



June 19, 2019

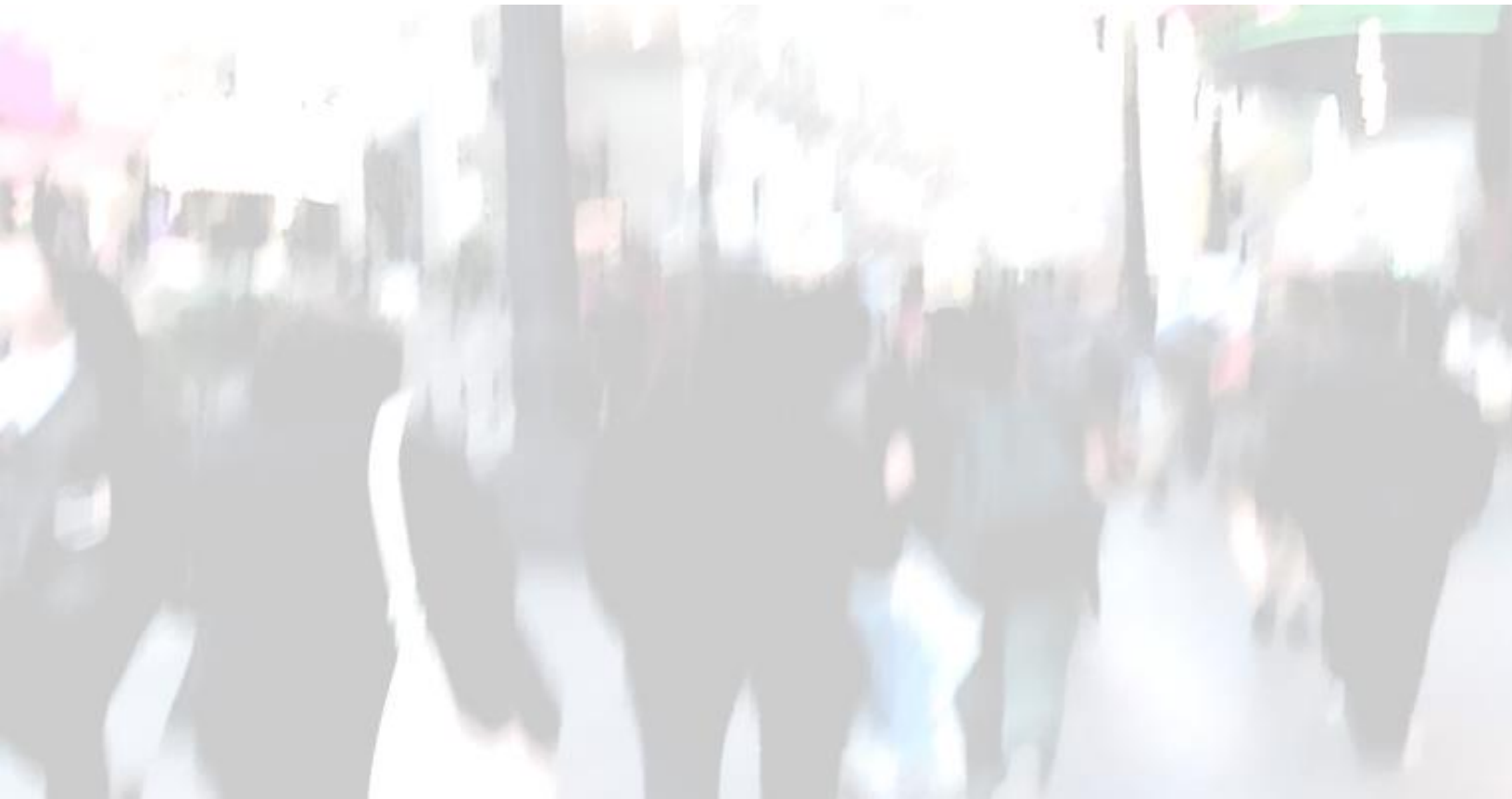
Dresner Advisory Services, LLC

2019 Edition

Data Catalog Study

Wisdom of Crowds® Series

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This report should be used for informational purposes only. Vendor and product selections should be made based on multiple information sources, face-to-face meetings, customer reference checking, product demonstrations, and proof-of-concept applications.

The information contained in all Wisdom of Crowds® Market Study reports reflects the opinions expressed in the online responses of individuals who chose to respond to our online questionnaire and does not represent a scientific sampling of any kind. Dresner Advisory Services, LLC shall not be liable for the content of reports, study results, or for any damages incurred or alleged to be incurred by any of the companies included in the reports as a result of its content.

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Definitions

Business Intelligence Defined

Business Intelligence (BI) is “knowledge gained through the access and analysis of business information.”

Business Intelligence tools and technologies include query and reporting, OLAP (online analytical processing), data mining and advanced analytics, end-user tools for ad hoc query and analysis, and dashboards for performance monitoring.

Definition source: Howard Dresner, *The Performance Management Revolution: Business Results Through Insight and Action* (John Wiley & Sons, 2007)

Data Catalog Defined

Data catalogs must provide the means to simplify the access and use of analytical content and the collaboration and governance of that content in multiple BI use cases. Our Data catalog research examines user requirements and priorities with a focus on governance and content collaboration capabilities.

Introduction

In 2019, we celebrate the 12th anniversary of Dresner Advisory Services! Our thanks to all of you for your continued support and ongoing encouragement. Since our founding in 2007, we have worked hard to set the “bar” high—challenging ourselves to innovate and lead the market—offering ever greater value with each successive year.

We are also pleased that our third annual conference, [Real Business Intelligence](#), held May 14-15 on the MIT campus in Cambridge, Massachusetts, was a huge success. Next year’s event is scheduled for May 5-6, 2020 in Cambridge, MA. Preregistration is available at www.rbi2020.com.

Unlike other events, we designed Real Business Intelligence as an immersive thought leadership event focused on strategies for success with information management, business intelligence, analytics, and performance management.

This year also marks the tenth anniversary of our first industry report, the “Flagship” Wisdom of Crowds Business Intelligence Market Study. What started off as a modest report with limited market trending and vendor ratings evolved into a comprehensive assessment of the market. Since that time, our lineup of industry reports has grown to include three flagship reports and 14 themes— with over 1,600 pages of primary research published in 2018.

Among the many thematic reports that we publish, data catalog stands out as a growth area that organizations continue to rank as important to their organizations. As data complexity continues to increase, we expect that this trend will continue into the future.

We hope you enjoy this report!

Best,



Chief Research Officer
Dresner Advisory Services

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Benefits of the Study

The 2019 Dresner Advisory Services Data Catalog Study provides a wealth of information and analysis, offering value to both consumers and producers of business intelligence technology and services.

Consumer Guide

As an objective source of industry research, consumers use the Dresner Advisory Services Data Catalog Study to understand how their peers leverage and invest in collaborative BI and related technologies.

Using our unique vendor performance measurement system, users glean key insights into BI software supplier performance, which enables:

- Comparisons of current vendor performance to industry norms
- Identification and selection of new vendors

Supplier Tool

Vendor licensees use the Dresner Advisory Services Data Catalog Study in several important ways:

External Awareness

- Build awareness for business intelligence markets and supplier brands, citing Dresner Advisory Services Data Catalog Study trends and vendor performance
- Gain lead and demand generation for supplier offerings through association with Dresner Advisory Services Data Catalog Study brand, findings, webinars, etc.

Internal Planning

- Refine internal product plans and align with market priorities and realities as identified in the Dresner Advisory Services Data Catalog Study
- Better understand customer priorities, concerns, and issues
- Identify competitive pressures and opportunities

About Howard Dresner and Dresner Advisory Services

The Dresner Advisory Services Data Catalog Market Study was conceived, designed and executed by Dresner Advisory Services, LLC—an independent advisory firm—and Howard Dresner, its President, Founder and Chief Research Officer.

Howard Dresner is one of the foremost thought leaders in business intelligence and performance management, having coined the term “Business Intelligence” in 1989. He has published two books on the subject, *The Performance Management Revolution – Business Results through Insight and Action* (John Wiley & Sons, Nov. 2007) and *Profiles in Performance – Business Intelligence Journeys and the Roadmap for Change* (John Wiley & Sons, Nov. 2009).



Prior to Dresner Advisory Services, Howard served as chief strategy officer at Hyperion Solutions and was a research fellow at Gartner, where he led its business intelligence research practice for 13 years.

Howard has conducted and directed numerous in-depth primary research studies over the past two decades and is an expert in analyzing these markets.

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Through the Wisdom of Crowds® business intelligence market research reports, we engage with a global community to redefine how research is created and shared.

Other research reports include:

- [Wisdom of Crowds® Flagship BI Market Study](#)
- [Advanced and Predictive Analytics](#)
- [Analytical Data Infrastructure](#)
- [Business Intelligence Competency Center](#)
- [Cloud Computing and Business Intelligence](#)
- [Data Preparation](#)
- [Embedded Business Intelligence](#)
- [Location Intelligence](#)
- [Self-Service BI](#)

Howard conducts a weekly Twitter “tweetchat” on Fridays at 1:00 p.m. ET. During these live events, the #BIWisdom “tribe” discusses a wide range of business intelligence and related topics.

You can find more information about Dresner Advisory Services at www.dresneradvisory.com.

About Bill Hostmann

Bill Hostmann is a Research Fellow with Dresner Advisory. His area of focus includes trends in Analytic Data Infrastructures (ADI)—integrating and managing the information and information models used by BI, Advanced Analytics, and CPM/PM applications.



Bill has more than 20 years of product management experience at the intersection of business intelligence/analytics and data analytics infrastructure, including positions in product and general management at Gemstone Systems, Informix, and Informatica.

He spent 14 years as a research analyst at Gartner, including several years as a VP and Distinguished Analyst for BI/Analytics. Bill's academic education includes BSEE, MSCS&EE, and MBA degrees.

Survey Method and Data Collection

As with all of our Wisdom of Crowds® Market Studies, we constructed a survey instrument to collect data and used social media and crowdsourcing techniques to recruit participants.

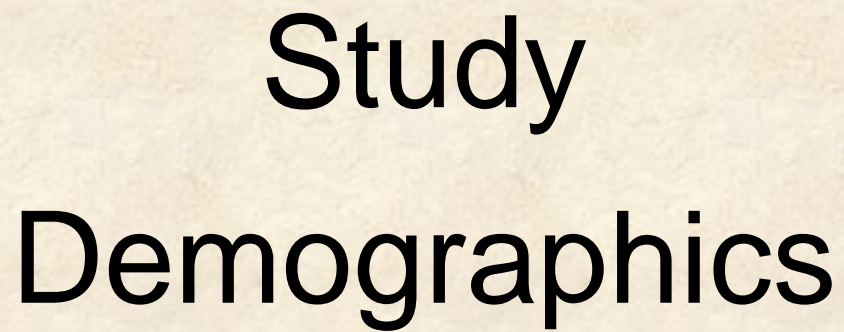
Data Quality

We carefully scrutinized and verified all respondent entries to ensure that the final 770 respondents and responses used in the survey were from qualified participants.

Executive Summary

Executive Summary

- Forty-seven percent of our survey respondents indicate that analytic consumers are having difficulty locating/accessing analytic content. Those break down as extremely difficult (8%), very difficult (17%), or difficult (22%) (fig.6). All sizes of organizations indicate that finding content is a challenge. However, not surprisingly, mid-sized and large-sized organizations appear most affected (fig. 10).
- The relationship between the difficulty in BI users finding analytic content (data, models, metadata, etc.) and success with BI is significant. Successful BI initiatives indicate half the difficulty is in finding, accessing, and using analytic content as compared to those that deem their BI initiatives to be somewhat unsuccessful or unsuccessful (fig 7).
- Organizations that have a tenured Chief Analytic Officer (CAO) or Chief Data Officer (CDO) of three years or more indicate they have markedly less difficulty finding analytic content than those organizations that don't have a CAO or CDO (fig 8).
- For collaborating with analytic content, BI users foremost want the ability to search and navigate for relevant content. This priority matches the high degree of difficulty indicated by survey respondents in finding their needed analytical content.
- In 2019, more than 79% (up from 70% in 2018) of respondents indicate that governing analytic content creation and sharing (e.g., via policies, controls, and applied technologies) is very important or critical to their organizations (fig. 18).
- The top three data catalog feature priorities for 2019 are “includes a data dictionary,” “catalog multiple databases,” and “integration with self-service data prep tools” (new to top three in 2019). Data catalog features for cloud and Hadoop-based sources are the lowest priority features (fig 29).
- Comparing the vendor responses to the user responses, we see that the importance they provide for their product strategies is for the most part in balance with user responses as to importance and priority of key collaboration, governance, and data catalog capabilities for analytic content.



Study
Demographics

Study Demographics

Study participants provide a cross-section of data across geographies, functions, organization sizes, and vertical industries. We believe that, unlike other industry research, this supports a more representative sample and better indicator of true market dynamics. We constructed cross-tab analyses using these demographics to identify and illustrate important industry trends.

Geography

North America, which includes the United States, Canada, and Puerto Rico, represents the largest group with 65% percent of all respondents, followed by EMEA (24 percent). Asia Pacific and Latin America account for the balance of respondents (fig. 1).

