

Product Brief

Autonomy Interwoven Profiling & Personalization

Introduction

The Autonomy Interwoven Profiling & Personalization module is a powerful Meaning Based Marketing offering that helps marketers better understand their customers in order to satisfy their unique interests and preferences. The module provides businesses with a more complete view and up-to-date understanding of their customers for driving truly targeted, customer-centric marketing. With Profiling & Personalization marketers can automatically:

- Leverage all customer data from multiple databases and sources
- Analyze interactions, transactions, personal interests, and behavior across all channels
- Build and update implicit profiles based on the most recent interactions
- Generate, test, and optimize customer segments to drive desired customer action
- Deliver the most relevant visitor experience with targeted and personalized content

The Challenge

Today's sophisticated consumers have high expectations on the web. In fact, Forrester Research states that, "Increasingly, customers expect personalized, dynamic, and interactive experiences when dealing with an enterprise via an online channel."

Until now, marketers have been limited by traditional web solutions that lack the intelligence, scalability, and automation needed to deliver a seamless and highly targeted experience. These limitations have forced marketers to rely on time-consuming methods, including manually collecting data about visitors, deciphering analytics reports, and tagging each piece of content in order to match it to the right profile or customer segment. Not only is this process of profiling and segmentation cumbersome, but determining what content to serve visitors is an even more challenging, and often subjective, undertaking when consumers are multiface-

Profiling & Personalization Products	Profiling & Personalization Functions	Profiling & Personalization Connectors
TeamSite LiveSite IDOL Optimost Adaptive Targeting	Automatic Categorization Automatic Clustering Automatic Hyperlinking Automatic Taxonomy Generation Automatic Query Guidance Clustering Visualization Directed Navigation Drag-and-drop Personalization Explicit Profiling Implicit Profiling Intent-based Ranking Sentiment Analysis	Customer Relationship Management (CRM) systems

ted, global, and constantly changing their needs.

In addition, legacy profiling methods, such as manual registration, only capture a small amount of information that quickly becomes outdated and inaccurate. Customer profiles and segments created by these older and manual methods use a limited set of historical information to make general assumptions about a company's entire audience and don't take into account the realtime behavior of each visitor. As soon as profiles and segments are created, marketers are already overwhelmed with the need to update them based on new customers, trends, and products. Due to the manual burden of maintaining profiles and customer segments, they often go months or years without updates or refinements, leading to ineffective targeting efforts.

The Solution - Profiling & Personalization

Autonomy Interwoven's unique profiling approach is based on sophisticated analysis and algorithms of inference, and is completely automated, eliminating the need

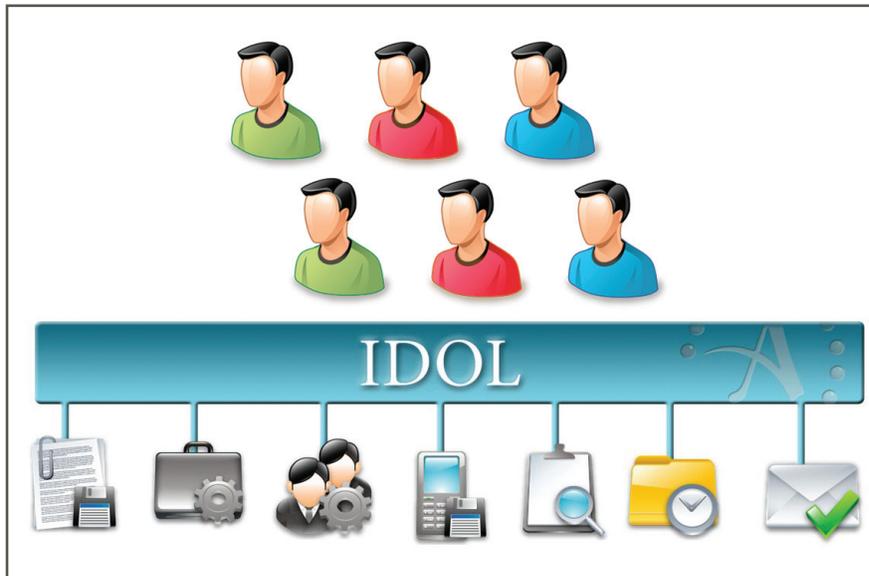
for tagging or manual intervention. Rich, conceptual profiles are created for each visitor based on both historical and realtime information—whether it was explicitly or implicitly gathered.

