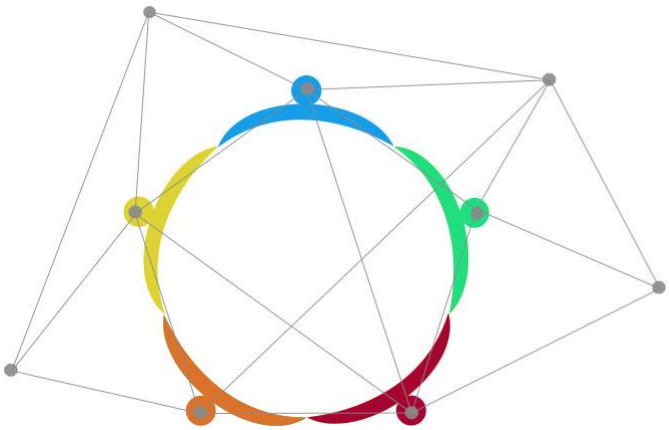

INEDIT

open INnovation Ecosystems for Do It Together process

D3.2. FRAMEWORK OF ADAPTIVE STYLE GENERATION BASED ON AUTOENCODER NETWORKS

AIMEN

Version 1.3

May 2021

This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 869

INEDIT
open INnovation Ecosystems for Do It Together process

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Responsible:	AIMEN		
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Title:	Report on the Artificial Intelligence algorithms for generation		
Description:	Description of the methodology, datasets and algorithms employed in the development of the AI-based applications that support creativity and co-creation		
Version	1		
Contributors	Versions	Dates	Revision Description
AIMEN	1	07/05/2021	Creation of the v1 document
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CROWD	1.2	18/05/2021	Quality peer review
TTPSC	1.3	26/05/2021	Quality peer review

List of figures

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1. Introduction

1.1. Introduction

This deliverable comprehends developments in task 3.1 and 3.2 that aim to support the co-creation experience of the INEDIT project in a community-based approach.

These tasks try to support and enable an interactive user experience for furniture design, where users without technical knowledge of 3D design can benefit from the AI applications to create fully unique and personalized furniture. To that end, we aim to create a set of AI-based tools for the generation and recommendation of furniture items that will be integrated in the INEDIT platform.

D3.2 aims to present the developed software modules to the partners of the consortium, explaining the methodology, algorithms and data used for the development, as well as the interfaces that are provided for the integration with other softwares.

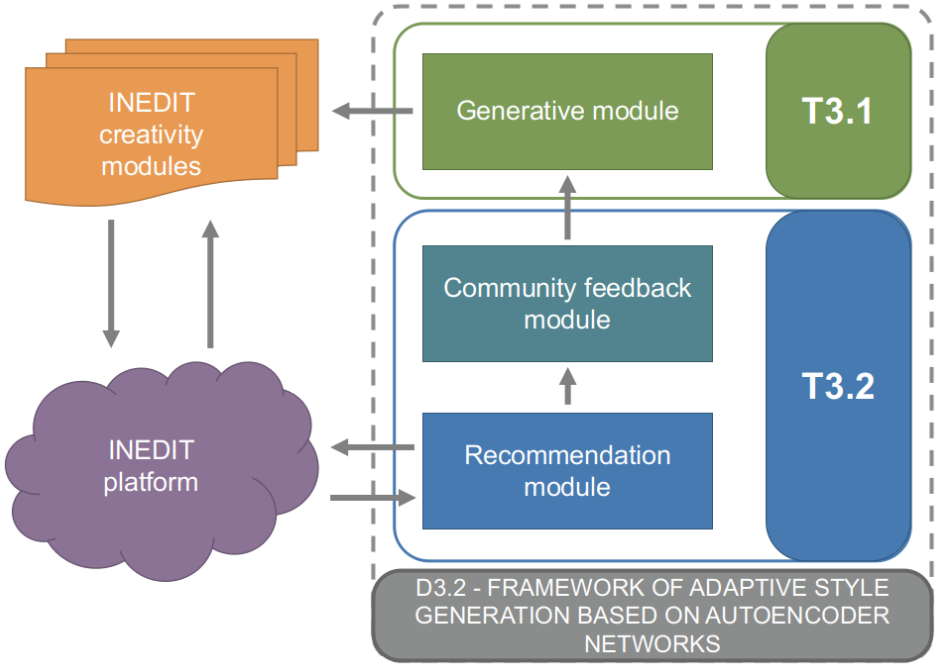

Figure 1: D3.2 in the context of INEDIT WP3

The work carried on has been structured in three software modules that interact between themselves and with the other modules of WP3:

- Generative module: This module can generate 3D models of random pieces of furniture. The inputs of the module are the type of furniture and a random seed that determines the style.
- Recommendation module: This module can recommend existing pieces of furniture, given other pieces or some keywords about the generation.
- Community feedback module: This module is able to link the community interactions (recommendations and/or community feedback) with the generation module, to create furniture that matches certain trends or styles, and acting as a guide of the generative module.