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Initiatives: Application Leaders and 7 more

Exploring new technologies and innovative approaches to accelerate how business problems are solved can reap huge benefits in an organization. CIOs should evaluate and leverage Cool Vendor capabilities to identify and embrace emergent opportunities that will hone their competitive advantage.

Overview

Opportunities and Challenges

- In recent years, organizations have exposed personal data, used biased artificial intelligence (AI) models, and flooded the internet with fake news and videos — to name just a few issues. In response, a new trust architecture is evolving, shifting from trusting organizations to trusting algorithms.

- Gartner client interest in digital workplace applications has increased by 24% over the past year. Given the disruption caused by COVID-19, the digital workplace has become a critical component of digital resilience.

- Experimentation using proofs of concept (POCs) and limited production implementations is fine, but CIOs should assume that most Cool Vendors offerings will be too immature for large-scale production work with accompanying and requisite system, security and network management services for at least the next 12 months.

What You Need to Know

To exploit disruptive trends and emerging practices, CIOs must:

- Deploy processes and technologies to identify and avoid risks such as algorithmic bias in AI systems and to ensure the appropriate use of personal data. Monitor emerging technologies in the transparency and traceability domain to ensure they are adopted as soon as they are mature enough to deliver benefits.

- Balance support for well-established workplace service categories with emerging technologies that Cool Vendors offer such as artificial intelligence, modern meeting applications, and collaborative work management.
Embrace Change to Exploit Digital Innovation

Adrian Leow, Senior Director Analyst

With time comes change, and at times that change comes at an accelerated pace. The change experienced by most organizations, including our Cool Vendors, throughout 2020 has driven home the need to embrace digital innovation in order to thrive no matter how adverse the circumstances presented before them.

The COVID-19 crisis continues to present many unique economic and business challenges, as well as opportunities for Cool Vendors around the world. Growing trade tensions between the three economic superpowers — the U.S., China and the EU — have moved into a phase where the business community is caught in the middle. But digital innovation is resilient. Globalization is often framed as an inextricable result of a digitalizing economy as it has been possible only because of the advances in technology and digital innovation. If the way to achieve geopolitical and commercial advantage changes, then it is likely that digital innovation among our Cool Vendors will change to reflect that new reality.

Despite the current winds of change sweeping the globe, Gartner is still finding a common characteristic of most of the Cool Vendors profiled — they are still typically very focused on a specific vertical, use case or part of the value chain. This focus is what makes them successful as they often understand their target customers and their needs better than larger vendors, no matter what geopolitical or other adverse global crises sits before them.

In this Trend Insight report, we’ll explore the following:

- How are Cool Vendors exploiting connections between an expanding set of people, businesses and processes — as well as devices, content and services — to deliver digital business and remote working outcomes?
- How are Cool Vendors using AI to enhance decision making, reinvent business models and ecosystems, create entirely new products, and remake the customer experience (CX)?
- How are Cool Vendors making the use of new technologies more effective, ethical, secure and safe to reduce personal, business and societal vulnerabilities?
Executive Overview

Cool Vendors support the evolution of digital innovation and digital business. Cool Vendors represent an opportunity to explore technologies earlier in the Gartner Hype Cycle (see Understanding Gartner’s Hype Cycles). Many are pioneers in emerging markets, such as those featured on the post-trigger position of the Gartner Hype Cycle. But beyond that, Cool Vendors represent an opportunity to explore the practical implementation of game-changing innovations.

Cool Vendors working on emerging technologies are disruptive by nature, but the competitive advantage they provide is not yet well known or proven. Some technologies they offer will begin to mature in the near term, bringing the possibility of tangible ROI from any potential POCs, so CIOs must understand the opportunities they present, particularly those with the potential for transformational or high impact. When a technology offered by a Cool Vendor can perform a particular use case with reasonable quality, examine the other obstacles to deployment to determine the appropriate deployment planning horizon. Obstacles may include cost, regulation, social acceptance and nonfunctional requirements.

