

Document Imaging Report

Business Trends on Converting Paper Processes to Electronic Format

Infosource SA ● Geneva, Switzerland ● <http://www.documentimagingreport.com>

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Welcome to 2021

I hope you enjoyed our predictions issue on January 8. That was fun to pull together and I look forward to doing it again at the end of 2021.

I've joked, too many times, that we'll see things get better, faster, cheaper.

As I was doing some skimming across a variety of topics in the insurance industry, I was struck by how document-focused the industry is. I think everyone knows that, but it really smacks you between the eyes when you even just scratch the surface of some of the technology trends in the space.

2.1.21 - Google Docs

I see radical personalization and improving the customer experience as two of the top priorities. To effectively do either of those, companies must deliver customers the right information at the right time (that's a challenge y'all are all familiar with, eh?).

A lot of what I read (OK, skimmed quickly) focused on essentially throwing AI and/or RPA at the problems. I'm no expert, but, to me that is just a recipe for failure, especially with those technologies. Smart companies understand AI and RPA are pieces of a solution, not a solution themselves. I suspect there will be some multi-directional purchasing/partnerships as the RPA companies eyeball the capture/process automation and ECM companies and vice versa.

That will shake out over time. What I'm increasingly intrigued by is who are the buggy whip makers in this industry -- or will there be any? There are more companies around the world who don't use the technology this industry creates and champions than those that do. Larger, smarter, and/or more agile businesses will combine tools like RPA, workflow, document management (yeah, I said it), capture, AI, process mining, etc. to deliver personalized content and services to customers across products and delivery streams. At the other end of the spectrum, someone today is discovering that they can do automated invoice processing. Having spent four years marketing copiers, I'm still amazed there are folks who, literally, are still discovering you can scan and then archive your paper documents.

What's the point? Well, I'm not 100% sure other than that there still seems to be a wide open market for a lot of this technology, even the basic tools, and COVID lit the fuse to a rocket. I increasingly think that as everyone in the industry continues to shift to a cloud foundation strategy for products, that many vendors will be able to do both -- serve that cutting edge customer while simultaneously providing scaled down services for simple business needs. However it goes, it's sure to be an interesting ride. I'm looking forward to what 2021 reveals.

Thanks for reading,

Bryant Duhon

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Comments, criticisms, and witticisms welcomed.

2020-2021 Capture Vendor Market Matrix Released

Infosource Software has published its annual *Worldwide Capture Software Vendor Market Matrix Report*. The report ranks the world's top 20 Capture software vendors based on their strategy and execution toward Capture 2.0 solutions. In addition to traditional document capture, Capture 2.0 incorporates criteria like multi-channel, multimedia input and AI and language understanding. Infosource estimates the worldwide opportunity for Capture 2.0 technologies to be worth upwards of \$30 billion—more than five times the size of the currently recognized Capture software market.

Vendors have been placed on a chart utilizing one axis for Strategy and one for Execution. There are labels associated with each quarter of the chart: Explorers, Contenders, Disrupters, and Stars. In addition, Infosource offers an analysis of each featured vendor, including our view on their strengths, weaknesses, and future direction.

Capture vendors come from a range of backgrounds, including Capture pureplays, ECM vendors, RPA, and the platform world. They are all converging as the market migrates towards Capture 2.0. The Vendor Market Matrix report is designed to help you make sense of the shifting landscape and how the various vendors stack up.

For more information on the Infosource Worldwide Capture Software Vendor Market Matrix Report, please contact Ralph Gammon, Senior Analyst, at rg@infosourceanalysts.com.

A Continued Turn to the Cloud

Jim Roberts, President, DocuWare Corporation

[Editor's note: Here's our final predictions piece which should have been included last issue, but was delayed due to miscommunication on my part.]

Not being able to pivot to a mobile workforce overnight left many companies scrambling to continue business as usual during the COVID-19 pandemic. This has, however, presented organizations with an opportunity to revise their workplace policies to better manage a remote workforce.