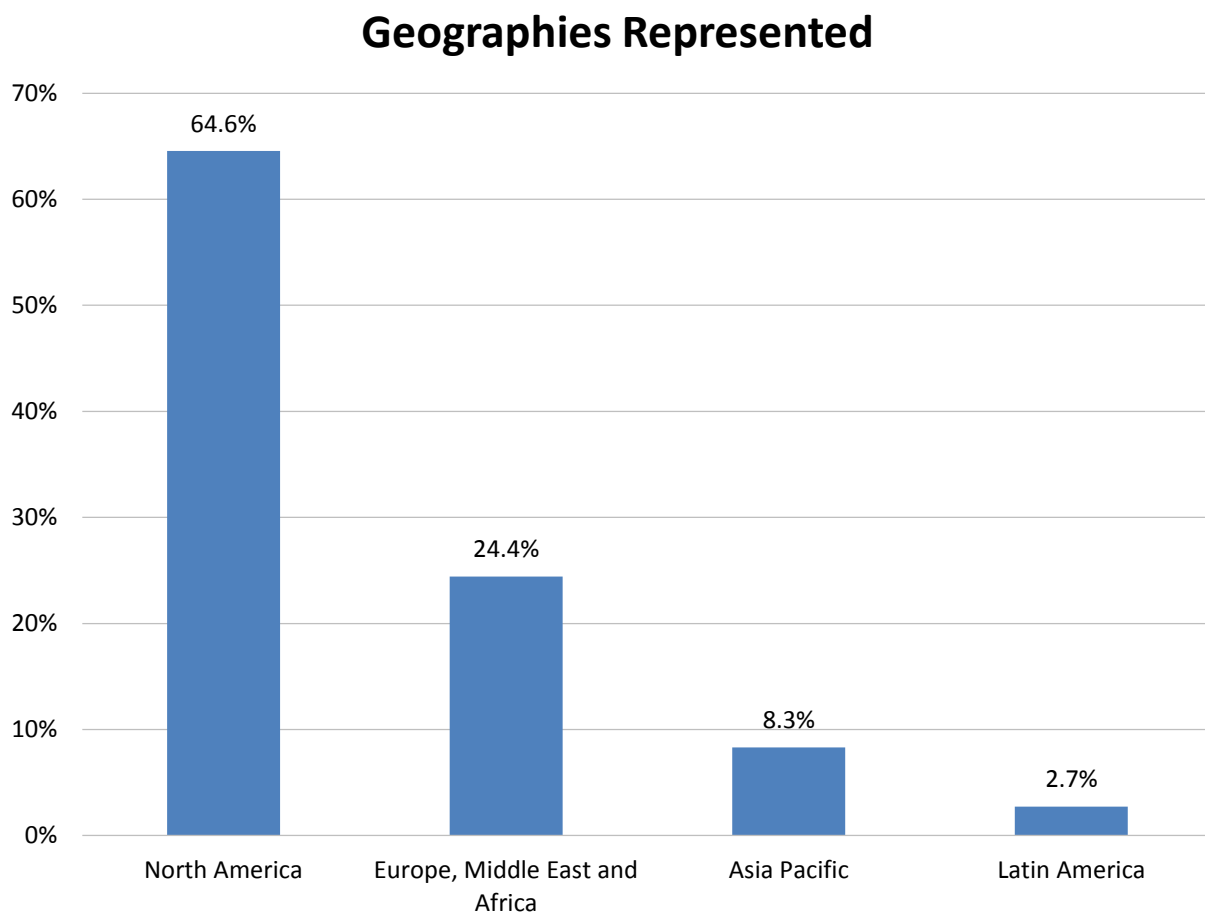


Figure 1 – Geographies represented

Functions

In 2019, Information Technology respondents account for 24% of our sample, followed by Executive Management (23%) (fig. 2). Finance, the Business Intelligence Competency Center (BICC), and Operations are the next most represented functions in the sample.

Tabulating results across functions helps us develop analyses that reflect the differences and influence of different departments within organizations.

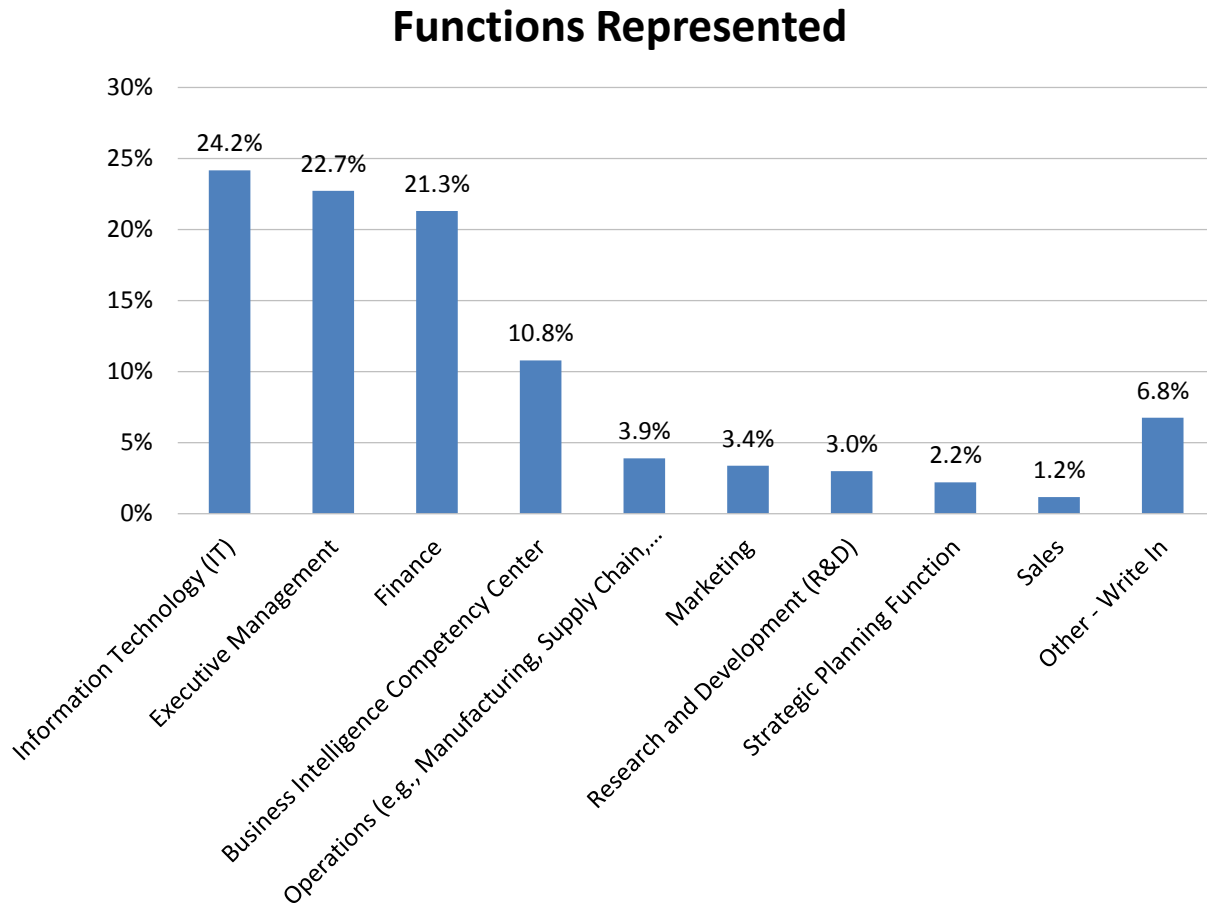


Figure 2 – Functions represented

Vertical Industries

In 2019, Technology (15%) leads vertical industry distribution, followed by Healthcare (9%), and Financial Services 8% (fig. 3). Manufacturing, Education, and Retail/Wholesale are the next most represented industries in our sample.

Vertical Industries Represented

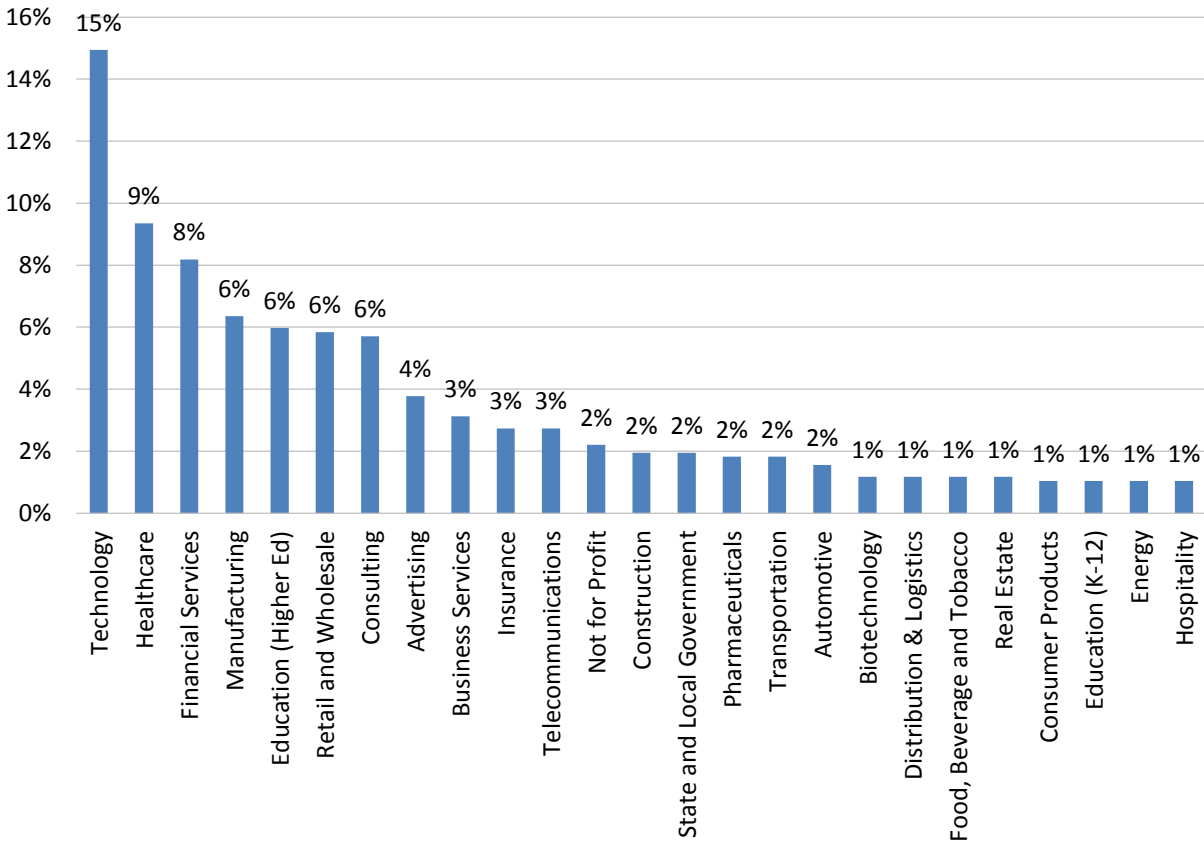


Figure 3 – Vertical industries represented

Organization Size

In 2019, our survey includes small organizations (1-100 employees), mid-sized organizations (101-1,000 employees), and large organizations (>1,000 employees) (fig. 4). This year, small organizations account for 27% of our sample, mid-sized organizations account for 34%, and 14% of the respondents are from organizations larger than 10,000 employees.

Organization Sizes Represented

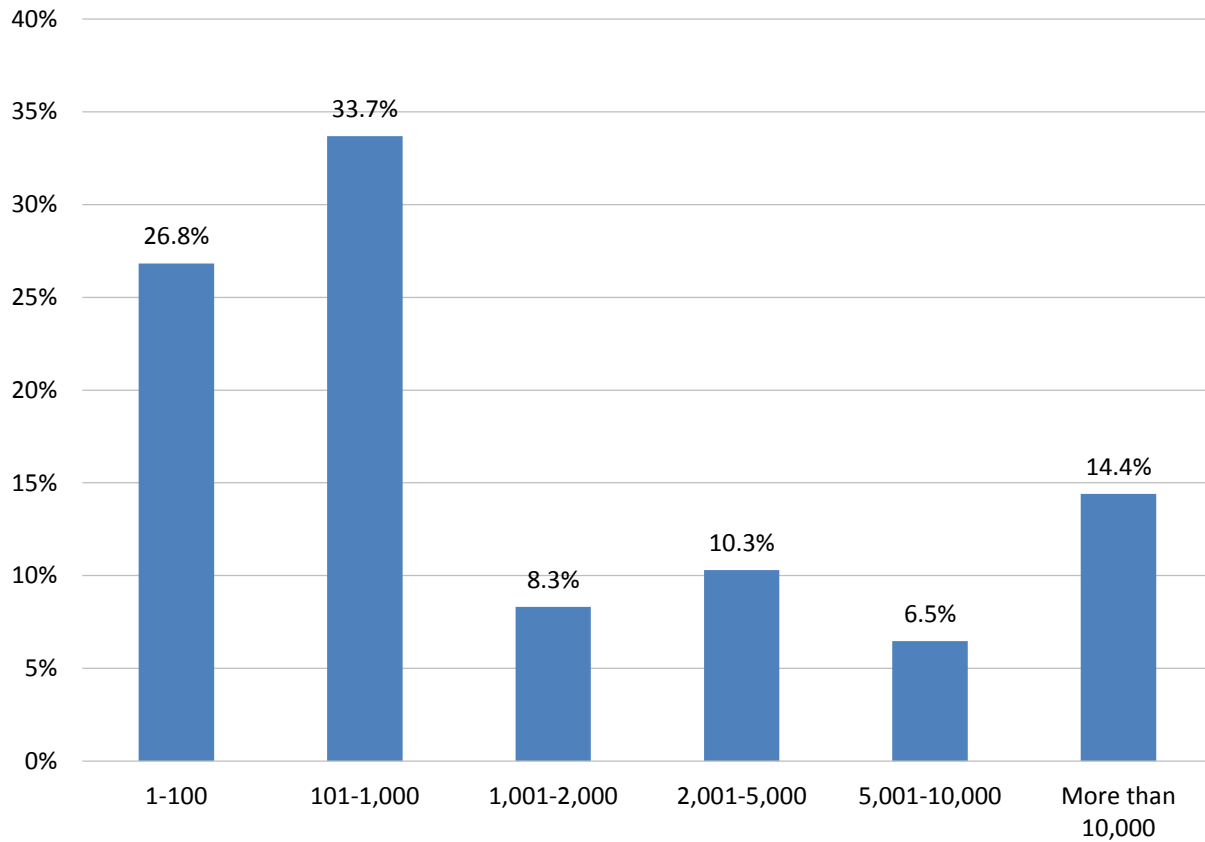


Figure 4 – Organization sizes represented



Analysis & Trends

Analysis and Trends

Relative Importance of Data Catalog Technologies and Initiatives

The top business intelligence related strategic initiatives reflect the priorities of the various Analytic Data Infrastructure use cases (i.e., the ongoing demand for the basics: reporting, dashboards, the needs for data integration, the data warehouse, and self-service capabilities such as data visualization and data discovery) (fig. 5). Data catalog ranks 15th among the BI technologies and initiatives we study and rank, and it is emerging as a core set of capabilities for making content easier to find for analytic use cases.

