OER and MOOCs in the Netherlands: current state of affairs

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Abstract

In the fall of 2015 the Research Group Open Educational Resources of Fontys University of Applied Sciences - School of ICT has conducted a survey into the production and/or reuse of OER and MOOCs by Dutch publicly financed Higher Education (HE) institutions: 15 research universities, 38 university of applied sciences and 8 university medical centres. The goal of the survey was to provide an overview of the current situation regarding the creation, sharing and reuse of OER and MOOCs. Until then information was anecdotal, mainly about individual projects and programs.

In this paper data are presented on the following three main issues: production and publication of open educational resources (OER) and Massive Open Online Courses (MOOCs), re-use of OER and/or MOOCs (motives, forms and target audiences) and the presence or absence of an institutional vision and policy. Some of the outcomes of the survey are compared with the results of two other surveys: the survey of the OER Research Hub and a survey on policy for OER in the Netherlands in 2012.

The results of the current survey indicate that on many places in universities (including university medical centres) and universities of applied sciences OER and/or MOOCs are being published and reused, but also that many institutions still lack a coherent vision or policy on this subject. The data of the survey, however, do no yet provide an overview on which conclusions may be drawn for individual institutions. Further research must enhance the current picture.

Keywords

Open Educational Resources, MOOCs, Dutch Higher Education, adoption of OER and MOOCs, Open Education policy formulation

Introduction

June 2015 the Dutch Ministry of Education, Culture and Science formulated an ambitious program for open and online education in the Netherlands in its Strategic Agenda "HO2025, de waarde(n) van weten" ("Higher Education 2025, the value(s) of knowing"). According to Minister Mrs. Jet Bussemaker: "I aim to ensure that all Dutch higher education institutions have made their teaching materials available in open format by 2025 (Open Access to Higher Education), propelling the Netherlands to a leading global position."(…) "As apart of this process, we must also ensure that the various Dutch higher education institutions recognise each other's MOOCs and Open Educational Resources" (Ministry of Education, Culture and Science, 2015, p. 30)

These ambitions are not to be seen as an end in it self. They are preconditions for the realization of a vision in which Dutch higher education has attained a high international

quality standard, providing more differentiated and more customized learning environments for students, and will employ highly qualified educational professionals. The sharing of learning materials must help to increase the amount of available high-quality materials, thus facilitating the realisation of rich learning environments and increasing opportunities for customized education. Open education has also to contribute to the realisation of other policy goals formulated in the strategic agenda, such as more internationalization.

The ambitions are in line with earlier initiatives from the Ministry, reaching from the program *Wikiwijs* to current incentive arrangements. The *Wikiwijs* program aimed at mainstreaming OER in all sectors of Dutch education and ran from 2009 until 2013 (Schuwer et al, 2014). The current incentive arrangements have started in 2013 and address the public higher education sector. In a period of four years, each year a call is set out for 1M€ for projects on open and online education (Ministry of Education, Culture and Science, 2014).

Individual HE institutions also initiate many activities, starting in 2006 with the OpenER program of the Open University in the Netherlands and soon followed by University of technology Delft and Leiden University. The year 2012 showed a boost in interest when the MOOC movement made policy makers at Dutch higher education (HE) institutions aware of open and online education. SURF, the collaborative ICT organisation for Dutch higher education and research, conducted a survey in early 2012 on the state of affairs of OER (SURF & Wikiwijs, 2012). One of the outcomes of this SURF survey was that Dutch HE institutions could use some help as to why and how to formulate institutional policies in open and online education. In 2014 and 2015 15 strategic workshops were organized on demand by SURF and the Special Interest Group (SIG) Open Education for HE institutions to support in policy making in open and online education (Janssen, Jelgerhuis & Schuwer, 2014).

The reasons for the Research Group Open Educational Resources of Fontys School of ICT to conduct a survey into the actual state of affairs of use and/or production of Open Educational Resources (OER) and Massive Open and Online Courses (MOOCs) were twofold.

First, although the ambition of the Dutch Ministry is clearly stated, it is yet very unclear what the state of affairs of sharing and use of (open) educational materials is. In order to formulate effective policies, at the Dutch national level, the level of SURF and the level of individual institutions, an insight into actual situation of publication and (re)use of OER and MOOCs is needed. The case of Delft University of Technology may well have become common knowledge, mostly HE institutions do not know of each other's activities and projects. Learning from experiments therefore hardly occurs and cooperation between institutions is minimal. At the time of the publication of the strategic agenda no data were available, other than the trend reports of SIG Open Education and anecdotal reportings during meetings and conferences.

