CASE STUDY

ALGONOMY

SEGMENT | Algonomy Consumer goods for pop culture, CD/DVD, books, comics, gaming software

PRODUCTS | Algonomy Recommend™ and DeepRecs NLP, Discover™, Engage™

OBJECTIVE | Improve customer experience and engagement on digital channels with personalization. Leverage DeepRecs Natural Language Processing (NLP) to generate relevant recommendations for new and long tail products that do not have historical events – using product descriptions in Japanese

RESULTS

neowing.co.jp (Japonese Shop)

- **6.25% increase in Average Order Value (AOV)**
- **4.99% higher Clickthrough Rate (CTR)**

cdjapan.co.jp (International Shop)

- **7.93% higher Revenue Per Visit (RPV)**
- **3.55% higher conversions**
- **8.39% more Items Per Order**

Neowing and CDJapan are popular online shops that have grown rapidly in the last few years. Neowing is Japanese online shop, while CDJapan is an English online shop, selling the same products internationally to the USA and Europe. The catalog has a variety of Japanese entertainment products, including CD, DVD, games, books, comics and character merchandise and the company aims to supply seasonal products not only to Japan but also to the world.

The company's competitive advantage lies in its online shop with over 2 million products and a fast and convenient shopping experience. Online shops play an important role in the customer journey, regardless of where the final purchase is made. Currently, about 800,000 international citizens are registered as members, and it is a popular site visited by more than 1 million visitors internationally a month. When they search for a CD, DVD, game, book etc., they first consider CD Japan. In fact, it receives more than 20,000 orders every month, with annual sales exceeding 1.5 billion Japanese Yen.

President Katagiri, CEO of Neowing and CDJapan, describes the need for a new, advanced approach to product recommendations. "More than 2 million items are registered on the Neowing and CDJapan sites, and over 96% of our products form the long tail. These products aren't bought very often, and therefore, don't get picked up in recommendations, in spite of being highly relevant to the shopper. With Algonomy DeepRecs NLP, recommendations are based on product descriptions, rather than past purchases or historical browsing data. As a result, even for highly specialized and seasonal products, we can now recommend products with similar affinities, which makes shopping very convenient, highly relevant and valuable for our shoppers."

OBJECTIVES

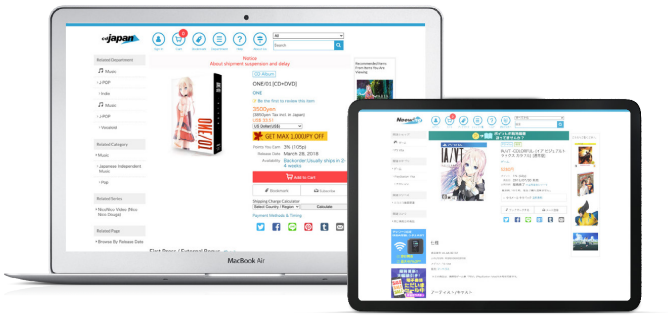
Neowing / CDJapan not only aims to increase its digital revenue by enhancing the customer experience on the web, but also impact customer satisfaction and loyalty with integrated references, personalized browse, content, and advances deep recommendations.

Improving product discovery of new and long-tail products which form a significant part of the catalog, was a key objective of the personalization program.

SOLUTION

The product catalog of Neowing / CDJapan was divided into HIGH traffic and LOW traffic goods. Of the 2 million products, 98.9% fell into the low segment for Neowing, and 96% for CDJapan, making it the highest priority for their business. Algonomy DeepRecs NLP strategy was found to be particularly well suited to provide recommendations for products in the LOW segment that lack much user traffic, purchases or behavioral interactions.

DeepRecs NLP is a cutting-edge technique that uses text product descriptions to generate recommendations, which is significantly different from traditional recommender systems that rely on past behavioral data. Language was another key requirement - Neowing provides product descriptions in Japanese only, even for the English site; CDJapan. The NLP solution was implemented on both the websites and is generating high performing recommendations, removing the language barrier for international fans of Japanese pop culture products.



Deep recommendations that even work for new and longtail products

For customers to discover long-tail products and new launches, it is necessary to have the right personalization engine. Algonomy DeepRecs uses Deep Learning NLP algorithms to innovatively overcome the restrictions found in most traditional recommendation engines that use simple collaborative filtering. The NLP strategy on item page has increased key metrics of engagement, average order value and units per order.

RESULTS

1. **neowing.co.jp** implemented NLP similarity recommendations based on the product descriptions in Japanese. Algonomy Experience Optimizer (XO) examined the effectiveness of NLP strategy for recommendations on item pages, against other recommendation strategies. The results are as follows:

- Average-Order-Value (AOV) lift of 6.25% with 98.9% confidence
- Click-Through-Rate (CTR) lift of 4.99% with 99.9% confidence

2. **cdjapan.co.jp** has implemented NLP similarity recommendation based on the product description in Japanese, despite the English site. Algonomy Experience Optimizer (XO) examined the effectiveness of using the NLP strategy for recommendations on item pages. The results are as follows:

- Revenue Per Visit lift of 7.93% with 89.8% confidence
- Conversion Rate lift of 3.55% with 88.2% confidence
- Click-Through-Rate (CTR) lift of 4.54% with 100% confidence
- Units Per Order lift of 8.39% with 99.7% confidence

By listing the Top 100 product recommendations using NLP, Neowing and CDJapan achieved significant lift in engagement, conversions and revenues, over and above their previous personalization techniques.

"Businesses that have frequent new launches and long tail products cannot rely on traditional personalization approaches that require historical data. For Neowing, product discovery was a significant problem, as less than 3% of their catalog has high traffic. The team was quick to recognize the value of DeepRecs NLP, that uses the wealth of data from product descriptions, reviews etc. so all related products get linked and are surfaced in recommendations." says Sarath Jarugula, CEO and President at Algonomy.

"This has proven to be a game changer for retailers and marketplaces that have a long tail, accelerating personalization and helping customers discover new, relevant products that were previously buried due to lack of behavioral data. eCommerce comes with its unique problems, and our product and science teams are using out of the box approaches to solve them and help retailers grow revenues." he added.

ALGONOMY

Algonomy (previously Manthan-RichRelevance) is a global leader in algorithmic customer engagement powering digital first strategies for retailers and brands. With industry-leading retail expertise connecting demand to supply with a real-time customer data platform as the foundation, Algonomy enables 1:1 omnichannel personalization, customer journey orchestration and customer analytics. Headquartered in San Francisco and Bangalore, our global presence spans over 20 countries. To learn more, please visit **algonomy.com.**