

Document Imaging Report

Business Trends on Converting Paper Processes to Electronic Format

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

November 20, 2020

EDITOR'S NOTE

2021 - YOUR PREDICTIONS

As the decade (century?) that has been 2020 draws to a close, our thoughts turn to 2021.

Every year, Ralph Gammon has written a predictions issue. And don't worry, we aren't breaking with that tradition entirely, but I did want to try something a little different this year:



What do you think is going to happen in 2021 in this swirling amalgam of an industry as process and capture intertwine ever more?

Share your thoughts with me and we'll place as many as we can into our end-of-year issue. All of our subscribers are brilliant, so I expect some interesting nuggets. I'll prioritize inclusion based on time of receipt to me.

How do you play? Simple. What are your predictions for next year? Maximum of three. As short as a few sentences, or you

CONTINUED ON PAGE 8

IN THIS ISSUE

Hyper Growth for Hyperscience	1
IBM CloudPak Automation 20.0.2 New Features	4
Epson Making Moves for Desktop Scanning	6

Hyper Growth for Hyperscience

Since April, many of the names and companies (excepting RPA vendors) have been the same as when I (mostly) left the industry in 2014.

Hyperscience is a brand new company to me and their CEO seems to have a slightly different perspective on the industry. On the heels of another round of financing, I spoke with CEO and co-founder Peter Brodsky about the company, their direction, and a bit about the industry.



Peter Brodsky, CEO, Hyperscience

Funding to Pace the Pandemic

Here are a few details about the funding from their website:

"I'm pleased to announce our \$60M Series C financing round led by **Bessemer Venture**

Partners with major investment by **Tiger Global**, participation from our existing investors **Stripes**, **FirstMark Capital**, **Battery Ventures**, **Felicis Ventures**, and **3KVC**, as well as **Gaingels** and **Penna & Company**, two firms new to Hyperscience.

"Thanks to the value we deliver our customers, our business has grown 300% YoY. MoM usage of our platform during the downturn has increased at a rate that is 3x greater than what it was before the pandemic." This brings Hyperscience's total funding to \$190 million.

The short answer to why they raised another round of funding isn't that they needed it, and they hadn't planned on doing another round this year, but the pandemic is pushing customer interest in the company's platform faster than expected. To strike while the iron was hot, Hyperscience decided to speed up their timetable for additional functionality rollout from late 2021 to early 2021 to meet customer demands and expectations.

Says Brodsky, "We aren't doing anything we weren't doing before. We feel we have a rare opportunity, given market conditions, to accelerate growth." Hyperscience is on track to "being profitable to the tune of 30 cents of every top-line dollar going back into R&D, which we think is a really healthy sustainable goal."

The market conditions were right and "our customers are really accelerating their road maps because the pandemic caused a massive surge of interest in automation."

Brodsky thinks the pandemic is making companies look at the percentage of employees focused on core tasks vs. important, even mission-critical tasks, that aren't core to business value. "How do you automate as much of this non-core work as possible so you can point employees at providing more value."

Brodsky mentioned that "step zero" of automation is ingesting data and that there's nothing business-specific about that. **ABBYY's** Bruce Orcutt and **TCG's** Bob Fresneda have each made this point in previous issues as well; essentially that capture is baseline functionality and not really a value-add.

I asked Brodsky about RPA. While noting that Hyperscience is not an RPA company (we'll cover their product at some point next year), Brodsky basically described the RPA industry as a mess (my words, not his) and in flux. RPA is important, not working as promised (or at least as easily as promised), and many of the vendors are being rolled up into more comprehensive process automation platforms. He didn't say it outright, but the implication was it's going away as a standalone tool quickly as companies implement and find it not delivering the promised results.

How Is Hyperscience Different?

Brodsky said Hyperscience has never lost a "bake-off" to any of what he calls "legacy" vendors in this space (I had mentioned **ABBYY**, **Hyland**, **IBM**, and **Kofax** as a few examples). He says Hyperscience is building a code-centric set of functionality to "automate the non-company specific stuff that companies are bogged down doing."