We've seen that many organisations are looking to implement [pre-configured, cloud-based document management solutions](#) as the costs are scalable and these software packages can be implemented in days. I predict that this is the type of product that will be in demand in the year ahead. It comes ready-to-use and is secure and compliant.

Ready-to-use is a key factor especially for small- to medium-sized businesses, who are working hard to get through these times and must ensure that any new product or tool delivers immediate benefits.

In a survey DocuWare conducted at the start of the pandemic last year, 73% of businesses said that they consider cloud-based tools very-to-extremely valuable for managing a remote workforce. With an additional 65% expressing concerns about the security of company information when dealing with a remote workforce, a pre-configured, cloud-based document management solution checks all the boxes and could be the solution to navigating remote business environments.

KnowledgeLake Updates Its End-to-End Cloud Platform

Late last year, KnowledgeLake released the Huron Update for the company's cloud-based platform.

From the announcement, “the Huron update uses the power of AI and ML to enable users to quickly and easily set up and manage document-centric tasks and workflows. Integration with existing workflow implementations allows tasks to be queued from within almost any application, making the KnowledgeLake platform a seamless complement to existing workflow investments. In addition, the latest edition of the platform includes advanced document separation capabilities. Users can automatically separate stacks or batches of documents (including multiple documents) in a single file to dramatically increase productivity and efficiency.

The KnowledgeLake Huron Update also delivers significant improvements and enhancements in underlying capabilities such as text-based classification, signature detection, optical mark recognition, advance capture capabilities, RDA and RPA integration, and more. For KnowledgeLake partners, the latest release of the KnowledgeLake platform features new tools and capabilities such as vanity URLs, custom code options, a more robust API extensibility framework, and branded white labeling.”

DIR spoke with Jason Burian, Vice President, Product Management, and Brian Posnanski, Vice President, Marketing about the release and general industry trends. Burian says the release is a major step forward in a few areas for the platform, especially document classification, extraction capabilities, and automatic separation.

Unique Classification Approach?*

The folks at KnowledgeLake think they’re on to something unique to the marketplace with the classification engine. They remove irrelevant and common words which shrinks the number of words so you’re looking at a smaller core of words that can differentiate documents from each other. Burian explains, “It blends together image based recognition. So think of facial recognition for docs. I take a picture of your face and some else’s and I convert those two pics between numbers. I can then convert those into numbers and measure. Two numbers close together means a similar face, far apart -- not the same thing.

We've had this idea for a long time. There are some docs that are too text heavy -- contracts, correspondence, proposals, quotes, mortgage loan processing, claims, etc. -- that didn't lend themselves to the highest accuracy we wanted, so we introduced this hybrid that blends image with text-based classification. It uses a new methodology call TFIDF - term frequency inverse document frequency. We look at the text on the doc and then throw out the common words - the, and, etc. Then we look at the words that are unique to a classification of docs but are repetitive, like invoice. Then we look at a subset of words that are unique to a doc. Then you blend that with the image-based classification then you get a machine learning training set that is super easy to train and highly accurate."

This speeds up recognition and reduces false positives because you aren't looking at every word on the page and comparing text document to document. Burian notes that image-based classification is fast, "think of Tesla's self-driving car. It has to recognize and process Stop signs, baby carriage, goose and do it fast."

[*Ed note: If anyone is doing something similar, we'd love to hear from you: bduhon@documentimagingreport.com.]

Integration Into Workflow Tasks

Another improvement is tighter integration with workflow tasks. Burian notes that customers often view the product as a document platform but many also need to do workflow tasks happening in SharePoint, Appian, Pega, "or wherever." When the human element is still needed for a workflow task as they often are ("Skynet isn't approving all of our invoices yet), bringing the task to the user is more productive.

Burian says, "the inbox and task experience is low code/no code and centered around providing an awesome human element for performing document-centric tasks in their workflow engine or kicked off from any other workflow engine on the planet. If someone has invested in K2 or Appian as their BPM platform, they can keep that as their rules engine and easily integrate with KnowledgeLake."

