

**Bundeswehr Education and Training Convention 2024**  
Convention and Exhibition  
03<sup>rd</sup> to 05<sup>th</sup> September 2024  
Helmut Schmidt University  
Bundeswehr University Hamburg

(AUS)BILDUNGSKONGRESS  
DER BUNDESWEHR  
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## Call for Papers

### ***“Game-based Learning and Serious Gaming for a strong Democracy” – Opportunities and Limitations***

*„There is something like democratic muscles that have to be trained regularly because otherwise they will turn slack and shrivel. We have to practice again and again our capability to hold sensible discussions with people having different opinions and our readiness to balance diverging interests”<sup>1</sup>*

With these words, the President of the Federal Republic, Frank-Walter Steinmeier, in December 2023, during the award of the medal ceremony on the occasion of the day of honorary functions, makes it clear that a strong democracy requires not only an understanding of society as a whole to preserve the democratic civil society and to maintain the rule of law against a potential threat, but most of all:

training/advanced training and continuous qualification

- in the analysis of information and sources;
- in a fair exchange of opinions, positions, needs;
- in fair communication and respectful dealings with each other;
- in working together, both cooperatively and collaboratively and
- in choosing courses of action and assessing potential consequences of implementation.

Starting with political education, through the individual actors of the democratic civil society to the state institutions, a strong democracy always depends on the individual’s willingness and responsibility to make decisions. Against this backdrop, decision-making simulations, increasingly supported by the use of modern models of artificial intelligence, are becoming more and more important.

The Bundeswehr Education and Training Convention, which, for two decades now, has been established as a platform for discussion as regards the modernization of basic, advanced and follow-on training of operational forces of most different types and other target groups of community education intends to take up this discussion under its reference to Education and Training and, in doing so, to focus in particular on the currently accelerating technological

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<sup>1</sup> President of the Federal Republic of Germany, Frank-Walter Steinmeier (accessed on 11 Dec 2023 at 11:20 hrs) cf. <https://www.bundespraesident.de/SharedDocs/Reden/DE/Frank-Walter-Steinmeier/Reden/2023/12/231204-OV-Ehrenamt.html>.

possibilities for shaping a realistic and mission-oriented training.

In recent years, Game-based Learning, Serious Gaming<sup>2</sup> and Wargaming<sup>3</sup>, i.e. games and simulations with a serious background, just as Gamification<sup>4</sup>, which can mean the application of typical game elements in non-game contexts, have undergone major development steps and offer extensive chances and opportunities to fundamentally renew and enhance basic, advanced and follow-on training of operational forces. Artificial Intelligence (AI), Operations Research, Augmented to Virtual Reality, but also the analogous game, can pave new ways for competence-oriented training in the context of Serious Gaming, Wargaming and Gamification, that is in the context of game-based learning.

A multitude of different game elements and systems are already in use. In the military, for example as part of nautical or flight training by means of Virtual and Augmented Reality simulations. But also, in the civilian sector, for example in most diverse planning games at schools and universities, one of them being the political “Model United Nations” (MUN) simulation, or in enterprises, Game-based Learning scenarios are used for educational or personnel selection purposes.

In the form of decision-making simulations, Game-based Learning, in combination with the possibilities of digitization, may not only enable rapid training/education, but above all also train the anticipation required for decision-making in a realistic manner. The 200th anniversary of the “Prussian Kriegsspiel” as a military planning game (originally developed by Bernhard von Reisswitz as a simulation on the map table) also offers the retrospect possibility to analyze the application of game elements in complex decision-making scenarios.

On the Bundeswehr Education and Training Convention 2024 we therefore want to discuss this topic with you from three perspectives:

### **1. Development status of theories and definitions:**

Where do we stand in the areas of Game-based Learning, Serious Gaming, Wargaming, Gamification and as regards the use of AI and Virtual and Augmented Reality in basic, advanced and follow-on training? What definitions exist? How do different definitions affect the application? How do these methods differ from each other?

