ROLE OF TRUST IN MODERN E-LEARNING MODELS

Krzysztof Gurba¹, Ewa Gurba²

¹ Pontifical University of John Paul II in Krakow (POLAND)
² Jagiellonian University, Krakow (POLAND)

Abstract

There is one important factor, which in rapidly changing relations between learners and teachers or content producers in the process of distance learning is often underestimated. It is a factor of trust. Trust in distance learning has at least three different meanings. First type of trust, probably the most important, concerns the relation between pupils and teachers. In traditional class it is called pupil-master relationship and it intrinsically involves high level of mutual trust between the two. In modern e-learning this type of trust is not that obvious but is still in the same way desired. Second type of trust concerns various relations on the bottom level of the process of learning, and is often called peer trust. At nowadays stage of massive distance learning development there are usually lots of occasions to communicate in the group of learners, to peer learning and even peer assessment. Level of trust between the learners in the group can influence overall trust to the course and to the very idea of distance learning.

Third type of trust is addressed to the content of the course online. Learners should be convinced that the product offered on learning market is of highest possible quality.

Taking into account above mentioned three types of trust that play role in effective distance learning we have designed a series of studies aiming at verification of the set of hypotheses put forward at the beginning of the research. And thus, we wanted to check what is the importance of this manifestations of trust in the course of using the distance learning courses and to verify whether proper design and use of e-learning can preserve the sufficient level of trust and defend the quality of modern e-learning products.

Our research shows high level of correlation between subjective sense of trust among young learners and effectiveness of distance learning. Second important conclusion states high attribution of importance to trust factor in all groups participated in our research.

Keywords: Trust, e-learning, social capital, quality assurance.

1 INTRODUCTION

1.1 Trust as forgotten factor

During first decades of modern use of distance learning the question about trust was posed very rarely. On the wave of enthusiasm e-learning systems were built to meet the expectations of both learners and teachers. Focus was on technological aspect and overall effectiveness rather than on social context of e-learning. Later, with opening of the educational market to MOOCs many questions arose about the quality of massively attended courses online. One of important dimension in summarized quality index started to play individual approach to the learners. Participants enrolled to the course were more and freer in choosing individual path of study [1]. Along with this trend arose awareness about importance of social relations in the process of e-learning. Relationship between subjects of learning process plays key role in exploiting the potential of new ways and methods of massive open learning [2]. In a broad sense this sociological context is part of a general social capital in given society.

1.2 Social capital and trust

There are many different definitions of social capital. One of the most concise tells that “Social capital is sum of resources included in social networks and used by the people in their activities” [3]. In the process of learning online, and especially when the number of course users is significantly big, summarized potential of social capital is great. But of course not every networking group forms automatically social capital, which depends on the character of relations between members of the group. First of all the real network of relations can be built on the basis of free choice and not on the
set of top-down regulations. Norms and rules are not the main constituents of proper organization of a group. Along with studies, both sociological and psychological, necessary condition for the development of social capital is trust. As Sztompka writes: "we have to treat trust as the core of social capital" [4]. Credibility and trust are fundamental features responsible for the formation of social capital [5].

Social capital based upon social trust can build inclusive networks and can manifest itself both in vertical relations within learning structure (learners to teachers, teachers to learners) and horizontal ones (peer-to-peer relations, groups and subgroups of learners).

1.3 Crisis of trust

One can observe general declining of trust in modern societies that started simultaneously with atomization of societies [6]. Process of globalization and phenomenon of rapid change in almost every sphere of life results in so called ‘cultural trauma’ which manifests itself in apathy, escape from public life, nostalgia for the past [7]. Modern tendency of disintegration is followed by mutual separation among members of the society, which forms so called ‘lonely crowd’ [8]. Crisis in cultural fundamentals for civil society, declining of the social capital, individualism are all big treats for mutual trust in both global and local scale. It touches also education and distance education. Trust is crucial in learning in general, but plays even more important role in learning online, where there is less to do to improve direct relations between and among the subjects of learning process. It is crucial and decisive to find proper solutions enabling creation of sustainable trust in distance learning.

1.4 Types of trust in virtual society

Before we will analyze types of trust characteristic for e-learning, let us enumerate various typologies of trust in social life. A lot have been said about business relations and levels of trust between economic partners. One level concerns trust for the contract partner or partners, where signed written agreement is supported by mutual promises. In this case we believe that the promise will be kept (contract trust). On the second level we base our trust on competences and resources on the partners side. We believe that business partner has enough experience, knowledge and force to fulfill the contract (competence trust). Third level of trust concerns the good will of the partner to fulfill obligations and promises (good will trust) [9], [10].

