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IR UPDATE

THE VOICE OF THE INVESTOR RELATIONS PROFESSION FALL 2020

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Founded in 1969, the National Investor Relations Institute (www.niri.org) is the professional association of corporate officers and investor relations consultants responsible for communication among corporate management, shareholders, securities analysts, and other financial community constituents. NIRI is the largest professional investor relations association in the world, with more than 3,000 members representing over 1,600 publicly held companies and $9 trillion in stock market capitalization. NIRI is dedicated to advancing the practice of investor relations and the professional competency and stature of its members.

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"THE BIG I" ANALYZES ARTIFICIAL INTELLIGENCE

A range of thought leaders led a deep dive into artificial intelligence at a NIRI event that provided a forum for insightful discussion and analysis.

BY AL RICKARD, CAE

Artificial intelligence (AI) is a hot topic. The explosion of data it produces is accelerating in ways that are just beginning to be analyzed and understood.

NIRI is proactively addressing AI on several fronts, including its recent Investor and Issuer Invitational Forum ("The Big I") virtual event on the influence of AI on investor relations and capital markets. It featured a range of thought leaders who addressed multiple aspects of AI and automation technologies. The Big I also hosted virtual online forums for insightful discussion of AI among members and speakers. Modern IR and Nasdaq sponsored the event.

NIRI President and CEO Gary LaBranche tied development of the event to an initial NIRI "Think Tank" discussion in 2018, which revealed that the investor relations profession is evolving due to several drivers of change, including the changing nature of investors, data analytics, and artificial intelligence.

A subsequent NIRI Think Tank on Artificial Intelligence in Investor Relations convened in 2019 and generated the report, "Artificial Intelligence in Investor Relations." A summary of this report is featured in the article, "The Threats and Opportunities of Artificial Intelligence," on page 10 of this issue of *IR Update*.

"It is the interaction between those three drivers that will influence the future," LaBranche says. "Our goal for The Big I was to identify the scope and ramifications of AI and help IROs adapt and successfully deal with AI in the future."

How Investors Use AI

To better understand how investors leverage AI and what tools IROs can use, Jonathan Neitzell, Founder and Managing Partner at Anduril Partners, delivered a presentation, "The Influence of New Tech in Asset Management." A report on this session is featured in the article, "Are You Using the Right Answers?," on page 20 of this issue of *IR Update*.

Another session, "The Use of Data in the Buy Side Today and What the Future Holds," also addressed investor AI trends. It was led by Tim Quast, President of ModernIR; Andreas Feiner, CEO of Arabesque S-Ray at Arabesque; and Kirk McKeown, Head of Proprietary Research at Point72 Asset Management, L.P.

"Data driven processes are the future of IR and investing," Quast noted. "Humans aren't going away. But a lot of the IR job is about interacting with the buy side and we need to keep up."

McKeown talked about the evolution of data to "big data" in about 2012 and how the more meaningful data that has proliferated since then. He likened it to using "night-vision goggles" instead of just a flashlight and a map.

He also believes, "As data proliferates, the IR function has the ability to be the context partner on how to think about the drivers of the business – what are the things that matter? They can talk about things at the macro level that help us understand the business more holistically. That will give surface area and texture to researchers to inform their models and make them more meaningful."

Looking to the future, McKeown predicts, "In 10 years, you can imagine a world where data is nearly free and there is so much of it, it doesn't matter what you buy because it will be out there for models to go get what they need."

Environmental, social, and governance (ESG) issues are at the center of AI as investors seek to identify, process, and structure data in ways that yield meaningful understanding of corporate ESG performance.

Feiner said that data he looks for includes publicly available information, data that is not yet public, and company disclosures. "Then you want to marry that up with what is being said about a company," he explained.

"Sustainability data is like swiss cheese with a lot of holes at the moment," he cautioned. Some companies do a good job of providing detailed ESG data, but if they don't, investors may fill in the ESG data gaps by averaging available data and make projections based on that.

To address this, Feiner encouraged companies to appoint Chief Sustainability Officers to manage these efforts, analyze ESG data, and present

"As we think about the application of technology in the market today, corporates are really at an information disadvantage… We need to explore how corporate issuers can more appropriately respond to new technologies for stock selection."

- Sam Levenson, Chief Executive Officer, Arbor Advisory Group

Dan Romito, who wrote a white paper on active and passive investing, believes that the conventional thinking of investing as either "active" or "passive" is no longer the case. "We have to evolve our thinking," he suggested. "There is a continuum."

it to investors.

Other perspectives on investors and AI were offered in the session, "Disruptive Technologies and Communications with Investors: Insights from Academia." It was led by Kristi Rennekamp, CFA, PhD, and Blake Steenhoven, CPA, both from Cornell University, and Brian White, CPA, PhD, of the University of Texas at Austin. A full report on this session is featured in the article, "Disruptive Technologies and Investor Communications," on page 30 of this issue of *IR Update*.

