

bombora®



H1 2023

Upswell

Intent Trends Report

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Bombora Upswell Report: H1 2023

In today's rapidly evolving digital landscape, many industries are undergoing significant transformations. Advancements in technology, coupled with changing consumer behaviors, are driving businesses to adapt and embrace innovative strategies to stay ahead of the competition.

This Bombora Upswell Report delves into the latest trends and developments across manufacturing, healthcare, finance, software, cybersecurity, professional services, telecommunications, and media and advertising to provide valuable insights for businesses looking to navigate this dynamic environment.



The **manufacturing** industry is undergoing significant transformation due to supply chain disruptions, pandemic-related challenges, and shifting consumer demands. To navigate, manufacturers are focusing on building resilient supply chains, implementing AI and automation solutions to optimize operations, and investing in marketing and brand building as direct-to-consumer sales grow.

The **healthcare** industry is grappling with challenges such as rising costs, workforce shortages, and the need to prioritize patient experience, as well as adjusting to policy shifts and technological advancements. Emerging technologies, such as AI automation, remote patient monitoring, and the Internet of Healthcare Things (IoHT) offer opportunities to address these challenges and improve healthcare delivery. Healthcare organizations are also heavily investing in recruiting skilled healthcare professionals while bolstering workforce development initiatives.

The **financial services and banking** industries have faced challenges from economic uncertainty, regulatory reshaping, and the need to rebuild customer trust. As a result, finance professionals are focusing on research in areas such as market volatility, pre-bankruptcy planning, and debt management while also investing in long-term wealth preservation strategies. The industry's focus on safeguarding investments, ensuring financial stability, and enhancing customer experiences will be vital for navigating these complex dynamics and helping organizations emerge stronger in the long term.

The **software** industry is experiencing significant shifts due to the increasing demand for AI and machine learning technologies, the growing importance of cybersecurity, and the rapid expansion of IoT. Businesses are leveraging tools like ChatGPT, conversational AI, and chatbots to improve operations and customer engagement while also adopting proactive defense strategies against cyber threats.

Cybersecurity is a paramount concern in today's digital age as cyber threats continue to evolve and become more sophisticated. As businesses store and process vast amounts of sensitive data, protecting their digital assets and safeguarding customer information is crucial. Businesses must stay ahead of the curve by investing in advanced security measures, addressing workforce shortages, and preparing for future risks to protect against cyber threats in the digital age.

Professional services firms are navigating economic uncertainty by focusing on profitability and margins, technology simplification, and client retention. Research trends show increased demand for advisory, consulting, and specialized services, while technology investments center around an open architecture, payment processing optimization, and core banking operations.

Firms are prioritizing customer retention by simplifying financial management and providing custom-tailored services.

Driven by the proliferation of connected devices, the **telecommunications** industry is experiencing a spike in demand for high-speed connectivity, the adoption of 5G technology, and the move into the final frontier: space. As the industry landscape evolves, businesses are exploring investments in infrastructure and innovative services to meet growing customer expectations and capitalize on new revenue opportunities.

Lastly, the **media and advertising** sector is witnessing significant shifts in consumer behavior with an increasing emphasis on social media, video advertising, and data privacy. Organizations must optimize their digital strategies, enhance customer experience, and safeguard data to maintain a competitive edge in this fast-paced environment.

The following is a deep dive into the latest trends and developments across these industries that will equip businesses with the data and insights necessary to navigate the ever-changing business landscape successfully. By staying informed with high-quality data, businesses of all sizes can seize emerging opportunities, drive innovation, and ensure their continued growth in an increasingly competitive global market.



About Bombora

To help address many of the challenges modern B2B sellers face, having high-quality data is essential to setting sound strategies, building awareness, driving demand, and nurturing relationships. Many businesses rely on third-party data sources to help inform their efforts; however, not all data is created equal.

Bombora provides Intent data, which helps show organizations which businesses are in-market for their products and services at a given time. Unlike many other data providers, which rely on data aggregated from the bidstream, Bombora has taken a different approach which provides higher quality data that can be leveraged to give businesses a competitive advantage. This approach starts with our B2B Data Co-op, includes our Bombora tag, and extends to our data architecture and taxonomy.

Bombora Data Co-op

Bombora collects data from a highly curated Data Co-op of B2B publisher partners. This network of over 5,000 highly trafficked websites truly is the top of the “B2B Internet” and includes a robust portfolio of large and niche sites across many industries.

Across this Data Co-op, we capture roughly 4 million unique domains researching over 13,000 B2B topics, totaling an average of 16 billion monthly research events. Furthermore, our Data Co-op members have opted-in to the Bombora Co-op and provide consented data, and 87% of publisher traffic in the Data Co-op is under exclusive contract.¹ This is the industry’s only co-operative of its kind and provides an incredibly

high starting point from which to deliver data at the greatest performance and quality.

Bombora tag

All of our Data Co-op partners have implemented the Bombora tag. This is not just a cookie dropped on a website but an actual JavaScript tag that gives us incredible insights into what is happening on our publisher partner sites.

To start, our tag allows us to see beyond which articles people are reading. It also allows us to view behind paywalls and gated content. For example, we can see whether a user has filled out a registration form for a webinar or downloaded a piece of content. This data feeds into our analytics and taxonomy.

We use AI tools, such as natural language processing (NLP), to move beyond titles and keywords. With this technology, our AI “reads” the content on each page to determine key themes, categories, and topics covered.

We can measure page metrics, such as scrolling and dwell time, to understand whether a user engaged with a piece of content as opposed to an errant click. Because whether or not someone actually read an article matters when trying to determine intent.

Between our Data Co-op of premium B2B publisher partners and the Bombora tag, which provides deep insights into content and engagement, our data quality is unmatched in the market. Bombora’s identity resolution system is uniquely resilient to the upcoming changes in our industry, like third-party cookies deprecation.

Bombora taxonomy

Data in and of itself is not powerful. For data to be powerful, it must be used to derive insights and knowledge that can drive action. And that's precisely what Bombora does.

This process starts with our taxonomy. To make our data navigable, we have applied a taxonomy that structures our data into a hierarchy of roughly 15 Themes, 170 Categories, and over 13,000 Topics. Themes are macro topics—such as Finance, Healthcare, and Technology—each of which has Categories and Themes nested underneath. We also track individual businesses as Topics—over 5,000—which can be monitored over time. And more topics are added on a regular cadence.

Our approach to structuring our data is also quite unique, especially when considering that we're not just doing keyword analysis like most other providers but actually analyzing page content. Each page that we monitor gets tagged based on this taxonomy, and activity on that page gets tracked accordingly. It's through this tagging and tracking that we are able to create Intent signals that align with your business.

Additionally, we track activity at a business level, including company name and metrics such as company size and industry. And with our Digital Audience Builder, we can view user metrics like Professional Groups, Company Revenue, Functional Area, Seniority, and more, all of which can be used as filters to explore the data.

Bombora Company Surge® Score

We measure “Intent”—i.e., whether a business is actively researching a particular topic, thus signaling interest and intent to buy—through our Company Surge® Score.

At a high level, Company Surge® Score is the output of a data model that analyzes a business's research activity—including pages viewed, registrations, content downloaded, dwell time, scroll activity on particular pages, and more—and compares it to that business's baseline. It then evaluates whether the activity seen for a specific topic is above the baseline at a rate significant enough to indicate a change in behavior that suggests interest and intent.

To learn more about
Bombora, visit bombora.com.

Learn more



About this report

With visibility into what topics businesses are researching over time, Company Surge® data provides insight into what is top of mind for organizations across industries, what topics are trending up and down, differences by company size and industry, and much more.

Leveraging this data, we have compiled a report to provide a snapshot of multiple industries, including manufacturing, healthcare, financial services and banking, software, cybersecurity, professional services, telecommunications, and media and advertising. Our objective is to provide bi-annual updates that deliver an ongoing lens into the latest trends so that businesses can better understand the latest changes across these industries and make more informed decisions in their work.

Methodology

This report evaluates data from 2022 through Q1 2023. Data was last pulled from Bombora on

March 31, 2023. In this report, references to Q1 2023 refer to data from January 1 to March 31, 2023. References to Q4 2022 data include data from October 1 to December 31, 2022. Unless otherwise specified, quarter-over-quarter comparisons are comparing Q1 2023 data with Q4 2022 data. Previous year (2022) data contains data from January 1 to December 31, 2022. Any other specified periods are defined in the report.

References to business spikes refer to the weekly average number of businesses researching a topic at a rate significantly above the research baseline, as defined by the Bombora Company Surge® Score. Research spikes refer to the aggregate volume of research spikes for the defined period. Unless otherwise specified, top increases, decreases, and rolling comparisons compare data from a rolling 90-day period against the previous 90-day period.

Bombora use cases

The data and insights in this report are just the tips of the iceberg of what businesses can do with Bombora. To learn more about how you can drive efficient growth with Bombora's Intent data, visit bombora.com.

Bombora use cases

- Market intelligence
- Content strategy
- Campaign measurement
- Website measurement
- Brand and competitive intelligence
- Programmatic advertising and paid social
- Demand generation
- Site and chatbot personalization
- Enhanced retargeting and search
- Sales prioritization
- Key account intelligence
- Churn reduction
- Upsell/cross-sell

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 Trends Report



**Manufacturing
 bites**

Increased Interest
 in CSR

↑ 40%

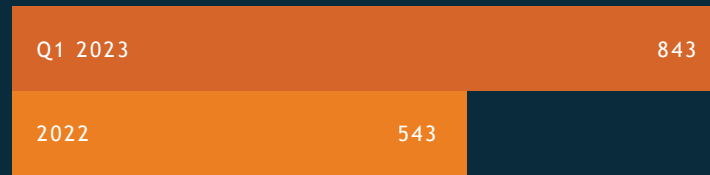
Organizations are responding to demands for stronger environmental and social values.

Increased Interest
 in Marketing Tools

↑ 15%

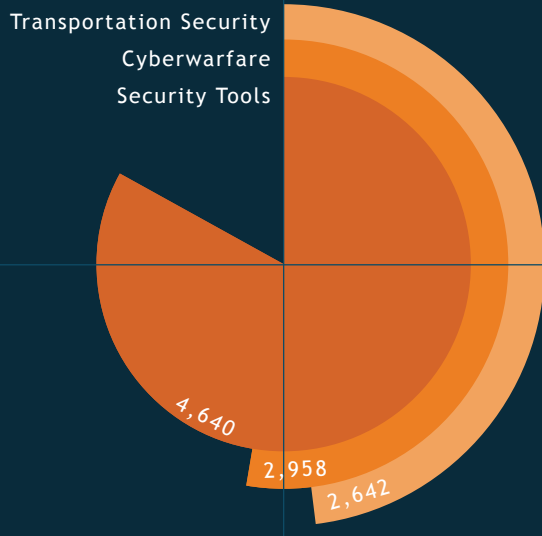
As manufacturers invest more in D2C, they are exploring ways to build their brands.

Businesses Spiking on Inventory Planning



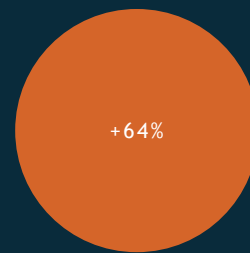
Businesses spiking on inventory planning increased 55% in Q1 2023 as manufacturers look to build more resiliency into their operations.

Security as a Channel for Resiliency

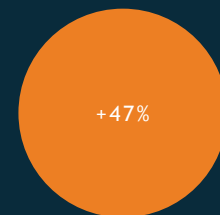


As manufacturers look to build resiliency into their supply chains, many are looking to security as a way to maximize operational stability.

Increased Interest in AI Topics

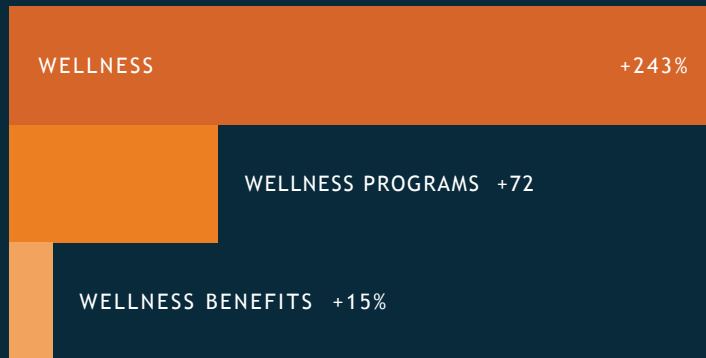


AI Automation



Industrial Automation

Increased Interest in Employee Wellness



As many manufacturers struggle with staffing shortages, they are investing in employee wellness as a means to attract and retain employees across their workforce.

Increased Interest in Personal Protective Equipment



Increased interest in Eye, Face and Head



Top Trending Manufacturing Businesses

These are the top 20 manufacturers that are actively being researched in H1 2023. They are the movers and shakers that are making headlines and driving growth across the industry.

Topic Name	Spiking Businesses (weekly avg.)	Research Spikes
1 Samsung	91,921	1,190,663
2 Epic Coater	61,922	796,963
3 Canon	51,232	661,934
4 Honeywell/Miller Fall Protection	42,450	549,937
5 Amana	41,204	539,139
6 General Motors (GM)	40,453	533,264
7 JKR	36,229	466,059
8 Tec Lighting	22,255	89,790
9 Lexmark	20,133	260,723
10 Freeport McMoRan	12,633	165,336
11 Sensus	12,281	158,771
12 Shell	11,852	154,678
13 TSMC	11,076	99,905
14 Nikon	11,019	98,249
15 BP (BP)	9,664	127,257
16 3M (MMM)	9,269	121,721
17 Rigid Lifelines	7,962	31,866
18 Equator	7,784	101,425
19 Advanced Micro Devices (AMD)	7,454	96,203
20 Ford Motor Company	7,374	97,025



Manufacturing

The manufacturing industry has experienced significant challenges in recent years, especially in the wake of the COVID-19 pandemic. With disruptions to global supply chains and fluctuations in consumer demand, many manufacturers have changed the way they operate, leading some to focus on building more resilient supply chains while others are turning to new technologies to optimize operations and develop their brands.

To mitigate the effects of potential supply chain disruptions, manufacturers are placing a greater emphasis on supply chain resiliency. This trend has been reflected in a significant increase in research on topics such as Inventory Replenishment, Safety Stock, and Energy Consumption. This shift has also led to increased interest

in topics including Freight Shipping, Shipping Lines, and Transportation Security. Businesses are increasingly exploring renewable and sustainable energy solutions, as well as alternative-fueled vehicles. These trends highlight the interest in developing more stable supply chains.

Businesses Spiking on Inventory Planning





At the same time, nearly all manufacturers are either already using or planning to implement smart manufacturing technologies within the next few years. This trend is reflected in the growing interest in AI automation, cloud automation, and industrial automation—a testament to the sector’s commitment to efficiency and innovation.

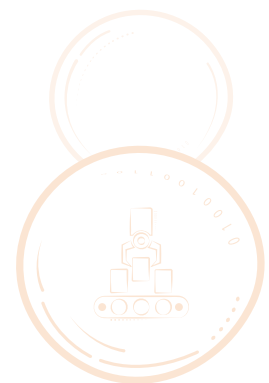
Furthermore, the rise of direct-to-consumer (D2C) sales has led to increased investment in marketing and brand building by manufacturers. This trend has resulted in a spike in interest in marketing-related topics, including Social Media and Custom Packaging.

As younger generations become increasingly influential market forces, businesses are recognizing the importance of aligning their operations with the values and priorities of their target audiences. Accordingly, we’re seeing increases in research around topics like Cause Marketing and Corporate Social Responsibility.

Workplace safety and employee wellbeing are also emerging as key priorities for manufacturers, as seen by increasing interest in research around Personal Protective Equipment, Fall Risk Assessments, and Wellness Programs. This shift underscores the industry’s growing emphasis on the human element, as businesses recognize that their success ultimately depends on the people behind the machines.

The manufacturing industry continues to face an ever-evolving landscape of challenges and opportunities. As these trends continue to develop and intersect, the manufacturing industry is poised for significant transformation, with organizations that adapt effectively likely to emerge as leaders in this new landscape. To succeed in such an environment, manufacturers must remain agile and adapt to changing circumstances quickly. By investing in technology while prioritizing efficiency and safety, manufacturers can build more resilient operations and keep pace with shifting consumer trends while still delivering high-quality products efficiently.

The rise of direct-to-consumer (D2C) sales has led to increased investment in marketing and brand building by manufacturers.



Manufacturers focus on building resilient supply chains

A lack of supply chain resiliency is not just a looming threat; it's a real crisis that could force businesses to close their doors if not managed properly. For many manufacturers, even just one production disruption could erase 30% to 50% of an entire year's worth of earnings.²

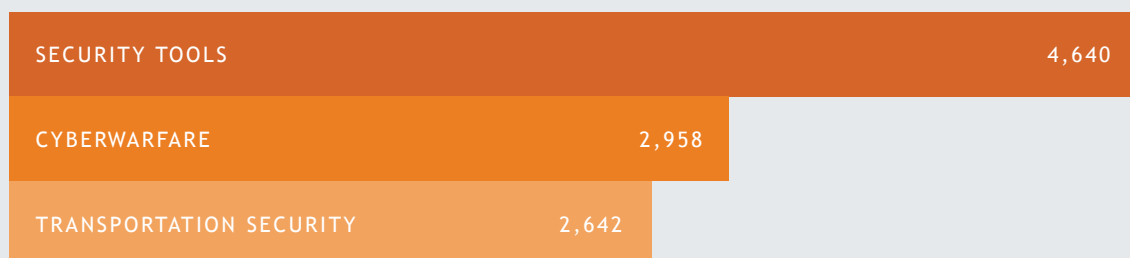
In the wake of the pandemic and global supply shortages, manufacturers are placing a significant emphasis on supply chain resiliency to help mitigate damages in the event of another major supply chain disruption. Manufacturers are actively researching Supply Chain Resilience, with an average of 2,281 manufacturers researching the topic every week in 2022. Inventory Planning saw a huge spike in Q1 2023, increasing 55% compared to 2022 and 80% compared to Q1 2022. Stock Replenishment, Safety Stock, and Inventory Replenishment also saw significant increases in research in Q1 compared to the same period a year ago, with a growth of 86%, 55%, and 11%, respectively.

In conjunction with shoring up inventory, manufacturers are also working to shore up delivery channels. Q1 2023 saw a 24% increase in active research around Freight Shipping and a 39% increase around Shipping Lines when compared to Q4 2022.

At the same time, energy research saw a spike due to geopolitical constraints and strained supply. Energy Consumption spiked in Q4 2022, with 1,945 manufacturers actively researching the topic, while 1,467 businesses were researching Fuel Efficiency. Research for Sustainable Energy and Renewable Energy also grew 126% and 30% in Q1 2023, respectively, compared to the same period last year, while Alternative-Fueled Vehicles spiked in Q1 2023, up 47% compared to 2022 weekly averages.

Lastly, manufacturers are focusing on security as a channel for resiliency, with 2,642 businesses researching Transportation Security in Q1 2023 and 414 researching Supply Chain Security. Additionally, research around Cyberwarfare jumped 23% in Q1 compared to 2022 weekly averages, with 2,958 manufacturers actively researching related topics, while research into Cyber Security associated topics jumped 9%.

Businesses Spiking on Security Topics



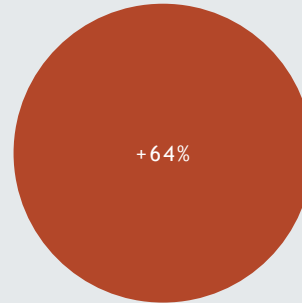
Manufacturers look to AI and automation to improve operations

In a quest to streamline processes and improve resiliency, manufacturers are exploring emerging AI and automation solutions. According to a recent report, 97% of manufacturers are already using or are planning to implement smart manufacturing technology in the next one to two years.³

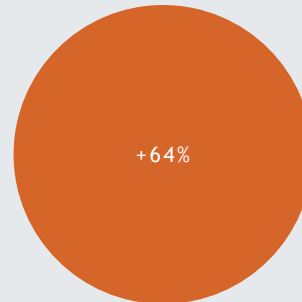
Aligned with these findings, our Bombora data show these emerging technologies are seeing increased exploration. In Q1 2023, AI Automation saw a 64% increase in the number of manufacturers actively researching the topic compared to 2022 weekly averages. Evaluating the same periods, AL/ML Operationalization saw a 64% increase, while Cloud Automation and Industrial Automation saw a 57% and 47% increase, respectively.

In Q1 2023, AI Automation saw a 64% increase in the number of manufacturers actively researching the topic.

