

Defining the Digital Fashion Eco-System for the Metaverse within an ethical & sustainable framework

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Introduction
 The aim of this project is to define the Digital Fashion ecosystem in the Metaverse, and to highlight any ethical and sustainable concerns, as the industry emerges. Showing the industry visually broken down via varying perspectives aims to give the reader and observer the ability to question, analyse, and assess the varying different parts, identify areas that need to be considered, improved, and redesigned, in order for the industry to work towards being future proofed, and to create a roadmap that will help it to comfortably reach its sustainable development goals by 2030.

Digital Fashion
 Digital Fashion is fashion that you wear online and in the Metaverse. It is created using digital technology usually a 3D software programme that renders a 3D garment, that digital Avatars (characters, or bespoke 3D graphic representations of the user) can wear in virtual 3D worlds. A common example would be a computer game. Digital fashion items can be worn in 3D worlds, or appear as overlaid graphic garments online, and in the real world using Augmented Reality.

Metaverse
 The Metaverse operates within Web 3.0, the third generation of the internet, where you step into a universe of virtual spaces in which users can participate as 3D avatars, and join in many different activities, such as gaming, attending a work meeting, watching a fashion show, or even buying something from a 3d store within the varying different worlds contained in the Metaverse itself. It is a place where users can interact, transact, and experience many different things in an immersive way.

Conclusions
 As the digital fashion ecosystem emerges, it is important that collaboration occurs, to ensure that ethical standards are set, in areas such as cyber security when transacting, impersonation and fraud when participating as an avatar, transparency within personalisation, and data collection within AI platforms.

"A circular economy for fashion creates better products and services for customers, contributes to a resilient and thriving fashion industry, and regenerates the environment". Ellen MacArthur Foundation

The subject of digital waste in terms of file sizes, electricity used, and the impacts that technology has on the physical environment need to be considered and solutions met to form a self-regeneration programme to support any environmental damage, where the various industries give back in equal measure to what is taken out. This is essential to building a sustainable Digital Fashion Circular Economy in the future.



Ecosystem Map
 Overview of the five levels within the digital fashion ecosystem in the metaverse.

ANATOMY OF DIGITAL FASHION IN THE METAVERSE

CURRENT & EMERGING

LEVEL 1. CUSTOMER

DESIGN PROCESS PROCUREMENT & CURATION EXPERIENCE/PARTICIPATION

COMMERCIAL MARKETPLACE PAYMENT/STORAGE

LEVEL 2. OPERATIONS

CENTRALIZED DECENTRALIZED CYBER SECURITY

LEVEL 3. INFRASTRUCTURE

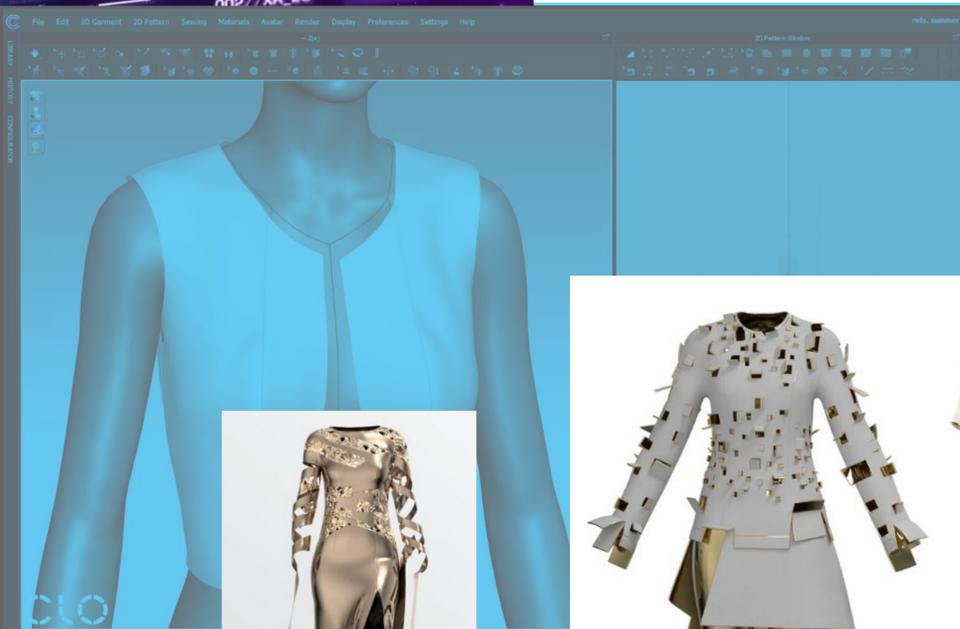
DATA TECHNOLOGY

LEVEL 4. STANDARDS

ETHICS SUSTAINABILITY

LEVEL 5. ENVIRONMENT

ANTHROPOCENE



Clo3D
 Software for designing and creating 3D digital fashion clothing items.

Dressx
 Digital fashion samples – a gold dress and a gold suit for women and men from the dressx.com collection