The second reason was an assessment study commissioned by SURF in spring 2015, into needs of Dutch HE institutions for services (Rorije et al, 2015). One of the most frequently mentioned needs in this study was a platform for sharing learning materials. Another SURF study pointed at Sharekit as a potential candidate platform (Schuwer, 2015). This platform is currently used, inter alia, by HBO Kennisbank (HE Knowledge Bank). But before deciding to extend functionalities of Sharekit to support sharing of learning materials, more detailed information on the actual and future use and production of open learning materials by Dutch HE institutions is needed.

In the current survey, these two perspectives have been combined. In this paper the main results of this survey are presented. The full report – in Dutch - is available at: http://bit.ly/oermoocnl2016.

General information and response

The survey consisted of six parts, as outlined in Table 1.

Table 1. Structure of the survey

Part	Contents	Number of survey questions
1	General information	4
2	OER publishing	17
3	MOOC publishing	9
4	Reuse of OER and/or MOOCs	21
5	Policy	2
6	Other	1

The questions in part 1 relate to the type of institution (research university, university of applied sciences or university medical centre), type of function of respondent (management, lecturer/ (assistant) professor, researcher or supporting staff functions), discipline and scope (section, department, institution, cross-institutional collaboration). All questions in part 1 were obligatory. Of parts 2, 3 and 4 only the first questions were obligatory: do you publish and/or reuse OER and /or MOOCs? Depending on the answers the other questions of these parts were shown to the respondents. Part 5 consisted of two questions concerning the presence of an articulated vision and the presence of a policy for publishing and/or reuse of OER and/or MOOCs. In Part 6, finally, comments could be given.

To compare the results with surveys carried out elsewhere, some questions from those surveys have been used (SURF & Wikiwijs, 2012), (De los Arcos et al, 2015).

In the current survey the targeted people were everyone working at one of 15 research universities, 38 universities of applied sciences or 8 university medical centres. To reach as many respondents as possible people could fill in the survey anonymously. At the same time, the aim was to reach all categories of stakeholders in the educational institutions.

The following channels for reaching people have been used:

- SURF approached its liaisons within the institutions and asked them to distribute the survey within their institutions
- SURF approached people who previously had participated in events around open and online education
- The core team of the SURF SIG Open Education was asked to distribute the survey in their networks
- People in the networks of the researchers were approached
- In presentations at two conferences participants were invited to take part in the survey

The survey was open from November 24, 2015 until December 9, 2015. A reminder was sent out through the various channels during the week of November, 30, 2015.

It is estimated that at least 300 people were invited to participate in the survey. Since the exact number is not known it is not possible to calculate the non-response.

In total 181 people have participated in the survey. From the 181 questionnaire forms 140 proved to be useful: 119 survey forms had been filled in completely and 21 forms were useful albeit incomplete. A useful survey contains more data than just the general information. Respondents came from 23 universities of applied sciences (67%), 5 university medical centres (63%) and 15 research universities (100%).

The majority of respondents indicated to be faculty: *lecturer/(assistant) professor* (37%) or *lecturer/researcher* (9%). The second largest category was respondents who indicated that they were *supporting staff* (41%). The category of *management* comprised 14% of respondents. Due to rounding errors the numbers do not add up to 100%.

The majority of respondents came from the disciplines of *mathematics, science and information technology* (26%), followed by *education and teacher training* (19%) and technology (12%). 14% of respondents indicated to belong to the category *general*.

As to the *scope* of the answers, 54 out of 140 respondents (39%) were related to the level of *department* and 34% (48 respondents) to the level of *institution*. 14% of respondents indicated that their responses applied to the level of *disciplinary section*.

Producing and publishing of Open Educational Resources

According to 45 respondents coming from 12 of 23 universities of applied sciences, 4 of 8 university medical centres and 10 of 15 research universities, there is some form of producing and publishing of OER within their institutions.

The three main forms of produced OER are videos (79%), web lectures/presentations (47%) and components of a course (47%). The motives or reasons for producing and publishing OER are: (1) to provide students with online self learning materials (81%), (2) because sharing is a core value of science (50%), and (3) to provide students the opportunity to prepare themselves better for tests and examinations (50%).

According to the respondents, in all three types of Dutch HE institutions faculty is the main actor in producing and publishing of OER, both at the level of section or department and at the institutional level. Faculty is also said to be the principal actor in taking responsibility for updating and quality control of OER, for meta-dating of OER, and for (open) licensing. In some cases dedicated staff supports faculty, be it at departmental or institutional level.

Regarding the targeted audience for which OER are produced and published 90% of respondents from research universities indicated that it was anyone in the world. For universities of applied sciences the main target group were the students for a specific field (67%). The dominant language of OER in research universities is English (95%) and Dutch for universities of applied sciences (100%). The latter is due to the fact that their targeted audience are Dutch-speaking students within their own institutions.

For the institutions of which respondents indicated that there is (still) no production and publishing of OER the following three main reasons were given: (1) there is no policy (69%), (2) faculty and staff do not have enough experience and expertise (35%), and (3) it implies extra work for faculty and staff (33%).