I asked him about the low-code approach many companies are taking and he was . . . not a fan. He says that low-code "disguises that easy things are easy and hard things are impossible." As a process is built and launched in low-code, Brodsky suggests that updating that process becomes nearly impossible, immediately or over time. He suggested Dreamweaver as a comparison, which was a drag-and-drop website builder. However, once you built the website, you couldn't really edit the code.

What Brodsky claims Hyperscience can do is to take a

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DIR is the leading executive report on managing documents for e-business.

Areas we cover include:

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. 30, No. 15

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DIR is published approximately 15 times per year, by:

InfoSource SA

Avenue des Grandes-Communes 8, 1213

Petit-Lancy, Geneva, Switzerland

<http://www.infosource.ch>

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different approach to automation complexity 180 degrees from low-code. “We will never say with no technical skills whatsoever you can build a really complicated application,” he says. “But we can build you a mortgage processing application and those applications are reusable.”

Continued Growth

The company claims 700% growth since 2016. Asked how he sees continued growth versus profitability, Brodsky explained that Hyperscience could implement a hiring freeze and be profitable in six months. Or as he put it, if they need to stop growing they only need “six months to get out of the ocean and back to shore.” To keep up with growth, they are using the financing to grow head count — otherwise they wouldn’t have the bodies to continue to grow.

Managing People With Software?

During the year Brodsky worked at **SoundCloud** after they bought his first company, he worked on behavior and recommender systems and began to think about the idea of how these tools can influence human behavior. Brodsky became excited talking about the people aspect of their technology, “We automate the work of individual contributors, but we also train people on the work we need to do. We assign, monitor, and then measure work performance and can trigger remedial training.” Through tracking metrics and productivity, Brodsky also suggests that the software could potentially recommend an employee take a break if their standard productivity dips.

This conversation led to questioning their buzzword and how they define their product, software-defined management. It’s no secret my stance on buzzwords. I was skeptical. I’m still skeptical (even though Brodsky said he doesn’t blame me for hating it), but also intrigued because if Hyperscience can pull this off, it changes work in a massive way.

He did say that they were three words that he strung together and they just stuck and it might not be the best moniker, but for now that’s what they’re using. “Can you manage people — hundreds of thousands of people — not through bosses but through a piece of software?” Brodsky proposes.

He continues, “No CEO has ever praised the layers of middle management as a driver of shareholder value. It’s a cost. Can you

automate middle management? In many cases, we think the answer is yes. When we launched the product in 2018, we had hundreds and sometimes thousands of people reporting into Hyperscience. Hierarchical labor management built the Pyramids and the iPhone. It’s a labor management paradigm that has never been upgraded and we’re upgrading it.”

As the platform automates work and processes, it can then use those metrics and reports to identify baselines. And then there’s, for lack of a better word, a behavioral layer to strip out the need for middle management.

Brodsky argues that “automation is more humane than human.” “It could be more compassionate, impartial, efficient, and objective. What’s interesting is that it could be a better boss on the receiving end of the experience because it’s not so much a boss as it is a coordinator. It’s not someone standing over your shoulder liking you or disliking you. It’s a system that helps multiple people coordinate their efforts for a common goal. It is truly a different way of organizing labor.”

It also won’t hit on the cute intern.

99% Accuracy?

Brodsky noted that this is one of those accurate numbers that is used a bit loosely for marketing (I know the feeling). He said it’s an accurate figure, but it’s a combination of automated recognition accuracy of 95% with a human handling about 5% of the exceptions. Brodsky also pointed out an average of a 67% reduction in clerical errors across their client base when they are implemented. So the 99% figure is accurate, it’s just not 99% automated accuracy.

Final Thoughts

It was an interesting conversation and I think Brodsky has some good ideas, though not unique to his company. The race to create “plug-and-play” capture/process tools has plenty of competitors. It will be interesting to see how the platform performs when launched in early 2021 (I got the feeling March-ish) from the cash influx.