The session, "Merging Megatrends: AI+ESG=Alpha," explored how investors use natural language processing to analyze public company ESG disclosures to evaluate whether companies are backing up their claims with action. It was led by Emily Chasan, Director, Communications at Generate; Mike Chen, Ph.D, Director of Portfolio Management at PanAgora Asset Management; and Martina Macpherson, SVP of ESG and Engagement Strategy at Moody's Corporation. A report on this session will appear in the Winter 2021 issue of *IR Update,* which will focus on ESG.

AI Technologies

To analyze AI technologies, Sam Levenson, Chief Executive Officer of Arbor Advisory Group, moderated a panel discussion on technology tools. Panelists included Evan Schnidman, Ph.D., Founder of EAS Innovation Consulting; Greg McCall, Co-Founder, President & CFO at Equity Data Science; and Dan Romito, AVP, Business Development & IR Product Strategy at Nasdaq.

Levenson cited a quote from the Blackrock 2020 Letter to Shareholders: "Over the last decade, investors increasingly recognized that portfolio construction, not security selection, drives the majority of returns."

In light of this, Levenson observed, "As IROs, we are always thinking that someone is doing fundamental analysis and making a decision to buy our stock, but that isn't necessarily true.

"I think there is an opportunity for the practice of IR to change moving forward. We're speaking to active asset managers. We're relying on the sell side to communicate our story. However, active equity asset managers and the sell side are shrinking ice cubes. Our audiences are getting smaller.

"As we think about the application of technology in the market today, corporates are really at an information disadvantage. We haven't had an opportunity to get insights into what is driving valuation. What KPIs are highly correlated with valuation? What is driving the stock? There is a lack of understanding of how trading strategies are being implemented by investors. We need to explore how corporate issuers can more appropriately respond to new technologies for stock selection. And, we need to think differently about the practice of investor relations going forward. We need to implement IR 2.0"

Schnidman noted, "I see three crucial themes in how IROs should communicate with investors. These include crafting language that will be accurately interpreted by humans and bots, addressing concerns of both active and passive investors, and understanding the KPIs that drive factor investing for increasingly quantamental asset managers."

He observed that in recent years asset managers have increasingly used automated tools to analyze language used on earnings calls, speeches by corporate officers, press releases, and the corporate website. Topic modeling and sentiment analysis have become more advanced during the past two years, and linguistic patterns can now be mathematically mapped.

McCall identified several questions that investors typically ask, which he noted are largely the same questions that IROs ask regarding their stock. They question what trends are driving the stock, what KPIs influence valuation, what peer group is relevant to the stock, and more. AI tools offer innovative ways to answer these questions.

Romito, who wrote a white paper on active and passive investing, believes that the conventional thinking of investing as either "active" or "passive" is no longer the case. "We have to evolve our thinking," he suggested. "There is a continuum."

Schnidman, who also wrote a white paper on the same topic, noted, "The flow of assets from active to passive management happens in a

"I work for a newly public company. Understanding what tools are out there and are being used by the people we talk to is extremely important. I have already brought back some of the ideas to my CEO. So the Big I event had an impact."
Melissa Plaisance, Group Vice President, Treasury & Investor Relations, Albertson Companies, and NIRI Board Chair

"Words do matter. How you present non-fundamental data, themes, and topics is increasingly being weighted to a greater extent in portfolio construction analysis."
Dan Romito, AVP, IR Product Strategy, Nasdaq

"We have to think about what is happening to IR. If more than half of assets under management are passively held, we need to think about who our audience is – it is becoming more and more machines. We need to write more. They scrape data. We need better analysis of what words to put on paper. That is the direction our thinking needs to go. We need to put machines to work for us."
Deborah Pawlowski, IRC, Chairman, Kei Advisors LLC

"The language of financial communications is changing, and we need to change along with it."
Gary LaBranche, President and CEO, NIRI

"Investors are armed with a lot of data. They are going to know the supply chain and everything that is occurring. That means IROs have to catch up."
Tim Quast, President, Modern IR

"We no longer have translators in the market. Sell-side analysts used to be the translator between the IRO and the investor. As less money flows into research, they are speaking slightly different languages. IROs need to learn the evolving quantamental language of the buy side."
Evan Schnidman, Ph.D., Founder, EAS Innovation Consulting

"Some of the non-standard metrics such as leverage or quality are often steeped in math and statistics. But resources now exist to translate these into formats that are easy for IROs to understand and communicate to their audiences."
Greg McCall, Co-Founder, President & CFO, Equity Data Science

"What drives trading of a stock is more often not a 'who' but a 'what.' More than 50 percent of equity assets under management are passively managed. Eighty percent of trading is not conducted by active asset managers; it is passive funds and algorithms. Valuation is not being set by the portfolio manager who you just spoke with."
Sam Levenson, CEO, Arbor Advisor Group

discontinuous way. When the market pulls back, assets flow into passive investments. So, you see spikes in passive investing on the heels of market volatility." Most passive investments also flow to large-cap companies because of a lack of research on small and mid-cap companies.

