

A Spotify for textbooks

An initial analysis

Introduction

During the meeting of 6 November [2019?], the [Strategy Team](#) of the [ICT Education Innovation Acceleration Plan](#) announced its ambition to make a contribution to a model for digital learning materials comparable to Spotify.

The theme of digital learning materials is a complex one. In recent years, a lot of work has been done to map out existing processes. This work has investigated what interventions could be made to break through established patterns in the digital learning materials chain. Given the difficulties and complications that have been experienced here, and the various visions on the functioning (or dysfunction) of the market for digital learning materials, the Strategy Team decided to spend more time taking stock of the situation.

This memo sketches the current status, what initiatives are currently being implemented, and what opportunities there are. From this, we will be able to determine what is needed to take the next steps.

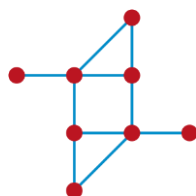
Current status

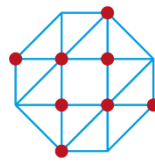
Digital learning materials

In contrast to paper-based materials, which are relatively uniform, digital learning materials come in many shapes and sizes. Digital learning materials also exist, of course, in the form of textbooks which are offered through a digital medium and are, to one extent or another, interactive. However, there are many other types of digital learning materials, such as digital mock exams, practice materials for software, VR/AR materials for educational use, video materials for educational use, and a broad spectrum of teacher-developed digital materials. Furthermore, new forms of digital learning materials are emerging as a result of developments in digitisation, for example, in the field of AI and analytics. Research universities and universities of applied sciences vary in the type of learning materials being used. At research universities, for example, academic articles or monographs play an important role.

The ability to combine different types of digital learning materials is hugely important to ensure an optimised learning process, a high standard of educational quality and alignment with professional practice. Digitisation offers opportunities to bring together multimedia content from various digital sources. In digital form, the content can be adapted more quickly and– in some cases– at a lower cost, and the available user data can be used as input for the adaptive ongoing development of the learning materials¹. Digital learning materials can be offered in an interactive and adaptive way. This allows students to study whenever and wherever they like in the way that suits them best, at their own pace and level. An understanding of how students learn is emerging from user analyses. This can help both the students and

¹ Source: Memo 'Leermaterialen digitaal, tenzij', Hanze University of Applied Sciences.





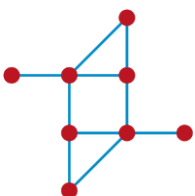
teachers to better gear the learning or teaching to the student's own personal level. The need to optimise the use of digital learning methods is linked to developments in teaching methodologies. If an institution wants to focus on digital teaching methods or, for example, on personalised education, it will have to enable and encourage teachers to develop their skills in this field. The need for a variety of available digital learning materials will then increase accordingly.

Students want to be offered the materials they need for their studies with as low a threshold as possible, preferably in their own digital learning environment. This includes textbooks (or excerpts from these), but also videos, knowledge clips, exam questions, etc., as well as any material that their teacher creates. In the case of teacher-created materials, this also includes materials created by other teachers, i.e. open learning materials. For students, it goes without saying that learning materials from commercial providers and open learning materials should be offered in an integrated way. For them, where the learning materials comes from is not that important.

