



MASTER'S THESIS

Learning for Life in the
Digital Age: The Role of
Universities in Promoting
Students' Well-Being

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Abstract

Universities constantly aim to improve their educational offers for their students – for instance through the use of digital technologies. Accordingly, strong voices are arguing for digitalisation, preferably, as fast as possible. Simultaneously, students increasingly face mental health issues, which is why this thesis investigates the following research question: How does the deployment of digital technologies in tertiary education affect students' well-being, and how should the tertiary educational model protect and promote students' well-being? At first, well-being is defined, and I endorse a theory of well-being based on Aristotle's *eudaimonia* and Self-Determination Theory from psychology. Following this approach, well-being consists of intrinsic aspirations, autonomy, competence, and relatedness. Secondly, using the University of Twente (UT) as an example, I reveal three underlying assumptions of the current educational model at the UT by scrutinising the digital technologies and current policies deployed at the UT. The three underlying assumptions are (1) learning is merely a means to an end, (2) disembodied learning, and (3) learning only happens in the individual which is regarded as independent of its environment. Thirdly, I analyse how these assumptions pose a risk on students' well-being by threatening their autonomy, competence, and relatedness, and by acting rather towards extrinsic than intrinsic aspirations. Finally, I give examples for possible improvements of education from a well-being perspective by revising the three assumptions based on the previous critique. The revised assumptions are (1) self-endorsed learning, (2) embodied learning, and (3) co-constitution of the individual and their environment.

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Introduction

'Non vitae sed scholae discimus' – we do not study for life, but for school (Seneca, 62, p.106). With this statement, the Stoic philosopher Seneca intended to criticise the philosophical schools for not being close enough to life in the non-academic world. The Latin word 'educatio' already means 'upbringing' or 'nurture' and therefore provides a relatively accurate account for the purpose of education – namely help students in their personal development. The question emerges whether this goal still persists in current schools and universities.

There are several possible interpretations of what 'learning for life' means – especially in the context of education. In any case, it relates to how students will interact with the world after finishing education. This could relate to the work field but also to living autonomously from teachers and parents. Learning for life could also refer to the ability to lead a 'good life' of which a myriad of conceptions exists – morally or regarding well-being. Moreover, it could refer to skills demanded from society that are not necessarily linked to the good life like, for example, the ability to do a certain kind of job.

No matter how 'learning for life' was defined beforehand, it refers to a certain level of autonomy that allows former students to deal with the challenges the non-academic world offers – in their professional lives, in their lives in a society, or in their private lives. Thus, if education equipped students with the necessary skills for life, one might assume that well-educated students – especially in higher education – are also generally speaking doing well and can handle their lives well. According to a psychological understanding of well-being, one might expect that students are happy and resilient to a certain degree, arguably a precondition for having a sufficient level of autonomy in the face of life's challenges. This is because low psychological well-being in the forms of stress, depression, or anxiety leads to a condition in which students are unable to deal with challenges in their professional life like learning or working but also in their private life like performing hobbies (Haybron, 2016, p.48). Accordingly, students in a good educational system should possess at least a certain level of psychological well-being.

Nevertheless, current literature suggests that mental health issues among students have become a severe issue in Western societies. As an example, doctors report an increasing number of students with psychological issues (van Dinther, 2018). Moreover, the University of Twente (UT), which will serve as an example in this thesis, published a report in 2019 stating that 80% of the students experience at least mild symptoms of anxiety or depression. Also, students at the UT show a problematic consumption of alcohol and internet use (Kelders, Oberschmidt, & Bohlmeijer, 2019,

pp.16-17). Some of the identified risk factors for stress were stress mindset¹, intolerance of uncertainty, fear of missing out, loneliness, and (missing) sense of belonging (Kelders et al., 2019, p.4). Further, it was demonstrated that the most threatened groups were international students, women, and LGBTQ²-students (Kelders et al., 2019, p.4). Therefore, the researchers who conducted the survey recommend preventing mental health issues and integrating attention for stress and mental health in education (Kelders et al., 2019, p.4). For the UT, a technical university, technological interventions like eHealth could be used to prevent mental health issues (Oberschmidt, 2019).

In contrast to this view, researchers report in one study that there are neither differences in mental health between students and non-students nor increases in mental health issues among students between 2007 and 2017 (van der Velden, Das, & Muffels, 2019). However, the same study still showed that about 20% of the students do face mental health issues or are at least at risk of doing so (van der Velden et al., 2019). Moreover, a general review has shown that depression rates in students ranged widely from 10-85% with an average of 30.6%³ and therefore on average higher than in the general population, which is found to be between 6-12% in the US and similarly around 8.6% in Europe using representative sampling methods (Ibrahim, Kelly, Adams, & Glazebrook, 2013, pp.391-400). Regardless of whether the numbers increased or not, the survey conducted at the UT but also the lower numbers by van der Velden et al. (2019) are still high enough to conclude that there is a problem that needs to be tackled – using technology or by other means. Given the tremendously high numbers at the UT, I will use this university as an example, however, many of my findings could be, I believe, generalised to other Western universities that are arranged in a similar manner.

The path that the UT has chosen to improve education and students' wellbeing is, arguably, essentially based on the use of digital technologies. This is in line with the views expressed by the Dutch ministry of economic affairs (MvEZ) which endorses lifelong learning in its 'Digitalisation Strategy Paper' and links it with digitalisation. More precisely, it advertises teaching digital skills to prepare students for participating in society and the labour market (MvEZ, 2019, pp.29-30). Accordingly, the aim is to improve education by digitalising it or to cite the MvEZ: 'The drive to really make a difference has never before been this great, and higher education institutions are committed to improving education through the use of digital technologies.' (MvEZ, 2019, p.30). In line with that the UT states: 'As

¹ Stress mindset refers to whether stress is perceived to positively or negatively affect one's personal growth or performance (Kelders et al., 2019, p.10)

² Lesbian, Gay, Bi, Trans & Queer

³ When only regarding random samples, the range decreased to 14-71%, but the weighted mean increased to 35.3%. Convenience samples ranged from 10.3-84.5% with a weighted mean of 29%.

scientists and tech pioneers, our task is to drive digitalization' (University of Twente, 2020b). This is why this thesis is answering the following main research question:

How does the deployment of digital technologies in tertiary education affect students' well-being, and how should tertiary education protect and promote students' well-being?

In order to answer this research question, this thesis is divided in four chapters each dedicated to the following subquestions.

Chapter 1: What is well-being?

In the first chapter, I will analyse different accounts of well-being presented in philosophy and psychology. Moreover, I distinguish well-being from other concepts like *happiness* or the *good life*. Based on the existing theories of well-being in philosophy and psychology, I will endorse a theory of well-being with which I am going to work. This is a humanistic nature-fulfilment theory emphasising self-determination, a combination of Aristotle's *eudaimonia* and psychology's Self-Determination Theory. According to this approach, well-being consists of intrinsic aspirations, autonomy, competence, and relatedness.

Chapter 2: What are the assumptions of the current educational model?

In the second chapter, I reveal three assumptions of the current higher educational model by investigating the policies and digital technologies deployed in there. I do so by scrutinising the University of Twente, which serves as an example. The three assumptions I identify are (1) learning is merely a means to an end, (2) disembodied learning, and (3) learning only happens in the individual which is regarded as independent of its environment.

Chapter 3: What are the ethical implications of the assumptions of tertiary education?

In the third chapter, I ethically assess these three assumptions and analyse to what extent they affect students' well-being. This is done through the scope of the conception of well-being defended in chapter one. Also, I show that this account of well-being detects certain issues that might remain concealed in other perspectives. Thus, I provide arguments for these assumptions hindering the students' intrinsic aspirations, autonomy, competence, and relatedness.

Chapter 4: How can the current educational model be improved?

In chapter four, I provide alternative assumptions that universities should adopt based on the critique of the current assumptions. These assumptions should serve as a basis for technologies or policies within educational institutions to overcome the problematic assumptions I identified in chapter two. The revised assumptions are the following ones: (1) self-endorsed learning, (2) embodied learning, and (3) co-constitution of the individual and their environment. Finally, I discuss how these assumptions can be incorporated in policies and consider issues of paternalism.

1. What is Well-Being?

1.1 Introduction

In philosophy and psychology, there are several concepts like mental health, well-being, happiness, or the good life that need to be clearly distinguished from each other. First, the good life can be distinguished from the other concepts as it is not only about how well one's life is going for oneself but also about morality (Haybron, 2008, pp.36-38). A happy thief, whose life is going well in the well-being sense, is not living a morally desirable good life. Second, although unfortunately often interchangeably used with well-being, the term 'happiness' rather describes a psychological state of mind, while 'well-being' refers to whether one's life is going well as a whole (Haybron, 2008, pp.30-32). The more difficult question to answer is, to what degree is mental health related to well-being? What makes this question so difficult is that well-being is approached differently in psychology and in philosophy. In philosophy, there are three main approaches to well-being which are hedonistic, desire-satisfaction, and objective list theories that I present in the following section.

1.2 Well-Being in Philosophy

In hedonistic theories of well-being derived from utilitarianism, well-being consists of maximising net pleasure. The more pleasure and the less pain a person experiences, the better they are doing (Brey, 2012, p.16). A question discussed in hedonistic theories is whether all pleasures have the same value. According to quantitative hedonistic theories, such as Jeremy Bentham's, all utils of pleasure are of equal value. This means that the pleasures only differ quantitatively, thus in intensity or duration. Qualitative hedonistic theories instead, such as John Stuart Mill's, state that some pleasures weigh more than others – or to put it in Mill's words: 'It is better to be a human being dissatisfied than a pig satisfied; better to be Socrates dissatisfied than a fool satisfied. And if the fool, or the pig, are of a different opinion, it is because they only know their own side of the question' (Mill, 1864, p.242). Regardless of whether quantitative or qualitative, hedonistic theories of well-being are contested for being too reductionist. There is the famous example of Robert Nozick's experience machine. In this thought experiment, one is asked to enter a machine for the rest of one's life that constantly simulates pleasure. Nozick (2012, p.264) argues that probably most of us would reject entering such a machine, which indicates that there must be more to a good life than just pleasure in the form of positive experiences, but that these pleasures need to be real.

As an alternative to hedonist theories relying on pleasure which is difficult to measure, economists came up with desire-satisfaction theories of well-being. In these theories, one's well-being depends

on whether one's preferences or desires are fulfilled. The more desires are fulfilled, the better one's life is (Brey, 2012, p.17). However, one can object that people might have desires which could be bad for them. Smokers, for example, desire to smoke cigarettes, even though it is well-known that smoking cigarettes has severe consequences for one's health. In response to this objection, adjusted preference-satisfaction theories, like reflective preference-satisfaction theories, only include desires a person would have after reflecting on whether their own desires concern their life as a whole. Alternatively, there are fully informed desire-satisfaction theories, which only regard desires that a person would have if they were fully informed about their own situation and the consequences of their desires. Here, a typical objection is that people's preferences need to be assumed and people could contradict each other in their preferences. Furthermore, there is the issue that individuals' preferences might change over time regardless of whether particular policies are endorsed or not. Policies that respect each individual's desire and liberty might thus still interfere with people's future desires.

Finally, there are objective list theories that provide several constituents that need to be satisfied in order to live a good life. There is a myriad of objective lists theories, starting with Aristotle's theory of *eudaimonia*. More recent examples of such theories of well-being are the capability approach by Amartya Sen (1993) and Martha Nussbaum (2001) or the well-being based social justice approach by Madison Powers and Ruth Faden (2006; 2019). A subgroup of objective list theories consists of perfectionist theories claiming that all items on the list contribute to the perfection of human nature (Brey, 2012, p.19). In this thesis, I am endorsing a theory of well-being based on Aristotle's perfectionist theory of '*eudaimonia*' which set the cornerstone for *eudaimonic* theories of well-being. It is concerned with nature-fulfilment and has influenced the contemporary psychological literature on well-being. These theories view certain virtues as objectives for a good life. The notion of nature-fulfilment refers to the idea that humans have an inherent essence from which a *telos* can be derived defining what is good and bad for us (Brey, 2012, p.19). Such perfectionist theories of well-being are particularly relevant in the context of education, since for Aristotle – as well as for Seneca and the stoics – the good life is related to character development – arguably a goal of education.

Aristotle started his search for the highest good, *eudaimonia*, by making a distinction between *praxis* and *poiesis*. *Poiesis* refers to activities that have a direct goal, for example, a painter draws a picture that is done at a certain moment. *Praxis* instead has no outcome that is produced like dancing (Aristotle, 1999, pp.1-2,94). Accordingly, *Praxis* can only be intrinsically valuable, while actions considered as *Poiesis* could also only be instrumentally valuable because they lead to a desired outcome. The highest good, *eudaimonia*, can only be something intrinsically valuable (*Praxis*) (Aristotle, 1999, p.10), not a good achieved for the sake of another good (*Poiesis*). Further, Aristotle

argues that the human good life is related to what it means to be human. For him, the *ergon* (function or task) of humans is to live in accordance with one's rationality (Aristotle, 1999, p.11). Such a life is achieved through cultivating virtues, some of which are compassion, courage, and honesty but also friendship (Alfano, 2016, p.17). Aristotle defines a 'virtue' as the golden mean between two vices characterised by deficiency and excess. Courage, for example, is the virtue between the two vices of rashness and cowardice (Aristotle, 1999, p.45). In this account, desires and pleasure are not directly related to the good life. Therefore, a person watching television all day would live a poor life according to Aristotle even if they might be highly enjoying or desiring it. Furthermore, for Aristotle, leading a virtuous life is not only related to well-being but also to being a morally good person.

Hitherto, philosophical – as well as psychological – objective list theories face three major objections, First, they are said to be too paternalistic because they describe objectives that are supposed to be good for people even if they do not necessarily endorse them. Paternalism can be described as 'the interference of a state or an individual with another person, against their will, and defended or motivated by a claim that the person interfered with will be better off or protected from harm' (Dworkin, 2020). In practice, the more narrowly and objectively a theory states what is good for you, the more concerns regarding autonomy emerge when policies are based on those theories of well-being. For example, it is known that jogging is beneficial for one's physical and mental health (Flynn et al., 2018, pp.5-9). However, not everyone finds it enjoyable and wants to do it. Institutions creating policies that coerce people to jog against their will would be problematic because such policies would interfere with people's autonomy. Second, critics argue that objective lists do not sufficiently account for individual differences. What might be good for one person is not necessarily good for another person as well. Third, comparing the items on the list might be challenging. It is difficult if not impossible to weigh the items on the list against each other (Brey, 2012, p.20).

As mental health is a concept from psychology, which is empirically driven and tries to make both mental health and well-being graspable and measurable, the whole discipline is closely related to philosophical objective lists theories. In order to understand the connection between mental health and well-being better, it is necessary to understand how well-being is defined in psychology.