Gartner’s Cool Vendor research documents in the second half of 2020 profile 93 Cool Vendors in 24 reports. This breadth makes it difficult to discuss all the worthy Cool Vendors. In this Trend Insight report, we discuss their impact across multiple areas. These Cool Vendors offer unprecedented opportunities to exploit new business models to truly transform business, compress cycles of insight, and take actions to get to business outcomes. This overview highlights representative Cool Vendors — those that represent a category or class of value for buyers. These Cool Vendors are transforming user experiences and business processes and disrupting business models. Technologies surrounding artificial intelligence/machine learning (AI/ML), computer vision, various types of sensors and cloud continue to provide a solid base of coolness.

The class of problems being solved by the democratization of advanced technologies, especially AI, is particularly well-adapted to scaling human-to-human and human-to-machine interactions. Insights, trust management, and the connection between the virtual and physical world are capabilities needed by people as much as by systems or applications to reduce business and societal vulnerabilities.

Gartner’s definition of a Cool Vendor is a small company offering a technology or service that is innovative, impactful or intriguing.
The three elements of a Cool Vendor are further explained below:

- **Innovative** — Enables users to do things they could not do before.
- **Impactful** — Has or will have a business impact, not just technology for its own sake.
- **Intriguing** — Has caught Gartner’s interest during the past six months.

A more detailed explanation of the Cool Vendor selection criteria is available in Note 1 at the end of this document.

Figure 1 shows the three attributes of coolness.

Figure 1. Three Attributes of Coolness: Innovative + Impactful
Changes the Game

![Three Attributes of Coolness: Innovative + Impactful Changes the Game](image)

**Research Highlights**

How Are Cool Vendors Exploiting Connections Between People, Businesses, Processes, Devices, Content and Services to Deliver Digital Business and Remote Working?

Cool Vendors are working on new capabilities that are needed to reduce business and technology friction, and simplify the integration and coordination across these systems. These capabilities are also needed to create immersive experiences supporting a rich set of digital twins of people, processes and things. As a result, we are witnessing the emergence of ""smart spaces."" A smart
space is a physical or digital environment in which humans and technology-enabled systems interact in increasingly open, connected, coordinated and intelligent ecosystems. Multiple elements, including people, processes, services and things, come together in a smart space to create a more immersive, interactive and automated experience for a target set of personas or industry scenarios. Cool Vendors have tapped into these AI-related trends, the expansion of Internet of Things (IoT)-connected edge devices, the development of digital twins of things and organizations offer increasing opportunities to drive more connected, coordinated and intelligent solutions across target environments.

- Cool Vendor Snowplow provides nontechnical users with data infrastructure, liberating them from dependence on internal IT resources. It allows digital marketing leaders to pull data from web, mobile, server and third-party customer data pipelines in real time, while enabling them to build and socialize their own customer data warehouse. Solutions like Snowplow Analytics could eventually form the basis of future martech stacks to collect event and attribute data associated with consumers — and the ever-expanding digitally-connected things they use (e.g., cars, refrigerators, thermostats, etc.)

- Cool Vendor Vizibl enables companies to efficiently manage and optimize complex relationships with strategic suppliers. It defines and tracks progress toward strategic objectives and enables an effective governance structure for communications between multiple internal stakeholders and their supplier counterparts. Moreover, it provides a consolidated view of the full value of each supplier’s collaboration along multiple dimensions such as innovation, efficiency gains, savings, revenue growth and sustainability.

- Cool Vendor Coralogix uses AI-based capabilities to identify anomalies in log flows and sequences, which is effective in identifying anomalies that can be missed by a traditional metric-based approach to anomaly detection. Coralogix tracks log flows and enables log retention based on multiple parameter combinations — for example, location, granularity or certain keyword combinations.

