

VisGames 2: Workshop on Visualization Play, Games, and Activities

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1. Introduction

This is the **2nd** Workshop on Visualization Play, Games, and Activities—following the great success of the 1st VisGames workshop, where approximately 50 participants engaged with and played six visualization games at EuroVis 2025 (see visgames.org). Our workshop’s mission is to advance data visualization games and playful activities as dynamic tools for communication, co-creation, and collaborative problem-solving in interdisciplinary environments and contexts. The 2nd edition of VisGames is planned as a **full-day event**, featuring an opening and fast-forward session, two World Café-style sessions to play and engage with visualization games, and our **new “VisGames” challenge** for promoting the co-design of visualization games (see Section 4).

Games are “...a problem-solving activity, approached with a playful attitude” [Sch08]. Games have been successfully incorporated into various subjects, ranging from mathematics and science to history and language [SJ03, May19], serious games, specifically have demonstrated potential as learning material by offering an interactive and playful environments in different domains (e.g., programming or mathematics [NM14, CBM*12, QC16]). Recent studies have shown that such games can help to enhance motivation and conceptual understanding [CBM*12, BHC*16]. Moreover, by incorporating interactive, engaging elements as well as challenges, games present an opportunity to promote collaboration (fostering teamwork), competition (encouraging innovation), critical thinking, problem-solving, and decision-making skills. They can be leveraged as a methodology to make abstract ideas more tangible and communicate complex concepts [GvdV16]. For example, interactive tools, such as *Construct-a-Vis* [BZP*20] and *Diagram Safari* [GWL*19], showcase how visualization games can enable participants to engage with data, learn about new concepts, and facilitate communication. Storytelling-inspired games, such as the ones designed by Huynh et al. [HNGC21] and Ambrosini et al. [AM22], further illustrate the potential of narrative approaches to foster exploration and shared insights, also within very specific application domains such as healthcare [SR24]. Beyond digital and storytelling approaches, different media have been incorporated. For example, sketches (to analyze how data is interpreted [BWD21]) and card games (where a player selects a visualization and another needs to guess it [AGR21]) have been explored to enhance the comprehension of visualization concepts.

Among other things, games and playful activities support collaborative work, cross discipline communication, and innovative design approaches in visualization and a range of contexts. A non-exhaustive list of these contexts includes:

- *Idea Generation*: Games can foster co-creation and encourage participatory design by providing open and playful environments for participants to collaborate and share their ideas [CZJL*14]. This encourages active participation and promotes creativity, enabling to look at the problem from diverse perspectives throughout the development [MP15].
- *Support Decision-Making*: Visualization games can also be leveraged to gather large amounts of data on human perception and decision-making [HEAS15]. In this case, games including aspects like clustering, ranking, or identifying anomalies can generate valuable behavioral data. The outcomes can be used to assist in the analysis of how people interpret different visual encodings or network layouts [DM15].
- *Serious Games*: Serious games have been shown to not only have an impact on education and learning [CBM*12, BHC*16] but also strengthen communication, support conceptualization, and foster creative problem solving [MRZ23].
- *Visualization Design Evaluation*: Activities and games can act as methods to gamify testing or evaluation of new visualization designs or interaction techniques [AZM12]. Participants can engage with prototypical implementations of the techniques in *game-like* settings, allowing to observe usability and interaction flow [BZP*20]. This approach could be beneficial for pilot studies. Further use-cases of games can be in evaluating and benchmarking cognitive load and task performance. For example, by setting up a competitive environment with timed challenges [DM15], studies can be devised to evaluate performance through traditional metrics (accuracy and response times) and make it easier to compare how different visualization techniques or encodings affect the cognitive load of the viewer [AZM12].

With VisGames, we propose playful, collaborative, and competitive activities to engage participants through rules and goals, creating environments to explore various concepts, develop game design skills, support creative solutions, and tackle challenges [SBK*25].

Mission: Our workshop intends to create an interactive hands-on environment and promote audience engagement and participation to identify emerging problems, common interests, as well as

possibilities for collaboration in visualization. We envision leveraging visualization games and playful activities as powerful and dynamic methods for communication, co-creation, and collaborative problem-solving in interdisciplinary environments and contexts. We aim to explore how visualization games and activities can be used to facilitate idea generation, support complex decision-making, enable stakeholder engagement, and be useful in the evaluation of visualization designs. In line with the newly added **VisGames challenge**, participants will design novel games concepts, rapidly prototyping approaches as a shared experience, and sparking meaningful conversations through playful interaction.