1.3 Well-Being in Psychology

Just like philosophical objective list theories, psychology tries to identify certain constituents of well-being. The major difference to philosophy is that psychology uses empirical methods and tries to make well-being measurable. In contemporary psychology, well-being is divided into three parts, which are emotional well-being, psychological well-being, and social well-being (Bohlmeijer & Westerhof, 2020,

pp.158-159). Returning to its philosophical roots, psychology distinguishes between hedonic well-being related to pleasure and *eudaimonic* well-being linked to life satisfaction. In psychology, emotional well-being is connected to hedonism. It translates to 'feeling well', which refers both to life satisfaction in the sense of one's current mental state of happiness that is derived from one's life evaluation and to positive affect (Bohlmeijer & Westerhof, 2020, p.158). However, this association between hedonic and emotional well-being is contested (Haybron, 2016, p.47). As Haybron (2016, pp.47-48) argues, emotional well-being concerns not only pleasure but also one's life as a whole. Psychological well-being and social well-being, which are about the functioning of an individual and respectively about the functioning of an individual within a community instead refer to *eudaimonic* well-being, thus a good and meaningful life (Bohlmeijer & Westerhof, 2020, p.158). Such an account of *eudaimonic* well-being is problematic from a philosophical perspective as it is measured on an experiential, momentary level, while for Aristotle, *eudaimonia* concerns one's life as a whole (Ryan & Martela, 2016, p.6). Finally, Bohlmeijer and Westerhof argue that well-being differs from mental health. Still, well-being and psychopathology 'hold a dynamic relationship in which both may influence the other' (Bohlmeijer & Westerhof, 2020, p.157).

Seligman's PERMA-approach of well-being includes items related to emotional, psychological, and social well-being. PERMA stands for **P**ositive emotions, **E**ngagement, **R**elationships, **M**eaning, and **A**ccomplishment (Seligman, 2011, pp.16-25). According to Seligman (2018, p.333), these five elements are at least to a certain degree the constituents of well-being. What speaks for Seligman's approach is the almost perfect correlation ($r=.98$) found between PERMA and subjective well-being (SWB), which describes a score with which an individual would rate their own life (Goodman, Disabato, Kashdan, & Kauffman, 2017, pp.1-12). Interestingly, positive emotion and engagement are often related to hedonic well-being since they, in turn, relate to one's emotional well-being. However, from an Aristotelean perspective, a certain level of positive emotions and engagement is necessary to work on one's nature-fulfilment, for example, by working in a flow. 'Flow' is a psychological concept describing a status in which one is strongly focused and engaged in an activity that is neither too easy nor too difficult and which matches one's competencies (Csikszentmihalyi, 1990). Similarly, Aristotle (1999, pp.168-169) argued that pleasure arises from virtuous activity and therefore a *eudaimonic* life is a life of pleasure as well. However, contrary to positive psychology, as imagined by Seligman or Csikszentmihalyi that also engages in so-called *eudaimonic* well-being, for Aristotle, achieving positive emotional states is not an end to achieve but rather a positive by-product of virtuous activity (Curren, 2013, p.243; Ryan, Curren, & Deci, 2013, p.58; Ryan & Martela, 2016, p.6). In this thesis, I work with Aristotle's idea of *eudaimonia*, arguing that pleasure or positive emotions arise from virtuous activity but that there is more to well-being than those hedonic emotional states.

On the contrary, a person having negative emotions, being depressed and powerless, would probably not perform virtuous behaviour and therefore, such emotions would affect their *eudaimonic* well-being negatively (Haybron, 2016, p.48). Furthermore, there is a third aspect of emotional well-being not regarded in Seligman's theory called *attunement*, which refers to one's peace of mind or tranquillity. It is seen as the opposite of anxiety and stress – the symptoms students at the UT (and other universities) seem to struggle with. According to Haybron (2016, p.48), as already seen in animals being stressed, *attunement* is necessary to function; thus, to fulfil one's nature. In the context of education, the stress students experience might contradict the goals of education with which I deal in the following two chapters.

Although the issues students are facing are often referred to as well-being issues, it is crucial to make a distinction between well-being and happiness – two terms that are often used interchangeably. Contrary to well-being as I discussed it in the previous sections, 'happiness' can be described as 'a purely descriptive psychological term, akin to depression or tranquillity' (Haybron, 2011, p.1). Taking this scope, it is necessary to criticise psychology's use of *eudaimonia* and its relation to psychological and social well-being. As these measurable types of well-being are rather about immediate experiences than an overall evaluation of living well, they rather refer to happiness instead of *eudaimonia* and well-being (Ryan & Martela, 2016, p.6). Philosophically speaking, mental health issues, as students at the UT experience, can therefore be best described as happiness issues rather than *eudaimonic* well-being issues, although such happiness issues necessarily lead to *eudaimonic* well-being issues because the lack of happiness goes along with a lack of spirit and a lack of ambition hindering students from achieving nature-fulfilment.

Still, regardless of which theory of well-being one endorses, there is an agreement about the fact that students facing mental health issues have a well-being problem, and not merely a happiness problem. From a hedonist perspective, depression, anxiety, and stress are related to pain that should be avoided. Proponents of preference-satisfaction theories can rightfully assume that these mental health issues are not what students desire. Furthermore, poor mental health might be an obstacle to fulfil one's desires. Finally, proponents of objective list theories either include happiness directly on their list or regard it at least as prudentially valuable (Haybron, 2008, pp.29-32). Especially, *eudaimonic* thinkers should care about happiness as a certain minimum level of happiness is necessary to work on one's character development. In conclusion, happiness is an important constituent of a good life in basically any theory of well-being. A theory of well-being entirely disregarding happiness and allowing for severe unhappiness, while doing well according to that theory, would seem quite counterintuitive. Though, which theory of well-being should we endorse?

A psychological approach trying to overcome the issue of merely considering happiness rather than well-being is Self-Determination Theory (SDT), which emphasises, in line with Aristotle, human potentialities and claims to build the basis for a 'eudaimonistic psychology' (Curren, 2013, p.243). SDT identifies two core manifestations of growth and wholeness in human nature, which are intrinsic motivation and the integration of social and cultural information (Ryan et al., 2013, pp.61-62). Ryan et al. (2013) relate this focus on intrinsic motivation to Aristotle (1924, p.1) who claimed that 'all men by nature desire to know'. Although they directly quote Aristotle, this does not mean that they endorse Aristotle's conception of 'nature'. Instead, they state that humans are 'curious, interested creatures who possess a natural love of learning and who desire to internalize the knowledge, customs, and values that surround them' (Niemi & Ryan, 2009, pp.133-134) – a statement Aristotle would agree with but for different reasons. This assumption is backed up by empirical psychological research investigating the human potentialities to be curious, interested, and to be aiming at integrity in one's knowledge (Loewenstein, 1994; Silvia, 2008; Ryan, 1995). The second core manifestation, which is the internalisation of cultural knowledge can be seen in humans imitating others from birth on (Ryan et al., 2013, p.62).

Both manifestations of growth are closely related to three basic psychological needs identified in SDT. These needs are competence, relatedness, and autonomy (Deci & Ryan, 1985). Relatedness refers to the degree to which an individual is meaningfully and deeply connected with others. This does not only involve others caring for one but is also about caring for others. Competence describes the perceived ability to deploy one's capabilities to achieve a certain goal and is fulfilled in environments providing informational feedback and possibilities to develop skills. Finally, autonomy describes the degree to which an action is experienced as self-determined, and the subject is convinced of their own action (DeHaan, Hirai, & Ryan, 2015, p.2039).

1.4 Intrinsic and Extrinsic Aspirations

In this thesis, I work with a version of an objective list theory of well-being aiming to address the shortcomings of both objective list theories and preference-satisfaction views, namely a combination of Aristotle's *eudaimonia* and SDT from the discipline of psychology.

Previous empirical research identified the three basic psychological needs from SDT as strongly related to Nussbaum's capabilities (DeHaan et al., 2015). Additionally, SDT has already been combined with Aristotle's *eudaimonia* resulting in a theory of well-being that identifies pursuing intrinsic aspirations⁴,

⁴ In the psychological literature, the terms intrinsic goals or intrinsic values are used as well.

living autonomously, being mindful, and being benevolent as essential constituents of *eudaimonia* by psychologist Richard Ryan and philosopher Frank Martela (2016, p.9). These aspirations refer to broader long-term goals that are 'central to an individual' (Kasser & Ryan, 1993, p.420) instead of describing any specific desire. The distinction between intrinsic and extrinsic aspirations reflects Aristotle's concepts of *Praxis* (Acting) and *Poiesis* (making) – as intrinsic aspirations are 'satisfying in their own right and they provide direct satisfaction of basic psychological needs' (Vansteenkiste, Lens, & Deci, 2006; p.22). The founders of the concepts of intrinsic and extrinsic aspirations, Tim Kasser and Richard Ryan (1996, p.280) go one step further and claim that intrinsic aspirations are 'expressive of desires congruent with actualizing and growth tendencies natural to humans'. According to them, intrinsic aspirations are thus not only beneficial for our well-being, but we naturally strive for attaining them. Examples of such aspirations are personal growth, meaningful relationships, or the contribution to a community. Additionally, and in line with both the capability approach and Powers' and Faden's objective list theory of well-being, health was identified as a possible intrinsic aspiration as well (Kasser & Ryan, 1996, p.281).

Meanwhile, extrinsic aspirations describe aspirations or goals focused on external rewards or praise like financial success, social recognition, and an attractive appearance (Kasser & Ryan, 1996, p.281). By definition, these aspirations are 'typically engaged in as means to some other end' (Kasser & Ryan, 1996, p.280), mirroring Aristotle's notion of *Poiesis* (making). An extrinsic aspiration is thus pursued because it is expected that attaining them will ultimately lead to happiness. Furthermore, extrinsic aspirations require the evaluation of others that are willing to pay one with money, respect, or fame (Kasser & Ryan, 1996, p.281). In contrast, intrinsic aspirations like meaningful relationships or contribution to a community are also relational but an action done in order to reach such aspirations is not merely done for the reward of others.

Importantly, intrinsic and extrinsic aspirations are not mutually exclusive and extrinsic aspirations are not generally negative. For example, a certain minimum level of money is necessary to fulfil one's physical basic needs. Also, in empirical psychology, the aspiration(s) index measures intrinsic and extrinsic aspirations by asking participants to rate how important certain aspirations like popularity or self-acceptance are for them with a number from one to nine (Kasser, 2019, pp.3-4). However, in general, the more intrinsic aspirations increase, the weaker extrinsic aspirations become and vice versa (Burroughs & Rindfleisch, 2002; Grouzet et al., 2005). Based on these theoretical grounds, I assess risk factors to the issue of students' well-being embedded in practices and digital technologies of universities in respect of to what degree they hinder or contribute to the students' nature-fulfilment through self-determination based on intrinsic aspirations and the three related basic psychological needs autonomy, relatedness, and competence.

There are mainly two reasons why extrinsic aspirations lead to unhappiness. First, when performing tasks only to attain extrinsic aspirations, one instrumentalises oneself in these tasks because the tasks do not need to be particularly interesting or valuable in any other way than helping attain extrinsic aspirations. This is not the case for intrinsic aspirations because to generate psychological growth or the feeling of contributing to a community, one needs to engage in tasks one regards as valuable. Second, higher extrinsic aspirations are related to lower intrinsic aspirations. A simple example for this is that when spending more time working to get more money, less time is left to spend with one's family (Kasser, 2019, p.7). In line with that, the positive effect of intrinsic aspirations on psychological well-being was mediated⁵ by the fulfilment of autonomy, relatedness, and competence (Niemić, Ryan, & Deci, 2009). Finally, such arguments that materialism is in conflict with autonomy are not new (cf. Fromm, 1976). What is new is the empirical support for these arguments.

At this point, one might object that these findings could be explained by the socioeconomic status of students. The argument would be that students who have already secured status are both happier and focus on intrinsic aspirations. Indeed, the claim that such needs can only be fulfilled once certain basic needs are met, has a long tradition and is well-researched (Maslow, 1981; Maslow, 1971; Alderfer, 1969). In line with that, in poorer countries, financial success can contribute to one's psychological well-being, although these effects are not as strong as the ones of attaining intrinsic aspirations (Myers, 2000; Brdar, Rijavec, & Miljković, 2009). While it is important to acknowledge these sociocultural factors, valuing extrinsic aspirations over intrinsic aspirations and continuously maximising extrinsic aspirations like financial success are still detrimental to one's well-being.

A further objection is that there are studies indicating that income is positively related to one's life satisfaction (Diener, Ng, Harter, & Arora, 2010). However, a posterior study clarified that relative income is related to higher SWB, but absolute income does not have this positive effect (Boyce, Brown, & Moore, 2010, pp.471-474). These findings indicate that money itself and the materialistic utility it provides do not lead to happiness but being hierarchically superior to others does so.

Importantly, extrinsic and intrinsic *aspirations* are conceptually different from extrinsic and intrinsic *motivation*. While aspirations refer to the content of one's overall life goals, motivation is concerned with the way goals are achieved. In other words, aspirations are about the 'what', whereas motivation represents the 'why' of one's goals. In SDT, the three basic psychological needs for autonomy, competence, and relatedness are regarded as constituents not only of psychological well-being but also of intrinsic motivation (Deci & Ryan, 1985; Deci & Ryan, 2008, p.183). In the paradigm of SDT, the

⁵ In statistics, mediation describes the indirect effect a variable X has on a variable Y by having an effect on a so-called mediating variable M, which influences variable Y.

distinction between intrinsic and extrinsic motivation is supplemented with a distinction between autonomous and controlled motivation. Instead of representing two different categories, it is rather a scale, thus, motivation can be more autonomous or more controlled. Autonomous motivation is related to the experience of self-endorsement or volition and closely related to the classical concept of intrinsic motivation.

Though, not all extrinsic motivation is necessarily controlled but differs in level of control. The most controlled type of motivation called external regulation entails external punishments and rewards, while the slightly less controlled introjected regulation refers to action regulation mechanisms that are to a certain degree internalised like 'an approval motive, avoidance of shame, contingent self-esteem, and ego-involvements' (Lens, Paixão, & Herrera, 2009, p.26). Third, there is identified motivation in which the value of a certain process for a higher goal is identified. An example could be a psychology student studying statistics because they know that it is a necessary prerequisite for conducting empirical research in the future. (Deci & Ryan, 2008, p.182; Vansteenkiste et al., 2006, pp.20-21). Finally, there is integrated motivation. Here, the identified regulations are integrated in one's other aspirations (Niemic & Ryan, 2009, p.135). For example, a certain topic is studied because it enables an individual to do what they want to do like studying anatomy to become a doctor to save lives. This type of motivation is the most autonomous one within the extrinsic motivations⁶.

In practice, it is thus possible to be extrinsically motivated for intrinsic aspirations. The student studying anatomy not because they like it but to become a doctor to save lives has intrinsic aspirations as saving lives counts as a contribution to a community. A more extreme example would be a student studying business to earn a lot of money not for themselves but for charity. In this case, the intrinsic aspiration for charity would still be ranked higher than the extrinsic aspiration for money because money would only be a means to an end.

