

# Webinars as a forgotten innovative method of online learning: an overview study

**Michal Černý**

## **Abstract**

The topic of webinars is not entirely new, but it represents an attractive educational area that is not yet clearly captured in terms of teaching, research or theory. Therefore, in the following review, I will try to illustrate their presentation in the articles that have the highest number of references in the SCOPUS database (between 24 and 10). In this way, I will try to analyze texts that can be perceived as the most influential in a given topic. In this review, we also analyse new research and papers to describe the research and application possibilities of webinars.

**Keywords:** webinars, overview study, Edutech, technology in education.

## **Webináře jako zapomenutá inovativní metoda učení on-line: přehledová studie**

## **Abstrakt**

Téma webináře není zcela nové, ale představuje atraktivní vzdělávací oblast, která ještě není jasně zachycena z hlediska výuky, výzkumu nebo teorie. Proto se v následující studii pokusím ilustrovat jejich odraz v článcích, které mají nejvyšší počet odkazů v da-

tabázi SCOPUS (mezi 24 a 10). Tímto způsobem se pokusím analyzovat texty, které lze vnímat jako nejvlivnější v daném tématu. V této studii analyzujeme také nový výzkum a dokumenty, které popisují možnosti výzkumu a aplikace pro webináře.

**Klíčová slova:** webináře, přehledová studie, Edutech, technologie ve vzdělávání.

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## Introduction and methodology

The webinar can be understood as a didactic form<sup>1</sup>, through which video and other multimedia forms ensure dynamic interactivity between the lecturer and students (Pluth 2010, Clay 2012, Matthes & Robideau 2017). This frontal concept does not have to be directly linked and may be more participatory. Webinars are implemented through unique systems such as Adobe Connect, Zoom Video Webinar, ezTalks Webinar, Go-ToWebinar, Anymeeting etc. It is a technology that provides an asynchronous form of online learning that allows you to compensate for some of the common problems associated with standard ways of e-learning implementation.

In the Czech environment, only two publications were published monographically on the topic of webinars – from Hadley and Chapman (2014), which has a more general character and then from Černý (2015), which is a booklet-type publication rather than a complicated and extensive monograph. The offer of foreign literature, both magazines/journals and books, is of course more comprehensive. The above examples show that there is no more precise grasp of the whole issue in our context. Therefore, I consider it essential to offer an overview study presented below, which would provide not only to the Czech reader- a basic orientation in the whole topic based on capturing scientific production.

For the search, I chose the database SCOPUS, which indexes a total of 632 documents containing the keyword webinars. It is therefore a topic that is quite often reflected and when looking at the trends, it can be said that its importance is continuously growing. The first texts are from 2002, and since 2007, it has been possible to see a steady increase in published studies. Most documents come from the United States (353), followed by Canada (48) and the United Kingdom (40). From the Czech environment, two texts can be found in the SCOPUS (both from 2014), 63 % of the texts are in magazines, another 20 % in conference proceedings, other publishing platforms are marginal.

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<sup>1</sup> I incline to the Czech discourse of the concept of didactics, although it is not explicitly used in English speaking countries (Švec 1991). What I will analyse in this study is just didactics.

The fields of medicine and nursing account for almost 27 % of published texts; social sciences account for about 20%, engineering disciplines for about 10 %, as the same with computer sciences. Similarly, journals are represented by a branch of medicine.

For an overview of our study, I made a slight narrowing my search query. I was only interested in texts that had already been published, coming from the social sciences and humanities, written in English as magazines articles. In this way, I obtained a total of 114 documents, of which 11 were selected with ten or more citations. For a practical search, I used:

TITLE-ABS-KEY ( webinars ) AND ( LIMIT-TO ( SRCTYPE , "j" ) ) AND ( LIMIT-TO ( PUBSTAGE , "final" ) ) AND ( LIMIT-TO ( SUBJAREA , "SOC" ) OR LIMIT-TO ( SUBJAREA , "ARTS" ) ) AND ( LIMIT-TO ( DOCTYPE , "ar" ) ) AND ( LIMIT-TO ( LANGUAGE , "English" ) )

Therefore, I did not proceed by the method of narrowing the results, but by sorting them through citation responses. Therefore, articles with a response rate of less than ten did not reach our overview. The search was conducted on August 20, 2019. As of that date, I also fixed all the results. The second option offered was to limit contributions either by date (to current texts – 22 in 2019) or by open access (21 texts without date limitation). For the reasons described above, and especially due to the absence of other review studies, I chose a procedure with the selection according to reference responses.

## 2 Summary of selected papers

Here I show an overview of the individual sourced texts (10 articles altogether), which we focus on regarding webinars. Thus, we are not concerned with their context, but we look for elements that are essential for the realization of webinars or their didactics.