We want to make an attempt to shed some light upon the multitude and jungle of terms and concepts that are used today and, as part of a systematic examination, research and practice, give an orientation for further development and use.

### **2. Technology and best practice:**

What are the current state-of-the-art technological options? What experience is gained in everyday professional as well as near operational use? What are best practice examples in education and training for the acquisition of competence in terms of Game-based

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<sup>2</sup> Working definition: “Serious Games are mainly digital applications with game-like and didactic elements [...]”. “The central distinguishing feature compared to entertainment-oriented games is an explicitly formulated educational objective.” (Tolks et al., 2020).

<sup>3</sup> Working definition: “Wargames are based on models, simulations and simulation games and vary according to purpose, conflict level and time horizon.” (Nitzl et al., 2023).

<sup>4</sup> Working definition: “Gamification describes the idea to use game design elements in non-game contexts in order to increase the motivation, performance and commitment of users.” (Tolks et al., 2020).

Learning, Serious Gaming, Wargaming, Gamification, AI as well as Virtual and Augmented Reality?

In this context, we would like to see exemplary findings on the status of “current technological possibilities and implementations”, such as lessons learned reports from practical applications.

**3. Didactic and methodological concepts and lessons learned aimed at integrating Game-based Learning, Serious Gaming, Wargaming, Gamification, AI as well as Virtual and Augmented Reality into competence-oriented training:**

We are interested in concepts and lessons learned for interlinking technology-based or analogous game and simulation elements as part of the acquisition/maintenance of competence and the sustainment training of operational forces, (civilian) leadership as well as other decision-making bodies in order to discuss whether Game-based Learning, Serious Gaming, Wargaming, Gamification, Virtual and Augmented Reality are, in the theory of education, suitable methods to train decision-making processes and whether there should be a limitation, for example of AI, and if so, at what point?

In 2024, we plan to conduct the Bundeswehr Education and Training Convention again in a hybrid way, i.e. mainly presence on site but also specialists and participants attending in a digital way. The convention still is part of the dtec.bw - Bundeswehr Center for Digitalization and Technology Research (dtec.bw) and, as far as the specific subject content is concerned, integrated into the “Competencies for a Digital Working Environment (KoDiA) – Empowerment for Digitalisation” project. It is organized as part of a Bundeswehr-wide process in the “triangle Bundeswehr Education and Training Convention working group”, consisting of the Helmut Schmidt University/Bundeswehr University Hamburg, the Federal Academy of Education and Training in the Bundeswehr and the Armed Forces Training Division of the Armed Forces Office.

The target groups of this call are researchers, command personnel, educational personnel as well as instructors and teachers for basic, advanced and follow-on training of operational forces.

In terms of content, representatives of training and education practice and of various scientific disciplines who find themselves reflected in the above-mentioned perspectives are invited to participate.

- From the perspective of engineering science, for example, the focus may be on current technological opportunities and developments of Game-based Learning and AI.
- From the perspective of education and educational science, the didactic and methodological implementation of the currently available concept scenarios as well as
- From the perspective of politics, history and social science, the actual educational possibilities of hybrid learning settings could be reflected upon and discussed with regard to social standards, political values and personal developmental experience beyond mere qualification exercises.

Young researchers are also very welcome to participate by choosing one of the suggested formats of this Call for Papers.

As participants, we address the decision-making, planning and implementation level of training and education within and outside the Bundeswehr. Instructor and teaching personnel in vocational education and general schools and in enterprises as well as trainees and students are of course just as welcome as lecturers and researchers from universities and research institutions. Representatives of institutions in most various operational areas (from the fire brigade to the police and the Federal Agency for Technical Relief) with relevant practical experience are of course also invited to submit a paper or to attend.

The submitted papers will be assessed and selected by the “Program Committee of the Bundeswehr Education and Training Convention”, a panel consisting of experts from science, educational practice and the armed forces. All selected contributors to the conference program of the Bundeswehr Education and Training Convention 2024 are generally entitled to have a short article published in our convention catalog and an expert contribution (incl. Double-Blind review procedure) in our convention volume 2024.