RECENT TWEET @DIREEDITOR

@AlarisWorld partners with **Nimble Information Strategies**, leveraging INfuse platform to deliver distributed scanning application at more than 100 locations of Canadian Provincial Gov.

<https://t.co/DNlqMA2omo?amp=1>

IBM Cloud Pak Automation

20.0.3 New Features

IBM announced an upgrade to its Cloud Pak for Automation product on October 13. It is an “integrated and managed collection of on-premises or containerized IBM Automation® Platform for Digital Business services that enable rapid deployment and reduce operational costs.” Cloud-based workflow, in essence.

The updated product includes new features and enhancements, including:

Cloud Pak for Automation 20.0.3 delivers the following new capabilities:

- Automation Document Processing that enables users to intelligently process documents and information easily and accurately without data science skills
- Workforce management capability that enables business managers to gain insights and manage their knowledge workers across the automation platform

Cloud Pak for Automation 20.0.3 delivers the following enhancements:

- Business Performance Center capabilities
 - Automation service catalog that accelerates the creation of a business solution by making it easier to discover and reuse automation services you create and already have
 - Capabilities for business developers so they can more easily build business applications
- Installation and component lifecycle management for operational improvements

To provide some insight into the new product and provide context, *DIR* interviewed Eileen Lowry, Director, Offering Management, IBM Digital Business Automation.

DIR: Why use “automation document processing” as opposed to “process automation” or “capture” or “digital transformation”?

Lowry: Capture is a traditional umbrella category, but with the injection of AI in the space, intelligent document processing seems to be a more appropriate fit. As such, Automation Document Processing best captures (no pun intended) what the new IBM component is and is not. IBM is focused on reducing manual processing of documents and automating work by using AI to classify

documents and extract data in order to apply that data to workflows and applications. This in turn improves the quality of processes users are looking to automate.

DIR: How does the containerization work? Is it plug-and-play within the IBM product family or can you mix and match from other vendors—RPA from UiPath and process mining from ABBYY for instance?



*Eileen Lowry,
Director, Offering
Management, IBM
Digital Business
Automation*

Lowry: The Cloud Pak for Automation is an integrated platform consisting of components like Automation Document Processing, Business Automation Studio, FileNet Content Manager, which are all containerized and depending on what the client needs, they deploy the necessary containers. We do not support mix and match of other vendors of RPA and Process Mining within the

Cloud Pak for Automation, but APIs can be used should clients or partners have other vendor choices.

Quick video on containers:

https://youtu.be/IfuyERN_X9E

DIR: I’ve heard a number of traditional capture folks say some variation of “capture is just table stakes”; it’s process that’s important. Agree/disagree? [Of course, the ability to ingest data is still key, it’s just not as much of a competitive differentiator as it was a decade or more ago.]

Lowry: Process[ing] is key, which includes everything from image quality clean up, to preparing documents for recognition engine processing through to the output delivery [to RPA bots, business processes, etc].

DIR: Obligatory COVID question: Have you seen a positive impact on uptake of this platform as companies shift to a work from home/need information everywhere frame of mind?

Lowry: Yes, specifically our IBM Automation workstream services capability, which is a no-code solution that empowers business users to automate common work patterns in minutes. For example, they could automate a new process for work-at-home equipment orders or reimbursement requests for mobile phone use.

DIR: Can you explain the updates, especially the workforce management capability?

The three new capabilities added in the Cloud Pak for Automation 20.0.3 are Automation Document Processing, Process Mining via our partnership with **myInvenio**, and the integration of WDG, IBM's RPA acquisition.

Workforce management leverages our Business Automation Insights component of the Cloud Pak for Automation which provides visualization insights, in this case aimed at helping the business manager to efficiently and effectively manage their knowledge workers. Business managers are provided with dashboards that track worker efficiency by task, throughput, and utilization, predefined case dashboards with events processed, as well as goal-based dashboards for basic suggestions and predictions. Business managers can also customize visualizations and usability improvements using Chart and KPI configurations.