More elaborated typology of levels of trust is applied to all kinds of organizations. Thus we can differentiate between intrapersonal trust (the trust to one’s own skills and competences), interpersonal trust (the trust to other’s skills and competences), system trust (concerns the trust to the whole system in which we place our activity, like organization as a whole) and object trust (when we trust particular elements or objects within the whole system [11], [12].

Other researchers underline the multilevel trust in virtual systems, including e-learning ones, and pinpoint main sources of trust in three aspects: individual (vertical trust), interactive trust (horizontal trust) and systemic trust (trust to the content or the organization of the system) [13]. These sources are the following: competences, resolving problems attitude, effectiveness of communication, openness of communication, proper rewords matching, unity in goals, active support for the partners, compatible culture, shared values, financial stability, good reputation.

1.5 Types of trust in distance learning

When we transfer general analyses to the realm of new methods of e-learning we will find very similar recognition of the sources of trust. Trust in distance learning has three different meanings. First, probably the most important, concerns the relation between pupils and teachers. In traditional class it is called pupil-master relationship and it intrinsically involves high level of mutual trust between the two. Good teacher knows how to moderate the group, to respect individual differences between the learners. In modern e-learning this type of trust is not easy and obvious but is still in the same way desired.

Second type of trust concerns various relations on the bottom level of the process of learning, and is often called peer trust. At nowadays stage of massive distance learning development there are usually lots of occasions to communicate in the group of learners, to peer learning and even peer assessment. Authors of good quality MOOCs are even obliged to enable massive and effective communication between participants, both individually, and in groups. Level of trust between the learners in the group can influence overall trust to the course and to the very idea of distance learning.
Third type of trust is addressed to the content of the course online. Learners should be convinced that the product offered on learning market is of highest possible quality. Mechanisms of quality assurance (QA) and various kinds of courses supervision can provide the learners with high quality of the content. But the content itself without proper level of overall trust from the side of learners will be not sufficient.

One important obstacle in quality assurance came at the beginning from administrators and organizers of distance education. Teachers and managers were skeptical and hesitated to join new wave of e-learning development. But, Valentine put it: “If the administration and instructors are lacking in true commitment, it is bound to have a negative influence on the entire distance learning experience” [14].

Quality standard were based on 4-level model of evaluation from the theory of Kirkpatrick [15]. Summarized rate of quality was the sum of reaction level (of learning process participants), level of teaching (how much knowledge participants gain in learning process), level of behavior (to what extend learners are able to use their new competences) and level of results (how effective the learning process was). Lately researchers concentrate on particular elements of quality assurance and capacity building in e-learning systems. One of the most important factors under analysis is trust.

2 METHODOLOGY

2.1 Importance of trust

In the recent research done in 2014 by Y. Diana Young we can find interesting analysis of twelve factors defining trust in four dimensions: Credibility, Design, Instructor Socio-Communicative Style, Privacy and Security [16].

Credibility consists in the following sub-factors:
- Prior positive experience with the e-learning system or the instructor
- Good reputation of the e-learning system or the instructor

Design enhances next three elements:
- High information and design quality of the e-learning system
- Good accessibility and usability of content and tools in the e-learning system
- Display of contact details of the instructor or the physical entity behind the e-learning system

Instructor Socio-Communicative Style includes the following constituents:
- Assertiveness of the instructor
- Responsiveness of the instructor
- A sense of care and community created by the instructor

Privacy & Security means in this system of evaluation the following:
- Disclosure of understandable and adequate privacy and security policy statement
- Use of security mechanisms (e.g., the secure HTTP protocol, encryption, secured logging system, etc.)
- Compliance with third-party privacy assurance or standard (e.g., US-EU, US-Swiss Safe Harbor Frameworks, IEEE LTSC, etc.)
- Reliable and timely access to the e-learning system [17], [18], [19], [20], [21], [22].

2.2 Sample

Survey was done on the group of adolescents, among which 67% have previous experience in participating in e-learning courses. Almost all of them were massive Internet users, more than 90% spent no less than 10 hours weekly in the network. Subjects were asked to attribute importance of above listed set of 12 components of trust or credibility assurance in online learning. Factor analysis showed that we can reduce the whole group of indicators into two main components responsible separately for the positive evaluation of trust level. These are Course Instruction (which includes
design, prior credibility and communicative skills of teachers, as well as his/her assertiveness and reputation) and Privacy & Security.

Our aim in the survey was to compare the results of similar study in less developed (in terms of amount of e-learning courses offered) environment.