2. Results & Reflection

Building on the established hands-on formats of CHI PLAY [CHI24b] and CHI [CHI24a], as well as the positive reception of the 1st VisGames workshop, with the 2nd edition, we propose to significantly expand the scope and setting. The, originally, half-day workshop focused on World Café sessions (structured group discussion format where participants are seated at small café-style tables and engage in several rounds); however, participant feedback highlighted the need for more time to engage with the games, exchange perspectives, collaborate, and *work on* co-creating new concepts. In response to this, for the 2nd edition we propose a **full-day workshop** to allow participants to fully experience both live gameplay sessions and the new “hands-on” interactive co-design (work) sessions. Our new **VisGames hands-on co-design challenge**, where the World Café tables will be equipped with LEGO®, sketching materials, and other prototyping resources, will provide space for teams to design concepts for new visualization games. Teams will be formed based on common interests. A shared challenge will encourage creativity from all participants, as well as present an opportunity to establish new co-operations and collaborations. By the end of the day, each group will test and present its concepts, and the outcomes will be discussed in a lively session with the workshop participants. This structure provides a setting where participants are able not only to engage and play the showcased games but also time and space to reflect on their experiences and translate them into novel concepts. In our previous workshop, participants most frequently praised the informal and engaging format, which we intend to maintain. We successfully created an environment in which early-career researchers could collaborate with senior scholars, while the senior researchers gained inspiration from the perspectives of the juniors. Most importantly, the informal setting fostered sustained conversations and relationship-building, which participants described as one of the most valuable aspects and outcomes of the workshop.

Other important aspects resulting from the workshop itself are establishing a community centered around VisGames. Since the 1st edition we have accomplished the following:

- A curated [GitHub repository](#) with abstracts, supplementary materials, and photographs, supporting transparency and reuse.
- Publication of four out of six extended abstracts in Nightingale, broadening the visibility of presented work.
- A dedicated [YouTube channel](#) for recordings and fast-forward videos.

- Active platforms for exchange through a [Discord server](#) and a [LinkedIn page](#).

Taken together, these results and outcomes demonstrate the demand and potential for a **full-day format**. The extended structure enables deeper engagement, more meaningful collaboration, and tangible community-building that could not be achieved in a half-day. Looking ahead, we envision VisGames as a sustainable forum that continues to combine gameplay, activities, co-design, and on-line infrastructures to support ongoing innovation in visualization games and playful activities.

3. Workshop Goals

The main vision of our workshop is to create a community around visualization, games, and playful activities to foster interdisciplinary exchange and share research results and best practices. The **goals** of this workshop are to:

- *Demonstrate visualization games and engage with the audience* by playing the games at the conference, in a World Café setting.
- *Introduce an interactive and engaging workshop format* to facilitate a hands-on exchange between participants, tackling emerging problems from new perspectives and finding common interests to establish new cooperations.
- *Publish extended abstract* (2–6 pages including a title, pictures, abstract about the game, rulesets, and playthrough on our workshop website. We intend to publish games on Nightingale, run by the Data Visualization Society.
- *Curate a repository for collecting and sharing visualization games* for diverse audiences (e.g., children/adult learning, data journalists/data scientists/computer scientists/designers) in different scenarios (e.g., onsite, online, hybrid).
- *Create a discussion platform* to create new game or activity ideas, exchange experiences, best practices, and challenges while developing visualization games.

4. Workshop Activities

The full-day workshop will feature an opening and fast-forward session, followed by two hands-on World Café-style sessions for exploring submitted visualization games. We introduce a new **VisGames “hands-on co-design”** session to collaboratively work on a challenge and design and develop concept visualization games. At the end of the workshop, we will conduct a round-table discussion session to reflect on the outcomes of the workshop, foster building collaborations, and provide feedback on the visualization game designs. Given the novel hands-on format of the workshop and our previous experience, we anticipate approx. 50 participants to attend the workshop. A call for participation will be shared across popular mailing lists (e.g., EUROVIS, ACM CHI, IEEE VIS, DRS, ACM DIS, Graph Drawing) and social media. Extended abstracts will undergo peer review by two reviewers and a program committee member.

Opening & Fast-Forwards: We ask the authors to create a 2-minute video demonstrating the game mechanics, the number of players, the objectives, the audience, etc. The fast-forward session

will allow the workshop participants to get an overview of the available games and choose which World Café table to join in the hands-on session.

World Café Sessions: Accepted visualization games will be presented and discussed in a World Café setting. We plan to invite workshop participants to actively engage in and experience (i.e., play) visualization games in small groups. During this session, we plan to record videos intended for social media consumption and also for the reflection session. The hands-on session can be used to recruit test gamers and receive preliminary feedback on the game mechanics.

