# Creative Collaborative Virtual Environments

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# INTRODUCTION

This article offers a definition of Creative Collaborative Virtual Environments (CCVEs), concerning models of collaborative and distributed creation in online virtual communities. Necessary affordances to enable a CCVE are described, and their importance is evidenced in the context of co-creation of content, using art practice as an example. This definition benefits a continued development and use of virtual worlds, as platforms for new collaborative models.

A CCVE is grounded on three key affordances: creation, collaboration, and distribution. These relate not only to the technical, but also to the social layers of virtual online communities.

Shared creativity and distributed authorship are approached as examples of specific dynamics rooted upon those three elements. Because the communities emerging from this type of creative flux provide fertile ground for the advancement of critical research on collaboration and creation in cyberspace, examples of multiple configurations are discussed, regarding the use of networks, technologies and participation frameworks.

Trough this definition, the authors propose to define models of collaborative and distributed creation in virtual online communities. Networked collectives of different practices and practitioners are discussed, across various virtual spaces, as examples of such models. Second Life (SL) is analyzed as a typical instance of a CCVE, since it

currently presents the most accessible and integral approximation to this concept.

The discussion supported by these observations ultimately demonstrates how the co-creation of new content and meaning takes place through collaborative practices in virtual worlds, and how Creative Collaborative Virtual Environments widen the gamut of communicative and creative agency in digital communities.

# **BACKGROUND**

Virtual worlds are commonly referred to in literature as the Metaverse, a term coined by novelist Neal Stephenson in his seminal fiction Snow Crash. There, the Metaverse is an immersive virtual 3D world, where people interact through their digital manifestations, avatars. While the term has been broadly applied to the entire collective online space, it is specifically connected with simulated worlds in virtual 3D space. Spatiality is the most distinguishing feature of virtual worlds, as they provide an immersive experience where one moves across a (virtually) infinite, simulated world, rather than a two-dimensional metaphor of a desk with folders and a trash bin. Tom Boellstorff (2008) advances three fundamental properties of virtual worlds: they are places, inhabited by people, and enabled by networked technologies.

Virtual worlds are also often called Collaborative Virtual Environments (CVEs). Churchill,

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Snowdon & Munro describe them as locations for action and interaction (Churchill, Snowdon, & Munro, 2001), virtual spaces where people can meet and interact with other people, agents and virtual objects. CVEs promote users from spectators to active participants in the Metaverse, able to engage each other and the virtual environment.

### THE CREATIVE APPROACH TO CVE

A collaborative space enables dialogue and exchanges between users, but is not required to enable content creation at its core. On the other hand, a creative environment does not strictly require online collaborative features to afford creativity. As noted by Lévy (2001), the distinction between read-only and read/write virtual worlds is not an opposition. Many virtual environments are able to digest "offline" processes to some extent, importing or exporting content. Others may allow some degree of self-expression, through limited customization options. However, limited presets do not empower users to create or reinvent their own virtual world. To achieve this potential, users must be able to create, modify, transform and redistribute media assets that constitute the very fabric of the virtual world: notably, audiovisual components (including 3D data, if applicable) and program code.

Users must also be able to employ such tools according to their own policies and methodologies, regarding aspects such as creative process and media rights management. Virtual worlds can be complemented by other platforms, such as forums and social networks(Al-Jarrah & Pontelli, 2014; Ferguson, 2011; Kohler, Fueller, Matzler, & Stieger, 2011), but in-world resources for creation, communication and asset distribution, enable a CVE to become a platform for works of flow and process. CVEs also remediate specific features from other platforms. This includes live and relayed text messaging, video streaming and file sharing. They also introduce features unique to virtual worlds, such as live visual expressive-

ness through avatars, and shared 3D spaces. These features promote users from spectators to active participants, but they still don't afford users creative control over the virtual world they inhabit.



### **CCVE AFFORDANCES**

For a CVE to be considered a CCVE, it must afford creative input and action. For creativity to be considered collaborative, users must be able to distribute and modify in-world content. This requires built-in platform features for collaborative creation, modification and distribution of content, to a degree that empowers users to collectively shape the virtual world itself.

Necessary features to enable such affordances are described in the following sections.

### Creation

The first key affordance is creation. For a virtual environment to be considered creative, users must be able to partake in the making of the world itself. The range of creative input may vary according to a platform's specific features: a wider range of creative options increases creative possibilities. However, platforms easily become overly complex, making it difficult for average users to master these creative possibilities, effectively professionalizing the creative activity. A sound balance between creative possibility and tool complexity is hard to achieve, and this is often remedied with content upload. Complex content can be built externally, allowing the platform itself to remain more accessible. The ability to create content can thus be split between building within the CCVE platform, and/or uploading content built using external resources. Table 1 offers examples of features a CCVE might offer within this framework.

### Collaboration

Another core affordance of CCVEs is the possibility of creative collaboration. Collaborative

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