2.3 Hypotheses

In realm of Polish educational system, and expecting minor practical knowledge about the matter of e-learning we could assume that the level of credibility of online learning would be low, or certainly lower than to traditional learning.

Hypothesis 1. Credibility of traditional learning is significantly higher than that of e-learning.

At the same time we can expect that students awareness of importance of quality assurance in general and of trust as the crucial component will be high.

Hypothesis 2. Trust component of e-learning process is appreciated strongly by potential e-learners.

And between three types of trust (to the content, to the instructors and to peers) should not be big difference, as all three play equally important role in quality assurance and trust-building.

Hypothesis 3. Level of three types of trust appreciation in e-learning will be on virtually the same level.

3 RESULTS

3.1 Trust in numbers

To verify our hypotheses a questionnaire was elaborated and operationalized. Survey consisted in 28 questions, most of them single or multiple response and one open. Research was done on the concise and consistent group of 43 adolescents in the age between 19 and 21. Pilot study group included mostly young women. There were 41 women in the sample and only two men. All of the subjects were MA students. More than a half (59%) of subjects live in the country, outside the cities, rest of them from small cities (23%) and big cities (16%).

Most of the students under survey are intensive network users – all of them (100%) spend at least one hour daily in the Internet. And they are mostly familiar with social media of various kinds. Almost all of them (95.3%) have a profile on Facebook, 83.7% watch movies on YouTube, 51.1% use Snapchat and 48.8% use Instagram. At the same time they use e-learning in relatively moderate way. People with experience of more than 3 courses are very few, only 4.6%. Others participated in 1-3 e-learning courses (81.4%) or have no course on the account (13.9%). Sample group members have very low knowledge about new kinds of e-learning courses and therefore their attitude towards learning online is ambivalent. Almost the same amount of students having the choice between traditional and online course (with the same content and credits offered) would take one over another – 58.1% voted for tradition, while 41.9% for online. And 51.2% of pupils would prefer to have the nearest exam in traditional form, while 48.8% of them would take online exam instead. But at the same time, when asked about future, subjects declare using e-learning more intensively. Over 72% answered positively (‘yes’ or ‘rather yes’) to this question.

Knowing that attitude towards e-learning is ambiguous, we can still check how the subjects judge the role of trust in various contexts of e-learning. Along with the set of hypotheses put forward before we asked in the survey about all three aspects of trust in e-learning context: trustworthiness of the content, trust towards e-learning teachers and tutors, and trust to course peers.

Subjects were asked to compare their trust in the content presented in traditional and online courses and in result they judge as more credible the first. 41.6% of the sample said that the virtual content is of the same reliability as traditional, but 58.3% of the sample claims that the opposite is true, that online content is less credible. Similar results were obtained in the question about trust towards teachers. Only 36.8% of students trust online teachers no less than the teachers in the classroom, and 63.2% judge virtual teachers as less credible or not credible at all. Interestingly, when asked about the role of trust to the teacher within online course, participants claim that it is important, very important or decisive (81.6% responses), while only 18.4% of students say that it is indifferent. Less important in the eyes of subjects is trust in co-users of the course. According to the results of the survey trust towards peers is decisive, very important or important for 65.8% and not important or indifferent for
34.2% of the subjects. This last result may look surprising but is probably the result of weak experience of the sample in collaborative courses with massive horizontal interaction between learners.

4 CONCLUSIONS

Unexpectedly it turned out that Polish young learners are quite well experienced in taking various types of distance learning courses. They do not use them massively but 86% of subjects know e-learning process from their own experience. Some of them know e-learning from high school, and others directly from the Internet. Subjects are intensive network users, majority of them spend more than one hour daily in the Internet.

Hypothesis 1 (Credibility of traditional learning is significantly higher than that of e-learning) was partly confirmed, because although there were more voting for traditional courses than for online learning, the difference is not significant. More convincing difference appears when subjects were asked about credibility of traditional teachers comparing with virtual ones. In this case significantly more students (63.2%) admitted that online teacher is less credible or is not credible at all. Second hypothesis (Trust component of e-learning process is appreciated strongly by potential e-learners) was confirmed convincingly, because 81.6% claim that trust to online teachers is important and 65.8% say the same according to the peers in the course. But, as we see, there is a difference between the two digits, which undermines our third hypothesis.

Overall result of the pilot survey inspired further studies and plans of broader research of the status of objective and subjective components of credibility and quality assurance of new kinds of online courses, where trust in various contexts plays crucial role.

REFERENCES