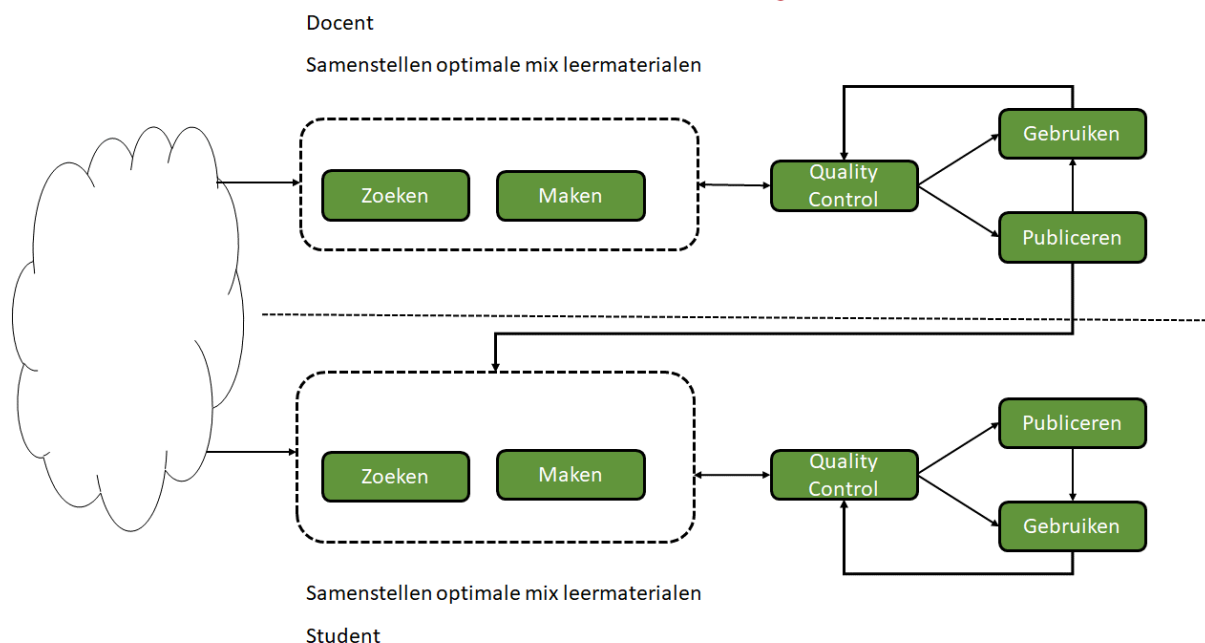
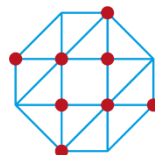
Given the ambitions of the Minister of Education² in relation to open learning materials, efforts towards an environment or platform where commercial and open learning materials can be offered in an integrated way would seem appropriate. The Minister of Education wrote about this in the Strategic Agenda for Higher Education: 'Even for students who work whenever and wherever they choose, there is a requirement to be able to use digital learning materials, including open learning materials. What's important is that the digital learning materials, the teaching environment and websites are accessible by all students and staff, and are therefore compliant with the relevant guidelines and standards'. And 'the ambition from the previous strategic agenda to ensure there is a significant share of open learning materials by 2025 remains, to ensure that sharing and reuse of learning materials become commonplace among teachers. This will have a knock-on effect on the learning materials market in which commercial publishers play a key role'.

The entire playing field for digital learning materials is a complex one, and the market for various forms of digital study materials is expected to look very different. In this memo, the focus is on the question of **whether digital learning materials, in all their guises, can be put to optimum use in the current situation in education and, if not, what obstacles are at play.**

The Towards Digital (Open) Learning Materials Zone has produced a process model (see graphic below) of the situation in which teachers determine what learning materials are used and students then choose from these materials to create an optimised mix for themselves. Communication about open learning materials between the teacher and the student will often centre around a teacher-curated list of compulsory and optional study materials ("the reading list"). A situation in which a student is creator or co-creator of learning materials (as part of an assignment within the learning situation in relation to teaching methods and concepts, such as *Open Pedagogy*) may also occur from time to time. Discussion of this issue in any greater detail here goes beyond the scope of this memo.



² <https://www.rijksoverheid.nl/documenten/rapporten/2019/12/02/bijlage-1-strategische-agenda-hoger-onderwijs-en-onderzoek-houdbaar-voor-de-toekomst>



Broadly speaking, the following stakeholders can be identified in the digital learning materials process: publishers, distributors, educational institutions, education support staff, teachers, student associations and students.

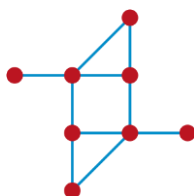
The market for commercial textbooks

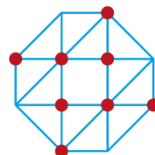
When examining the question of whether the use of digital learning materials, in all their guises, can be optimised for education, the market for commercial textbooks plays a key role. In relation to commercial digital textbooks, the chain involved in their purchase, delivery and use is largely organised in the same way as for paper-based textbooks. Broadly speaking, the chain looks like this:

Author (teacher) creates – publisher publishes – teacher selects – distributor sells – student buys

When trying to assess whether the market for commercial textbooks is functional and whether the benefits that digital learning materials offer in terms of the quality of education can actually be utilised, the following concerns emerge:

- During the development of digital learning materials (and the associated access), the fact that teachers themselves can curate an **optimised mix of learning materials** in order to support learning and teaching activities and assessment is largely ignored. This mix will often come from multiple sources, both commercial and open;
- Access to digital textbooks from publishers will often be through their own proprietary platform. Because of this, students and teachers must sometimes use a different platform **for each book or subject** and the opportunities to use commercial digital textbooks together with other (open) digital learning materials are extremely limited or even non-existent;
- The operator of a learning materials platform has access to **user data** and can use this for their own purposes. At present, this includes the platforms of publishers and other commercial providers. There are no over-arching





frameworks or agreements that regulate the use of user data apart from the GDPR.

