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Original article

FROM CRITICAL THINKING TO CRITICAL TRUST: THE CASE FOR ONLINE LEARNING

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Background. *On one hand, education is a specific form of social interaction where participants' trust is a prerequisite rather than an outcome. On the other hand, the contemporary informational environment, in which new educational practices emerge, is replete with unverified and false information that complicates trust. This creates a paradox: online education simultaneously demands both swift trust and epistemic vigilance. Swift trust and epistemic vigilance are understood as two regimes of critical thinking, and the factors influencing the switch between these regimes are the subject of this study.*

Purpose. *To identify the factors that trigger different regimes of critical thinking in online learning.*

Materials and methods. *The theoretical part of the study is based on the synthesis of epistemic trust concept, theory of swift trust and social-epistemological approach to critical thinking. Based on this, the article presents a pilot survey of students of massive open online courses of Lobachevsky University online learning platform (N=83).*

Results. *The main finding is that the key factor in switching between swift trust and epistemic vigilance is the previous negative online learning experiences. having such experience is consolidated and sharply reduces expectations from any subsequent online learning. The absence of negative experiences, on the contrary, increases swift trust and reduces epistemic vigilance. The main mechanisms of switching between regimes of critical thinking in online education are presented as epistemic delegation, appeal to statistics, logical-grammatical representation, and visual representation.*

Keywords: *critical thinking; critical trust; swift trust; epistemic vigilance; epistemic trust; critical thinking regimes; massive open online courses; online education*

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Научная статья

ОТ КРИТИЧЕСКОГО МЫШЛЕНИЯ К КРИТИЧЕСКОМУ ДОВЕРИЮ: К ВОПРОСУ ОБ ОНЛАЙН-ОБУЧЕНИИ

А.В. Голубинская, В.В. Вяхирева

Обоснование. *С одной стороны, образование является особенной формой социального взаимодействия, для которой доверие между участниками является изначальным условием, а не результатом. С другой стороны, современная информационная среда, в которой возникают новые образовательные практики, изобилует непроверенной и ложной информацией, что затрудняет процесс установления доверительных отношений. Это создает парадоксальные установки: онлайн-образование одновременно требует и быстрого доверия, и эпистемической бдительности. Быстрое доверие и повышенная бдительность понимаются как два режима критического мышления, факторы переключения между которыми являются предметом данного исследования.*

Цель *– определить факторы, запускающие разные режимы критического мышления в процессе онлайн-обучения.*

Материалы и методы. *Теоретическая часть исследования опирается на синтез концепций эпистемического доверия, теорию быстрого доверия и социально-эпистемологический подход к критическому мышлению. На базе этого в статье представлено пилотное исследование методом опроса слушателей на плат-*

форме массовых открытых онлайн-курсов университета Лобачевского (N=83).

Результаты. *Основной результат исследования заключается в том, что ключевым фактором переключения между быстрым доверием и повышенной эпистемической бдительностью является наличие или отсутствие предшествующего негативного опыта онлайн-обучения. Наличие такого опыта закрепляется и резко снижает ожидания от любых последующих практик онлайн-обучения. Отсутствие негативного опыта, наоборот, повышает быстрое доверие и снижает эпистемическую бдительность. В качестве механизмов переключения между режимами критического мышления в онлайн-образовании обозначены эпистемическое делегирование, апелляция к статистике, логико-грамматическая и визуальная репрезентация.*

Ключевые слова: *критическое мышление; критическое доверие; быстрое доверие; эпистемическая бдительность; эпистемическое доверие; режимы критического мышления; массовые открытые онлайн курсы; онлайн-обучение*

