Journal of Private Equity & Venture Capital Law, 2012(1).

Ras 2009
P. Ras, *De evolutie van het auteursrecht Auteursrechtelijke, bescherming door de geschiedenis heen,* Bedrijfs Juridiek, 2009(3).

Reehuis, et al. 2012
W.H.M. Reehuis, A.H.T. Heisterkamp, G.E. van Maanen, G.T. de Jong, Goederenrecht, Het Nederlands burgerlijk recht: Pitlo deel 3, Deventer: Kluwer 2012.

Richter, et al. 2016
Richter, N., Schildhauer, T., Neumann, K., & Volquartz, L., *Fostering and hindering factors — success of early stage internet-enabled startups,* HIIG Discussion Paper Series, 2016(4).

Schlössels, et al. 2010
R.J.N., Schlössels & S.E. Zijlstra, Bestuursrecht in de sociale Rechtsstaat, Deventer: Kluwer 2010.

Schuijling 2016
mr. dr. B.A. Schuijling, Levering en verpanding van toekomstige goederen (diss. Nijmegen), Deventer: Kluwer 2016.

Verkade 2016
Verkade, D.W.F., Tekst & Commentaar Intellectuele eigendom, Ontwerp, leiding en toezicht, Artikel 6, 2016.

Wiegerinck 2014
M.W. Wiegerinck, Verpanding van merken, Deventer: Kluwer 2014.

Winkel 2016
Winkel, D., *The changing face of entrepreneurship education,* Journal of Small Business Management, 2016, 51(3).

Zoontjens, et al. 2016
P.J.J. Zoontjens, & J.A. Boer, *Naar duidelijkere rechtsbescherming in het duale bestel,* Tijdschrift voor Onderwijsrecht en Onderwijsbeleid, 2016 28(3).