He continues, "We think it's unique. Usually you have your doc platform and your workflow platform and you have your doc storage platform and then somewhere you have a LOB system with unstructured data in it -- we want to bring all four of these together. So that an end user can make a decision or take an action or complete a task in a shorter amount of time so they don't have to hunt and collect pieces of data from multiple systems -- what's the credit score, etc. Bring it all together in a single pane of glass for them."

Easy to Use and Cloud Native

Burian and Podsnanski both reiterated repeatedly that the product is cloud-native and they work constantly to make it as easy to use and implement as possible. The original cloud offering launched nearly three years ago to existing customers and it's now been just over two and a half years of wide market availability. Other than selling a few seats to existing legacy customers, KnowledgeLake is a 100% cloud business.

Burian thinks the days of multi-year implementation projects are a thing of the past. Posnanski made the point about simplicity relative to integrating with something like an ERP system, "The answer is with low code and no code environments. make it super easy for users to configure this stuff. You shouldn't have to wait weeks and months to get these things up and running. A key point of emphasis is the overall better experience we're providing with this Huron update."

Posnanski also stressed the cloud first, cloud native aspects of the product. Infosouce's is very bullish on the adoption of Cloud Capture services in the upcoming years. The obvious implication: this is a good thing for KnowledgeLake as some legacy vendors continue to (and these are my words) update, shoehorn, and/or retrofit legacy products for the cloud.

Who emerges as the winners between companies with relatively deep pockets and a large base of maintenance contracts trying to shift to a cloud service strategy quickly, but not so quickly as that maintenance revenue goes away, and the smaller, generally more agile companies who have already made that leap remains to be seen.

The company's go-to-market strategy is channel focused. KnowledgeLake's goal is to provide a platform for their partners to build solutions on. He mentioned one of the reasons they invested in the classification engine is that a partner was pulling them into the mortgage loan industry.

Relationship With Microsoft

KnowledgeLake is one of the 11 charter members of Microsoft's preferred partners and part of the content services program. They view the relationship between what Project Cortex' Syntex offers complementary to what they do. Says Burian, "One of the things with Syntex is that you have to know where inside of 365 to put it to run their AI model so you have upfront classification. We view it as totally complementary. We are really excited with where they are going. We've also been, in our opinion, the number 1 capture platform in the MS ecosystem. Users need partners (like us) to get the solution they want. NS has a huge ecosystem of great partners. We feel very proud that we played a part in helping MS achieve their content services goals."

KnowledgeLake has noticed a shift away from SharePoint as customers move to the cloud. They've shifted along and don't really care what customers want to use as their back-end; Azure (which they built a set of DM services around), Hyland OnBase, Amazon, etc.

"We've Had RPA for 12 Years"

Burian says they've had the technology, but never branded it that way ("if I had a time machine ... "). The way we use RPA is very focused -- it's on document centric processes. We're focused on these transaction document problems, which are a bit more unique in the marketplace. I'm proud of what we offer."

Like many in this space, he thinks RPA vendors are going to come closer to the capture space. I tend to agree with his statement, "I see RPA as a tool in the workflow toolbox. I don't see it as its own market, but I don't make those rules." And since 80% of processes revolve around documents, the RPA guys have to partner. Personally, I've always wondered why data is considered sexy and documents dull, but to echo what Burian said, I don't make those rules.

Mortgage Processing in a JIFFY With Ephesoft

Ephesoft, Inc. and **JIFFY.ai** have partnered to deliver an intelligent automation solution targeted at the mortgage industry. Over the past year, there has been a surge in mortgage volumes. At the same time, the mortgage industry (as anyone who has bought a home recently knows) remains overly-reliant on paper documents and manual processes.

Research from **Stratmor Group** shows that companies are throwing overtime work at this problem as only 8% have turned to technology improvements. (https://www.stratmorgroup.com/insights_article/how-will-history-view-2020-mortgage-banking-executive-perspectives/) The combined solution looks to overcome resistance to technology adoption by making that adoption as easy as possible. The result is the industry's first Mortgage Loan Processing HyperApp.

The App: Quick Overview

The joint solution combines Ephesoft's Transact Intelligent Capture platform and JIFFY.ai's HyperApp automation software. The goal is to automate the end-to-end loan process for mortgage lenders.