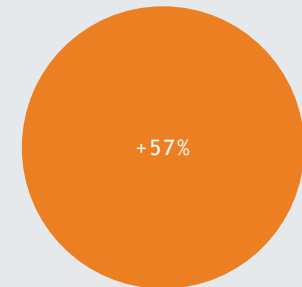
Increased Interest in AI Topics



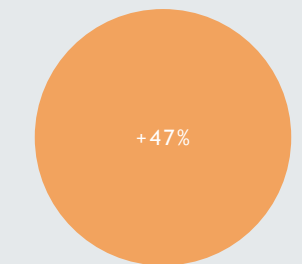
AI Automation



AL/ML Operationalization

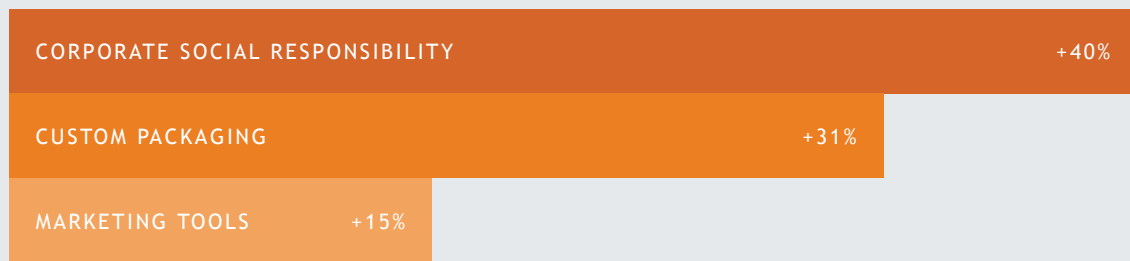


Cloud Automation



Industrial Automation

Increased Interest in Brand Topics



Manufacturers invest in brand as D2C grows

As manufacturers look for new ways to get their products into the hands of customers, they are increasingly looking to cut out the intermediaries and sell direct; direct-to-consumer sales are projected to grow by more than 17% in 2023.⁴

As more manufacturers invest in direct-to-consumer strategies, they are discovering the need to invest in marketing efforts to build their brands. Manufacturers researching Marketing Tools have spiked in Q1 2023, with 9,050 organizations actively researching the topic each week, on average, representing a 15% increase from 2022 weekly averages. We're also seeing an increase in research around Brand Building, with a 13% quarter-over-quarter increase in active research. And in Q4 2022, there was a large increase in research around Social Media, increasing 70% compared to 2022 averages.

As more manufacturers invest in direct-to-consumer strategies, they are discovering the need to invest in marketing efforts to build their brands.

This trend is also reflected in the growth in research on Custom Packaging, which saw an increase of 31% in Q1 compared to 2022 averages and a jump of 119% compared to Q1 2022.

Meanwhile, younger generations are becoming a significant market force, influencing organizations to respond to their strong environmental and social values. Businesses actively researching Cause Marketing have increased by 11% in Q1 compared to 2022 averages, while Corporate Social Responsibility (CSR) peaked at 1,301 spiking businesses in Q1 2023, 40% above 2022 averages.

Workplace safety and wellbeing become a priority

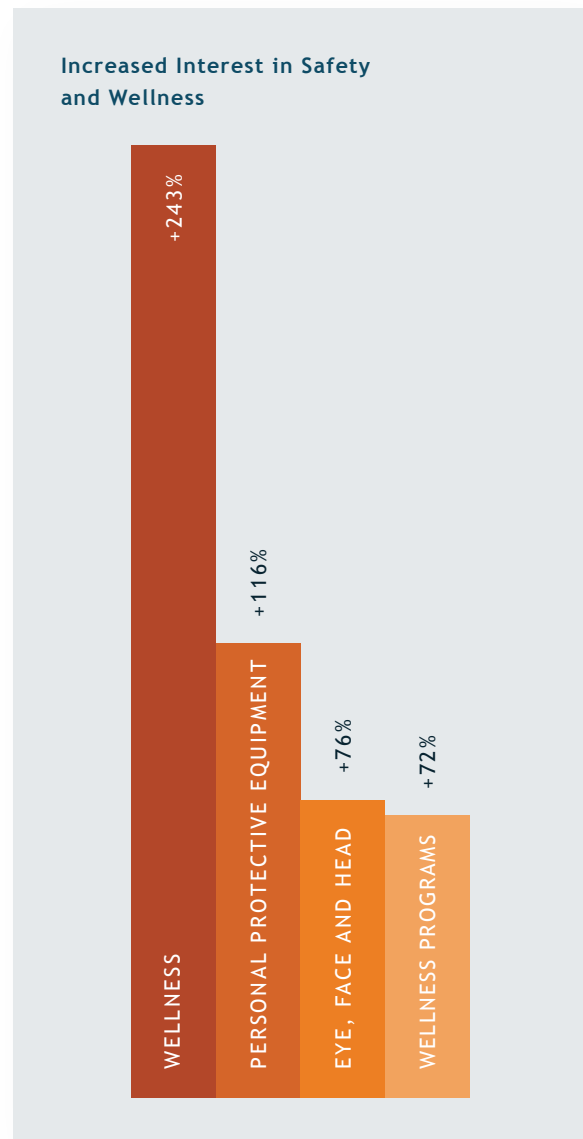
As many manufacturers struggle with labor and skills shortages, we're seeing more businesses invest in programs to help attract, retain, and care for their employees. Most recently, we are seeing a major emphasis on workplace safety and wellbeing across our data.

Research around Personal Protective Equipment jumped 116% in Q1 compared to 2022 averages, while Eye, Face and Head protection also increased 76% between the same periods. Fall Risk Assessment also saw significant growth in Q1, a 54% increase over 2022 averages.

Active research around Wellness has increased by 243% in Q1 compared to 2022 averages.

Beyond safety, we're also seeing a significant shift in focus toward employee wellness. Active research around Wellness has increased by 243% in Q1 compared to 2022 averages, while research around Wellness Programs and Wellness Benefits has increased by 72% and 15%, respectively, across the same periods.

As we dig into the Bombora data, some valuable trends and insights begin to emerge, which help us better understand the current and future state of manufacturing and redefine the industry's role in the global economy. By leveraging data to strategically approach these changes and adopt best practices, manufacturers can position themselves for success in an increasingly complex and competitive landscape.



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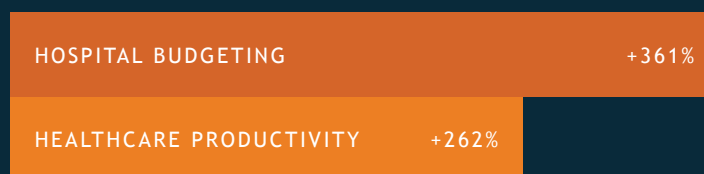


**Healthcare
bites**

Increased Interest in Patient Experience

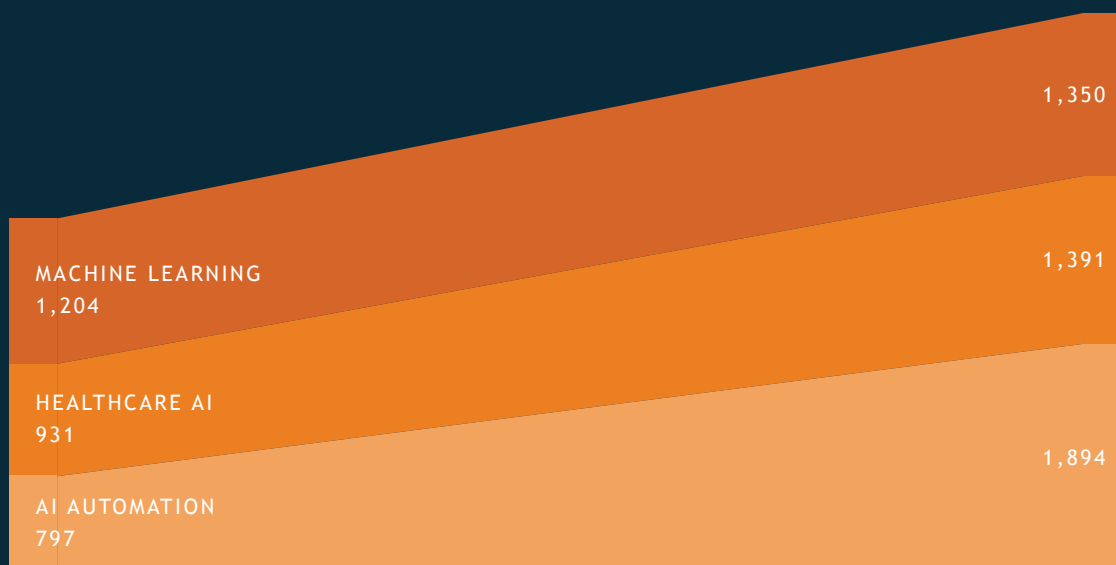


Increased Interest in Healthcare Topics



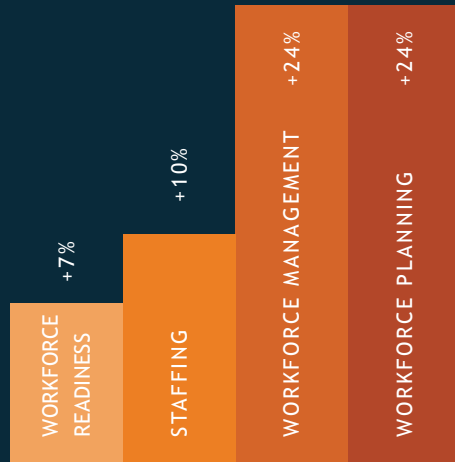
With economic uncertainty looming, healthcare organizations are looking for ways to cut costs across their budgets while improving productivity.

Increased Interest in AI Topics
(Q4 2022 to Q1 2023)



Research activity into artificial intelligence topics grew in H1 2023 as healthcare organizations explored AI solutions for a myriad of opportunities, including operational efficiencies and patient outcomes.

Increased Interest in Workforce Management



As healthcare organizations grapple with historic staffing shortages, an increasing number are researching topics around workforce management to help overcome these challenges. Topics like Gen Z workforce are also spiking as teams explore new talent to fill open rolls.

Increased Interest in Remote-Patient Monitoring (RPM)



Healthcare providers are looking for new ways to leverage emerging digital technologies to drive improved patient compliance and outcomes.

Top Trending Healthcare Businesses

These are the top 20 healthcare businesses that are actively being researched in H1 2023. They are the movers and shakers that are making headlines and driving growth across the industry.

Topic Name	Spiking Businesses (weekly avg.)	Research Spikes
1 Accolade	38,768	503,027
2 Mend	19,891	258,681
3 Fitbit	17,685	231,725
4 Tivity Health	16,789	185,246
5 Walgreens (WBA)	16,158	211,288
6 Merck (MRK)	12,601	165,601
7 Eli Lilly	12,457	163,902
8 eVisit	12,135	133,298
9 Trizetto	9,680	124,919
10 Arcadia	9,284	121,408
11 CDMO	7,960	31,968
12 Titan Medical	7,803	101,421
13 Owens & Minor	7,413	97,233
14 Carenet Health	7,326	94,247
15 GSK	7,121	93,900
16 MediSys	7,113	93,906
17 Alphabet (Holding Company)	6,747	86,516
18 R&D Systems	6,134	79,229
19 Oncomed Pharmaceuticals Inc	5,853	76,335
20 Humana	5,816	75,581



Healthcare

Over the last few years, few industries have dominated the headlines quite like healthcare. The healthcare industry has faced a global pandemic, policy shifts, and rapid technological advancements. Additionally, the costs associated with medical supplies are rising, inflation is impacting the price of goods and services, and workforce shortages are driving up staffing costs to unprecedented levels. These factors, along with emerging legal and policy issues, are weighing heavily on healthcare providers and payers, leading to gaps in services, burnout among staff, and escalating financial pressures.

In response to these challenges, healthcare providers are increasingly researching emerging technologies, operation optimization methods, and data-driven solutions. The focus on hospital budgeting, revenue cycle management, and healthcare productivity has spiked in recent months as organizations work tirelessly to

maintain fiscal sustainability and streamline operations. Research on terms like Utilization Management is now at the forefront as institutions deploy techniques to review the appropriateness of care before provision. This strategy reflects a broader trend of pre-emptive management to control costs.

Increased Interest in Healthcare Topics

HOSPITAL BUDGETING

+361%

HEALTHCARE PRODUCTIVITY

+262%



As healthcare providers seek to get patients back into their clinics, they are also investing in patient-centric digital technologies, such as remote patient monitoring (RPM), to improve patient outcomes and satisfaction. Furthermore, research into Patient Education, Health Care Quality, and Patient Journey has grown exponentially, highlighting the industry's commitment to delivering a holistic and exceptional patient experience.

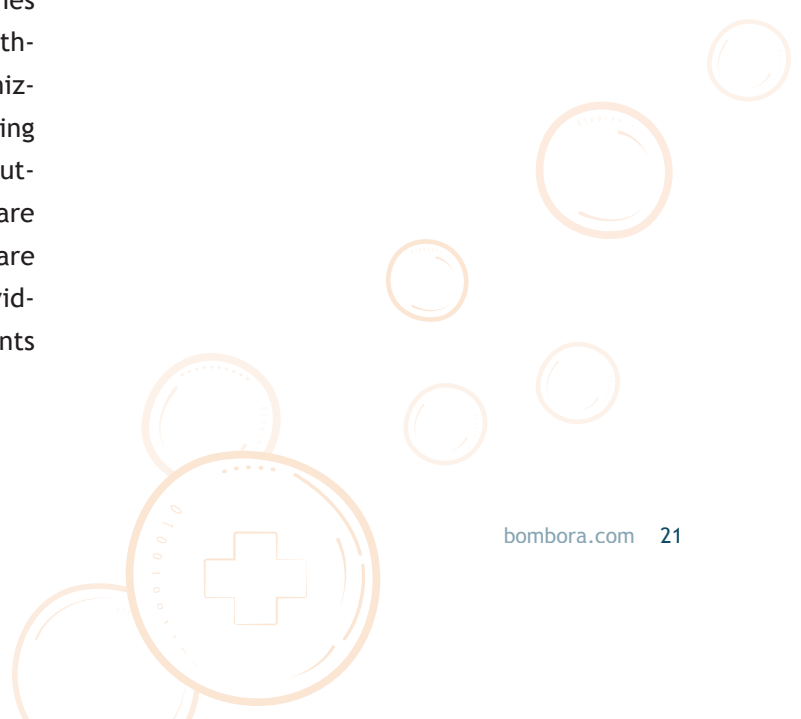
Research into workforce readiness and clinical staff, such as rehabilitation nurses, has dramatically increased as providers look for ways to ensure appropriate skilled staffing levels.

A notable increase in research into healthcare AI, machine learning, and automation signifies a growing interest in the intersection of healthcare and technology. AI is not only revolutionizing diagnostics and patient care but influencing back-end processes with tools like Computer-Assisted Coding. The Internet of Healthcare Things (IoHT) and advanced visualization are other emerging areas that healthcare providers are actively exploring. These advancements

epitomize the pivot towards data-driven insights, signifying a new era of evidence-based healthcare delivery.

At the same time, healthcare organizations are also looking to manage staffing shortages—a growing challenge that was greatly exacerbated by the pandemic. Research into workforce readiness and clinical staff, such as rehabilitation nurses, has dramatically increased as providers look for ways to ensure appropriate skilled staffing levels.

As we move forward, it is clear that emerging technologies will play a transformative role in the healthcare industry. However, achieving this will require extensive investments in both the technology and workforce to ensure that healthcare providers are better equipped and internally prepared for the changes. Healthcare systems that successfully adopt these innovative technologies while prioritizing their workforce will be well-positioned to provide high-quality, patient-centered care.



Rising costs add pressure across healthcare systems

Rising costs for healthcare providers are putting pressure on healthcare systems, driven by factors such as inflation, workforce shortages, and changing regulations. One report found that margins for patient operations are near zero for more than half of health systems.⁵ In response, these institutions are now reevaluating priorities and looking to optimize operations to help drive efficiencies and reduce costs.

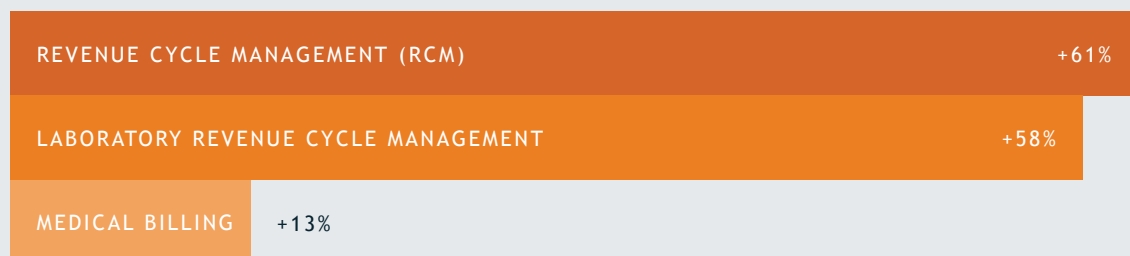
This starts with proper Hospital Budgeting, which saw a 361% increase in Q1 2023 compared to 2022 weekly averages. Healthcare institutions are also leaning on revenue cycle management solutions to help better manage cash flow. In an analysis between Q1 2023 and Q4 2022, Revenue Cycle Management (RCM) saw a 61% increase in active research, while Laboratory Revenue Cycle Management saw a 58% increase. Similarly, Medical Billing saw a 13% increase when comparing the same periods.

There has been a 88% increase in research on Hospital Indemnity Insurance in Q1 2023.

Additionally, Healthcare Productivity saw a 262% increase in Q1, showing the attention organizations are paying to generating efficiencies that drive down costs. Terms like Utilization Management (UM), which includes techniques that allow purchasers to manage the cost of health care benefits by assessing its appropriateness before it is provided, saw a 214% increase in Q1.

While healthcare providers are facing a range of cost challenges, many payers are also facing financial difficulties due to changing regulations, higher utilization, and increased budget scrutiny. Bombora data show that there has been a 88% increase in research on Hospital Indemnity Insurance in Q1 2023 compared to Q4 2022 weekly averages.

Increased Interest in Revenue Management (Q4 2022 to Q1 2023)

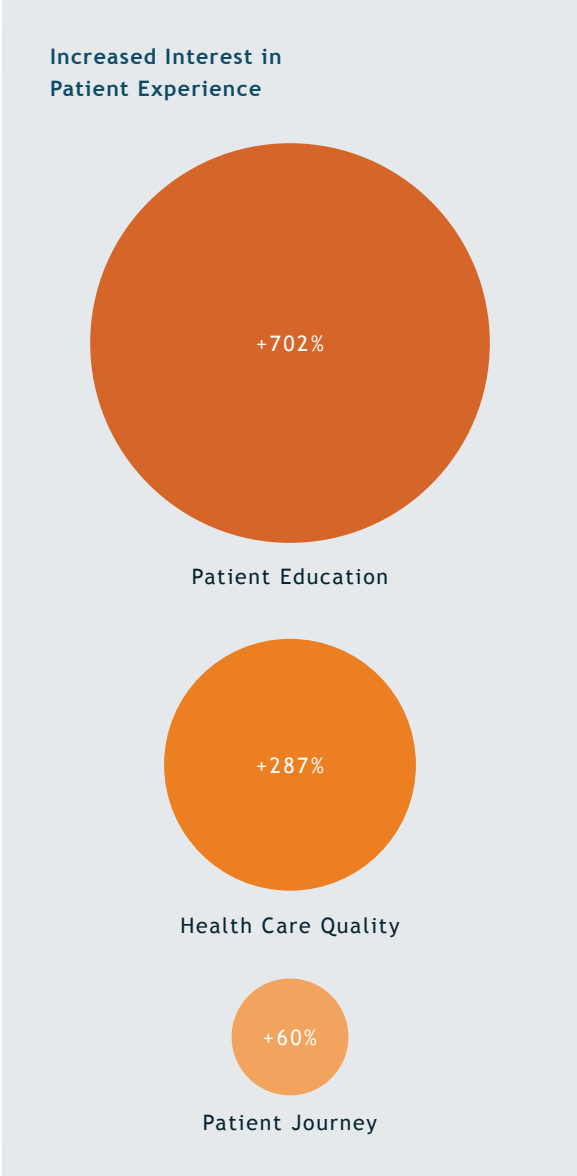


Healthcare institutions place a renewed emphasis on patient experience

Positive patient experiences are critical to the success of healthcare providers. In fact, studies have shown that patients are five times more likely to select a practice where they had a positive experience.⁶ As such, it is no surprise that in the wake of the pandemic, healthcare institutions are prioritizing patient experience as they work to attract patients back to their clinics. Between Q1 2022 to Q4 2022, research spikes on Patient Experiences jumped 35%, while in Q1 2023, research into Patient Education (+702%), Health Care Quality (+287%), and Patient Journey (+60%) all increased when compared to 2022 averages.

