



ELSEVIER

Challenge

Enable Elsevier to apply identity resolution to its diverse and complex sales records worldwide to obtain a full and accurate view of each customer

Information Solution

Informatica® Identity Resolution™

Results

- Increased the speed and accuracy of customer data matching to improve customer management
- Protected revenues by avoiding any confusion over identity when confirming multiple purchase discounts
- Reduced the number of customer and intermediary queries resulting from customer data matching issues
- Enhanced the overall customer purchasing experience by supporting the new online ordering system with effective identity resolution

Delivering powerful and comprehensive identity resolution capabilities to a highly specialist global publisher

“We were faced with an enormously complex data problem. We needed to achieve a single view of each customer. The nature of our specialist customer base and variances in how records data is structured across different companies made identity resolution a major challenge.”

– Richard Hague, Lead Data Architect, Elsevier

A Single Customer View for a Specialist Global Publisher

Elsevier is a world-leading publisher of scientific, technical, and medical information services. The company is a division of global publisher Reed Elsevier and produces and supplies renowned titles such as Gray’s Anatomy and The Lancet to a highly specialist customer base around the world. When it introduced a new online ordering system, it faced the challenge of gaining a single view of every customer worldwide so that it could manage all orders correctly and maintain its revenue base.

The Transition to Online Ordering

While much of the generalist publishing sector has offered online ordering to its customers and retailers for several years, the highly specialist nature of Elsevier’s business meant that it did not instigate such capabilities until relatively recently. When the business began planning its online order management system, it recognized that it faced a substantial identity resolution challenge because of the global nuances of its customer base and the nature of their purchasing habits.

Elsevier’s customers are specialist academics working at universities and other institutions around the world. The company sees these individuals as its customers, rather than the organization they work for, meaning it needs a highly intricate approach to customer management. The customer base includes Nobel laureates, university libraries, pharmaceutical firms, and leading researchers.

Creating a Single View of Customer Data

Elsevier already relied on Informatica Identity Resolution to help verify the identities of customers in its databases for offline ordering. This robust software enables organizations to search and match identity data from more than 60 countries simultaneously, in both batch and real time. Matches can be found accurately and quickly, regardless of language, structure, format, location, duplication, omissions, or errors. The solution uses intelligent algorithms and strategies to locate identity data records inside large databases, emulating an expert user’s ability to recognize matches.

“We have been able to make the transition to online ordering for a diverse product range and global customer base without a hitch. Our challenge was to gain a single view across extremely complex data. We have been able to do that and improve service to our customers in one move”

– Richard Hague, Lead Data Architect,

Elsevier

With the instigation of the online ordering project and the improvement of an existing data warehouse to support the initiative, Elsevier needed to upgrade this capability to ensure that it could gain a single view of each individual customer and his or her purchasing behavior. This was especially challenging because the third-party retailers that the company already worked with around the world would be sending data to be matched by Elsevier so that orders could be placed using the new online system. Each one could potentially take a slightly different approach to entering customer data because of variations in address and naming formats.

Overcoming Geographic Differences

For example, address formats in the United Kingdom are typically house or office number first followed by the name of the street, but the opposite is true in many other parts of Europe. This problem is exacerbated in parts of the Far East where conventions are far more complex. Moreover, Elsevier's clientele tend to be very global in their working lives, meaning that a visiting Japanese professor may be seconded from an American university to a French one, creating potential for confusion about whether that customer is the same person as the one who, a year previously, was working in Tokyo.

This meant that Elsevier needed not only to guarantee it could deliver effective customer management through its online ordering system to avoid any dissatisfaction but also to administer bulk or repeat purchase discount schemes correctly to avoid losing revenue.

Ending Reliance on Manual Processes

Elsevier had already deployed Informatica Identity Resolution to help it address the challenges associated with its multiple order fulfilment systems, which had evolved through 125 years of mergers, acquisitions, and natural growth to form a diverse information environment. This enabled the company to simplify its sales information system by automating the task of searching and matching the vast array of international addresses in its customer database.

The move to online ordering and overhaul of the data warehouse meant that the identity resolution functionality needed to be upgraded to accommodate the new, diverse order feeds and generate a single view of each customer. This challenge also presented Elsevier with an opportunity to enhance its customer management.