From the release; "The companies' combined capabilities will accelerate the end-to-end automation of complex mortgage origination and loan processing by integrating intelligent capture, machine learning, Robotic Process Automation (RPA) and cognitive processing technologies into a single, unified solution."

We spoke with Ike Kavas, President and Founder of Ephesoft, to get his thoughts on this new relationship.

Why This Makes Sense for Ephesoft

Kavas was proud to note that this opportunity came to them as a result of steady growth in the company's reputation since it's beginnings a decade ago. JIFFY.ai has a "solution that automates the entire life cycle of business problems, and they needed a partner that could handle the document processing and intelligence part of it. Since we also thrive in financial services -- over 50% of our accounts are in financial services -- it was a good marriage for both reasons."

While not speaking for JIFFY.ai, Kavas believes the steady growth of Ephesoft is why they reached out, "Our tech has evolved over the years from close contact with our customers. We are prone to innovate and reinvent ourselves every two to three years to keep up with the tech. We've been able to do this because I've been fortunate enough to create a great team. It's all about people when running a company -- people build software, advertise it, and provide the services around it. The tech and our people is a great combo in Intelligent doc processing and I think that's why they chose us."

Low-Code Push Continues

Low-code and no code technology is starting to really take off. There is a philosophical alignment between the two companies that also contributed to his partnership. Says Kavas, "The way the industry is going is low code, no code, right. You can approach it in two different ways. Create a generic product and allow your customers to configure it without a lot of development and that's most RPA companies. The other approach is build the solutions based on the needs of 10/20/100 customers and you package it together and then you just drop it in and then the need for customer programming is minimized. That's the approach we're taking these days and JIFFY is pretty much aligned with that."

Time to Value

Kavas also stressed the time to value aspect of a mostly there solution. We all know the tension between companies who believe they have unique processes and the knowledge that this industry has that processes in an industry aren't unique snowflakes.

He explains how Ephesoft thinks about this, "it's all about the value a customer gets from a technology partner like us. If we go to a customer and say, look we can bring you something that is 80% there and you can start using it tomorrow, there's a time to value of being able to use 80% of the functionality you need to run your business starting tomorrow. If you compare that to let's put a project that's going to take 6 months to integrate or you need to bring your team, dedicating 5 people to build this, taking them away from their daily work, for the next 6 months. There are costs associated with that.

Bringing in an 80% done workflow or an intelligent document processing solution like ours has a lot of value to the customer. Then you need to make sure the remaining 20% can be done easily. There are some that are OK with 20% out there, but most want to get to 100% and then it becomes a choice of complexity, time, and resources versus value."

Kavas continued with an explanation of how this works with the platform with mortgage documents, "Our tech needs to be taught -- this sample is a loan application, this is a 1040, etc. We've trained about 600 document types already. We can go to a customer and say we've already trained these 600 common document types. They put it in and I then need to train 20 more because they have their own documents they use -- like a checklist unique to them. That's where the low code comes in. Do you need a developer to train that checklist or can a user tell the system 'this is a checklist, learn now?' That's actually no code because there's no programming involved."

It's amazing how far this industry has come. Kavas shared this from his early career, "Let's say in the past I wanted to classify the same 600 documents -- I've done those projects as a young professional services engineer and it took me 18 months to deploy my first project. Now two weeks ago, a customer called and said they wanted to do some mortgage work. Had a call the next day and they signed a few days later."

Opportunity and Going to Market

The solution is available now (I wish my mortgage company had had this six months ago). Obviously, given the stat from the intro earlier in the article, there's a huge opportunity in the mortgage industry for this type of solution. Even before this new opportunity, Kavas said, "Our pipeline has never been this full. We're growing like the pandemic never hit us. I'm very optimistic about our ability to get customers here and grow and be able to help these companies." He also expects to see more opportunities in financial services in general as that industry continues to invest in digital transformation projects.

The companies that continue to focus on time to value and getting a solution running in days as opposed to weeks or months will thrive, Kavas thinks. We'll see this more and more often over 2021 across all aspects of this industry.