Part of this focus on customer experience involves better leveraging digital technologies that make the patient experience easier while helping to drive better outcomes. Accordingly, Bombora’s data shows increased interest in patient-focused digital technologies, such as remote patient monitoring (RPM), that improve the patient experience. Research into Remote-Patient Monitoring increased by 32% in Q1 2023 compared to 2022 averages, with a 94% increase from Q4 2022.

Furthermore, there was an increase of 48% in research on Readmissions in Q4 2022 compared to 2022 weekly averages, suggesting an increased focus on patient outcomes.



Research into Remote-Patient Monitoring increased by 32% in Q1 2023 compared to 2022 averages.

Big data and AI start to show their potential in healthcare

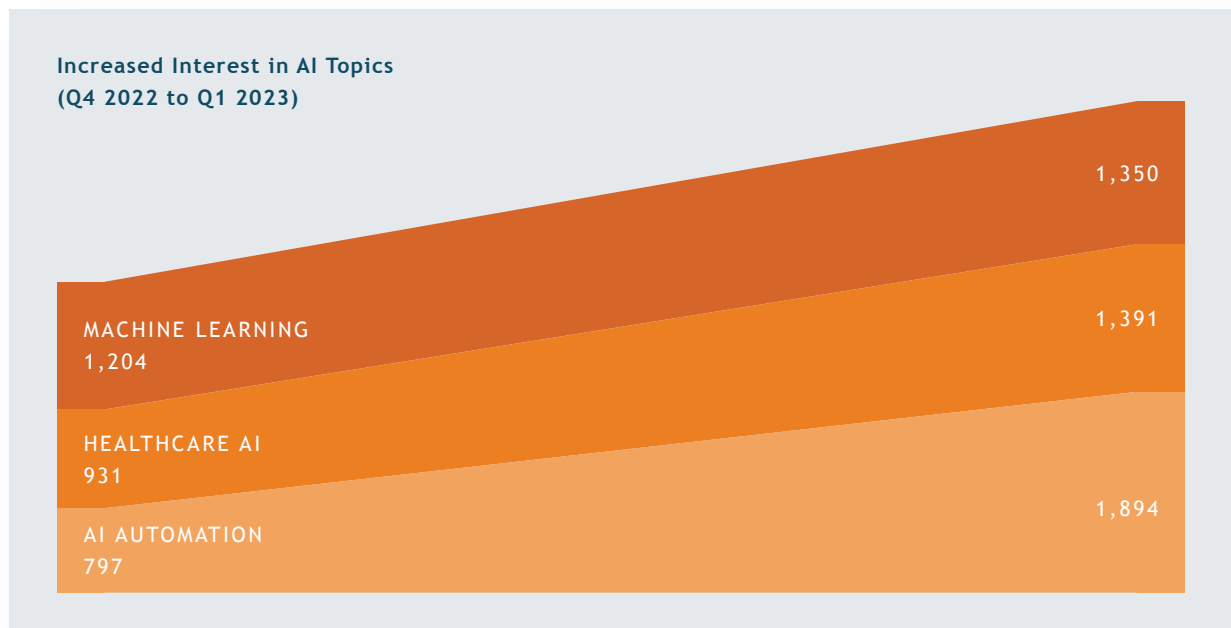
Healthcare researchers have been exploring ways to apply AI in diagnostics and patient care for a long time, and now, the potential for AI in healthcare is beginning to be realized as AI models are implemented in various areas of medicine. About 85% of healthcare leaders claim they have an AI strategy, while 48% have already implemented their AI strategies.⁷

Bombora data show spikes in topics related to healthcare AI and healthcare analytics. Research into Healthcare AI has seen a 29% increase in Q1 2023 compared to 2022 averages. The number of healthcare organizations actively researching AI Automation increased by 138% between the same periods, with 1,894 organizations actively researching each week, while Machine Learning grew 12%, with a weekly average of 1,350 healthcare organizations actively conducting re-

search. Additionally, there was a 32% increase in research on Computer-Assisted Coding (CAC) in Q1 2023.

Research in healthcare analytics has also seen spikes, with a 23% quarter-over-quarter increase in research on the Internet of Healthcare Things (IoHT) in Q1 2023. Advanced Visualization research saw a rise of 71% in Q1 2023 over 2022 averages.

Research in healthcare analytics has also seen spikes, with a 23% quarter-over-quarter increase in research on the Internet of Healthcare Things (IoHT) in Q1 2023.



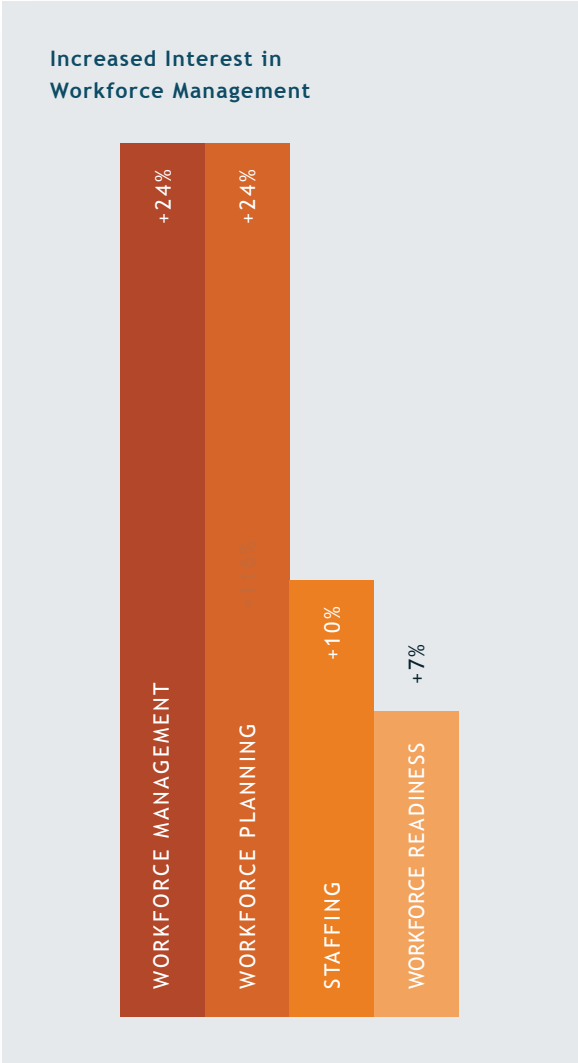
Healthcare systems struggle to manage workforce challenges

The pandemic placed immense pressure on healthcare professionals and supporting staff, which now has been further exacerbated by emerging legal and political uncertainty. As a result, 85% of healthcare facilities are dealing with continuing staffing shortages.⁸ As healthcare systems seek to resume normal operations, many are struggling to appropriately staff, particularly in rural areas where specialty departments are dealing with staff shortages, putting additional strain on nearby healthcare institutions, which are forced to pick up the slack.

As a result, more healthcare organizations are researching ways to better manage their workforce. Research shows a spike in interest when it comes to workforce readiness and clinical staff, particularly nurses. Q1 2023 research into Workforce Readiness has increased by 7% compared to 2022 averages, while Staffing has increased by 10%. Workforce Management and Workforce Planning have both seen roughly a 24% increase in Q1 compared to 2022 averages.

Over the same period, there has been a large spike in research for medical professionals. Research for Primary Care Physicians (PCP) increased by 47% in Q1 2023. Healthcare organizations researching Rehabilitation Nurses spiked 325% in Q1, while American Association for Nurse Practitioners (AANP) spiked 249% as institutions struggled to fill open positions.

As the healthcare industry faces significant challenges, bold investments in data and technology can help equip healthcare providers to cope. By embracing innovative technologies and leveraging big data and AI, healthcare providers can improve patient care while reducing costs. With careful planning, reliable data insights, and a commitment to providing quality care, healthcare systems can become more efficient and effective while providing better outcomes for both providers and patients.



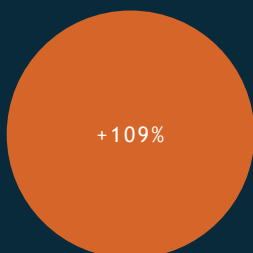
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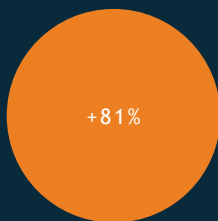


**Financial
services and
banking bites**

**Increased Interest in
Bankruptcy**



Bankruptcy/Bankruptcy Law



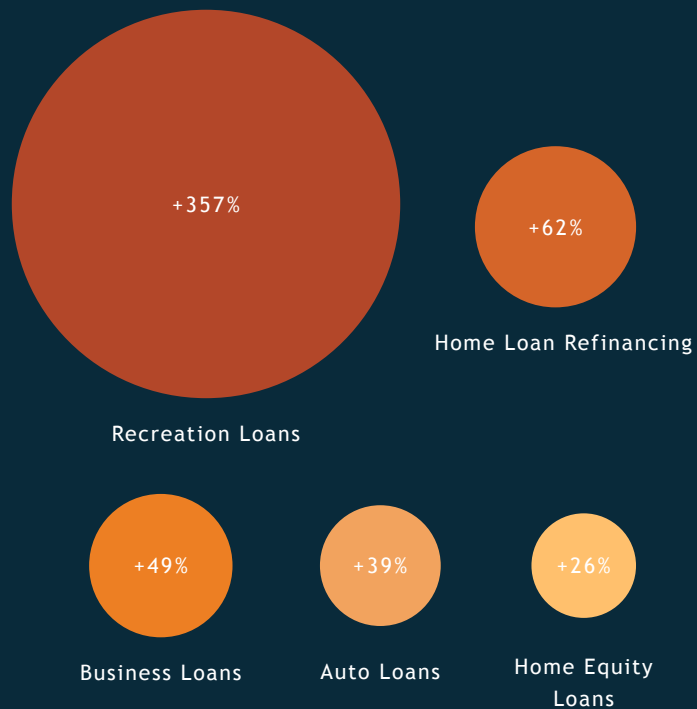
Prepackaged Bankruptcy

Businesses Spiking on Economic Downturn



With economic uncertainty looming, an increasing number of financial services and banking firms are researching an economic downturn.

Increased Interest in Finance Products



**Increased Interest in
Collateralized Loan Obligation**

↑ 78%

**Increased Interest in Real Estate
Investment Trusts**

↑ 5%

Financial services firms are showing an increased interest in structured finance products that promote investment diversification.

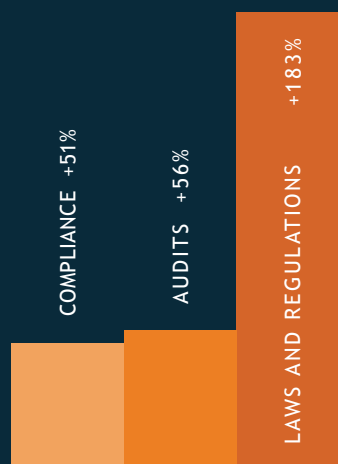
Increased Interest in Accounting Compliance

↑ 14%

Increased Interest in Compliance Tools

↑ 12%

Increased Interest in Regulatory Topics



The finance and banking sectors face constant flux when it comes to regulations, but recent shakeups have put even more pressure on regulators to better manage these large, powerful institutions. As a result, there has been increased interest in regulations, monitoring ongoing changes, as well as research to help institutions stay compliant with changing laws.

Top Trending Financial Services and Banking Firms

These are the top 20 financial services and banking firms that are actively being researched in H1 2023. They are the movers and shakers that are making headlines and driving growth across the industry.

Topic Name	Spiking Businesses (weekly avg.)	Research Spikes
1 Corporate Finance Associates	90,005	359,902
2 Pai	76,520	992,285
3 JPMorgan Chase (JPM)	69,147	903,651
4 Blueprint Equity	62,796	251,289
5 Goldman Sachs (GS)	58,217	753,708
6 NASDAQ	55,910	716,331
7 NYSE	55,845	721,325
8 Bank of America (BAC)	44,976	589,824
9 FactSet	44,292	575,122
10 Wells Fargo (WFC)	43,804	568,311
11 Capstone Partners	43,649	566,587
12 Even	41,279	536,318
13 Refinitiv	40,813	530,162
14 S&P Global (SPGI)	40,612	526,582
15 Morgan Stanley (MS)	37,734	494,378
16 USAA	32,385	413,751
17 JMI Equity	30,492	397,802
18 Place Technology	30,285	393,217
19 Fannie Mae (FNMA)	29,812	381,340
20 American Express (AXP)	29,350	377,605

Financial services and banking


In a world of economic uncertainty and mounting financial challenges, the financial services industry is facing unprecedented turmoil. As public sentiment towards the economy continues to turn increasingly pessimistic, financial institutions must adapt and respond to the shifting landscape, seeking innovative ways to manage portfolios, safeguard investments, and maintain customer trust.

An unclear economy has had a significant impact on the financial services industry, with financial advisors and finance professionals alike seeking ways to manage and mitigate the risks associated with market volatility, bankruptcy, and insolvency. Additionally, regulatory reshaping in the banking sector

has led to heightened awareness of the need for stringent financial controls and adherence to global accounting standards. Finally, following the collapse of two major banks, rebuilding customer trust has become a critical priority for the banking industry.

Businesses Spiking on Economic Downturn





Research into market volatility, bankruptcy, and liquidity risk is on the rise, reflecting the urgent need for financial professionals to better understand market fluctuations, strategize accordingly, and explore structured bankruptcy solutions. The growing interest in legacy and estate planning, investment strategy, and dividend reinvestment plans further showcases an industry keen to focus on wealth preservation, transfer strategies, and long-term investment approaches in the face of adversity.

Also, as financial institutions prepare for the potential fallout of new regulations, research around liquidity management, hedging, and finance insurance has spiked. Topics like Bank Reconciliation, Accounting Consolidation, and International Financial Reporting Standards have experienced significant growth in research, demonstrating the industry's commitment to maintaining regulatory compliance and enhancing financial transparency.

Additionally, institutions are investing in end-to-end customer experiences and providing financial wellness services to regain customer confidence. Research around Corporate Trust and Consumer Finance highlights this commitment, with increased interest in Alternative Banking, Cash Management Tools, and Payment Integration. The growth of Remote Deposit research indicates a focus on providing customers with secure and accessible banking options, while the increase in Family Financial Planning and Remittance research emphasizes the industry's dedication to helping customers achieve financial stability and security.

Financial institutions are also exploring innovative solutions, such as structured finance products like collateralized loan obligations (CLOs) and alternative investment options like real estate investment trusts (REITs). The growing interest in Treasury Bills research reflects the industry's preference for low-risk, short-term investment vehicles in response to economic uncertainty.

Following the collapse of two major banks, rebuilding customer trust has become a critical priority for the banking industry.

In this era of uncertainty, the financial services industry must not only adapt to survive but also evolve to thrive. By prioritizing financial wellness, responding to changing customer needs, and investing in research and innovation, banks can rebuild trust and confidence in the face of adversity. As the industry continues to evolve, it is vital for professionals to stay informed of the latest trends and developments to remain competitive and effectively build consumer trust in this dynamic landscape.



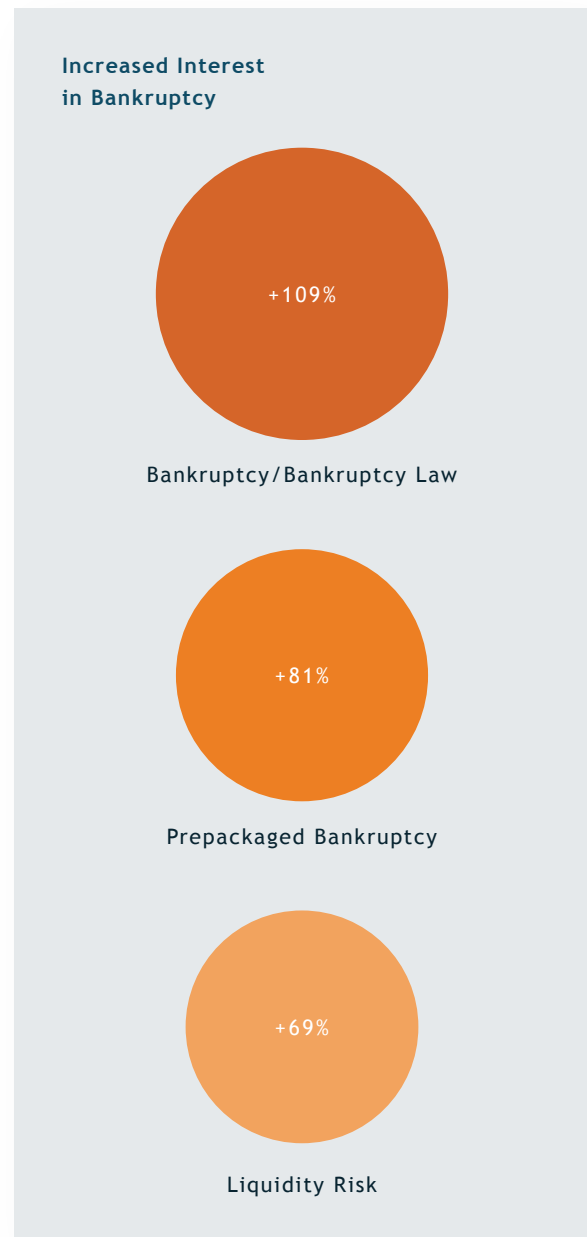
Economy, economy, economy

The financial services industry is responding to the macro-trend of economic uncertainty. In a recent study, 69% of the public reported feeling pessimistic about the current and future state of the economy.⁹ Financial advisors are addressing client needs, while finance professionals manage their own portfolios. This trend is reflected in the Bombora data we see across the industry.

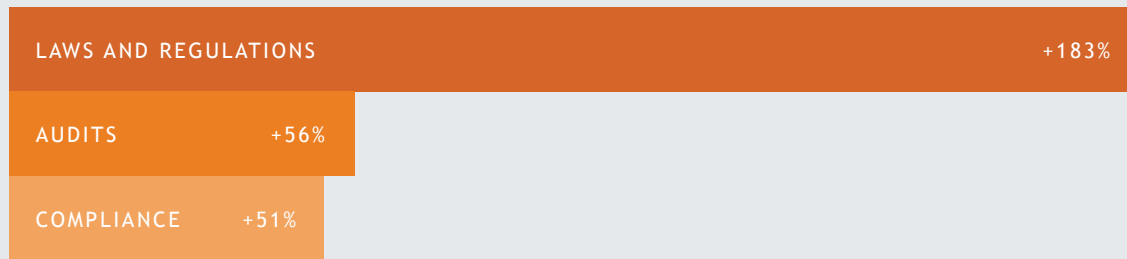
Research into Economic Downturn has been increasing since early 2022, with Q1 2023 weekly averages 31% higher than the same period in 2022. After spiking in 2022, research into Market Volatility has remained high in 2023, with 1,767 businesses actively researching the topic each week in Q1. This trend suggests that finance professionals are keen on understanding market fluctuations and strategizing accordingly to safeguard their portfolios and clients' investments.

Bankruptcy/Bankruptcy Law also saw significant activity in Q1 2023, increasing 109% from 2022 weekly averages and 443% compared to the same period in 2022. Additionally, Prepackaged Bankruptcy also saw a significant spike in activity, jumping 81% in Q1 compared to 2022 averages. Terms related to Liquidity Risk are also spiking, up 69% in Q1 2023. In aggregate, this activity suggests an increasing trend of businesses seeking structured bankruptcy solutions, as well as expressing growing concern about potential bankruptcies and the need for preemptive measures.

Legacy Planning research increased by 31% in Q1 2023 over 2022 averages, while Estate Planning saw a 29% jump, signifying increased attention to wealth preservation and transfer strategies. Finally, Investment Strategy and Planning increased 32% in Q1 while Dividend Reinvestment Plan (DRIP) increased slightly, as well, showcasing an increased interest in long-term strategies that capitalize on investments.



Increased Interest in Regulatory Topics



Regulatory reshaping prompts action

Recent shakeups in the banking sector have prompted financial institutions to reinforce their operations and maintain adequate cash reserves. According to a recent report, 82% of the public supports increased banking regulations due to recent financial missteps.¹⁰ This has led to increased activity around liquidity management, hedging, and finance insurance as organizations anticipate further regulatory changes.

Financial services organizations researching Laws and Regulations increased dramatically in Q1 2023, up 183% compared to 2022 averages, with 1,334 businesses a week researching the topic. Regulations as a topic increased by 35% over the same period, suggesting that these businesses are looking to better understand the regulatory changes occurring in their industry.

Not only are they seeking to understand these changes; they are also doing research to help ensure they are compliant with the changes. Research into Audits experienced a 56% increase in Q1 2023 compared to 2022 weekly averages, reflecting heightened awareness of the

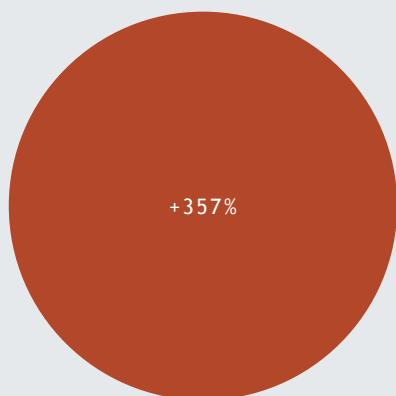
need for rigorous financial controls and regulatory compliance.