In the past, psychologists contested the idea that the type of aspirations directly influences one's psychological well-being and suggested that it is the autonomous motivation going along with intrinsic aspirations that leads to well-being. In their study, they concluded that 'it's not the money, it's the motives' (Srivastava, Locke, & Bartol, 2001, p.959). However, their study conflated goal content (aspirations) and motives (motivation) as 'giving to charity' was identified as a motive, while in SDT the contribution to a community counts as intrinsic aspiration. Furthermore, although not significant (like any other predictor included in their statistical model), the importance of money was still

⁶ Importantly, in the context of motivation, autonomy does not refer to students' desires. If students autonomously desire, for example, to have a strongly controlled learning environment, their motivation would still not be autonomous.

negatively related to psychological well-being. Afterwards, independent effects of both aspirations and motivation could be found in a set of three studies (Sheldon, Ryan, Deci & Kasser, 2004).

1.5 A Hybrid Objective List Theory of Well-Being: Combining Philosophy and Psychology

An issue with concepts from psychology is the high level of subjectivity. A person is regarded as competent if they feel able to make use of their capabilities to achieve certain aims. This is different from being objectively competent. For empirical sciences like psychology, this level of subjectivity is reasonable because psychological data often rely on self-report. While persons can reliably state whether they feel competent, it is more difficult – if not impossible – to make an objective statement about one's competence. While such perceived states help assess emotional states, well-being requires more than merely feeling autonomous, related, and competent. Here, one could again think of Nozick's experience machine and argue that it would be possible to simulate feelings of autonomy, relatedness, and competence in an experience machine, but most people probably would not like to enter such a machine.

For Aristotle, virtues refer to objective standards. It is perfectly possible to perceive oneself as being and acting courageously, while actually being rash (or cowardly). A similar case could be made for the basic psychological needs. In order to do well and to be virtuous, persons do not only need to feel autonomous, competent, and related, but actually be acting self-endorsed, able to use their skills to reach their goals, and meaningfully connected with others. Especially in the case of autonomy, it makes a significant difference whether it is defined objectively or subjectively because the interference with human autonomy is a central issue in well-being policies and questions of paternalism. Synthesising Aristotle's *eudaimonia* and SDT, I especially emphasise the importance of intrinsic aspirations as these can be regarded as the intersection point between virtues and subjectivity.

The main reason why I endorse this theory of well-being is the context of education, which is, in line with SDT and *eudaimonia*, focused on certain forms of personal growth as it intends to teach students what they do not know yet. Especially the centrality of learning and intrinsic motivation in SDT neatly connect with the idea of 'learning for life'. Furthermore, there is already empirical research investigating education from an SDT-perspective (Niemi & Ryan, 2009). Another reason for considering empirical psychological research is that possible explanations for the current mental health issues students face can be made plausible. Generally, I believe that supporting philosophical reflection with empirical findings can help make certain philosophical theories more or less plausible.

A common objection towards desire-satisfaction theories of well-being is that humans tend to have desires that are bad for them. Here, I believe that the distinction between intrinsic and extrinsic aspirations and the empirical data regarding their effects on one's psychological well-being can provide additional value to this debate.

Additionally, such a theory of well-being accounts for several objections list theories are confronted with. First, it partially addresses the issue of paternalism by stressing the importance of autonomy and individual intrinsic aspirations. Accordingly, the restriction of individuals against their will would not be permitted by an objective, externally defined notion of the good. Instead, such a restriction would only be justified if it is in line with the intrinsic aspirations of the restricted person. Still, one might object that there is some degree of paternalism involved as it allows the restriction of an individual's freedom against their explicit desires based on a substantive and objective definition of intrinsic aspirations. As a response to this concern, I want to add that the restriction of an individual's freedom would only be permissible if it is in line with one's psychological needs, thus, also autonomy. Furthermore, extrinsic aspirations and desires leading towards such aspirations are often based on false beliefs. Extrinsic aspirations for material wealth are often created by advertisements suggesting that purchasing or consuming certain products leads to happiness or positive relationships to others. The consumer is portrayed as lacking the product but also happiness, relationships, or success (Kasser, Ryan, Couchman, & Sheldon, 2004).

However, current empirical research states that just the opposite is the case and that having and achieving extrinsic aspirations counteracts both happiness in the form of psychological well-being and intrinsic aspirations like meaningful relationships (Kasser & Ryan, 1993; Kasser & Ryan, 1996; Ryan et al., 1999; Kasser, 2002; Lekes, Gingras, Philippe, Koestner, & Fang, 2010; Martos & Kopp, 2012; Romero, Gómez-Fraguela, & Villar, 2012; Nishimura, Bradshaw, Deci, & Ryan, 2019). It is unlikely that one would desire to have extrinsic aspirations given that they do not lead to the promised happiness. Restrictive policies enacted based on the previously described theory of well-being would thus only act against such extrinsic aspirations based on false beliefs. In addition, as autonomy is regarded as a psychological basic need, many controlling, restrictive policies are ruled out by definition (Ryan et al., 2013, p.69). Finally, given the positive effects on well-being, one might endorse one's intrinsic aspirations retrospectively which is in line with research indicating that merely reflecting about one's goals leads to relatively higher intrinsic aspirations compared to extrinsic ones (Lekes, Hope, Gouveia, Koestner, & Philippe, 2012). Therefore, the issue of paternalism is not completely overcome but it is arguably less problematic than in purely objective theories of well-being.

Secondly, individual differences are accounted for by focusing strongly on intrinsic aspirations that can differ among individuals. While person A can desire to become a painter because they find psychological growth in painting, person B could find fulfilment in completely different tasks without contradicting this theory of well-being. Thirdly, the items are comparable at least in the sense that the items have been proven to correlate with each other (Van den Broeck, Ferris, Chang, & Rosen, 2016, p.1204).

Nevertheless, the huge amount of subjectivity might make this theory of well-being susceptible to objections usually brought up against desire-satisfaction theories. Still, this theory of well-being differs from classical subjective desire-satisfaction accounts as it only regards desires based on intrinsic aspirations as valuable. Accordingly, desires based on extrinsic aspirations or desires conflicting with intrinsic aspirations are not regarded as valuable. But how does such a theory of well-being look in practice?

1.6 Autonomy, Policymaking, and Paternalism

The practical question emerging from this theory of well-being is what type of policies universities should endorse. Especially, there seems to be a conflict in individuals having strong extrinsic rather than intrinsic aspirations. How is it possible to foster intrinsic aspirations without harming an individual's autonomy? To answer this question, autonomy needs to be defined first.

The arguments for allowing or not allowing a state to impose a certain view of well-being on its citizens are closely related to one's view on autonomy. Liberal anti-perfectionists like Ronald Dworkin or John Rawls argue that the state should not base any policy on a particular conception of the good life (Dworkin, 1978, p.127). On the other side of the spectrum, perfectionists like John Finnis (1987) hold that the state should be allowed to coerce its citizens to behave according to an objective conception of well-being. A position in between is liberal perfectionism endorsed by Joseph Raz arguing for states having a conception of well-being but refraining from coercive measures. For Raz (1986, as cited in Meyerson, 2012, p.38), autonomy is 'opposed to a life of coerced choices. It contrasts with a life of no choices drifting through life without ever exercising one's capacity to choose' (Raz, 1986, p. 371). On the liberal anti-perfectionist side, for John Rawls (1971, pp. 92–93), 'a person may be regarded as a human life lived according to a plan'. For him, humans can disagree on conceptions of the good life based on good reasons which is why the state should remain neutral in these regards (Meyerson, 2012, p.38). Meanwhile, Dworkin (1986, p.5) defines autonomy as the 'right to make decisions about the character of their lives themselves'. In contrast to Rawls, for Dworkin but also for Raz, autonomy is a component of the good life, which is why states should not harm it (Meyerson, 2012, pp.38-39).

For SDT, autonomy is a component of well-being as it is considered a basic psychological need. But how is autonomy defined in SDT and how does it differ from the philosophical accounts?

So far, these definitions of autonomy – even the ones of liberal anti-perfectionists who generally emphasise the importance of non-interference – share that autonomy entails self-authorship. This can be defined as self ‘a life in accordance with the principles, values, and choices of the person whose life it is.’ (Arvanitis & Kallaris, 2017, p.772). In SDT, in line with such an idea of self-authorship, the basic psychological need for autonomy is defined as ‘the experience of behavior as volitional and reflectively self-endorsed’ (Niemi & Ryan, 2009, p.135). Furthermore, it is not only about behaviour but also regarded relatively as the antipole of control, which is defined as ‘feeling pressured to think, feel, or behave in specific ways’ (Sheldon et al., p.475). However, this account of autonomy is highly subjective as it only refers to the experience of voluntary behaviour and thoughts, but not to whether the behaviour is actually executed voluntarily. Such a subjective account of autonomy could allow, at least in some cases, for nudging or even manipulation as long as one is not pressured and does not know about the intervention. However, although such interventions might be beneficial for well-being, the question emerges whether enhancing well-being is a sufficient reason to endorse policies relying on nudges or manipulation. Generally, calling behaviour resulting from manipulation still autonomous is controversial, which is why more criteria for policymaking are needed than such a subjective form of autonomy. Still, in line with Raz, for whom an autonomous life is a life of choices, from an SDT-perspective, the need for autonomy is satisfied when having the experience of making decisions (Arvanitis & Kallaris, 2017, p.778). Accordingly, interventions bypassing human deliberative capacities and preventing them from rational decision making might eventually harm autonomy.

Finally, a more objective account of autonomy is given by Richard Ryan and Frank Martela (2016, p.15), who defined autonomy in their hybrid theory of well-being combining SDT and Aristotle’s *eudaimonia* as ‘acting in ways that are truly self-endorsed’ or as ‘regulating behavior autonomously rather than being controlled or being a pawn to forces alien to one’s sensibilities and values’ (Ryan & Martela, 2016, p.9). Such an account of autonomy is – like the philosophical accounts endorsing self-authorship – not only about experiencing behaviour as autonomous, but as acting actually free from the influence of certain external forces that are not in accordance with one’s values. The question emerges of how such an account of autonomy goes along with pursuing intrinsic desires. What if persons autonomously choose for extrinsic aspirations?

The great assumption that comes with Ryan’s and Martela’s theory of well-being is that people prioritise intrinsic aspirations once they can act autonomously. They base their assumption on empirical studies finding that individuals who are able to act autonomously rather follow intrinsic

aspirations and act more benevolently (Sheldon et al., 2004; Weinstein & Ryan, 2010). However, in practice, people are not always autonomous and there are external powers creating extrinsic aspirations. For example, extrinsic aspirations can result from a lack of autonomy support given by one's parents (Kasser et al., 1995; Williams et al., 2005). Additionally, the creation of extrinsic aspirations is omnipresent as companies have a strong interest in making people buy their products. Globally, 586 billion U.S. dollars have been spent on advertising in 2019 (Guttmann, 2020) and nowadays, each Western individual is estimated to be exposed to up to 10,000 advertisements per day (Marshall, 2015). Many of these advertisements use methods in which the deliberative capacities of humans are bypassed as advertisements work inferiorly when humans are aware of being advertised to (Walker, 2004). This is morally relevant as the human ability to make rational decisions is seen as the basis for autonomy with which possible state interventions could interfere. Finally, there are cultural influences like (social) media creating extrinsic aspirations in individuals not only by advertising but also by portraying a life of money, fame, and status as a desirable, happy life (Kamal, Chu, & Pedram, 2013; Rai, Chauhan, & Cheng, 2018).

When prioritising extrinsic aspirations, a conflict regarding autonomy emerges. On the one hand, one experiences one's aspirations as autonomously or reflectively self-endorsed no matter where they ultimately stem from. On the other hand, such aspirations lead to less autonomy in practice. When working towards extrinsic aspirations, one engages in tasks not because one wants to perform them for their own sake but because one promises to attain extrinsic aspirations and with that happiness in the long term. These tasks are then not perceived as subjectively autonomous but rather as controlled because one experiences them as a necessity. For example, when having a job experienced as utterly boring because one feels pressured by one's aspiration for money, one's psychological basic need for autonomy is harmed (Kasser, 2018, p.5). Hence, there are currently powers promoting extrinsic aspirations by surpassing their rationality which leads to individuals instrumentalising themselves and making themselves dependent on the rewards given by others.

Taking an anti-perfectionist position would equip public institutions like universities with few possibilities to react to this issue and might maintain this power imbalance where individuals are exposed to the manipulative creation of values that are morally problematic. For this reason, I claim in this thesis that universities should have a conception of well-being. This holds for both public and private universities as they fulfil the role of public institutions and therefore have the same duties. Furthermore, I provide guidelines for well-being policies of universities based on the hybrid theory of well-being I endorse. In more detail, I provide conditions under which the university is allowed to or even should change students' values in the form of extrinsic aspirations. By definition, policies harming the three psychological basic needs for competence, autonomy, and relatedness, are not endorsed.

In this case, autonomy plays a key role meaning that students should not be coerced to act in a certain way. Regarding the aspirations themselves, they must fulfil two criteria in order to be legitimately overridden, which are that they must rely on false beliefs and they must contradict intrinsic aspirations or at least one of the three basic psychological needs.

First, an example for such false beliefs could be the idea that attaining extrinsic aspirations leads to higher psychological well-being, which is contrary to current empirical research, but still omnipresent due to advertisements promising that attaining certain material goods leads to happiness, or certain celebrities like influencers suggesting that a life of fame, status, and material wealth is a good one. The argument for this criterion is, in line with informed desire-satisfaction views of well-being that individuals would not want to have such desires or aspirations if they were fully informed about their situation. Second, these aspirations must conflict with the intrinsic aspirations of a person to be legitimately overridden. The reason for this criterion is that by contradicting a person's intrinsic aspirations, their psychological basic needs and therefore their well-being is harmed as well. Thus, if aspirations are 1) based on false beliefs and 2) in conflict with at least one of their intrinsic aspirations, I claim that it is morally permissible to counteract them.

2. What Are the Assumptions of the Current Educational Model?

2.1 Introduction

Having clarified the existing concepts revolving around well-being and the lens through which I evaluate the ethical consequences of the practices of universities, I reveal three philosophical assumptions that are embedded in digital technologies deployed in the current educational model of universities using the UT as an example. Thus, these practices are not limited to the UT, but can also be seen in other Western universities. Furthermore, some of these findings can be translated into other settings like primary and secondary education or even in certain working environments like office jobs.

Before identifying the concrete assumptions, it is necessary to point out some general assumptions about technologies in education as the call for digitalisation is tremendous. Governments foster the digitalisation of both schools and universities. The Dutch ministry for economic affairs identifies the task of higher educational institutions to improve education by using digital technologies and they argue that students should possess digital skills for the purpose of being well-prepared for the labour market (MvEZ, 2019, p.30). Such a development can also be seen at the UT, which is part of the 4TU, a collaboration of the four technical universities in the Netherlands. The slogan of the UT 'High Tech Human Touch' already indicates the huge role technologies play there and it is hard to imagine tertiary education without technologies in 2020. Course materials are offered online, lectures are given using PowerPoint slides that are uploaded later, assignments are submitted digitally, and research takes place in huge online databases. On its homepage, the university commits itself to the task of driving digitalisation (University of Twente, 2020b). Accordingly, technical sciences play a major role, and the university engages in technological solutions for societal problems.