Customers provide explicit information through form fields, blogs, phone conversations, and email messages that get stored in various formats within enterprise systems, such as a Customer Relationship Management (CRM) system. Leveraging IDOL, Profiling & Personalization can extract this explicit customer information, regardless of the location or format, and analyze its conceptual meaning to build descriptive customer profiles.

In addition, Profiling & Personalization can also gather information implicitly from customer interactions such as searches, content consumption or contribution, online click-throughs, and transactions as well as other implied data, such as geographic location from IP address, clickstream data, referrer URL (where a visitor was referred from), and time of visit. This implicit information is combined with available explicit information, but does not depend on it, to

“Organizations looking for capabilities to support dynamic and compelling websites, with the ability to deliver highly targeted content, should consider Autonomy Interwoven.”

—Gartner MarketScope for Web Content Management



Builds Visitor Profiles Automatically Using Information from All Channels

conceptually understand an individual's unique background, interests, and intentions—creating the most comprehensive customer profiles possible.

Visitor segments, or groups, can also be generated and updated automatically based on cluster analysis to discover patterns, trends, and relationships amongst a diverse group of visitors. Segments can then be optimized using the adaptive targeting offering to determine at a granular level what each segment responds best to, whether it is a differentiated marketing message, a tailored image, or a specific font color.

The Profiling & Personalization module can identify the profile of each online visitor even if they have never visited the site before, determine if they belong to a known segment, and deliver the most relevant content to the visitor dynamically, without any reliance on metadata. As visitors continue to interact online, as well as with other communications channels, Autonomy Interwoven's intelligent technology automatically learns, adapts, and updates individual profiles and customer segments to refine and further personalize the experience.

Leveraging Autonomy Interwoven's advanced analysis, intelligent decision-making, and dynamic delivery engine, marketers can serve up highly targeted content—including landing pages, images, offers, promotions, products, and navigation—to visitors in real time at each point of interaction. Visitors can be guided to relevant products and information, alerted to new products of interest, and provided with cross-sell and up-sell offers for complementary products or services. As such, customer interactions are transformed into personalized, interactive, and two-way experiences without depending on heavy data mining, deciphering of multiple reports, manual tagging, or other time-consuming tasks.

Profiling & Personalization Example

What

An online cell phone company, Ajuba Mobile, is experiencing low conversation rates on its website and wants to deliver more personalized experiences to their customers online. They currently sell mobile phones and plans on their site as well as provide customer service support through their website, email, chat, and call center.

How

The solution automatically:

- Aggregates information collected from customer interactions across all their channels to build visitor profiles and segments
- Identifies new trends, patterns in buying behavior, and relationships amongst their diverse mobile customers base
- Monitors social media content about the cell phone products and services they offer; performs sentiment analysis; and leverages it to determine what cell phone products to promote, improve, or discontinue
- Delivers relevant content and targeted cell phone promotions based on the visitor's profile or segment, context of visit, and realtime behavior
- Automatically recommends complementary cell phone accessories, upgrade plans, services, and support information without any tagging of products or content

Results

Using Autonomy Interwoven Profiling & Personalization, Ajuba Mobile can automatically build visitor profiles and customer segments leveraging insights from all of the customer communication channels, significantly reducing the time and resources required to compile and analyze all the data across different systems. Because profiles can be built implicitly based on interactions with other channels, marketers at Ajuba Mobile have insight into customers that have not visited the site previously nor filled out profile information, but did interact with other support channels. This means a visitor who inquired about an upgrade plan during a phone conversation with customer support, can receive a targeted offer for the same upgrade the first time they visit the Ajuba Mobile site.