Compliance, as a topic, saw a 51% increase in Q1 2023 compared to 2022 weekly averages, while Accounting Compliance research saw an increase of 14% and Compliance Tools increased by 12%, showcasing increased interest in streamlining financial reporting and minimizing discrepancies.

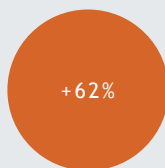
Bank Reconciliation research increased slightly in Q1 compared to similar 2022 averages, indicating a growing need for financial institutions to accurately track and manage cash flow.

Financial services organizations researching Laws and Regulations increased dramatically in Q1 2023, up 183% compared to 2022 averages.

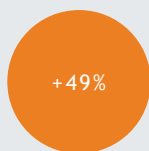
Increased Interest in Finance Products



Recreation Loans



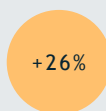
Home Loan Refinancing



Business Loans



Auto Loans



Home Equity Loans

Banks invest in trust

In the wake of the collapse of two major banks, many consumers are feeling unsettled about the status of their banks. In a recent study, 77% of Americans reported feeling very concerned or somewhat concerned about the stability of their bank.¹¹ In response, the banking industry is concentrating its efforts on rebuilding customer trust. These efforts broadly include improving end-to-end customer experience and providing financial wellness services.

Research into Customer Experience and Engagement has risen in Q1 2023, increasing 19% compared to 2022 weekly averages, while research into Digital Experience-related topics has increased by 53% across the same periods. This research highlights the importance of improving relationships and trust with customers.

Research into Customer Experience and Engagement has risen in Q1 2023, increasing 19% compared to 2022 weekly averages.

There has been a high volume of searches related to consumer finance and financial security. In Q4 2022, Alternative Banking research spiked 22% above 2022 averages, highlighting the growing interest in innovative banking solutions that prioritize customer needs. Cash Management Tools-related topics experienced high search volumes in Q1, with 1,817 organizations actively

researching these topics each week, emphasizing the significance of providing customers with secure and accessible banking options.

As banks partner with customers to navigate challenging financial conditions and high interest rates, there are major spikes in loan-related terms.

As banks partner with customers to navigate challenging financial conditions and high interest rates, there are major spikes in loan-related terms. In Q1 2023, Recreational Loans saw major spikes, 357% compared to 2022 averages, while Home Loan Refinancing increased 62%, Business Loans grew 49%, Auto Loans grew 39%, and Home Equity Loans grew 26%. Similarly, Family Financial Planning research saw a slight quarter-over-quarter increase, showcasing a long-term focus on helping customers secure their financial future.

Finally, Collateralized Loan Obligation research spiked by 78% in Q1 2023, reflecting increased interest in structured finance products that promote investment diversification. Real Estate Investment Trusts (REITs) research grew slightly,

by 5%, in Q1 2023, showcasing a rising interest in alternative investment options that offer stable returns. Finally, Treasury Bills research increased by 77% in Q1 2023, highlighting the growing preference for low-risk, short-term investment vehicles.

Financial institutions are investing in research and innovative solutions to navigate these complex times while also focusing on safeguarding investments, ensuring financial stability, and enhancing customer experiences.

By investing in financial wellness and responding to changing customer needs, banks are slowly rebuilding customer trust and confidence, anticipating the challenges ahead while positioning themselves to succeed in the long term. As the industry continues to evolve, quality data will be key for banks to prioritize the needs of their customers and continue to innovate in response to a rapidly changing landscape.

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**Software
 bites**

Increased Interest in the Internet of Things



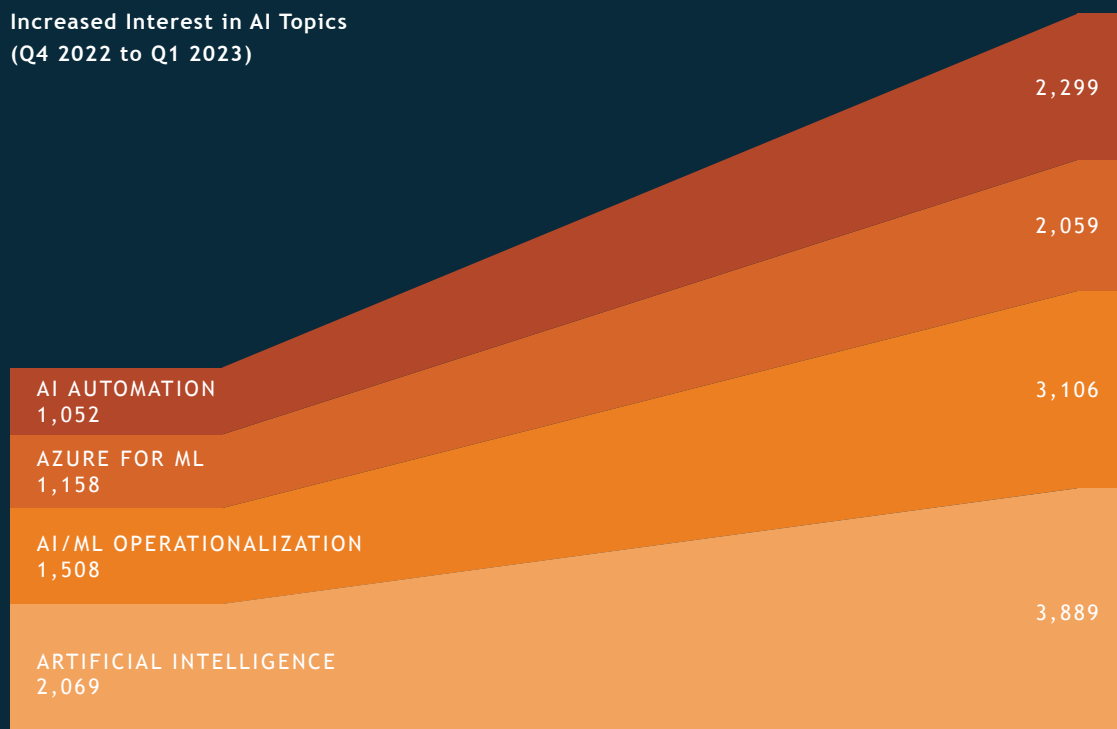
Smaller, cheaper sensors and the expansion of 5G networks are accelerating the proliferation of the Internet of Things.

Businesses Spiking on Chat Tools

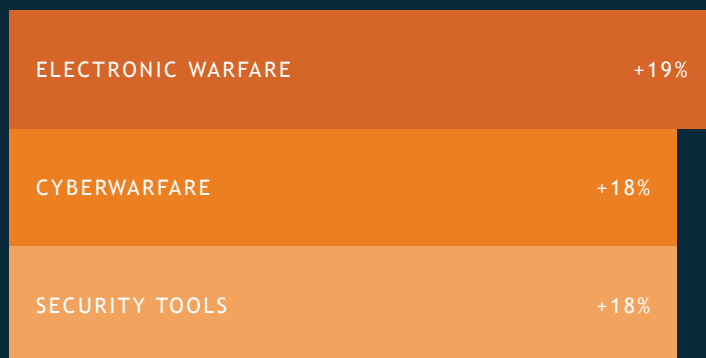


Hype around generative AI tools—like ChatGPT—has driven a large spike in businesses researching these types of emerging technologies.

**Increased Interest in AI Topics
 (Q4 2022 to Q1 2023)**



Increased Interest in Cybersecurity Topics



Software firms are showing increased research activity around emerging cybersecurity threats, including geopolitical instability and state actors.

Increased Interest in Mixed Reality (Q4 2022 to Q1 2023)



Increased Interest in Virtual Reality (VR) (Q4 2022 to Q1 2023)



Top Trending Software Firms

These are the top 20 software firms that are actively being researched in H1 2023. They are the movers and shakers that are making headlines and driving growth across the industry.

Rank	Topic Name	Spiking Businesses (weekly avg.)	Research Spikes
1	Microsoft (MSFT)	160,083	2,083,799
2	Google (GOOG)	152,290	1,981,791
3	Apple (AAPL)	130,867	1,684,118
4	Amazon (AMZN)	105,221	1,360,092
5	Facebook (FB)	93,748	1,217,448
6	Tesla (TSLA)	61,481	800,047
7	TalkingData	59,185	775,563
8	Cook Security Group	57,186	228,605
9	Intel Corporation	57,135	745,420
10	Applied Predictive Technologies (APT)	51,244	460,431
11	IBM (IBM)	45,457	585,309
12	Sony (SNE)	44,699	591,319
13	CrowdStrike	44,622	589,212
14	Expel	43,227	564,644
15	Canonical	42,857	562,526
16	TextLimit	38,184	189,821
17	Epic Games	34,899	454,213
18	Quest	33,594	428,511
19	InMotion	33,272	434,413
20	Voodoo	30,629	397,925



Software

Technology and software are advancing at an accelerating pace. While software businesses have reaped the benefits of these rapid advancements, they are also facing a myriad of challenges and potential opportunities. One of the most significant game-changers in recent years has been the explosion of interest in artificial intelligence and machine learning. As these technologies continue to advance, software organizations have to invest or risk being left behind.

In tandem with the rise of AI, businesses are also facing the increasingly complex challenge of cybersecurity. The growing digital connectivity in our daily lives has made organizations more vulnerable to cyberattacks. Additionally, the Internet of Things

continues to expand, connecting more devices and collecting vast amounts of data. Businesses are looking to harness the IoT's power to transform this data into valuable insights that drive growth and innovation.

Businesses Spiking on Chat Tools





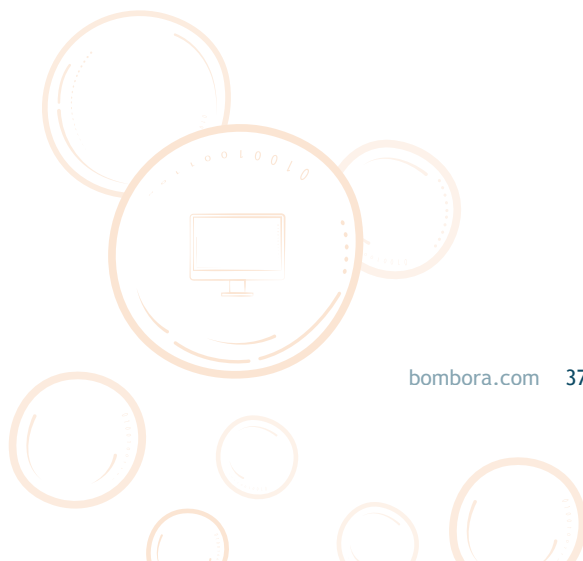
Businesses are increasingly investing in research fields such as machine learning, AI automation, and AI/ML operationalization. This wave of AI development has also spurred interest in chatbots and conversational AI, as evidenced by the increasing search volume around Chat Tools. By leveraging the power of AI, businesses are better equipped to address complex challenges and stay ahead in the fiercely competitive software market.

The growing focus on cyber threats, particularly those stemming from geopolitical instability and state actors, is driving businesses to research new ways of safeguarding against cyberattacks, including agentless security and vendor security assessment. By adopting proactive approaches and active cyber defense strategies, businesses are preparing for potential cybersecurity incidents before they occur and safeguarding their users from sophisticated attacks and human error.

The growing focus on cyber threats, particularly those stemming from geopolitical instability and state actors, is driving businesses to research new ways of safeguarding against cyberattacks.

In response to the rising demand for IoT, businesses are focusing on enterprise data management and data sharing to derive actionable insights and drive business value. Hardware innovation and smart home technology are also experiencing significant advancements, with research into these fields increasing at an impressive rate. As businesses research the potential of virtual and mixed reality, they are discovering new ways to revolutionize communication and product development, shaping the future of the software industry.

The world is undoubtedly changing fast, and software businesses of all kinds are grappling with how they can adopt emerging technologies while also staying ahead of the curve. Keeping up with these changes requires a deep understanding of the latest trends and accessing the most cutting-edge data-driven insights to inform your strategies. This proactive approach to technological evolution is critical, as software businesses that successfully navigate these emerging trends will be better positioned to thrive in an increasingly competitive and digitally connected world.



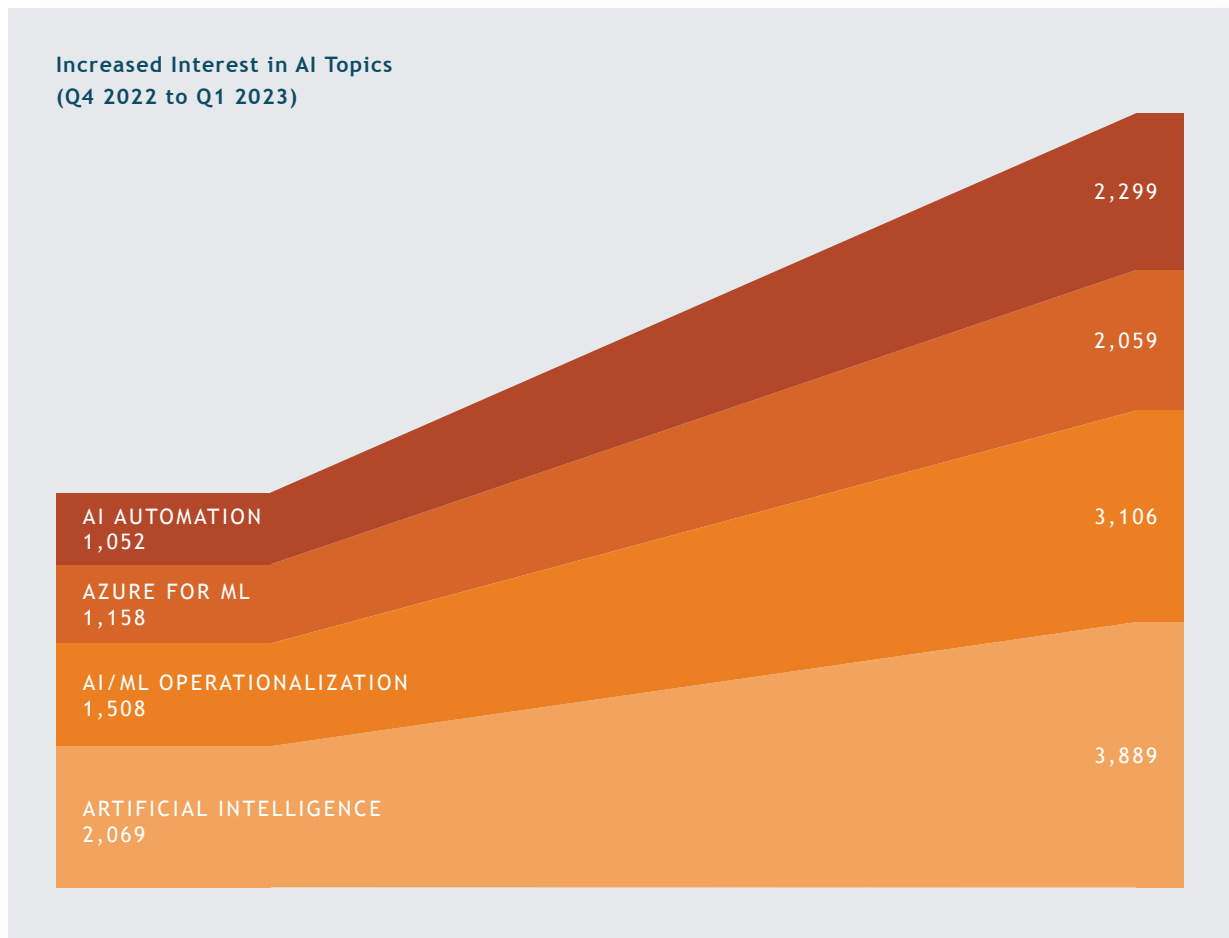
Demand for AI is on the rise

The demand for AI and machine learning technologies is on the rise. According to a recent survey of technology and data executives, 92% of organizations are seeing returns on their AI investments.¹²

The progress of generative AI tools like ChatGPT has had a significant impact on the software development market, improving code structure and sparking a wave of development with new “ChatGPT-enabled” apps across various industries. Accordingly, there has been an increase in research around Chat Tools, suggesting a growing interest in using chatbots and conversational AI.

During Q1 2023, research for Chatbots increased by 134% compared to 2022 weekly averages, while research around Chat Tools increased by 17%. Machine Learning research saw an increase of 83% in Q1 2023 compared to the same period last year. Research into topics surrounding Azure for ML (+78%), Artificial Intelligence (+72%), AI Automation (+70%), and AI/ML Operationalization (+65%) all increased over the same period.

As the capabilities and applications of these technologies advance, we anticipate the demand for these services will continue to grow.



Cybersecurity remains a top priority

With the growing digital connectivity in our daily lives, businesses in 2023 will continue to focus on cybersecurity as a crucial area to protect their customers, data, and operations. A recent study found that just 15% of organizations are prepared to defend against cybersecurity threats.¹³ Recent Bombora data highlights the focus businesses are placing on new cyber threats, including those emerging from geopolitical instability and state actors.

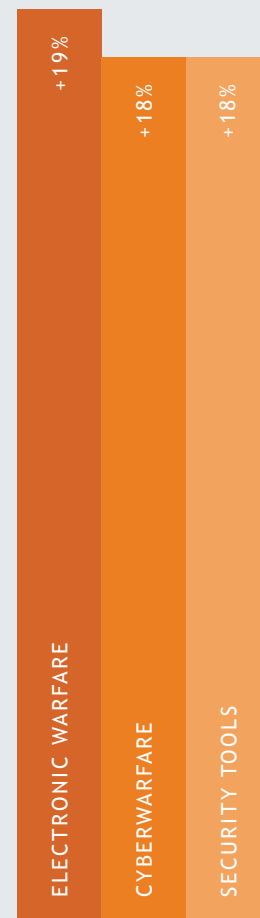
Cyber threats saw a significant spike in late Q4 2022 and into early 2023, with research around Cyberattacks seeing a 10% increase in Q4 compared to 2022 averages. Part of this increase has been driven by emerging threats. In Q1 2023, both Electronic Warfare and Cyberwarfare saw substantial increases in research activity—19% and 18%, respectively, compared to 2022 weekly averages. This increase in research activity illustrates a significant shift in the nature of cyber threats.

Q1 2023 saw a 13% quarter-over-quarter increase in activity around Cyber Security. Furthermore, when comparing Q1 2023 to 2022 averages, there was an 18% increase in research surrounding Security Tools, as well as a slight increase in Security Monitoring and Technology Security related topics.

As cyber threats increase, teams are researching new ways to help protect users from both sophisticated attacks and human error. Research into Agentless Security, a new, dynamic security solution that harnesses the power of cloud technology to monitor computers and smart devices

In Q1, both Electronic Warfare and Cyberwarfare saw substantial increases in research activity—19% and 18%, respectively.

Increased Interest in Cybersecurity Topics



without the aid of a physical agent or deployable monitoring protocol, increased 36% in Q4 compared to 2022 averages and continues to be a topic of interest in 2023.

Similarly, Vendor Security Assessment (VSA) saw high activity in Q1 2023, with 1,418 businesses researching related topics. As the number of data breaches and cyberattacks increases, businesses are realizing the importance of evaluating their vendors' security protocols. Device Security research also increased by 22% in Q4 compared to 2022 averages. This statistic indicates organizations are following a proactive approach to cybersecurity, implementing active cyber defense strategies and preparing for potential cybersecurity incidents before they occur.

Q1 2023 saw a 13% quarter-over-quarter increase in activity around Cyber Security.

IoT continues to expand

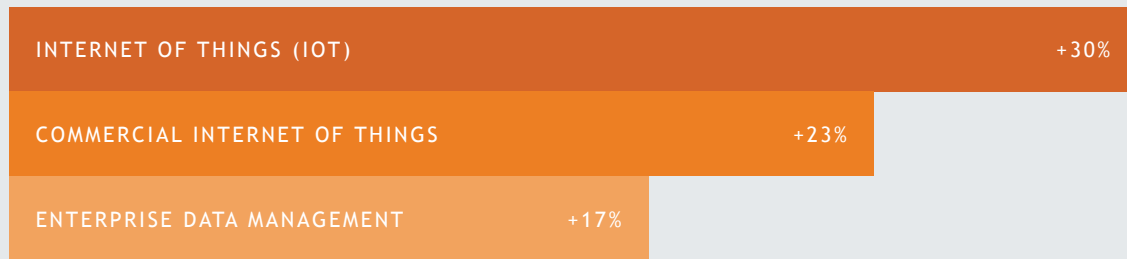
As more and more devices become capable of collecting data, businesses are turning to the Internet of Things (IoT) to create a unified story from said data. A recent survey found that 47% of organizations are increasing their investment in IoT devices.¹⁴ Additionally, the growth of private and public 5G continues to bolster IoT, making IoT more accessible in more areas.

