



**Persona Development through Clustering**  
Leveraging data through an analytics strategy

# Executive summary

**Client:** US based Scientific Publishing Company

**The challenge:** To build actionable personas for targeted email marketing incorporating data from multiple different systems.

**The solution:** Drawing on skills from data engineering and data science teams, Lynchpin was able to gather and process the data in to a usable format and built 5 readership personas using clustering machine learning techniques.

**The results:** The client was able to use these personas in 2 ways:

1. Build persona based triggered email workflows to present readers with content that they would be most interested in.
2. Build marketing campaigns based on profession based personas, to target campaigns at relevant audiences.

## Background

A leading global scientific publishing company had attempted to leverage their high-volume datasets to build a deeper understanding of user behaviours. Their most recent project had attempted to create actionable customer personas for email targeting, but had failed due to an in-house skill shortage and the sheer complexity of the data.

Lynchpin stepped in at the Data Design and Build phase and progressed the project through to persona development using machine learning clustering techniques. These personas would be based on a combination of demographic data and website interaction data.

## The objective

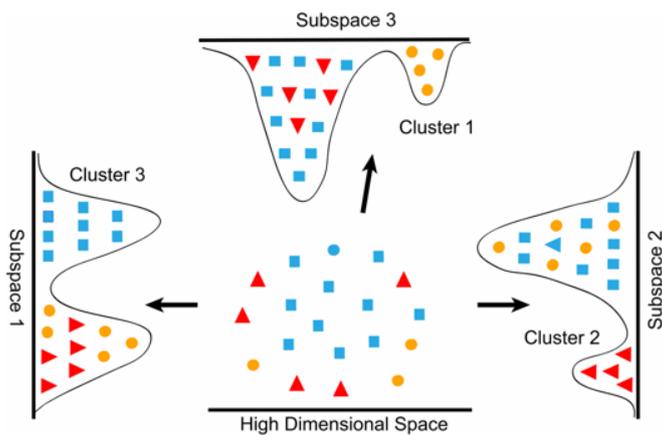
- To use these personas to generate automated targeted marketing emails.



# The Lynchpin approach

Leveraging the breadth of skills within Lynchpin we were able to draw on a combination of data engineering and data science skills to ensure the project could move towards its goal of persona development.

Lynchpin believe in a transparent analytics process. Liaising with the client at regular intervals and sharing insights. This is particularly important for segmentation projects to ensure the final deliverables are actionable within the business.



## The solution

### Step 1: Data Integration & Preparation

The data required to gain a full understanding of the customers was contained in many different areas and at various levels of granularity. Lynchpin performed a full audit of the data available and integrated data from multiple sources including back end CRM systems and online web interactions. This data was then prepared for modelling including categorisation of behaviours for more useful insights.

### Step 2: Insight

The key step in any profiling project is to truly understand your customers behaviours. Lynchpin performed a deep dive analysis of customers and liaised with the publishing company to link the behaviours seen with the objective of project. In this case, this meant developing readership personas of over 1 million customers across a portfolio of >30 journals.



### Step 3: Persona Development

Based on the data available and the solution required by the client, Lynchpin used a clustering technique called Dimensionality Reduction to build the personas. Lynchpin also overlaid business insight that we had gained along the way in relation to interactions by specific professions. This enabled the personas to be usable from a deployment perspective and achieve the overall objective of the client.

## The results

Development of 5 distinct and actionable personas for targeted Marketing Emails with clear understanding of the factors that drive these personas in terms of both the content interest and profession of the customer.

Creation of a test plan for deployment of the personas through email campaigns, monitoring the results to provide further insight and optimisation.

Next step recommendations for utilising the personas in other areas e.g. adapting online content through A/B testing methodologies.



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