Technologies and Initiatives Strategic to Business Intelligence

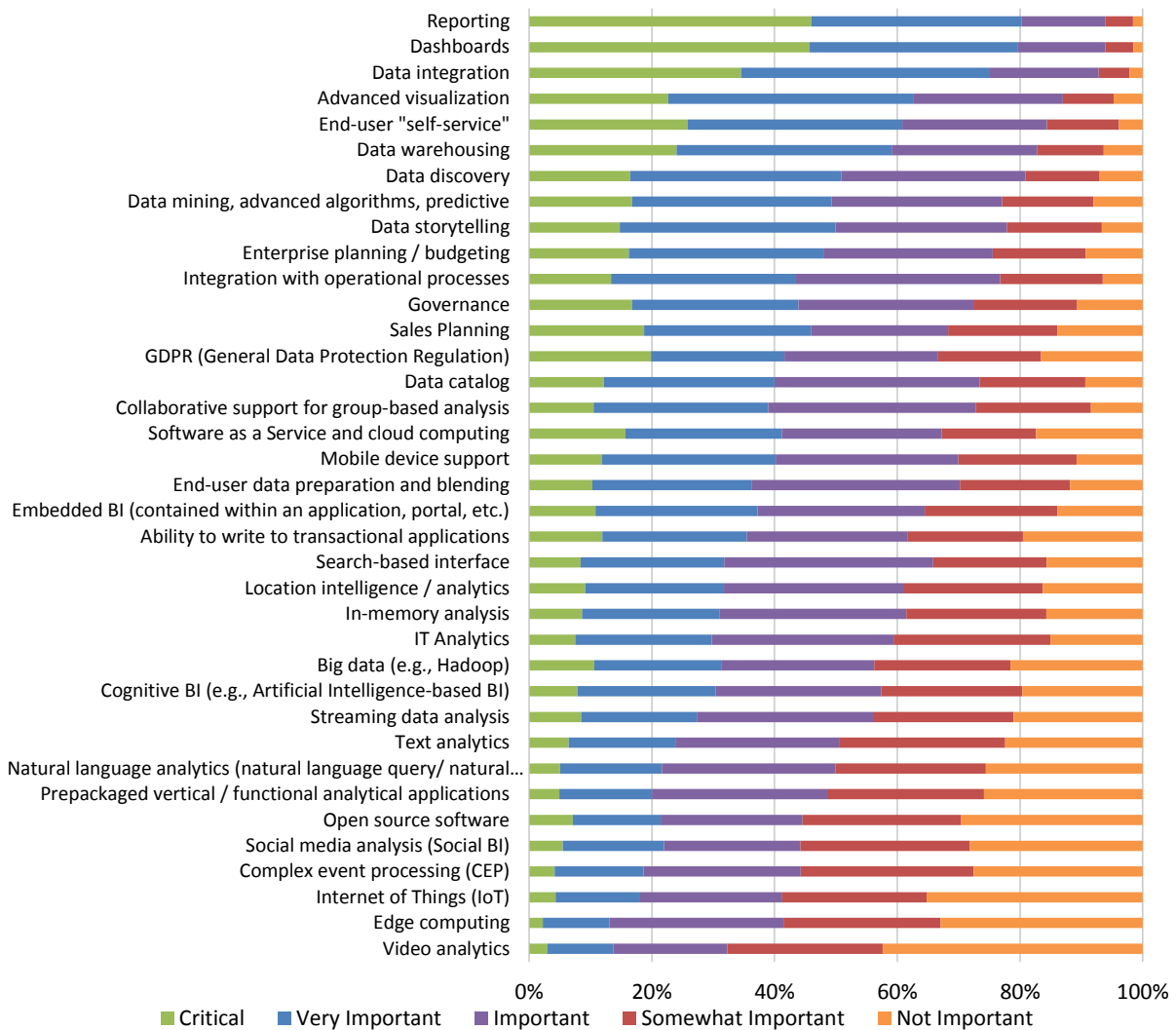


Figure 5 – Technologies and initiatives strategic to business intelligence

Difficulty in Finding Analytic Content

We asked respondents about their difficulty in locating relevant analytic content (e.g., data, metadata) for their BI use case. Forty-seven percent of respondents indicate analytic consumers and use cases have difficulty locating/accessing relevant analytic content (fig.6). The trend of responses about difficulty of finding analytical content is consistent year over year (2017-2019)

Difficulty in Finding Analytic Content

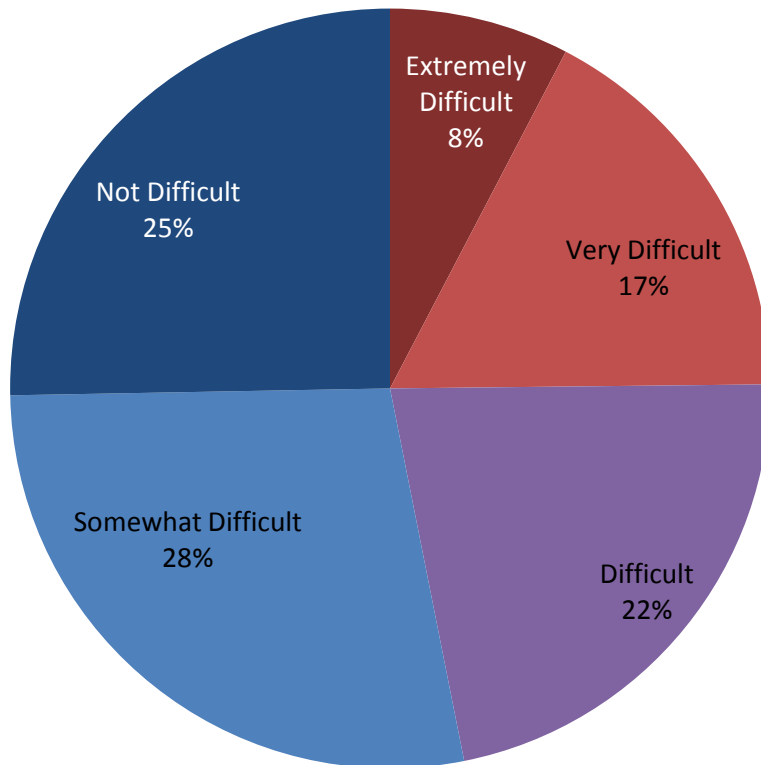


Figure 6 – Difficulty in finding content

The relationship between the level of difficulty in finding analytic content (data, models, metadata, etc.) and success with BI is of note. The easier it is to find and access analytic content, the more successful the BI initiative is. According to our survey respondents, the harder it is for BI users/use case to find and access content, the higher the likelihood that BI initiatives will not be successful (fig. 7). Successful BI initiatives indicate it is twice as easy to find and access their analytic content within their analytic data infrastructure as compared to those that deem their BI initiatives to be somewhat unsuccessful or unsuccessful.

Difficulty in Finding Analytic Content by Success with BI

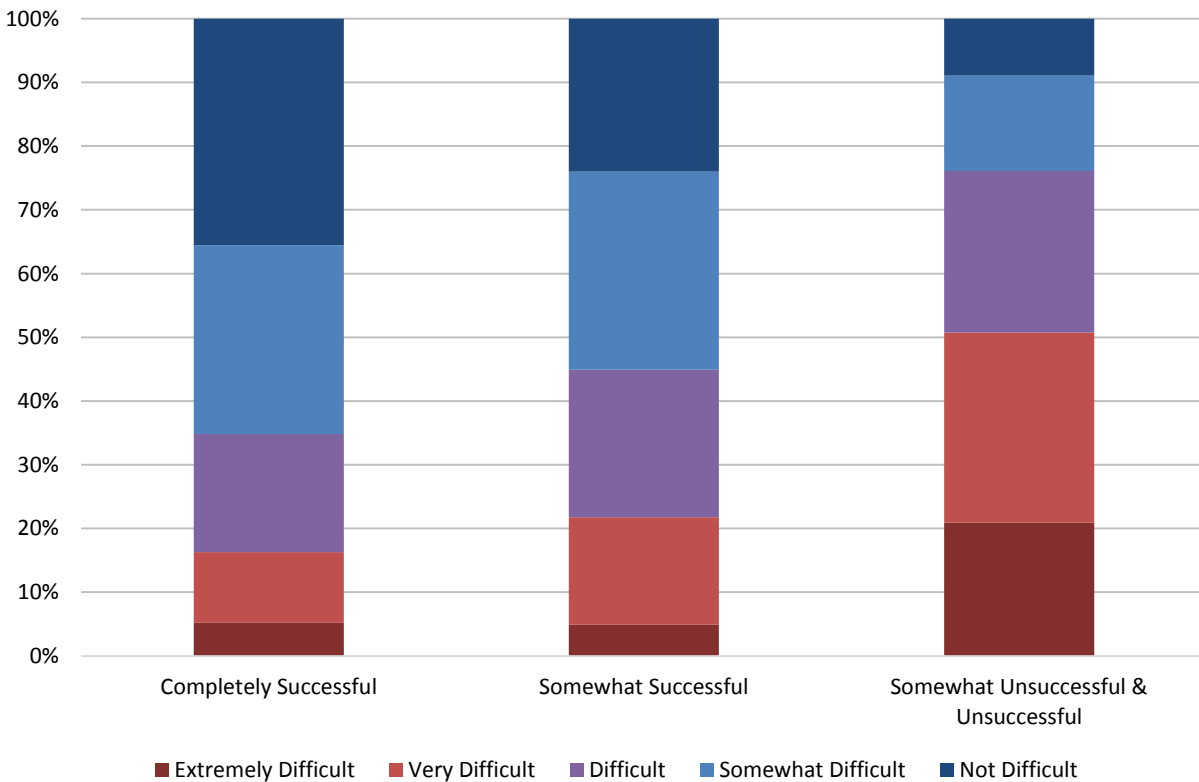


Figure 7 – Difficulty in finding content by success with BI

Respondents from organizations that have a tenured Chief Analytic Officer or Chief Data Officer of three years or more indicate they have less difficulty finding analytic content compared to the responses from than organizations that don't have one (fig. 8). Organizations with CAOs and CDOs with less tenure show mixed results. CAOs appear to be more successful at addressing the difficulty than CDOs, perhaps due to their focus on analysis (and related content) rather than data management/governance across a broad range of applications often associated with a CDO role.

Difficulty in Finding Analytic Content by CAO and CDO Tenure

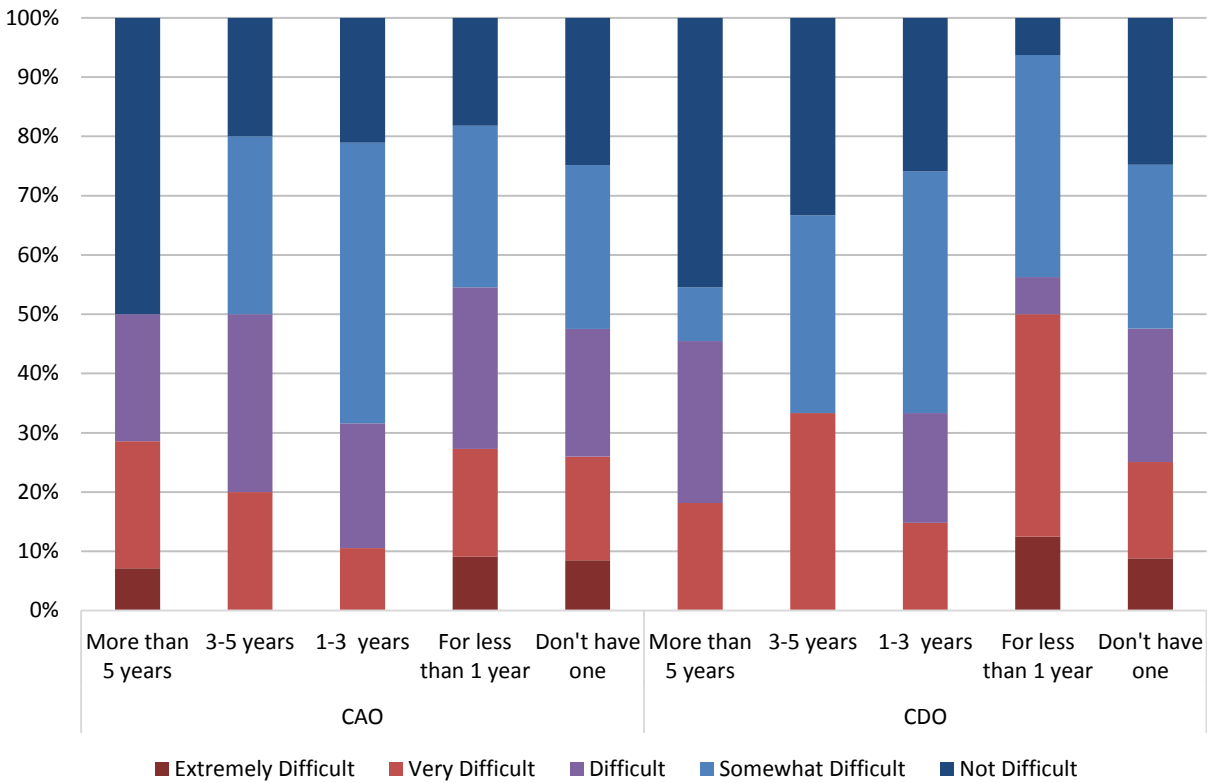


Figure 8 – Difficulty in finding content by CAO and CDO tenure

In this year’s survey, respondents from different parts of the organization have distinctly different attitudes about their access to relevant analytic content for their use case(s). Although all functions suggest difficulty in locating/accessing their relevant analytical content, the issue seems most pressing in Sales/Marketing, R&D, and Finance (fig 9). As the BICC serves and supports BI consumers of analytic content and investments, it makes sense that BICC respondents indicate the lowest difficulty for finding their relevant analytic content.