Half of the respondents who indicate that there is no production and publishing of OER, however, foresee a change within the coming three years. The most mentioned reasons are: (1) it will be required by the external environment of the institution (67%), (2) by then producing and publishing of OER will be part of the institutional strategy (41%), and (3) Dutch government will encourage institutions to do so (36%). The main reason why

institutions will not produce and publish OER in the next three years is said to be a shortage of (staff and faculty) capacity (67%).

Producing and publishing of MOOCs

According to 27 respondents from 4 universities of applied sciences, 1 university medical centre and 11 research universities, MOOCs are produced and published within their institutions.

The two most mentioned reasons why Dutch HE institutions are engaged in producing and publishing MOOCs are: (1) to increase the visibility of the institution (51%) and to reach new target groups (43%). The most mentioned reason not to be engaged in producing and publishing MOOCs are: (1) lacking institutional policy (60%), and (2) the extra work for faculty and staff (40%).

Most MOOCs of Dutch HE institutions are being published in English language (88%). The most mentioned platforms to publish their MOOCs are Coursera (23%), Edx (15%), and Futurelearn (12%). 19% of the respondents indicated to publish their MOOCs on their own platform.

Reuse of OER and/or MOOCs

According to the respondents in this part of the survey (n=57), in 13 universities of applied sciences, 2 university medical centres and 9 research universities OER and/or MOOCs are being reused. Research universities are mostly reusing OER and/or MOOCs by making a selection from the materials (83%), while universities of applied sciences use OER and/or MOOCs as-is (59%).

The main reasons for reusing OER are (1) as complementary learning materials (88%), and (2) for better preparation of lectures and seminars (75%). For the reuse of MOOCs the main reasons were (1) as complementary learning materials (59%), and (2) for own professional development (48%).

The three main forms in which OER/MOOCs are reused are (1) videos (84%), (2) web lectures and presentations (41%) and (3) parts of OER and MOOCs (35%).

The main factors determining the choice for a particular OER or MOOC are: familiarity with the source or creator (71%), fit of the materials with interest and requirements (68%), and reputation of the creator or institution (66%).

The principal actor in decision making about re-using OER and/or MOOCs is faculty, both on deciding about the user aspects of OER and/or MOOC and the relevant quality aspects.

The three most used platforms for looking for and finding OER are Google (83%), YouTube / YouTubeEdu / Youtube School (67%) and Ted-talks/TED-ed (53%). The ranking for MOOCs is: Coursera (57%), Edx (50%) and Google (47%).

As it was the case with producing and publishing of OER, the main reasons for HE institutions of not reusing OER and MOOCs are: (1) there is no policy (50%), (2) faculty and staff do not have enough experience and expertise (42%), and (3) the amount of extra work for faculty and staff (42%).

However 75% of the respondents (n=40) indicating that there is no reuse of OER/MOOCs within their institutions, expect that the situation will change within the next three years. The reasons for this change are: (1) ‘environment of the institution’ will require it (51%), (2) it

will be integral part of the strategy (43%), and (3) students will ask for it (41%). The main reasons to still not reuse within three years are resistance in faculty and staff (33%).

Policy

In the final part of the survey respondents were asked whether - within the scope for which they have provided answers - there is a common understanding of OER/MOOCs (vision) and whether there is a formulated policy. 120 respondents have given their answers on these two questions, coming from 21 universities of applied sciences, 5 university medical centers, and all 15 research universities. More than half of them (53%) has answered that there is no common understanding of OER/MOOCs, and 26% indicated that either a shared vision starts to emerge or is already existing.

With regard to policies, 53% of the respondents have indicated that there is no policy, and 27% answered that a policy is being developed or already exists.

Comparison with other surveys

As indicated earlier, some questions in the current survey have been reused from two other surveys in order to be able to compare results. The surveys were:

- The OER Research Hub survey (De los Arcos et al, 2015). The survey dataset, accessible as open data, has been used for the comparison (OER Research Hub data set 2013-2015)
- The Dutch survey "OERHollands landschap" (OER in the Dutch Educational Landscape), measuring the state of affairs with regard to institutional policymaking for OER (Jelgerhuis & Schuwer, 2012)

