



The client

This retailer of value-priced party supplies, novelties and toys is a leading provider of school supplies, affordable home décor and giftware – meeting the needs of individuals, teachers, schools, churches, businesses and not-for-profit organizations across America.

Industry: Retail

Headquarters: USA

Solution elements:

RWS Digital Technology Services for ecommerce

Revamped and redesigned website architecture for a leading retail brand

How do you simplify the job of serving millions of ecommerce and catalogue customers with more than 40,000 unique products from multiple brands?

Call in the ecommerce experts from RWS Digital Technology Services.

The business need: time to modernize and simplify

The company's existing website architecture was built on outdated technologies that were simply no longer up to the job of efficiently managing different brands under a single roof. They wanted to modernize their platform with optimal technology frameworks and next-generation digital technologies, making it more flexible and fit for purpose.

Their specific objectives were to:

- Address the complexity of deploying new site features through separate codebases, databases and servers aligned with different brands
- Simplify site maintenance through a new administrative tool
- Incorporate dynamic features to publish website category pages seamlessly
- Manage orders and shipping of products across multiple brands from a centralized location
- Reduce the overall costs of operating and managing different brands

Revamped and redesigned website architecture for a leading retail brand

The solution: vendor-agnostic expertise

Knowing that RWS Digital Technology Services offers a complete suite of ecommerce services and a vendor-independent approach, the retailer turned to them for help.

This was the start of a partnership that has seen the retailer grow its ecommerce maturity in several phases. RWS has not only applied cutting-edge technologies to the site's backend systems to address the company's initial objectives, but over time has opened up a range of capabilities for more flexible, customer-friendly service.

Key developments to improve **ecommerce manageability** have included:

- **A uniform codebase** system for easy deployment of features across numerous brands. This involved migration from the legacy Beehive technology (a Struts-based framework) to Spring-based controllers.
- **A new dedicated site for sales administration**, with a single point of access to manage product cache and offline orders, user accounts, taxes and freight charges.
- **Warehouse automation** using AS/400 and RPG technology to improve processes such as order allocation, assembling, packaging and shipping.
- **Dynamic category page management** by replacing the existing Endeca enterprise search engine with the Hawksearch engine, enabling category and product listing pages to be responsively rendered.
- **Dynamic content management** by introducing a web CMS to manage templates and relevant site content.
- **Test automation** of 600 regression test cases using Selenium WebDriver on multiple devices such as mobile, web and tablets; and the creation of a customized page object model framework for reusability and modularization of automation.

Developments to improve **business intelligence** have included:

- **Customer data management** using master data management (MDM) and Informatica data quality (IDQ) for trouble-free data capture and maintenance.
- **Integration with third-party vendors**, including TurnTo for reviews and ratings, the Hawksearch engine for category and product search, and Tealium tag management and Coremetrics for business analytics.
- **Social media integration**, which not only allows customers to share product reviews through Facebook, Twitter, Pinterest and other social network sites, but gives the retailer valuable data to enhance the product experience and effectively plan inventory.

Technology stack used

Spring	Selenium hybrid framework
Hibernate	Compatibility: IE, MS Edge, Firefox and Chrome
JPA	
REST APIs	Web automation: Selenium, Java, TestNG
Angular 4	
AS/400 and RPG	Mobile automation: BrowserStack
MySQL	Version control: Git
Informatica PowerCenter	CI/CD: Jenkins and PowerShell
Informatica PowerExchange	Reporting tool: Log4j and Extent Reports

Business benefits

- Ease of feature deployment and maintenance across brands due to unified codebase
- Increased conversion rates with single-cart checkout and hassle-free order tracking and management
- Improved customer engagement and overall site experience with product personalization and other site improvements
- Simplified sales administration through single point of access to administer various applications
- 70% reduction in manual regression testing efforts

Developments directly affecting **the buying experience** have included:

- **Global cart checkout**, allowing for single cart checkout for products added from multiple brands.
- **Single sign-on**, enabling customers to buy, pay for and track all of their orders from different brands in real time, using a single account.
- **My account**, allowing customers to create and manage their own dashboard displaying their wish list, order history, multiple billing and shipping addresses, reviews and ratings, and more.
- **Product personalization**, empowering customers to add text, photos or colours to products such as apparel, mugs, notebooks and more, with the option to preview the final look before buying.
- **Integration with payment gateways**, including PayPal, PayPal Credit and gift cards for smooth and secure checkouts.
- **Choice of delivery method**, allowing customers to select from different shipping options and have the delivery time and freight charges auto-calculated based on their postal code. The options include a newly integrated drop-ship feature for product items that get directly shipped from the manufacturer.
- **Product recommendations**, allowing customers to instantly view and buy products that others usually buy for different occasions such as birthdays, theme-based parties, and more.



For more on our ecommerce services:
rws.com/digital-technology-services/ecommerce

About RWS

RWS Holdings plc is the world's leading provider of technology-enabled language, content management and intellectual property services. We help our customers to connect with and bring new ideas to people globally by communicating business critical content at scale and enabling the protection and realization of their innovations.

Our vision is to help organizations interact effectively with people anywhere in the world by solving their language, content and market access challenges through our collective global intelligence, deep expertise and smart technology.

Customers include 90 of the globe's top 100 brands, the top 10 pharmaceutical companies and approximately half of the top 20 patent filers worldwide. Our client base spans Europe, Asia Pacific, and North and South America across the technology, pharmaceutical, medical, legal, chemical, automotive, government and telecommunications sectors, which we serve from offices across five continents.

Founded in 1958, RWS is headquartered in the UK and publicly listed on AIM, the London Stock Exchange regulated market (RWS.L).

For further information, please visit: www.rws.com

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