Ajuba Mobile can also easily discover new customer trends and relationships. For example, Profiling & Personalization may help them learn that their teenage customer base and business professionals living in urban neighborhoods both enjoy playing

“Increasingly, customers expect personalized, dynamic, and interactive experiences when dealing with an enterprise via an online channel.”

—Forrester Research

games, like the popular music game Guitar Hero®, on their mobile phones. Based on this knowledge, Profiling & Personalization automatically generates a segment and delivers a discounted promotional offer to any visitor that fits this particular segment. Profiling & Personalization can even leverage testing to determine that this segment converts significantly higher when presented with animated buttons.

Other visitors, such as older suburban moms, that do not originally fit this segment, but searched for mobile games will still receive a recommended offer for the popular Guitar Hero® game as well as be guided to relevant content about mobile game downloads. If Profiling & Personalization finds that a significant amount of older suburban moms have shown interest in downloading mobile games, the initial customer segment will be automatically refined to include profiles of all older suburban moms that visit the site.

Powered by IDOL

The Profiling & Personalization module leverages key functions from IDOL, Autonomy’s market-leading information access technology. IDOL is fully scalable and language-independent, supports data in over 1,000 formats, and can securely access and index content from over 400 content repositories.

Explicit Profiling

Visitors can personalize their own online experience by explicitly stating their preferences or sharing information about themselves. While traditional targeting and personalization technologies require visitors to fill out profile information and log into their online account in order to recognize their profile information, IDOL leverages everything shared by the customer across any touch point—not just information shared online—to form a conceptual and multidimensional understanding of each visitor.

Implicit Profiling

IDOL also builds profiles from information gathered implicitly through a customer’s in-

teractions and behavior without the need of any explicit input on their part. With implicit profiling, marketers can accurately respond to the unique needs and interests of even a new visitor who has never interacted with the company before.

Automatic Categorization

With the power of IDOL, Profiling & Personalization automatically categorizes content based on a deep contextual understanding of customers and content, so visitors can access content quickly and with fewer clicks. For example, if a visitor who is interested in shopping products by price in a wine and gourmet food site, types in “wine under \$20,” IDOL can generate categories of products by price. If another visitor is searching for “wine gifts,” IDOL can generate categories of appropriate products by specific occasions, such as birthdays, weddings, and graduations.

Automatic Clustering

With automatic cluster analysis, IDOL takes data and identifies inherent themes or patterns across disparate customer data and information. Vital relationships between seemingly uncorrelated content and customers are clustered together automatically based upon the closeness of concept. Different types of customers can be clustered together based on similar behavior and products of interest.

Automatic Hyperlinking

IDOL allows manual and fully automatic linking between related pieces of information, regardless of the format it was created in. Links to conceptually similar content can be used to recommend related articles, documents, offers, products, and services.

Automatic Query Guidance (AQG)

AQG provides suggestions to refine general or generic site query results by concept or relevant metadata attribute such as category or keyword. These groupings or suggestions are dynamically generated and displayed to each visitor so they can drill

Key Differentiators

- Profiles visitors based on interactions across all customer touchpoints
- Automatically generates customer segments based on the understanding of historical and realtime information
- Matches visitor profiles and segments with relevant content without any manual tagging
- Provides a policy engine to dynamically deliver targeted content, offers, and experiences
- Automatically updates profiles and customer segments based on newly discovered trends and patterns
- Personalizes experiences based on the sentiment of user generated content
- Leverages the adaptive targeting offering to determine the best performing combination of content for each segment

down and click on the content that best matches the information they are looking for.