- Students have to buy an **entire book** or several books even though they will only need to read or refer to a small section of it;
- There is a **high cost** associated with the purchase of newly printed books, even though there will usually only be minor changes compared to a previous edition. In digital publications, minor updates can be made easily, avoiding the need for readers to buy an entirely new edition;
- Materials are often **not immediately available**.

Possible models for access to digital learning materials

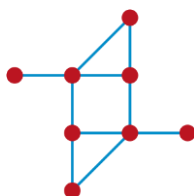
The concerns outlined above relate to the way in which the market for digital textbooks functions. In recent years, various efforts have been made to create other models for the market in study textbooks, a notable one being the eStudybooks project by SURF. The aim of this project was to offer study textbooks from publishers in a digital format for a reasonable price so that students can access their books whenever and wherever they want, online or offline, through a form of secure and direct access.

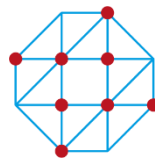
A summary of the findings of the eStudybooks project can be found in the appendices. The full evaluation report is available [here](#). The outcomes of pilots carried out with eStudybooks show that the development of a model that is acceptable to all stakeholders is not a straightforward process: it proved impossible to convince the market that they should be fully focusing on digital learning materials. The concepts tested proved not to scale well, the percentage of participating students was low (due to the lack of a distinctive offering) and the number of institutions that participated was also low.

The success of a new model for digital learning materials will come about as a result of combined action from institutions, teachers, students and publishers. A lot will depend on adoption of the model by students. Furthermore, the teachers and the broader education sector will also play an important role. Adoption will be higher if a study programme and the teaching staff are clear in their message that "we work digitally".

To increase adoption among students, it makes sense to look at other models. A model that has proved successful at a number of universities in the US and the UK is the 'inclusive access' model. The eStudybooks project carried out a study to assess the feasibility of this model in the Dutch context³. *Inclusive Access* is a licensing model in which students can be granted personal digital access to all teaching and learning materials from the first day of their studies. The role of the institution is that of facilitator. This model works in exactly the same way as the eStudybooks subscription model outlined above in accordance with the principle of '*Read what you need*'. Students may decide to decline this offer by opting out. Adoption of this model in the US is high, with only 5% choosing to opt out, making it a viable model in the US, with benefits for all participating stakeholders. A key contributing factor in the US is that the costs of learning materials are very high and that significant discounts (of up to 70%) can be granted through the '*inclusive access*' model. This ensures that many students find the offer a good deal. What's more, textbooks are

³ Feasibility study 'Inclusive Access, Innovalor', commissioned by SURF, December 2019. This will be published on the website of SURF in early February.





more widely used in the US than they are at Dutch universities, which generally use a more diverse range of digital learning materials (including articles and monographs).

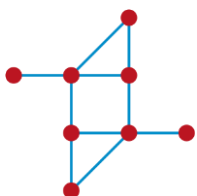
In the Netherlands, a corresponding version of *Inclusive Access* is not permitted: according to Dutch law, no transaction takes place where a student decides to opt out. What's more, the costs of learning materials in the Netherlands are not as high as they are in the US, and the publishers' margins are much lower. The scope for discounts will therefore be lower, making the offer less appealing for students.

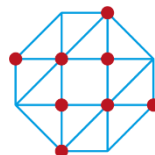
In the Netherlands, a student cannot be compelled to buy learning materials and pay the associated costs as a condition of enrolment on a study programme. In addition, the Minister of Education wrote to institutions⁴ telling them that research universities and universities of applied sciences may not prescribe the channel that students should use to obtain their learning materials. "Although institutions may prescribe books, syllabuses, learning materials (including digital) and assignments, they may not prescribe how students obtain their study materials. If institutions provide these materials, they may require students to pay a contribution, but they may not require students to buy these materials from the institution."