DIR: What separates Cloud Pak for Automation 20.0.3 from the competition?

Lowry: With the addition of process mining to Cloud Pak for Automation, IBM can now offer a comprehensive set of hyper automation capabilities for both business and IT. Additionally, Automation Document processing provides out-of-the-box pre-defined deep learning models that reduce the set-up time for document processing while also enabling transfer learning for new document types, with fewer samples needed.

DIR: Integration with content services - anyone or just IBM's Filenet?

Lowry: The integration is with IBM Filenet Content Manager for short- and long-term management of content. Content can be inputted from other repositories for document processing.

DIR: Is the Business Automation Studio a low-code environment? Seems so, but those words aren't used anywhere in the release I can see.

Lowry: Business Automation Studio is the low-code environment for building applications and creating workflow, document processing, or decision automations.

DIR: Regarding licensing, what's the relationship between Datacap and cloudpak? The release says, "IBM Datacap licensing is updated with Cloud Pak for Automation. Datacap licensing in Cloud Pak for Automation is changed to only require Virtual Processor Core (VPC) licenses for the Datacap Rulerunner servers. Datacap Taskmaster and other components do not require VPC licenses. This change applies to organizations running Datacap 9.1.7, or later."

Lowry: Datacap is available within the Cloud Pak for Automation as a traditional on premises deployment. We charge by Virtual Processor Core (VPC) and in the 20.0.3 release, we are simplifying what we charge for in order to make it easier for clients to count how many VPC licenses they need.

Simply stated, a Virtual Processor Core is IBM's unit of measurement for licensing products which is based on the number of virtual machines [or physical cores for non-partitioned servers] needed to run the product.

Americas Scanner Market Q3 Update & Impact of Covid-19

By Barbara Richards, Infosource

Infosource reports the Americas scanner market showed a strong rebound in unit sales in Q3 across all segments, growing 2 1.8% over Q2 sales—but shipments were still down 12% YOY from Q3 2019. The Americas regions consist of both North and South America and the company reports on the following countries/areas: (USA, Canada, Brazil, Mexico, Argentina, Chile, Columbia, Peru, Venezuela, and RoLA).

In the U.S., total scanner shipments grew from 206,444 units in Q2 to 263,518 units in Q3, primarily due to strong sales in the personal and workgroup scanner segments. Compared to Q3 2019, U.S. shipments were up 1.8% and 5.6% respectively in these segments. The top three scanner brands in Q3 were **Fujitsu** with 36.5% share; followed by **Epson** with 29.7% and **Canon** with 11.3% market share. While the departmental and production scanner segments grew in the third quarter, they have not rebounded to 2019 levels as the pandemic continued to impact traditional office workers, with remote work and lockdowns still in place.

In Latin America, scanner shipments rose



37.2% in Q3 versus Q2 2020 with Brazil showing the strongest rebound in unit shipment overall—up 37.3% compared to the previous quarter. The majority of growth in Latin America was in the personal segment; up 66.4% over the previous quarter. However, YOY shipments are down considerably compared to Q3 2019 as economic unrest and Covid-19 continue to impact this region.

When the pandemic first hit in Q2, many businesses put off or delayed projects while they focused on transforming their operations to account for this pandemic. This included equipping remote workforces, which actually drove some sales of lower-end scanners. In Q2, the personal (<\$400) segment in the U.S. declined only 4.5% YOY compared to the rest of the market, which was down roughly 50% YOY.

In Q3 the feedback Infosource received was that businesses came to the realization that digitization projects that many had put on hold needed to move forward to better enable remote interaction and increase automation in the workplace since both are crucial to operating successfully during the pandemic. Furthermore, many digitization projects which had been delayed were resumed, while others were moved forward in the pipeline.

In terms of next steps, this transition is part of a turbo-charging trend toward digital transformation that the pandemic has brought about. In Q3 we saw a sequential quarterly increase in all segments of the scanner market as businesses are now moving aggressively forward with digitization projects.

