

## **Peer-produced Websites and Legitimate Culture. The Case of Book Abstract Websites in Dutch Secondary Education**

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### **Abstract**

The arrival of peer-produced websites may have implications for how legitimate cultural products are produced, regarded and consumed in society, since they signal the decreased importance of experts' evaluations. In this explorative study, we examine the effects of using peer-produced book abstract websites by students in Dutch secondary education on their reading behavior in the school context. The results showed that almost 90% of the students regularly use book abstract websites. Students who more frequently use book abstract websites, more often select authors who are popular among their fellow students for their educational reading list. However, frequent website users do not differ in the degree of legitimacy associated with their reading selections. Yet they less often finish reading the books they select and read with less enjoyment.

## **Introduction**

In just a few years time, the rise of digital media has led to highly differentiated media consumption patterns among older and younger generational groups (Norris, 2001; Van Eijck & Van Rees, 2002). Usage of ICT has been associated mostly with the young generation that has rapidly acquired the access, skills and motivations needed for learning to use a completely new medium, contrary to older generations (De Haan, 2003; Van Dijk, 2006). At the same time, using print media continued to hold a significant share of this latter group's media repertoire, while it lost in popularity among the young (Knulst & Van den Broek, 2003; National Endowment of the Arts, 2004). Youngsters reading less newspapers and less literary books has given rise to concern about whether their development into well-informed and well-cultured civilians – by means of consuming 'hard' news and 'high' culture, respectively – is not at risk (Mindich, 2005; Lauf, 2001; National Endowment of the Arts, 2004). While many see opportunities for the internet to offer alternative ways of informing or cultivating oneself (eg. Tapscott & Williams, 2006; Jenkins, 2006; Anderson, 2006), some have claimed instead that the rise of the internet is a threat to traditionally highly valued cultural products and ideas (eg. Keen, 2007; Sunstein, 2001).

In more general terms, such potential consequences of shifts in media orientation address the issue of how knowledge and cultural value are legitimated in the digital age, and how legitimate culture is being used. Internet has increased the amount of information available on almost domain thinkable, while at the same time downplaying the importance of traditional legitimizing actors or institutions in evaluating information. In the print-dominated era newspaper editors, cultural critics, university professors and other experts functioned as gatekeepers by supplying qualifications that enhanced a socially accepted hierarchy. The internet introduced 'peer-production' which increased non-professional involvement in media production and distribution, leading to new systems of knowledge production (eg. Wikipedia) and cultural evaluation (eg. Amazon) (Benkler, 2006; David & Pinch, 2006; Pascu et al., 2007).

In this article, we study the case of peer-production in the domain of Dutch secondary education. More specifically, we examine how the usage of book abstract websites, containing abstract of fiction books written by students for other students, affects the choices students make in book reading behavior for school purposes. The examined students are all between 15 and 17 years old. Since reading choices are examined in terms of both the value they represent in traditional cultural hierarchies, as well as the way students show engagement with these products, we thus gain insight in students' behaviors towards legitimated culture.

We address three research questions:

(1) To what extent do students in secondary education use book abstract websites and can we explain this use by their off-school media orientation?

(2) How does the use of book abstract websites affect their choice of authors read for the school curriculum? We will examine which types of authors are read in terms of authors' popularity (as indicator of homogeneity of reading behavior) and degree of legitimacy (as indicator of the extent to which books belong to legitimate culture).

(3) How does the use of book abstract websites affect the way they read for school? The way students read is operationalized by the degree to which they finish reading books for the so-called reading report (made for school) and enjoy reading books for this reading report. These activities indicate a certain involvement with the practice of reading beyond the obligatory nature of the reading report itself.

Given the specific domain of the research, our study should be considered as an explorative one. Still, we think it can contribute to a better understanding of socio-cultural implications of using new media, especially concerning cultural choice behavior, which so far has been given relatively little attention (cf. DiMaggio et al., 2001; Howard & Jones, 2004).

### **Legitimation and the internet**

Consensus on what cultural matters are valuable or important – in other words, is legitimate – has traditionally been reached through highly hierarchical systems. Within thematically organized domains or fields, institutions operated through agreements on how production and distribution practices should be performed (cf. Benson, 1999). For instance, in the case of the literary field, book publishers and book traders decided relatively autonomously on which books deserved publication and widespread distribution, while book critics and academic scholars had large power to consecrate books as works of art – or not (Bourdieu, 1980).

Value attribution to cultural products is not hierarchical per definition, however. Legitimation should be seen as a social process, since institutional agents rely heavily on having an audience that accepts their selections and evaluations, or in other words puts 'belief' in them (Bourdieu, 1980; Baumann, 2007). In the traditional system, print media such as newspapers, opinion magazines and academic journals served as outlets for institutional agents, stressing the top-down process of legitimation by its unidirectional character from producer to consumer. The reason for this was twofold: (a) the selection of persons who could enter the field was confined to those showing the ideas already dominant in the field

and (b) the ideas of these agents working in the media field on what makes legitimate culture resembled the ideas of their audiences since they were largely selected from the same social ranks (Bourdieu, 1980: 272-78; Benson, 1999).