OER Research Hub

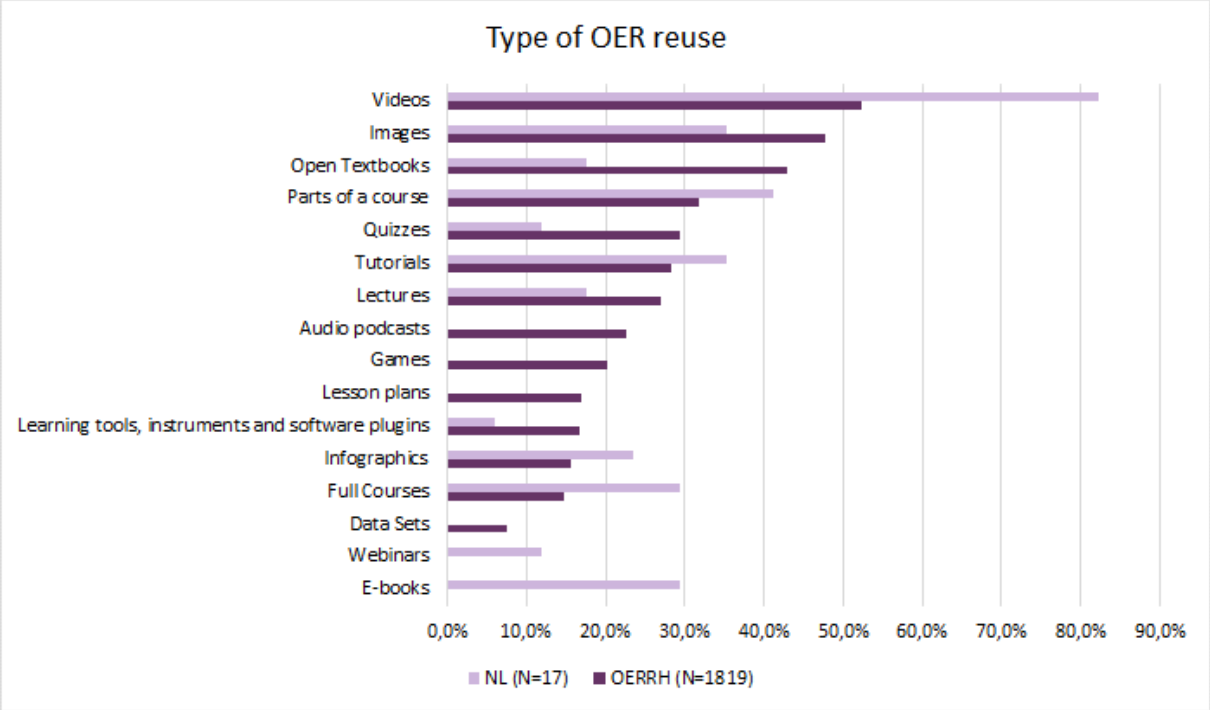
In the survey of the OER Research Hub (OERRH) a distinction was made between different roles: educator, formal learner, informal learner and librarian. In our survey we have only looked at the category of educators. In making a comparison, the following factors should be taken into account:

- The number of responses for the OER research hub (1819 educators) was much larger than for the current survey (10-20 educators).
- In the current survey the questions about reuse of OER were posed in the same section as the questions about reuse of MOOCs. Although in most questions on reuse respondents were able to differentiate between reuse of OER and reuse of MOOCs, there are strong indications that not all respondents have made this distinction (e.g. stating Coursera as a source for OER)

Question: Which, if any, of the following types of open educational resources have you used for teaching/training?

In figure 1 the results are compared.

