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THE IEEE GLOBAL INITIATIVE ON ETHICS OF EXTENDED REALITY (XR) REPORT

WHO OWNS OUR SECOND LIVES: VIRTUAL CLONES AND THE RIGHT TO YOUR IDENTITY

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TABLE OF CONTENTS

ABSTRACT 5

1. INTRODUCTION 6

2. WHAT IS IDENTITY? 6

3. ASPECTS OF IDENTITY WHICH CAN BE VIRTUALLY CLONED 7

3.1. VISUAL FIDELITY OF PHYSICAL APPEARANCE 7
3.2. BEHAVIOR AND MOTION PATTERNS 8
3.3. DIALOG, MEMORY AND EMOTIONAL STATE 8

4. HOW AN IDENTITY CAN BE STOLEN AND RECONSTRUCTED AS A VIRTUAL CLONE 9

4.1. STILL IMAGE 9
4.2. VIDEO RECORDING 9
4.3. AVATAR (3D MODEL) 10
4.4. AVATAR WITH REPLICATION OF BEHAVIOR AND MOTION PATTERNS 10
4.5. AVATAR WITH FULL HUMAN INTERACTION 10
4.6. ACTUALLY SELF-AWARE VIRTUAL CLONE 11
4.7. OPEN QUESTIONS CONCERNING REPLICATING IDENTITY 11

5. REASONS FOR REPLICATING A PERSON INTO A VIRTUAL CLONE 12

6. DEAD OR ALIVE? 13

7. RISK ASSESSMENT 15

7.1. PRESENT DAY 15
7.2. TOMORROW (10-20 YEARS) 15
7.3. FAR FUTURE 15

8. RECOMMENDATIONS 16

9. REFERENCES 18

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WHO OWNS OUR SECOND LIVES: VIRTUAL CLONES AND THE RIGHT TO YOUR IDENTITY

ABSTRACT

This report is the result of work within the IEEE Global Initiative on Ethics of Extended Reality (XR), a multidiscipline group of industry practitioners, ethicists, academics, researchers, educators, and technology enthusiasts. It has been written to focus on a wide range of ethical issues related to XR and the ownership of second lives. This report builds on work outlined in the "Extended Reality" a chapter of the IEEE's seminal ethics-focused publication *Ethically Aligned Design*. XR is a term used to broadly refer to a suite of immersive technologies including virtual reality, augmented reality, and spatial computing. The scope of this report is the exploration of ethics-related issues in terms of virtual clones and the right to your identity; the aim is to initiate expert-driven, multidiscipline analysis of the evolving XR Ethics requirements, with a vision to propose solutions, technologies, and standards in future updates. The set of recommendations within this report will hopefully contribute to industry conceptualization of socio-technological issues, highlight concreted recommendations, and lay the groundwork for future technical-standardization activities.

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1. INTRODUCTION

In virtual reality, and to some extent augmented reality, you as a user encounter different kind of entities. These can be apparently artificial (robots), non-human (animals), and human-like. They can be avatars (representing another user, as well as yourself) or NPCs (non-player characters, controlled by the programming of the VR application). They all have in common that they have an identity. This paper discusses different aspects and issues that arise when this identity corresponds to and overlaps with the identity of actual humans.

The arguments will mostly concern identities in virtual reality since that is where we, as researchers and developers, have the most experience and empirical data. However, most of the argument should be applicable to augmented reality applications as well.

2. WHAT IS IDENTITY?

Defining or characterizing identity is, of course, a highly complex and multi-faceted question, and several very different perspectives can be had on identity. This paper will try to focus on aspects of identity that are pragmatic and practically oriented, as well as relevant to the virtual/digital duplication/reconstruction of a person's identity. This paper will also only focus on personal identity, and not primarily group identity.

Personal identity is the characteristics, attitudes, behavior, and appearance that makes up a specific person [1]. The identity is, so to speak, the sum of all parts and what makes a person unique from the outside perspective of others. Identity is also important for the individual themself, and this self-identity or self-image can be seen as a collection of beliefs and attitudes toward oneself. Self-identity can be seen as the answer to the question "who am I?" [2]. In a philosophical perspective on identity and self-identity, Ricoeur used the concepts *ipse identity* ("Who am I) and *idem identity* (a third-person perspective, offering an objective outside view on a specific person) [3]. Another important distinction in philosophy of identity is the mind-body dichotomy. Persons have a continuous, physical existence [4]. Our body can lose parts (such as limbs) or gain parts (such as artificial constructs, ranging from clothes to mind-controlled robot limbs), but we have a continued physical existence [5]. Persons also have a continued immaterial existence—the mind and cognitive faculties. The mind-body problem—investigating how the physical body and the immaterial mind relate to each other—has been a major philosophical discussion for centuries [6], and virtual communities (in virtual reality or elsewhere) have complicated the situation, adding a virtual, online existence as well [7], [8]. In virtual reality, a person's avatar is an extension of both their physical identity (mediating and/or representing the posture, movement, etc., of our

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