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Introduction

Epistemic trust, swift trust and the paradox of online knowledge environment

According to contemporary theories of social evolution, such as cognitive niche theory, human cognition has evolved not only through the ability to produce knowledge itself. Other key means of evolution are the ability to share it and the specific ways that knowledge is distributed in social groups. One of the core concepts of social distribution of knowledge is epistemic trust, which helps evaluate an informant as reliable or unreliable and expand personal experience with other people' testimony [6; 7]. Epistemic trust is important for learning [20; 21], scientific

creativity [12; 18] and other fields, but since knowledge acceptance and knowledge production are two diverse processes, epistemic trust may also be different. As for learning, epistemic trust can be considered as an advanced form of swift trust [17; 19; 23]. Swift trust refers to a type of trust that a group develops rapidly to achieve common goals, when individuals initially assume each other as trustworthy and verify and adjust it afterwards (as opposed to earning trust). It makes the concept crucial for higher education, where the time to develop trust naturally does not precede the time to collaborate and interact. In a class, we expect students to rely on the teacher's competences when they first start a lesson, not to question if the teacher can be taken seriously.

However, not only in pedagogy but also in modern global society, there is another trend of an unprecedented increase in false information, opinion manipulation, and the spread of unverified theories. The rise of misinformation and disinformation, especially on social media platforms, has become a significant concern. If we compare these two trends (the increase of trust's role and the increase of disinformation), it becomes evident how contradictory the existing knowledge culture is. On the one hand, the culture is aimed at constant learning, which makes learners autonomous. On the other hand, the merging of the educational environment with social media raises the risk of students being exposed to inaccurate information. These risks grow as we learn something new. In other words, what is merged are two informational environments, one, where epistemic vigilance and the attitude not to trust anyone are considered part of cognitive hygiene, and another, where the effectiveness of the interaction depends on whether the group members are ready to trust each other in advance. It is obvious that these two perspectives are mutually exclusive.

The risk of being misled as a result of poorly (or dishonestly) arranged online learning can probably be considered as a threat to both individual psychological safety and mechanisms of trust distribution in society. For example, the anti-vaccination movement illustrates how the public distrust to expert knowledge and how powerful misconceptions and conspiracy theories are to influence the real world, resulting in serious consequences.

The Reset Australia report revealed that the rise in the distrust of immunisation coincided with a 280% increase in anti-vaccination Facebook group membership [3]. Private and commercial educational courses in public perception stand next to the courses of leading universities or expert communities. The philosophical aspect of this issue lies in the fact that the difference between the courses' quality can be seen only from the perspective of the knowledgeable. It means that the ability to distinguish scientifically acceptable conceptions from misconceptions implies an understanding of scientifically acceptable conceptions. C. Bergstrom and J. D. West offer the following example: «Suppose you track down the study, and read something like the following: "We observe a statistically significant difference in cat- and dog-lovers' earnings, based on an ANCOVA using log-transformed earnings data ($F = 3.86$)". If you don't have a professional background in statistics, you've just slammed head-on into a particularly opaque black box. You probably don't know what an ANCOVA is or what the F value means or what a log transformation is or why someone would use it». [27, p. 4]. While the text is made for laymen, it requires competences in data science to be estimated as plausible, so the only thing a lay reader could do would be trust the source. Trust mechanisms are challenged by the paradoxes created by the way modern society develops. An individual, being unable to evaluate information plausibility expertly, is expected not to trust anyone, especially the ones who pretend to be experts, and at the same time to share swift trust with teachers and other experts.

Critical thinking as reflexive epistemic trust

In the last few decades, the concept of critical thinking has expanded. Following the new perspectives in epistemology, critical thinking studies stepped from a logocentric framework to an analysis of collective forms and factors of reasoning [13; 24], emotional mechanisms, related to rational processes [4; 9] and special accounts of both epistemic and non-epistemic values [8; 11; 15]. Trust seems to be another complex phenomenon, equally related to cognition, emotions, social relations, and cultural values, but the relationship between epistemic trust and critical thinking remains arguable. Some authors use the term "critical