Along with the Bundeswehr Education and Training Convention, there will be an exhibition at which the Bundeswehr, other international armed forces and operational organizations as well as renowned enterprises will present current developments and provide opportunities “to touch and try out”.

We would be glad if we could make use of your experience and expertise in the convention in the form of workshops, posters and presentations.

You will find further information, especially on the tripartite working group, the program committee and the formal submission criteria for your expression of interest on our website ([www.ausbildungskongress.org](http://www.ausbildungskongress.org)). Should you have any questions, please do not hesitate to contact us under the contact data below.

<p><b>Deadlines</b> Submission of contributions <b>29<sup>th</sup> February 2024</b> By e-mail to: <a href="mailto:ZTB-Ausbildungskongress@bundeswehr.org">ZTB-Ausbildungskongress@bundeswehr.org</a></p> <p><b>Bundeswehr Education and Training Convention</b> Convention &amp; Exhibition <b>03<sup>rd</sup> to 05<sup>th</sup> September 2024</b></p>	<p><b>Contact</b> Oberst i.G. Prof. Dr. manuel schulz, Director Center for Technology Based Education and Training (ZtB) Helmut Schmidt University Bundeswehr University Hamburg Holstenhofweg 85 22043 Hamburg Tel.: 040 6541 3000 Mail: <a href="mailto:ZTB-Ausbildungskongress@bundeswehr.org">ZTB-Ausbildungskongress@bundeswehr.org</a></p>
<p><b>Convention venue</b> Helmut-Schmidt-Universität / Universität der Bundeswehr Hamburg Holstenhofweg 85 22043 Hamburg as well as in a hybrid way/live via internet</p>	<p><b>Organization</b> Center for Technology Based Education and Training (ZtB) Helmut Schmidt University Bundeswehr University Hamburg Holstenhofweg 85 22043 Hamburg</p>

## **Bibliography:**

President of the Federal Republic Frank-Walter Steinmeier (accessed on 11 Dec 2023 at 11:20 hrs) cf. <https://www.bundespraesident.de/SharedDocs/Reden/DE/Frank-Walter-Steinmeier/Reden/2023/12/231204-OV-Eh-renamt.html>

Nitzl, C., Landsiedel, J. & Borghoff, U.M. Lernen aus den Erfahrungen von militärischen Wargames. *Wirtschaftsinformatik & Management* (2023). <https://doi.org/10.1365>

Tolks, D., Lampert, C., Dadaczynski, K. et al. Spielerische Ansätze in Prävention und Gesundheitsförderung: Serious Games und Gamification. *Bundesgesundheitsblatt* 63, 698–707 (2020). <https://doi.org/10.1007/s00103-020-03156-1>

This convention is funded by dtec.bw – Digitalization and Technology Research Center of the Bundeswehr. The dtec.bw

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## Formats and Criteria

### ***“Game-based Learning and Serious Gaming for a strong Democracy” – Opportunities and Limitations***

We therefore invite representatives of science (educational sciences, social sciences, engineering, science of technology and economics) as well as experts of educational practice from schools, public institutions, Bundeswehr, trade and industry to enter the dialog with own contributions. You may submit contributions either for the science panel or for the practice panel. After the Bundeswehr Training and Education Convention 2024, we offer the opportunity to have the contributions published in a convention volume (cf. Schulz et al., 2016).

For your information, these are the possible formats of your contributions and the formal criteria of submission and assessment.

## 1. Possible Contribution Formats

- **Workshop**

This is an interactive format. The aim is to work together with the participants to produce a common result or product within a timeframe of 90 minutes. These may be, for example, common positions, recommendations, guidelines or approaches to solving the issues and problems addressed. It must be possible to document the result so that it may subsequently be made available to the audience during a plenary meeting.