Dealing with Multiple Address Conventions

The decision was made to upgrade Informatica Identity Resolution; after a proof-of-concept project was completed in a month, it took a further two months to undertake the full implementation. The parameterized matching rules that the new system introduced immediately provided greater flexibility and accuracy in dealing with different address conventions in different countries, such as the abbreviation 'St.' meaning Street in English but Sainte in French. By doing so, Elsevier has been able to accommodate its online ordering system and to automate its order verification so that it does not rely on manual processes. This not only ensures that the company has a clear, single picture of its customers as they place orders but also speeds the process to help ensure their satisfaction.

Elsevier also made sure that the upgrade gave it the ability to prematch data, so that a check is carried out to verify that the record has not been changed before updating the database. External files, such as a list of new accounts, can also be matched against the database.

Clear and Accurate View of Customer Purchasing

“When we made it possible for our customers and intermediaries to purchase our products online, we were faced with an enormously complex data problem. We needed to achieve a single view of each customer. The nature of our specialist customer base and variances in how records data is structured across different companies made identity resolution a major challenge,” says Richard Hague, lead data architect for Elsevier. “Having applied the best technology to the problem, we now are now able to manage the requirements of our customer base better as we have a clear and accurate view of their purchasing and history.”

The transition to online ordering made it critical for Elsevier to gain a single view of each customer, so that the company was immediately aware of all customer orders and order history. Moreover, the move to an online environment created greater expectation from customers that there would be no issues concerning duplicate orders or errors and that the dispatch of goods would not be delayed while data was checked.

“We have been able to make the transition to online ordering for a diverse product range and global customer base without a hitch,” says Hague. “Our challenge was to gain a single view across extremely complex data. We have been able to do that and improve service to our customers in one move.”

A Clearer Understanding of Customer Value

The upgrade has enabled Elsevier to fully understand the value of each customer and verify that it is charging the correct amount for each order. The online ordering system produces far more data than the old manual approach, meaning that the identity resolution system has had to cope with greater complexity.

“The sheer volume and address complexity that we have to deal with increased the scale of our challenge,” says Hague. “We take data input from across the world and there is enormous scope for error. By increasing the sophistication of our identity resolution capabilities, we have been able not only to tackle all of this complexity but also automate the entire process.”

Informatica Identity Resolution is also able to perform “negative” searches, whereby addresses that appear incorrect are identified automatically before they enter the data warehouse, as well as identify and clean duplicate records. With reliable customer records, Elsevier has improved its customer service by increasing the timeliness of delivery and accuracy of invoices.

“It is more than a data matching tool for our team. It provides us with additional value because we use it for de-duping, clustering, and in-system data migration,” says Hague. “Whereas when we embarked on the project we knew we had to tackle some major hurdles, the team now feels that it’s very much in control of the customer data – we’ve learned how to manage the complexity.”

“We take data input from across the world and there is enormous scope for error. By increasing the sophistication of our identity resolution capabilities, we have been able not only to tackle all of this complexity but also automate the entire process.”

Nuts & Bolts

- **Products:** Informatica Identity Resolution
- **Solution:** Data Quality
- **Sources:** Data in various formats from 19 global agents, creating five system feeds into the data warehouse
- **Target:** Oracle-based data warehouse
- **Platform:** Oracle database on Windows servers

LEARN MORE

Learn more about [Identity Resolution](#) and the entire Informatica product platform. Visit us at www.informatica.com/uk or call 01628 511311.

ABOUT INFORMATICA

Informatica enables organisations to gain a competitive advantage in today’s global information economy by empowering them to access, integrate, and trust all their information assets. As the independent data integration leader, Informatica has a proven track record of success helping the world’s leading companies leverage all their information assets to grow revenues, improve profitability, and increase customer loyalty.

– Richard Hague, Lead Data Architect, Elsevier

INFORMATICA[®]
The Data Integration Company™

Informatica Software Ltd, 6 Waltham Park, Waltham Road, White Waltham, Maidenhead, Berkshire SL6 3TN
Tel: +44 (0)1628 511311 Fax: +44 (0)1628 511411 ukinfo@informatica.com www.informatica.com/uk

Informatica Offices Around The Globe: Australia · Belgium · Canada · China · France · Germany · Ireland · Japan · Korea · the Netherlands · Singapore · Switzerland · United Kingdom · USA

© 2009 Informatica Corporation. All rights reserved. Informatica, the Informatica logo, and The Data Integration Company are trademarks or registered trademarks of Informatica Corporation in the United States and in jurisdictions throughout the world. All other company and product names may be trade names or trademarks of their respective owners.