Figure 1 Types of OER reuse

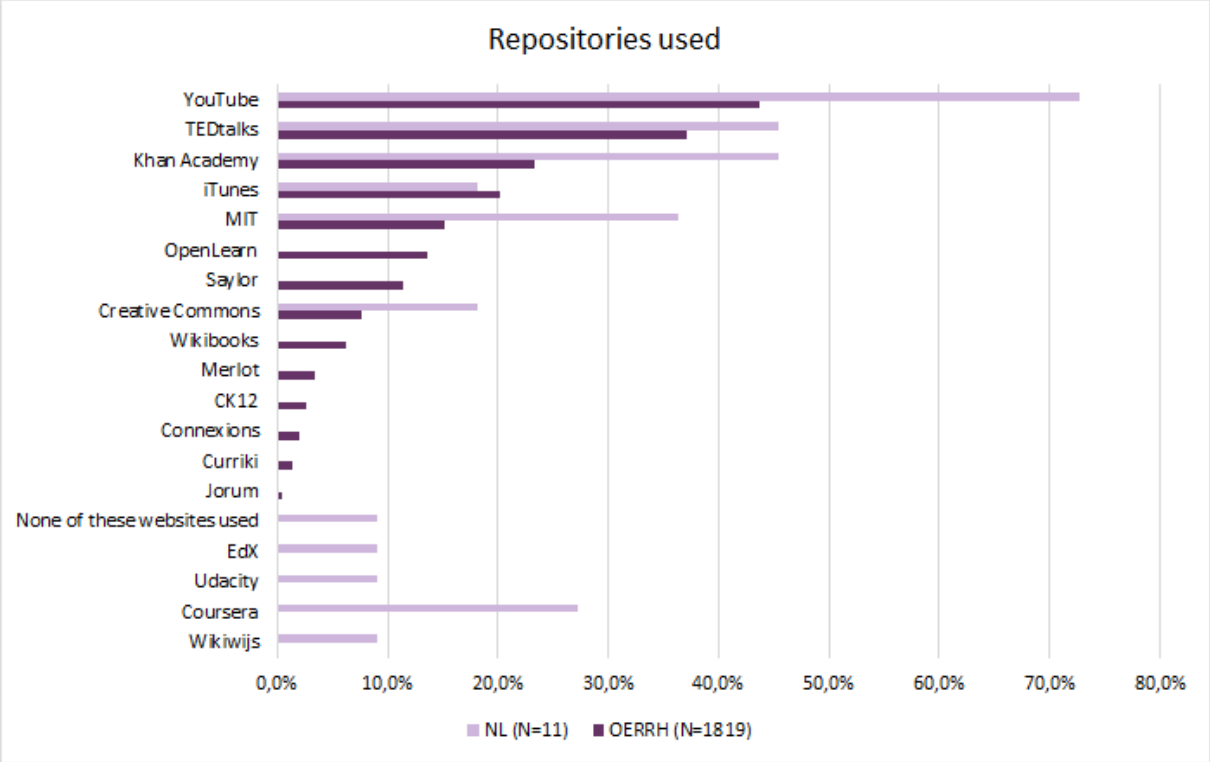


In both surveys videos are the most reused type of OER, although the current survey shows a much higher percentage of reuse (82% vs 52% for OERRH). The difference in reuse of open textbooks (18% vs 43% for OERRH) may be explained by the relative large part of the educators coming from United States and/or United Kingdom (881 of 902 respondents indicating open textbooks) (Gorissen, 2013). Furthermore, having E-books as option in the current survey could also have influenced the outcome, since respondents could choose between the two options.

Question: Which OER repositories or educational sites did you use?

Figure 2 shows the comparison of the results.