"This puts a huge burden on the IRO," Schnidman said. "They now need to not only communicate with their investors but find their investors. So IROs need to communicate in exactly the way that investors want to interpret information. They need to speak the language of increasingly quantamental investors."

Romito reviewed the many factors driving this evolution toward a mix of passive and active management, noting there are economic disincentives to conduct research in the traditional way.

"There is an explosion of non-fundamental data," he observed, especially in ESG data. "The SEC found that 90 percent of data now used in the capital markets has been created during the past two years."

Romito argues that because investors face compressed margins and fees and have fewer analysts to study data, it is no longer economically feasible to spend significant time analyzing fundamentals.

"Smart beta" – a variation of factor-investing that focuses on long-term performance – has largely replaced it. He noted the efficiency and affordability of using this data has increased exponentially during the past three years. Romito argues that smart beta allows investors to mitigate or decrease risk while increasing returns in their portfolios. It enables rapid analysis of overall sentiment trends in terms of positive and negative statements and is objective because technology is doing it.

Romito demonstrated how sentiment and subjective language analysis drives trading activity by showing a chart where negative language correlated with short selling, volume anomalies, and distinct selling patterns.

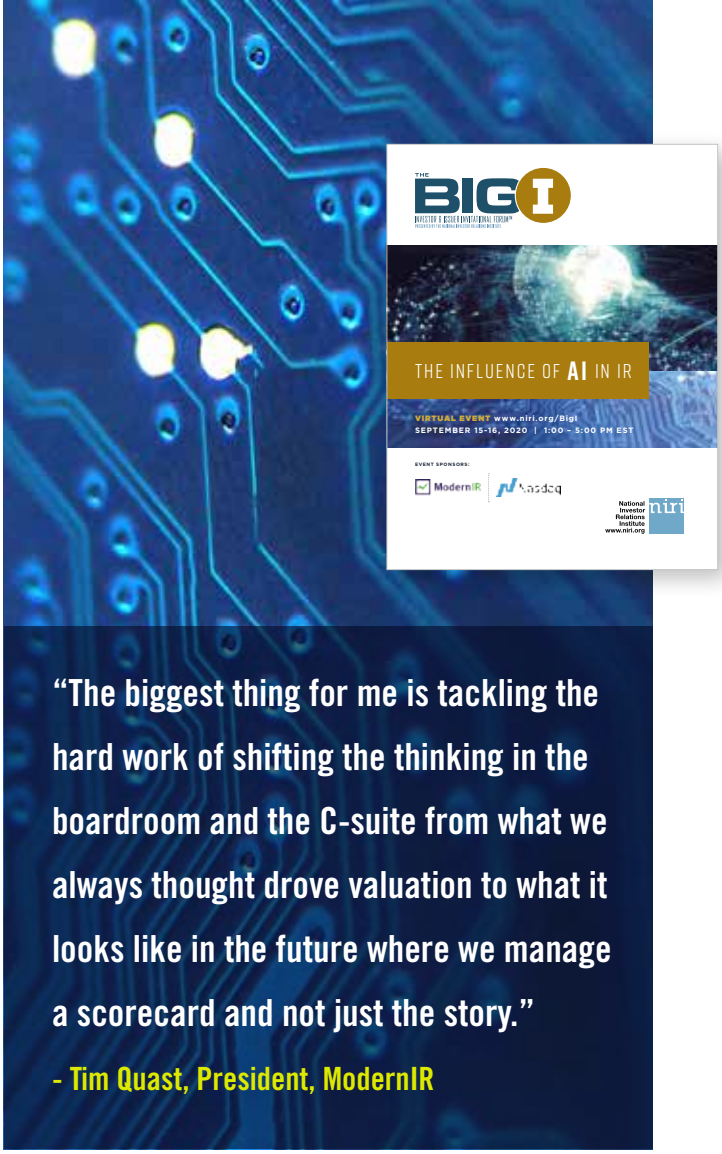
Stories, Relationships, and Data

"Much of AI is about understanding and adopting datasets that were not available two years ago," Quast believes. "The way Kirk McKeown put it is that this is the marriage of person and machine.

"IROs are not just managers of the story, they are managers of the scorecard. It is going to become an ever-bigger factor for how the buy side makes decisions. As we enter what Sam Levenson calls 'IR 2.0,' we move from relationship management to relationship and data management.

Quast also pointed out how non-fundamental data – or perhaps call it "alternative data" – is much more current and relevant to investor decision-making.

"What companies put out is dated," he cautioned. "A lot of what we release as disclosures is so far behind the curve when you can photograph a parking lot or have satellite images of the ports. Information coming from public companies is not a signal anymore; it is a consequence of things investors already know.



"It puts us in an interesting position as a profession to figure out how we tackle that. The world is consuming data. If we are going to do a good job serving our shareholders, do we need to change our standards and timing to keep pace now that the world is becoming machine-driven?