In Q1 2023, research into the Internet of Things (IoT) saw a 30% increase compared to 2022 averages. Commercial Internet of Things displayed a spike in early 2023, increasing 23% in the first quarter. And with the emergence of new AI technologies, Cognitive IoT is seeing a boost as well, rising 176% in Q1 compared to 2022 averages.

Enterprise Data Management appears to be of growing interest in the software industry, increasing by 17% in Q1 2023, while Data Sharing grew by 15%. This signifies a growing demand for a comprehensive approach to transforming data into insights that drive business value.

Supporting IoT systems, research related to Smart Devices is showing a massive jump in Q1 2023, increasing 272% compared to 2022 averages. Hardware Innovation Research increased by 19% in Q4 compared with 2022 averages, while Smart Home Technology soared by 112% across the same periods. These statistics showcase the vital role hardware plays in the advancement of IoT and its various applications.

Increased Interest in the Internet of Things



Q1 2023 saw significant quarter-over-quarter growth on alternate reality systems. Mixed Reality related topics saw a 30% increase in businesses actively conducting research, while Virtual Reality (VR) saw a more modest 9% increase, highlighting the potential of mixed reality and VR to transform the way businesses approach communication and product development.

Mixed Reality related topics saw a 30% increase in businesses actively conducting research, while Virtual Reality (VR) saw a more modest 9% increase.

The rapid evolution of technology, driven by advancements in AI, IoT, and cybersecurity, is significantly impacting the software industry. With a growing demand for AI and machine learning technologies, businesses are leveraging tools like ChatGPT and conversational AI to improve their operations and customer engagement.

Meanwhile, the increasing importance of cybersecurity is driving businesses to invest in proactive defense strategies and assess the security protocols of their vendors. As the IoT continues to expand, businesses are focusing on comprehensive data strategies and exploring the potential of virtual and mixed reality, hardware innovation, and smart home technology. It is crucial for businesses to stay informed with high-quality data and adapt to these emerging trends to remain competitive and secure in this rapidly changing landscape.

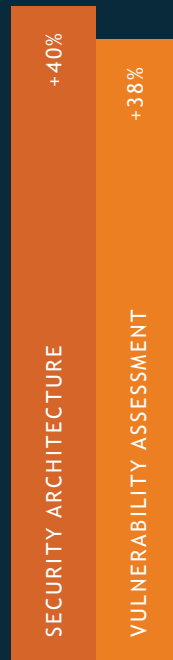
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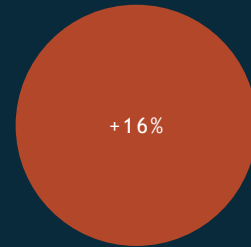


Cybersecurity bites

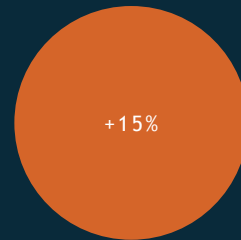
Increased Interest in Threat Management



Increased Interest in Emerging Threats

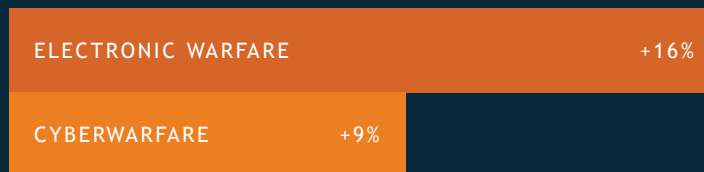


Electronic Warfare

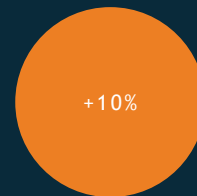


Malware Attacks

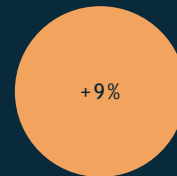
Increased Interest in Cybersecurity Topics



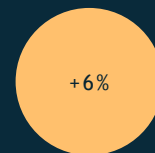
Emerging cybersecurity threats are increasingly causing cybersecurity firms to shift strategies and adapt to new risks.



Zero-Day Threat



Cyberwarfare

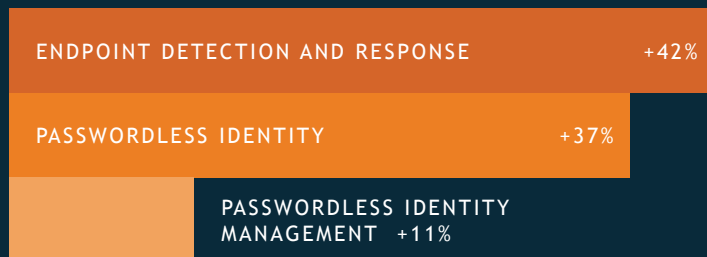


Computer Hacking

Increased Interest in Cyber Security Operations



Increased Interest in Cybersecurity Topics



With the increase in remote and hybrid work, cybersecurity professionals must help their teams and clients access information safely without the protections of on-site network security. Human-centric security systems—such as passwordless identity—are spiking in Q1 as businesses look to reduce the risk of human error in security breaches.

Increased Interest in Malware Attacks



Research into malware, vulnerabilities, and related topics has skyrocketed in Q1 2023, signaling that traditional threats are still top of mind for cybersecurity professionals.

Top Trending Cybersecurity Firms

These are the top 20 cybersecurity firms that are actively being researched in H1 2023. They are the movers and shakers that are making headlines and driving growth across the industry.

Rank	Topic Name	Spiking Businesses (weekly avg.)	Research Spikes
1	CrowdStrike	44,622	589,212
2	Lookout	4,976	65,456
3	Kaspersky Lab	3,899	50,812
4	Bitdefender	3,479	45,177
5	Coalfire	2,995	38,849
6	Trend Micro	2,648	34,237
7	RKL	2,647	34,729
8	InfoSystems	2,214	8,856
9	Simplilearn	2,146	27,843
10	FireEye	2,120	27,726
11	Northrop Grumman	1,884	24,551
12	SCYTHE	1,684	21,891
13	MITRE	1,642	21,318
14	RSA	1,636	21,269
15	Avast	1,571	20,459
16	AT&T Cybersecurity	1,273	16,543
17	Varonis.com	1,261	16,401
18	GoSecure	1,123	14,600
19	Lastline	843	11,010
20	Datto	840	10,905



Cybersecurity

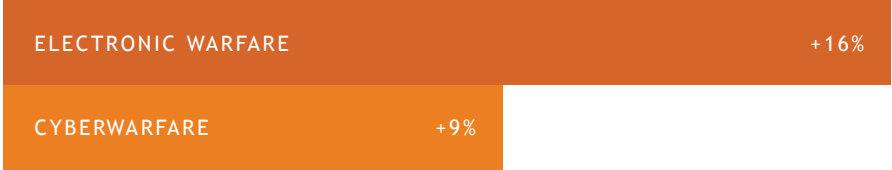


As technology advances, new and emerging risks pose an increasing challenge for cybersecurity experts. While these innovations have unlocked new possibilities and streamlined processes, they have also brought about an array of sophisticated cybersecurity threats. Organizations are now grappling with many new issues—from state-sponsored cyberwarfare to human-centric vulnerabilities to a lack of a skilled workforce—forcing cybersecurity experts to adapt and innovate at an unprecedented pace.

As we march forward in 2023, there is a growing need for businesses to invest in advanced security measures and prepare for future risks. The increasingly complex nature of cyberattacks has led to a spike in research on cybersecurity topics, spanning

areas such as Cyberwarfare, Electronic Warfare, Malware, and Vulnerability Assessments. The steep rise in research on these topics underlines the urgency with which businesses and security experts are grappling with the ever-evolving threats.

Increased Interest in Cybersecurity Topics



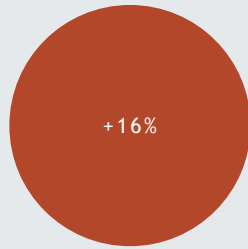
In response to human-error deficiencies in cyber defense, the cybersecurity industry has placed a greater emphasis on human-centric security design. This trend has led to growing research in areas such as Spear Phishing, Passwordless Identity, Privileged Identity Management, Endpoint Detection and Response, as well as Agentless Security.

Finally, a lack of qualified cybersecurity professionals has resulted in a marked increase in research on security operations, with a focus on roles such as Data Protection Officers and the establishment of Security Operations Centers (SOC). Organizations are also delving into concepts like DevSecOps, Security as a Service, Security Orchestrated Automated Response (SOAR), and Security Architecture to better manage their security infrastructure.

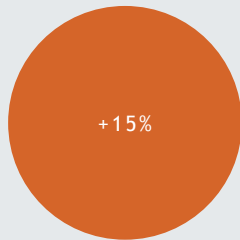
As cyber threats continue to evolve, the need for skilled workers and advanced security measures will only increase. Organizations must stay ahead of the curve by investing in solutions related to workforce readiness and human-centric security design. Additionally, they must be prepared to adapt to emerging risks to stay ahead of the curve and focus on securing data and protecting against cyber attacks.

With the proliferation of threats from state actors, there has been a spike in research related to Cyberwarfare, increasing by 9% in Q1 over 2022 averages, while Electronic Warfare has increased by 16%.

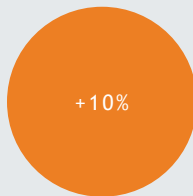
Increased Interest in Emerging Threats



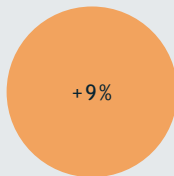
Electronic Warfare



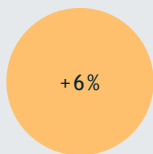
Malware Attacks



Zero-Day Threat



Cyberwarfare



Computer Hacking

Responding to emerging threats

The digital age has brought with it innovations that have revolutionized the way people conduct business. However, this has also given rise to new and emerging cybersecurity threats. The increased connectivity of devices and infrastructure means there are more opportunities for cyber criminals to gain access to sensitive information. According to one report, 33 billion records will be stolen by cyber criminals in 2023.¹⁵ As a result, cybersecurity experts are constantly adapting to new threats and investing in research and development to create more advanced security features.

With the proliferation of threats from state actors, there has been a spike in research related to Cyberwarfare, increasing by 9% in Q1 over 2022 averages, while Electronic Warfare has increased by 16%.

Research for Vulnerability

**Assessment increased by 38%
in Q1.**

Security organizations are also actively dealing with a range of increasingly sophisticated attacks. Research into Malware and Vulnerabilities skyrocketed by triple digits in Q1 2023, while research into Malware Attacks jumped 15% when compared to 2022 averages. Research for Vulnerability Assessment increased by 38% in Q1.

Additionally, research spiked for Zero-Day Threat, up 10% compared to 2022 and 38% from the same period a year ago. Computer Hacking

also increased by 6% in Q1 2023 compared to last year's averages, showing a steady increase in risks that have been plaguing the industry for years.

Human-centric security design becomes a priority

Human error has long been a vulnerability in cybersecurity. A recent study found that people are responsible for 85% of all data breaches.¹⁶ This reality has led to a growing need for human-centric security design, which aims to understand and address the human factor in security breaches.

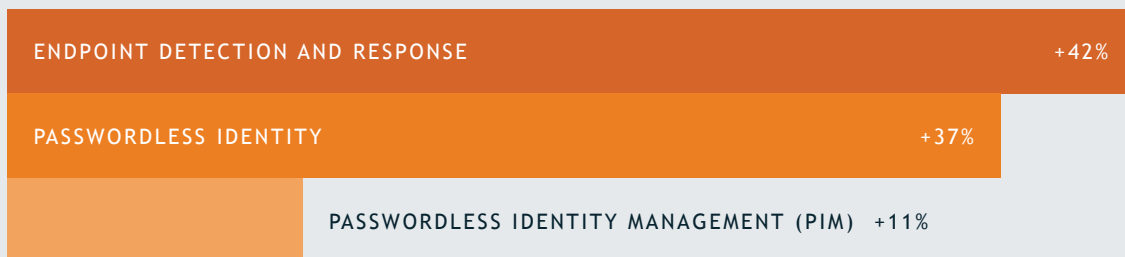
The need for human-centric security design has become an even bigger priority in the wake of the pandemic, where remote and hybrid work has skyrocketed, and cybersecurity professionals must help their teams and clients access information safely without the protections of on-site network security. Terms like Spear Phishing, a form of social engineering attack that targets specific individuals, have increased 12% quarter-over-quarter.

As a result, research related to Passwordless Identity, in which a user identity does not require an alphanumeric password for gaining access to applications and services associated with that particular user, has soared 37% in Q1 2023 compared to 2022 averages. Interest in Privileged Identity Management (PIM) has also spiked by 11% across the same periods.

The need for human-centric security design has become an even bigger priority in the wake of the pandemic, where remote and hybrid work has skyrocketed.

Endpoint Detection and Response topics saw a significant spike in Q1 2023, growing 42% compared to 2022 weekly averages, while Agentless Security has also seen a growth in activity, increasing 36% between Q1 2022 and Q1 2023, demonstrating a growing need for better ways to manage individuals in a high-risk remote work environment.

Increased Interest in Cybersecurity Topics



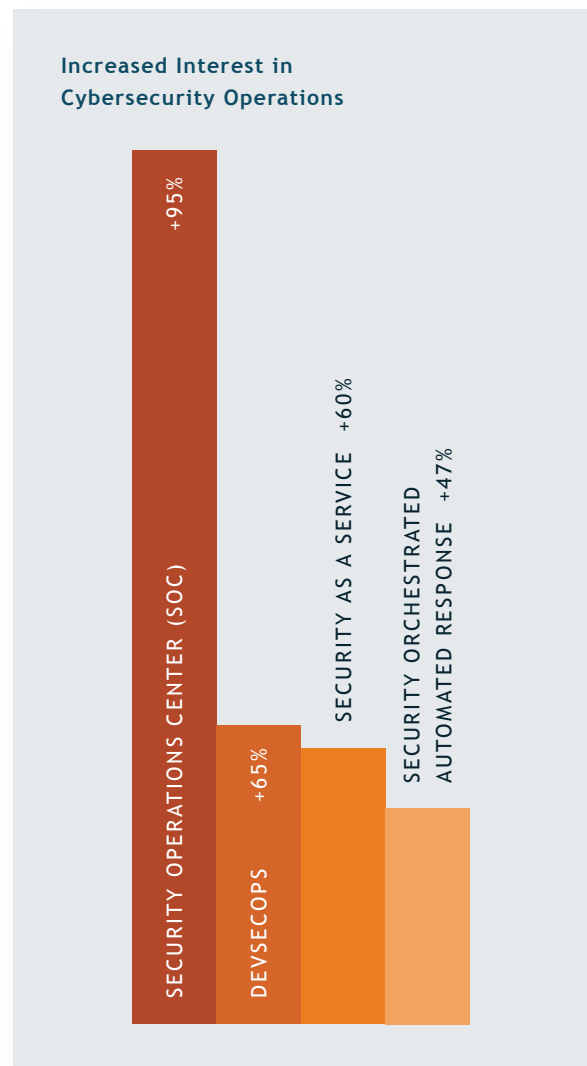
Workforce shortages drive SecOps demands

The shortage of skilled workers in cybersecurity is leaving businesses vulnerable to cyber attacks. A cybersecurity workforce study found that there is a global shortage of 3.4 million cybersecurity professionals.¹⁷ This shortage has led to an uptick in research for security leaders—such as Data Protection Officers (DPO), which saw a 67% quarter-over-quarter growth in research in Q1 2023.

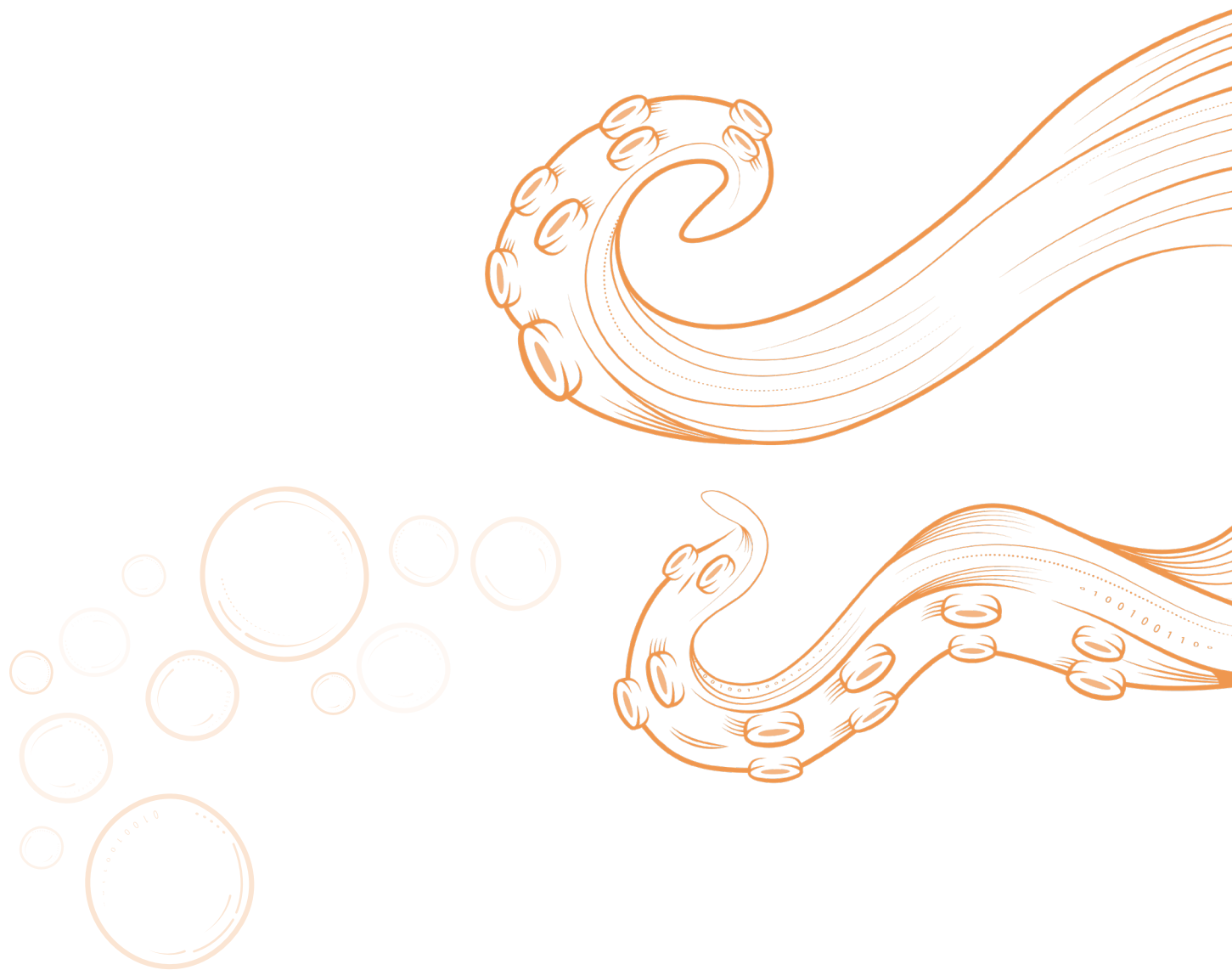
As risks increase, businesses are seeking workforce solutions and increasing their research on Security Operations. Research around Security Operations Center (SOC) is growing significantly at the start of 2023, up 95% in Q1 compared to 2022 averages. Similarly, DevSecOps research is rising, up 65%.

As organizations look to better manage their security operations and infrastructure, further research has gone into topics including Security as a Service (+60%), Security Orchestrated Automated Response (SOAR) (+47%), and Security Architecture (+40%). It's clear that cybersecurity threats will only continue to grow, and by investing in the right people and processes, organizations are setting themselves up for success.

It's clear that cybersecurity threats will only continue to grow, and by investing in the right people and processes, organizations are setting themselves up for success.



Through data-driven insights, it's clear that cybersecurity is more important than ever in the digital age. Businesses must prioritize cybersecurity to stay ahead of evolving risks and protect sensitive data. By investing in advanced security measures, preparing for future risks, and prioritizing human-centric security design, organizations can better position themselves to protect against cyber threats in the ever-evolving digital landscape.



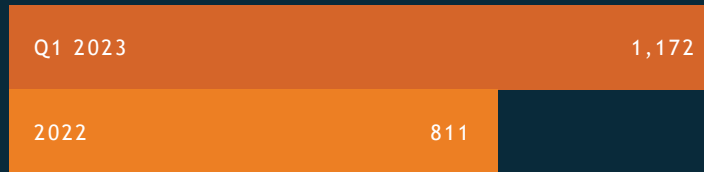
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**Professional
 services bites**

Businesses Spiking on Finance Insurance



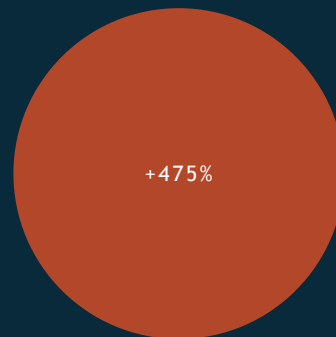
In the midst of economic uncertainty, professional services organizations are increasingly focused on offering advisory and consulting services to their clients to reduce risk and protect them from financial losses.