Digitalisation goes along with a certain idea of progress. Such a classical idea of progress can be found back in laptops as typing on a computer is faster than handwriting (Aragón-Mendizábal, Delgado-Casas, Navarro-Guzmán, Menacho-Jiménez, & Romero-Oliva, 2016). Furthermore, online databases contain more articles and especially more recent articles than usual university libraries. In line with that, the success of technology is usually expressed in numbers, usually in academic test scores. These scores can assess factual knowledge of students, while other factors like motivation or well-being remain unobserved. Accordingly, technologies in the educational model are deployed in a way that they can increase these measurable variables.

In this thesis, I focus on digital technologies like laptops and the internet being used in education in two different settings. First, there are laptops as parts of the classroom but also steadily present for self-study and assignments. Lectures are usually given using PowerPoint slides and students use those

slides when having to present on a certain topic. Learning materials are offered online, assignments are submitted online, and steadily more exams are conducted on computers in order to grade them more quickly. Second, there is the idea of distance learning in which there is no physical classroom but teaching takes place online and students follow the classes at home from their laptops. Such a form of teaching was applied by the UT among other Dutch universities during the COVID-19 pandemic in consequence of which university buildings needed to be closed. While the UT aims for hybrid learning for the academic year 2020/2021, other Dutch universities have completely switched towards distance learning.

Both developments seem to endorse an ideal of science and technology in which technologies improve the status quo that is measured with scientific instruments or at least maintain it while requiring fewer resources. In the current context, digital technologies at universities make our lives easier by allowing us to write faster and to access more information in less time. The slower equivalents of handwriting or going to the library to look for books are not necessary anymore. This example shows that in tasks like writing or reading, the emphasis merely lies on their outcome. Although reading and writing are still possible in a digitalised form, the physical process of writing or reading does not necessarily seem to be of great importance but merely serve the purpose of the accumulation of information. A similar case can be made for distance learning. Here, the allegedly most important task of information transfer can still be conducted. Accordingly, universities regard it as the best possible alternative to regular in-class teaching if this is not possible (for example, in times of a pandemic like in 2020), while other alternatives like outdoor teaching were not considered. Regardless of extreme external influences like the pandemic in 2020, proponents of distance learning argue that it allows for more flexibility, accessibility, or personal pacing. For the UT, distance learning is more than just an emergency solution. In his New Year's speech in 2021, Victor van der Chijs, President of the UT's Executive Board stated that after the crisis, hybrid teaching is meant to remain and that the UT will not 'return to the pre-Covid situation' (Posthuma, 2021). Thus, the technologies deployed in tertiary education also reveal the underlying conception of education and what is regarded as more important and what seems to be neglectable. In this chapter, I aim at answering the question of which ideals of progress in learning are embedded in digital technologies and what is neglected. I do so by revealing the following assumptions:

1. Learning is merely a means to an end
2. Disembodied Learning
3. The individual is independent of their environment

2.2 Learning as Mere Means to an End

2.2.1 Introduction

In the introduction, I mentioned the idea of learning for life. The question emerges of what this means in the context of higher education. What do universities – or more specifically – what does the UT regard as the good life and which role does learning play here? Accordingly, this section deals with the goals of higher education. Does higher education aim to equip students with the educational virtues needed for a ‘good’ job or does it aim to educate students holistically? At first, it might be interesting to investigate why students go to university and what they expect. As a survey in the US showed, students differ in their motives. Some students regard education as a preparation for the job market and want to contribute to society, while others see the value in higher education in both preparation for the job market and personal growth (Colver, 2018, p.182).

The question emerges of which desires universities want to fulfil. Do they primarily aim to prepare students for a job, or do they rather actively engage with the students’ character development in the form of intrinsic aspirations by regarding learning as more than merely a means to an end? And if these aims are compatible, do universities try to fulfil them both? One could also formulate the question of what the goals of universities are in terms of which underlying well-being policy universities have because universities will probably aim to achieve those goals that they regard as important in their theory of well-being. There are four possibilities, which are:

- (1) there is no underlying theory of well-being and well-being is a secondary issue that students have to deal with privately.
- (2) a desire-satisfaction approach in which students can get educated in the way they want – thus being prepared for the labour market but also engaging in character development.
- (3) an objective list theory with several aspects that universities regard as essential for a good life like health or a good job.
- (4) an implicit theory of *eudaimonia* that aims to educate students’ characters by promoting virtues.

In order to analyse the current higher educational model regarding its underlying conception of well-being, I analyse the practices of higher educational institutions.

2.2.2 The Digitalisation of Education, the Bologna Process, and the TOM

The UT and other universities are following the Dutch ministry for economic affairs and its call for digitalisation which can be seen in several technologies deployed there. In this section, I want to

highlight the role of technologies used for grading. Since 2013, the UT follows the Twente Educational Model (Twentse Onderwijs Model; TOM) entailing regular automatically gradable multiple-choice exams and since 2019, such exams can take place online or using the UT's own Chromebooks. This trend seems to provide progress as it simplifies the whole task of grading and allows university teachers to spend more time doing research or preparing lectures. Also, it shows how technological progress reflects certain values – in the case of multiple-choice exams it is standardisation. But where does the idea of standardising education originate?

Recently, European higher educational institutions experienced a drastic change due to the Bologna Process, which aimed at standardising the higher educational model to make it more transparent, mobile, and comparable. While originally the process tried to involve the idea of lifelong learning and targeted the preparation for a globalised world, economic goals like employability became more dominant due to the financial crisis in 2009 (Sarauw, 2012, pp.24-25). In the Framework of Qualifications for the European Higher Education Area from 2005, the European Commission identified four main goals of higher education, which are 'preparation for the labour market, preparation for life as active citizens in a democratic society, personal development, [and] the development and maintenance of a broad, advantaged knowledge base' (European Commission, 2005, p.23, as cited in Sarauw, 2012, p.25). These overarching purposes led to the more detailed Dublin Descriptors that describe the following competencies on which higher education should focus: 'knowledge and understanding, applying knowledge and understanding, making judgements, communication skills, [and] learning skills' (European Commission, 2005, p.65, as cited in Sarauw, 2012, p.26). In theory, holistic learning and character development seem to matter in the Bologna Process. Also, the Dutch government recently committed to the goal of lifelong learning in its 'Digitalisation Strategy Paper' (MVEZ, 2019, p.29). But how does it look in practice?

In practice, the European countries still have the freedom to include the values they regard as important in their educational model. An example could be Denmark that came up with its own educational model strongly focusing on the preparation for the labour market. It does so by including a clear set of competencies that need to be achieved by the students instead of emphasising holistic character development (Sarauw, 2012, p.28). The idea is to tighten the programme by dividing it into 15 ECTS-modules and by providing regular exams and deadlines, which might lead – inter alia – to students finishing their degrees earlier (Sarauw, 2012, p.32). Interestingly, the TOM of the UT is designed in a similar manner: it consists of several 15 ECTS-modules, regular assignments, made the students graduate faster, and it connects education and companies. Additionally, there is the positive binding study recommendation (Bindend Studieadvies, BSA) which students have to obtain in the first year of their Bachelor in order to be allowed to continue the study. This means that students need to

pass at least three of the four 15 ECTS-modules in the first year. Students who fail to obtain a positive BSA are forced to quit their studies and are not allowed to start the same programme again for the next three academic years.

Simultaneously, TOM includes a 30 ECTS-Minor in which students can choose themselves which course they want to follow, and the whole TOM strongly endorses project-based learning (Visscher-Voerman & Muller, 2017, pp.1-8). Also, there is a Studium Generale that offers free lectures about a myriad of topics. Furthermore, the university is closely related to study associations that offer possibilities to exercise different sports or to engage in cultural activities.

Still, generally speaking, both the development in Denmark but also at the UT demonstrate a controlled learning environment with the goal to ensure that students can achieve the skills needed for a diploma in the least possible time. The idea of universities endorsing a strict schedule consisting of short periods per topic and constant measurements of performance has been called 'schoolification' of higher education. With this term, educational scientist Laura Louise Sarauw (2012, p.34) describes 'a regime where the curriculum is so tight that there is no time left for either the teachers or the students to prioritise deep learning or really digging into the subject and working independently in accordance with their own interests'. Such a schoolification is thus connected with a more restricted and controlled learning environment that enables students to finish their studies quickly but offers less space to focus on non-curricular activities. Such activities could refer to partying, netflixing, or gaming but also activities such as deeper extracurricular engagement with interesting study-related topics, political engagement, or the exploration of several hobbies – thus, habituating virtues in accordance with one's intrinsic aspirations.

This schoolification is translated in technologies like the automatised grading in online or chromebook multiple-choice exams. In a schoolified educational model aiming at standardisation, multiple-choice exams are an efficient method to assess students' recall as grading them automatically using technologies requires little time and effort. This decrease in time and effort of grading exams made it possible to increase the number of exams and thus facilitated the schoolification. Also, it might make education more accessible as more students could be graded at once. However, instead of making use of the facilitated grading, reading⁷, and writing of texts by asking for open essays in which students can deeply engage with an autonomously chosen topic, the paradigm of schoolification emphasises the progress these technologies provide of making students comparable. Allegedly, this can be done with the same results – namely, a number in the form of a grade – but requires fewer resources. Thus,

⁷ Although I argue later that reading on screens takes longer than reading printed texts, this is about reading text on screens in comparison to handwritten texts that tend to be more difficult to decipher.

in such a schoolified educational model, the primary value of feedback seems to lie in a quick grade necessary to compare students and letting them finish their studies on time instead of deeper, longer reflection enabled by less time-efficient personal feedback.

In short, I am arguing that learning at the UT merely serves the purpose to achieve the predetermined skills that the university regards as important and ultimately lead to a diploma. Accordingly, learning for life in the context of schoolification and economic efficiency seems to inherit a dichotomy between learning and living. Students need to learn certain skills before 'life' starts. In other words, instead of regarding the time spent at universities or schools as intrinsically valuable, school and university need to be finished as fast as possible. Learning thus only has an instrumental value as it is only seen as a prerequisite for life after education (in which learning is not necessary anymore). Now, the question emerges how the university imagines such a life after education.

2.2.3 Theories of Well-Being and Goals of Education

The actual focus on pre-given competencies and skill sets indicates the goal of preparation for the labour market. Besides the schoolification, there are two more reasons to assume that a well-paid job is the goal of education at the UT. First, it proudly advertises itself as the most entrepreneurial university in the Netherlands (University of Twente, 2020e). Second, consumerist culture is present and at least tolerated at the UT as the Campus is equipped with typical brands like Starbucks or Subway. These goals of education imply an underlying theory of well-being as well.

Given the rather secondary role of personal development, a purely *eudaimonic* theory of well-being that only focuses on character development seems unlikely, although first attempts to foster character development and thus *eudaimonic* well-being can be seen in policies like the mandatory minor. However, many policies enacted to enable students to get a 'good' job or to make students finish university as soon as possible counteract this *eudaimonic* endeavour. Importantly, the value of learning in the current educational model strongly differs from classical *eudaimonic* theories in which learning in the form of habituating virtues and character development forms the essence of a good life – also after receiving one's diploma. Also, the idea that the university might equip students with the necessary tools to fulfil their talents and reach their future goals seems unlikely. This is because the learning goals in the schoolified educational model rather relate to specific knowledge – as reflected in the multiple-choice exams – than broader virtues.

The same holds for a desire-satisfaction theory which would presuppose more freedom for students and a stronger focus on individual differences. In contradiction to this idea of freedom, strongly

controlled environments are already objectively prescribing what should be learned. An absence of a theory of well-being can be excluded as well. Especially at the UT, there are several examples in which the UT enacted policies in order to promote well-being according to their conception of well-being. The smoking ban enacted in 2020 is one instance of the university actively supporting health-promoting behaviour by restricting liberties. Accordingly, physical health seems to matter to the UT and the UT has a theory of well-being based which allows the UT to override students' autonomy in specific cases. A possible option could be that it relies on an objective list theory including at least health and a 'good' job as objectives. Another option could be a reflective or fully informed desire-satisfaction theory of well-being assuming that students want to stop smoking and to be well-prepared for the labour market in the long run. While I will analyse the ethical consequences of the university's ideas of well-being and learning in chapter 3.2, I will investigate the university's assumptions regarding the role of the body in the following subchapter.

2.3 Disembodied Learning

2.3.1 Introduction

In this chapter, I reveal the assumption of disembodied learning meaning that the mind is the centre of the self while the body remains neglected. Thus, the idea is that learning happens in the mind, not in the body. One could refer to this idea as Neo-Cartesian attitude or dualism as it has been done in the past (cf. Hacking, 2007). However, I chose to avoid this terminology for the reason that just because this implicit attitude is embedded in practices in the current society this does not mean that society is referring to Descartes or Mind/Body-Dualism in general. Further, substance dualists addressed the issue of how body and mind interact with each other. Descartes, for example, argued that body and mind interact via the pineal gland and gave analogies of how immaterial matter can move material matter by referring to heaviness or heat (Descartes, 2007, p.66). In this paper, I do not endorse any specific theory of body and mind, but only reveal and assess the idea that the role of the body is disregarded when it comes to learning and education. Therefore, I refer to this idea as disembodied learning.

2.3.2 The Choreography of the Modern Classroom

For the purpose of analysing whether current classrooms foster disembodied learning, I want to introduce the notion of 'choreography' which describes 'joint material performances by bodies, actions and environments rather than as simply bodies alone making movements to create

choreography' (Parviainen & Ridell, forthcoming, p.6). Originally, this term was used by Parviainen and Ridell (forthcoming) in the context of philosophy of the city. Still, I use it here to demonstrate how actions of the body are co-shaped by the socio-technical environment. Taking a look at a classroom in current universities, the setting with its chairs and desks suggests a specific choreography: the lecturer is standing in front of the class, while the students are expected to sit still and not to engage their body in too much activity. This is already a first indicator for education happening in the mind while the body is rather regarded as an obstacle.

The way the classroom interacts with the students' bodies is not a new topic. Instead, the classroom continuously changed. Before the 1950s, the chair and the table were inseparable and therefore providing a specific choreography. By introducing the separation between the two, students had more opportunities to choose autonomously for a certain posture. Nevertheless, even with individual desks, the main issue that the body is neglected and in a passive position still exists.

2.3.3 Digital Technologies and the Neglect of the Body

In line with universities' positive attitudes towards digital technologies, the neglect of the body becomes more visible in the context of digitalisation of schools and universities, which reveals and reinforces the implicit idea that learning only happens in the mind. Imagine a classroom full of laptops. These go along with an even more particular choreography. Students in the current classroom can only interact with laptops when sitting in front of them and performing simple movements like typing or using a mouse. Interestingly, laptops do not only demand a certain physical posture but also shape the body in a way that goes beyond the typical issues related to sitting in general. Extensive interaction with laptops is related to several changes in the body like musculoskeletal disorders (MSD) in neck, shoulders, wrist and back or eye fatigue because of the increased neck flexion and staring at relatively small screens (Straker, Burgess-Limerick, Pollock, & Maslen, 2009, pp.852-859; Rafiee, Mokhtarinia, Hadad, & Reza Soltani, 2014, pp.37-45; Silvian, Priyanka, Begum, Joy, & Kumar, 2016, pp.149-156). These MSDs refer to issues like neck muscles becoming longer or the shoulder used for the mouse moving to the front also referred to as the mouse arm.