Figure 2 Repositories used

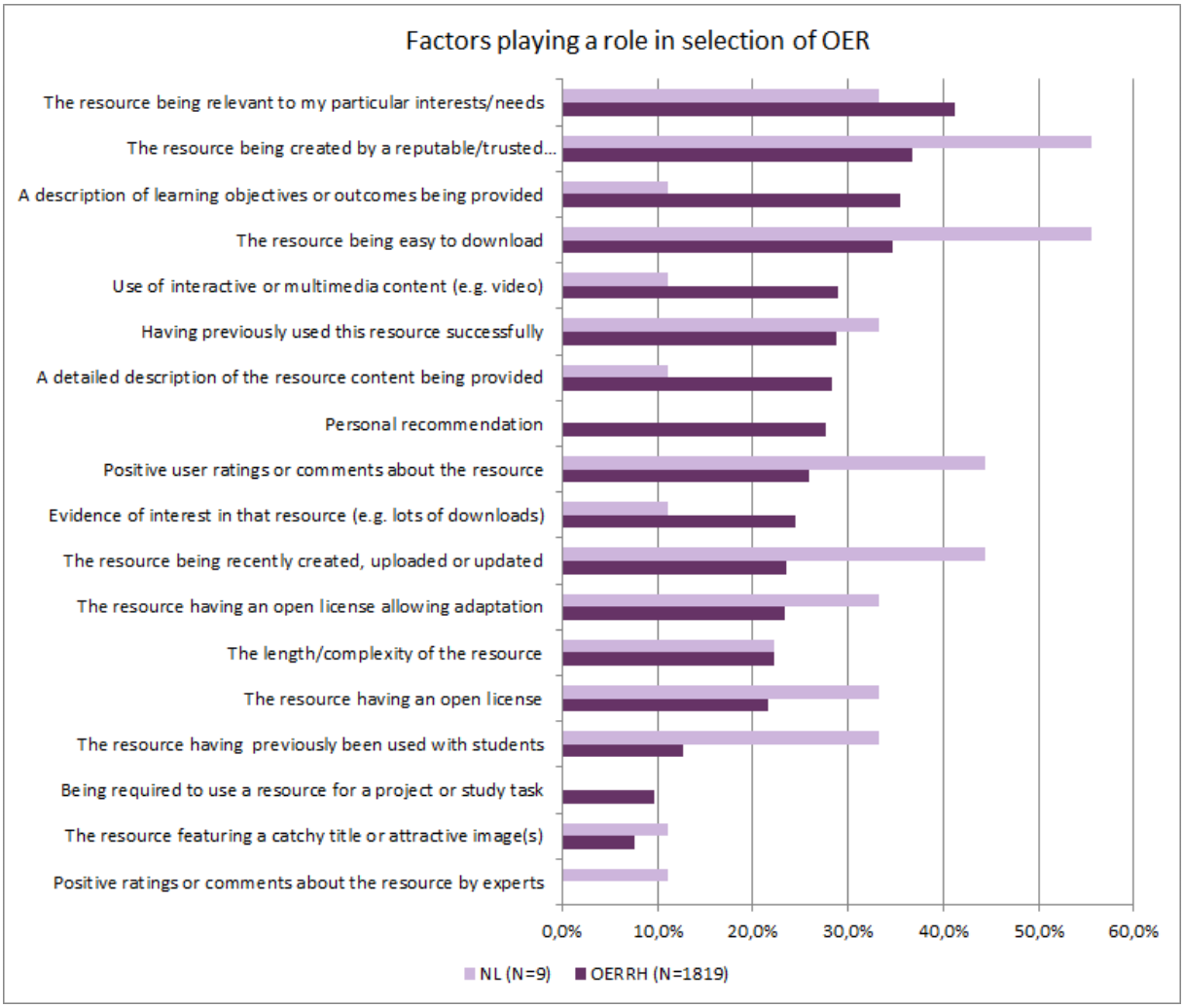


In the current survey the options of EdX, Udacity and Coursera were listed because the question referred to the use of repositories for both OER and MOOCs. In comparison to OERRH, in the current survey *Wikiwijs,* a Dutch repository for OER, was added as option. Both surveys show a relative small use of dedicated repositories for OER like OpenLearn, Connexions, Curriki and Wikiwijs.

Question: Which of the following factors would make you more likely to select a particular resource when searching for open educational content?

Figure 3 depicts the comparison of the results.

Figure 3 Factors playing a role in selection of OER



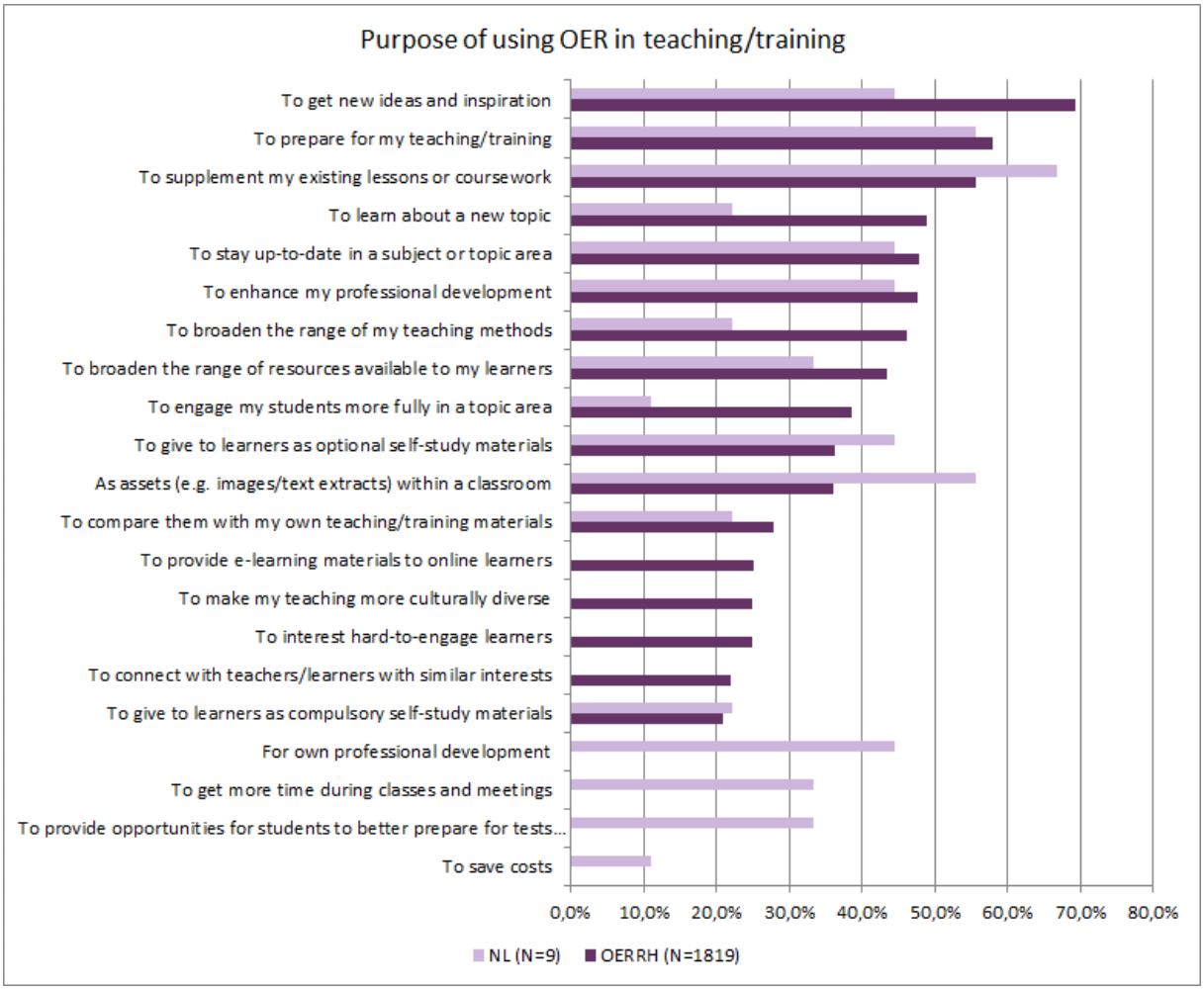
Overall there seem to be differences between the current survey and the one of the OERRH. However, due to the small number of respondents in the current survey it is not possible to claim that these differences form a pattern rather than they are the result of coincidence.