"Then there is the question of the return on investment from this effort. That is something we are going to have to wrestle with. How does all the work we put into ESG scores, DNI, PRI, and all these things produce a return for us? ESG is still the wild west. We don't have clear standards yet."

Romito echoed those thoughts, adding, "If we are waiting around for non-fundamental data – primarily ESG data – to be standardized, it's not going to happen for at least the next half decade. You can't even get people to agree on definitions, let alone what you should be disclosing in a given framework."

He also noted, "If the IRO is not speaking the same language as the investment community, there is going to be an inherent disconnect in valuation.

"Behavioral finance is the future – understanding the tendencies of people and how they construct their portfolios. That was a lot of guesswork before, but now we have deep-rooted data sets that explain how tendencies exist and evolve given certain macro situations."

Quast concluded, "The biggest thing for me is tackling the hard work of shifting the thinking in the boardroom and the C-suite from what we always thought drove valuation to what it looks like in the future where we manage a scorecard and not just the story.

"Sentiment analysis and topic modeling is the future. Investors no longer have to rely on an army of people sifting through the public domain of earnings transcripts, Q&A, and financial documents. This is the data that is fueling the 'smart beta' revolution." IR

Al Rickard, CAE is Editor of *IR Update* and President of Association Vision, the company that produces *IR Update* for NIRI; arickard@assocvision.com.

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Are You Using the Right Answers?

Artificial intelligence generates reams of data, but generating results means you need to separate wheat from chaff and focus on metrics that matter.

BY JONATHAN NEITZELL

The growth in available data and potential from analytics and artificial intelligence (AI) technology increases both the opportunity – and the challenge – for asset managers, investor relations professionals, and corporate management teams.

Analytics can influence corporate decisions in product management, capital allocation, and how equity shareholders impact share pricing. The size and scope strains comprehension:

- Approximately 20 billion Internet of Things devices are now online. By 2025, the number is expected to rise to 75 billion devices.
- There will be 4.8 billion internet users by 2022, up from 3.4 billion in 2017. 80 percent of data will be unstructured by 2025.
- More stored data has been created in the last two years than in the history of mankind prior to that point.
- Financial services firms are increasingly using this data to predict business model outcomes and set equity prices.

We continue to hear these statistics, but our eyes often gloss over given the challenge of understanding the disciplines required to integrate all this data.

We need five skills and tools to unlock the value of this data and use it our advantage:

1. Business knowledge of where value is created for the end customer.
2. The devices and sources of data and their biases.
3. Statistical and mathematical approaches to calculating what is known, and properly de-risking what is not.
4. Technology software and architecture requirements.
5. Cultural and organizational awareness and mutual respect for blending those respective skills into tangible workflow.

Thankfully, just as we saw with public cloud adoption, new "no code" tools and services are becoming available to make the scale and transparency of technology magic available to the business user who understands the core value proposition.

The Massachusetts Institute of Technology calls the knowledge made possible by this technology "shared intelligence." Early adopters have the opportunity to separate from the pack as Amazon did with its public cloud computing service and successful e-commerce businesses. The COVID-19 pandemic creates a further imperative to take action on these types of opportunities.

The Importance of Storytelling

Even with advanced technology that can synthesize and deliver data in actionable formats, further context and understanding is still needed.

As Nobel prize winners Danny Kahneman and Amos Tversky, were quoted as saying in the book, "The Undoing Project," by Michael Lewis, "No one ever made a decision because of a number. They need a story."

Call it the "human experience side" of AI if you like.

To ground us in reality and reasonable expectations, it helps to reflect on the early pioneers of behavioral economics, which is the study of psychology as it relates to the economic decision-making processes of individuals and institutions.

What researchers in this area found was fascinating. During studies of even highly educated, scientifically disciplined doctorates in medicine

Business KPIs: A Universal Language

Hypothesis (Burning Question) Formation	KPI	Data
- How can we move beyond static assumptions built on assumptions in fixed models, with few if any updates between public data releases? - How can we remove key variables from what is unknown in the stock price? - How can we put ourselves more in the operators seat, and ask more detailed specific questions based on data vs. generic uninformed "how's the quarter"? - What does management think of their own operational metrics, and the health of their business? - What names should be focused on…what would a data driven process surface as warranting attention for inflections? - What can be inferred from share shift, churn, and pricing changes?	- Average spend p/transaction - Number of transactions - Same store sales - Churn - New customers - Repeat customers - Share of wallet - Market share - Cohort spend over time	- Credit card transactions - Email receipts - Web Traffic/Scraping - Supply Chain data - Public municipal records - SEC filings - Natural Language Processing - Lat/Long Geo data

Source: Anduril Partners

and statistics, Tversky and Kahneman found most people walk around with mental heuristics (habits) including availability, representativeness, and anchoring. Their research indicated we are prone to using recent availability or representativeness of personal experience to extrapolate probability, and our expectations can be anchored by the order in which we receive information – a humbling and troubling proposition.