Difficulty in Finding Analytic Content by Function

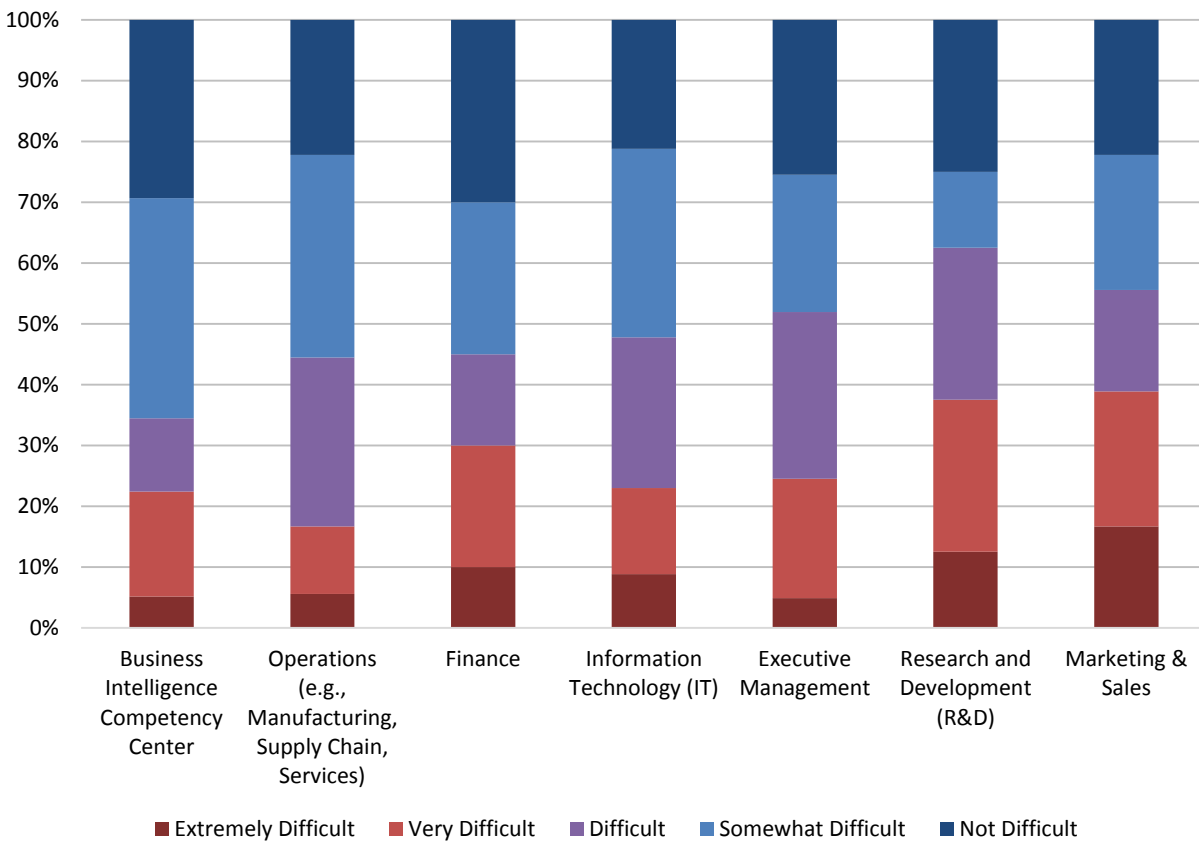


Figure 9 – Difficulty in finding content by function

All sizes of organizations indicate that finding relevant analytic content is a challenge. However, the largest of organizations appear more affected (fig. 10). We believe this is due to the growing complexity and volumes of information sources across organizations of all sizes. However, larger organizations often have greater complexity and a greater associated requirement for data integration/cataloging/governance services to locate and share relevant analytic content across multiple data sources and targets.

Difficulty in Finding Analytic Content by Organization Size

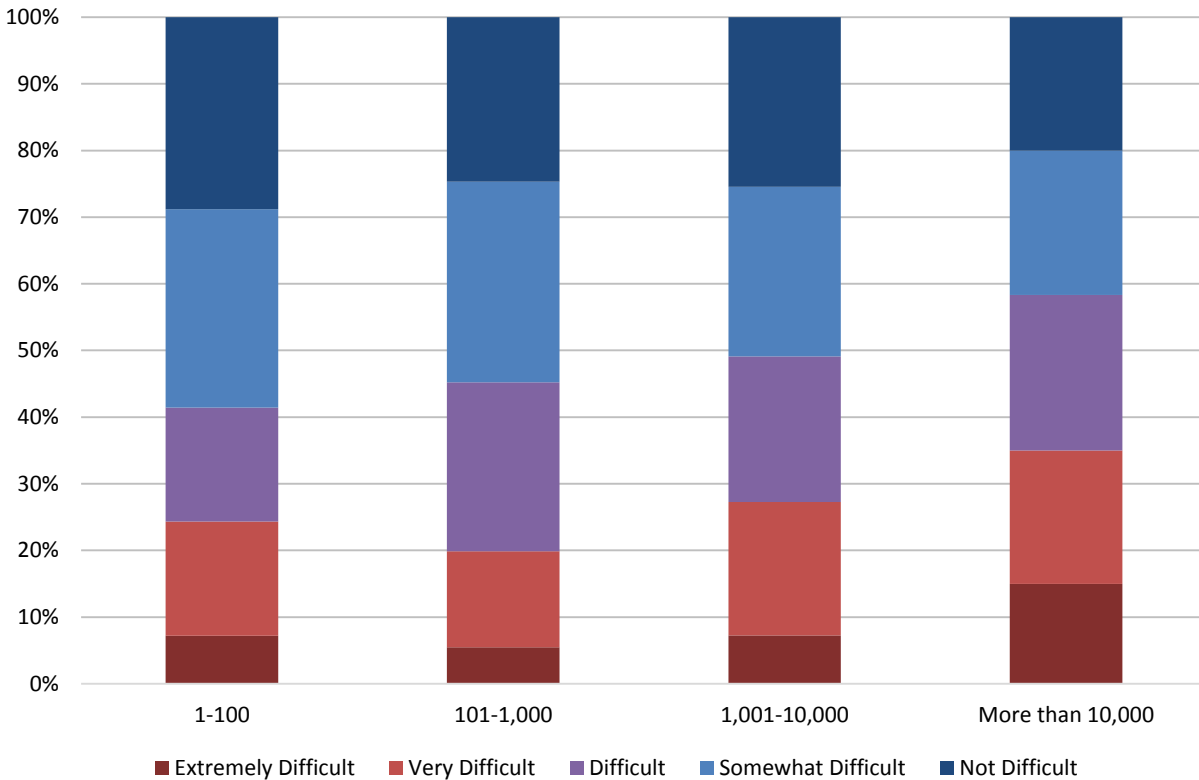


Figure 10 – Difficulty in finding content by organization size

The impact of digital transformation is affecting the Retail/Wholesale and Education market industry segments and their use of analytic content. Their BI consumers indicate substantial challenges in finding relevant analytic content for their use cases (fig. 11). The sentiment of having difficulty accessing analytic content echoes across many other industries, including Healthcare and Financial Services.

Difficulty in Finding Analytic Content by Vertical Industry

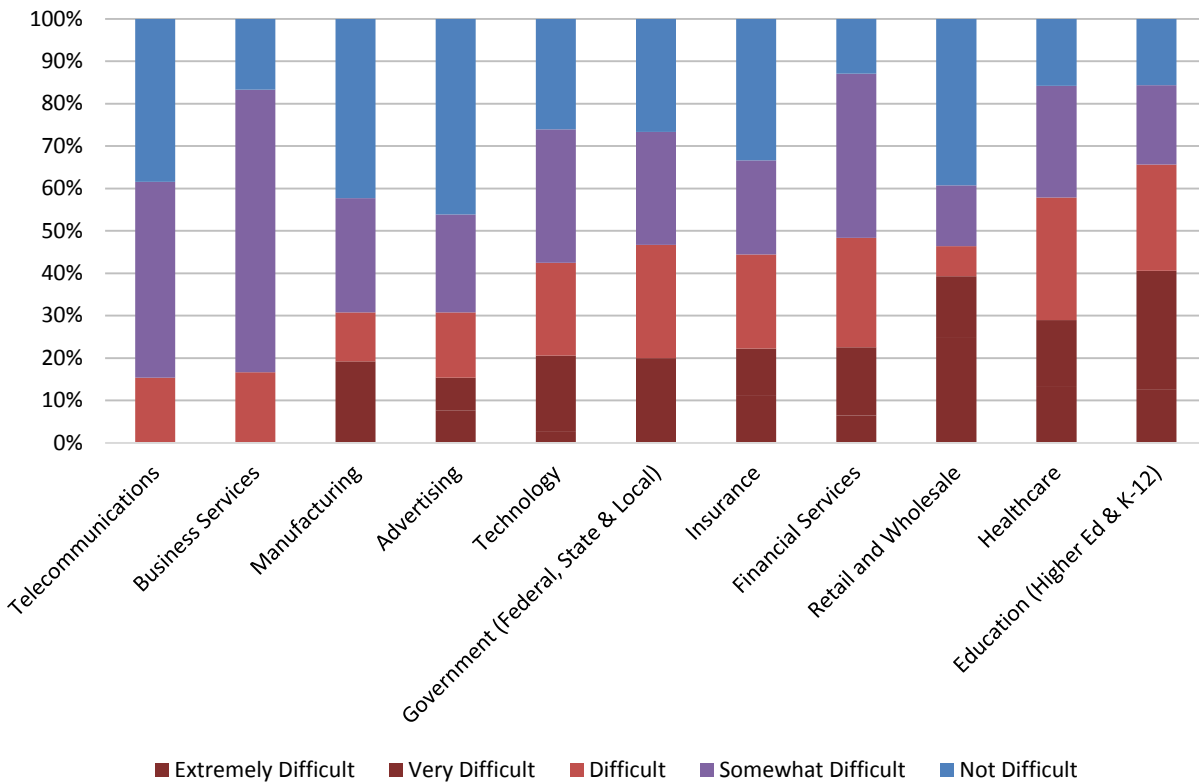


Figure 11 – Difficulty in finding content by industry

Collaboration Requirements for Analytic Content

We asked survey respondents to identify their top collaboration requirements. Not surprisingly, the top features are for making it easier for BI users/use cases to access, use, and share analytic content (see figure 13, i.e., priority for annotate, search, navigation, and share of analytic content).

