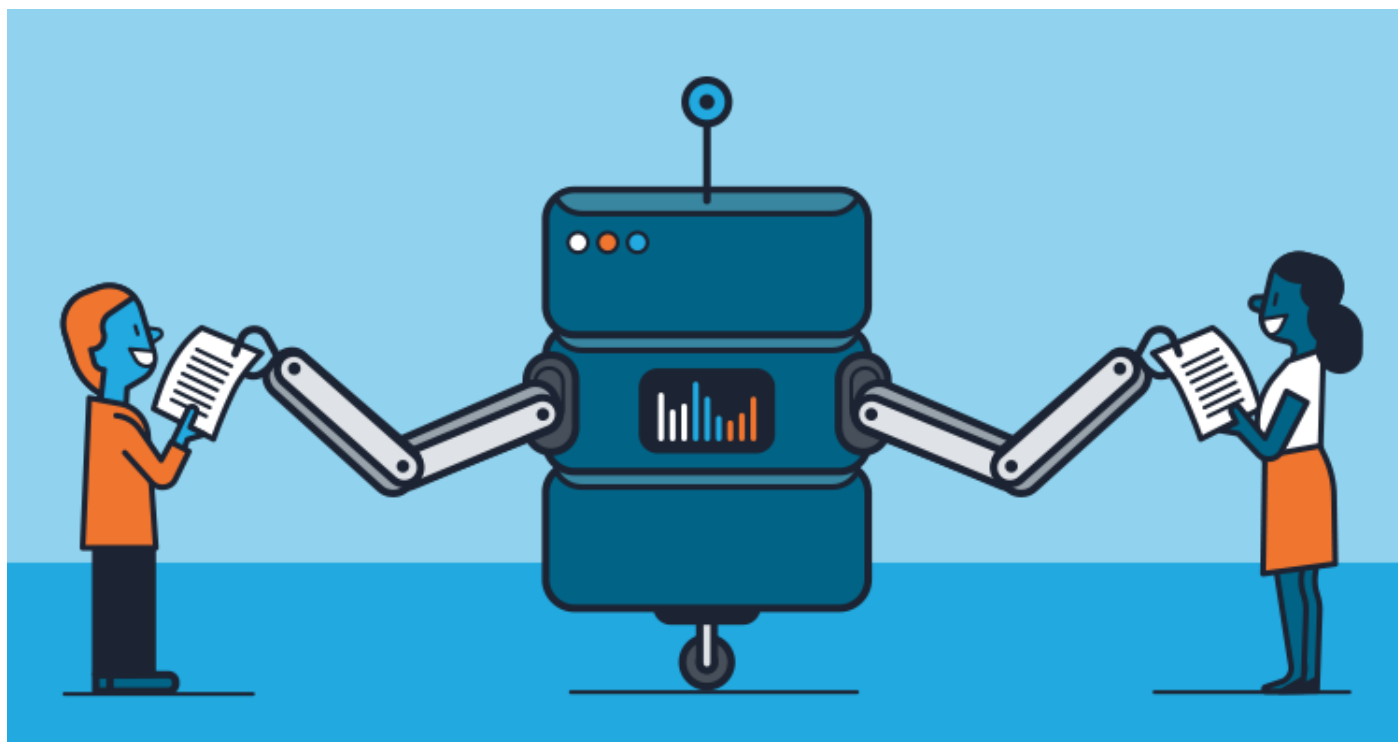


# Self-Learning AI enables intelligent recommendations

**Zylo**tech™

Customer Data & Analytics Blog

Janet Wagner, on June 13, 2019 | 3 minute read



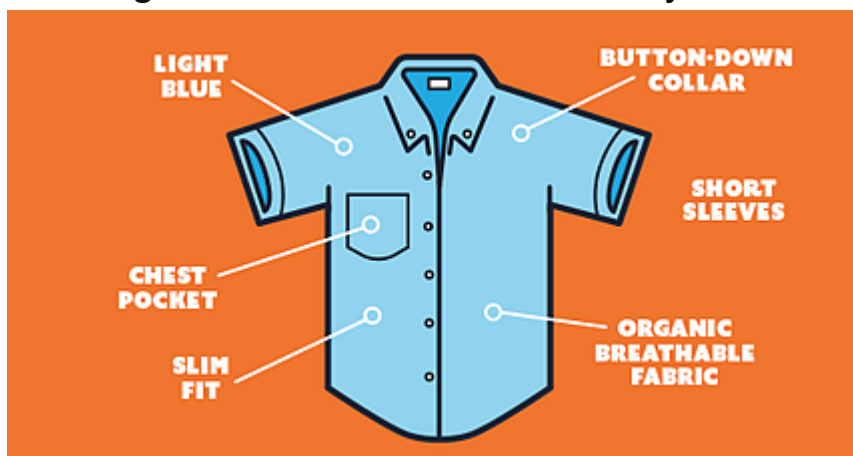
Recommendations are an essential part of marketing and sales. However, traditional recommender systems often produce recommendations that are not relevant or personalized enough. This post highlights some of the limitations of traditional recommender systems and how self-learning AI enables intelligent recommendations.

## Limitations of traditional recommender systems

Most recommender systems today provide recommendations based on historical customer data or use [collaborative filtering](#). Collaborative filtering is an approach where recommendations are based on the similarities among like-minded users. For example, if you're on Amazon looking at a pair of shoes, the platform might display a message that says, "customers who viewed this item, also viewed..." with a list of recommended items. Collaborative filtering systems provide recommendations based on historical customer data- user profiles that typically include past purchases, preferences, page views, and behavior. Recommender systems that rely on historical data are not always reliable at providing relevant recommendations because user preferences and product needs change over time. Also, collaborative filtering systems are prone to the "[cold start](#)" problem, where a system cannot draw accurate references due to a lack of data. For example, a recommender system would have little to no data to draw from for new users and products.

## Self-Learning AI enables intelligent recommendations

Recommender systems that leverage self-learning AI and real-time customer and product data are not prone to the cold start problem. And self-learning AI enables recommender systems to provide



intelligent recommendations

in innovative ways.

## Personalized recommendations at the customer level

A recommender system powered by self-learning AI could analyze and learn from interactions with each customer. And recommendations would be based on the real-time intent of the customer and would not rely solely on historical customer data. For example, if a customer is shopping for a shirt, the system could reference the attributes of each shirt the customer views at the time.