Barbara Richards is a Senior Analyst with Infosource. ((br@infosource-analysts.com))

Epson Making Moves for Desktop Scanning

Epson continues to gain market share, especially in its lower-volume desktop and workgroup scanners focused on the needs of consumers and small businesses.

To continue this growth, the company announced this month a new desktop network scanner and a refresh of three existing desktop models.

The DS-730N (\$549) is a new, 40 ppm desktop scanner with a built-in network interface.

The three refreshed models are the DS-530 II (\$399), DS-575-W II (\$449), and the DS-770 II (\$649). I remain in bewildered awe at folks like Ali Yule, Associate Product Manager, Epson America, who can deliver a briefing without mixing up the model numbers.



Ali Yule, Associate Product Manager, Epson America

All four of these devices are designed to help consumers and small businesses organize receipts, routine office documents, financial information, etc. and convert those paper documents into useful data. They are designed for the budget conscious consumer. They need to balance value but quality and performance.

Another Company Boosted By COVID

It's hardly a surprise at this point, but Yule also mentioned that Epson hasn't seen a negative impact on the desktop commercial document scanner market during the pandemic. [Infosource research data also supports this, see previous page.]

Yule said in conversations with customers as well as attendance at webinars Epson has done, Epson has learned how "important document management solutions are for these [banks, schools, retail stores, etc.] customers so that they can keep performing the same quality of work with limited staff and possibly limited office hours."

Epson is working to meet the needs of this evolving market situation since the work from home effects will last beyond the pandemic. Companies realize that they can't rely on access to hard copy in a central office. "One of our customers allowed employees to take their

DS-530s home so they could automate documentation and put it into their ECM solution,” said Yule, “It’s really changed their life having remote access to these documents because the commute for some of them to the office was several hours.”

3 Refreshed Models

The three “Mark II” models (DS 530W, DS 575W, and DS 730N) will replace the “Mark I” models. These models are scheduled to be released today (November 20). Customers can continue to buy existing stock of the Mark I models. Unlike the retail channel, the commercial channel doesn’t have a hard stop. Epson schedules overlap in these product launches to give legacy customers to continue “buying the 530 and they use the time to certify the Mark II version, so there’s about a three-month overlap.”

Epson plans to keep the MSRP the same for the refreshed models, which have the same hardware with software enhancements. All three models include TWAIN and ISIS drivers for compatibility with any capture and ECM software. All three models also come with Epson’s Document Capture Pro product so customers can start scanning as quickly as possible when they put the scanner on their desk, plug it in, and connect it.

The focus of the refreshes was to bring additional software value and usability to Epson customers.

The flagship remains the DS-530 II (35 ppm, 50 page ADF) designed for smaller budgets, but who still need value and quality. Both the DS-530 and DS-575 are designed for desktop use for daily small or medium jobs that are similar/repeated.

The DS-575W II is a wireless scanner with the same speeds and feeds as the DS-530 II. A new Epson Smart Panel Mobile App is also new and available to control the device (and qualified Epson printers) from a user’s phone. The app isn’t compatible with older wireless models, but will work going forward with new or refreshed wireless scanners. It’s been in the pipeline for a while, but is extra useful today because of COVID. One additional benefit of the mobile app is it reduces touching of the scanner itself, which is useful for a scanner in a high-traffic area during the pandemic (and once the pandemic is gone, it’s always good to limit touching during flu season). The app itself is designed for ease of operation, with a simple



The DS-730N (\$549) is a new, 40 ppm desktop scanner with a built-in network interface.

bluetooth connection. This is also a move to a single app to control Epson printers and scanners rather than having a separate app for each.

For higher volumes and more speed, the DS-770W II is targeted to appeal to office and IT managers who need a relatively inexpensive and dependable scanner. At 40 ppm and with a 100 page ADF, this scanner is designed to handle a higher volume environment. It’s been stepped up from the previous model with a 7,000 page per day duty cycle.