Collaborative Feature Requirements

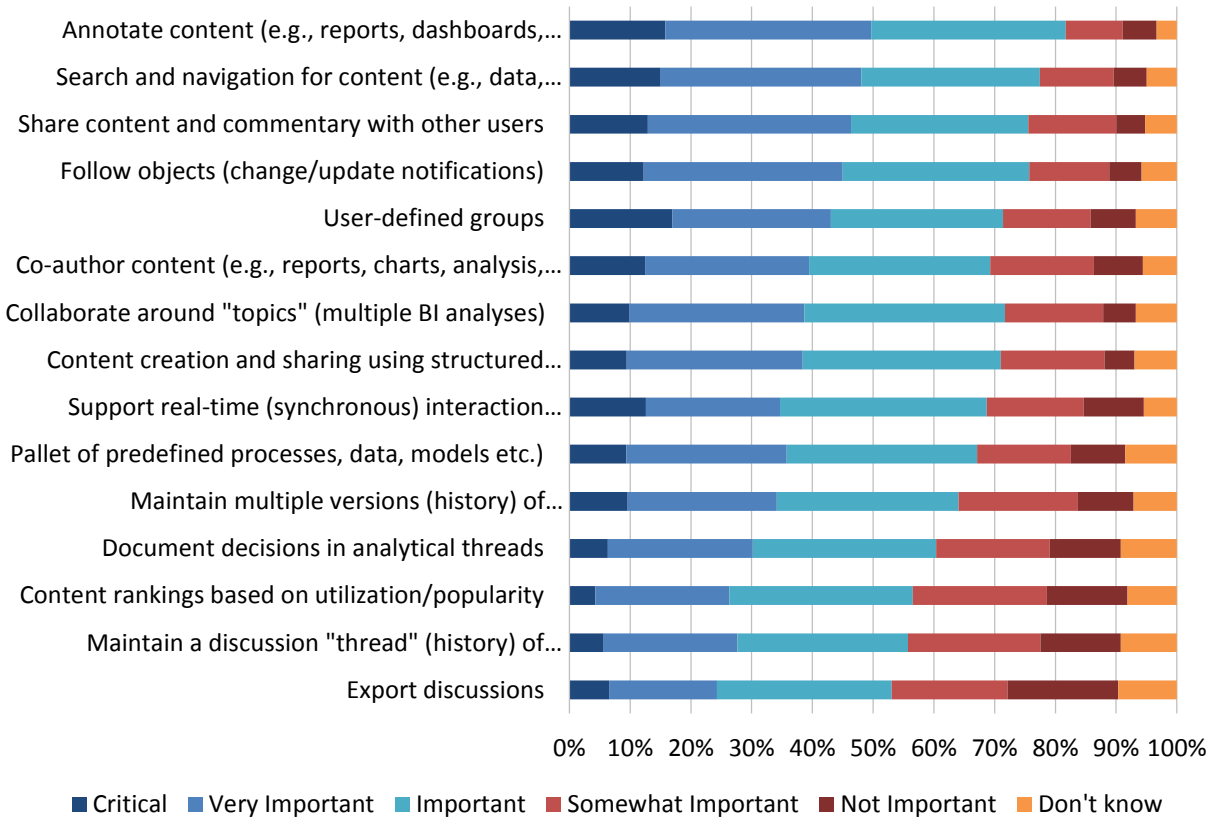


Figure 12 – Collaborative feature requirements

Collaborative Feature Requirements 2018 -2019 Percent Change

There is a shift in priorities for collaborative capabilities as indicated by year-over-year changes in priorities (fig. 13). The shift is towards making analytic content easier to find and use, shifting away from user discussions and ranking utilization of content.

Collaborative Feature Requirements 2018-2019 Percent Change

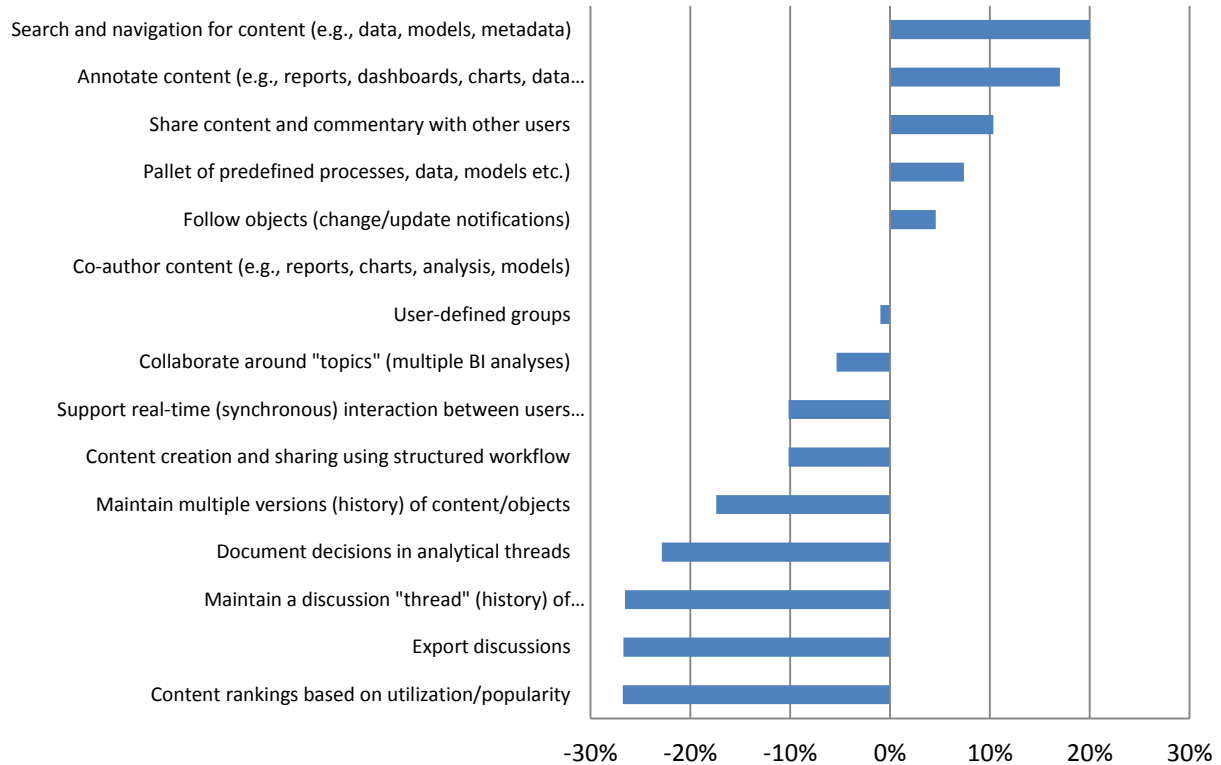


Figure 13 – Collaborative feature requirements 2018-2019 percent change

Priorities for analytic content collaboration features varies by function (fig. 14). Research and Development and Marketing/Sales functions express the highest interest in all collaboration feature requirements, especially "annotate," "search and navigation," and "share content." Most functions show above-average interest in collaborative features. Interestingly, in last year's report, R&D functions were far less likely to highly value or prioritize collaborative features in general.

Collaborative Feature Requirements by Function

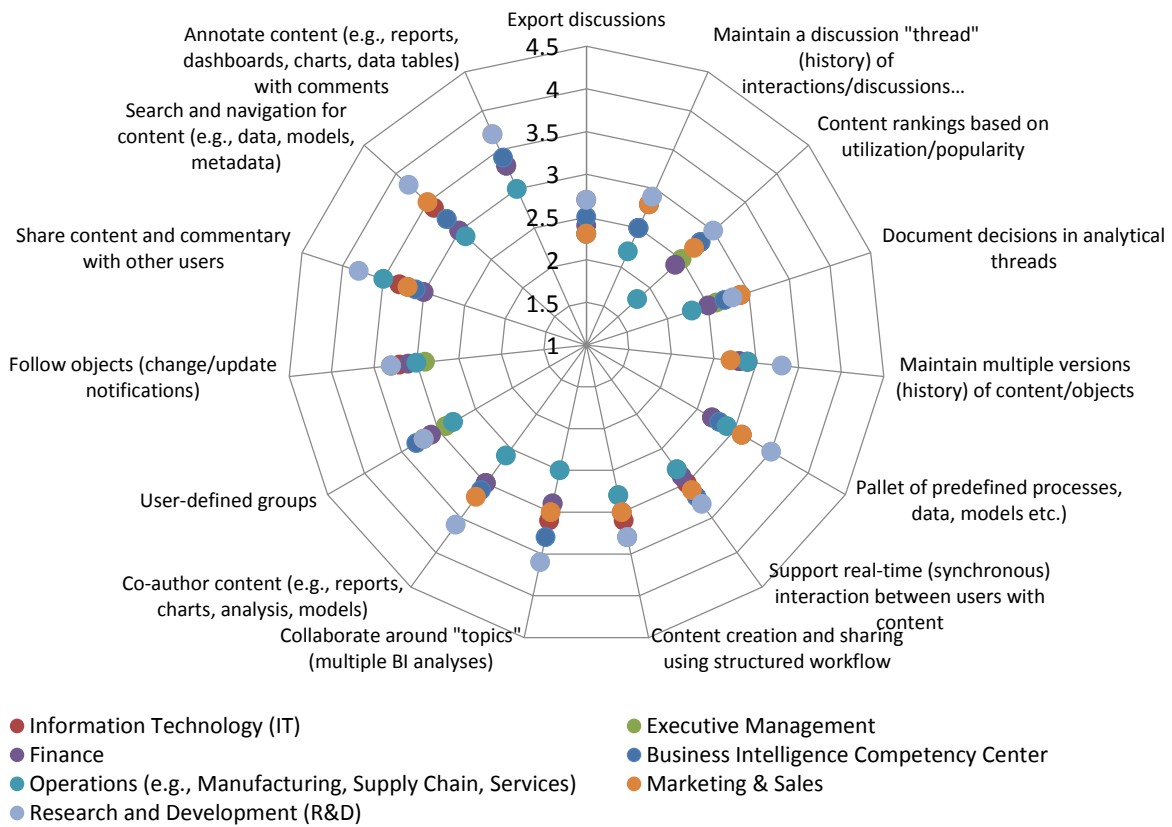


Figure 14 – Collaborative feature requirements by function

Interest in collaborative features are a higher priority for large and very large organizations (fig. 15). Overall, very large organizations (>10,000 employees) prioritize all collaborative features higher, compared to other sized organizations.

Collaborative Feature Requirements by Organization Size

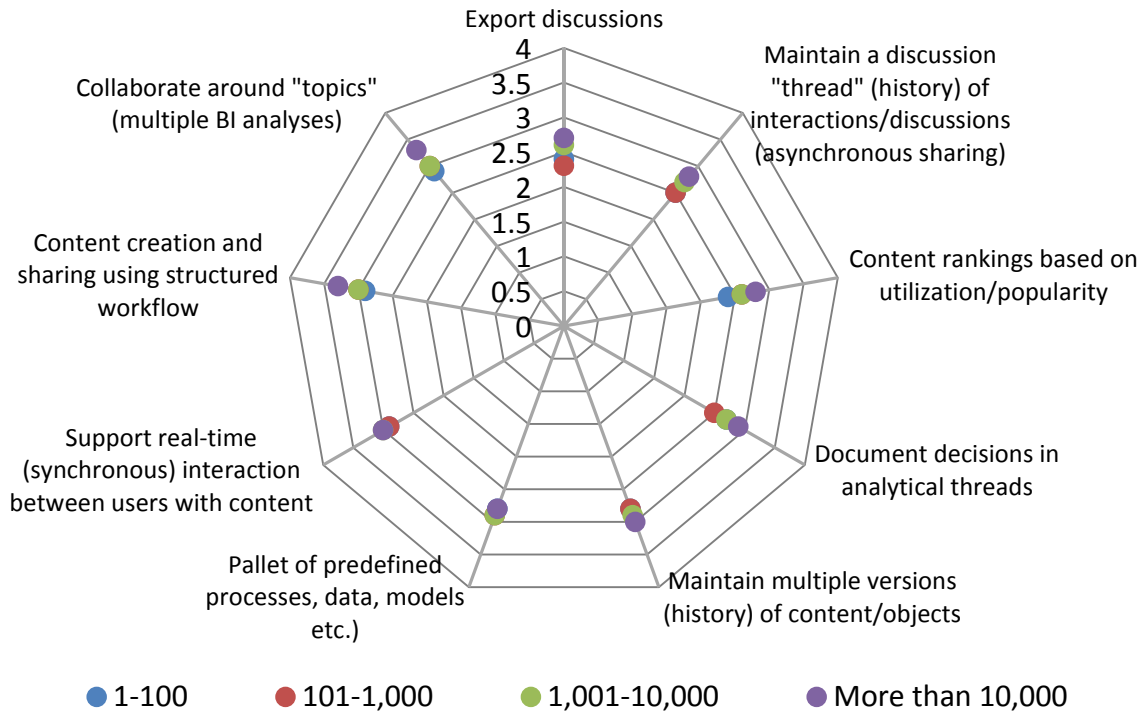


Figure 15 – Collaborative feature requirements by organization size

Priorities for collaborative feature requirements for BI use cases vary by vertical industry (fig. 16). In our 2019 industry dimension sample, Insurance reports above-average or highest interest in most collaboration features especially features for discussion and documenting decisions in analytical threads. Financial respondents' collaboration priorities are the next overall highest in "user defined groups," "annotate content," and "search and navigation."