Increased Interest in
 Vendor Consolidation

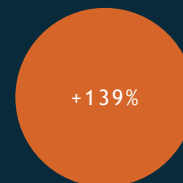


Budget constraints are pushing firms to evaluate their technology stack for efficiencies.

Increased Interest
 in Technology



Smart Devices



Chatbots

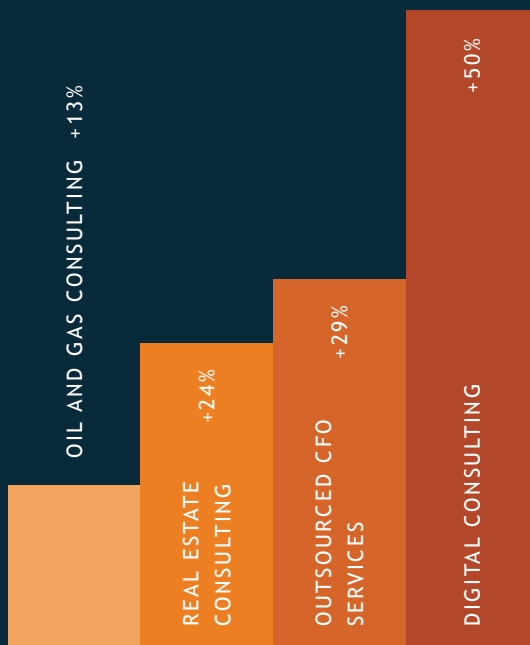


Chat Tools

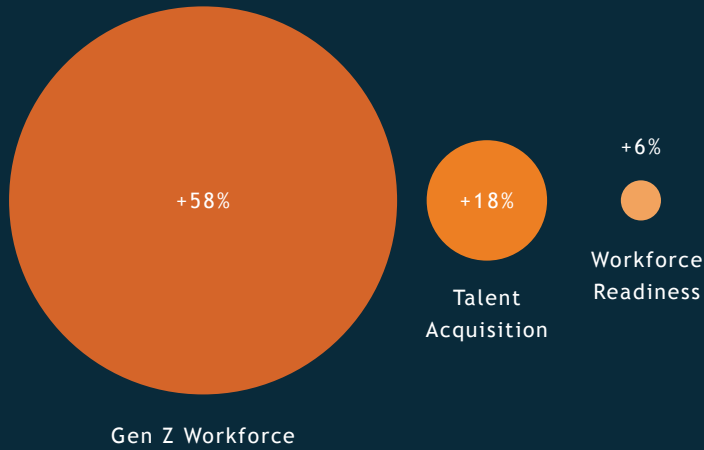


Internet of Things

Increased Interest in Consulting Services



Increased Interest in Workforce Management



Increased Interest in Cross-Selling



Increased Interest in Finance Insurance



Top Trending Professional Services Firms

These are the top 20 professional services firms that are actively being researched in H1 2023. They are the movers and shakers that are making headlines and driving growth across the industry.

Topic Name	Spiking Businesses (weekly avg.)	Research Spikes
1 Insider	106,977	1,387,760
2 Payfactors	86,687	344,939
3 FusionPro	67,591	339,087
4 Challenger, Gray & Christmas	20,664	267,681
5 Twist	19,011	245,286
6 Deloitte Monitor	18,663	244,716
7 Confluent	17,403	223,802
8 Bain Management Consulting	17,159	222,458
9 Ipsos	15,782	207,420
10 HotSchedules	14,782	192,898
11 Commet	14,319	186,147
12 DocSend	13,971	180,067
13 Simpli.Fi	13,474	175,421
14 Tenfold	13,331	171,246
15 Corelogic	13,286	172,377
16 Insightsoftware	12,272	159,180
17 Gallup	11,475	149,703
18 Accenture (ACN)	11,058	145,218
19 Redfin	10,856	140,547
20 JPG Global	10,387	133,701

Professional services

In the midst of budget cuts and economic uncertainty, professional services firms must constantly adapt and innovate to remain competitive. This reality has placed significant pressure on these firms to identify new strategies and solutions to help clients evolve to emerging challenges. As businesses navigate these waters, they are faced with the daunting task of optimizing costs, creating value-based solutions, and addressing talent shortages, all while continuing to provide exceptional service to their clients.

Focusing on profitability and margins has prompted many professional services firms to turn to advisory and consulting services, as evidenced by the rise in personal wealth management, finance insurance, and outsourced

CFO services research. By offering specialized services, firms can not only increase their revenues but also help their clients optimize costs, creating a mutually beneficial relationship.

Businesses Spiking on Finance Insurance



With an increasing need for highly skilled knowledge workers, professional service businesses are focusing on recruiting and retaining top talent. Research trends reveal a growing interest in Workforce Readiness, Talent Acquisition, and Talent Management as organizations explore a range of options, including targeting the Gen Z workforce, to address this challenge.

Additionally, professional services firms are turning to technology simplification and digital transformation to drive performance, efficiency, and profitability. The spike in research around Chatbots, Chat Tools, Smart Devices, and the Internet of Things underscores the importance of technology in streamlining processes and delivering value to clients. At the same time, the increase in research around Vendor Consolidation suggests that firms are reevaluating their technology investments to ensure optimal efficiency and cost-effectiveness.

The spike in research around Chatbots, Chat Tools, Smart Devices, and the Internet of Things underscores the importance of technology in streamlining processes and delivering value to clients.

Firms are also shifting their focus to client retention as a means of sustaining growth. Research trends around customer retention, churn rate, upselling, and cross-selling indicate that businesses are concentrating on deepening existing relationships and expanding client accounts.

The professional services industry is undergoing a significant transformation due to economic uncertainty and a growing need for innovation. By focusing on profitability and margins, leveraging technology to simplify and streamline processes, and emphasizing client retention, professional services firms can weather the storm and position themselves for long-term success.

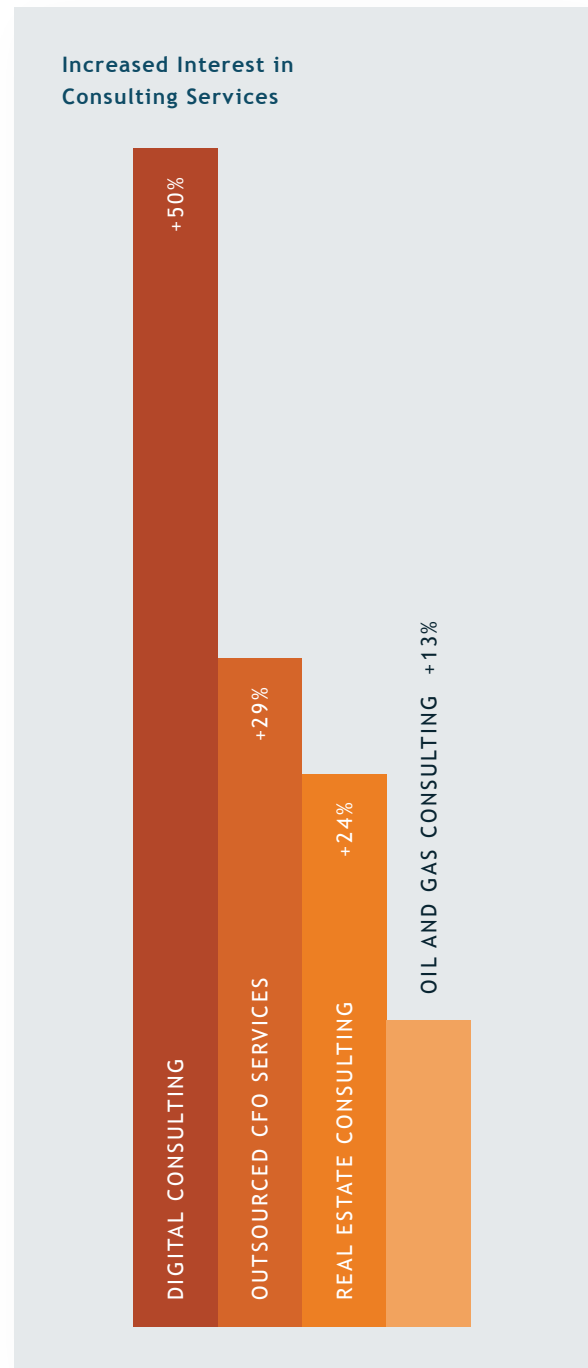
Firms focus on profitability and margins

Against the backdrop of economic uncertainty, cost optimization and creating value-based solutions have become key priorities for professional services firms and their clients. Many firms are racing to improve their margins while supporting customers through difficult times.

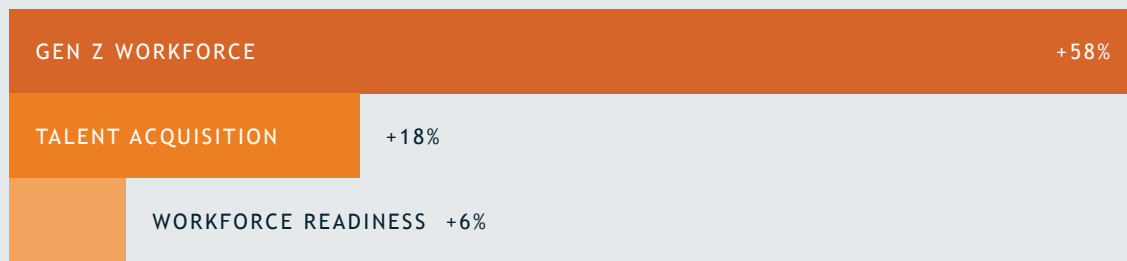
A look at the Q1 2023 Bombora research trends shows a significant uptick in Personal Wealth Management services, with a triple-digit increase compared to 2022 weekly averages. There was also a rise in Finance Insurance research, up 44% in Q1 2023, and research related to Outsourced CFO Services grew by 29%. These trends suggest that firms are increasingly focused on offering advisory and consulting services to their clients to optimize costs and improve margins.

These trends suggest that firms are increasingly focused on offering advisory and consulting services to their clients to optimize costs and improve margins.

Digital Consulting research increased by 50% in the first quarter of 2023, while Real Estate Consulting research grew by 24%. Oil and Gas Consulting grew by 13%, further highlighting the growing demand for specialized consulting services.



Increased Interest in Workforce Management



Firms adapt to talent shortages

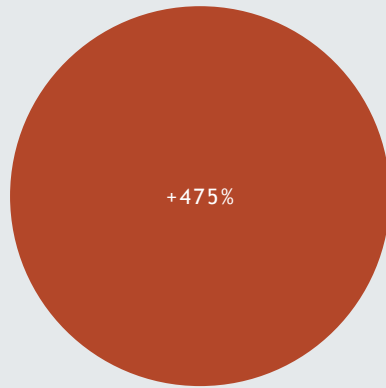
Many industries are facing talent shortages, but with a need for highly skilled knowledge workers, few are as embattled as the professional services industry. According to a recent report, almost a third of businesses across the financial, professional, and business services sectors are struggling to recruit due to widespread skills shortages, with thousands of critical roles, particularly in data and technology, remaining unfilled.¹⁸

Research related to Talent Management and Workforce Management has seen double-digit growth in early 2023, highlighting the demand to get a better handle on staffing.

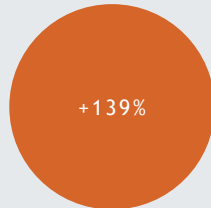
Across Bombora's data, signs of this challenge are highly visible. Research related to Workforce Readiness has shown a modest increase of 6% in Q1 2023 compared to 2022 weekly averages, while research around Talent Acquisition has seen an even larger growth of 18%. Research related to Talent Management and Workforce Management has seen double-digit growth in early 2023, highlighting the demand to get a better handle on staffing.

As businesses struggle to recruit talent, many are looking to younger workers who are either just entering the workforce or in the early stages of their careers. Among professional services organizations, research into Gen Z Workforce has spiked 58% in Q1 2023 compared to 2022 averages, underlining the range of options under consideration as these firms seek to shore up their talent.

Increased Interest in Technology



Smart Devices



Chatbots



Chat Tools



Internet of Things

Technology growth drives demand for simplification

As economic uncertainty persists, many professional services firms are looking to optimize their technology to meet budget constraints and stay competitive in the market. In a recent study, 56% of professional service firm CFOs stated that the technology investments they made in the last two years would pay off in the long run.¹⁹ This focus on technology has led to an increase in demand for Digital Consulting services, up 50% in 2023, with research trends pointing towards several key areas of interest.

As professional services organizations look to technology to drive performance, efficiency, and profitability, there has been a spike in interest in generative AI technologies that promise to do just that. Interest in Chatbots and Chat Tools have spiked 139% and 23%, respectively, in Q1, as professional services organizations look to both improve their workflows, as well as advise clients on how to best leverage these emerging technologies.

Research around Vendor Consolidation is on the rise, up 44% in Q1 2023.

Other emerging technologies have also shown significant growth in 2023. Research around Smart Devices has jumped 475% in Q1 compared to 2022 averages, demonstrating a growing interest in everything from the Internet of Things—up 22% in 2023—to Remote-Patient Monitoring—up 48%.

As digital transformation continues to evolve within professional services firms, budget constraints are now pushing many organizations to reevaluate their existing investments and simplify their technology stacks where possible to drive efficiencies. Within the professional services sector, research around Vendor Consolidation is on the rise, up 44% in Q1 2023 compared to 2022 averages, highlighting a shift in technology strategy for many firms.

Focus shifts to client retention

As businesses prepare for slower growth in the coming months, many professional service organizations are shifting their focus toward customer retention to sustain their growth. Studies estimate that it is 5 to 25 times more expensive to acquire a new client as compared to retaining an existing client.²⁰ This approach is reflected in an uptick in research across a range of related topics.

In Q1 2023, research around Cross-Selling spiked 78% compared to 2022 averages, highlighting the importance of expanding existing client accounts.

Research around terms including Customer Retention and Churn Rate was strong across 2022 and remains high entering 2023. In conjunction with reducing client attrition, firms are looking to deepen their existing relationships with customers through cross-selling and upselling. In Q4 2022, research around Upselling spiked 87% compared to the year's weekly average. And in Q1 2023, research around Cross-Selling spiked 78% compared to 2022 averages, highlighting the importance of expanding existing client accounts.

The professional services landscape is undergoing significant shifts due to economic uncertainty and the need for innovation. Firms are focusing on profitability and margins, leveraging technology to streamline processes, and emphasizing client retention. By leveraging insights into emerging trends, adapting to ongoing changes, and embracing new strategies, firms can stay ahead of the curve and position themselves for long-term growth and success.

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**Telco
 bites**

Increased Interest
 in Backdoor

↑ **63%**

Telecommunications businesses are responding to emerging cybersecurity threats.

Increased Interest
 in Telematics

↑ **114%**

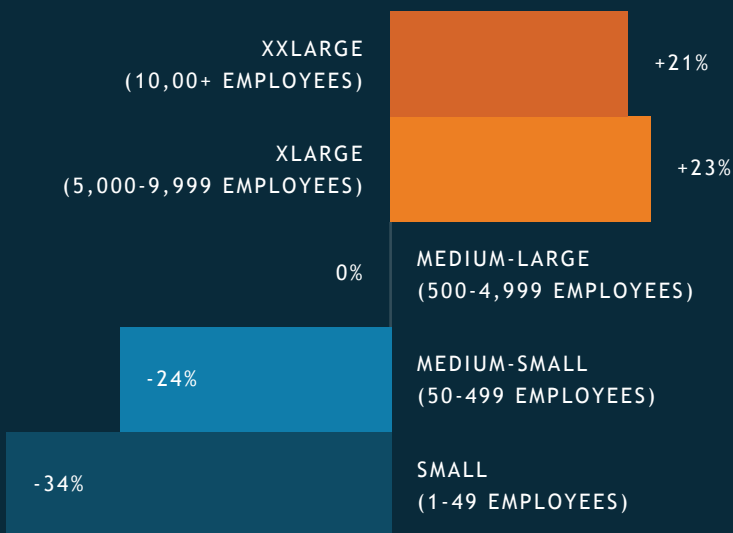
Telcos are increasingly leveraging technology to monitor devices.

Increased interest in cybersecurity



Emerging risks—such as those from state actors—are pushing many telco businesses to adapt strategies and prepare for new scenarios.

Change in Research on 5G, By Business Size

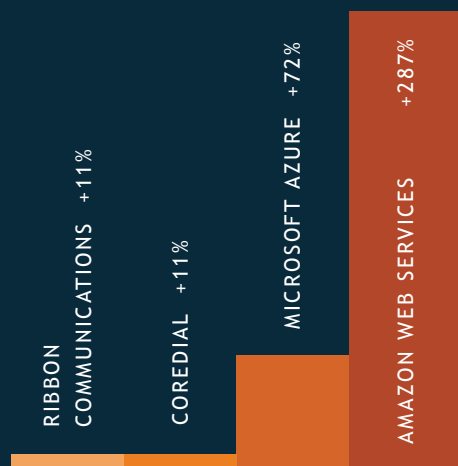


Telecommunications businesses are continuing to expand both public and private 5G networks as new opportunities arise to leverage this game-changing technology.

Increased Interest in
 Cybersecurity Threats

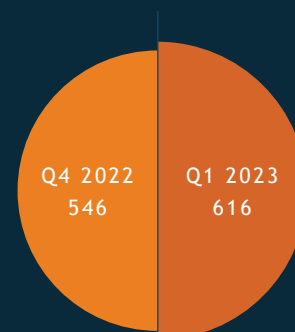


Increased Interest in Cloud and Edge Providers



As network operators are looking to scale quickly, many are looking to the cloud and edge to improve network performance, cut costs, and accelerate growth. In Q1 2023, there was an increase in research activity around some of the leading cloud and edge providers.

Businesses Spiking on Low Earth Orbit



Top Trending Telecommunications Firms

These are the top 20 telecommunications firms that are actively being researched in H1 2023. They are the movers and shakers that are making headlines and driving growth across the industry.

Topic Name	Spiking Businesses (weekly avg.)	Research Spikes
1 AT&T (T)	28,982	377,730
2 Verizon (VZ)	22,008	287,585
3 Qualcomm (QCOM)	21,574	279,342
4 Comcast (CCV)	21,067	277,345
5 T-Mobile (TMUS)	13,081	170,815
6 Huawei	10,089	130,445
7 MetroPCS	10,032	131,824
8 DirecTV (DTV)	9,608	125,665
9 Dish Network (DISH)	9,364	121,782
10 Nokia (NOK)	8,969	118,487
11 Time Warner Cable (TWC)	7,781	100,654
12 Claro	5,001	64,764
13 Vodafone Group (VOD)	4,014	52,413
14 Telus	3,963	51,321
15 CenturyLink (CTL)	3,666	47,046
16 China Telecom (CHA)	3,230	42,304
17 Virgin Media (VMED)	3,149	41,093
18 BT Group plc	3,086	40,281
19 China Mobile (CHL)	3,086	40,121
20 China Telecom Americas Corporation	3,012	12,045



Telecommunications

Technology and data are becoming the backbone of nearly all aspects of life, and the telecommunications industry is at the helm of this front. The increasing reliance on connectivity, combined with the rapid pace of technological innovation, is forcing telecoms to adapt and evolve at an unprecedented speed.

As the digital landscape morphs, so do the threats that come with it. The insatiable demand for fast and reliable connectivity has propelled the rise of both public and private 5G networks. And as IoT and smart facilities become the norm, the need for stable, high-speed networks is more pressing than ever.

The colossal growth of data passing through networks has placed cybersecurity at the forefront of telecom concerns. In response to cyber threats, the industry has seen a spike in research around areas pertaining to emerging threats like Cyberwarfare and Electronic Warfare, while traditional threats such as malware and vulnerabilities also remain firmly in focus.

Increased Interest in Cybersecurity



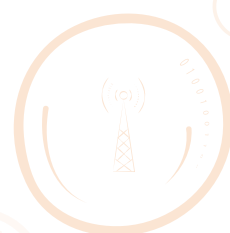
New security tools and encryption methods, including end-to-end encryption, are being researched to fortify networks and safeguard data, illustrating the industry's proactive approach to mitigating cyber risks. This spike in cybersecurity investments is a clear testament to the industry's commitment to fortifying its defenses in the face of increasingly sophisticated threats.