Apart from the '*inclusive access*' model, one party is active in the Netherlands in efforts to market a Spotify-like model for digital textbooks in the Netherlands. In contrast to the '*inclusive access*' model, this is an '*all you can read*' model in which you pay a fixed amount per month for access to all available learning materials. BUKU is one example of a platform that applies this model to learning materials.⁵ Publishers are collaborating in this model in an effort to find a foothold in countries like Suriname and Vietnam, where they have zero revenue because students currently download their materials illegally. In the Netherlands, publishers are only making their "*long tail*" titles available via BUKU. "*Core titles*" are only sold separately. Publishers have said that they are not willing to participate in this.

At the Hanze University of Applied Sciences, one of the study programmes used BUKU quite successfully because BUKU was able to offer the content needed by 1st and 2nd-year students as well as some supplementary content. For a study programme that allows you to study whenever and wherever you like, this is an important condition on top of what the Hanze University of Applied Sciences' own library offers students. Continuity is not assured because publishers did not want to commit to making the content available after two years. Students who had become accustomed to BUKU did not understand why they then had to switch to another platform, why they had access to less content or why they had to buy paper-format books again. For teachers, the discussion about the purchase of books raised its head once again in each class, while previously they could refer students to the BUKU platform.

⁴ Minister of Education, Culture and Science (Ms. J. Bussemaker). (28 April 2015). Letter to unspecified institutions, with copies to the Dutch Student Union (LSVb), the Dutch National Student Association (ISO), the Association of Universities of Applied Sciences (VH), the Association of Universities in the Netherlands (VSNU), and the Education Inspectorate, p. 5.
⁵(6 November 2019). See <https://buku.io/waarom-buku/> (in Dutch)





Business case in the Dutch context

The *lessons learned* from the eStudybooks project and the specific aspects of the Dutch context associated with these lessons mean that models that are successful in the US or UK will not work in the Netherlands if they are simply copied verbatim. Changes will be needed to make these work in the Dutch context. Developing a national model for access to digital learning materials (regardless of which model is chosen), will mean a major change for all stakeholders in the learning materials chain: teachers, students, publishers, distributors and study associations. This change will only be feasible if the stakeholders find sufficient benefit from it, and if they feel the urgency to switch to a new model.

At the moment, students and teachers alike have a great degree of autonomy in choosing their learning materials. Teachers have a great degree of freedom in the choice of learning materials that they consider relevant for their teaching offering. They recommend these learning materials to the students. Students can obtain access to these learning materials in a variety of ways. For example, they can obtain learning materials from publishers, study associations, platforms and from teachers. Students may also use learning materials from the library for free (although libraries only have a few copies available, even in the case of digital publications), by borrowing from others or by obtaining them illegally (illegal downloads).

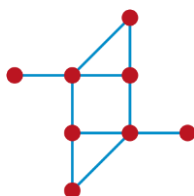
The issues which appear to drive the models in the US, such as inclusive access, or those of the *open textbook* movement, appear to be much less prominent in the Netherlands. These include the rising cost of learning materials in the US and the ensuing issue that less advantaged students cannot afford to buy the learning materials, and as a result are less successful in their studies. It is unknown whether the cost of learning materials in the Netherlands is on the rise. However, there are anecdotal signals (for instance, from research undertaken by Robert Schuwer and from ISO – the Dutch National Student Association) that students are buying fewer learning materials; substantiated information is not available.⁶

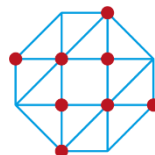
Conclusion

In this memo, the focus is on the question of whether digital learning materials, in all their guises, can be put to optimum use in the current situation in education and, if not, what obstacles are at play.

The analysis above clearly shows that there are obstacles that hamper the optimum use of digital learning materials in educational settings. The extent to which these obstacles are experienced as a problem varies and appears to depend, for example, on the teacher's or the institution's vision on digital learning methods, but also on variables such as whether the institution is a research university or a university of applied sciences, the sector in question, etc.

⁶ The eStudybooks project requested access to data on learning resource use and sales data on study textbooks from BME, a Groningen-based research group that collects and analyses data on behalf of Dutch publishers (see: <https://www.bmegroningen.nl/>). However, BME was unwilling to share its data with SURF because of the confidential nature of the data and because of the fear that granting access might have a detrimental impact on its good relationship with the publishers.