Their groundbreaking findings were published in a paper, "Judgment Under Uncertainty: Heuristics and Biases," in 1974. Today, coupled with the birth and global domination of software, we increasingly look to technology for answers to protect us from misjudgment.

However, there is a bit of humor here. As the profileration of technology solutions shown in the chart, "Data and the AI Landscape" on pages 24-25 further affirms, we need context and process to make the path realistic. As the famous poem, "The Rime of the Ancient Mariner," points out, a resource without calibration is nearly useless. "Water, water, everywhere, Nor any drop to drink…," poet Samuel Taylor Coleridge wrote.

Testing the Experts

As Kahneman and Tversky found among their highly educated audience decades ago, being surrounded by numbers is not relevant if it's not digestible in our daily workflow. To underline this point, Paul Slovic – a psychologist and a peer of Nobel laureate Daniel Kahneman – decided to evaluate the effect of information on decision-making. He gathered a group of professional gamblers and tested them with horse races over four rounds.

Slovic told them the test would consist of predicting 40 horse races in four consecutive rounds. In the first round, each gambler was given five pieces of information about each horse. One might believe years of jockey experience was a key performance indicator (KPI); another might want horse top speed; and so on. (Industry examples of these types of KPI calculations are shown in the chart, "Business KPIs: A Universal Language," on this page.)

In addition to picking winners, the experts were asked to indicate their level of confidence in their choice. In the first round with five pieces of information, they proved to be 17 percent accurate, substantially better than the 10 percent calculated chance prior to receiving their information. Their confidence

The Fusion of Data, Discipline, and Technology

Source: Anduril Partners

was cited at 19 percent, relatively in line with the outcome.

They were then given 10 pieces of information in the second round and so on until they received 40 pieces of information in the final round. Interestingly, while their predictive ability flatlined at the 17% accuracy level, their confidence continued to rise with the additional information to expect a 34% hit rate!

This has significant ramifications for our ability to use raw information often driven by fear of missing out (FOMO) and untested assumptions. Unless we have disciplined consistent process with feedback loops, we risk being guilty of simply cherry-picking data to enhance our confirmation bias – leaving us potentially wrong and extra confident about it.

Can You OODA?

Thankfully for those with humility and a desire to drive consistent outperformance, the concept of feedback loops has become increasingly prevalent to digest and filter the mountain of data resources from noise into insight.

The U.S. military recognized reailty is in a constant state of change (often in response to our own actions) and that excellence in process may be one of the few sustainable areas of persistent advantage. Based on this realization, strategy tactician John Boyd created a very straightforward framework called the OODA loop, which stands for Observe, Orient, Decide, and Act.

Now considered a foundational doctrine, it suggests that regardless of the backdrop, whomever is able to accurately observe (ingest data), orient (solve for KPIs), decide (designate the primary objective), and act (ability to execute) these steps and proceed back to the first step to observe success or failure of previous effort, will emerge victorious. To summarize, teams cycling well through this framework will win while opponents are choking on the noise and confusion of exponential information growth. Process matters!

Applying Process in Financial Workflow

How can we integrate qualitative (human experience) and quantitative inputs into "shared intelligence?" The chart, "The Fusion of Data, Discipline, and Technology," on this page demonstrates how an asset management group might add specificity to an OODA loop concept, driving decisions on which allocations to purchase, how they integrate as a portfolio, and how they might assess attribution and error rate per input function step – a historical "holy grail" challenge.

On the left we have inputs such as SEC filings, internal or external analysis, industry relationships, and qualitative experiences. In the next column there are functions within systems that will change through manual or automated updates to reflect the changing reality of the world around us.