- Cool Vendor Front should be considered by customer service and digital workplace application leaders who have multiple platforms for workstream collaboration and customer service products. Front offers a centralized platform to seamlessly unify conversations across teams on different collaboration and customer service platforms. This approach helps multivendor organizations mitigate information silos, and prevents users juggling among multiple applications and allows them to deal with customer communications from a unified platform.

**Recommendations**

- Adding more data sources to a digital marketer’s strategy is often risky because it can disrupt the data architecture created by internal IT teams. Consider offerings from emerging vendors that attempt to address the most pressing data infrastructure issues case by collecting, unifying, activating, or analyzing data in a single source of truth.
Explore nascent technology offerings from Cool Vendors thoroughly by validating vendor claims through scripted demos with tangible outputs and customer references.

Implement ITOps architectures via improved agility by tightly coupling monitoring and analytics with intelligent automated processes, fed by AIOps insights.

Improve collaboration and remote workers performance by reviewing emerging vendors that are attempting to streamline the digital workplace by providing tools that offer a centralized collaboration platform which enables employees to communicate faster and smarter.

Related Research

■ Cool Vendors in Sourcing Technology — The sourcing applications market to manage suppliers is diverse and fragmented, with both specialists and suite vendors offering solutions. Chief procurement officers can use this Cool Vendors research to improve their group’s capabilities to drive better supplier collaboration and business decisions.

■ Cool Vendors in Performance Analysis — Performance analysis vendors are increasingly providing advanced analytics and AIOps as well as improving scalability in response to the increase in velocity and complexity of data generated in IT environments. Infrastructure and operations (I&O) leaders should consider how the innovative approaches of vendors in this research can deliver enhanced insights into their IT environments.

■ Cool Vendors for Marketing Data and Analytics — Acquisitions of marketing dashboard providers have created opportunities for startups to focus on narrower, yet critical, analytics challenges. CMOs can consider these vendors that provide innovative solutions for marketing data management, analysis and data delivery.

■ Cool Vendors in Digital Workplace Program and Applications — COVID-19 has changed ways of working and remote work is the new normal. Organizations need to equip remote workers with the applications and tools for enhancing productivity and experience. Application leaders can leverage these three cool vendors profiled in this report for a smooth transition to remote work.

■ Cool Vendors in Banking — An increasingly broad range of emerging technologies are used to provide innovative products and services, optimize costs and support the need to scale digital banking. Bank CIOs can benefit from research on market-moving technologies to address growing challenges with balancing cost optimization and new digital business investments.

■ Cool Vendors in Enhanced Internet Services and Cloud Connectivity — Increasingly, enterprises are leveraging the internet to access cloud workloads. This introduces networking complexity and application performance uncertainty. These lesser-known yet relevant vendors can address emerging application performance problems and simplify cloud connectivity.

■ Cool Vendors in Personalization — “Cool” in personalization is less about features and more about relevance to your goals and gaps in your tech stack. This year’s Cool Vendors focus on
delivering against key performance indicators (KPIs) like customer lifetime value (CLTV), supporting functionality like testing and optimizing key parts of the digital experience like product discovery.

- **Cool Vendors in Data Management** — Data and analytics leaders must continually modernize their data infrastructure to reduce cost, improve performance and innovate faster. Vendors are delivering new data management technologies and new ways to exploit data in disparate data stores that add more value.

- **Cool Vendors in Supply Chain Execution Technologies** — These Cool Vendors target the need for better supply chain execution productivity from digital investments in difficult economic conditions. Supply chain technology leaders should use this research to identify emerging supply chain execution technology vendors that can drive enhanced business value.

- **Cool Vendors in Food Retail: Catering To New Customer Lifestyles** — Food retailers are adapting their operating model to realign with reorientated consumer values and lifestyles. Retail CIOs should consider these Cool Vendors that enable retailers to make accurate and speedy business decisions, minimize waste, orchestrate fulfillment flexibility, and increase customer loyalty.

How Are Cool Vendors Using AI to Enhance Decision Making, Reinvent Business Models, and Remake CX?