VisGames Challenge: We propose the inclusion of a VisGames Challenge in the afternoon session. After the lunch break, workshop participants will form small teams of 4–6 members to design innovative games or playful activities that use data visualization to promote communication, co-creation, and problem-solving. Working with the Five Design Sheets methodology [RHR15], teams will brainstorm ideas, define audiences, rules, roles, and progression, and sketch how visualizations integrate into gameplay. The teams will iterate on designs, plan resources, and create mini-test scenarios. The session will conclude with teams swapping games and playtesting to provide peers with feedback [GAE*22], and final pitch presentations.

Closing, Experiences & Feedback: To end the workshop, we will ask the authors to reflect on their experiences during the hands-on session. We also want to perform a structured discussion about further research directions and build a sustainable community in these areas.

5. Tentative Schedule

We propose a full-day on-site workshop in a standard conference room for up to 50 people, equipped with sound, visual equipment, internet access, and ideally, movable (round) tables and chairs for a World Café setup. The tentative schedule is structured as follows:

- 09:00 —09:30 **Opening & Fast-Forwards**
 - 09:30 —10:40 **World Café Session #1**
 - 10:40 —11:10 **Coffee Break**
 - 11:15 —12:35 **World Café Session #2**
 - 12:35 —13:00 **Feedback**
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- 13:00 —14:20 **Lunch Break**
 - 14:30 —16:00 **VisGames Challenge**
 - 16:00 —16:30 **Coffee Break**
 - 17:15 —18:00 **Presentations & Discussion**
 - 18:00 —18:30 **Closing, Experiences & Feedback**

6. Workshop Organization Timeline

The timeline for the workshop organization is as follows (all deadlines are on 11:59pm, Anywhere on Earth):

- October 22, 2025: **Call for Participation**
- March 20, 2026: **Submission Deadline for Extended Abstract**
- April 23, 2026: **Reviews Collected**
- April 30, 2026 (before early registration): **Author Notification**
- May 8, 2026: **Camera-ready Submission**

7. Intended Outcomes & Impact of the workshop

This workshop will allow participants to discuss their challenges using visualization games for different purposes and share ideas or approaches with other visualization researchers from diverse fields. This will contribute to the agenda of the broader visualization community, literacy, education, storytelling, and visualization game designers. The interactive and hands-on sessions on-site at the workshop provide an opportunity for participants to play through, create, and provide feedback on the game's goals, mechanics, and other aspects. The new *VisGames* challenge cooperative working sessions enable participants to build teams and collaboratively solve challenges by generating new visualization game concepts. We will also prompt the participants for feedback and comments about the workshop's structure and organization. We consider attendance, positive participant feedback, visualization game submissions, and the outcomes of the VisGames challenges session to be success measures for our workshop. The results (e.g., submissions, videos, supplementary materials) will be made immediately available on our curated websites and repositories. Summaries and updates will be posted across our social media platforms to disseminate and advertise the submission.

8. Organizing Committee

General Chair: Christina Stoiber  is a researcher & lecturer at the St. Pölten University of Applied Sciences, Austria. Her research interests are Information Visualization, HCI, Visualization Education, and Visualization Literacy. She designed and conducted several workshops; most recently, she co-organized the IEEE VIS Workshop on Visualization Education, Literacy, and Activities [KHP*23, RKS*24, SRK*25]. She organized the first edition of VisGames [SBK*25].

Co-Chair & Web Chair: Velitchko Filipov  is a postdoctoral researcher in the Visual Analytics research unit at TU Wien. His research interests include information visualization and visual analytics of dynamic graphs and networks focusing on novel representations, interactions, and engaging methods for interactive visual analysis. He was part of the organizing committee for the first edition of VisGames [SBK*25].

Workshop Chairs

- Renata G. Raidou  is an associate professor in biomedical visualization and visual analytics at TU Wien, Austria.
- Lorenzo Amabili  is a data scientist working in Buzzi's RTD team and a PhD candidate at TU Wien.
- Mandy Keck  is a professor in UX and Interaction Design at the University of Applied Sciences Upper Austria.

Paper Chairs

- Victor-Adriel De-Jesus-Oliveira  is a lecturer and researcher at the Institute of Creative Media Technologies, St. Pölten University of Applied Sciences.
- Magdalena Boucher  is a PhD candidate at St. Pölten University of Applied Sciences and TU Wien.
- Hsiang-Yun Wu  is a lecturer and researcher at St. Pölten University of Applied Sciences and TU Wien.

- Simone Kriglstein  is an associate professor at Masaryk University and senior scientist at Austrian Institute of Technology.

Publicity & Social Media Chair

- Julia Böck  is a PhD candidate at St. Pölten University of Applied Sciences and University for Continuing Education Krems.
- Lorenzo Amabili, Hsiang-Yun Wu, and Christina Stoiber handle workshop communication via mailing list and social media to ensure updates and outreach.

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