

Live and learn

ADDRESS LEARNING HAS AN IMPORTANT ROLE TO PLAY IN HELPING POSTAL OPERATORS FULLY OPTIMIZE THEIR SYSTEMS AND PROCESSES

For most posts, sorting decisions are made when the address detail captured by the optical character recognition (OCR) is compared with a passive address database. Indeed, this assignment process is now central to the cost-efficient running of many postal operations, but the good news is this isn't the end of the story. There is the potential for even more economies to be made. By using this operational data to improve the address database – in other words, address learning – further cost and performance benefits can be achieved, and dynamic function's efficiency improves every time a new sorting decision is made.

Remembering what is already learned

Address learning represents different things to different people, but in relation to reading and coding systems – OCR and VCS – it essentially means using precious information that is currently discarded. During the assessment phase of the sorting process, decisions are made to correct addressing errors, such as a house number. Although this represents new knowledge, most systems do not learn from it. If another mailpiece comes along with the same error, the system has to start from scratch in its decision-making process. This is operationally inefficient, increases process time and is a wasted opportunity.

There are clear benefits to be gained if this data is able to inform the decision-making process on an ongoing basis. Higher first-time read-rates and



Above: Address learning from OCR and video-coding processes can help posts improve the quality of their address databases, increase sorting efficiency and reduce costs

assignments are achieved by any system using the enhanced address database. New, deeper level address fields are added in the learning process to provide the information needed to determine the delivery point, such as a specific building.

In the case of multiple-occupancy buildings – typically shopping malls or apartment blocks – the addition of a name, organization and floor number may be the all-important identifier. The utilization of these associated data fields engenders much higher confidence in the automated reading systems and the end result is cost savings.

One of the reasons why this learning process is so important is because databases have become fragmented. Many countries no longer have the telecoms and utility monopolies that held the best sources of address data. Now, in order to tap into this resource, postal operators need to work with many different companies to build the complete picture. So why not use the live stream to capture this vital data?

Providing the ultimate flexibility Another big benefit is that address learning enables individual postal organizations to optimize the decision-making process, while embracing the cultural differences that define the countries they serve. It allows the database to acquire market-specific, additional information that helps to pinpoint the delivery point. House names could be an important characteristic, for example, or a person's initials, especially if their surname is a common one. Vanity

addressing is another candidate where incorrect address elements are commonly used to flatter the recipient. If the system knows to double-check these hotspots, errors are eliminated.

Every additional piece of intelligence makes the sorting process more cost efficient and this is particularly important where address databases lack uniformity. For example, postal operators in the Netherlands use databases where only 60% of the population has a specific delivery point based on name and address. In Ireland, that figure is just 33%, although that is set to improve with the introduction of a new postcode system.

Address learning has a very important part to play in these and other markets by squeezing every possible efficiency gain out of a 'local' addressing system that is less formalized. Although there are moves to standardize addressing through international cooperation, postal operators still have to do the best with what they have and address learning is a good, short-term answer.

Best time to consider So at what point should address learning be introduced into the automation mix? Essentially, it should only be considered when all other easier methods of gaining efficiency have been tried, tested and fine-tuned. An important prerequisite is to make sure the OCR is working optimally and maybe within a waterfall system to maximize read rates.

Additional end-of-line systems that automate data capture for specialist and low-volume mail should also be evaluated. Image lift systems and manual workstations fall into this category. These are all important steps as good OCR offers significant performance gains on its own. So, too, is the quality of the basic database. It stands to reason that the more accurate this is at the start of the process, the quicker the return on investment.

Address learning is not a quick or easy fix. Technically it is challenging, as a collection system for the data has to be established across all mail streams – letters, flats and parcels – for storage and analysis. In most cases, the process will result in the

database doubling in size as it will contain more address elements and maybe several variations of one address. It becomes 'big data' that requires a lot of processing.

Decisions have to be made on how the address learning system assesses the new data or information that differs from an existing record in the address database. For example, should changes be made automatically or after human validation? And what should those validation steps be? It could be that if the same information is captured twice, it is considered valid. Or maybe the change is only authorized when the information has been cross-checked against external sources, such as utility or municipal records.

With address learning there is a lot to be considered, but if every other cost-saving option has been exhausted, it has the potential to make a big difference for posts. It's an ingredient that can turn a good automated sorting system into one that is even better, delivering the valuable performance gains that are so important to modern postal economics. ■