Furthermore an additional option had been added in the Dutch survey: *positive ratings or comments about the resource by experts*. Although this argument might reveal interesting (new) insights in decision making, the number of respondents is too small to draw any conclusion about the usefulness and influence of this option.

Question: For what purpose did you use OER in teaching and/or training?

In figure 4, the comparison is shown

Figure 4 Purpose of using OER



There seem to be differences between both surveys, but again, due to the small number of respondents in the current survey no conclusions can be drawn whether these differences are coincidental or contain significant patterns.

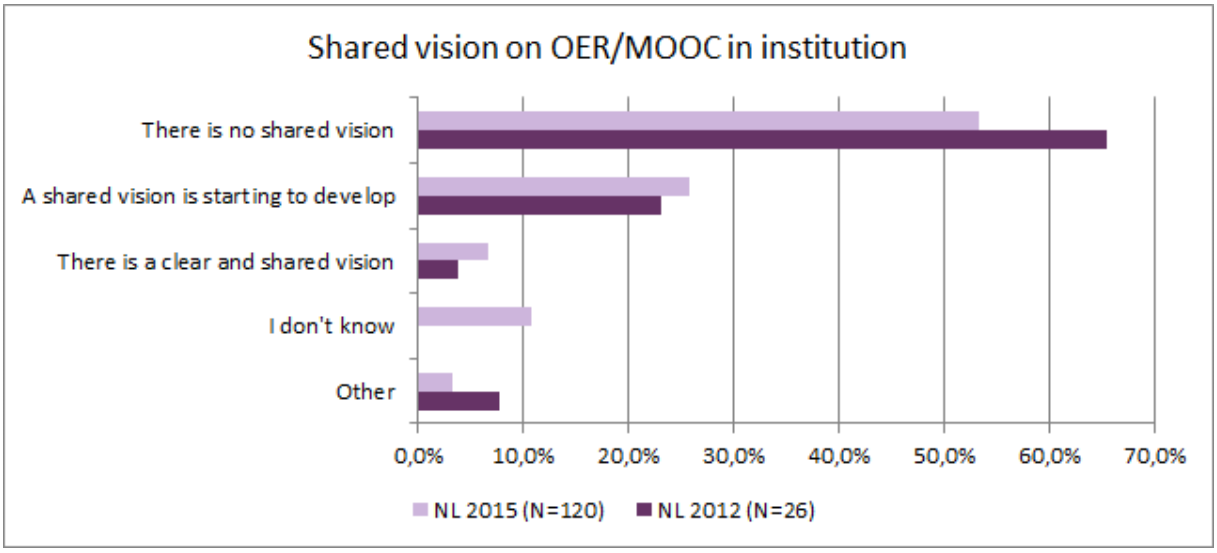
OER in the Dutch Educational landscape

In 2012, a survey on the issues of vision and policy by HE institutions was conducted (Jelgerhuis & Schuwer, 2012). These two issues were also addressed in the current survey. However, the following facts have to be taken into account. In the 2012 survey only key stakeholders have been addressed and respondents were also interviewed afterwards. Furthermore, the 2012 survey was executed in the spring and was only focused on OER; MOOCs were just starting to attract attention. Finally, respondents in the 2015 survey were asked to answer for the scope they could oversee. This could also be a single department.

Question: Is there a shared vision on OER/MOOCs?

In figure 5 a comparison is shown.