The arrival of the internet has led to less hierarchical systems of classifying information – among which evaluations of culture – due to its specific characteristics. The enormous amount of information on the net has led to a decline of brands' and names' applicability as criteria for quality, since it is more difficult to survey all websites addressing a particular topic than all newspapers and magazines. As a result, on the internet, authorship is losing importance as an indicator of credibility at the favor of more heuristic indicators such as usability assessments and visual cues (Warnick, 2001).

At the same time, internet's advanced search techniques are said to offer opportunities for optimizing the relationship between supply and demand in cultural choice behavior (Anderson, 2006). Arguably, niche markets that in the past were too small to exploit successfully, are now more accessible and thus profitable. According to Anderson, less homogeneous – that is, less 'hit-based' and more individualized – choice behavior will then emerge.

Also, interactive technologies on the internet have given consumers the opportunity to become producers or mediators of cultural items themselves. Such evaluations of products can come through webzines or blogs imitating professional outlets in form and discourse style, but also in more free-format discussion boards and chat sites. What all such sites generally have in common is the lack of qualification demands for contributions, which facilitates participation possibilities for 'lay-persons' and as such stimulates online collaboration and dialogue (Benkler, 2006). Consequently, word-of-mouth promotion appears to become a stronger force, since informing 'peers' on which culture is worth seeing, hearing or buying is extended from the direct physical context to the virtual world (cf. Chevalier & Mayzlin, 2006). Similarly, the proliferation of fan culture through the internet has led to a wide range of alternative, audience based interpretations of culture (Jenkins, 2006).

However, the precise consequences of this decline of the hierarchically based legitimation system are not all clear. For instance, credibility of peer-produced encyclopedia Wikipedia in terms of correctness of information has been found to be large (Chesney, 2006), but its usage is generally not considered legitimate in universities. Participatory journalism is considered by many to increase the diversity of news perspectives (cf. Bowman & Willis, 2003), although this may not always become reality (Sunstein, 2001; Witschge, 2007). As for the more subjective terrain of evaluating cultural products, evidence suggests

websites are increasingly becoming a source of information for customers (Huysmans & De Haan, 2006), but the relative importance people attach to them is still largely unexamined.

In fact, systematic comparisons of what cultural content is discussed in what manners in print media and on the internet are unavailable. Yet what is known is that, along with the decreasing role played by expert knowledge and evaluations, the internet seems to lower the threshold for 'unethical' behaviors, such as plagiarism, illegal downloading or making false statements (Poole, 2007). Ironically, examples have been found of lay-critics becoming so involved in reputation building practices resembling those of professionals, they turned to (self-)plagiarism (David & Pinch, 2006: 13-17). On the whole, however, many predictions about internet's impact on behavior and attitudes towards cultural products have yet to be put to the empirical test (cf. Griswold & Wright, 2004).

### **The case of Dutch literary education**

In the school context changing media repertoires are confronted with traditional legitimation systems. More recent birth cohorts have adopted the digital media to a larger extent (Peter & Valkenburg, 2006), integrating them into their social realms such as ways of communication (Hertzberg Kaare et al., 2007) and participation in social issues (Livingstone et al. 2005). And although schools are increasing their use of ICT (Van Gennip & Braam, 2005) and turning towards more student-oriented curricula (McEneaney & Meyer, 2000), they still can be considered representative of traditional hierarchical knowledge production.

The case of Dutch literary education – situated in the last three years of secondary education – shows this duality. Students are introduced to the books and authors deemed most important in Dutch literary history by teachers and textbook compilers (Verboord, 2003). Such selections are generally legitimated by referring to academic scholars. At the same time, students have to read a standard amount of 8 (senior general secondary education) or 12 (pre-university education) literary books. Grading is done on the basis of the so-called 'reading report' that students have to write, a portfolio that contains reports and impressions on their reading experiences for every book they read. It is important to note that students generally have a fair amount of freedom in selecting the books they want to read. In the Netherlands, there is no nationally or regionally dictated 'canon' to be read. So although these choices are made for school purposes, there is individual differentiation in cultural choices based on personal taste.

Furthermore, many students use book abstracts to find additional information, or simply to avoid having to read the actual book (Verboord, 2006). Whereas until the mid-1990s book abstracts were to be found only in a select corpus of books mainly written by teachers and critics (traditional legitimizing experts), nowadays book abstracts of practically all fiction books of interest to students can be found on specific book abstract sites. What is more, these sites are peer-produced since abstracts on these sites are written by students for other students. Similar to Amazon and other such sites, often students can also rate the online reviews in terms of perceived quality. Therefore, book abstracts (may) contain information useful for students' reading reports (eg. book summary, information on the author, themes, but also experiences and evaluations from others). A final advantage of the case of literary education is that since all students have to read a certain amount of books, we can observe the cultural selection behavior of a complete population, without non-participants.