We provide a [Recommend API](#) that can be integrated with e-commerce and recommender systems. The API enables platforms to provide personalized recommendations at the customer level in real time. And the recommendations adapt based on newly available data.

## Recommendations via Virtual Assistants

Self-learning AI enables platforms to provide personalized recommendations to customers at any time and through a variety of interfaces, including [conversational interfaces](#). For example, a virtual assistant powered by self-learning AI could be programmed to learn from interactions with customers. A virtual assistant could quickly learn what each customer is interested in buying and then help them decide the best product to suit their needs.

## Recommendations based on visual search

Images contain a wealth of data that can be extracted using [computer vision](#). Organizations could leverage data contained in images to provide recommendations to customers based on a wide variety of product attributes. For example, when a customer clicks or taps the image of a designer handbag, the recommender system could show the customer a list of products based on similarities in the image content such as color, fabric, shape, and style. Add to that self-learning AI, and recommendations would

be more accurate than traditional recommender systems because they would be based on the interests of the customer in real time. [Pinterest Lens](#) is an example of a visual search tool. The tool enables users to find and buy products based on the content of images.

## Customers want intelligent recommendations

Customer expectations have changed when it comes to recommendations. Customers expect websites and mobile apps to provide personalized, relevant, and engaging recommendations. And self-learning AI enables recommender systems to do just that.

*Janet Wagner is a Zylotech contributing writer.*

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