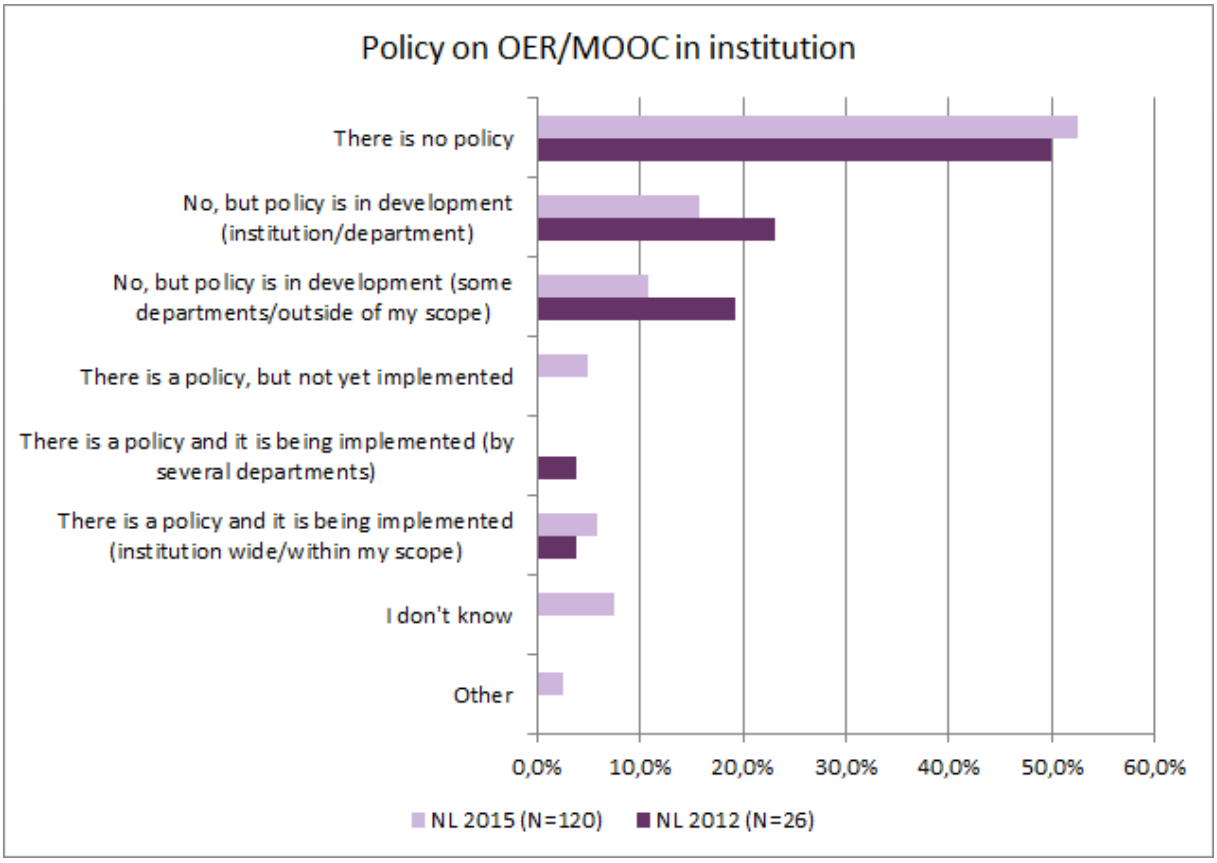
Figure 5 Shared vision on OER



Question: Is there a policy to use OER/MOOCs for education?

Figure 6 shows the comparison.

Figure 6 Policy on OER/MOOC



From the figures 5 and 6 it seems that since 2012 Dutch HE institutions have not made significant progress in formulating policies and visions regarding to OER, despite the fact that since then internationally MOOCs have appeared on the scene ostensibly and Dutch

government and SURF have developed a program and performed activities to raise awareness on or stimulate adoption of OER, MOOCs and other forms of open online education.

Final remarks

As mentioned in the introduction, this survey has been the first attempt to collect data about the current state of affairs regarding adoption of OER and MOOCs in Dutch HE. It is the next logical next step beyond the fragmented picture, based on anecdotal information and present in several trend reports and presentations during meetings and conferences.

This paper is a summary of the results which should be interpreted with caution. First of all, respondents indicated that they found it difficult to answer several questions.. Individual lecturers have insight into their own department, but often not into the institution. Management on the other hand indicated that they do not have the detailed information sometimes needed for answering questions. Second, the number of responses per institution is in most cases actually too small in order to make an analysis of the answers in relation to function and scope.

In addition, it has to be borne in mind that the terminology around OER and MOOC has been interpreted in different ways, although precise definitions were given at the beginning of the survey. For example the platforms of Coursera and EDX were said to be platforms for publishing OER. Another indication of the confusion around OER and MOOC is that some respondents indicated that within their institutions OER are published without an open license.

Moreover, there is also the phenomenon of a *self-report bias*: respondents may well give a better picture of the situation than is actually the case. In the survey, no control questions were included to test this bias. Therefore, the results of this survey cannot be interpreted as "the" state of affairs ultimo 2015 concerning publication and reuse of OER and MOOCs by Dutch HE institutions.

Having said this, the research has resulted in a set of data that was not yet available before. It is based on individuals giving their opinion on what they think the state of affairs is within their institutions of higher education. The set of data can be used as a starting point to enhance. In the coming months structured interviews with stakeholders in several institutions will be undertaken to provide a more complete picture of the current state of affairs, on which actions can be undertaken.

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