### **Method**

To answer the research questions we chose to conduct a survey in written form among a sample of students in secondary education. Since no earlier research on book abstract websites was known, we aimed at doing a large-scale quantitative study to establish general patterns, rather than in-depth interviews with only a few students. Although using an internet survey might seem the more obvious choice of method, a written questionnaire was deemed more appropriate for the following reasons. First, surveying students in the school context allowed us to address the population more easily than trying to have several book abstract websites carry the link to an internet survey. We expected non-response from websites to be more problematic than non-response from schools, because student populations in schools are likely to be relatively similar in terms of media consumption, while for websites this seems less certain.<sup>1</sup> Second, the school context helped us to ensure an acceptable response on the student level, since students were asked by their teacher to fill out the questionnaire. Of course, students were not obliged to participate, but the class room context led to few non-responses. (Note that during the data collection it was made clear to students that they could fill out the questionnaire anonymously.) Third, and most importantly, using an internet survey would have caused a clear bias in favor of internet users, while one of the explicit goals of the study is to differentiate between users and non-users of book abstract websites.

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<sup>1</sup> As the results will later show, it appears only one site is heavily visited by students across the whole sample, but we did not know that at the time we started our research.

### Data

In March 2005, a survey, designed and piloted by one researcher and two master students, was conducted among 321 students in Dutch secondary education. In five schools in two southwestern provinces in the Netherlands, 14 classes filled in a written questionnaire in classroom. This was a convenience sample. For one thing, a representative nationwide sample seemed unfeasible due to the limited size of the study. Also, to increase both the response rate and the validity of the answers, we chose to visit schools to supply teachers with the background of the research as well as precise instructions (instead of sending questionnaires by post). Although nine schools were (randomly) selected and approached within the two provinces, only five schools participated. Non-response was due to lack of time or unavailability of the head teacher, whom we approached first. Within schools we tried to have at least three classes fill out the questionnaire, which was not always achieved. On the whole, schools have often limited time to participate in survey research – for which they are frequently asked. A negative consequence of this time pressure is that it prompted the head teachers to have students fill out the questionnaires during the lessons that it was deemed possible (yet always during courses in Dutch language). These were sometimes last minute decisions, which meant that the researchers could not be present at the time of the inquiry. This was the reason that instructions were necessary. A positive consequence of the schools regularly participating in survey research is that both teachers and students have experience in the procedures involved. When we informed afterwards, teachers reported no problems. Also, inspection of the filled out questionnaires, which were sent back to the researchers by post, showed few particularities. There was some non-response on dependent variables (varying between nine and 24 students), leading to smaller samples to analyze (see results). All in all, it is clear that not all parts of the data collection went ideally, yet we believe that we have attempted in several ways to secure information as valid and reliable as possible.

In terms of representation, our study only applies to a limited part of the Netherlands. A purposive selection was to only target students in senior general secondary education (lasting five years) or pre-university education (lasting six years) in their pre-examination year or the year before that. In these school levels literary education is most prominent and the selected grades concern the ones in which students are supposed to read the bulk of their reading report. The distribution of students is as follows: 38% is senior general in pre-examination year, 6% senior general in the year before that, 20% is pre-

university in pre-examination year, and 42% pre-university in the year before that. Most students are between age 15 and 17. Note that girls are slightly overrepresented in the sample (54% versus 46% boys). Given these distributions, we will control for these background characteristics in all analyses, and are aware we cannot generalize findings to the total population.

In the survey, students were questioned about five websites containing book abstracts. Since we did not know beforehand which book abstract websites were the most popular, we first made an inventory on the internet to check which book abstract websites seemed to be commonly used. It appeared five large book abstract websites exist in the Netherlands: *scholieren.com* [pupils.com], *leerlingen.com* [pupils.com], *samenvattingen.nl* [abstracts.com], *collegenet.nl* and *studentonly.nl*.<sup>2</sup> To solve the problem that students might not know names of sites (or confuse them), we decided to present each of these websites in the survey in the form of a screenshot. For every website, students were then asked whether they knew the site. If so, a range of questions followed about their visiting frequency, their usage of the site and their appreciation of the site. Since all book abstract websites are part of larger, more general student websites (also containing information on school matters, news on music and films, forums, and sometimes a chat box), we distinguished between the general part of the website and the part containing book abstracts. The latter is considered the actual book abstract site, and only this part of the survey is used in this article. We recognize that using a screenshot in a written questionnaire is not the ideal way to examine website usage, but, given the considerations on internet surveys versus paper surveys mentioned earlier, we reckoned that the advantages of this design outweighed the disadvantages.