Data and AI Landscape 2020

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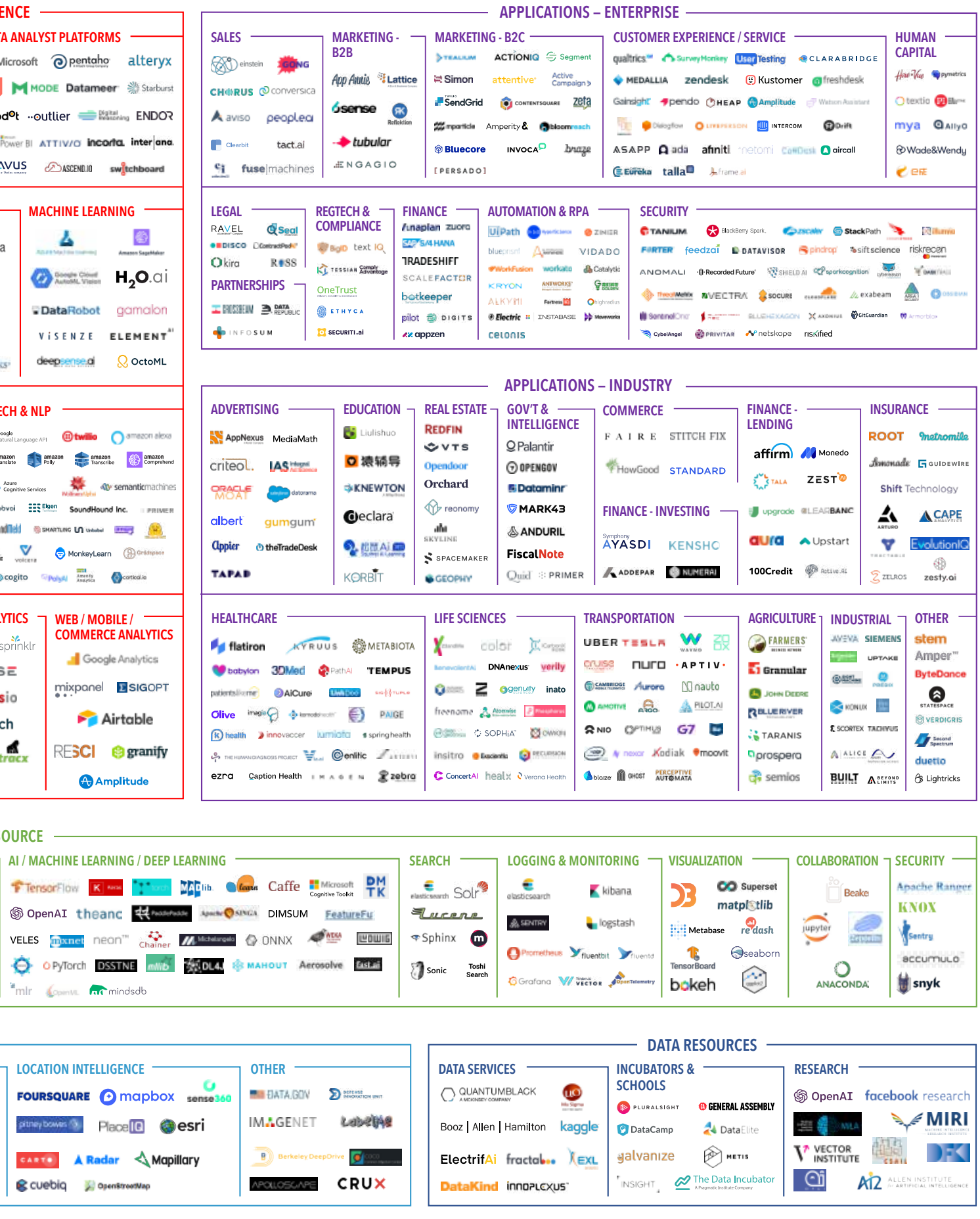

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A "New Lens" ESG Scorecard

	Average	Median
Environment Pillar Score	3.11	3.00
Social Pillar Score	5.24	5.40
Governance Pillar Score	6.18	6.10
ESG Score	5.11	5.20

ESG Score is the sum of Score*Weight across all three pillars. It is then adjusted for industry and then converted to a letter rating

Ticker	Weighted-Average Key Issue Scor...	Final Industry-Adjusted Compar...	ESG Rating (ESG)	Environmental Pillar Score (ESG)	Social Pillar Score (ESG)	Governance Pillar Score (ESG)	Environment Pillar Score Quartile (ESG)	Social Pillar Score Quartile (ESG)	Governance Pillar Score Quartile (ESG)	Supply Chain Labor Standards Score Quartile (ESG)
ABC	5.30	6.80	A	2.80	5.70	7.30	4	1	1	1
DEF	4.10	3.20	BB	3.90	4.00	4.70	3	3	4	3
HIJ	5.20	7.10	A	2.60	5.80	7.00	4	1	1	3
KLM	5.20	6.80	A	3.00	5.40	7.40	4	1	1	1
NOP	5.20	6.40	A	0.30	5.60	6.90	4	2	1	1
QRS	4.70	4.10	BB	0.00	5.80	5.30	4	2	2	1
TUV	5.50	6.90	A	4.60	4.00	7.60	3	4	1	3
WXY	5.70	8.50	AA	3.50	5.00	7.50	4	2	1	1
ZAB	5.30	6.80	A	4.70	5.00	6.90	2	1	1	1
CDE	4.70	5.40	BBB	4.50	4.40	5.40	3	3	2	1
FHI	5.10	5.00	BBB	5.10	4.60	6.00	2	4	1	1
JKL	5.50	7.30	AA	2.40	5.90	6.20	3	1	1	1
MNO	5.60	8.20	AA	5.50	5.70	5.30	2	1	3	1
PQR	4.20	1.90	B	1.90	4.70	4.50	3	4	4	3
STU										
VWX										
YZA										

Source: Anduril Partners, EDS, MSCI

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These input names may change based on the business model, but for financial services groups, this drives top and bottom line changes to forward estimates, and areas we believe to be operational key performance indicators to the asset related business model.

This is then reviewed based on portfolio risk parameters that may be as simple as a gut feel (how most of business is actually done) or as complex as mathematical factor models. These steps culminate in a buy or sell decision, and then the forward performance of the asset begins to show actual outcomes.