Again, such a setting focused on the use of laptops would implicitly endorse the assumption that education only happens in the mind – in interaction with the computer. Training or 'educating' the body would not be necessary since the acquisition of knowledge only happens in the mind according to such a mindset. Even stronger, such an attitude can be seen in distance learning. Here, the students are physically separated, and their bodies do not play any role anymore.

Along with the setting of education, also the content of education is changing. Contrary to schools, there is no mandatory physical education at all in universities. The shift towards less physical activity goes along with the assumption that academic performances might increase due to more time spent in the classroom (Troost, 2007, p.2). Importantly, physical education is not the only way to involve the body. Also, during the breaks where students can go outside, the body is active. Even more broadly, there is motoric work involved in arts, handwriting or modelling – independent of the subject. Such physical activity would drastically change when using laptops. If modelling is replaced by swiping a mouse or handwriting is replaced by typing, the body performs a less complex task. Again, this suits the idea of disembodied learning where the mind is the focal point, and the body is neglected.

2.3.4 Vision as Privileged Sense

In line with the underlying idea of disembodied learning in (higher) education, there is also the idea that vision is a privileged sense – an idea that goes back to Plato and Aristotle. For both, seeing played a major epistemic role, which is why Plato, actually a proponent of body/mind dualism, emphasised ‘ideas’ (Greek: ‘idein’ = to see). Meanwhile, Aristotle focused on theories or the *bios theoretikos*, the theoretical lifestyle that made human beings unique (Greek: ‘*theōros*’ = spectator; Drumm & Weiss, 2012, p.21). Furthermore, in Plato’s theory of forms the only truly perfect form or image of an object exists in our mind and of course it is imagined visually. For example, the form of a circle is imagined as a picture – not as a sound, a smell, a taste, or a haptic stimulus.

In universities, seeing plays a major role in the generation of knowledge as well. First, there is a strong focus on reading as a source of information. Second, vision plays a major role in the currently deployed learning materials like books or e-books. In contrast, podcasts, audiobooks, or other non-visual sources of information do not seem to have broken through yet. Furthermore, even in lectures there seems to be a focus on vision – not only because of PowerPoint slides used- but also to see in the word ‘lecture’ which is derived from the Latin word ‘*legere*’ (= reading). This goes back to the medieval era where teachers used to read out a certain paper to their students.

Interestingly, reading is an activity that is best possible in a physically passive position. One usually has to either sit or stand in order to be able to read as reading demands one’s visual attention. Thinking about different sources of knowledge, auditory stimuli can be received while being physically active. It is perfectly possible to listen to a podcast but also to pre-recorded lectures – unless they contain visual elements – while taking a walk in the woods. In addition, active discussions can be held while walking, sitting, or standing – inside or outside. Especially in distance learning, vision and hearing stand out the most, while there is no physical component. Here, the students are physically distanced from

each other and can only see and hear each other. Distance learning as it is currently realised happens in physically passive positions. Students usually stand, sit, or even lie during online lectures.

All in all, in the current educational model there is the implicit idea that learning only happens in the mind while the body is regarded as neglectable. The centre of the self is the mind – not the body. This neglect of the body is seen in traditional classrooms but is emphasised more strongly by modern digital technologies that merely provide progress for the mind perceived as independent of the body. In such a setting, physical tasks are outsourced to technologies. However, there is not only a neglect of the body but also of the co-constitution of the individual and their environment. This has already been indicated by the way the body is determined by laptops, chairs, and desks. In chapter 3.3, I will scrutinise whether this yields moral implications.

2.4 The Individual as Independent of Their Environment

Another assumption embedded in practices and technologies of the educational model is the clear distinction between the individual and its environment – and between subject and object. This is closely in line with the instrumental definition of technology where the technology is the tool (the object), and the user represents the subject. This is contrary to phenomenological ontologies in which the subject is always regarded in interaction with its environment. Classical phenomenologists like Edmund Husserl, Martin Heidegger, and Maurice Merleau-Ponty but also pragmatist John Dewey instead reject the classical bifurcation between subject and object.

Accordingly, nowadays, such a focus on the allegedly independent individual is challenged. An example of such a challenge is Andy Clark's and David Chalmers' Extended Mind Theory (EMT, 1998), which states that one's mind is not only located within oneself but also in objects like notebooks or computers. For example, when doing groceries and remembering what to buy by looking at the shopping list, the shopping list becomes a part of the mind as it is actively involved in the process of memorising.

Previously, I already mentioned that the setting has a strong influence on the individual. Even further, the body is not just neglected in such setting, but it is also redefined by its environment since it adjusts its shape to the circumstances: the neck muscles become longer because they are kept in the stretched position when looking down on a screen while sitting and the mouse arm is a consequence of moving the shoulder to the front while moving a mouse. Hence, we could not only contrast the individual mind with the extended mind but also the individual body with the body shaped by its environment. The tacit acceptance of this classroom choreography does not only go along with a neglect of the body,

but it also reflects certain roles of teachers and students. The teacher is the only one being physically active by standing or walking around. Meanwhile, the students are sitting physically passively in the classroom receiving knowledge. The teacher takes the active role by transferring knowledge to the students, who take the passive role as knowledge recipients.

As a response to that, changes in current education already occur on the micro-level by rearranging chairs. Some classrooms have U-form or group tables in order to put the students in more active roles. However, alternatives such as standing desks – as they are already common in some Finnish schools (Südwestrundfunk, 2017) – are only slowly implemented in study areas and offices at Dutch universities, but classrooms remained unaffected by this development hitherto (2021).

Again, this development becomes more visible when scrutinising the technologies present in a classroom. In practice, memory, which is considered a feature of the mind, is attributed to notebooks or laptops. Such a shift in tasks might amplify due to digitalisation. Indeed, a set of experiments has shown that people have associations with computers when having to answer difficult questions and that recall rates drop when being aware that information can be looked up online via search engines (Sparrow, Liu, & Wegner, 2011, pp.776-778). More generally, information is not as easily memorised if we believe that it is saved in a document or a notebook. In a study, participants who thought that the computer would erase the information they typed into, remembered about 50% more trivia statements than participants believing the computer would store the information (Sparrow et al., 2011, p.777). Nowadays, lectures are given now via PowerPoint slides that are uploaded later and students know that they will be available. More radically, due to the measures against COVID-19 in 2020, many universities spontaneously switched to online teaching, in which all lectures were recorded and some of them were not even streamed live. Thus, in practice, students form cognitive processes in cooperation with the technologies deployed in education. However, when asking students to take an exam, universities ask for the students' isolated cognition rather than the cognitive process emerging from the interaction between students and technologies.

In conclusion, students are rather regarded as independent individuals than as co-constitutive with their environment. Both aspects are manifested in the digital technologies deployed and promoted at current (Dutch) universities like the UT. I will analyse the ethical implications of this clear distinction between individual and environment in chapter 3.4.

3. What Are the Ethical Implications of the Assumptions of Tertiary Education?

3.1 Introduction

Hitherto, I have argued that digital technologies in tertiary education are based on a certain ideal of progress implicitly assuming that (1) learning is merely a means to an end, (2) learning is disembodied, and (3) the individual learns independently from their environment. The ideal of linear progress necessarily goes along with aspects that it neglects. In this case, the value of learning for its own sake, the importance of the body, and the ways the individual is shaped and constituted by their (technological) environment are neglected. This comes with several ethical implications for students' well-being that I analyse in this chapter.

3.2 Learning as Mere Means to an End

3.2.1 Introduction

In chapter 2.2 I concluded that the UT merely aims to prepare students for the labour market. In this paradigm, learning merely serves as an instrument to achieve this objective. This instrumentalisation of learning is embedded in the 'schoolification' which describes an educational model heavily relying on control. Such a schoolification is promoted by technologies like automatic grading that motivate or even urge teachers to assess students based on closed answers. To analyse the desirability of this approach, it is necessary to scrutinise the implications of the educational model I described previously. First, I analyse to what degree the current approach fulfils its own standards or whether the objectives are at least partially contradicting each other. Secondly, I scrutinise whether the current higher educational model including the policies and technologies involved is morally problematic according to the hybrid objective list theory of well-being I argued for in chapter one.

3.2.2 Contradicting Goals of Education

An issue that comes with the previously described controlled learning environments aiming for making students suitable to the job market is the loss of intrinsic or autonomous motivation for the study subject. Based on SDT, Christopher Niemiec & Richard Ryan (2009) published a review on the importance of SDT and especially autonomous motivation in the educational context as it is both related to better academic achievement and higher SWB. According to them, in education, autonomy can be promoted in two ways. First, coercion and the assessment pressure should be minimised and

second, students should feel like they can exercise autonomy by choosing in which academic activities they engage (Niemic & Ryan, 2009, p.139). This autonomous motivation could thus be threatened by the previously described schoolification. The reason for this is that mechanisms behind schoolification like frequent exams, the BSA, or strict, full-time schedules including mandatory lectures and tutorials contribute to controlled motivation as they relate to both external regulation like punishment and reward but also to introjected regulation like the avoidance of shame (Ozer & Schwartz, 2019, p.203). Besides all empirical evidence about subjective states, students have objectively less freedom of choice and with that less autonomy in a study environment clearly prescribing which topic to learn for a certain closed exam. As this controlled environment causing controlled (and introjected) motivation is also related to lower SWB and academic performance, this standardisation that should serve the purpose of preparing students early and efficiently for the job market seems to contradict the initial aims of education endorsed by the UT.

Now, one might object that this standardisation and controlled environment is not done for the sake of the students' well-being and character development, but for the sake of the economy. Companies can benefit from standardised tests to make decisions on whom to employ, but the student side would be neglected. The goal of preparing students for the labour market with the justification that it is good for the economy would be morally problematic because it would instrumentalise them for others. But what if students actually want to be well-prepared for the labour market? In this case, the standardisation and schoolification would serve the students' interest by preparing them for the job market and they are not instrumentalised. Proponents of a desire-satisfaction theory of well-being might argue that in such a case, the preparation for the labour market will enhance students' well-being. However, students who merely regard higher education as preparation for their future job tend to achieve lower grades than their intrinsically or more autonomously motivated fellows, who regard education more holistically as a valuable contribution to their personal development (Colver, 2018, pp.183-184; Ku, Dittmar, & Banerjee, 2014; Saunders, 2006). Thus, paradoxically, the desire to be well-prepared for the labour market does not necessarily lead to its own fulfilment but students having such a desire are – according to the standards of the schoolified educational model –prepared worse than intrinsically motivated students.

3.2.3 The Instrumental Value of Learning

The findings of Colver (2018), Saunders (2006), and Ku et al. (2014) are strongly in line with SDT, which supports the idea that extrinsic aspirations lead to unhappiness. In the context of education, the reason for this is that by engaging in a study that merely serves extrinsic aspirations, students do not

need to attach any value to the studies themselves except for the outcome. Accordingly, they are instrumentalising themselves in studies they do not particularly like or value themselves but for the sake of extrinsic aspirations like money, status, or image. This argument is supported by empirical research showing that valuing extrinsic aspirations more than intrinsic aspirations is related to anxiety and depression – the issues students are currently facing at the UT – while being negatively associated with vitality, self-actualisation, and self-worth (Kasser & Ryan, 1996). Moreover, studies with adolescents have shown that a materialistic attitude – like in students studying for the sake of getting a well-paid job – is related to narcissism, substance abuse, lower self-esteem, lower mastery orientation and – in line with that – lower academic performance (Kasser & Ryan, 1993; Ku, Dittmar, & Banerjee, 2014). Beyond that, both having and meeting extrinsic aspirations like financial success are related to psychological ill-being including depression and anxiety – issues the students at the UT experience as well (Kasser & Ryan, 1996). Generally, literature reviews suggest that materialist or consumerist desires lead to unhappiness in the sense of psychological ill-being (Kasser, 2002; Burroughs & Rindfleisch, 2002). The same generally holds for extrinsic aspirations across different cultures and age groups (Kasser & Ryan, 1993; Kasser & Ryan, 1996; Ryan et al., 1999; Lekes et al., 2010; Martos & Kopp, 2012; Romero et al., 2012; Nishimura et al., 2019).

From these findings, I draw mainly two conclusions. First, the sort of desires that students have, matter because students with stronger extrinsic aspirations are both performing worse and feeling unhappier than students having stronger intrinsic aspirations (Kasser & Ryan, 1993; Ku, Dittmar, & Banerjee, 2014). Accordingly, these desires seem to be a confusing guide for an educational model promoting well-being and including such desires in a theory of well-being seems self-contradictory. Thus, libertarian demurs by proponents of simple desire-satisfaction theories stating that the educational model should purely be based on students' current desires become weakened. Instead, there is a strong case for regarding well-being from a hybrid perspective based on *eudaimonia* and SDT. Here, only desires based on intrinsic aspirations count for the fulfilment of one's well-being.

Second, the assumption that education should serve extrinsic aspirations can be rejected from such a well-being perspective. The instrumentalisation of learning in order to achieve extrinsic aspirations found in a job that is connected with more money or social recognition does not make students feel better but worse (Kasser & Ryan, 1993; Kasser & Ryan, 1996; Ryan et al., 1999; Niemiec et al., 2009; Lekes et al., 2010; Martos & Kopp, 2012; Romero et al., 2012; Nishimura et al., 2019). This is not to say that well-being is about feeling better or worse but to reject the idea that getting more money or social recognition increases one's happiness in the form of SWB. For this reason, a theory of well-being focused on intrinsic aspirations has advantages in identifying the moral issues of the schoolification in comparison to desire-satisfaction theories of well-being in which all desires are counted.

3.2.4 Technologies, Grading, and Instrumental Learning

The schoolification and its idea of standardisation to make students easily comparable is based on a linear ideal of progress that seems to neglect certain important factors – in this case, the value of learning as a *praxis*. Academic achievement is reduced to those factors that are measurable. Learning goals are standardised, and the emphasis lies on achieving good grades instead of deeper engagement with the topic or extracurricular activities. In this paradigm, a good student is someone achieving good grades on exams testing recall of exactly pre-defined learning goals, not someone educating themselves by reading books that are related but not mandatory, or by visiting Studium Generale lectures.

In the current educational model, digital technologies are used to facilitate standardising curricula. To provide an example, multiple-choice tests, which are associated with pure recall, are easy to conduct and automatically gradable using computers. Although technologies have facilitated the process of reading, writing, and grading more autonomy-promoting assessments like essays about self-chosen topics, they still require significantly more time than multiple-choice exams. For teachers at universities (who usually have a temporary working contract and are already pressured to successfully conduct research during their working time), the motivation to ask students for more autonomous assignments is therefore rather decreasing as the difference in grading time becomes even larger. Additionally, universities might expect that teachers make use of these grading tools and therefore pay them for less time spent on grading. In large classes, it is thus even simply impossible to ask for such assignments as they are too time-consuming. Accordingly, the schoolification is manifested in the technologies deployed in education.