## Operationalization

### Book abstract sites

We measured the extent of using book abstract websites through two questions (which followed questions on the total website):

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<sup>2</sup> According to their own reports the sites have the following average number of (unique) monthly visitors: 450,000 (*scholieren.com*), 150,000 (*leerlingen.com*), 360,000 (*samenvattingen.nl*), 280,000 (*collegenet.nl*) and 180,000 (*studentonly.nl*). Retrieval data of *scholieren.com* provided by its webmaster shows that for that particular site 1,548,667, 1,365,795 and 739,761 abstracts were retrieved in January, February and March 2005, respectively.



- (i) 'How many times in the past 4 weeks have you used the part of this site containing book abstracts for your reading report?' (five answering categories: '0 times', '1 to 3 times', '4 to 6 times', '7 to 10 times' and 'more than 10 times') and
- (ii) 'For how many books of your reading report have you used the part of this site containing book abstracts?' (four answering categories: 'for none of the books', 'for a few books', 'for most books' and 'for all the books').

These questions were asked for all five websites. Counting the answers for each student resulted in an individual score indicating the extent of using book abstract sites.<sup>3</sup> However, as it appeared, most students only use one site (*scholieren.com*); only a few students use several sites. Consequently, the distribution of values is heavily skewed: only 18 students show scores in the range of the values 7 to 13 (which was the highest score). Therefore, we constructed a 'ceiling score' of 6: all students having scored 6 or higher receive the value of '6'. This group amounts to 12% of the sample. In total 11% of all students said not to have used any sites at all.

To take into account possible non-linear relations we also computed the square of the use of book abstract sites. This variable was only included in the models if it raised the explained variance. Another control variable consisted of the search intensity for one reading report. Some students might go about longer searching for information on one particular book than others, while this does not mean they are more frequent visitors in general. We asked for the number of sites and abstracts used for one reading report, and the average time of searching (all three questions have five answering categories; we calculated the mean of the answers).

#### Authors read for the reading report

We operationalized the type of the authors read for the reading report in two ways: (i) authors' popularity, and (ii) authors' degree of legitimacy. Note that we analyze reading behavior at the author level instead of the title level, since legitimation processes by critics and other experts are generally thought to occur mostly at the author level (cf. Van Rees, 1983). Measurements were conducted as follows. All students were presented a list of 33 authors in the survey, accompanied by the question which authors they had read for their reading report. All of these selected authors are well known and

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<sup>3</sup> 17 Students had not filled in one or more questions on the use of book abstract sites. If this was only the case for one or two questions, these missing values were substituted by '0'. The seven remaining students with more than two missing values were left out of the analyses.

regularly read by students in general. We included both older and younger authors in the list. Next to these 33 authors, students were given the opportunity to fill in five authors they had read for their reading report, who were not on our list.

For all authors that students reported to have read, we looked up relevant characteristics in the following way. The first concept – the popularity of authors – was measured by looking up the number of ‘hits’ authors displayed at the most popular book abstract site *scholieren.com* in the first three months of 2005.<sup>4</sup> For each student, the scores of all read authors were summed up. We measured the degree of legitimacy of authors by counting the number of words spent on them in four literary encyclopedias.<sup>5</sup> This attention is considered a good indicator of authors’ legitimacy because literary encyclopedias (a) are written and compiled by legitimate agents in the literary field (literary scholars), (b) try to cover the whole field of relevance (literary history), (c) differentiate in the amount of attention based on the perceived, institutionally based value of cultural producers (authors), (d) evaluate these producers on their entire oeuvre, and (e) are relatively easily to consult since authors are put in alphabetical order. In line with earlier research, we assume that the more space these reference books dedicate to an author, the more legitimate the author is in the literary domain (cf. Verboord, 2003). Again, for each student the scores of all authors read were summed up.

#### Way of reading

*Besides the authors students choose to read for their reading report, we also examine the way they deal with their reading selections. Therefore, we first asked students to which extent they actually finished reading books for their reading report. The four answering categories ran from ‘finished no books’ to ‘finished all books’. Second, we asked student to which extent they enjoyed reading books for their reading report. Here, the four answering categories ran from ‘enjoyed no books’ to ‘enjoyed all books’.*

#### Control variables

We control for several factors that might affect choice behavior. First, we take into consideration students’ off-school ‘media orientation’, since personal leisure time references are likely to be carried over into the school context. Media orientation can be described as both ‘a fairly constant disposition’ and ‘a joint outcome of social background and past media experience and takes the form of an affinity

<sup>4</sup> Although other sites have also been requested for retrieval information, none could or would provide us with such data.

<sup>5</sup> The following encyclopaedias were consulted: *Oosthoek Lexicon Nederlandse en Vlaamse Literatuur* (1996), *Wilpert Lexikon der Weltliteratur* (1997), *Merriam-Webster Encyclopedia of Literature* (1995) and *Encyclopedia of World Literature in the 20th Century* (1999).

for certain media, specific preferences and interests, habits of use [...]’ (McQuail, 1997:68). Four variables were used to measure off-school media orientation.