thinking" as opposed to trust [1; 2; 14]. We suppose that critical thinking does not necessarily oppose trust, but rather embraces it and evaluates its validity to determine whether it is justified [10]. J. Kleinig writes that critical thinking skills can be considered as the outcome of a process in which trust has been established [10, p. 9]. According to fundamental role of epistemic trust in science and education, critical thinking can be described not as something related to trust but as a specific form of trust itself. This approach, as well as the term "critical trust", has been implemented in health literacy studies [26], risk and uncertainty management [22], ecology [25] and media studies [5]. Critical trust is described as a form of reliance on a person or institution combined with a degree of skepsis. It lies on a continuum between outright scepticism (rejection) and uncritical acceptance. Hence, critical trust reconciles the actual reliance of the public on institutions while simultaneously possessing a critical attitude towards the motivations or independence of the agency in question [26, p. 147]. As opposed to non-critical trust, critical trust is rather projected and constructed than developed naturally. As opposed to the traditional definition of critical thinking, this concept highlights the importance of accepting the limits of individual knowledge and being reflexive about whom or what to trust.

At this point, the research has several preliminary conclusions. The first is that critical thinking can be considered a specific form of trust, built on reflexive regulation of whom or what to trust and why. The second statement is that education as a form of interaction demands specific forms of trust, such as swift trust. The third statement relates to changes in trust mechanisms provided by the online information environment. Collectively, these statements lead to the question of whether the way we pick or what to trust and why has also changed for online education.

Regimes of critical thinking for online learning: pilot study

The main question of this study follows from the described paradoxes. If education is based on swift trust, and getting information from the Internet is usually seen as based on vigilance, what is online education based on? We suppose that in this framework, both swift trust and epistemic vigilance present different regimes of critical thinking. This ap-

proach presents critical thinking as a socially preferable configuration of trust and vigilance for collective cognitive practices. For example, critical thinking can be weakened during communication with a trustworthy teacher and is expected to be reinforced during web-surfing. The regime of critical thinking for online learning remains unclear.

Therefore, the purpose of this paper is to figure out the factors that initiate various regimes of critical thinking in regard to online learning.

Materials and methods

A pilot poll of the students of massive open online courses was conducted to trace the abovementioned association. The aim of the study was to determine the degree of epistemic trust/vigilance of students in massive open online courses. In order to achieve this goal, we have embedded an online questionnaire that was presented on courses' pages on the platform of massive open online courses at Lobachevsky University (mooc.unn.ru). The questionnaire consists of three parts. In the first part, the respondents shared their experience with online course learning and their ideas on reliable and unreliable education concepts. In the second part, the respondents were asked to explain their strategy for protection against unreliable information during online learning. In the third part, the respondents assessed the degree of their trust or epistemic vigilance in the various sources of information. The informed consent form was also included.

As a result, 83 respondents participated in the poll. The invitation to participate in the poll was posted on the pages of massive open online courses of the Lobachevsky University next to final tests of the courses, so all respondents experienced online learning at least once. 60 of them had taken online courses on new, completely unfamiliar topics (Group A, 72 %). The rest of the respondents had used online courses to improve their knowledge and represent a group of informed and prepared students (Group B, 28%). This division is necessary for the research: the presence of previously acquired knowledge on the topic makes the student more attentive to contradictions and logical discrepancies, while the absence of prior knowledge hinders the discovery of misconceptions and interpretation errors.

Results

Part 1. Epistemic trust factors in online courses

The most significant factors in students' trust in educational materials were identified during the first part of the research. Among others, the respondents were asked to rate the significance of the status of the organisation that issued the online course, the status of the lecturer, the platform on which the course is hosted, and the presence of feedback from other students and the respondent's friends on a five-point scale. The respondents were asked to choose from 5 options: 1 – "not significant at all", 2 – "mostly not significant", 3 – "neither significant nor insignificant", 4 – "mostly significant", 5 – "very significant". In Table 1 factors are ranked according to the options 4 and 5.

Table 1.