The Harvard Medical School Academic Innovations Collaborative: Transforming primary care practice and education

The paper focuses only marginally on the topic of webinars; it understands webinars as one of the complementary methods of an overall more effective collaborative teaching through medical technologies. He emphasizes that the main drivers of such changes are primarily economic aspects, where the educational content needs to be offered to a wide range of people with minimal economic demands, which they believe the webinars do well. What is to be appreciated is the emphasis on a specified environmental solution (education is an ecosystem) and then on cooperation as a critical aspect of such education.

Distance and Online Social Work Education: Novel Ethical Challenges

Although the text is relatively dated (from 2013), it also offers many essential impulses for current practice. Webinars should be used interactively, not just live

streaming videos. If they are to have a discussion form, it is necessary to work with the silent majority. In each group, there were typically one or two students who usurped space for discussion at the expense of the others. The second exciting thing is to discuss whether this form of education is suitable for social work or not. The author points out that it may not be an ideal tool for practising social intervention or for developing social competencies in general.

#### Meeting extension programming needs with technology: A case study of agritourism webinars

Interesting research focused solely on the use of webinars in forestry and agri-tourism education (marketing, etc.). It has a relatively large research sample and clear questions and presentation of results. The participants were satisfied on average, and the form suited them, only a few of them rated the webinars negatively, but this may be due to their participation in the evaluation. From the recommendations, it is possible to identify the possibility of participants printing slides in advance, giving more space and time for interactions, do not do more things at once (ask a question and still say something), train more in the webinar.

#### Building communities of practice: MEPI creates a commons

Text following cooperation of institutions from the USA and Africa on the education of doctors. Interestingly, according to the study, webinars have excellent feedback. The authors of the article rank them as core technologies for education. At the same time, they do not recommend their use for open education in the general society. The reasons in the text are not clearly described, but it seems to be a fear of losing interactivity and sharing and moving to frontal teaching.

#### An educational evaluation of web-based forestry education

Through its data, a very beneficial study also focused on forestry. A total of 503 questionnaire responses were available. These showed the decisive role of webinars in education and the satisfaction of individual participants. More than half of the webinar attendees eat regularly, much of it is devoted to e-mails, but also IMs or tracing related information. Being a 2009 study (published 2010) there is not yet a strong influence of social media.

#### The physician mentored implementation model: A promising quality improvement framework for health care change

The text is devoted to webinars only marginally, yet it offers one exciting aspect. The authors differentiate educational activities into different categories, and the goal of webinars is community support and community learning. Therefore, webinars play the part of something that helps with specific belonging. The study is focused on mentoring in health care.

### Professional Development Webinars for Pharmacists

The study focused on webinar training for pharmacists. They rate webinars positively or very positively and perceive them as an excellent educational platform. The sample is limited to participants who have paid \$35 for participating in the webinar. The price factor is perceived as the third most important among those who may not want to participate in such education. The price is for 60 minutes of interpretation and about 30 minutes of discussion. The main reason why they might not want to participate any more was the chosen time (Wednesday evening) and inappropriate topic. Adobe Connect was used as a webinar platform.

### Online webinars! Interactive learning where our users are: The future of embedded librarianship

This theoretical paper summarizes the advantages and possibilities that webinars bring to education in the library environment. It opens the debate that the future librarian will be able to organize webinars with individual and group consultations that can be more effective than the rigid offering of online learning and face-to-face meetings. The text emphasizes simplicity, the ability to adapt to the needs of the user and to help them with research or work with information in the place and context where it needs it.

### Parallel processes: Using motivational interviewing as an implementation coaching strategy

The research article focuses on the question of whether webinars can be used for some forms of psychologically justified professionally guided forms of coaching. The answer is that this possibility through so-called motivational interviews seems to be very promising, although the authors call for further research. Methodologically, the authors work with video analysis.

In general, although we did not include medical texts in our review, the topic of medicine forms a substantial part of our review study. Medicals papers are a significant feature that is also present in many other areas of online education or technology in general education.

