

# A Guided Tour Through the Metaverse

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## ABSTRACT

Virtual worlds (VWs) have become extremely popular of late, and a nascent body of work at CSCW has begun to document their consequences for the use and design of collaborative systems. However, VWs do not fit a single mold: they range from online games (World of Warcraft) to business-oriented platforms (Sun’s Wonderland) and social worlds (Second Life), with all sorts of variations in between. As such, it is hard for anyone not focusing their research on this area to understand what VWs really are.

During this extended demo we will let CSCW attendees directly experience the three different VWs mentioned above, under the guidance of experts (the authors). Our demos are aimed at participants with little to no experience using these worlds: we plan to give them the broadest possible overview of their technical and social features through participation in activities planned in advance by the organizers, with the goal of equipping them with enough knowledge to be able to critically assess future research done in this field.

## Author Keywords

Virtual worlds.

## ACM Classification Keywords

H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

## INTRODUCTION

The popularity of virtual worlds (VWs) has exploded in recent years. Driven by a combination of the increasing availability of low-cost, high-performance graphics processors on personal computers and the Internet’s widespread adoption, the Metaverse first described by Neal Stephenson [7] has moved from fiction to reality: nowadays, millions of people log into their world of choice, choose their favorite “avatar”, and interact with each others in simulated realities.

But while Stephenson envisioned the Metaverse as a single, unified online world, we have instead seen the emergence of a much broader ecology of worlds that greatly differ from each other. Indeed, the term “virtual worlds” is often used to describe environments that have little to do with

each other, save for the fact that they all use some form of 3D graphics and avatars as representation of their users. This can lead to confusion, especially for those having little to no direct experience with these environments: hearing a description of activities in World of Warcraft (WoW), for instance, one might form a picture of VWs that does not necessarily generalize to Second Life. And even for those users already familiar with one type of world (e.g. online gamers), lack of exposure to different world types might lead to a form of insular thinking and incomprehension of the technical and social features of other VWs (it is not uncommon to hear WoW gamers talk disparagingly of Second Life, for instance, while few of them have actually used the latter for extended periods of time).

Adding to these difficulties, it is also important to note that the popularity of VWs is not always synonymous with ease of use and access. VWs remain fairly complex technical environments, with a significant ramp-up cost to be incurred before being able to fully experience what the world and its community have to offer. Installing and patching software can be an initial obstacle; past it, learning about the system’s user interface is another; and finally, past these technical barriers the user still has to learn about the cultural practices inherent to each community before being able to fully participate.

Work at CHI and CSCW has begun to document the social life and technical aspects of these virtual worlds [1, 3-6]. Earlier research on Collaborative Virtual Environments (CVEs) also frames our understanding of VWs [2]. This body of work, however, suffers from the same fragmentation we just outlined: studies tend to focus on one type of VW to the exclusion of others, which makes comparative analysis somewhat difficult. The barriers to use and access we outlined above may also prevent many members of the research community from gaining direct experience with these worlds, which in turn might prevent them from engaging fully with the emerging body of work on VWs. Our aim with this set of demos is to address both issues.

## A TOUR THROUGH THREE VIRTUAL WORLDS

To help CSCW attendees understand the differences between VWs, we plan to give our participants direct experience with exemplars of three main world types: online games (using World of Warcraft), 3D social networking (using Second Life), and finally collaborative

business worlds (using Sun's Wonderland). Over three days, we will dedicate our time to one world per day, organizing a 2-hour long exploration of each world under the guidance of experts (the authors of this proposal).

Note that these sessions are aimed at users with little to no familiarity with the world they focus on: an expert online gamer, for instance, would probably not learn much from our session on WoW (but they might very well learn something from the other two sessions on Second Life and Wonderland if they never tried them). Indeed, our objective is to give an *introduction* to each world and provide the participants with a *broad understanding* of the main social and technical features of each world.

To do so, we will provide personal computers already configured with the appropriate software and hardware, thus bypassing some of the technical barriers we mentioned earlier. Each exploratory session will be organized as follows (with possibly some minor variations between worlds, if and when appropriate):

1. Avatar creation and customization: avatars are central to a virtual world user's identity – they are their virtual body and project the users visually into the world. We will describe the unique avatar customization features unique to each world and help participants create their own identity.
2. User interface: we will describe how to perform basic functions common to all worlds (moving around, communicating with other users), how to customize the interface according to the participants' preferences, and how to accomplish tasks more specific to each world (e.g. combat in WoW, content creation in Second Life).
3. Individual tasks: we will ask each participant to perform simple tasks to familiarize themselves with their new surroundings. For instance, we might ask them to move to a specified location and interact with world objects in some way (e.g. attack a monster in WoW, create a "prim" in Second Life, play a Powerpoint presentation in Wonderland).
4. Collaborative tasks: in direct alignment with the conference's main focus, we will describe the collaborative features offered by each world. We will then ask participants to form groups and guide them through joint activities (e.g. group quests in WoW, joint document editing in Wonderland).
5. Cultural exploration: to conclude, we will try to guide the participants to a location where they can experience the social life of the virtual world by simply observing activities in a public space (e.g. one of the main cities in WoW). Note that since

we have no control over users at large, this will be done in a mostly emergent fashion.

During each of the steps above, one of the authors will first describe the activities involved while another demonstrates (if necessary) the operations to be performed using a projection screen. The authors will then move among the participants, making themselves available for any question from the participants. They will look over the participants' shoulders and provide guidance, when appropriate. Our goal is to maximize direct interactions between the participants and the organizers (as opposed to a more formal "lecture style" tutorial).

#### **LOGISTICAL ASPECTS**

We anticipate using a dedicated room for our daily sessions. Sun Microsystems will provide 10 machines that will be configured with the appropriate VWs software in advance, possibly with the help of student volunteers. We plan to run each session on a first-come, first-serve basis, letting interested participants sign up at a location advertised in the program.

For an optimal user experience, it would be ideal to limit each session to one participant per machine. However, should the demos prove to be very popular, it would be possible to accommodate pairs of participants on each machine (one being the "driver" and the other providing verbal input, with participants alternating in each role during the session).

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