First, we operationalized *off-school reading frequency* by asking four questions under the heading ‘the next questions address the reading of books in your own time’. The questions asked how often they read books, how many books they had finished reading in the past 12 months, and the number of hours they spent reading books (both on week days, and weekend days). Note that reading comic books, textbooks for school and books for the reading report were explicitly excluded. Including comic books might have led to incomparable scores (as comic books are in general faster to read than regular novels); including textbooks and books for the reading report does not capture the students’ leisure time. All questions had four answering categories that were summed up to one new variable.

Our second indicator, *off-school internet using frequency*, was measured by asking for the time spent on using the internet on week days and weekend days. Answering categories, which originally ran from ‘never’ to ‘more than 6 hours’, were transformed to absolute hours (with a maximum of 7 hours), and then added up. Since research into the ‘digital divide’ has shown the importance of physical access and skills for actual internet usage (cf. Van Dijk, 2006), we introduce availability and digital skills as final indicators.

We measured *availability of internet* for the school context (the number of computers present and the extent to which these were available for using – all five answering categories) and the home context (having one’s own computer and the presence of other computers – all four answering categories). These answering categories were all recoded to 0, 1 or 2, (note that a cable- or ADSL-connection yielded a higher score than a modem or ISDN-connection.), after which we calculated the mean score for each student.

*Diversity of digital skills* of students we operationalized in terms of the breadth of the repertoire of internet activities. We acknowledge that this is not an optimal measurement, but restraints in the available space in the questionnaires prevented us from having a larger battery of questions or a specific test. As a consequence, we asked for the average time spending – in hours a week – for the following eight items: surfing, e-mailing, chatting, studying/making homework, downloading, playing games, buying stuff, building their own website. The number of items on which students spent more than one hour a week, was taken as the diversity of their digital skills.

We also take into account the classroom context in which students’ media use is grounded: literary education. Earlier research has shown that teachers can influence the reading repertoire of students

(Verboord, 2003). We accounted for three characteristics of literary education that might influence book abstract usage as well as reading behavior. First, we asked for students' appreciation of the courses in literary education taught by their teacher. The four answering categories ran from 'boring' to 'always engaging'. Second, we asked students how much freedom they have in choosing the books they want to read for their reading reports. Again, we had four answering categories, running from 'compulsory list out of which we have to choose' to 'students are completely free to choose'. The third indicator is the teacher's level of tolerance towards using book abstract sites. The five answering categories ran from 'teacher forbid to use sites' to 'teacher has recommended it'. Again, space restraints prohibited more elaborate measurements of the contextual factors.

Finally, we control for students' gender, age and level of education. Students' gender was coded as female (=1, male=0). Age was measured in absolute years. Level of education was coded as pre-university (=1, senior general=0).

## Results

We discuss the results of our analyses per research question.

### Using book abstract sites

In Table 1 we report a number of descriptive figures that signal how the examined book abstract sites are used. It appears that the use book abstract websites is widely spread in current Dutch secondary education. Almost 90% of the questioned students use them at some point. What is striking, however, is the dominant position of one particular website (*scholieren.com*). This site is known, visited and used much more often than the other four sites. Also, it rarely occurs that students use one of these other four sites exclusively – that is, without also using *scholieren.com*.

This means that *scholieren.com* has a very strong position in Dutch literary education in terms of supplying students with book abstracts

**Table 1: Descriptive results on using book abstract sites**

	Knowing the website	Visiting the Website	Using part book abstracts
Scholieren.com	99%	97%	88%
Leerlingen.com	26%	19%	12%
Samenvattingen.com	23%	19%	15%
Collegenet.nl	16%	12%	9%
Studentsonly.nl	10%	7%	5%
Total	99%	98%	89%

Having established the use of book abstract sites, we turn to explanatory analyses performing multivariate analyses. We use multilevel analysis (MLwin 2) to account for students being embedded in school classes.<sup>6</sup> The results of these analyses, reported in Table 2, show that variables that express students' media orientation only have a limited effect on the extent to which they use book abstract websites. It is mainly the off-school reading frequency that influences using the websites: the more students read books in their own time, the less they make use of book abstract sites. This seems to confirm what critics of book abstract sites have claimed: it is especially the non-readers who use the sites, which might be an indication that sites are used as a substitute for the actual reading.

<sup>6</sup> Performing OLS regression analysis would lead to an underestimation of the standard errors, and therefore less reliable significance testing, since student observations are nested at the class level. Note that we have no variables at the class level, only at the student level. All models are 'random intercept models'.