Collaborative Feature Requirements by Vertical Industry

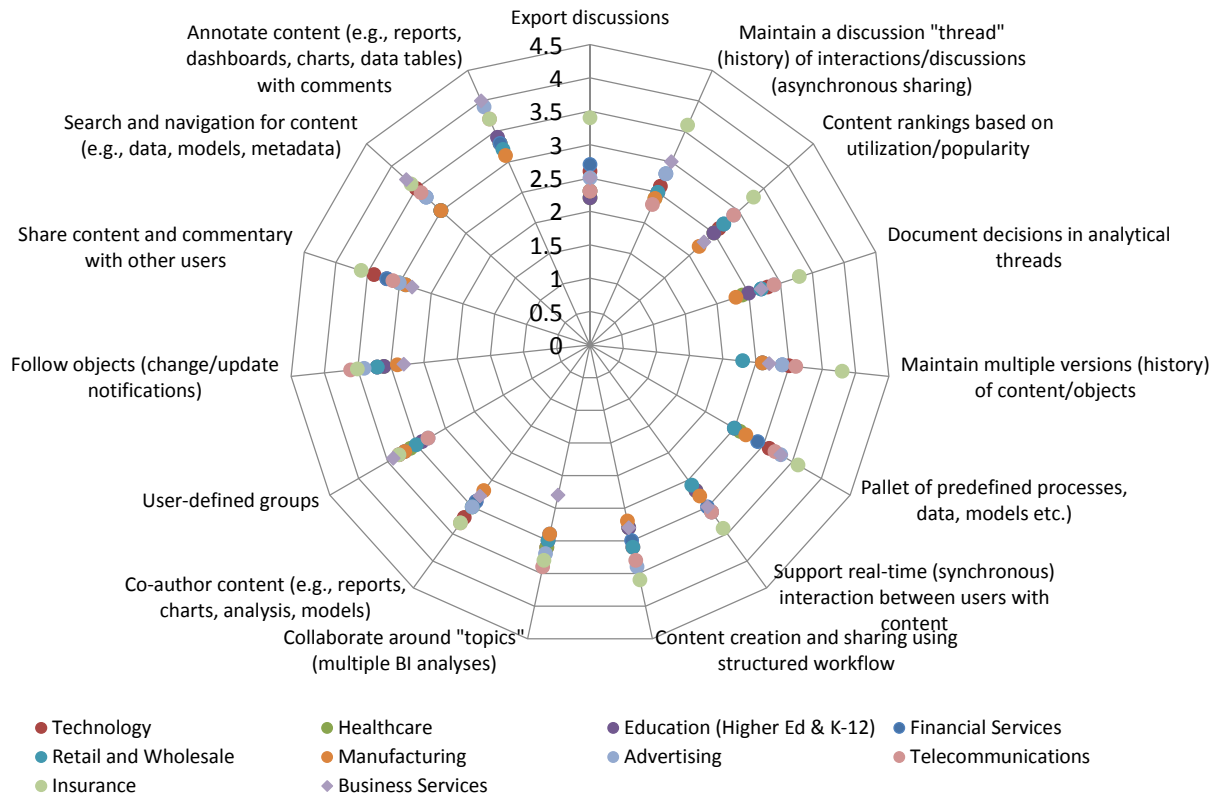


Figure 16 – Collaborative feature requirements by vertical industry

Interest in the majority of collaborative feature requirements is not significantly different across geographies represented in our sample (fig 17). In our 2019 sample, Latin American respondents lead interest in several features including “search and navigation,” “annotate content,” “share content and commentary,” and “follow objects.” North American respondents place the highest priority in “search and navigation for content” and “annotate content.” EMEA respondents trail interest in nearly all collaboration feature requirements.

Collaborative Feature Requirements by Geography

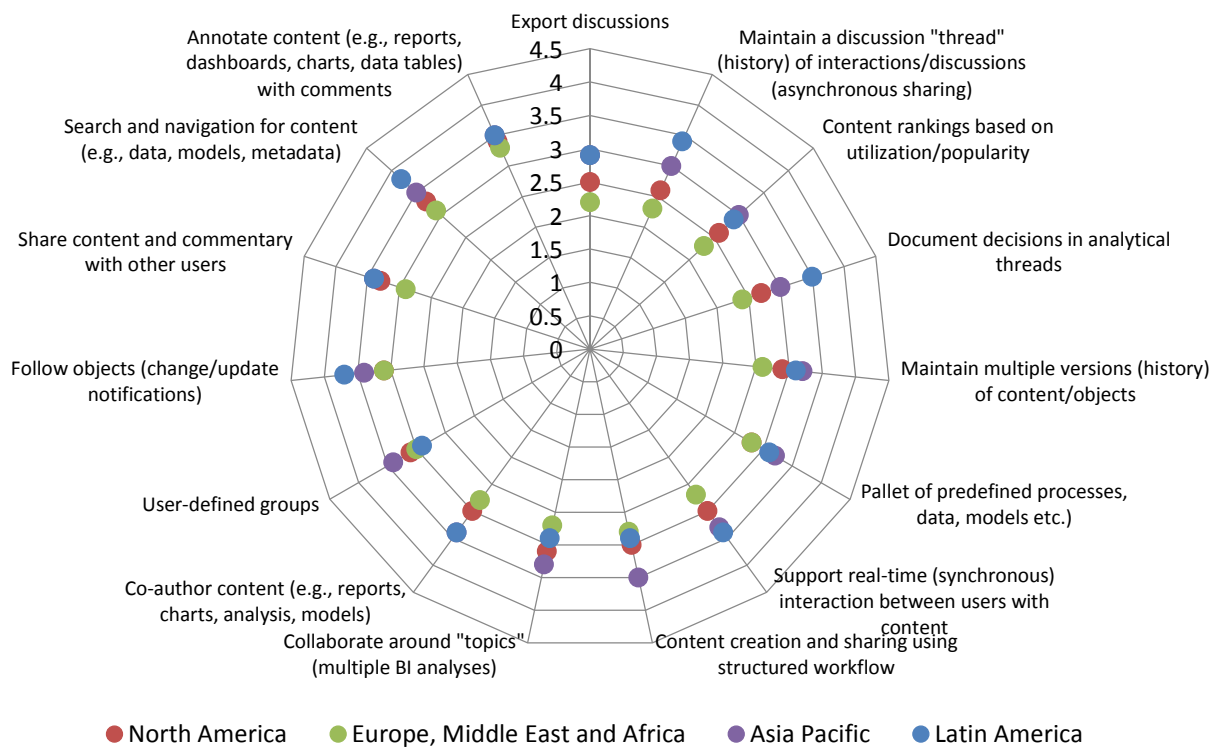


Figure 17 – Collaborative feature requirements by geography

Governing Analytic Content Creation and Sharing

In 2019, almost 80% of respondents indicate that governing content creation and sharing (e.g., via policies, controls, and applied technologies) is very important or critical to their organizations today (fig. 18). Only 1% say BI content creation and sharing is "not important."

Importance of Governing Analytic Content Creation and Sharing 2016-2019

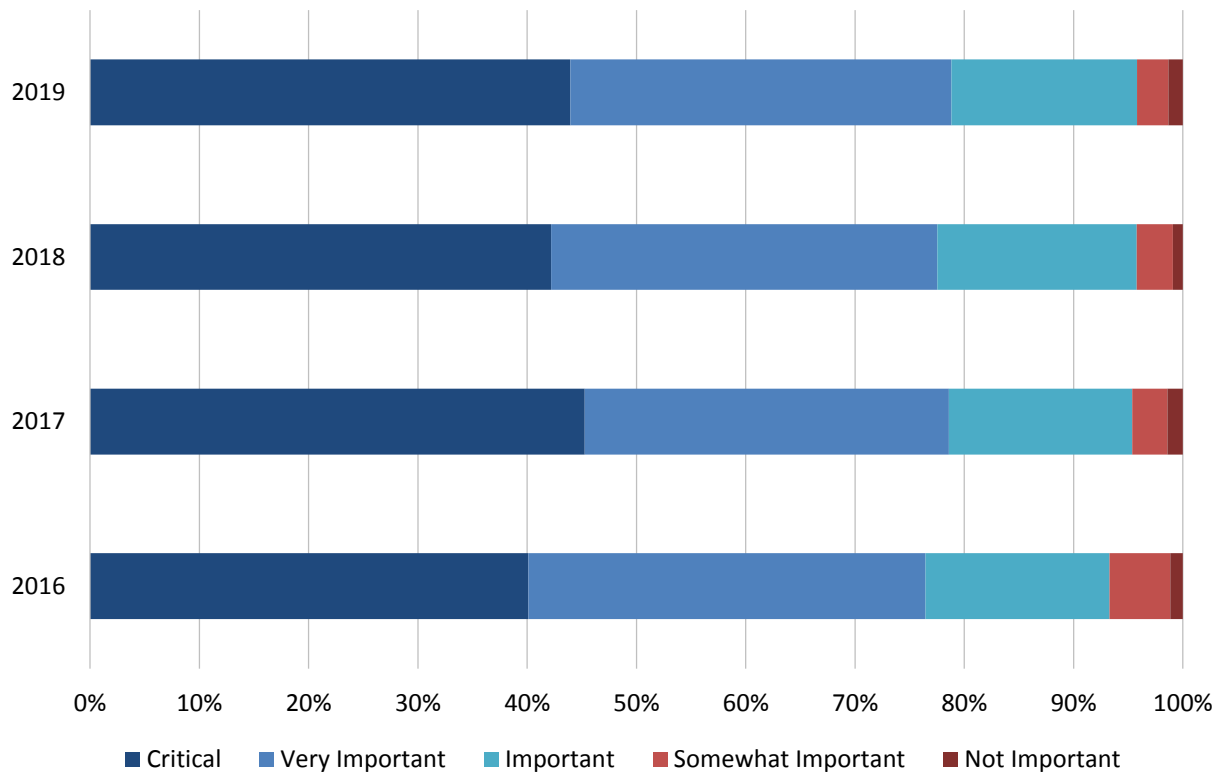


Figure 18 – Importance of governing analytic content creation and sharing 2016-2019

When we compare the responses to our question about how difficult it is to find (access/use) analytic content versus the importance of governing that content, we note a bi-modal distribution of importance. Organizations that say it's not difficult to find/use analytic content also place the highest importance on the governance of their content (fig. 19). Interestingly, respondents that indicate it is extremely difficult to find/use analytic content also rate the governance of their content very high.

Importance of Governing Analytic Content by Difficulty in Finding Analytic Content

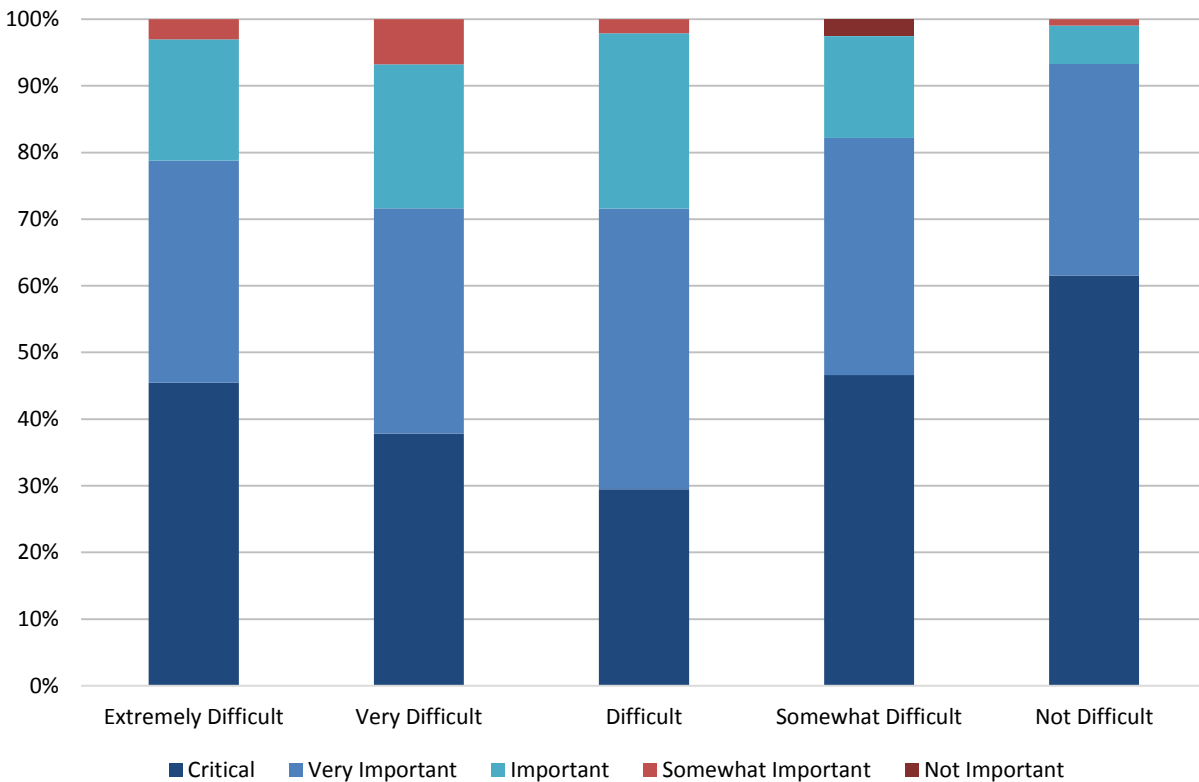


Figure 19 – Importance of governing analytic content by difficulty in finding analytic content

Across organizational roles and functions, respondents from Finance and Operations functions indicate a relatively higher priority for governing analytic content (fig. 20). Marketing/Sales, R&D and, surprisingly, IT place a somewhat lower relative level of priority on the critical importance of governing analytic content.