If our effort has been recorded, now the magic begins – we can check our initial assumptions against actuals and run feedback statistics, error rates, and increasingly complex machine learning on this real-time and growing resource of training data and intellectual property. This allows data and institutional learning to become a tangible asset!

Peeling Back the Veil

In a moment of stark honesty, most organizations will admit they have never actually drawn out their decision process, and the few that have will tell us with some flowchart they have a process. However, if the inputs are not touching software and creating a time series of quantified changes, the effort is incredibly prone to narrative shift, hindsight bias, and lack of objectivity. Consequently, the ability for feedback loops or incremental learning will be severely compromised.

It has been said, if software is eating the world, models will run the world. For those humble, confident, and willing to be held accountable, the tailwinds of technology can harness this tremendous potential in transparency, scale, and continued improvement on behalf of your stakeholders.

Turning Questions into Predictions

One of the largest shifts we are likely to see in team discussions during the next five years is toward analytics and data-influenced decisions. To do this, we must take our qualitative, thematic questions and turn them into key performance indicators – hypotheses which can be quantified, tested, and predicted. This process entails integrating the personal experiences of business users and operators and attaching their primary metrics to data consistently available.

For the financial industry, analysts might answer questions about a company's equity value by inferring revenue growth based on KPIs such as new customer growth, average spend per transaction, share of industry sales, and cohorts changing

Factor and Fundamental KPI Example

Source: Anduril Partners, EDS, MSCI

purchasing locations between physical and virtual storefronts. These may be seen within transaction records, email receipts, web traffic, or natural language processing queries of customer social media comments.

These discussions are often the same across corporate, private equity, and public equity uses, making a focus on defining, tracking, and predicting KPIs an increasingly universal language. Corporate intelligence and investor relations groups are likely to be a vital bridge between planning for resource allocation and explaining these key components to stakeholders. Do you have the process to "Observe, Orient, Decide, and Act" with this secular wave?

ESG as a Use Case Example

Environmental, social, and governance (ESG) and sustainable investment is a rising focus across the asset management and capital allocation communities, but what does that really mean? We are early in this journey of quantifying many qualitative efforts, and this is an example of a where a realistic framework might coalesce.

Standard-setting bodies such as MSCI are issuing ranking systems such as risk factors or bond ratings in specific categories. They are increasingly joined by broker dealers and boutique research companies to create a more consistent and transparent framework for these metrics.

How do shareholders and corporates aggregate all these views and see relative peer group rankings? There will be an increasing number of ways to address this, but the diagram, "A 'New Lens' ESG Scorecard," on page 26 shows an aggregation platform with a single dashboard that allows for granularity in setting the exact criteria each organization wants to use for individual scores for each category of ESG. It then rolls those inputs into a total firm ranked score. This methodology provides consistent, scalable, real time, and transparent process to stakeholders.

Corporations and large foundation allocators can also use this with ownership data to see what the ESG scores are for each aggregated investment fund and see which institutions are really putting their money where their claimed priorities are.

What is Driving the Stock?

Here we are going to tackle one of the holy grail interest points across communities – why a stock is trading where it is!

We are familiar with valuation factors such as EBITDA, Return on Invested Capital, and how important positive Wall Street "buy" rankings might be.

For those unfamiliar with risk model factors from Barra

What to Do With All the KPIs

Source: Anduril Partners, EDS

or Axioma, these are basically mathematically calculated relationships to certain thematic styles such as growth, value, leverage, size and others.

One of the easiest ways to understand this is to think of it like nutrition labels. The impact of a food (or asset) really depends on the build of macro nutrients. Using factor analysis, we can decompose what is driving asset pricing similar to how we can deconstruct a soup into nutrition macros such as protein, carbohydrates, and fats.

In the chart, "Factor and Fundamental KPI Example," on page 27 a company is compared to a group of its peers. While the stock was down 8.19 percent in this example, style factors negatively impacted its peer group by 25.93 percent, and the company actually recovered 17 percent due to company-specific tailwinds. Fundamentally, we can see that EBITDA margins and growth have an 84 percent correlation to stock price, demonstrating explicitly what shareholders care about most, with powerful ramifications for capital allocation decisions.

Think of how powerful this is to know when meeting with management or shareholders and this can be explicitly and empirically answered, along with exact correlation of whether the stock has been most influenced by top[-line growth or margin expansion. This adds tremendous granularity when coupled with equity owner investment discipline criteria or management capital allocation planning for M&A, buyback, or dividend policy.

