# Building Bridges – HCI and Visualization

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Interact 2011 Workshop
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**Abstract.** The fields, HCI and visualization, are usually practiced as two separate disciplines by researchers with different backgrounds and capabilities. However, these two disciplines, HCI and visualization, could complement each other and leveraging on the differences and complementary features of the two research fields could be beneficial for both. In this workshop, we are going to discuss the different approaches and capabilities of these two disciplines and layout a road map for a unified approach of research using both.

**Keywords:** HCI, Visualization, Standardization.

## Workshop objectives

Whenever discussing the relation between HCI and visualization in general or when presenting research results in these areas, questions arise about the differences between these research fields. Aren't both fields just the same? And if not, where is the common ground? Where is one research field dependent on the other? Can we combine the separated viewpoints and paradigms in a unified and complementary approach, or are we forced to choose one or the other? How can we provide the general public (the developers and users of visualization and HCI and the engineers implementing our designs) a precise and practical enough idea about what's happening in these fields and what's not? What are the consequences of the answers on the previous: how and what should we teach? What will be the future? This dilemma is a topic of frequent discussion around the water cooler, lecture halls, as well as in the boardroom.

One of the major issues is that it is not easy to precisely define the terms visualization and HCI and that there are many interpretations of these two fields that appear to be distinct.

In order to better (or at all) answer the questions on similarities, differences, and correlations of HCI and Visualization, in our workshop we want to discuss topics like:

- What is HCI? What is Visualization? What is a working description that is practical highlighting the special features of each of the fields?
- Are there other disciplines involved in this struggle (e.g., Visual Analytics)?
- How can we take advantage of the two fields and how can we find ways for people with different inclinations to collaborate and take advantage of the strengths of each other?
- What are the similarities of the disciplines? What are the major differences?
- Do we need to really split the domains? Or do we need to join them and provide a joint curriculum for studying and practicing them?
- Can we give definitions that are better applicable in real situations?
- Does one need to further research the ways to make people take advantage of both disciplines in designing interactive visual systems? In that case, what are the research agenda(s) and what are the Top 10 Research Challenges?

We welcome participants from various backgrounds interested in research and application of HCI and visualization, including designers, artists, researchers in visualization, interaction, psychology, and usability, and people from all application fields. The intended length of the workshop is one day. Prospective attendees will submit open position papers from their own areas of interest and also provide short answers to two pro forma questions asking for (i) the participant's views on the most important existing knowledge in the area, including a position statement on possible definitions, and (ii) key research challenges related to HCI and Visualization issues.

The team of organizers is comprised of representatives of both university and industry, giving them a wide multi-disciplinary expertise. They all have significant experience in the main disciplines, as well as in related areas and application domains. Some of the organizers have already worked together in many workshops of the HCIV series [*www.hciv.de*]. The gained expertise and large number of members will be of a great value for successfully advertising this workshop.

Beside the position papers submitted by the workshop attendances, we plan to start an interactive blog in order to continue the discussions of the workshop. For a better visibility of our actions and progresses made, we will also distribute and discuss them using means of social media like Facebook groups and Twitter. Furthermore, the results of the discussions should form common ground for at least one high-quality conference or journal paper.

## Additional information

Additional information (full proposal, first schedule, references, CfP) on this proposed workshop can be found at *http://www.hciv.de/interact11*