Businesses are also exploring private networks, with a rising interest in technologies such as indoor cell sites and distributed antenna systems (DAS). This trend has been triggered by the increasing demand for fast, reliable connectivity in a world increasingly dominated by IoT devices and smart facilities.

In the quest for network optimization, telecoms are also moving toward hyperscale cloud services and edge computing. This shift towards cloud and edge orchestration is evidenced by increased research around cloud platforms like AWS and Microsoft Azure and the growing interest in private-label cloud communication platforms like CoreDial. This trend reflects the industry's efforts to leverage the flexibility, scalability, and cost-efficiency of cloud technologies while capitalizing on the latency and bandwidth advantages of edge computing.

Finally, the industry is looking beyond the confines of the Earth. Investments in space operations, including satellites and orbital ground stations, are on the rise, as evidenced by the increased research into Low Earth Orbit (LEO) and industry-leading organizations like SpaceX. This trend illustrates the industry's determination to ensure connectivity reaches every corner of the globe, facilitating the advent of truly global networks.

To remain competitive and meet these evolving needs, telecommunication providers must invest in new technologies, adapt their business models, and find new ways to leverage data to improve performance. As innovation and research continue to drive change, the telecom sector will have a profound impact on industries and individuals alike, redefining the way we connect, communicate, and interact in the digital age.



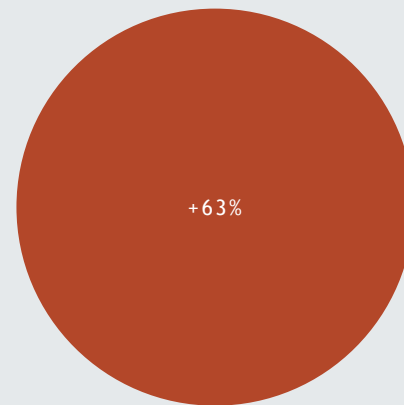
Cybersecurity investments rise

Telecommunications firms are facing increasing cybersecurity risks due to the growth of data passing through their networks. As a result, they are increasing their investments in cybersecurity measures to ensure their networks remain secure. According to a 2023 survey of telecom executives, 63% of firms are looking to increase cybersecurity investments in the next fiscal year.²¹

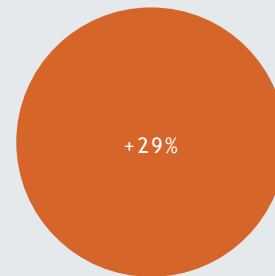
In early 2023, there has been an increase in telcos researching cybersecurity topics, particularly from emerging threats such as state actors. Research around Cyberwarfare jumped 29% in Q1 2023, while Electronic Warfare jumped 14%. Research for more traditional treats, such as Malware and Vulnerabilities, has shown triple-digit increases, while topics including Backdoor (+63%) and Zero-Day Threats (+21%) also showed increases in early 2023.

As telcos look to address these emerging risks, they are looking to protect data using new encryption methods and security tools. Encryption-related topics jumped in late 2022, up 20% in Q4 when compared to the year's weekly average. Similarly, End-to-End Encryption (E2EE) research increased by 9% in Q4. Research for Security Tools, the top security topic in Q1 2023, increased by 23% compared to 2022 averages, with over 1,300 telcos actively researching the topic.

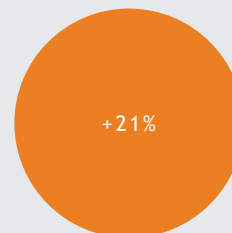
Increased Interest in Emerging Cybersecurity Threats



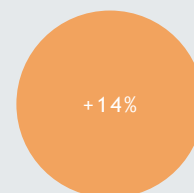
Backdoor



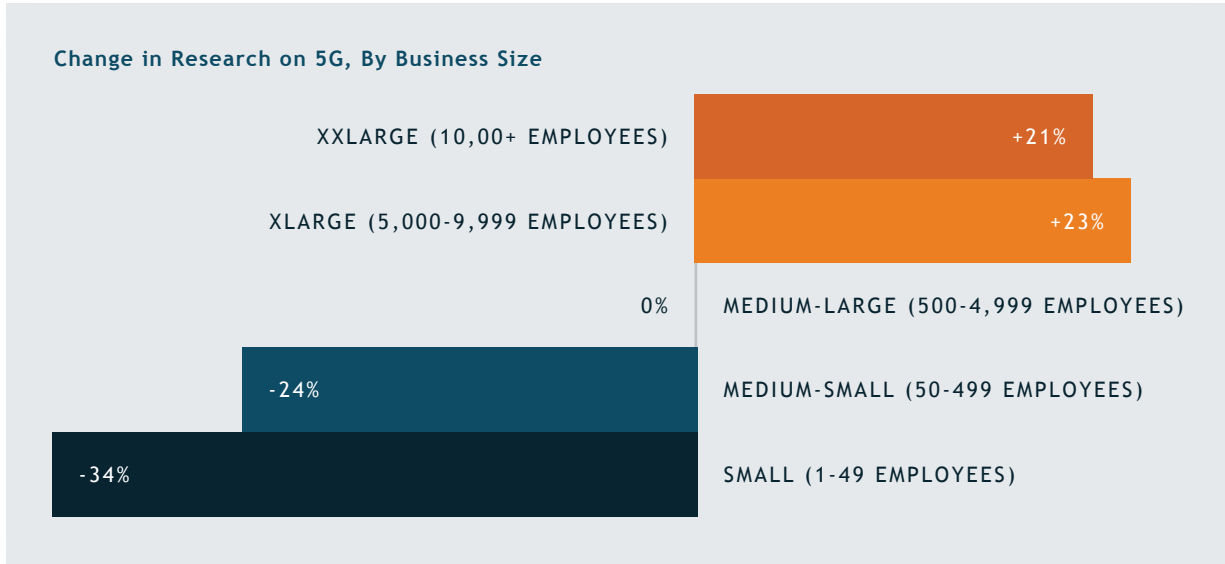
Cyberwarfare



Zero-Day Threat



Electronic Warfare



Private 5G becomes a reality

As the demand for fast and reliable connectivity continues to increase in the age of IoT and smart facilities, private networks have become an attractive solution. The private 5G market is projected to grow at a staggering compound annual growth rate of 49.7% until 2030.²² Recent Bombora data shows a significant growth in research related to 5G networks.

Across all telecoms, 5G saw a slight increase in Q1, while with enterprise carriers, there was a 21% increase in research activity for 5G in Q1 2023 compared to 2022 weekly averages.

With enterprise carriers, there was a 24% increase in research activity for 5G in Q1 2023 compared to 2022 weekly averages.

Related to private networks, research related to Indoor Cell Sites saw a 21% increase in Q4 2022 compared to 2022 weekly averages. Similarly, research for Distributed Antenna Systems (DAS) grew 22% in Q1 2023, suggesting a growing trend in using cellular networks for IoT devices. Research in Telematics grew by 114% in Q1 2023. This data suggests an increasing trend in using technology to monitor and manage devices in real time, improving efficiency and safety.

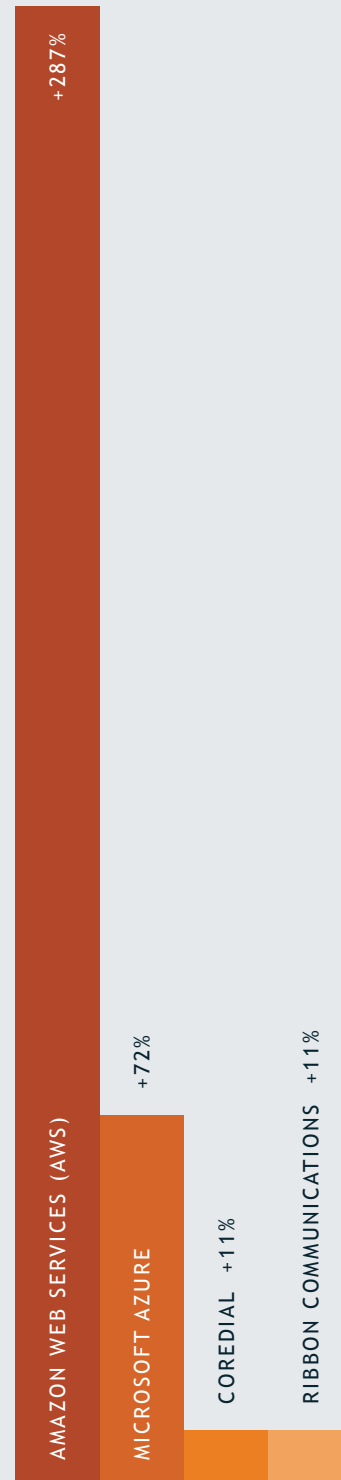
Global hyperscale cloud and edge orchestration grows

As providers look to expand their services and leverage technological innovation, telecommunications spending on hyperscale cloud services is increasing, with cloud orchestration through Private and Public MECs gaining more interest. Telco cloud investments are projected to invest an average of \$1 billion over the next three to five years.²³

Research around cloud and edge platforms grew significantly in Q1 2023. Research around Amazon Web Services (AWS) increased by 287%, and Microsoft Azure grew by 72%, both of which provide operator-focused cloud services. Edge-Computing Model and related topics increased by 53% in Q1, showing a targeted interest in edge orchestration. In addition, research on CoreDial, a private label cloud communication platform, increased by 11% in Q1 2023, further illuminating the interest shift towards cloud and edge computing.

Finally, research on Ribbon Communications, an IP and optical networking solutions and cloud-to-edge communications business, saw an 11% increase in Q1 2023. The increased interest in fixed-mobile convergence, real-time communications, and related cloud services suggests that telecommunications providers are actively exploring cloud and edge technologies in the quest to optimize network performance.

Increased Interest in Cloud and Edge Providers



Increased Interest in Low Earth Orbit (LEO)



Space is the next frontier

As telecommunications providers seek to expand their networks to more remote and under-served areas, many are investing in space operations, including satellites and orbital ground stations for data transmission. A recent study reported that 98% of executives believe that private businesses will play a significant role in the expanding space sector, including space data.²⁴ This infrastructure is essential for various industries, including agriculture, energy, telecommunications, and government.

Compared to a year ago, research related to Low Earth Orbit (LEO) increased by 26% in Q1 2023, a dramatic increase in a short time span. Meanwhile, research on SpaceX, a leading private space business, increased by 8% in late 2022, with nearly 1,500 telecom businesses researching the organization. As more players enter the space race, businesses that can provide space-related infrastructure and services will likely find success in this growing market.

The telecommunications industry is witnessing a transformative period marked by increasing cybersecurity investments, growing demand for private 5G networks, adoption of hyperscale cloud and edge orchestration, and expansion into space-based infrastructure. These trends are reshaping the future of connectivity and driving innovation across various industries.

By embracing these innovations and investing in new technologies, telecommunication providers can position themselves for success, meeting the growing demand for fast and reliable connectivity, heightened security, and innovative solutions.

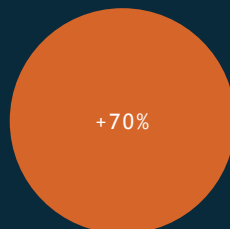
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H1 2023 Intent Trends Report

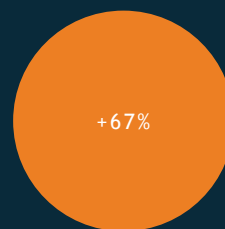


Media and advertising bites

Increased Interest in Data Privacy



Customer Data Platform



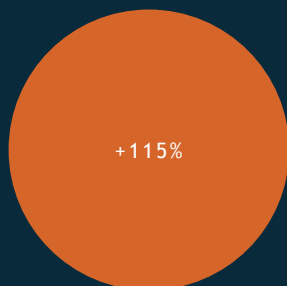
Data Acquisition

Increased Interest in Audience Targeting

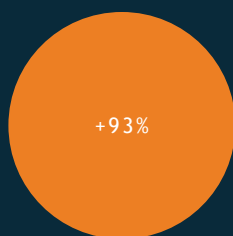


As businesses look to be more efficient with their budgets, media and advertising firms are researching ways to improve audience targeting and maximize return on ad spend.

Increased Interest in Video

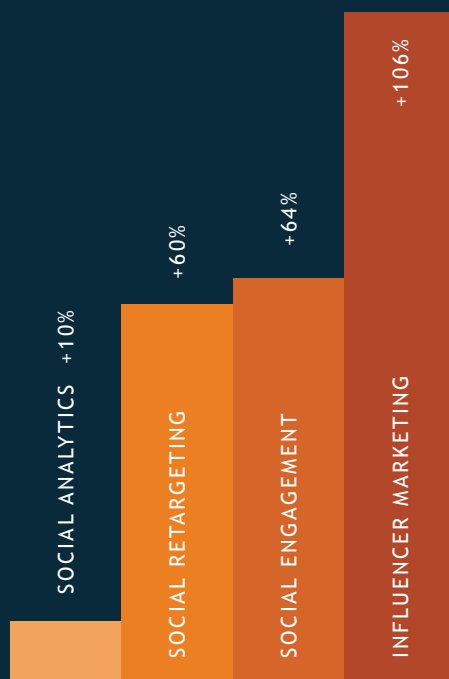


Video Advertising



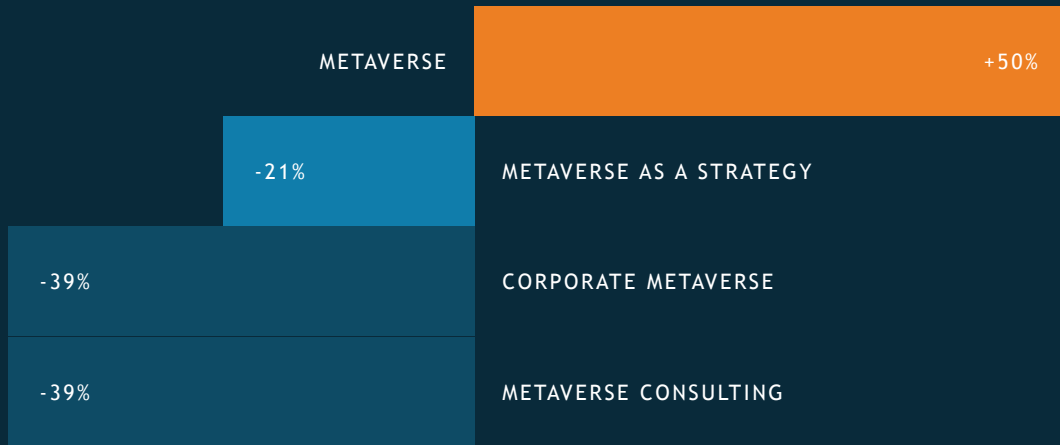
Pre-Roll Video

Increased Interest in Social Media Topics



Social media continues to dominate marketing plans. As businesses look for ways to integrate social engagements into their marketing and media mix, an increasing number are exploring influencer marketing as a way to drive awareness and build trust with their target market.

Change in Research on the Metaverse



Top Trending Media and Advertising Firms

These are the top 20 media and advertising firms that are actively being researched in H1 2023. They are the movers and shakers that are making headlines and driving growth across the industry.

Rank	Topic Name	Spiking Businesses (weekly avg.)	Research Spikes
1	Obvious.ly	165,784	662,429
2	Trend.io	79,726	1,037,923
3	Tagger	64,801	846,080
4	Mighty Fudge	62,243	811,100
5	Getty Images	58,690	760,535
6	Shutterstock	45,953	598,998
7	Bailey Brand Consulting	42,963	172,150
8	Periscope	42,016	539,020
9	Thomas Reuters (TRI)	34,696	458,808
10	Centro	33,361	429,709
11	Birdeye	26,875	350,179
12	Venables Bell & Partners	26,686	348,015
13	LPK	24,197	313,659
14	Bulletproof	22,406	290,418
15	INDG	21,549	86,070
16	Kaleidoscope	21,239	276,285
17	Dentsu	19,691	255,123
18	SpotX	17,679	226,426
19	Brandbassador	16,647	66,629
20	Funnel	14,069	183,779

Media and advertising

Keeping up with the latest trends and technologies is imperative for media and advertising businesses looking to remain competitive and engage with customers. But with the speed of change across the industry, staying up-to-date can be challenging for many organizations. Media and advertising businesses must rely on high-quality data to evaluate shifts in media, technology, and consumer behavior to determine how to stay ahead of the curve on emerging trends.

Bombora's data emphasizes that businesses are putting considerable resources into social media marketing, data management, customer experience, and video advertising. Recent spikes in research activity reveal that there is

still a significant emphasis on social media in the advertising space. Organizations are increasingly looking to optimize their social media strategy while measuring and analyzing their performance.

Increased Interest in Audience Targeting



There is also a growing focus on improving customer experience and engagement, helping to ensure that existing customers remain loyal and satisfied, which strengthens the likelihood of continued business even during times of economic uncertainty.

In today's digital age, where visual content plays a vital role in consumer engagement, the importance of video advertising cannot be ignored. Video advertising, especially short-form video, continues to rise across platforms. There is also a notable shift in interest towards non-linear TV and digital video platforms, ranging from video billboards to pre-roll and social media. While still in its infancy, the metaverse is an area that organizations are exploring to discover its potential as a strategic tool.

Moreover, with the rise of digital platforms and the ever-increasing number of devices connected to the internet, data privacy is becoming more critical than ever before. Firms must take data privacy concerns seriously and put protective measures in place to safeguard customer data. Businesses are more focused on data privacy than ever before and actively seeking solutions to manage data effectively while safeguarding customer information.

By leveraging high-quality data, businesses can stay ahead of these key trends to maximize audience engagement, safeguard customer data, and enhance audience experiences.

Media and advertising businesses must rely on high-quality data to evaluate shifts in media, technology, and consumer behavior to determine how to stay ahead of the curve on emerging trends.

Social media continues to dominate

Bombora's latest data shows that social media advertising is still on the rise, despite concerns over new regulations in the space. In a recent study, 91% of executives reported that their investment in social media would increase in the next three years.²⁵

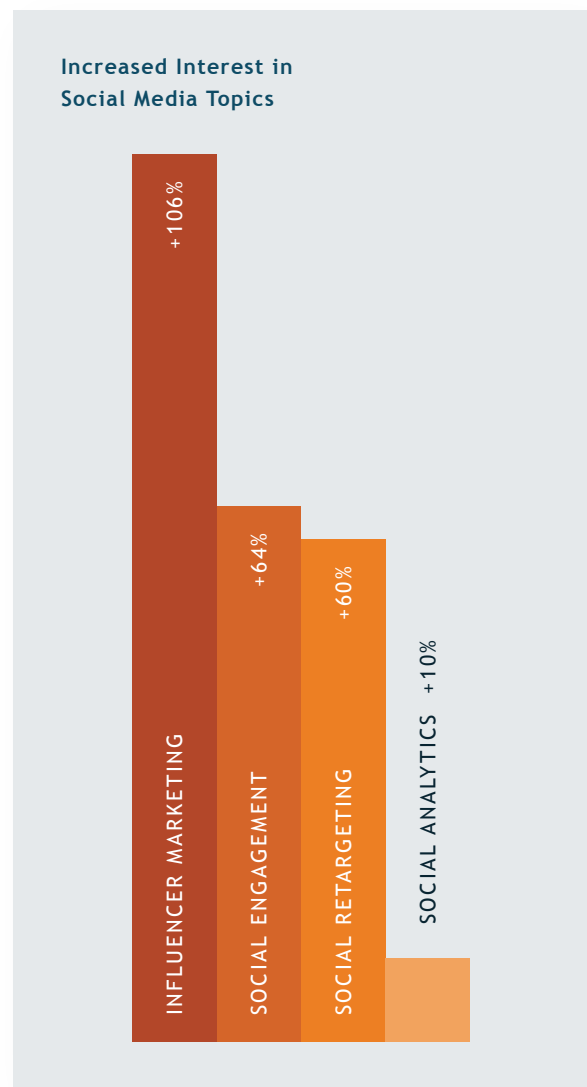
As social media grows, media and advertising businesses are making it a part of their integrated marketing plans. Where Social Media as a topic saw a modest 6% growth in Q1 2023 compared to 2022 averages, research for Integrated Social Marketing saw a 31% increase, highlighting how social media is becoming a growing part of media mixes. Social Engagement saw a 64% increase in Q1 compared to last year's averages, while Social Retargeting saw a similar boost of 60%. Social Analytics also saw a slight rise of 10% in Q1, indicating that businesses are increasingly interested in measuring and analyzing their social media performance.

Beyond engaging and advertising on social media, media and advertising firms are increasingly exploring opportunities to engage with creators. In particular, influencer marketing and retargeting on social media have seen notable growth. Research around Influencer Marketing increased 106% in Q1 2023 compared to 2022 weekly averages, while User-Generated Content as a topic grew 102%.