Water, Water Everywhere, Yet…

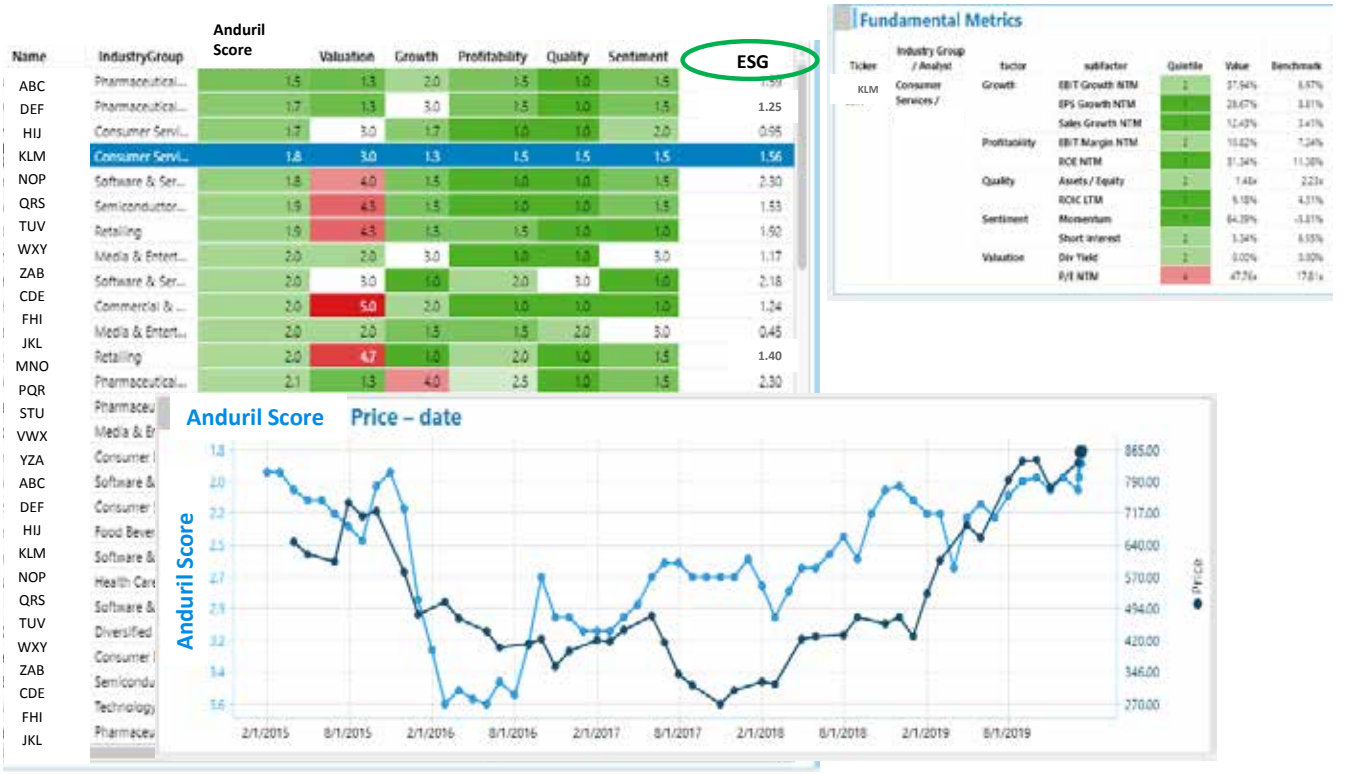
We have discussed use cases in several components in a decision workflow, but there are many, and everyone weights them differently for different durations. How do we blend all these inputs of different types into a system with feedback loops?

Using financial services as an example in the diagram, "What to Do With All the KPIs," this "Tower of Babel" of decision inputs will not scale using Excel and Powerpoint. The difficulty is that data comes from different sources, speaking languages including near-term and long-term fundamental business model KPIs, technology requirements, math and data science integrity, historical and peer valuation, and risk factor influences.

There are several critical challenges here:

1. These inputs are like trying to compare apples, oranges, and pears.

Single Pane of Glass



Source: Anduril Partners, EDS

2. Per our example on the horse races, academic research shows after a certain level of inputs, analysts flatline their predictive ability (overwhelmed).
3. There are almost no transparent or consistent feedback loops without a software system for tracking and monitoring. We love to talk about ML/AI opportunities, but those don't exist until one has the data in a system with feedback loops.

Bringing it Home

For those interested in taking tangible steps to begin this journey, there are growing options to leverage technology and qualitative seasoned business acumen within process-driven software. This software integrates corporate intelligence and financial workflow decisions with inputs from fundamental business model views, statistical probabilities, real time nowcast data, internal analysis, and risk management into proprietary internal expected outcomes.

While this can be developed from scratch internally, increasingly these capabilities have already been developed from vertically focused vendors. In the view developed for the asset management diagram, "Single Pane of Glass," this allows nearly real-time integration of both existing and emerging priorities like ESG scores right into category rankings from classic financial workflow like demand-prediction, valuation, relative growth, profitability, quality and sentiment. This example rolls up into proprietary rules-based rankings scalable across all global assets in a consistent way.

Upgrade Your Roadmap

In conclusion, this should be a great conversation starter for asset managers, investor relations professionals, and corporate management teams — how are you ranking and prioritizing your core key performance indicators and decision processes? If this is only being done through lip service, there are bold new tools available for your transition to a process-driven approach. IR

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