Cool Vendors are using technology to solve problems in new and novel ways. Using AI to automate functions in physical devices, software or services is enabling the creation of autonomous things, such as advanced robots, autonomous vehicles and intelligent agents. Autonomous software adds value to applications and IT systems such as network management, where AI-powered systems can drive greater efficiency and effectiveness with higher performance. As autonomous things evolve, they will start to work together in collaborative swarms.

The most interesting Cool Vendors are innovating in ways that allow AI, ML and humans to work together. Augmented intelligence explores the use of ML and AI techniques to augment and support human activity. Augmented analytics uses automated machine learning to transform how analytics content is developed, consumed and shared. Just as important, Cool Vendors are striving to deliver compelling user experiences that are increasingly about delivering solutions that allow people to use devices to deliver uniquely human interactions. As such, the use of AI for things like speech and visual recognition is essential to providing a “human touch” to technology. Keep in mind, however, that AI is in a heightened state of market expectation and will decline. Striking quickly with AI-led innovations will be critical to differentiating before the “wow factor” begins to wear down.

- With improvements to speech-to-text and text-to-speech on top of improved natural language understanding (NLU) engines, more vendors like Cool Vendor PolyAI and commercial cases of human-like voice dialogue are appearing. For now, mostly in specialist use cases, the human-like voice dialogue trend will surely make an impact on larger use cases as well.
Cool Vendor Graphistry applies graphs and graphics processing unit (GPU) computing to achieve scalable data science and machine learning applications on massive datasets. Graphistry's technology builds a virtual hypergraph that can compute over a billion nodes and edges on the server-side to interactively display them in a web browser. Analysis in the browser provides reasoning over relationships like correlations, causality, dependencies, outliers, scope, and journeys across the entire graph.

To fully reap the value of these new technologies, particularly those deployed in the cloud, organizations need to pursue a DevOps approach to how they plan, build and run workloads. Cool Vendor Opsani offers application performance and cost optimization using ML techniques to autoscale containers and tune the software running in them. When its entire suite of capabilities are used, Opsani claims it can more than double performance while cutting more than half the cost of a container-based cloud-native application.

Cool Vendor superwise.ai provides a SaaS-based AI assurance platform that gives IT and AI leaders an option to validate the effectiveness of their AI systems during uncertain and changing business conditions. These conditions may be gradual or caused by sudden and uncontrollable disruptions to global markets, including recessions, pandemics, elections and extreme weather events.

Recommendations

- Pilot narrow use cases in the customer service domain and evaluate if there are emerging vendors that can assist in such a POC. The aim is to create impactful customer experiences as end-to-end human-like voice dialogues, as even though they might be of limited scope, they are also becoming increasingly common.

- Identify the use cases that benefit from contextualization by utilizing complex, heterogeneous data to analyze path, sequence, community, recency, frequency, entity resolution, networks of objects, assets and conditions to help designate the best resources at the best utilization point.

- Create a scalable framework for cloud operations through standardized toolchains, repeatable processes, and a collaborative DevOps, DataOps and ModelOps approach.

- Build trust in AI solutions by applying an explainable AI (XAI) approach to holistically address aspects of AI models such as trust, transparency, bias mitigation, explainability, accountability, privacy and regulatory compliance.

Related Research

- **Cool Vendors in Graph Technologies** — The rising role of context and situational awareness for delivering insights, and AI’s growing role in evaluating implied and explicit data connections have pulled graph technologies to the spotlight. This report showcases different graph technologies and approaches with representative Cool Vendors.
How Are Cool Vendors Making New Technologies More Effective, Ethical, Secure and Safe?

With the expanded use of advanced digital capabilities such as AI and ML, organizations must make technology investments that enable them to use data to both generate business value and protect customer privacy. This is critical to building trust, complying with rapidly expanding privacy regulations and protecting the brand. New approaches are also needed to ensure trusted interactions among a network of participation. Cool Vendors in this wave support privacy-protecting data sharing. They also are transforming processes to securely manage negotiable documents as digital assets.