The name of the paper	Year of publication	Number of citations in Scopus	Topic	Empirical / theoretical	Research sample	Methods	Research questions	Research tools	Data processing
The Harvard Medical School Academic Innovations Collaborative: Transforming primary care practice and education	2014	24	Healthcare education	Empirical	12 institutions, 260 000 patients, 450 students		How to effectively transfer knowledge between academia and other actors and patients?	Data analytics, external evaluation	Reflection practice
Distance and Online Social Work Education: Novel Ethical Challenges	2013	24	Education of social workers	Empirical	4 groups by an unknown number of students	Reflection of own experience, experience of colleagues	Is distance education suitable for social workers? What problems or barriers do they have to deal with?	It was not clearly defined.	Reflection practice
Meeting extension programming needs with technology: A case study of agritourism webinars	2011	24	Education in agriculture	Empirical	5 webinars after about 45 minutes of interpretation and 15 minutes of discussion, with a number of participants between 20–73, a total of 214 participants offered 101 unique answers.	Survey	Questions were focused on the appropriateness of webinar education, technical mastery and comparison of classical and webinar teaching.	Questionnaire	Simple descriptive analysis
Building communities of practice: MEPI creates a commons	2014	19	Healthcare education	Empirical	40 schools in Africa and 20 in the US, 10 webinars.	Reflection of own experience		It was not clearly defined.	Reflection practice

The name of the paper	Year of publication	Number of citations in Scopus	Topic	Empirical / theoretical	Research sample	Methods	Research questions	Research tools	Data processing
An educational evaluation of web-based forestry education	2010	15	Education in agriculture	Empirical	503 replies to the questionnaire.	Survey	How does the nature of participation (live, recorded, interactive, reading, etc.) affect the effectiveness of education? How can education be made more effective? What kinds of online and social networks do Forest-Connect registrants use? How does distance education compare with other types of forest education through webinars?	Questionnaire	Simple descriptive analysis
The physician mentored implementation model: A promising quality improvement framework for health care change	2015	14	Healthcare education	Empirical	35 hospitals.	Reflection of own experience and analysis of treatment quality	They are not explored, but it is about improving the quality of treatment through education.	Measurement of treatment quality	Simple descriptive analysis
Professional Development Webinars for Pharmacists	2012	13	Education of pharmacists	Empirical	One webinar was attended by 38, more webinars by 12 participants. The total sample was therefore 50 participants.	Survey	What factors limit participation in webinars? How do pharmacists evaluate webinars?	Questionnaire	Simple descriptive analysis

The name of the paper	Year of publication	Number of citations in Scopus	Topic	Empirical / theoretical	Research sample	Methods	Research questions	Research tools	Data processing
Online webinars! Interactive learning where our users are: The future of embedded librarianship	2010	12	Information literacy education	Theoretical					Theoretical treatise
Parallel processes: Using motivational interviewing as an implementation coaching strategy	2014	11	Coaching as a therapeutic tool	Empirical	34 webinars after approx. 70 minutes, number of participants from 1–9 according to webinar.	Work with video recordings	Are motivation interviews usable as a coaching tool through webinars?	Standardized measurement	Statistical analysis
Health care workforce development in rural America: When geriatrics expertise is 100 miles away	2012	11	Education of war veterans (social pedagogy)	Empirical	10–30 participants per webinar.	Telephone interviews, questionnaires, forced dial interviews	Did the curriculum fill educational gaps and increase confidence in geriatric competencies? What are the needs of healthcare professionals in providing or improving the care of older veterans in rural settings in addition to traditional courses?		Statistical analysis



### 3 Analysis of interesting areas

The entirely dominant character of webinar research in the most cited articles is quantitative, based on questionnaires. All other methods play a marginal role in the texts we analyze. This is because distributing the online questionnaire in a webinar environment is very simple and convenient, and analyzing the data from them is not too demanding. Only one paper (Hettema et al. 2014) used more sophisticated statistical processing. Otherwise, it was a simple conversion to percentages.

What we consider essential in the texts, however, are primarily three areas of findings. Firstly, emphasizing the fact that a webinar is not an isolated educational activity. It always stands in the broader educational ecosystem, which includes, for example, classical courses, physical meetings, self-study, etc. Only when it can create its logical and functional anchorage in the whole of education can it have meaning and meaning. From the studied data, it follows that its use can be highly variable: from the support of sharing practice, through teaching current topics to individual consultations or creating a sense of social belonging.

We see this thoughtful creation of an ecological education system as a powerful tool that can intervene in several areas of education and cultivate the discussion about it in general. It is always a package of activities that must be well thought out and put together. At the same time, it becomes clear that being an educational expert (or even a didactic) without proper knowledge as online and offline education is not possible.

The second important area to mention is the active prevailing positive feedback. Between 2010–2015, which is the time during which the studies were analyzed by us, it turned out that technical barriers are rather minimal, having only an individual character (see Reamer 2013) or manifesting themselves for a better exercise that would develop the ability to use the environment to the fullest (Rich et al 2011). However, it is not possible to speak of any technical difficulty or difficulty or that someone would be excluded from education (however, such specific persons with social disadvantages may exist).