**Table 2: Multilevel analysis of using book abstract sites (unstandardized coefficients) (N=312)**

	Model 1	Model 2
Female (0/1)	-0.098	-0.155
Age (years)	0.110	0.103
Level of education (=pre-university)(0/1)	0.872 ***	0.799 ***
<b>Media orientation</b>		
Off-school reading frequency (0-16)	-0.093 **	-0.083 *
Off-school internet use frequency (0-13.5)	0.165	0.222 *
Off-school internet use fr. (quadratic)(0-196)	-0.009	-0.013 ~
Diversity internet skills (0-26)	-0.025	-0.030
Availability internet (0-1.5)	0.253	0.214
<b>Literary education</b>		
Appreciation courses (0-3)		-0.017
Freedom of choosing authors (0-3)		-0.177
Tolerance sites by teacher (0-4)		0.268 **
R <sup>2</sup> class level	37%	55%
R <sup>2</sup> student level	5%	6%
-2 log(like)	1218.06	1210.16

Fixed effects. Significance: ~ p<.10 \* p<.05 \*\* p<.01 \*\*\* p<.001  
Value range dependent variable: 0-6.

Interestingly, the measures of internet usage seem less important. Only when we take into account characteristics of students' literary education (in model 2), heavy internet users distinguish themselves from less intensive internet users in terms of a higher usage of book abstract websites. Particularly the tolerance level of the teacher plays a key role here. Not only do students more often use book abstract websites when their teacher is more tolerant (which seems quite logical). But the results also suggest that the positive effect of internet usage, which emerges in model 2, is still suppressed by the tolerance level of teachers in model 1. This implicates that the students who more frequently use the internet in off-school hours and combine this with less often turning to book abstract sites, more often report to have tolerant teachers. Because the information on literary education is reported by students themselves, we thus cannot rule out the possibility that this variable is rather a subjective than an objective view on the context.

#### Influence of using sites on type of authors read

For our second research question, we analyze how the use of book abstract sites affects the type of authors that students choose to read for the reading list. In other words, the use of book abstract websites now becomes an independent variable, and the popularity and the degree of legitimacy of authors read by students is what we wish to explain. Of course, we still take into account media orientation factors to secure that possible effects of using book abstract websites cannot be attributed to the media orientation that underlies this usage.<sup>7</sup>

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<sup>7</sup> Note that we have excluded student's availability of internet and diversity of internet skills in the following analyses, since preliminary analyses showed that they lead to lower rather than higher levels of explained variance.

**Table 3: Multilevel analysis of authors read for reading report, in terms of popularity and degree of legitimacy (unstandardized coefficients) (N=297)**

	Popularity		Degree of legitimacy	
	Model 1	Model 2	Model 1	Model 2
Female (0/1)	-12.82	-11.41	-27.65 ***	-27.77 ***
Age (years)	38.16 **	36.30 **	11.29 **	12.49 **
Level of education (=pre-university) (0/1)	-28.50	-25.28	15.31	14.41
<b>Media orientation</b>				
Off-school reading frequency (0-16)	8.80 *	8.83 *	3.93 **	3.93 **
Off-school internet use frequency (0-13.5)	2.73	2.42	-1.26	-1.55
Freq. Using book abstract sites (0-6)	59.08 **	62.81 **	-1.49	-0.94
Freq. Using book abstract sites (quadratic)(0-36)	-8.36 **	-8.79 **	n.i.a.	n.i.a.
Search intensity 1 reading report (0-4)	-12.42	-13.40	2.77	2.89
<b>Literary education</b>				
Appreciation courses (0-3)		1.36		-1.90
Freedom of choosing authors (0-4)		-2.62		8.66 ~
Tolerance sites by teacher (0-3)		-14.02		-2.25
R <sup>2</sup> class level	29%	32%	40%	39%
R <sup>2</sup> student level	8%	9%	11%	12%
-2 log(like)	3934.74	3933.10	3323.711	3320.031

Fixed effects. Significance: ~ p<.10 \* p<.05 \*\* p<.01 \*\*\* p<.001

Value range dependent variables: 0-1044.4 (Popularity) and 0-390.18 (Degree of legitimacy)

n.i.a.=not in analysis

As can be seen in Table 3, using book abstract websites positively affects reading popular authors. In other words, students who more often use these peer-to-peer based sites, tend to read the authors that are most frequently retrieved at these sites. To a certain extent this seems understandable, as the sites' content is created by other students, the sites have indicators that signal which abstracts are most often downloaded, and the number of different abstracts available is usually the highest for the authors with the highest number of downloads – which makes the popular authors stand out even more. Note that the quadratic term is also significant, but negatively. Apparently, students who exceedingly use book abstract sites less often choose the most popular authors than the average users. This causes a



curvilinear effect. The popularity of authors read is not influenced by the type of literary education that students follow.

While the results for popularity may seem straightforward, we now address the more pressing issue of legitimacy. This time, we find no significant relation between the usage of book abstract websites on the one hand, and the legitimacy score that students can be attributed based on their selected readings on the other hand. There is no evidence that students who more frequently rely on book abstracts that are written by fellow students and posted on the internet, less often read critically acclaimed authors than students who use these sites less frequently. This result cannot be attributed to off-school reading behavior or internet usage, since we control for these factors. Also, literary education does not seem to be related to the issue of legitimacy. The influence of the amount of freedom in choosing authors, which is found in the second model, is only marginally significant.

