IBML: HANDWRITING RECOGNITION WITH THE HELP OF THE CLOUD

At last, there is a document management service that allows for handwriting to be clearly recognized. Document scanning service providers and mailrooms have continued to rely on people to recognize handwritten text and numbers, and then key the information in documents and forms into the companies' systems. But thanks to cloud technology and the support of crowd workers, production managers can be spared complexity and save costs, explains Steffen Unmuth, Sales Director at ibml.

Steffen Unmuth,
Sales Director at ibml

ibml promises a recognition of 99 percent for handwritten documents. How is this kind of accuracy possible?

Steffen Unmuth: Unfortunately, no software has been able to automatically and fully recognize handwriting, but with this new ibml module, we can promise a recognition rate of nearly 100 percent for forms filled out by hand.

The scanning process still depends on people; it's how they organize this work that makes the difference. Thanks to our service, they can rely on crowd workers in the cloud to extract content from document form fields.

What are the underlying technologies?

Steffen Unmuth: We use the cloud and all its possibilities and have designed our software to work with the cloud. It takes a scanned document and cuts its content into single fields filled out by hand (snippets). The solution then marks the snippets with a code as a unique tag and consolidates similar snippets into jobs.

Via the online interface, these jobs are then broken down into discrete tasks before being uploaded to the cloud. This is where crowd workers come into play. Using their own Internet connections, crowd workers around the world can access the jobs, view the snippets and manually key the handwritten content into a text field.

Which arguments do you use to convince production decision-makers of your cloud solution?

Steffen Unmuth: If customers want to use our service, they simply have to integrate Crowdconnector as an additional module—a one-time cost—with our CaptureSuite software. All further costs are based on document volume and transaction type.

This is ideal for service providers working on a seasonal basis that scan and process large volumes for just a short period of time once a year. Scalability is our biggest advantage. A service provider can process an extremely high volume of documents without employing additional staff to manually key in the information from the forms' fields.

A key advantage for our customers is that their ibml systems can automatically forward jobs for data extraction to the cloud via Crowdconnector. After just a few minutes, the cloud sends all the recognized and extracted data back to the system.

scalehub

What advantages does Crowdconnector offer and which factors can users apply from your solutions portfolio to calculate ROI?

Steffen Unmuth: For many document scanning service providers, difficulties begin with the search for staff willing to key in forms on a seasonal basis, possibly at very short notice. These people are hard to find, thus making punctual delivery to the customer likewise difficult. Crowdconnector provides a solution for unforeseen challenges. Our crowd workers are always available—day and night.

We offer extreme scalability. When a job comes in, there's no need to fill additional workstations, nor for software and system administration. All of this saves personnel costs. Regardless of how big a job may be, it goes to the cloud and comes back to the system completed after just a few minutes.

The legal requirements for online work and use of the cloud have been significantly tightened over the past years. How do you couple handwriting recognition with the legal terms of, for instance, GDPR requirements?

Steffen Unmuth: The decisive factor is that our solution never sends a complete document to the cloud. This is precisely what makes it compatible with the legal terms. Our approach is that we cut a document into snippets. We then tag them with a distinct code. Based on this code, the software will bring the individual snippets back together after recognizing them to create a single document. We guarantee our customers that absolutely no conclusions can be drawn at any time about certain persons or documents.

What makes a ScaleHub crowdsourcing solution unique in combination with ibml?

Torsten Malchow: Thanks to the combination of artificial intelligence (AI) and human intelligence (HI), our solution delivers nearly 100 percent correct and complete data to fuel process automation projects. Process automation becomes affordable and scalable without requiring additional internal resources for data capture.

Thorsten Malchow,
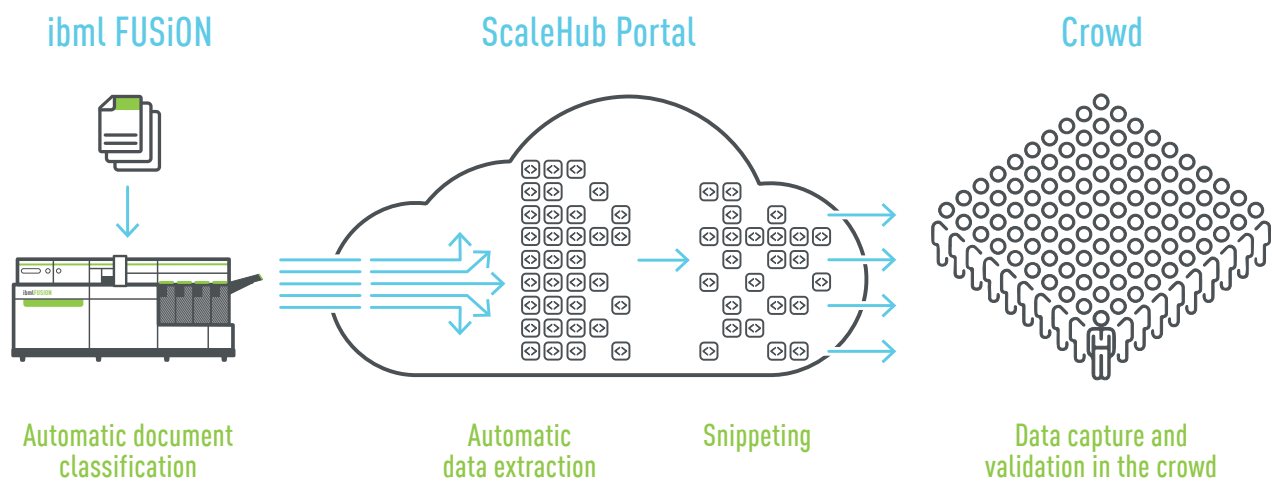Chief Revenue Officer at ScaleHub

Please explain how AI is used in the solution.

Torsten Malchow: The combination of AI and HI is what differentiates our approach from traditional intelligent automation or content intelligence providers. For instance, ScaleHub leverages self-learning intelligent capture components for automated data extraction, combined with crowd workers around the world who manually key in the snippets of data that cannot be automatically captured. Manually captured data complements the automatically captured data sets, and is then used to train other AI efforts. This means AI continuously learns and automatically adapts itself to our customers' documents.

Furthermore, AI services are leveraged for monitoring and managing work packages and the creation of snippets, as well as recomposing documents from captured snippets. We balance technical limitations with the deployment of crowd workers and thus always deliver nearly 100 percent accurate data to the customer. On top of this, we continually optimize AI using the data captured by the crowd.

Which use cases do ScaleHub and your partner ibml focus on?

Torsten Malchow: Potential applications are vast, and customers can profit from instant advantages. We have extensive experience with insurance companies, banks, transport and logistics companies, BPOs, document scanning service providers, invoicing centers and health insurance companies. While individual use cases vary depending on the industry; generally speaking, we focus on forms-related processes. Our solution supports our customers' digital transformation journeys without requiring valuable human resources for data capture tasks.

ibml FUSiON	ScaleHub Portal		Crowd
Automatic document classification	Automatic data extraction	Snippeting	Data capture and validation in the crowd

How is scalability ensured, or where are the limits?

Torsten Malchow: Scalability is virtually limitless. To date, our crowdsourcing solution accesses more than 2.3 million crowd workers worldwide. ScaleHub has created a functioning, self-sufficient community just waiting to serve our work packages. Our secret lies in the mix of fair remuneration, simple instructions for the crowd and a very intuitive capture interface based on the newest technologies.

ScaleHub currently offers the world's largest AI-based crowd force operating system. In our relatively short company history, we have already had days with more than 12,000 crowd workers completing tasks for our customers. We have not experienced any limitations to date.