The fact that the drivers that motivate the various stakeholders to address the obstacles vary is also a factor in this. Furthermore, these drivers may also be either substantive (another type of material or multimedia material is needed) or related to the conditions under which the materials can be used, such as a reasonable price, intellectual property rights in the material, ownership, use of study data, whether it is possible to alter the materials or combine the materials with material from other sources.

A driver of a different type altogether is that presented by the danger that the higher education sector will lose control of digital teaching materials in favour of large commercial providers that might attain a dominant market position in higher education. If a commercial provider has a dominant market position, it might be able to dictate conditions: ownership and use of the data, whether or not it is possible to connect other content providers via a single platform (open standards) or enable a mix of digital learning materials, both from commercial providers and open learning materials.

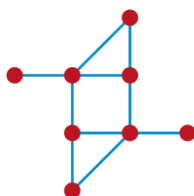
Even without going for an entirely new model for digital learning materials (such as *inclusive access* or a Spotify-like model), it is possible for the sector to take control of the conditions that we wish to establish for commercial providers or publishers before entering into partnerships with them. Those conditions might relate to how we want to handle user data, or to how we align with standards that make it possible to offer learning materials on a platform (across an institution or nationally) or integrate them in the key learning environments, and to conditions relating to the provision of digital learning materials under an open licence; this would make it possible for teachers and students to alter the materials to fit their own context or make it easier to combine them with other digital learning materials. These conditions are not only important for digital learning materials, but in a broader context also for commercial operators that the higher education sector does business with⁷.

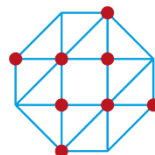
Next steps

To ensure that the next steps we take are worthwhile, it is essential that higher education actors develop a common vision on how we want to approach digital learning materials in our teaching practice (including commercial learning materials, open learning materials, academic articles, etc.). What role will there be for digital learning materials? How do we want to use these to facilitate our students? What outline conditions do we wish to set in relation to the role of publishers and commercial providers?

This question can only be answered by the sector itself, with the Towards Digital (Open) Learning Materials Zone taking the lead and availing itself of expertise from other zones (in particular the Teacher Facilitation and Professional Development Zone and Flexibilisation of Education Zone). In 2019, the Zone collaborated with Waag on a project to develop a future vision on digital learning materials. The vision

⁷ See also <https://www.volkskrant.nl/columns-opinie/digitalisering-bedreigt-onze-universiteit-het-is-tijd-om-een-grens-te-trekken~bff87dc9/> and <https://www.surf.nl/nieuws/samenscholen-of-verslonden-worden-we-moeten-afspraken-maken-over-open-standaarden> (both in Dutch)





had a long outlook, with a horizon spanning to 2035⁸. What we need now is a forward-looking vision for the near term which is more specific, so that the sector as a whole can work in a focused way towards this. A future vision on digital learning materials (open and commercial) with a roadmap for the steps that we can take together (within the Acceleration Plan), and the steps that individual institutions can take themselves.

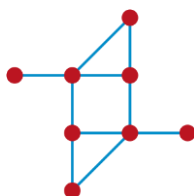
In order to ensure that this roadmap is well implemented, it is important that a good understanding of the existing situation is available. This concerns the specific situation in the Dutch higher education sector, and the differences that exist within it between research universities and universities of applied sciences, and perhaps even between the various sectors and disciplines. Answers to questions about the experiences in the current use of digital learning materials, about existing business models and about new initiatives to offer content will strengthen this understanding of the benefits that various stakeholders may have in a transition.

We will use the period ahead to:

- Develop a concrete vision of how the higher education sector wishes to use digital learning materials in its teaching practice, together with a roadmap of what steps can be taken in the next 5 years;
- Undertake a study to obtain answers, where possible, to outstanding questions about the current situation of digital learning materials in the Netherlands so that this understanding can serve as input for the next steps that follow.

In relation to point (1), the Towards Digital (Open) Learning Materials Zone will take a coordinating role. Delivery of this vision is scheduled for October 2020.

In relation to point (2), the strategy team will hire an external consulting firm to conduct this research. Their findings will preferably be delivered by September 2020. All existing reports and studies that have been produced in the context of the eStudybooks project will be made available to the consultants.



⁸ Hoe leer jij: een toekomstvisie op digitale leermaterialen (<https://versnellingsplan.nl/zones/digitale-leermaterialen/hoeleerjij/>)