- **Cool Vendors in Cloud Computing** — Innovation in cloud computing continues to accelerate at a rapid pace in cloud infrastructure and platform services. CIOs should assess these Cool Vendors, who are disrupting the cloud market with their innovative approach in enabling operationalization of cloud-native platforms.

- **Cool Vendors in Conversational AI Platforms** — Conversational AI platforms (CAIP) is a huge and diverse market with fast moving technology. These vendors each represent five rising trends within the market. As technology allows for more sophisticated conversations, tied to business processes, and using voice and avatars, application leaders need to keep on top of the trends to succeed.

- **Cool Vendors in Enterprise AI Governance** — AI trustworthiness is inhibited by issues related to lack of governance and explainability of findings. Data and analytics leaders can learn novel approaches from innovative vendors to govern their organization’s AI solutions ethically and increase transparency and explainability for stakeholders.

- **Cool Vendors in AI Core Technologies** — AI core technologies are now focused on accelerating the path to production. Data and analytics leaders can consider these Cool Vendors in the prioritization of sourcing quality training data, and scaling ML models with newer techniques such as knowledge graphs, transfer learning and lean data ML.

- **Cool Vendors in AI for Customer Analytics** — To combat the downward pressure on customer retention caused by COVID-19, many organizations will turn to advanced customer analytics. Innovative AI-enabled tools help organizations improve retention by offering real-time customer understanding, customer journey analytics and sentiment analysis.

Cool Vendor Prevailion has deep experience in active infiltration and counterintelligence. For customers, this means that Prevailion’s tailored intelligence team are able to go deeper into answering the question of “are there threat actors currently active in my environment?” to a deep level. This is achieved by infiltrating threat actors’ own infrastructure, attaining full fidelity details of their operation.
Cool Vendor Okera enables data and analytics leaders to share data with confidence across their enterprise. It aims to reduce the latency between data consumers and data platform teams by reducing the latency in data access and ensuring consumers have necessary data access controls to the consumers. Data stewards can then manage access control to the field-level using a zero-code visual interface.

Cool Vendor SpyCloud leverages human intelligence to obtain username and password combinations that have been stolen, rather than relying on scanning tools alone. SpyCloud’s approach of infiltrating, engaging with or monitoring criminal groups allows their clients to leverage their service to thwart account takeover (ATO) attempts with the most up-to-date databases of breached data, numbering in the tens of billions of username and password combinations.

Cool Vendor Qwarry has a new take on contextual targeting: it uses attention-focused semantic content analysis to identify moments of peak topical interest for relevant ad delivery. Conceived with privacy in mind, Qwarry eschews viewer information in favor of content analysis to evaluate media opportunities. Contextual targeting allows marketers to target the most suitable conditions under which to deliver a message. As a side benefit, it also inherently avoids unsafe and controversial content situations that audience targeting cannot detect.

Recommendations

Select and evaluate technologies from newer vendors by aligning to specific use cases, risks and needs of the organization. Emerging vendors often represent an opportunity to get closer to the development of a product and inform roadmap strategy to ensure your organization gets closer to their specific needs.

Enable collaboration across key roles, such as database administrators (DBAs), data engineers, integration architects and data stewards. Include them in project planning phases, providing a governed infrastructure for shared metadata, establishing and formalizing an “operations-focused” role, and providing channels for regular communication and feedback.

Seek insight from specialist intelligence providers and review innovations new Cool Vendors bring to the market to understand where information compromise and loss can harm the enterprise.

Use AI-based solutions that emerging Cool Vendors might offer to enhance your content operations and prioritize their role in content production, distribution, and analysis.

Related Research

Cool Vendors in Security Operations and Threat Intelligence — Cool Vendors can demonstrate new ways to take a proactive approach to address difficult issues. We profile four emerging
vendors in this report that security and risk management leaders should consider when evaluating emerging threats requiring the latest in security operations technologies

- **Cool Vendors in DataOps** — DataOps has emerged as a concept to deliver data to consumers faster, with more resiliency and predictability. Data and analytics leaders implementing DataOps may need to embrace new data management solutions to drive collaboration, knowledge sharing and data availability.