Proponents of short-term hedonist theories or desire-satisfaction theories might argue that multiple-choice tests are still better for students' well-being if students prefer doing multiple-choice tests over open essays. Indeed, this claim is backed up by empirical research claiming that from the students' perspective, multiple-choice exams are preferable (Zeidner, 1987; Tozoglu, Tozoglu, Gurses, & Dogar, 2004). However, when investigating these studies more deeply it becomes clear why the authors came to this conclusion. Students indeed regarded multiple-choice exams as fairer, clearer, less tricky, and less complex but they also felt more at ease and less anxious (Tozoglu et al., pp.54-55; Zeidner, 1987, pp.354-355). On the contrary, students perceived multiple-choice tests as less reflective of students' knowledge (Tozoglu et al., pp. 54-55). In short, students tend to prefer multiple-choice exams over essays because they are easier and fairer to grade. Both reasons are strongly related to the grade of the exam and not to more holistically defined learning outcomes. Accordingly, these reasons rather

reflect the idea that studying is a means to a certain end than intrinsic motivation. One might even argue that autonomously motivated students would be willing to take the challenge of writing their own essay.

Taking the lens of SDT, the role of feedback can be characterised more clearly. As argued earlier, strong external regulation emphasising grades is harming students' autonomy since students are pressured into studying not because they decide to learn something but because achieving bad grades has negative consequences. But this does not mean that feedback is unnecessary. Instead, feedback has a critical role regarding students' competence. As previously argued in the paradigm of SDT, instead of representing a moment of evaluation, feedback should emphasise students' efficacy and help them achieve success to promote both their perceived and objective competence (Niemi & Ryan, 2009, p.139).

Besides providing harm by negatively affecting the students' test scores, their character development, and their SWB, the schoolification is morally problematic as it harms the students' autonomy in two ways – not only in the subjective sense as suggested by empirical data but objectively. First, its strict schedule that is embedded in the technologies that universities deploy is interfering with the students' freedom to learn what they want to learn. The measurable learning goals that can be assessed by automatically graded tests dictate exactly the content students have to learn instead of rather aiming at more broadly equipping students with the tools necessary to appropriate the content they want to learn. Second, taking a more Aristotelean self-determination perspective, by prescribing what students have to learn, students do not learn to make autonomous decisions. All in all, the schoolification is thus preventing students from becoming who they want to be. Even if there was the goal of tertiary education to produce well-educated employees for the job market, who possess a standardised skill set, a more holistic focus on character development and self-determination would serve this purpose better. Such a shift in focus towards character development would also result in different technologies or organisational arrangements of which I give examples in chapter four.

3.3 Moral implications of Disembodied Learning

3.3.1 Introduction

In chapter 2.3, I concluded that there is the implicit idea of disembodied learning meaning that learning only happens in the mind which is regarded as the centre of the self in the current educational model. This assumption yields several moral implications that I discuss in this subchapter.

3.3.2 Disembodied Learning in the Classroom

To begin with, the idea of disembodied learning goes along with several negative implications for one's health. As stated earlier, the human body transforms according to its environment. In an educational model that would rely on extensive use of laptops, changes like MSDs or fatigue eyes would cause severe, avoidable harm to students. Simultaneously, physical activity is related to a better mood and a reduced risk to suffer from depression or anxiety (Ross & Hayes, 1988; Fox, 1999). Generally, the lack of physical activity is also related to higher mortality - thus, severe harm (Diaz et al., 2017, pp.465-475). Therefore, universities like the UT for which health is a crucial constituent of well-being partially contradict their own ideals. This is because the sedentary behaviour they promote with the deployed teaching styles, technologies, and classroom setting has severe consequences for the students' physical health. Aside from the university's theory of well-being, health is regarded as an intrinsic aspiration in the paradigm of SDT (Kasser & Ryan, 1996, p.281). However, regarding well-being from a *eudaimonic* SDT-perspective reveals more implications of digital disembodied learning for students' well-being than concerns regarding their health.

Even under the assumption of disembodied learning entailing that the mind is the centre of the self and intellectual virtues are more important than the development of physical virtues, neglecting the body threatens this goal of purely intellectual, 'mind-related' education. As an example, it is known that students who take notes by hand remember facts for a longer time and understand complex relationships better than students who take notes with a laptop (Mueller & Oppenheimer, 2014, pp.1159-1168). According to Mueller and Oppenheimer (2014, p.1166), this is the case because laptop note takers do not engage in reflecting about the content, but mindlessly take verbatim notes and the laptop could potentially distract students. However, there is another factor that plays a significant role: sensorimotor skills are not just a bodily exercise detached from education but involving the body in learning actually helps to remember and to learn better. As research about pre-school children indicates, learning to write letters and words by hand increases reading and writing skills more than doing so by typing (Cunningham & Stanovich, 1990, pp.159-162; Kiefer et al., 2015, pp.136-146). The researchers attribute this effect to the sensorimotor representations that emerged due to the physical process of handwriting (Kiefer et al., 2015, p.144). Thus, physical processes like handwriting play an important role in learning.

These findings are in line with the currently dominating paradigm of embodied cognition in cognitive sciences stating that cognition always depends on and arises through the body and physical experiences (Shapiro, 2007, p.3). The importance of sensorimotor representations in learning psychology also questions the assumption that reading is a privileged sense. This claim is backed up by research showing that reading is not the most efficient way of memorising learning facts. In fact,

the most efficient learning strategy is to combine different sources of input and to actively engage with the learning materials. For example, a study has shown that reading aloud leads to better recall than only reading it (Forrin & MacLeod, 2018).

In the case of notetaking, the physical movement is directly related to the learning task. However, physical movement in the form of sports is also related to improved learning although it is not directly related to the task. Brain research has shown that sports lead to an increase in cell growth in the hippocampus and to an improvement in memory (Erickson et al., 2011, pp.3017-3022). Additionally, sports can help to overcome mental fatigue by enacting different brain areas than intellectual work and therefore lead to increased mood and stress resistance – as long as the level of exercise is sufficiently challenging and enjoyable (Brümmer, Schneider, Abel, Vogt, & Strüder, 2011, pp.1863-1872; Basso & Suzuki, 2017, pp.127-152). Again, this shows that learning is not only happening in the mind, but both body and mind deeply interact with each other.

Of course, many of these findings presume a particular student, while there might be students for whom this might not be true. Some students might require laptops to write, while others might be unable to make use of their bodies in the proposed ways. Still, the problem here is that many students might lack competence referring to whether students experience themselves as able to fulfil the university's demands (Niemic & Ryan, 2009, p.135). Beyond that, students are objectively less competent if disembodied learning hinders their learning progress. But there is more to disembodied learning, in particular, distance learning.

3.3.3 Disembodied Distance Learning

Interestingly, the technologies deployed reveal what matters in education, thus, the assumptions I revealed in chapter two. An example is distance learning, which some argue to be a suitable alternative for in-class teaching – especially after the outbreak of SARS-CoV-2, where it appeared to be the only possible option. It also follows a reductionist perspective on education by assuming that learning only happens in the mind and is only the means to accumulate knowledge. An aspect that is disregarded here, is the importance of the academic community. However, physical presence is essential to feel connected to others. Unsurprisingly thus, researchers found that it is more difficult to form a cohesive academic community in virtual classrooms and students tend to experience isolation (Eaton, 2000, pp.11-14; Croft, Dalton & Grant, 2010). Also, during the COVID-19 pandemic, when universities switched to distance education, students reported that they had difficulties staying closely connected with their fellows (Lohuis, Couvreur, & van der Veer, 2020). Indeed, students but also employees and PhD-students reported that they experienced several difficulties during the university

lockdown (Sirius, 2020; Lohuis et al., 2020; Atanasov, et al., 2020). More specifically, students stated that they felt lonelier, looked less forward to studying, spent less time studying, and spoke less to their friends (Sirius, 2020, p.1-2, Lohuis et al., 2020, pp.31-35). Furthermore, they felt less able to concentrate and to motivate themselves (Sirius, 2020, p.2).

Of course, this is not only because of distance learning but due to many contextual factors during the pandemic like the closure of public facilities, limited contact with others, social distancing policies, etc. However, the forced change to distance learning and lack of contact with fellow students cannot be neglected and students themselves reported that they enjoy on-campus education more and desire to follow offline education as soon as possible (Sirius, 2020, p.2). Such neglect of the importance of social factors heavily contradicts SDT as relatedness is one of the three basic psychological needs. In SDT, a loss of relatedness is associated with a loss of interest and an increase in negative emotions and work-avoiding behaviour (King & Ganotice, 2014; King & McInerney, 2014; Martin & Dowson, 2009). In a similar vein, loneliness and missing sense of belonging were part of the identified risk factors for students' well-being at the UT (Kelders et al., 2019, p.4)

This is not to claim that the university is fully unaware of the suboptimality of online teaching and the importance of relatedness. Instead, efforts to allow for a certain degree of on-campus teaching can be seen in the academic year 2020/2021 following the slogan 'on campus, if we can; online, because we can' (University of Twente, 2020d). What is more striking is that online education was regarded as if it was without any alternative and that the UT is not planning to return to on-campus teaching entirely even after the crisis (University of Twente, 2020e). However, there is more than in-class and online teaching. Consider outdoor teaching, which allows for relatedness, while keeping the measures against SARS-CoV-2 into account. Exactly this happened at University College Middelburg which introduced outdoor classes as an alternative for some of the online classes (van Bekkum, 2020).

From this, I conclude that the neglect of the body in distance learning might be detrimental to students' well-being. This can be shown from an SDT perspective as the psychological basic need for relatedness is deteriorated in distance learning – not only as a perceived state but they are objectively less related to their fellows. Accordingly, education can and should not only focus on purely intellectual virtues and academic competencies but entail a broader vision of learning that also acknowledges the importance of relatedness.

3.4 The Individual as Independent of Their Environment

3.4.1 Introduction

As argued in chapter 2.4, there is a strict distinction between the subject and the world with which interacts, although the degree to which the environment shapes the individual is significant. Research has shown that even mundane activities like taking a walk in the forest have tremendous effects on one's health. More specifically, it was related to lower production of cortisol, the hormone responsible for the experience of stress, lower blood pressure, and a lower pulse rate as well as lower scores on depression and hostility scales (Park, Tsunetsugu, Kasetani, Kagawa, & Miyazaki, 2010; Morita et al., 2007). Of course, the way the classroom is constituted shapes the individual as well.

3.4.2 The Classroom and Technology's Side Effects

In the previous chapters, I mentioned the choreography of the classroom consisting of tables and nowadays laptops shaping the individual. Besides physically shaping the bodies of students, the choreography also suggests that the student sitting there passively is only seen as a recipient of knowledge. In his famous essay 'The Reflex Arc Concept in Psychology' John Dewey (1896) formed the basis to argue against this claim by rejecting the classical dualism between stimulus and response and arguing for a more circular relationship. Accordingly, the student is not just a passive recipient, but an agent who actively engages with their environment. This fits into Aristotle's and SDT's but also Dewey's emphasis on curiosity, which is for him a part of a learner and a researcher's attitude that is already present in children (Dewey, 1998, pp.276-277). The current passivity of students comes with several ethical implications.

First, curiosity is strongly related to intrinsic (or according to SDT: autonomous) motivation. Such motivation is necessary to achieve well-being as I previously argued. An active setting of the classroom probably provides students with more autonomy than a classroom in which they are only regarded as passive recipients of knowledge. Such a lack of autonomy threatens intrinsic motivation and with that both academic performance and students' well-being.

Also, taking the extended mind (and body) perspective, the presence of laptops and (online) lectures given via PowerPoint presentations that are uploaded afterwards are a part of the same cognitive system as the individual student. In his book 'To have or to be?' Erich Fromm (1976) made a distinction namely between *being* and *having that could be regarded as the basis for the bifurcation between extrinsic and intrinsic aspirations* (Kasser & Ryan, 1993, p.410; Kasser & Ryan, 1996, p.281). *Having* is characterised by identifying oneself with possession and status, thus external properties which one

has (Fromm, 1976, pp.34-38). Meanwhile, *being* is symbolised by defining oneself via who one is and how one acts (Fromm, 1976, p.35). A person in the mode of *being* gives, shares, and sacrifices (Fromm, 1976, pp.122-123). For Fromm, *being* is preferable compared to *having* because according to him, the mode of *having* is related not only to an exploitation and instrumentalisation of resources, nature, people but also objectifies oneself. As he argues, the self-identification with goods or properties that one has therefore leads to a dependency on these goods. He concludes that 'In the having mode, there is no alive relationship between me and what I have. It and I have become things, and I have it, because I have the force to make it mine. But there is also a reverse relationship: it has me, because my sense of identity, i.e., of sanity, rests upon my having it (and as many things as possible)' (Fromm, 1976, p.95). In his book, he gives several examples for the *being* and *having* mode and he linked it to memory as well. According to him, *having* is reflected in memories that are saved externally, for example, on paper. As he argued, 'By writing down what I want to remember I am sure to *have* that information, and I do not try to engrave it on my brain. I am sure of my possession—except that when I have lost my notes, I have lost my memory of the information, too' (Fromm, 1976, pp.43-44). Further, he gave the example of students copying every sentence and assumed that these students would experience difficulties memorising information as writing would replace memory (Fromm, 1976, p.44).

Indeed, empirical research supports Fromm's claims. As identified earlier, once a person knows that information is stored, they tend to remember rather where the information is stored instead of what the information entails (Sparrow et al., 2011). Moreover, the digitalisation of schools reinforces this tendency. With laptops allowing students to type faster, the tendency to blindly copy the teacher's deliberations without deeply processing it, increases. This negatively affects the students' memory when taking notes with their computer (Mueller & Oppenheimer, 2014). If this is the case and expectations towards students remain the same, digital learning will take more time and be more frustrating than conventional learning as less is achieved at the same time, which might lead to stress. But there are more ways in which technologies shape the students.

Moreover, there might indeed be more texts accessible in a shorter time using laptops and the internet but reading texts on the screen leads to a lower reading comprehension compared to reading on paper as a meta-analysis has shown (Kong, Seo, & Zhai, 2018). Besides having side effects on the parameters that they aim to improve – in an educational model having a too reductionist conception of education and learning as I argued in the previous subchapter – technologies can inhibit academic performance more generally as well. In the past, research has shown that frequent use of laptops in schools was related to lower performance (Woessmann & Fuchs, 2004). Similarly, in universities, laptops are known to influence student learning negatively because they are a source of distraction. During lectures, students tend to engage in other activities on their laptops like instant messaging that

are related to lower academic performance (Fried, 2008, pp.906-914; Sana, Weston, & Cepeda, 2013, pp.24-31; Kraushaar & Nowak, 2019, pp.241-251).