Importance of Governing Analytic Content Creation and Sharing by Function

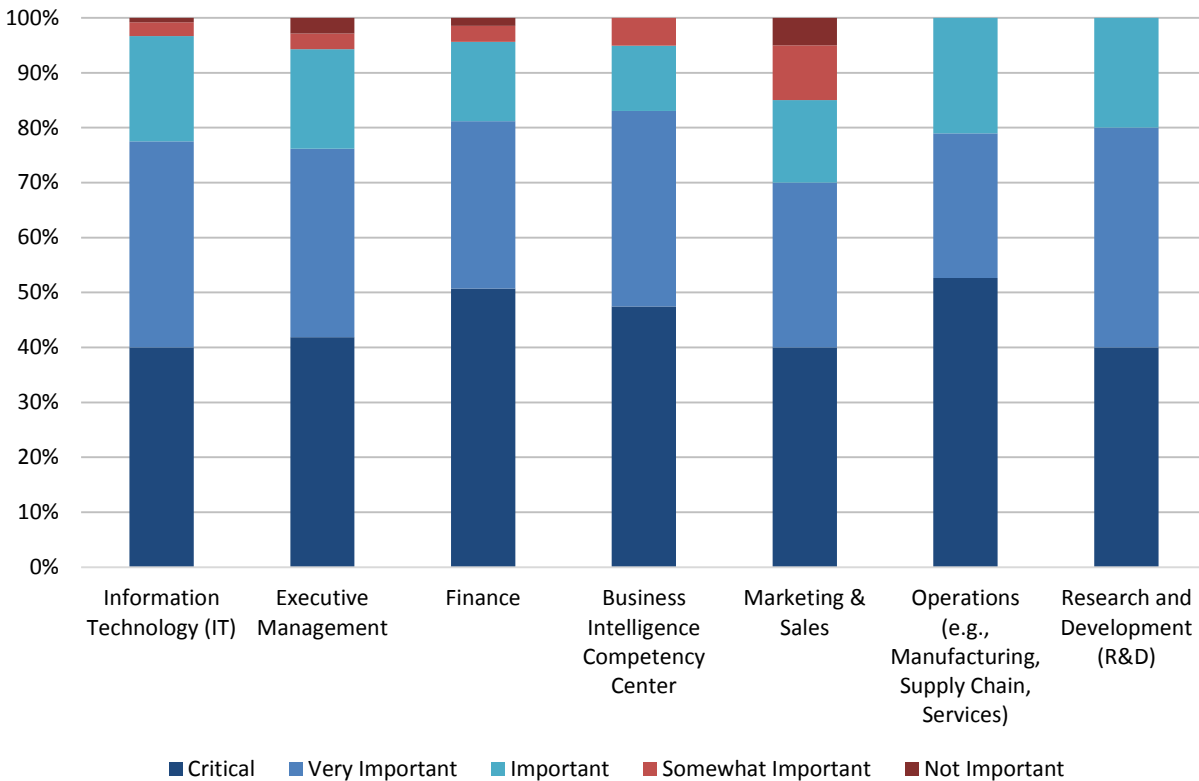


Figure 20 – Importance of governing analytic content creation and sharing by function

The perceived importance of governing content creation is consistently high across organizations of all sizes (fig. 21). Respondents from smaller organizations place a lower level on the critical importance of governing analytic content creation and sharing compared to larger organizations. The technology and best practices to govern content creation and sharing in smaller organizations, where there is a smaller number of analysts, is less difficult than in large organizations.

Importance of Governing Analytic Content Creation and Sharing by Organization Size

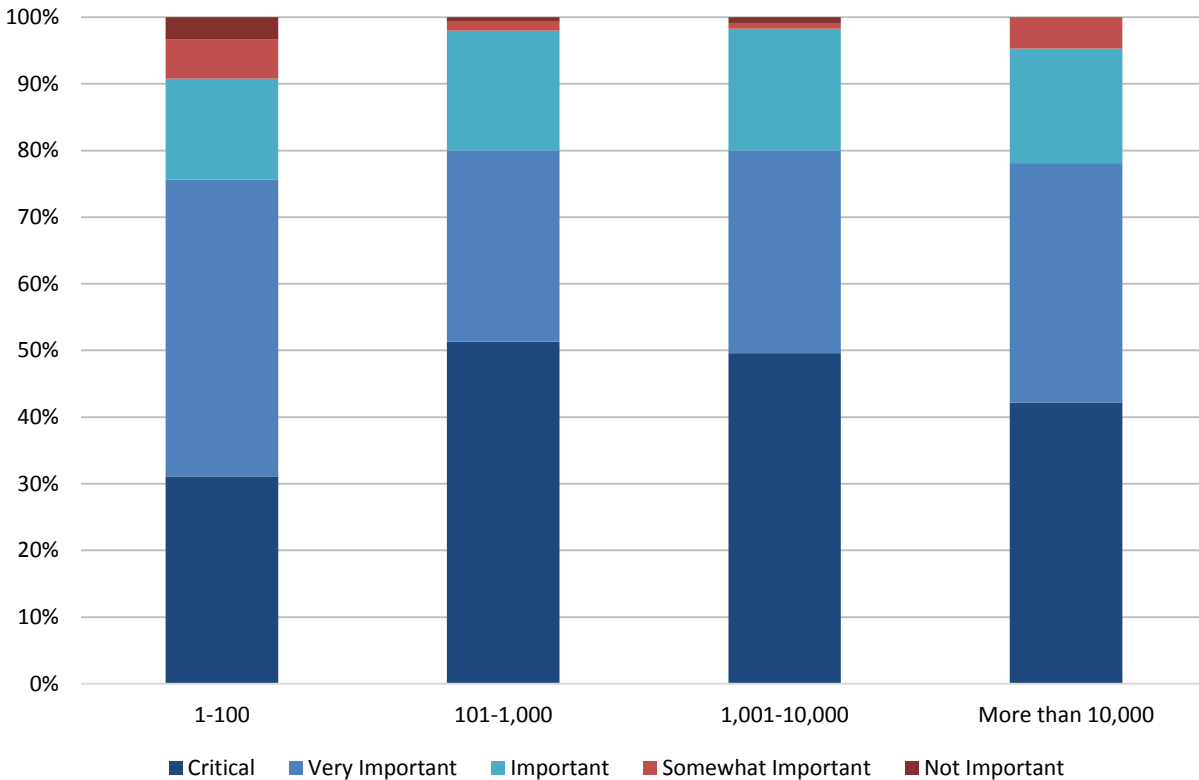


Figure 21 – Importance of governing content creation and sharing by organization size

The perceived "very important" criticality of governing content creation holds across different vertical industries (fig. 22). In our 2019 sample, the "critical" importance of governing analytic content is especially high in Insurance (60%) and Retail/Wholesale (55%).

Importance of Governing Analytic Content Creation and Sharing by Vertical Industry

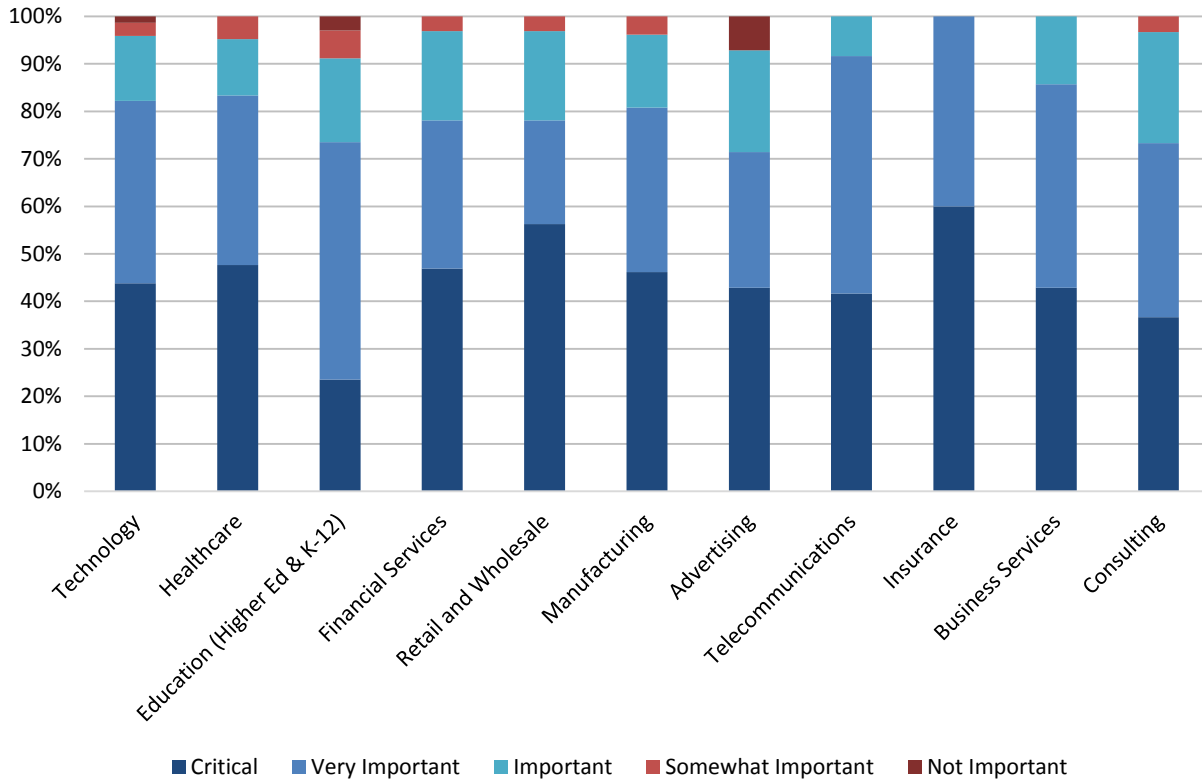


Figure 22 – Importance of governing analytic content creation and sharing by vertical industry

There is minor variability across regions in the overall importance of governing analytic content (fig. 23). In our 2019 survey, only 44% of the Asia-Pacific respondents rate governing of analytic content as "critical."

Importance of Governing analytic Content Creation and Sharing by Geography

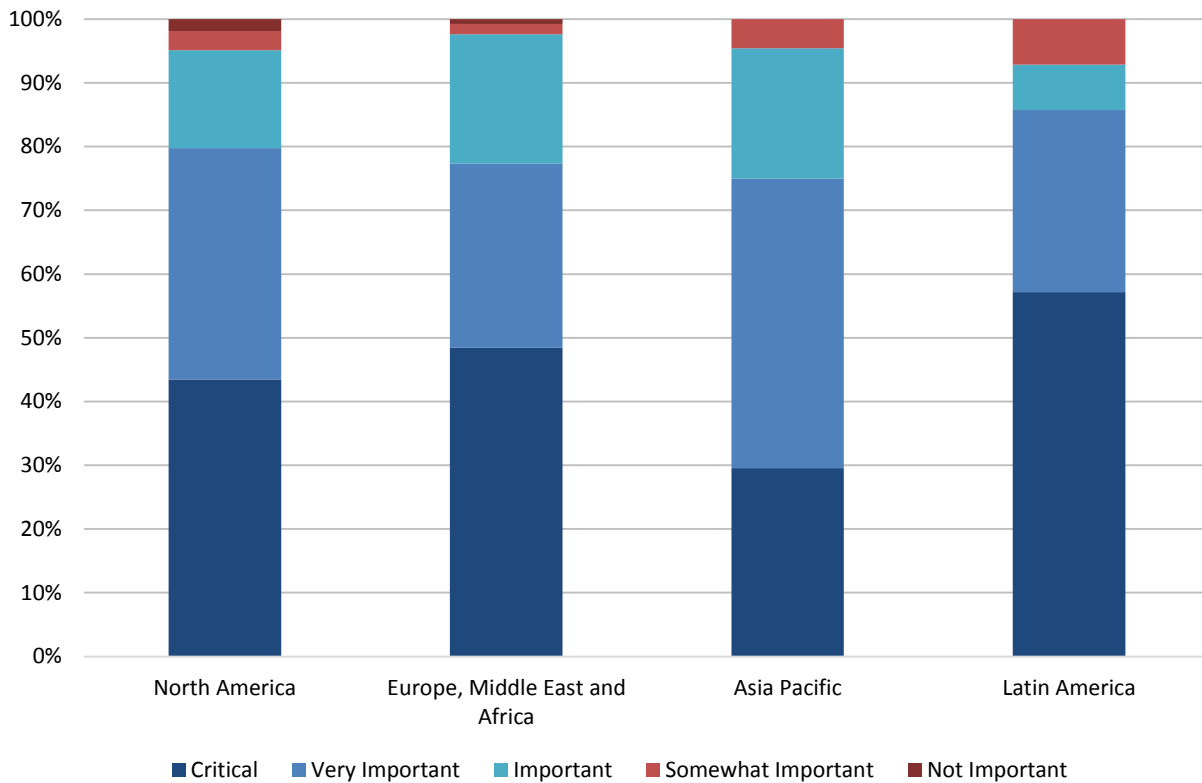


Figure 23 – Importance of governing content creation and sharing by geography

Governance Features for Analytic Content

We asked respondents to rank the importance/priority for different analytic content governance features (fig. 24). The 2019 survey responses are very similar to the 2018 survey responses. The highest priorities are defined (tiered) levels of access permission to shared documents ("critical" or "very important" to almost 60% of respondents), followed by administrative oversight of user-defined groups and ability to "certify" official versions of shared content.

Analytic Content Governance Feature Requirements

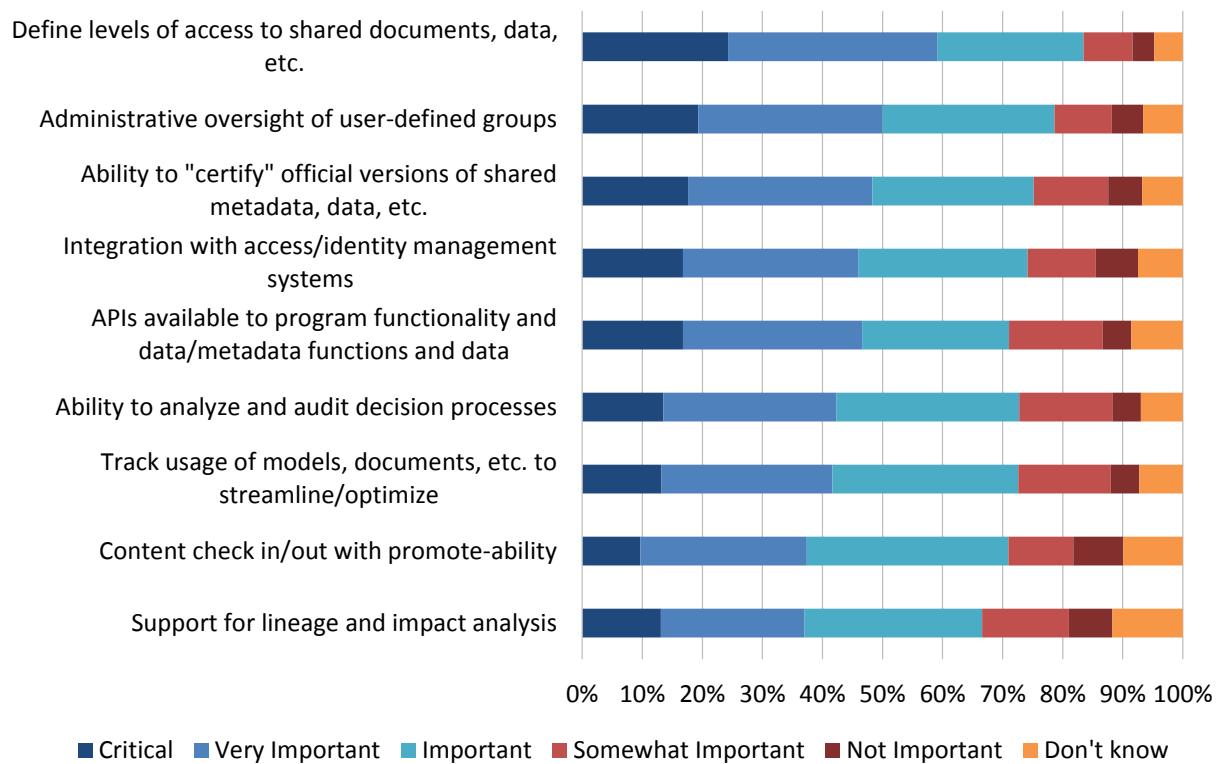


Figure 24 – Analytic content governance feature requirements

Across functions, respondents have different priorities regarding BI content features and governance (fig. 25). Marketing/Sales place the highest priority on “define levels of access to shared documents, data, etc.” Respondents from R&D functions place comparatively high priorities on many of the governance requirements. Respondents from Operations place the lowest relative priorities on governance requirements.