I thought it interesting that Kavas mentioned customer education as a challenge that needs to be addressed. On the one hand, companies need to be educated that these types of solutions exist. Secondly, there's some re-education that needs to happen around the mentality that speed is possible. Kavas explains, "The old days of doing an RFP and a project plan and receiving bids is still out there, but there's now a different way. When a customer comes to us, we're the ones that tell them -- there's no need for us to build a project schedule then do a custom demo since we already have it. Instead, let's do a PoC starting tomorrow so by the end of the week you'll have everything you need as opposed to going three months, evaluate a bunch of vendors and give them scripts and files and see if they can handle it."

To emphasize, he pointed out the accounts payable solution from Ephesoft. A customer can get a free trial instead of a demo video. "That's where the industry is going and we're showcasing that on our website," Kavas said. Let's take a moment to acknowledge that if someone had told most of us you'd be able to "free trial" an accounts payable app-like solution, we'd have called that person a liar.

It sounded to me like JIFFY.ai is taking the lead on selling this solution with full support from Ephesoft, “JIFFY.ai is embedding our solution into theirs, so when they find a customer they can provide a soup to nuts solution. At the same time, we'll be promoting our technology for all companies. And you'll also see a lot of joined marketing efforts between us and JIFFY.ai because customer education is a top priority.”

I asked Kavas how exciting this was for him, “Very. To be able to deliver what customers need 80% of the time is revolutionary I think. We've never been this technically advanced in my career. I don't think any of my competitors are doing this, at least yet. I started this company so that I could advance the innovation in my space and my domain. If I can pull my competitors along and help customers, that makes me proud.”

From a pricing standpoint, Kavas said they've designed this to adapt to customer size and pricing will usually be based on volume and how fast they want to process those volumes. They'll be able to scale from small to large customers at a price point for everyone.

I wrapped our conversation with a question about any relationship between his full pipeline and COVID, as well as asking if he thought these transformation efforts are here to stay or if decision-makers are going to be distracted by the next shiny object.

I'll give Ike the last word, “Every company and every department within a company in various stages of the digital transformation pipeline, we can help. It's worldwide. The awareness of digital transformation is now simply an understood concept. Over the past several months, that drove projects and budgets. Our customers and partners have more opportunities. The need for a paperless office has always been there. COVID has brought it to light. So even if we were to return to normal tomorrow, I don't think people would stop. I don't think we're going back.”

You can find details about the announcement here:

<https://www.documentimagingreport.com/hyperapp-and-intelligent-document-processing-solution-drives-digital-transformation-for-the-financial-services-and-mortgage-industries/>

Accounts Payable Continues to Serve Up Low-Hanging Fruit Opportunities

It's no secret that I remain fascinated and baffled that the same low-hanging fruit for capture implementations (accounts payable) from 25 years ago remains low-hanging fruit today. Throughout my time at AIIM, anytime we published capture-related research, accounts payable was at or near the top of best bets for ROI as well as need.

Ongoing product and research announcements from vendors in this space continue to focus on this basic need for businesses. I think what fascinates me most about this is that it's a problem that has been technically solved. Regardless of business size, if your AP process is slower and more mistake prone than it should be, and you're still using paper invoices and a manual process, it's because you don't know a better way exists (not any of our dear readers!) or just haven't made the move.

While companies like **ABBYY**, **Ephesoft** [see DIR 5.29.20 regarding the Semantik Invoice release], **Kofax**, and others release accounts payable solutions [check the next issue for details on Kofax's new announcement] that solve the same problems they could solve in 1998 (though better, faster, and cheaper), they're also doing things with process mining and RPA that we could only dream of then. This ongoing tension between filling the old-school needs while embracing the future is a marketing nightmare (or maybe let's go with challenge).

I'm reminded of reading a few books about marketing basics at this time last year, particularly Ogilvy On Marketing. There isn't anything new today in marketing. Techniques today are different, but the fundamental principles haven't changed. I think we're seeing that in this industry. Everyone always has an eye on the horizon, but there's still a ton of fruit on branches very close to the ground.