The percentage of the respondents who noted the high importance of the reputational factors of online course

Index	Group A	Group B
Online course is issued by an educational or scientific organisation	68%	61%
The lecturer is a famous person	18%	52%
The lecturer has a degree in the field of the course	57%	57%
The online course is hosted on a well-known platform	53%	43%
The online course has positive feedback from the users who have already completed it	80%	70%
This online course was recommended to me by my friends	53%	61%

Group B included more students who paid attention to the lecturer's personality, while the students who are not experienced in the chosen course's did not consider the importance of the lecturer's popularity the same. The lecturer's scientific degree was equally significant for the both groups ("Very important"—23% and "Important"—33% in Group A; "Very important"—30% and "Important"—26% in Group B). Hence, a famous person means not only famous in academia but also a person who is possible to find information about on the Internet in general. This is in line with other research showing that a media person is more credible than an unknown person regardless of their levels of expertise while discussing scientific facts [16].

Then, both groups of students stated which other Internet sources they found the most trusted to compare the information received during online courses with. Two ratings were formed according to the results of the poll (Table 2).

Table 2.

The rating of the "trusted" sources of information on the Internet

Place in the rating	Group A	Group B
1st place	E-books, textbooks and study guides	YouTube videos
2nd place	Pages of specialized organisations (scientific centres, laboratories)	Pages of specialized organisations (scientific centres, laboratories)
3rd place	Academic publications databases and scientific journals; YouTube videos	Academic publications databases and scientific journals
4th place		Blogs of the well-known representatives of this knowledge area; e-books, textbooks and study guides
5th place	Blogs of the well-known representatives of this knowledge area	
6th place	Wikipedia and other multidisciplinary encyclopaedic resources	Wikipedia and other multidisciplinary encyclopaedic resources

In general, the respondents showed confidence in online courses as a reliable form of knowledge transfer. More than 60% of respondents are convinced that any online course is a peer-reviewed, reliable source of knowledge. 38.9% of the respondents who expressed distrust to online courses highlighted that the absence of educational licenses and the "universities' races" are the factors of low-quality courses. The Table 2 shows the difference in Group A' and Group B' trust proportioning. Students who do not have prior knowledge in the field of the online course (Group A) more often turn to the traditional "guarantors" of reliable learning, such as textbooks. On the contrary, experienced students rely on informal sources to clarify the reliability of online courses (for example, YouTube videos).

As we mentioned earlier, the high level of misinformation on the Internet affects the educational forms of trust, which can be discovered in the following parts of the open questions. These are respondents' original quotations, that represent the same skeptical idea:

1. “Online courses are not an officially recognised source of knowledge”,
2. “They aimed only at making money”, “they are an attempt to make money on naive people while the information produced during these courses is not valuable at all”, “people have learned to make money on old information that can be sold as an original new idea wrapped in complicated, odd words”,
3. “Most of the courses on the Internet are not reliable sources of information”, “a license for such courses is not required; if there is no official certificate of completion, their quality may be poor”,
4. “Not all the courses pass the expert assessment; if they do, there is a question of who these experts are”.

For the next steps, the respondents were divided into three different groups by their attitude towards online education: those who assessed the authenticity and reliability of online courses’ information as a phenomenon of educational culture (21%) in a highly negative way; those who were very optimistic about the reliability of online courses in any form (13%); and a neutral group (Table 3). The latter group is excluded from further analysis as it doesn’t show any strictly positive or negative assessment.

Table 3.

The extreme points of trust in the quality of online course materials

Characteristics	Respondents who made a highly negative assessment of online course general reliability, %	Respondents who made a highly positive assessment of online course general reliability, %
Had taken online courses on new, completely unfamiliar topics (Group A)	53%	85%
Had directly taken an unreliable, misleading, non-scientific online course	46%	0%
Associated the reliability of materials with the platform where the online course is hosted	38%	86%
Associated the reliability of materials with lecturer’s titles	38%	71%
Associated the reliability of materials with a license for educational and/or scientific activities	38%	71%

The table shows that students in general tend to overestimate the reliability of online course materials until they have to review their attitude.

Part 2. The strategies for protection against unreliable information in online learning.

In the second part of the questionnaire, the respondents were asked to describe their strategies for protecting against misleading educational information in free form. The task was formulated as follows: "Imagine that you have a list of several online courses on the same unfamiliar topic you want to learn.