Automatic Taxonomy Generation

IDOL scans available site content, understands its meaning, determines its relationship to the visitor, and matches the content appropriately in the hierarchy that makes the most sense to the visitor based upon their profile, segment, or search behavior. By doing this, taxonomies are generated instantly to organize content based on the categories and subgroups that match the specific interests and needs of a visitor.

Clustering Visualization

Some personalization technologies offer a black box approach, leaving marketers with no clear insight into customer trends. IDOL leverages clustering visualization, which visually represents patterns through intuitive interfaces, including the spectrograph and 2D/3D cluster map. The spectrograph maps trends such as customer behavior and segments as they change and evolve over time.

“Personalizing web content and offers is crucial to your success...”

—Forrester Research

Marketers can better understand the buying patterns and decision making processes of consumers by studying the visualized trend. The 2D/3D cluster map visually conveys important clusters or groupings of consumers based on the concepts that IDOL has identified. The bigger the cluster, the more weight the concept has, so marketers can determine which concepts matter the most.

Directed Navigation

Directed Navigation automatically guides individual visitors to the most relevant and accurate content as quickly and efficiently as possible by displaying or removing filter options, navigation, and hyperlinks based on a visitor's search, behavior, or profile. Each visitor receives a completely personalized experience as navigation changes dynamically based upon each unique action of the individual.

Drag-and-drop Personalization

Drag-and-drop personalization allows visitors to personalize the information that's delivered to them by dragging content of interest into a custom box. Content that is conceptually similar to that of the drag-and-dropped content allows visitors to self select the information they find relevant or interesting while ignoring others that do not apply to their interests.

Intent-Based Ranking

Intent-based ranking uses sophisticated algorithms to determine a visitor's intent when they are searching on a site and deliver meaningful results based on the individual's profile and other contextual factors. Content is ranked by the specific purpose, query, and profile of the visitor versus the popularity of the content or the keyword match. For example, a site search on “shoes” on a sports retail site would return a different set of results to a visitor who previously searched for “basketball gear” vs. a visitor that recently sent an email inquiring about their recent purchase of a tennis racket.

Sentiment Analysis

IDOL can profile and segment visitors automatically based upon the sentiment of user generated content, no matter what language it is written in. IDOL can discover, monitor, and analyze social media content on a company's website as well as across third party sites using IDOL's social media connectors. IDOL's sentiment analysis determines the tone, emotion, and meaning of all user generated content—regardless of jargon, slang, or misspellings—analyzes for any patterns or trends, and classifies visitors based on sentiment or trends identified. Marketers can better understand which visitors are satisfied or unhappy to deliver personalized responses, targeted offers, and other relevant information.

The Benefits of the Profiling & Personalization Module:

- Reduce costs by eliminating the manual requirements typically required to implement targeting and personalization
- Increase conversion rates and average order size by providing relevant content, targeted offers, and product recommendations in real time
- Improve customer engagement, satisfaction, and loyalty by delivering personalized experiences that meet the unique requirements of each visitor
- Improve the overall effectiveness of marketing campaigns using customer information across all channels

Autonomy Inc.

One Market, Spear Tower, 19th Floor,
San Francisco, CA 94105, USA
Tel: +1 415 243 9955
Fax: +1 415 243 9984
Email: info@us.autonomy.com

Autonomy Systems Ltd

Cambridge Business Park,
Cowley Rd. Cambridge CB4 0WZ, UK
Tel: + 44 (0) 1223 448 000
Fax: + 44 (0) 1223 448 001
Email: autonomy@autonomy.com

Other Offices

Autonomy has additional offices in Antwerp, Barcelona, Beijing, Bogota, Boston, Buenos Aires, Calgary, Cambridge, Chicago, Dallas, Darmstadt, Kuala Lumpur, London, Madrid, Mexico City, Milan, Munich, New York, Oslo, Paris, Pleasanton, Rome, San Francisco, San Jose, Shanghai, Singapore, Santiago, Sao Paulo, Stockholm, Sydney, Tokyo, Utrecht and Washington, D.C.