I found these two tweets from Mark Brousseau (a former editor of DIR, way back in the day), **Brousseau & Associates**, interesting:

What will it take for [#AP](#) departments to thrive in 2021? 28% of attendees to an [#IOFM](#) webinar I did today with [MineralTree, Inc.](#) say they need to rethink how they do invoice approvals and exceptions management. 23% of attendees believe their invoice receipt and data capture needs a re-do, while 20% want to re-evaluate the way they make supplier payments.

[#apautomation](#) [#accountspayable](#) [#ap2021](#)

2020 may have been the tipping point in the migration to electronic [#B2B](#) payments. 57% of attendees to an [#IOFM](#) webinar I did today with [MineralTree, Inc.](#) say they made most of their payments to suppliers electronically last year. What's more, 80% expect their volume of electronic B2B [#payments](#) to grow in 2021. [#electronicpayments](#)
[#epayments](#) [#apautomation](#)

Ephesoft released some interesting research that unsurprisingly showed a lag in automation in AP departments even while there's a need to process invoices remotely in a WFH world.

Here are highlights of the key findings from the announcement.

Distributing or Processing Paper Documents

Businesses are shifting to automate their processes – especially for high-value, high-volume documents like invoices. However, survey results indicate that companies are slow to change when it comes to digitally transforming invoice processing and other financial documents.

- Only 15% of respondents said that their organization is fully paperless, which means the majority of businesses (85%) are not.
- Out of those who are not, just slightly over 50% are actively pursuing a paperless environment.
- One-third (33%) of companies are predominantly paper-heavy, still far from intelligent automation.

Current Technologies

When asked whether their businesses currently have document management, workflow, AP automation, RPA or artificial intelligence technologies in place, a majority of companies report having some type of document management and workflow tools system in place, but AI applications are still underutilized. Here's the breakdown, further showing a lack of current automation tools:

- Less than one-third (30%) employ accounts payable automation.
- Only 12% utilize RPA tools and just slightly less (11%) report using AI.

While these findings are understandable and relatable, Ephesoft predicts that new AI-powered low-code/no-code, cloud technology, which is evolving at a rapid pace, will remove barriers to entry into AI.

Newslets

Epson has expanded its small business and consumer line-up of document scanners. The ES-580W, ES-500W II, and ES-400 II are all targeted to meet the needs of small workgroups and employees in a work from home world. Both 500 models allow scanning to a smartphone, tablet, or cloud storage. The 580 has a 4.3" touchscreen and can scan directly to a USB memory stick. Carrie Fox, director, Scanner Product Management, notes these scanners provide "more options to easily digitize documents" and helps to digitize even piled up paperwork. More information:

<https://www.documentimagingreport.com/epson-announces-new-desktop-document-scanners/>

ibml has launched a cloud-native capture platform. **ibml Cloud Capture** is a standalone capture solution meaning it is scanner agnostic and supports hardware from other OEMs that offer industry standard TWAIN drivers. It also enables organizations to automate document handling processes using the built-in machine learning and Robotic Process Automation technologies within the platform. More information:

<https://www.documentimagingreport.com/ibml-launches-new-cloud-capture-platform/>

Bregal Milestone invests \$80 million in **M-Files**. According to the announcement, the investment will be used to accelerate growth and market penetration. DIR is interested in seeing how this investment turns into more exposure for a relatively under-the-radar cloud-based company with a strong vision and good track record. More information: <https://www.documentimagingreport.com/m-files-secures-80-million-growth-investment-led-by-bregal-milestone/>

DOCUMENT IMAGING REPORT

Business Trends on Converting Paper Processes to Electronic Format

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1. Document Capture
2. OCR/ICR, AI, and Machine Learning
3. RPA
4. ECM
5. Records Management
6. Document Output
7. BPM

DIR brings you the inside story behind the deals and decisions that affect your business.

Vol. 31, No. 1

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DIR is published approximately 15 times per year by:

Infosource SA

Avenues des Grande-Communes 8, 1213

Petit-Lancy, Geneva, Switzerland

<http://www.infosource.ch>

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