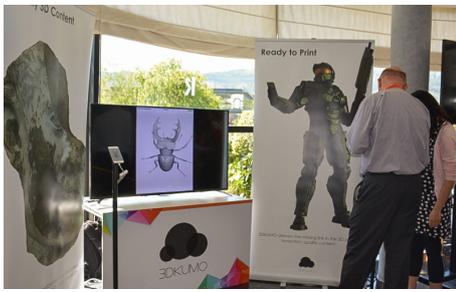


Large-scale Indie Gaming Analytics (LIGA)

Fortissimo Experiment Facts:

- Industry Sector: **Data Analytics**
- Country: **Spain**
- Software Used: **In house code**



ORGANISATIONS INVOLVED

KUMO (End User) is a design, engineering, and innovation-led SME applying disruptive technologies across both hardware and software in the areas of 3D technologies and digital asset creation and management. The company is headquartered in Bilbao (Spain).

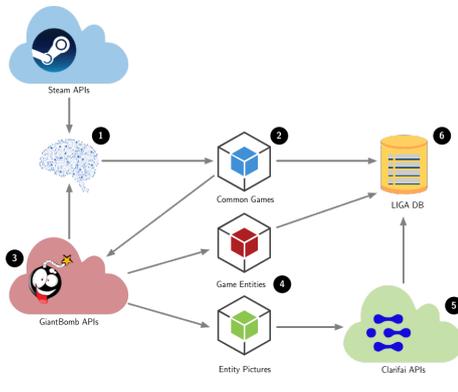
CNR (Domain Expert) is the largest public research organization in Italy and a top-level R&D performer in Europe. It participated in this experiment with two research groups (ISTI and CND) located in Pisa (Italy) having the role of technology and analytics experts.

CINECA was the HPC provider and host centre.

THE CHALLENGE

The videogaming market is a complex arena with an increasingly crowded marketplace where dozens of games are released every day.

The motivation for this experiment is that exploiting the huge amount of data available in gaming web portals and social networks may lead to value added services for the benefit of game developers that need to understand market trends, and to companies targeting gamers. KUMO, end-user in this experiment, is interested in particular in increasing its penetration into the gaming-related market, with a focus on 3D printable models as the main business area.



THE SOLUTION

LIGA has provided KUMO with two advanced services:

- Smart Retail Recommendation Engine (REC-ENG), that analyse user preferences and activities (user profiling) to suggest KUMO's new products for sale.
- 3D Content Analytics Services & Dashboard (3D-DASH) that allows content providers and game developers to understand better trends in games and get insights into future developments.

LIGA helps KUMO to meet its goals by monitoring the popularity of game entities (i.e., game objects or characters) on social networks. Currently, LIGA infers entities' popularity by hourly monitoring of STEAM, a digital distribution platform which offers online multiplayer gaming. At the end of July 2018, LIGA stored 25 million entries in its database, describing the popularity of game entities among players. Assuming no new game entities will be created in the future, LIGA will add 12 million of entries per month to its database, resulting in 720 million database rows by mid-2023. However, this estimate will be exceeded, since additional game entities are introduced every year as new games are published. HPC techniques are needed to store and process efficiently this huge amount of data in a timely manner.

RLD FEATURED



s Choice



Fortissimo Experiment Partners:

- KUMO (End User)
- CNR (Domain Expert)
- CINECA (HPC Provider)

More Information:

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BUSINESS IMPACT

The Smart Retail Recommendation Engine REC-ENG is meant mainly for internal KUMO use. The main benefit for the customers of KUMO making use of REC-ENG is that the new tool will support their decision-making process in terms of models to be collected and shared. The tool will reinforce the links between models and users' likes, and also among models themselves.

The 3D Content Analytics Services & Dashboard 3D-DASH is meant both for internal use and as a service to be sold to videogame-producing brands. The main benefit for the brands customers of KUMO making use of 3D-DASH is that the new tool will support their decision-making process in terms of designing or characterising new models and 3D characters in their games.

The experiment will also help KUMO to expand in other sectors interested in or dealing with 3D models, like engineering (automotive, energy, etc.), culture (museums, artists, etc.), multimedia (animation, film producers, etc.).

BENEFITS

- Increase the current KUMO turnover in the range of 75,000-150,000€ per year.
- Approximately 10% of yearly growth rate in next 2 years.
- Allow KUMO to increase the current workforce with 2 new specialized workers in 6 months (by May 2019).
- Increase the number of technological transfer contracts of CNR, with an estimate of two new projects in 18 months.
- Increase customers in the HPDA market for CINECA, with an estimate of 20.000€/year average of additional revenues.



THE FORTISSIMO PROJECT

Fortissimo is a collaborative project that enables European SMEs to be more competitive globally through the use of simulation services running on a High Performance Computing cloud infrastructure. The project is coordinated by the University of Edinburgh and involves more than 100 partners including Manufacturing Companies, Application Developers, Domain Experts, IT Solution Providers and HPC Cloud Service Providers from 14 countries. These partners are engaged in over 90 experiments (case studies) where business relevant simulations of industrial processes are implemented and evaluated. The project is funded by the European Commission within the 7th Framework Programme and Horizon 2020 and is part of the I4MS Initiative.

I4MS Fortissimo is part of I4MS ICT Innovation for Manufacturing SMEs: www.i4ms.eu



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