Epson has seen that it’s a desirable scanner for financial institutions. For example, for scanning loan documents on a more regular basis.

Brand New Entry Network Scanner

The DS-730N is slightly more robust than the DS-530/575W at 40 ppm, with a 100-page ADF. New features include three quick send buttons and a small LCD panel to provide pre-set scan-to functionality. The quick send buttons can be pre-configured which enables PC-free operation. The destinations can be set up in a browser. The LCD has a simple display with scan destination and scanner status. The one-touch is another way to be “less touch” during the pandemic, as Yule said, “push the button, hand sanitize, then walk away.”

The built-in networking is something that government customers have been asking for at this lower price point, so Epson believes it fills a hole in the market. Epson expects this model to do well in state and local government, financial institutions, and others who need the functionality of that scan to networking within a smaller budget.

Scanner Protection - Two New Features for All Models

Epson has introduced new features to keep scanners up and running, as well as to improve

scan quality. These two features — paper protection and dirt detection — are common across the four models discussed in this article.

These features were originally designed for Epson's high-end scanners, the DS 30000 and DS 32000. As is often the case, the company decided to then incorporate them down the scanner lineup to improve productivity for all customers.

The paper protection feature is designed to minimize damage to paper from ramming a skewed document through the scanner. There is a skew detection area between the feed rollers that will stop scanning when skew is detected before the paper is crumpled. The scanner will alert the user that scanning was stopped. Missed staples are a common cause of papers skewing, so this also functions to prevent damage to the scanner. Yule said "this is great for archivists or for interns who aren't scanning experts and don't want their boss to be mad."

The glass dirt detection feature will detect dirt and dust on the glass that can cause vertical streaks in image processing and will tell the user it's time to clean the glass before scanning. My favorite part of the presentation might have been the types of dirt that can be detected:

- Big dirt - correction fluid or paper waste
- Small dirt and very small dirt that can move with documents - paper or pencil powder

There's a high and low level of dirt detection sensitivity: over 5 or 20 pixels at 600 dpi.

As a company that's traditionally focused on the lower end of the market, I wasn't surprised at the focus on use cases and the user. I did find it interesting that there were essentially user personas in the presentation, though this emphasis on the user is probably only new to me.

EDITOR'S NOTE FROM PAGE 1

can write longer (I'll trim as needed).

Include your name, title, and company. I'll allow anonymous entries as well, as long as they're not gratuitous fire bombs.

Everyone who is correct at the end of 2021 has bragging rights over their industry peers in

2022. Trash talk is optional at that point.

Let's just assume that the current trend of digitization caused by the pandemic and the need to work from home to continue. Unless you have a particular insight into a specific aspect of that trend, let's focus on other items to avoid eight pages of "COVID's gonna have an impact."

Send your prognostications to me (bduhon@documentimagingreport.com) by December 10 with "DIR Predictions" in the subject line. We'll include them in a special, year-end (or maybe early January!) 2021 prediction issue.

Changes for 2021

It's not just the industry that's changing, we'll be switching things up here at *DIR* too.

I've joked with Ralph that I began my career at **AIIM** in 1996 writing a two-column newsletter (faxed!) and 24 years later I've come full circle. We're looking at ways to streamline the design to make it easier to read — especially on your mobile device of choice — and for us to create.

As process automation, content, and capture continue to become intertwined; we'll also be looking at what we cover. The lines of where coverage stops and ends is always blurry. We'll be focused on ensuring we continue to cover the core topics you are interested in while shifting and drawing in more people. I welcome your thoughts and ideas — and feedback — as we navigate our way through this evolving world. And one that finally (fingers crossed and knock wood) understands they need what this industry offers.

Finally, work is well underway to establish a single Infosource Web presence that brings Harvey Spencer Associates and *DIR* into a single Web "home" under the Infosource banner. I think you'll like the improvements.

Thanks for reading,

Bryant Duhon
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Comments, criticisms, and witticisms welcomed.