3.4.3 Competence, Responsibility, and Well-Being

This is not to say that technologies are negative per se or that the negative effects of technologies outweigh the positive ones. Instead, the problem lies in the clear distinction between the technology and the context within which it is deployed. Accordingly, the split between the individual and the environment results in a question about responsibility. If it is neglected how the environment including digital technologies shapes (and harms) the individual – no matter how many benefits digital technologies bring – they need to bear the consequences of this influence and are responsible for counteracting these harms. Thus, when students are necessitated to sit in an unhealthy position, this will have severe long-term consequences for their health. Now, the student needs to come up with a solution for that individually. Either the student engages in physical activity to compensate for the lack of movement experienced at university or simply accepts the negative consequences regarding their health. The same holds for other effects of digital technologies that all have their advantages but also might impair reading comprehension, memory, or academic performance.

When knowing that students take longer to complete certain tasks like reading or memorising if these tasks are performed digitally, the university needs to take this into account by, for example, giving students more time to complete their tasks. If the expectations stay the same, but students get less out of the lectures or their readings, they will necessarily have to spend more time on achieving the same goals using technology and therefore an increased workload. Thinking back of the psychological basic needs in SDT, competence was defined as the perceived ability to make use of one's skills to reach a specific goal. The decrease in efficiency and the necessity to spend more time on the same materials autonomously to reach the same goals could, I argue, deteriorate competence and lead to frustration and with that to more stress.

Additionally, the new possibilities that technologies offer might also create a demand to exploit these possibilities – at least when purely regarding them as 'improving education' – to reference the Dutch ministry of economics – without taking the side effects into account. The opportunities of accessing more scientific papers and writing more quickly might lead to the expectations that students do so as well. At the same time, the negative effects of the technologies like distraction or lower reading comprehension on screens are not sufficiently regarded in the current paradigm of linear progress where the individual student is regarded as independent of their environment. This simultaneous increase in expectations and neglect of side effects could be a source of stress in students.

4. How Can the Current Educational Model Be Improved?

4.1 Introduction

So far, I identified three morally problematic assumptions embedded in digital technologies and policies of higher educational institutions. First, the assumption that learning is merely a means to achieve certain objectives like good grades or a well-paid job contradicts itself because students regarding learning as part of their personal development perform better on exactly these scores. Furthermore, it is ethically problematic since autonomy is, as previously argued, an essential component of well-being, which is threatened by external regulation. Second, the implicit idea of disembodied learning is normatively precarious as the associated neglect of the body leads to both an impairment of students' competence and deteriorated health. In addition, taking an SDT perspective, the neglect of the body in distance learning threatens the students' relatedness. Finally, the bifurcation between subject and object regarding students as independent of their environment yields ethical issues because universities do not sufficiently account for the side effects digital technologies have on students. This deteriorates the students' competence.

In order to provide a proper solution to the issue of students' well-being, it is necessary to revise the assumptions of the current tertiary educational model and to translate them into new policies and technologies. Instead of formulating an exhaustive list of concrete policies, I postulate three assumptions based on the revision of the previously identified ones and give examples for policies grounded in these revised assumptions. Importantly, the aim is not to come up with thick philosophical ideals upon which universities should build their educational model as this would go beyond the scope of this thesis. Also, there might be good reasons to disagree on thick philosophical theories and questions like the mind-body problem or philosophy of technology. Rather, I provide three minimum assumptions that universities should aim for in their educational model including policies and technologies they deploy. Thus, instead of endorsing, for example, a concrete theory of body and mind like monism or interactionism, I provide the suggestion to incorporate the body in tertiary education. Accordingly, the three assumptions are (1) self-endorsed learning, (2) embodied learning, and (3) the co-constitution of the individual and their environment.

First, self-endorsed learning entails that students should learn because they want to learn rather than instrumentalising themselves for some extrinsic, measurable outcome. This also includes a critical perspective on quantification and a strive for efficiency that is often embedded in technologies. Second, embodied learning implies that the body should be regarded as a valuable source of knowledge instead of purely focusing on the mind. In practice, this means that education should not only focus on intellectual virtues but actively incorporate and engage the body. Third, acknowledging

the co-constitution of individuals and their environment results in adjusting either the expectations of the university or the (technological) environment. Besides fulfilling these new assumptions, the policies I endorse in this chapter have to align with the theory of well-being I endorse in this thesis by fostering intrinsic aspirations and the three basic psychological needs for autonomy, competence, and relatedness.

Finally, there is the issue of how to implement these changes and to what extent universities can impose such a perfectionist ideal on students. Who should have a say in which technologies and policies universities should deploy and to what extent can universities interfere with students' autonomy to protect and promote their well-being? These questions are again related to the theory of well-being one endorses. On the one hand, liberal anti-perfectionist proponents of desire-satisfaction theories would probably argue that all desires should be regarded in a democratic process and any interference with a rational individual's autonomy is morally problematic. On the other hand, advocates of perfectionist theories might worry that certain desires might hinder students from becoming who they want to be. In this thesis, endorsing a perspective based on *eudaimonia* and SDT, I argue for an educational model enabling students to make decisions that will benefit them in the long run, while minimising, although not entirely avoiding, issues of paternalism.

4.2 Self-Endorsed Learning

4.2.1 Introduction

The first assumption I suggest universities to integrate into their educational model regards the goals of education. Instead of proposing clear goals of education on which people can reasonably disagree, I simply pose that learning should be self-endorsed. This refers to students' autonomy and means that they should learn something because they want to learn it rather than being steered by external regulation like money or grades functioning as punishment or reward. I chose the term self-endorsed learning rather than autonomous learning not to suggest that learning should happen without any guidance which is not what I endorse at all because guidance in the form of feedback fosters students' competence. This means that the controlled learning environment enforcing pre-defined goals with extrinsic rewards and punishments like grades or the BSA should be overcome. Instead of learning with an outcome, as *poiesis*, to acquire pre-defined skills, to get good grades, or to get a 'good' job, learning should be regarded as a *praxis* meaning that students should learn just in order to learn.

In accordance with SDT, students should be granted autonomy regarding the decision of what they want to learn at university. This can be done by refraining from clearly defined learning goals and granting students the autonomy to study and research what they find interesting. In this case,

autonomy would be protected, and the process of learning would contribute to the students' character development. As the students in the studies of Colver (2018), Saunders (2006), and Ku et al. (2014) suggest, students, who regard education as part of their personal development and are intrinsically motivated, perform better. Additionally, autonomy can prevent students from dropping out (Vallerand & Bissonnette, 1992). Thus, reducing external regulation promotes both students' autonomy and personal development and therefore students' well-being. In line with that, a perceived lack of autonomy in students could predict negative affect, thus, symptoms like anxiety and depression – exactly the issues students at the UT struggle with as I mentioned previously (Jang, Reeve, Ryan, & Kim, 2009; Niemiec, Lynch, Vansteenkiste, Bernstein, Deci, & Ryan, 2006; Kelders et al., 2019).

While a certain degree of autonomy is already granted in some courses at the UT through essays about freely chosen topics, it should also include decisions about courses. A good example of such freedom to learn can again be found in University College Twente (ATLAS⁸) where courses are not fixed but students can choose autonomously in which area they want to deepen their expertise. Moreover, ten per cent of the credits in ATLAS are obtained in activities related to personal development like arts, music, sports, teaching, or other areas of science (University of Twente, 2020c). In line with that, students should aim for intrinsic aspirations like personal growth or contribution to a community. That way students' psychological need and therefore their well-being can be promoted. Such a shift could result in several different policies of which I want to discuss some examples in this section.

4.2.2 Deemphasising Grades

The major issue regarding the instrumentalisation of learning is grading as this is where learning is turned into a *poiesis*. By quantifying learning into a grade, the output gains importance over the process. The most obvious but also idealist solution based on this critique is to get rid of grading. Such a policy has been implemented at the ATLAS, where students do not receive grades unless they choose for external courses (University of Twente, 2020c). This way, the autonomy of students and with that their well-being can be promoted.

At this point one might object that to a certain degree, grading or at least a certain form of assessment is currently still necessary for mainly two reasons. First, it needs to be proven that students made progress during the course and attained their learning goals. Second, a certain type of extrinsic motivation is necessary for students as it is unrealistic to expect students to be continuously

⁸ Technology and Liberal Arts & Sciences

intrinsically motivated. Still, as previously argued, students tend to be less autonomously motivated in a controlled learning environment. If grading is still regarded as necessary, there is at least the possibility to assess students via open essays about self-chosen topics. The ability to choose a topic themselves grants students more autonomy. Moreover, when students write an essay, they need to engage more deeply with the topic. Instead of only remembering theories, they have to be able to apply it and to internalise it to the extent that they can form an opinion about it.

Although this approach is less idealistic, feasibility concerns arise as grading essays takes significantly more time and resources. Therefore, more personnel would be needed for grading the same number of students. There are two replies to this objection. First, such an investment would be worth it as students engaging more deeply in their topics and getting more personalised feedback would also be able to contribute more to society. This would both benefit society and the students, who can fulfil their intrinsic aspiration for contribution to a community and their basic needs for autonomy, competence, and relatedness. Second, universities, currently investing huge amounts of money in digitalisation, could re-evaluate whether a part of this could better be invested in teaching – to protect and promote students' well-being.

Finally, there is the libertarian objection that some students might actually desire to take multiple-choice instead of writing open essays on self-chosen topics. The problem is that such a desire would conflict with the students' psychological basic need for autonomy as open essays would allow students to make a choice of what to study. In addition, a testing moment is always to a certain degree conflicting with a student's autonomy because it creates a moment of extrinsic regulation guiding the student's behaviour. Therefore, a reasonable compromise could be to ask students to prepare a certain topic not for an exam but expect them to explain the content to their fellows (Benware & Deci, 1984). This method can promote the need for relatedness as students can actively contribute to their fellows' progress.

4.2.3 From Extrinsic to Intrinsic Aspirations

Another way in which learning is turned into a *poiesis* works via students' extrinsic aspirations as they choose their studies not because they regard them as interesting but rather because they hope to get money, status, or prestige in the long term. However, the question is how far universities can go in imposing their view of well-being on students. This is especially important for the question of how to both foster intrinsic and counteract extrinsic aspirations, which is an interference with values at least some students currently have. It might sound elitist, and paternalistic to claim which values or life goals are laudable and which ones are not, but there are arguments for doing so. Again, contrary to

the beliefs of students with extrinsic aspirations, intrinsic aspirations generally lead to higher SWB and the fulfilment of the three basic psychological needs, while extrinsic aspirations tend to lead to the opposite (Kasser & Ryan, 1993; Kasser & Ryan, 1996; Ryan et al., 1999; Lekes et al., 2010; Martos & Kopp, 2012; Romero et al., 2012; Nishimura et al., 2019). This is because by engaging in tasks that only serve the purpose of generating money, fame, or status, one instrumentalises oneself during these tasks for which one is not autonomously motivated. Moreover, although they are not mutually exclusive, higher intrinsic aspirations are related to lower extrinsic aspirations and vice versa (Grouzet et al., 2005). But how can such a value shift be achieved?

Generally, the shift from extrinsic towards intrinsic aspirations is a rather new topic and additional research is needed but there are already reviews on policies and interventions to such a shift (cf. Kasser, 2016; 2018). Kasser (2016; 2018) identifies three ways in which extrinsic aspirations can be diminished, which are (1) promoting intrinsic aspirations, (2) inward reflection, and (3) decreasing the exposure to social models reflecting extrinsic aspirations. But how do these strategies work in practice?

Regarding (1), the promotion of intrinsic aspirations can occur in several ways for which I give three examples. First, experiencing nature can foster intrinsic aspirations (Weinstein, Przybylski, & Ryan, 2009). Second, transcendent values like spirituality or religion have similar effects (Stillman, Fincham, Vohs, Lambert, & Philips, 2012; Dechesne et al. 2003). Finally, reflecting on the importance of one's intrinsic aspirations, for example, by writing short essays and regularly thinking about these aspirations, leads to such a shift in aspirations as well (Lekes et al., 2012). However, a long-term follow-up did not take place here. In respect of (2), inward reflection can lead to a shift from extrinsic towards intrinsic aspirations. For example, merely reconsidering one's ranking of intrinsic and extrinsic aspirations led to valuing intrinsic aspirations higher and extrinsic aspirations lower (Sheldon, Arndt, & Houser-Marko, 2003). Further, mindfulness and gratitude reflection⁹ can facilitate such a shift in aspirations (Brown, Kasser, Ryan, Linley, & Orzech, 2009; Schultz, Ryan, Niemiec, Legate & Williams, 2014; Lambert, Fincham, Stillman, & Dean, 2009). Nevertheless, the reasons why inward reflection affects one's aspirations are still underexplored (Kasser, 2018, p.7). Finally, concerning (3), social models reflecting extrinsic aspirations can be reduced by banning advertisements, which are responsible for the creation of extrinsic aspirations. Also, decreasing media consumption leads to a decrease in extrinsic aspirations – not only because of the advertisements but because extrinsic aspirations are generally portrayed as desirable in media (Lenka, 2014).

⁹ Gratitude reflection describes the process of focusing on highly appreciated moments in life for which one is thankful.

But how can such interventions be translated into university policies? Interventions based on inward reflection or promoting intrinsic aspirations could be offered voluntarily in the students' leisure time or they could be implemented in one or two 5 ECTS-courses in the first year of any Bachelor's programme. Implementing such a module built around personal growth and reflection in higher education could be a realistic and feasible way to foster intrinsic aspirations. The greater question is whether such a module should be mandatory or not. Policies based on social modelling could entail bans of advertising or media like smartphones. Furthermore, universities could reflect on which ideals they want to promote. The current trend of endorsing entrepreneurship and innovation could be steered in a way that it is related to intrinsic aspirations rather than extrinsic ones. Also, teachers could be encouraged to model intrinsic rather than extrinsic aspirations. The question emerges of which of these policies universities should endorse and which ones would be too paternalistic or too ineffective.

Offering reflection and personal development only next to the study programme would be an example of such an ineffective policy. It is unlikely that students having strong extrinsic aspirations would see the value of such a course because their extrinsic aspirations tend to be linked to lower intrinsic aspirations like psychological growth – the goal of such a reflection course. Additionally, students already have a certain study load that they need to manage which means that they already need a certain motivation to participate in such a course in their leisure time. For these reasons, I argue for implementing such a personal development course in the curriculum. But should it be mandatory?

At the first glance, making such a course mandatory seems to be highly paternalistic and contradicting the idea that education should promote students' autonomy by granting them opportunities to make choices. However, such a course is not more or less paternalistic than any other mandatory course at the university. It is rather a new learning goal that is added to the curriculum. Also, when not making such a course mandatory, again, there is the danger that those students with the strongest extrinsic aspirations, thus, the ones, who would benefit the most from such a course, are the least likely to take such a course. Finally, the autonomy gained by letting students decide whether to take such a course might be outweighed by the autonomy students with extrinsic aspirations sacrifice when being in a job or a study they only value for the attainment of these extrinsic aspirations. Students might even endorse such a course after taking it, although they might be sceptical in the beginning. In any case, such a personal development-course should be structured in a way that it still grants students autonomy by letting them choose reflection methods suiting them and by refraining from external regulation like grading.