#### Influence of using sites on way of reading

Finally, we turn to our third research question that addresses the issue of how students deal with the reading materials for their reading report. To what extent do students actually finish reading the books, and, subsequently, enjoy reading them? In Table 4, we report the results of the analyses of these factors.

**Table 4: Multilevel analysis of the way books are read for reading report, in terms of finishing reading books and enjoying reading books (unstandardized coefficients) (N=308, 309)**

	Finishing reading		Enjoying reading	
	Model 1	Model 2	Model 1	Model 2
Female (0/1)	0.119	0.109	0.324 ***	0.330 ***
Age (years)	-0.069	-0.057	-0.060	-0.042
Level of education (=pre-university) (0/1)	0.263 **	0.274 **	0.120	0.127
<b>Media orientation</b>				
Off-school reading frequency (0-16)	0.036 **	0.029 *	0.065 ***	0.055 ***
Off-school internet use frequency (0-14)	-0.032 *	-0.025 *	-0.021	-0.018
Freq. Using book abstract sites (0-6)	-0.079 **	-0.091 ***	-0.122	-0.141 *
Freq. Using book abstract sites (quadratic) (0-36)	n.i.a.	n.i.a.	0.011	0.014
Search intensity 1 reading report (0-4)	-0.075	-0.078	0.034	0.034
<b>Literary education</b>				
Appreciation courses (0-3)		0.151 *		0.235 ***
Freedom of choosing authors (0-4)		-0.036		0.150 ***
Tolerance sites by teacher (0-3)		0.128 **		0.088 *
R <sup>2</sup> class level	26%	31%	49%	69%
R <sup>2</sup> student level	15%	20%	24%	33%
-2 log(like)	652.08	633.484	639.903	606.609

Fixed effects. Significance: ~ p<.10 \* p<.05 \*\* p<.01 \*\*\* p<.001

Value range dependent variables: 0-3.

n.i.a.=not in analysis

The results show that using book abstract sites diminishes the chances of students actually finishing the reading of a book. Thus, it appears that using book abstracts for many students indeed serves as a substitute for the actual reading. And, if we take into consideration the type of literary education that students follow, the negative effect only becomes stronger. Note that literary education itself also influences whether students complete their book reading: students who appreciate the courses will more often read books to the end, and, interestingly, the same holds true when teachers show greater tolerance for using sites. So although using peer-to-peer book abstract sites discourages completion of reading the books, forbidding students to use these sites does not seem to be a solution.

Is there a difference in the enjoyment that students with various levels of book abstract website usage take from reading books? Here, the results are less clear-cut. Considering only media orientation factors leads us to believe that using peer-produced abstract sites does not matter for enjoying reading. However, once we also take into account traits of literary education, we find a negative effect. This means that students who often use book abstract sites are less positive about school reading than their counterparts. The strong impact of literary education traits is remarkable: greater course appreciation, more freedom to choose and greater tolerance by the teacher all contribute in a positive way to the pleasure students take in reading. And, since the significance level of using book abstract websites increases when taking these factors into account, it suggests that students who frequently use these peer-to-peer websites, and combine this with less often enjoying reading, are more positive about their literary education.

### **Discussion**

In this article we investigated to what extent students in Dutch secondary education are using peer-produced book abstract websites, how this can be explained by their media orientation, and in what way it influences their cultural choices made in the school context. A survey among 321 students showed that a large majority of students use book abstract sites during the school year, but this usage mainly concerns one popular site called *scholieren.com*. Students' off-school media orientation has a limited influence on using book abstract sites. Yet, the negative relation between reading books and using sites suggests that book abstract sites are rather used for substitution than to search for more information or a deeper understanding of the books read. Internet usage, internet availability and diversity of digital skills are not related to using book abstract websites. Apparently, the differentiation in internet usage is (already) too small: all students know how to use the internet and do so intensively.

We find selective effects of using book abstract sites on the reading behavior for school. The more students use these sites, the more often they choose authors who are popular among the general student population. Therefore, book abstract usage seems to increase homogeneity of reading behavior (in terms of which authors are selected), rather than diversity. Put differently, increase in website usage is not spent on exploring relatively 'new' authors but on retrieving familiar ones. This seems to run counter to Anderson's (2006) idea of flourishing niche markets as a consequence of the increase in supply on the internet. Although peer-produced book abstract sites contain far more abstracts than

traditional print-based abstract collections, 'hit-based' choice behavior is more frequent among heavy website users than among light website users. Maybe another aspect of peer-production is more dominant: in a democratized environment, students tend to rely on usability assessments and visual cues (e.g. what did someone else read?) to find their way in the enormous supply (Warnick, 2004). This interpretation then emphasizes the importance of social influence on cultural selection: students can observe the number of earlier retrievals of books and authors, leading to greater inequality in selection outcomes (cf. Salganik et al., 2006).