- **Forum**

In the forum you will have the opportunity, together with several speakers, to give keynote speeches on the main topic and to discuss them with the participants. If possible, each keynote speech should contain one or two theses, which will be discussed in greater depth and reflected upon critically during a plenary meeting within a timeframe of up to 90 minutes.

- **Presentation**

A presentation allows you to present selected aspects, problems and questions regarding the main topic. The presentation should be structured to allow sufficient time for discussion with the audience afterwards. The timeframe available to you is 45 minutes.

- **Poster**

A poster is presented as part of a hybrid pitch of 10 minutes. The aim is to present to the audience the most important aspects of the selected topic with regard to the main topic of the convention. The poster should be visually appealing, have a logical structure and invite the participants to provide input.

## 2. Formal Criteria

For the assessment and final selection of contributions to the Science and Practice panels, different quality criteria apply, which are summarized in the following for your orientation:

### Science Panel

- Scientific relevance to the main topic of the convention
- Obvious relevance of the topic
- Clear presentation of the research interest generated by the contribution submitted
- Transparent presentation of issues and method
- Good quality of the methodological approach, the data obtained and the evaluation
- Plausibility of scientific argumentation and consistency
- An international and interdisciplinary approach is desirable

### Best Practice Panel

- Clear relevance to the main topic of the event
- Clear relevance of the topic to basic, advanced and follow-on training
- Realistic possibility of directly implementing new ideas
- Clear practical relevance / best practice in the context of the respective institution
- If possible, relevance to model concepts / pilot projects of these institutions
- Information on implementation and on subsequent activities
- An international and interdisciplinary approach is desirable

## 3. Submission of Contributions

- The deadline for submitting your contribution is **29th Feb 2024**
- Submission of contributions by e-mail to: [ZTB-Ausbildungskongress@bundeswehr.org](mailto:ZTB-Ausbildungskongress@bundeswehr.org)
- If your contribution is accepted, your abstract will be printed in the convention catalog in the version submitted. Please note therefore that your abstract must not exceed a maximum of 2,300 characters (incl. blank spaces).

**We ask you not to submit contributions of a commercial character**

We thank you for your interest and look forward to your contribution to the Bundeswehr Education and Training Convention 2024. If you have any questions, please do not hesitate to contact us under the contact data below!

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*To be filled in by the organizer:*

**No.:**

**Date:**

**Room:**

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*Please use the following structure for your abstract: title, text, references (selection). Do not use more than 2,300 characters (including blank spaces). Please write your abstract as a non-formatted text without any hyphenation.*

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Please select a panel (tick as appropriate):

SCIENCE Panel

BEST PRACTICE Panel

Please select a format:

Presentation (45 minutes)

Forum (90 minutes)

Workshop (90 minutes)

Poster (10 minutes)

Please send your abstracts by **29th February 2024** to  
**ZTB-Ausbildungskongress@bundeswehr.org**

Please provide complete information for each speaker separately.  
We kindly ask you not to use abbreviations.

<b>Lead speaker (if there are several speakers) / Speaker 1</b>	
First name, last name	
Rank / official title	
Title / academic degree	
Institution / facility / company	
Organizational element	
Division	
Street, house number	
Zip code, town or city	
E-mail	
Phone	

<b>Speaker 2</b>	
First Name, last name	
Rank / official title	
Title / academic degree	
Institution / facility / company	
Organizational element	
Division	
Street, house number	
Zip code, town or city	
E-mail	
Phone	

<b>Speaker 3</b>	
First name, last name	
Rank / official title	
Title / academic degree	
Institution / facility / company	
Organizational element	
Division	
Street, house number	
Zip code, town or city	
E-mail	
Phone	

<b>Speaker 4</b>	
First name, last name	
Rank / official title	
Title / academic degree	
Institution / facility / company	
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Division	
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Zip code, town or city	
E-mail	
Phone	

Thank you very much!

Your Education and Training Convention 2024 team

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