Regarding social modelling policies, media or smartphone bans intending to minimise social modelling of extrinsic aspirations would interfere with students' autonomy as they neither experience control over their behaviour (to use a smartphone) nor are they objectively in control of that behaviour. Here, banning advertisements from campus seems to be the less paternalistic policy because advertisements themselves shape students' desires by bypassing their deliberative decision-making capacities. Furthermore, university teachers modelling intrinsic aspirations are also a way to increase students' intrinsic aspirations without directly interfering with their autonomy.

4.3 Embodied Learning

4.3.1 Introduction

The second assumption for a new educational model is embodied learning. This is not to say that there is a particular theory of body and mind that universities should endorse as this would be too controversial. The policies suggested in this subchapter merely rely on the idea that instead of assuming that learning only happens in the brain or the mind, universities should aim to activate the whole body as this can benefit the students' learning process and their health. By benefitting the students' learning process, their competence can be promoted. Also, health is regarded as an intrinsic aspiration and physical activity is related to an increase in feelings of happiness and subjective vitality that give people energy to fulfil their psychological needs (Ryan & Frederick, 1996). But how can universities incorporate the students' bodies?

4.3.2 The Physical Environment

First, a feasible way of overcoming disembodied learning lies in adjusting the general physical setting of education – in the classroom and on campus. Currently, the neglect of the body in the classroom is related to impairments regarding learning and health by shaping the body in undesired ways. Therefore, I propose to change the classroom in a way that it overcomes this neglect of the body. This might result for example in different classroom settings and different content of education. Chairs and desks could be replaced by standing tables. In addition, classes, buildings, or the campus could be equipped with sports equipment to promote physical movement. These measures have already been taken in Finland where at least schools exist possessing these standing desks and iron bars where students can perform pull-ups during the classes (SWR, 2017). Also, at the UT, there is an outdoor gym that students could use. Hitherto, research has shown that integrating physical activity in the

classroom led to higher effort, perceived competence, and intrinsic motivation (Vazou, Gavrilou, Mamalaki, Papanastasiou, & Sioumala, 2012).

The proposal for more physical activity in education can be criticised in two ways: first, there might be the argument that physical movement would impede communication of knowledge because of the more dynamic classes. Second, one might refer to the lack of movement as a societal issue regardless of education. The first objection is strong. Obviously, there are learning materials that cannot be taught when the students are moving around. However, a reason why students have difficulties with concentration and attention, is the lack of movement as research with children has shown (Bailey, et al., 2009, pp.1-27). For this reason, I suggest acknowledging and including more space for physical activity in universities. This demand is in line with research indicating that a reduction of physical education did not lead to improved academic performances even though more time is spent in the classroom (Trost, 2007).

Nonetheless, this does not solve the problem of distracted students and noise in the short term. Therefore, the sporting devices should not be used during the lectures or tutorials, but only during specific breaks serving the purpose of recreation. These breaks should take place regularly in order to prevent students from getting distracted. The second objection can be countered by referring back to the role of education. When agreeing that education should be promoting well-being, physical activity can do so as empirical research showed that it led to happiness and subjective vitality providing the basis for the fulfilment of one's basic psychological needs (Ryan & Frederick, 1996). Additionally, the increase in attention, concentration, and academic performance leads to an increase in students' competence. Then, it follows that educational institutions have the task to promote physical activity as well.

Still, a significant difference between schools and universities is that schools are educating children and universities are educating primarily adults who already completed primary and secondary education. In the case of educating adults, concerns regarding autonomy weigh significantly heavier than in the context of school education. While it is adequate to demand from children that they should move, this would be morally problematic in the context of universities as it would interfere with the students' autonomy. In addition, not all students are physically able to use sporting equipment or to do physical exercises. Making such exercises mandatory would lead to discrimination or at least emphasise differences between students able to perform such exercises and students who are not able to do so. In total, mandatory exercising does not seem to be a viable option at universities.

However, this does not mean that the university should not take a stance on the question of whether exercising is desirable. Universities can actively promote physical exercises without forcing students

to do so. At this point, I want to mention the policy of the ATLAS programme in which credits are not only given for regular courses but also for time spent in sporting associations. In addition, universities can highlight the benefits of physical movement for the brain. This is done in Finnish schools where posters of brain areas demonstrate the positive effects of exercising (Römer & Hämäläinen, 2016). Thus, in comparison to the current system in which exercising in the breaks would differ from the social norm, which might inhibit students from doing so, universities could help normalise such physical activity.

4.3.3 Outdoor Teaching

Aside from changing the inventory of the classroom, there is the possibility to redefine the whole 'classroom' by introducing regular 'walkshops' in which the teacher goes outside for a walk with students in order to discuss the study material. Such an idea seems rather idealistic because certain teaching methods and lecture contents are bound to the classroom and there might be accessibility concerns. Still, during the COVID-19 pandemic in 2020, University College Middelburg started replacing several online classes with outdoor classes (van Bekkum, 2020). Walking outside having discussions challenges the strict focus on the mind as the body is more active. In line with that, the setting also changes the content of the lecture. Students are rather seen as active contributors instead of passive participants. Such a setting might lead to more discussions granting the students more autonomy.

At this point, one might object that some studies like physics or mathematics might not be strongly based on discussions and that outdoor teaching might be rather problematic. In order to respond to this critique, I want to highlight the importance of the goals of education. As argued previously, learning is more than the pure accumulation of knowledge to reach pre-defined learning goals. If there is no room for discussion and reflection in a certain study, it is the programme that needs to adapt – not the teaching method. Especially in the natural sciences and technological programmes, discussions are important to reflect on the possible impacts of technologies and how they are not just tools. Though, such changes require time, which is why it might be reasonable to implement outdoor teaching in an experimental way to test how well it functions. Also, the idea is not to replace all classes with outdoor teaching but only to regard it as a viable alternative to classroom and especially online teaching. All in all, outdoor teaching seems to be a promising way of overcoming the current problematic assumptions of the tertiary educational model. By implementing it as an alternative to online teaching, one could promote students' relatedness as students would be able to form

communities. Another advantage of outdoor teaching in the woods is that natural environments promote valuing intrinsic aspirations and therewith well-being (Weinstein et al., 2009).

Also, in this case, there is the question of whether outdoor teaching should be made mandatory. As argued in chapter 3.2, making lectures or tutorials mandatory includes external regulation because students who do not attend a mandatory lecture would have to be punished. Such external regulation contradicts students' autonomy. What can be done instead is to include outdoor teaching in one's repertoire as an alternative 'classroom'. It is already usual to have lectures in altering locations and to use different teaching methods. If outdoor teaching is planned as an alternative for online teaching, accessibility needs to be guaranteed for all students.

4.4 Co-Constitution of Individual and Environment

The third assumption I want to propose for universities is to consider how individuals and their environment shape each other. This also holds for technologies. Instead of only following the trend of digitalisation, universities should play a critical role in deploying new technologies and policies. Of course, deploying digital technologies yields several advantages as well and just opposing digital technologies does not seem to be a fitting solution. However, if technologies are used that have detrimental effects on students' academic performance in any possible way, universities need to adapt their expectations in a way that it accounts for these detrimental effects and implement mechanisms to counteract potential negative implications on students. As stated in chapter 3.4, besides the distracting potential of laptops, taking notes by hand generally leads to greater recall of facts and deeper processing of complex information (Mueller & Oppenheimer, 2014, pp.1159-1168). However, there might be some students for whom manual notetaking might be more difficult than making use of the supporting technology. Additionally, there might be the issue that some students simply want to use laptops. Banning laptops from the classroom entirely is therefore morally problematic. But again, this does not mean that the university has to remain neutral on this issue. Teachers can actively encourage students not to use their laptops during classes and enlighten students about the positive effects of taking notes by hand. Also, universities can distribute information about this issue so that students can make a better-informed decision.

Conclusion

In this thesis, I investigated the following research question: **How does the deployment of digital technologies in tertiary education affect students' well-being, and how should the tertiary educational model protect and promote students' well-being into account?** I answered this question in four steps. In the first chapter, I endorsed an objective list theory of well-being combining empirical and philosophical work, namely Aristotle's notion of *eudaimonia* and Self-Determination Theory (SDT) from psychology. Accordingly, I defined well-being as nature-fulfilment through self-determination based on intrinsic aspirations like psychological growth, meaningful relationships, and contribution to a community, and the three related basic psychological needs for autonomy, relatedness, and competence (Deci & Ryan, 1985). While relatedness refers to the degree to which an individual is meaningfully and deeply connected with others, competence describes the perceived ability to deploy one's capabilities to achieve a certain goal. Finally, autonomy describes the degree to which an action is experienced as self-determined, and the subject is convinced of their own action. Furthermore, I argued that intrinsic aspirations are preferable life goals than extrinsic aspirations like money, image, or status as striving for these aspirations might lead to an instrumentalisation of oneself and one's actions (cf. Kasser, 2018, p.5).

In chapter two, I identified three assumptions of the current tertiary educational model that are embedded in policies and digital technologies. What unites these assumptions is the idea that digital technologies provide linear progress in education. While technologies offer new opportunities and benefits including more easily accessible learning materials or faster writing and grading, there are also downsides of fulfilling these ideals. Thus, the idea of linear progress entails a presupposition of what this progress entails, and which parameters can be disregarded. In this thesis, I revealed that such an ideal of progress in higher education is seen in three assumptions, which are (1) learning is merely a means to an end, (2) learning is disembodied, and (3) the individual student is independent of their environment.

The idea that learning is merely a means to the end of getting a diploma to be ready for the job market can be seen in technologies like automated grading of multiple-choice exams in a schoolified educational model that regards learning and studying merely as an accumulation of knowledge (Sarauw, 2012). Personal development and deeper reflection of the learning materials play a subordinated role in such a learning environment that is strictly controlled using regular exams, mandatory lectures, and short intensive 15 ECTS learning modules. Second, there is the assumption of disembodied learning in the current educational model. This means that the mind is the centre of the self, while the body can be neglected when it comes to learning. Such disembodied learning can

be seen in the classroom setting but also in technologies like laptops that demand the body to remain passive. Beyond that, in distance learning, the physical body of students does not play any role. Third, there is the idea that learning happens in the individual independently from their environment, which can be seen in universities regarding tasks like memorising as solely done by the student rather than in co-constitution with digital technologies.

In the third chapter, I argued that these assumptions are morally problematic because they threaten students' well-being. First, learning as mere means to an end manifested in the schoolification hinders students from learning autonomously as it prescribes what students should learn. According to SDT, such lack of autonomy deteriorates both intrinsic motivation and SWB. Mirroring Seneca, one could argue that in such a schoolified educational model, one learns for school rather than for life. Second, regarding disembodied learning, empirical research suggests that tasks like reading or memorising work significantly better if there is a physical component like a book or if the body is involved by manually writing (Sparrow et al., 2011; Mueller & Oppenheimer, 2014). Accordingly, performing the same task digitally leads to poorer learning outcomes and therefore requires students to expend an additional effort to reach the same result that they would have achieved without these technologies. Especially distance learning yields moral implications as physical presence is an important condition for forming relations with teachers and students. Therefore, the psychological basic need for relatedness is threatened. Third, the idea of the individual independent from their environment entails that universities do not sufficiently consider how students are shaped by their (technological) environment. Moral issues arise if side effects like a deteriorated performance of students in cognitive processes such as memorising are not considered in the expectations that universities have, and students are regarded as individually responsible for their learning outcomes. What is ethically problematic is the stress and the lack of competence students may experience due to these expectations that become more difficult to fulfil in a digitalised learning environment.

Finally, in chapter four I revised these assumptions based on the previously formulated critique in a way that universities protect and promote student's well-being. The revised assumptions are (1) self-endorsed learning, (2) embodied learning, and (3) the co-constitution of the individual and their environment. Self-endorsed learning can be realised by deemphasising grades, asking students for open essays instead of multiple-choice exams, and by giving them more choice about what to learn (cf. Niemiec & Ryan, 2009). That way students autonomously select a topic, engage with it more deeply and form an opinion on it. Furthermore, I suggest including a personal development and reflection course in the curriculum which is positively related to intrinsic aspirations and therefore as well to the basic psychological needs for autonomy, relatedness, and competence. Embodied learning can happen through incorporating the body in physical teaching methods like modelling. Also,

standing desks in the classroom, sporting equipment on campus, and outdoor teaching could counteract the neglect of the body. Finally, granting students more time for assignments taking longer due to detrimental side effects of technologies and encouraging students to not always use technologies can overcome the assumption of the context-independent individual.

Accordingly, future research could figure out thicker philosophical assumptions that the educational model should be based on. It would be interesting to investigate what an educational model based on a specific theory of body and mind like monism or interactionism would look like. What would the differences between these models be and which different ethical implications would they yield? The same questions could be asked for a thick philosophy of technology. All these questions go beyond the scope of this thesis but matter regarding the question of how the assumptions of an educational model and the technologies deployed in such a system can promote students' well-being.

A limitation of this thesis is that it did not itself conduct empirical research about how the assumptions embedded in university education affect students' basic psychological needs. For future research, UT-students in TOM could be compared with ATLAS students regarding the differences in their basic psychological needs and their aspirations because some of my suggestions are already embedded in ATLAS. If it is indeed the case that ATLAS students are better off than TOM students, issues regarding social justice will emerge that need to be researched. This is because ATLAS (like other Dutch University Colleges) has certain meritocratic entrance criteria and charges twice the study fees of regular Bachelor's programmes.

Despite its limitations, this thesis can contribute to the philosophical discourse on well-being by providing arguments for combining critical philosophical reflection with empirical psychological findings. This especially holds for the discussion on what humans should strive for as empirical literature and philosophical arguments suggest that intrinsic aspirations for psychological growth, meaningful relationships, and contribution to a community are preferable compared to extrinsic aspirations for money, image, and status (Kasser & Ryan, 1996). Furthermore, this thesis can practically contribute to students' well-being because of the suggestions for how universities can protect and promote it. Still, these suggestions are not exhaustive and additional research combining philosophical reflection and empirical work is needed to conceive more policies.

Finally, a topic beyond the scope of this thesis is the societal impact of education and the theory of well-being it promotes. Nonetheless, the focus on self-determination and intrinsic aspirations does not only matter for individuals but also for a virtuous society. This is because of the dependence on material goods that is not only related to ill-being of individuals but also of society and the whole planet. In the 1970s, Erich Fromm (1976) already admonished that consumerism has severe

psychological and ecological consequences. Now, 44 years later, climate change, arguably an existential threat for society, is strongly related to material welfare and the consumption of resources (cf. Gore, 2020). This shows that a reorientation in values is not only beneficial for the individual but also necessary to avoid harm for the whole society. Besides the environmental impact, less materialistic individuals tend to act and think more benevolently towards others which is beneficial for society as well (Kasser & Ryan, 1993; Briggs et al., 2007). Accordingly, future research could investigate the broader societal benefits of a revised educational model based on a theory of well-being emphasising intrinsic aspirations and the three related basic psychological needs for autonomy, relatedness, and competence.

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