You know that some of the online courses on the list have been developed by fraudulent commercial organisations with no subject experts involved. Describe your strategy for finding a reliable course: which factors will you consider and what will indicate to you that the course materials can be trusted?".

The received responses identify several groups of the actions that people complete to check the reliability of an online course. They analyse:

1. The organisation that developed the online course (their place in the educational services market, licenses, full-time learning programmes).

2. The information about the platform where the online course is hosted (feedback from the students of other courses, learning support mechanisms, etc.).

3. The feedback on the online course on the third-party websites (including the search for "real feedback" among fake ones) and friends' recommendations.

4. The certification of teachers, course authors (publications on the topic, the page of the course on the organisation's website).

5. The course schedule and reference list, the status of the certificates and diplomas issued upon the completion of the course, the educational technologies used, the representation of the course on the Internet, etc.

Based on these answers, we compiled the list of confidence-building factors for online courses: the organisation, the platform, the third parties (a social group or Internet users), the teachers and authors of the course, the content (structure, description, and references).

We observed that the strategies for choosing the object of the analysis to check the reliability of online course materials varied from one group to another.

Group A and Group B proposed similar strategies in general. The difference between the groups lies in the fact that the Group A, experienced in learning new and completely unfamiliar topics online, indicated the feedbacks and the recommendations from independent users more often than the respondents from the Group B. 70% of Group A indicated this parameter. 38% of this group also described independent feedback as feedback from the close social circle, regardless of qualification, 62% mentioned the course reviews on third-party websites and forums. 48% of the Group B respondents acknowledge feedback as a trustworthy source of information in their strategies. The rest of the Group B answers cannot be structured; their answers include relying on luck, checking the Internet, the certification, spam complaints, presence on social media, lecturers' experience outside the course etc.

Less agreement on online courses' reliability was reached by a highly pessimistic group that previously had experience with low-quality courses and the group that was highly optimistic about the expert procedures of information on the Internet (Table 4).

Table 4.

The mentioning of the analysis objects in the strategies of the pessimistic and optimistic groups of respondents

Objects of analysis mentioned by the respondents in their strategies	Percentage of mentioning among the respondents who made a highly negative assessment of the reliability of online course materials in general	Percentage of mentioning among the respondents who made a highly positive assessment of the reliability of online course materials in general
Course feedback	31%	71%
Indicators of a teacher's/lecturer's competence level	46%	29%
Schedule plan and reference list	23%	0%
Course lifetime	8%	29%

In their strategies, the respondents of the negatively experienced group mainly focus on finding information about the lecturer/author of the course. They also described actions that are unique in comparison with positively experienced group: checking the course materials for evident mistakes, analysing the lecturer's publication activity in scientific journals, analysing trial lessons, the visual representation of information, and the course as a whole.

Therefore, the negative experience of online learning reduces the trust to online learning in general and makes it necessary to expand the range of analysed objects (in this case, to the course schedule and reference list).

Part 3. The place of online courses in the system of the reliable sources of information.

In the third part of the questionnaire, the respondents were asked to assess the various forms of the misrepresentation as the risk of being intentionally or unintentionally misinformed during the online learning. The threats were stated in the poll as follows:

Threat 1. The need for financial support causes the misrepresentation of scientific facts in order to paint sponsors' products in a better light.

Threat 2. Unverified information is prematurely presented as the truth, a scientific fact.

Threat 3. Misconceptions and conspiracy theories are presented as scientific facts.

Threat 4. Outdated and irrelevant information is presented as sensational one.

Threat 5. The low qualification of the author causes unintentional mistakes in the presentation of scientific facts.

The respondents were asked to assess the probability of these threats in two groups of information sources: educational (textbooks and study guides, online courses on commercial platforms; online courses on the platforms of universities and scientific organisations; online courses on large well-known platforms) and non-educational sources, including wide audience sources (posts on social networks, news reports) and sources for expert audience (articles in scientific journals).

It is essential that online courses are more credible than news and social media posts. In this task respondents described online learning environment as comfortable and safe (Table 5).