At the same time, and this is an important finding, we find no evidence that intensive users of book abstract sites select less legitimate authors. Thus, there is no indication that using peer-produced websites leads to consuming smaller portions of culture that is highly valued by experts in society. Compared to the negative expectations uttered by, for instance, Keen (2007), this is an interesting outcome. Although the writers of internet abstracts are not legitimate critics, but rather 'amateurs' or 'lay-persons', this lack of legitimacy does not seem to downgrade the selections made by their readers. Still, consulting book abstract sites negatively affects the way students are reading their books. The more students use sites, the less they finish reading their books, and the less they report enjoying their books. Perhaps this indicates that in a less hierarchical system of evaluating culture – which, it was argued, peer-produced websites represent – there is a less straightforward relationship between critics and their audiences. Students may show no differences in their initial selections, but tend to dissociate themselves sooner with these selections when they do not like them. Of course, counterarguments to this interpretation could be given. For instance, similar effects might have occurred some decades ago when book abstracts were consulted in print format; we simply lack data to compare. Also, it should be noted that the causality may be problematic here: one could argue that students who less often finish and enjoy reading will more easily turn to using book abstract sites. In our study, this aspect was clearly underdeveloped. Future research should therefore try to improve on establishing the causal relationships between media uses. More accurate measurements of media usage involving time-diary data preferably in a panel-design are recommended.

We did look at students producing content themselves for book abstract sites in additional analyses, since this would inform us whether 'consumers' are indeed increasingly becoming 'prosumers' (Toffler, 1980; see also Slot & Frissen, 2007). However, only 7% of the students in our sample made contributions themselves and this involvement in peer-production made no difference for any of the

examined consumption practices. A possible explanation is that reading for school will draw a more select group of students into practices of producing online content than other forms of media which are located outside the school domain. More generally, the domain in which students use the internet as well as the incentives they have may influence their involvement as producers, and this may then also affect consumption patterns. We would argue that to elaborate on this matter at least two aspects could be addressed. On the one hand the degree to which a certain domain may be more or less connected to hierarchical systems of classifying culture. For instance, outside the school domain – e.g. websites at which music can be exchanged or commented upon – more and other students may be involved in producing content – leading to different (less legitimate?) content and different consumption patterns. On the other hand one could consider the degree to which a certain domain taps into functional needs or other incentives for students to participate. For instance, book abstract sites are mainly used for school purposes, and this guarantees a substantial group of users and a relatively straightforward style of producing and consuming content. For cultural blogs or webzines on cultural events, users will probably be a more select group, while content may be more differentiated.

Some limitations to the study as well as suggestions to future research should be mentioned. First, it is the question to what extent our results can be generalized outside the specific domain we studied – the use of internet in secondary education in relation to literary education – and outside the student sample we took. Our data are not representative of the Dutch student population. Still, the most important bias concerns the overrepresentation of higher educational levels, and it is precisely at these levels that literary education is most prominent.

Second, constraints by teachers may have had impact beyond our measures (e.g. they may limit the diversity of students' reading behavior in ways that were not captured by our measurements). The effects we found for literary education traits stress the importance of taking into account the context in which media are used. Yet, precisely this context might be charted more precisely than we managed to do in this paper, by examining teachers or observing courses. The results in this paper suggest that students report on literary education somewhat subjectively.

Third, the research design applied in this paper consisted of data collection through surveys conducted in class. Although this approach has the advantage that non-response on the student-level is low, it also contains some serious drawbacks. Measuring website usage through a written survey might negatively affect the validity of the data, since this usage might be assessed differently than in a more natural

'online setting'. What is more, this study could not address in what way the supply of book abstracts on sites influences choice behavior. Authors who are represented through many book titles and/or many abstracts of these titles are likely to be selected more often. And the role of additional information cues, which are available on most book abstract websites (length, quality rating, educational level of the writer of the abstract, number of earlier retrievals), could not be regarded in the current design. In the light of the results discussed earlier, these are issues that are worth exploring in future research, as they would show us how information gathering and filtering works in the process of selecting cultural goods from a large supply (cf. Anderson, 2006).

As for the process of legitimizing culture, further research should be done on how exactly content is produced and consumed. For instance, for the case of literary education, one could examine what criteria in describing and evaluating books are used by students who write the abstracts? And, subsequently, how are book abstracts used for the reading reports that students have to write: which elements are adopted, to what extent do students copy information (plagiarism?)(cf. Poole, 2007) and can we find differences between students in these practices? It would signal which cultural aspects are deemed valuable for students. Content analysis of website content, as well as in-depth interviews with website users could be strategies to answer these types of questions, and shed more light on how peer-produced websites are being used in cultural legitimization processes.

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