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## Exploring The Psychological Consequences of Distances in Virtual Reality

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### I. PRESENTATION ABSTRACT

This presentation will examine common concepts of traveling between formalized spaces inside virtual reality (VR) experiences.

The common method for traveling in virtual reality is to click on an area or trigger and be transported to that location. These “teleportations”, however, remove the notion of distances from our virtual worlds. This is akin to a magic wand that eliminates the consequences of travel in VR. Often heralded as a boon for the virtual worlds we can create, wherein we can travel to far away lands without lag in time and without effort on the part of the participant. We posit that it has a chilling and reductive effect on our relationships to our environments and ultimately our relationships with each other.

The void that this transportation creates in the user experience results in an absence of the liminal spaces, or even the interstitial spaces in VR environments. This effectively



*Lawrence of Arabia. Columbia Pictures, 1962.*



*Figure ground map of lower Manhattan showing positive and negative space.*

eliminates the negative space from our virtual experiences, and the recursive nature of traveling in this space to get to our destination is reduced, thus we lose the ability to breathe,

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rest and regain “virtual” function. Most importantly, without the negative spaces, the positive spaces have less consequence.

The work of early 20th century science fiction authors appears to indicate a preoccupation with the speed of travel. The zenith being that mankind would be able to transport ourselves lightyears in a mere instant. This reduced our patience for narrative, and our ability to experience the vast travel sequences from early epic novels, as well as the slow and methodical establishing shots of classic films from the likes of Lean, Selznick, Hawks, Kurosawa, etc.

In Architecture and civil engineering, it is widely accepted that humans dwell in positive spaces and travel in negative spaces. This was one of the core tenets of figure ground theory in urban design and planning. However, what landscape architects such as Frederick Law Olmsted understood, was that the negative spaces make the positive spaces more exciting. The slow unveiling of the destination to the traveling observer was at the core of Olmsted’s design theory.

All is not lost, however, for these location-based narratives which utilize emerging immersive technologies. In fact, this presents a bold opportunity for designers to create transitional spaces and imbue them with meaning again, both as conduits from primary locations and as places for virtual respite.

**Keywords**—*Virtual Reality, Design, Travel, Distance, Negative Space, Environment, Teleport*