Table 5.

The percentage of the respondents who underlined the high probability of threats

Sources	Threat 1	Threat 2	Threat 3	Threat 4	Threat 5
Non-educational					
Posts on social networks	67%	71%	64%	61%	70%
News reports	45%	54%	58%	51%	54%
Articles in scientific journals	13%	11%	14%	11%	13%
Educational					
Textbooks and study guides	12%	6%	4%	13%	8%
Online courses on private sites, websites	40%	25%	14%	17%	28%
Online courses on the platforms of universities and scientific organisations	8%	5%	1%	5%	11%
Online courses on large well-known platforms	17%	8%	4%	4%	6%

The platforms of educational and scientific institutions are the most trusted sources of information, while large educational online learning platforms and private sites are less trusted.

The experiment shows that online learning experience generally reduces the degree of trust and also revealed several major tendencies. Thus, Group A demonstrated greater concern about being misinformed during the online learning by all the threats considered regardless of the platform where the course is hosted. At the same time the risks were distributed among different platforms: for this group online courses on large well-known non-university platforms are protected from the threat of outdated and irrelevant information, but they might be exposed to the risks of fact distortion due to the need for sponsors' and partners' financial support. Online courses on university platforms are seen as completely opposed.

Pessimistic and optimistic expectations also showed a specific distinction between groups of respondents (Table 4): those who made a highly positive assessment of study material reliability almost unanimously rated all risks of being misinformed on large, well-known plat-

forms at 0%. Meanwhile, the pessimistic set intensifies expectations of sponsors' influence and the risk that unverified information is presented as a scientific fact.

Discussion

As mentioned by N. Levy [12], new technologies affect the mechanisms of epistemic trust, and this research reveals different mechanisms of epistemic trust in an online education environment. The present study confirmed that students are more likely to perceive judgments as true if they come from a specific person (a famous person or a real user), i.e. personal relationships are the main factor in establishing trust-based relationships. The psychologists researching the epistemic trust outside education have achieved the similar results. For example, a similar conclusion was reached by M. Motta, T. Callaghan and S. Sylvester [11], who have shown that people who think they know more about diseases than medical experts are more likely to trust non-expert sources, such as celebrities [11]. In line with the ideas of epistemic vigilance theory [2; 14], it must be pointed out that an epistemic assessment is influenced by the nature of the source of information: we naturally would rather trust a friend than an enemy. The evaluation of the information received from a friend is more stable. The signals that most people perceive as the evidence of the unreliability of the source also include assertiveness, fake confidence, difficulties in finding suitable words, frequent paraphrasing, stuttering, hesitation or contradiction, the direction of the speaker's gaze, or the avoidance of eye contact [13].

Contrary to the mentioned papers on the general mechanisms of the epistemic trust, we find that epistemic trust depends on experience of interaction with other but similar sources of information. The results of the study showed that the respondents who do not have negative experience generally tend to idealize online courses, while those, who experienced a course of a poor content quality creates a fairly stable sense of threat to be misinformed. The respondents who previously had faced insufficient online courses made lower assessments to all the criteria. As the experience changes, the strategies for assessing the source of informa-

tion also change: trust in the third-party feedback decreases, attention to traditional pedagogical elements (for example, schedule plans) increases.

It is necessary to mention the paradox found when comparing the answers of part 2 and 3 of the study. Generally, the respondents consider the third-party opinion as the least trustworthy source of information, while it is believed to be one of the most influential factors to online courses' assessment. It confirms our initial assumption that epistemic trust to online-educational environment differs from epistemic trust to online environment per se. Critical thinking for online education is more vigilant than critical thinking for traditional education and more trustful than critical thinking for non-educational online communication. As yet it is not possible to predict the future development of critical thinking regimes for online learning. On one hand, if labelling an online communication as educational will change the regime of critical thinking to less vigilant, it can be used as a tool for intentional misinformation and bring new risks for society. On the other hand, if any online communication, including learning, will by any chance provoke distrust, educational purposes will be challenged by incapacity for swift trust.