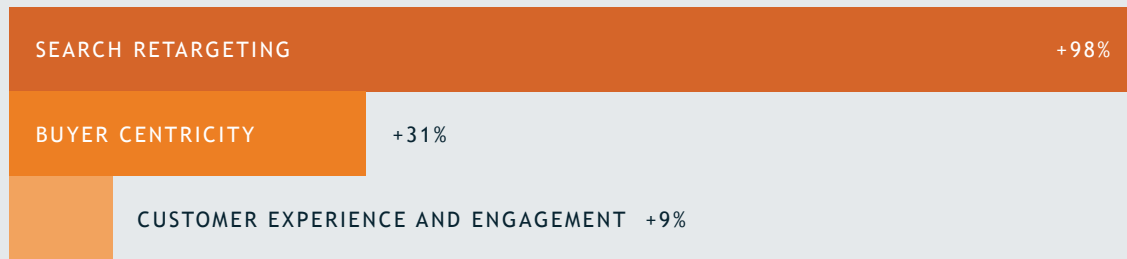
While much of social media focuses on consumer properties, including Facebook, Instagram, TikTok, and others, B2B-focused social media is seeing significant growth. LinkedIn Sponsored Content saw a 47% growth in Q1 2023, while

LinkedIn Sponsored Messages saw a 44% increase. Notably, on the heel of a polarizing stretch, research into Twitter Ads was down 30% in Q1.

While social media is by no means new, it continues to evolve. As it does so, media and advertising agencies continue to explore how to best maximize the value of these platforms. These insights point to the continued dominance of social media in the advertising space and increasing emphasis on optimizing and measuring social media performance.



Increased Interest in Audience Targeting



Organizations focus on finding the right customers

As businesses face economic uncertainty, many are focusing on creating great experiences to retain existing customers. A positive experience with a brand holds more sway for 65% of American consumers than exceptional advertising.²⁶ This trend is reflected by increasing interest in customer experience and engagement, digital and connected experiences, and customer relationship management.

Research pertaining to intent data saw a large spike at the end of 2022. Businesses actively researching Customer Intent were up by 22% in Q4 2022 compared to the year's weekly average, while research into Account-Based Marketing (ABM) was up 13% in the same period.

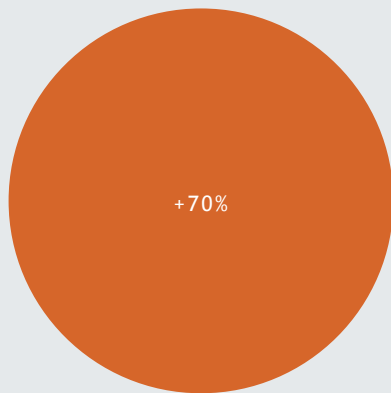
In Q1 2023, Predictive Lead Scoring saw a 34% increase while Target Audience saw a 30% increase. Search Retargeting research saw a significant boost, increasing by 551% between Q1 2023 and Q1 2022 and 98% compared to 2022 weekly averages, suggesting that businesses are targeting high-propensity customers with more personalized advertising.

Moreover, Loyalty Marketing research grew by 67% between Q1 2023 and Q1 2022 and 32% compared to 2022 weekly averages, indicating that businesses are investing more in retaining their loyal customers. The increase in Customer Experience and Engagement research by 83% between Q1 2023 and Q4 2022 suggests that businesses are recognizing the importance of improving the overall customer experience to retain their existing customers.

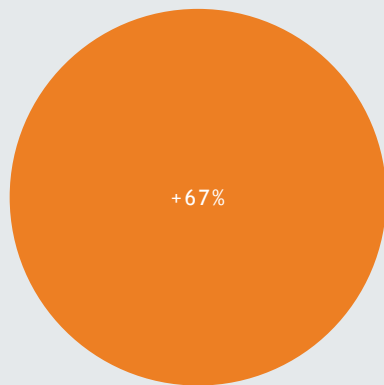
Furthermore, Buyer Centricity research rose by 91% between Q1 2023 and Q4 2022 and 113% between Q1 2023 and Q1 2022, implying that businesses are focused on creating a personalized experience for their buyers to enhance customer satisfaction. Finally, Web Beacons research climbed by 199% in Q1 2023, indicating that businesses are using technology to improve customer targeting and gather more data about their customers.

In sum, this data suggests that businesses are recognizing the importance of investing in audience targeting to help ensure they are marketing to the right customers, improving operational efficiency and return on advertising spend.

Increased Interest in Data Privacy



Customer Data Platform



Data Acquisition

Advertisers are looking for more sophisticated ways to target their audiences while still respecting their privacy.

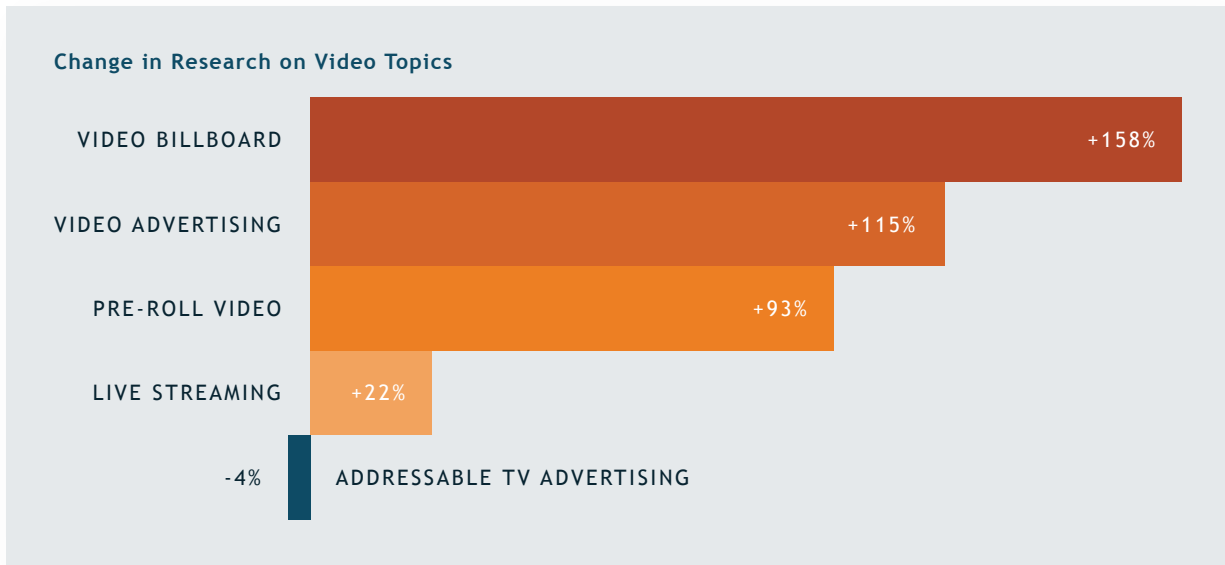
Data and privacy are increasing concerns for advertisers

As concerns around data and privacy continue to grow, businesses are increasingly looking for solutions to safeguard customer data and manage it effectively. One survey found that 95% of consumers want brands to protect their data.²⁷

Advertisers appear to be responding to this demand, as the latest Bombora shows a spike in interest in customer data topics. Customer Data Platform research increased by 70% in Q1 2023 compared to 2022 weekly averages, indicating that businesses are investing more in the technology needed to manage customer data securely. Audience Management Platform research also saw a significant boost, increasing by 157% between Q1 2023 and Q1 2022. This suggests that advertisers are looking for more sophisticated ways to target their audiences while still respecting their privacy.

Moreover, Data Acquisition research grew by 67% in Q1 2023 compared to 2022 averages and 80% between Q1 2023 and Q4 2022, demonstrating that businesses are finding new ways to acquire customer data while balancing privacy concerns. Third-Party Data research also saw a modest rise of 12% between Q1 2023 and Q4 2022, suggesting that businesses are becoming more cautious about using third-party data sources.

The data suggests that data and privacy concerns remain top of mind for advertisers in 2023. As consumers become more aware of their data rights, businesses need to prioritize secure and responsible data management practices to build trust with their audiences.



Video continues to grow

Video advertising continues to soar across all platforms, with a particular focus on short-form video. In a recent survey, 78% of marketers said that video advertising has directly increased sales.²⁸ This growing interest in video is highlighted across the latest Bombora data.

As viewership of linear TV declines, there has been a significant shift in interest towards non-linear TV and digital video platforms, ranging from video billboards to pre-roll and social media. Networked Digital Signage research saw a tremendous increase of 238% in Q1 2023, while Video Billboard research increased by 158% in the same period.

Pre-Roll Video research also saw a boost, growing by 93% in Q1 2023 compared to 2022 averages. Additionally, Video Advertising research

increased by 115% in Q1 2023 compared to 2022 weekly averages and 215% between Q1 2023 and Q1 2022.

Furthermore, research into Responsive Animations increased by 59% in Q1 2023 compared to 2022 weekly averages. This suggests that media and advertising businesses are increasingly interested in incorporating interactive elements into their video content. Live Streaming research also grew by 22% in Q1 2023. Overall, the data points to continued growth in video content across various platforms. As marketers seek to capture the attention of their audiences, it's clear that video will continue to play an increasingly important role in their strategies.

Metaverse: go or no go?

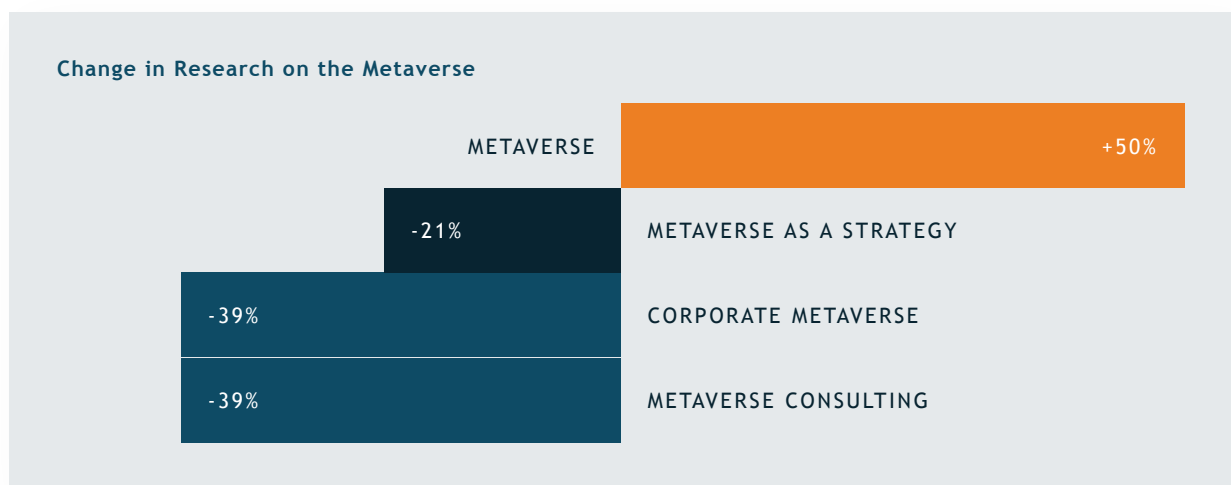
The latest headlines suggest that there has been a decline in interest in the Metaverse, with major businesses such as Disney and Meta publicly adjusting their metaverse strategies.^{29 30} Yet despite these stories, there is still significant interest in the metaverse. According to a recent survey, 56% of media buyers are utilizing or actively considering metaverse marketing initiatives.³¹

Across Bombora's data, there is a complex narrative. There was a 39% decrease in Metaverse Consulting research in Q1 2023 compared to the previous year's weekly averages. Corporate Metaverse research also fell by 39% in Q1 2023. Additionally, research into Metaverse as a Strategy declined by 21% in Q1 2023. Despite these trends, overall Metaverse research grew by 50% in Q1 2023.

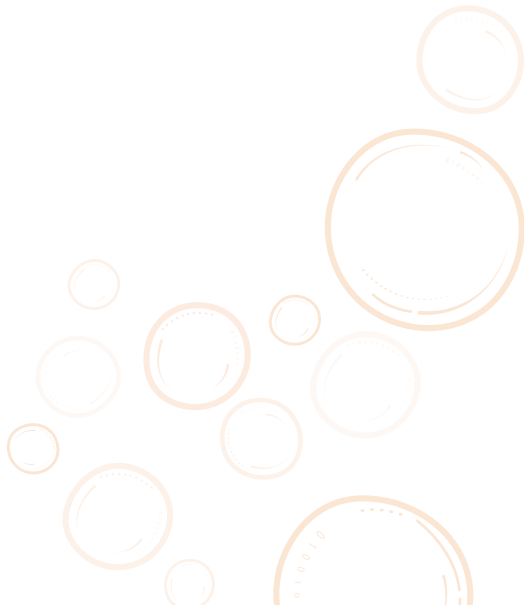
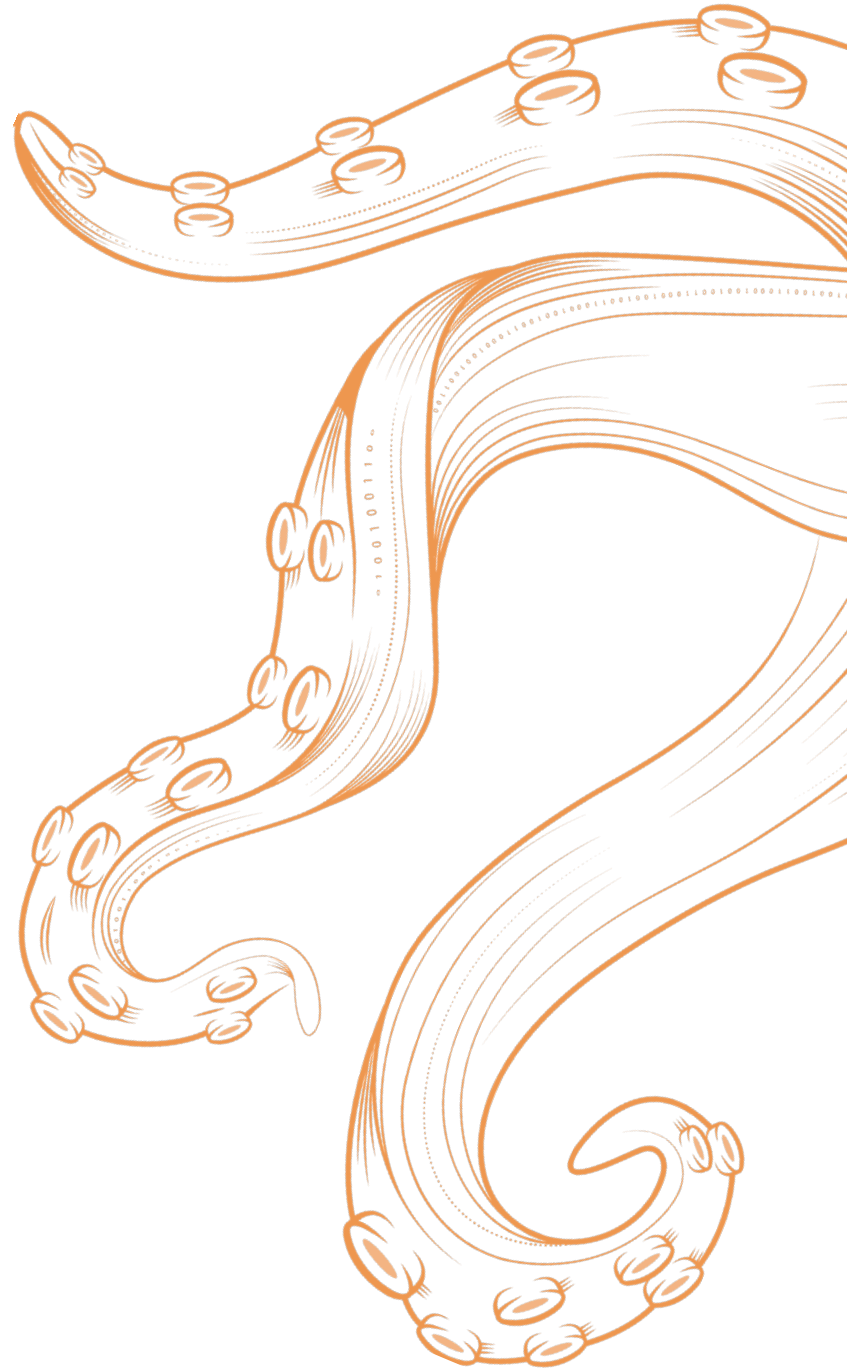
The data suggest that while there is still interest in researching the metaverse, businesses are becoming more cautious about investing in it. The decrease in Corporate Metaverse research and

Metaverse as a Strategy research may indicate that businesses are reconsidering their plans for implementing metaverse technology. However, the overall increase in metaverse research suggests that the concept is still relevant and intriguing to many. It remains to be seen whether the metaverse will become a go or no-go for businesses in the near future.

The data suggest that while there is still interest in researching the metaverse, businesses are becoming more cautious about investing in it.



As the digital landscape continues to evolve rapidly, media and advertising businesses must remain vigilant and adaptable to stay ahead of market trends. With the use of high-quality data, these organizations can leverage data-driven insights to stay relevant and competitive in the media and advertising industry.



Conclusion

The global landscape is undergoing rapid transformation, impacting industries such as manufacturing, healthcare, finance, software, cybersecurity, professional services, telco, and media/advertising. Businesses must adapt to these changes by investing in innovative strategies, adopting new technologies, and optimizing their operations to stay competitive.

Key focus areas include building resilient supply chains in manufacturing, leveraging emerging technologies in healthcare, prioritizing financial stability and the customer experience in financial services, and addressing the growing demand for AI and cybersecurity in the software industry. Furthermore, businesses must invest in advanced security measures to protect against evolving cyber threats and prioritize customer retention in the professional services sector.

As the telco industry experiences a spike in demand for high-speed connectivity, businesses must invest in infrastructure and innovation to capitalize on new revenue opportunities. Simultaneously, organizations in the media/advertising sector must adapt to shifting consumer

behavior by optimizing digital strategies and prioritizing data privacy.

By staying informed and adaptable, organizations can effectively navigate the dynamic digital environment, seize emerging opportunities, and drive innovation. We hope this report provides invaluable insights into the latest trends and developments across these industries, empowering your business to make well-informed decisions and ensure continued growth in the face of intense global competition.

To learn more about Bombora and how data can transform your business, visit bombora.com.

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Endnotes

1. Bombora, Q1 2023.
2. McKinsey & Company, Risk, resilience, and rebalancing in global value chains, August 6, 2020.
3. Rockwell Automation, 8th Annual State of Smart Manufacturing Report, 2023.
4. eMarketer, March 2022.
5. StrataSphere® Research Report: Signals, Trends and KPIs: The Changing Face of Healthcare Finances, October, 2022.
6. Press Ganey, Consumerism: The Role of Patient Experience in Brand Management and Patient Acquisition, December 13, 2018.
7. Optum, AI Survey: Health Care Organizations Continue to Adopt Artificial Intelligence to Help Achieve Better, More Equitable and Affordable Patient Outcomes, December 15, 2021.
8. AMN Healthcare, Survey of Allied Healthcare Professional New Graduate Hiring Patterns, October 3, 2022.
9. CNBC, All-America Economic Survey, April 18, 2023.
10. Data for Progress, Survey, April 2023.
11. Forbes Advisor, Survey, April 2023.
12. NewVantage Partners, Data and AI Leadership Executive Survey, 2022.
13. Cisco, Cybersecurity Readiness Index, March 2023.
14. Gartner, Survey, October 29, 2020.
15. Juniper Research, The Future of Cybercrime & Security: Threat Analysis, Impact Assessment & Leading Vendors 2018-2023, August 8, 2018.
16. Tessian, Psychology of Human Error, 2022.
17. (ISC)², Inc., Cybersecurity Workforce Study, 2022.
18. Professional & Business Services Council; Financial Services Skills Commission, Skills for future success, June 2021.
19. PwC, 2022 Digital IQ, 2022.
20. Harvard Business Review, The Value of Keeping the Right Customers, October 29, 2014.
21. Deloitte Global, 2023 Global Future of Cyber Survey, 2023.
22. Custom Market Global Private 5G Network Market 2023-2032, April 28, 2023.
23. Capgemini Research Institute, Networks on Cloud: A clear advantage, February 2023.
24. Deloitte, The Deloitte 2023 Space Survey, 2023.
25. Sprout Social, The Future of Social Media: New Data for 2021 & Beyond, 2021.
26. PwC, Experience is everything: Here's how to get it right, 2018.
27. Perion Network Ltd., Survey, September 2022.
28. Wyzowl, The State of Video Marketing, 2021.
29. Gizmodo, Disney Scurries Away From Its Half-Baked Metaverse Ambitions, March 28, 2023.
30. The Motley Fool, Here's What Mark Zuckerberg Got Wrong About the Metaverse. Where Does Meta Go From Here?, May 8, 2023.
31. IAB, 2023 Outlook Survey: Ad Spend, Opportunities, and Strategies for Growth, November 17, 2022.



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