- **Cool Vendors in Identity Access Management and Fraud Detection** — As the COVID-19 crisis deepens, technology decisions increasingly focus on value for money and user experience. Solutions that can support new modes of work and enhance user trust and safety are finding traction.

- **Cool Vendors in AI for Marketing** — Artificial intelligence for marketing has passed the Peak of Inflated Expectations. As disillusionment sets in, digital marketing leaders need to focus on AI's most practical breakthroughs to streamline operations and gain competitive advantage.

- **Cool Vendors in CLM and Advanced Contract Analytics** — Extreme market volatility and risk have many organizations revisiting their ability to quickly identify, analyze and manage third party contract risk. These Cool Vendors enable organizations to quickly scan and interpret contract terms and streamline the ongoing life cycle of a contract.

- **Cool Vendors for Cyber and IT Risk Management** — Digital business development and unexpected disruptions have heightened the need for businesses to seek cost optimizations and more targeted technology investment. Security and risk management leaders can leverage this research for evaluating less established but innovative use case focused vendors.

- **Cool Vendors in Network and Endpoint Security** — As attackers get more sophisticated and targeted, security and risk management leaders need to look at innovative ways to protect organizations. This Cool Vendors research highlights four vendors that are taking a different approach to network and endpoint security.

- **Cool Vendors in Storage and Backup and Recovery** — The continuous growth of unstructured data, adoption of new workloads and the increased need for cloud data protection poses many challenges for I&O leaders. Therefore, I&O leaders should continuously evaluate new vendors who use innovative approaches to address these challenges.

**Related Resources**

**Webinars**

Panel Discussion: Use AI to Fight Through COVID-19 and to Recover

Execute Digital Workplace Strategies in a Post-Pandemic World

The Gartner Top 10 Strategic Technology Trends for 2020
Note 1: Understand the Cool Vendor Selection Criteria

- The vendor should be less than 10 years old.
- The vendor must not be featured in a Vendor Rating or in a Magic Quadrant.
- The vendor must not be previously featured in a Cool Vendor report.
- The vendor must be an independent business, a discrete subsidiary (i.e., tracks or reports revenue separately) or spinoff of another vendor. In this way, subsidiaries of major vendors may be considered unless they are majority-owned entities.
- The vendor’s annual revenue must be less than $100 million.
- The Cool Vendor product needs to be available at point of submission for inclusion in a Cool Vendor report.
- The vendor must be considered innovative or transformative for IT products, services or initiatives. A Cool Vendor is not just about technology; it may also include services.
- Previously profiled Cool Vendors can be profiled again only in the retrospective “Where Are They Now?” section of a Cool Vendor report.

Recommended by the Authors

Cool Vendors Enable Radical Rethinking After the Reset: A Gartner Trend Insight Report
Cool Vendors in Cyber and IT Risk Management
Cool Vendors in Marketing Data and Analytics
Cool Vendors in AI Core Technologies
Cool Vendors: AI for Customer Analytics
Cool Vendors in AI for Marketing
Cool Vendors in Banking
Cool Vendors in CLM and Advanced Contract Analytics
Cool Vendors in Cloud Computing
Cool Vendors in Conversational AI Platforms
Cool Vendors in Data Management
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Cool Vendors in Supply Chain Execution Technologies

Recommended For You

Cool Vendors: The Best Cool Vendors Change the Competitive Landscape — A Gartner Trend Insight Report
Cool Vendors Enable Radical Rethinking After the Reset: A Gartner Trend Insight Report
Survey Analysis: Digital Twins Are Poised for Proliferation
Hype Cycle for the Internet of Things, 2020
Seize the Technology Advantage With Combinatorial Digital Innovation

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