The most significant result of this research is the ability to classify and describe the dynamics in critical thinking regimes. The main mechanisms are epistemic delegation, appeal to statistics, logical or grammatical (in the broad sense of the word) mechanism and a visual information assessment.

Delegation is a mechanism where the establishment of reliability is "delegated" to authorized social structures or structural elements at different levels: the ministries that license educational organisations, the supervisory authorities that control over educational activities; the platforms that provide expertise of the educational materials; the teachers and lecturers certified in this field, both the authors/lecturers of the course or the third parties. The student in this case proceeds from the idea of social contracts about the transmission of knowledge and the sharing of epistemic responsibility relying on the fairness of a particular person.

Appeal to statistics is a mechanism that also refers to the idea of the delegation of assessing information reliability, but in this case the reli-

ability is determined by the number of users who have read the message. This mechanism is based on the analysis of two principles: available feedback and the lifetime of a message. For example, a student is more likely to assess a course positively if the course has been issued for a certain amount of time so a third party could discover and fix any errors. In this case, it is not the content of other people's assessments, but the quantity that matters.

The logical or grammatical (in the broad sense) mechanism refers to balance of descriptive course materials and the elements of the schedule plan, literacy, consistency with other sources illustrating a similar topic.

The least studied but probably the most significant mechanism for further research is the one of a visual information assessment. Usually, perceptive experience of online students isn't related to critical thinking processes. Eight respondents in the research pointed out directly that the design of the site and the ways of presenting visual material could be considered as an information reliability reason. This belief demands further investigation. On the one hand, it supports the concepts of visual culture and the role of the psychology of perception for cognitive tasks in digital environment. On the other hand, it has very little force as an epistemic assessment tool (any information can be presented in any form, and the form of its presentation should not be a criterion of its reliability). The question of the role of online course visual properties during the critical assessment of the content quality is the perspective for future researches.

Conclusion

Swift epistemic trust is a core concept in the social distribution of knowledge through online education, helping to evaluate informants as reliable or unreliable and expand personal experience through testimony. The increasing difficulty in discerning between credible and misleading information poses a significant challenge to the mechanisms of trust, which are necessary for any educational process. In particular, some respondents are questioning the value and reliability of online courses and expressing concerns about profit motives and lack of expert assessment the same way people are usually question news and entertainment mate-

rials. On the one hand, it is natural reaction to the merge of educational practices with non-educational information environment or social media. On the other hand, there is no clear answer to the question of what mechanism of trust is replacing the traditional swift trust for online learning. In this study we proposed the idea that different learning experience is connected to different regimes of critical thinking.

The results of the study can be divided into several groups.

First of all, regardless of the level of preparation, learners tend to trust specific academic markers (such as academic degrees), and in the process of critical evaluation it is not the educational material itself that is subjected to scrutiny, but "what surrounds it".

Second, the higher the learner's experience in the subject of study, the less significance official educational publications have.

Finally, negative online learning experience is consolidating and sharply reducing expectations from any subsequent online learning, and conversely, the absence of negative experiences reduces (in the case of this study it eliminates) epistemic vigilance to educational materials. The results then showed that respondents without negative experiences are generally prone to idealize online courses, while the experience of learning in a course with poor content quality forms a stable sense of threat of being misinformed. As experience changes, so do perceptions of information source evaluation strategies: trust in third-party reviews decreases, while attention to traditional pedagogical elements (such as course outlines) increases.

The most significant result of the research is the identification of various mechanisms of critical thinking for online students. The study shows that argument from authority, which is usually seen as a fallacy, also represents the mechanism for critical thinking and affects the regimes of epistemic trust in online classes, and this mechanism works differently for students with different educational background, online learning experience and non-epistemic expectations. The research identifies critical thinking regimes with mechanisms of epistemic delegation, appeal to statistics, logical or grammatical analyses, and visual information assessment to establish reliability in online education. Overall, these mechanisms shed

light on the multifaceted nature of how students evaluate online course reliability, encompassing factors beyond just content quality.

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