A note in the research by Broussard Allred and Smallidge (2010) found that most participants during webinars find it interesting in two ways. First, it shows that dividing a webinar into an explanatory and discussion section can bring some benefit to the participants in the form of a possible diet, but at the same time can lead to loss of attention and excessive passivity. Above all, this reveals the experienced sense of safety of participants who eat a technological, not trivial tool while operating.

The third and final key area that we would like to draw attention to is the fact that the authors of the individual webinars (almost always the analyzers of specific examples) solve problems with the didactic grasp of the whole technology. How to make sure everyone gets the floor? How to support activation forms of teaching? How to teach effectively? It also raises the problem of education as a service, which must be

realized at a certain price, in a particular place, in specific content and with regards marketing communication. They also perceive the texts as necessary, although they only suggest it.

We can conclude that the topic of webinars emerges from the text analyzed above as something of an ecological nature, which is an educational service, which brings new specific demands. At the same time, it is a technology that is positively accepted with a wide range of applications, which is dependent on what place in the “ecological niche” we allocate. Nevertheless, didactic and methodical procedures represent a specific space of thought, which we perceive as necessary for research and application.

## 4 Beyond to the current situation

Although it is not customary for an overview study to focus on texts extending beyond its scope and methodological delimitation, we will attempt – even given that most of the publications in our review were not very up-to-date – to offer at least a brief fragmentary view of texts from 2019 in the database SCOPUS. I used the same criteria for their search; only the order was by time and not according to citation responses. As of August 21, 2019, there were 22 such articles, with the overwhelming majority of texts still being published in the US (14), Australia (2) and the United Kingdom (2).

The analysis of the results clearly shows that there are topics on ecological integration of webinars into the educational process which are still active, and that the emphasis placed on economic education and education of specific professions (especially medical). As in our analysis, webinars are still perceived primarily as an andragogy tool. There are also papers with webinars as a marginal topic.

They play a particularly important role in working with the community during learning (Cotch & McLean 2019, Gebauer 2019). The last article emphasizes that successful webinars are those that are built specifically for a given educational purpose. It is therefore not desirable to “recycle topic”, but to seek what the community or educational activity needs.

Mecoli and his team (2019) draw attention to the fact that webinars are a sought-after tool for education and personal development in community schools, where funding for teacher work is typically minimal.

The paper by Peuler and McCalister (2019) is a very readable text as it follows the overall preparation of the broad concept of webinar education that has taken place in the US. It offered webinars shared by librarians and students (LIS). The conference lasted one day and consisted of a total of 17 webinars of 45 minutes each.

## Conclusion

Webinars represent a relatively overlooked form of online education compared to LMS, for example, they have relatively inadequate didactics, but they lack an overall more profound understanding of not only the technology but also their educational possibilities. If we could highlight some of the texts at the end, we would like to highlight the article by Hettem and his collaborators (2014), which is unusual in that it works with webinars as an intrinsically sophisticated technique, has standardized results testing models. The study shows above all that “video with chat at the end” and that webinars can work more profoundly and effectively.

All analyzed studies (10 in the review and 15 in the updated section, only five of which we eventually included) were focused on adult education, which I perceive as impressive information on andragogy and andragogic methods. But webinars are also a challenge for school pedagogy – are we able to transfer education through webinars to primary, secondary or high schools?

Currently, there are many paid (and unpaid) platforms that allow webinars to be implemented with necessarily minimal economic demands and experience. I think it is a pity that we are unable to make more use of them at present. It would undoubtedly enrich both the Czech and world space of education. Moreover, as the article by Peuler and McCalister (2019) shows, the implementation is more demanding on an organization than on the actual mastery of hardware and software.

In conclusion, I would like to mention four speculative points of further development or examination:

- Didactics of webinars – how, what, when and by whom teaching can be achieved through them.
- Evaluation methods – It seems that straightforward tools are used for evaluation and that we might want to know more about webinars and user behaviour in them.
- School use – how to get webinars for non-professional education.
- Reflection of webinars in the context of whole educational programmes developing complex competencies of participants.

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**Contact:**

RNDr. Michal Černý

Department of Social Education – Faculty of Education, Masaryk University

Department of Information and Library Studies – Faculty of Arts, Masaryk University

Arne Nováka 1, 602 00 Brno, Czech Republic

E-mail: mcerny@phil.muni.cz

**RNDr. Michal Černý** is a researcher in the Technology Agency of the Czech Republic (Technologická agentura ČR – TAČR) project dealing with the transfer of knowledge between university and secondary schools through web courses. It focuses primarily on the issues of the educational environment, its design and research, as well as the philosophy of education and digital competence. Web page: <https://cernyedtech.wordpress.com/>.