Analytic Content Governance Requirements by Function

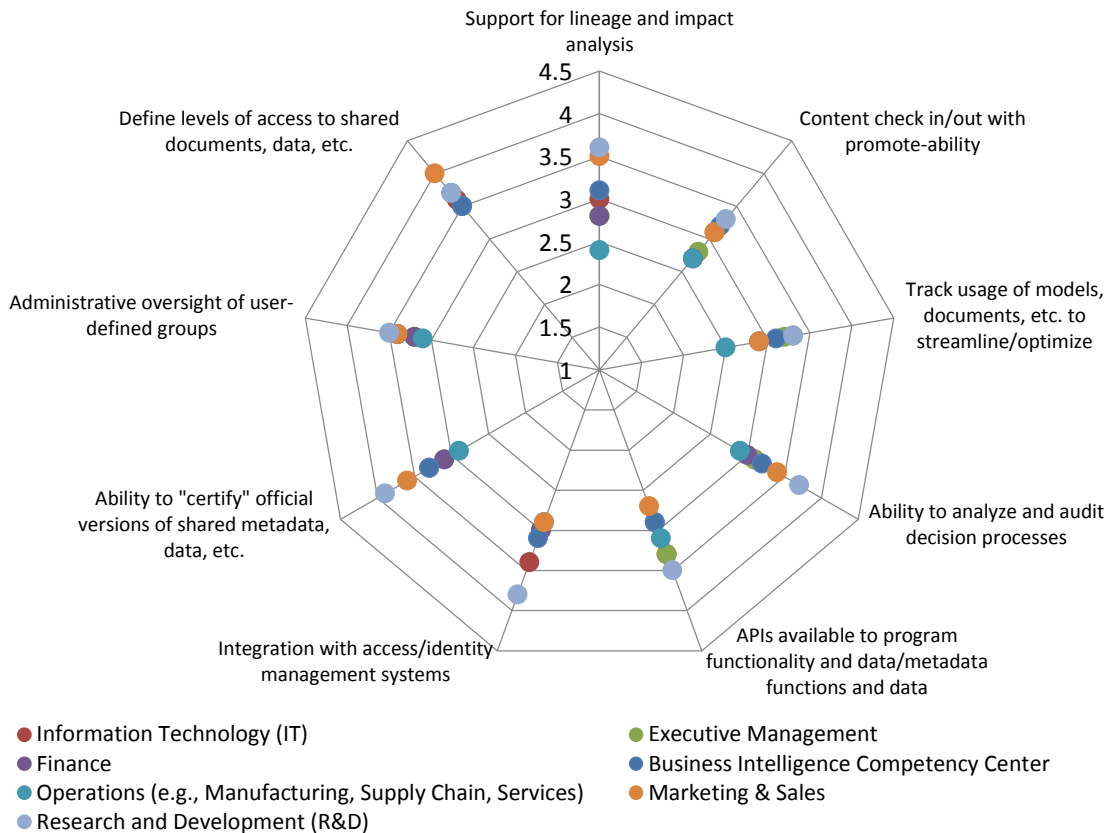


Figure 25 – Analytic content governance requirements by function

As user content governance takes on implications that can scale along with organizational size, we are not surprised to find very large organizations reporting the highest importance in content governance features (fig. 26). Very large organizations also tend to be well established and have more policies and controls built over time. Small organizations with 1 to 100 employees report the lowest interest in governance features overall.

Analytic Content Governance Requirements, Importance by Organization Size

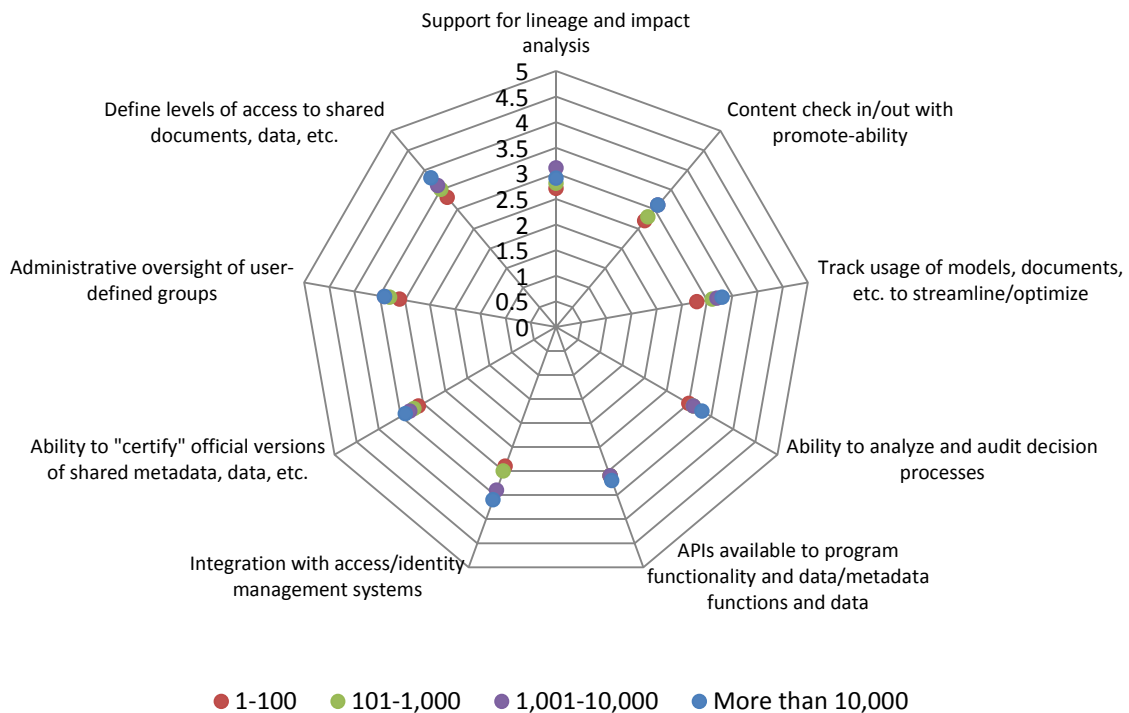


Figure 26 – Analytic content governance feature requirements by organization size

Respondent preference for content governance features varies by industry (fig. 27). Insurance industry respondents place well above-average priority for most content governance features. Financial Services respondents have the second highest scores for a particular focus on “integration with access/identity management systems.”

Analytic Content Governance Feature Requirements by Vertical Industry

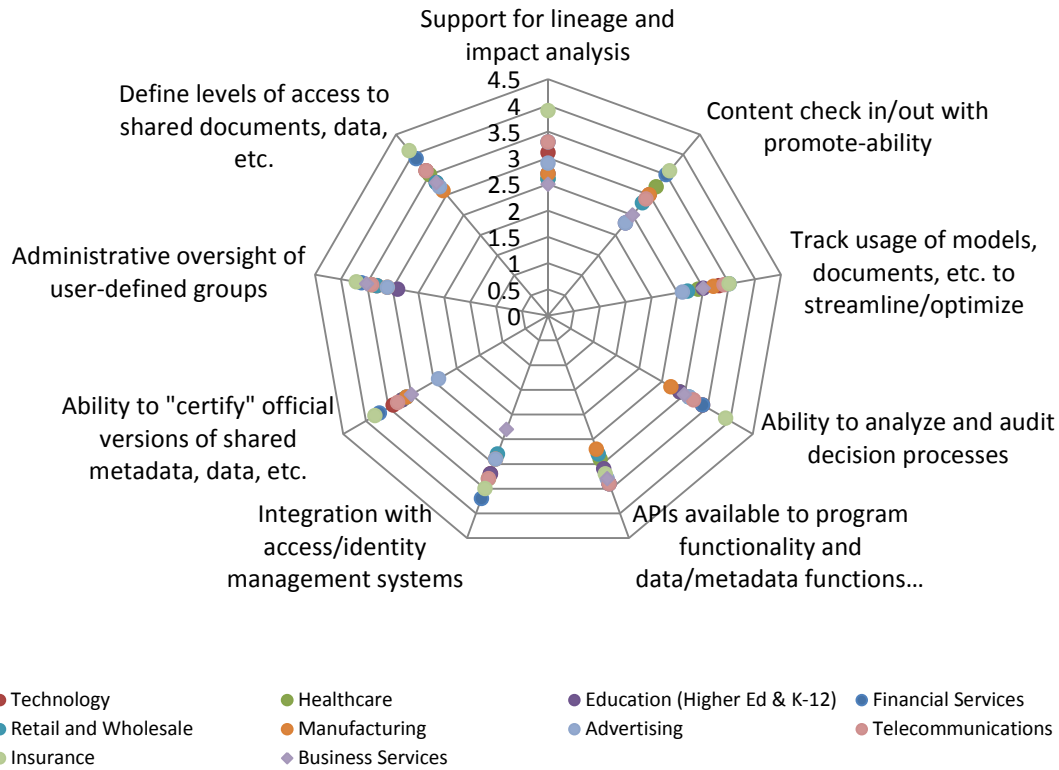


Figure 27 – Content governance feature requirements by vertical industry

Respondent priorities for user content governance features vary slightly by geography (fig. 28). Asia-Pacific respondents show strongest interest overall in content governance features. EMEA respondents have the lowest overall priorities.

Analytic Content Governance Feature Requirements by Geography

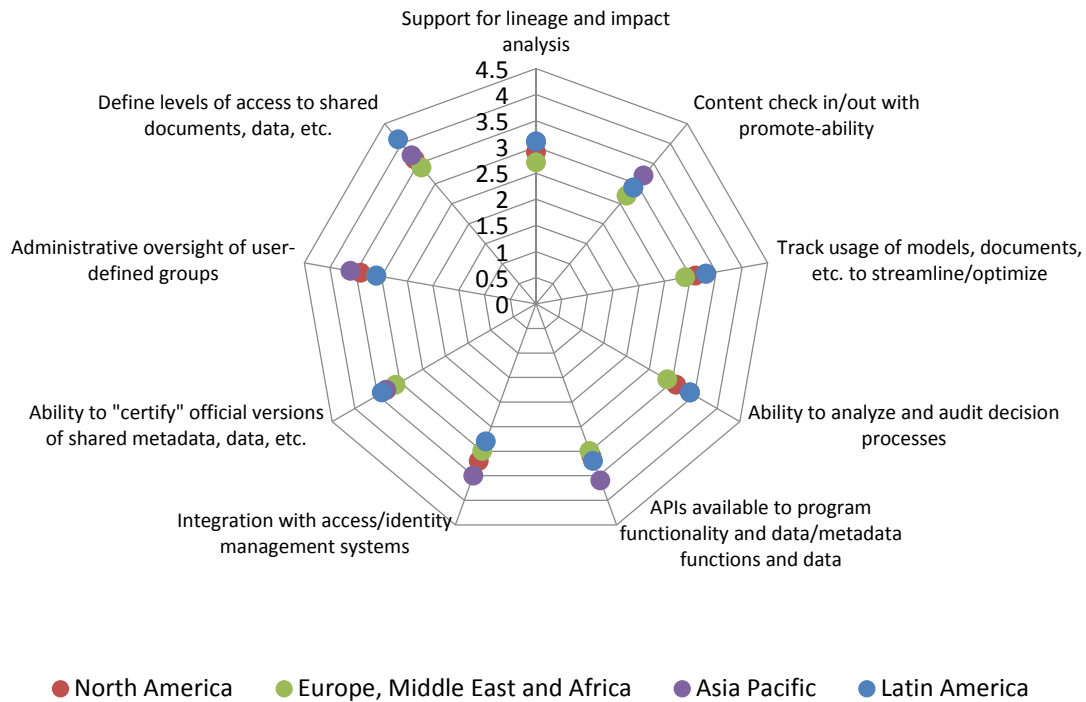


Figure 28 – Analytic Content governance feature requirements by geography

Data Catalog Features

The top three data catalog feature priorities for 2019 are “includes a data dictionary,” “catalog multiple databases,” and “integration with self-service data prep tools.” Of note, data catalog features for cloud and Hadoop-based sources are the lowest-priority features (fig. 29).

Data Catalog Feature Requirements

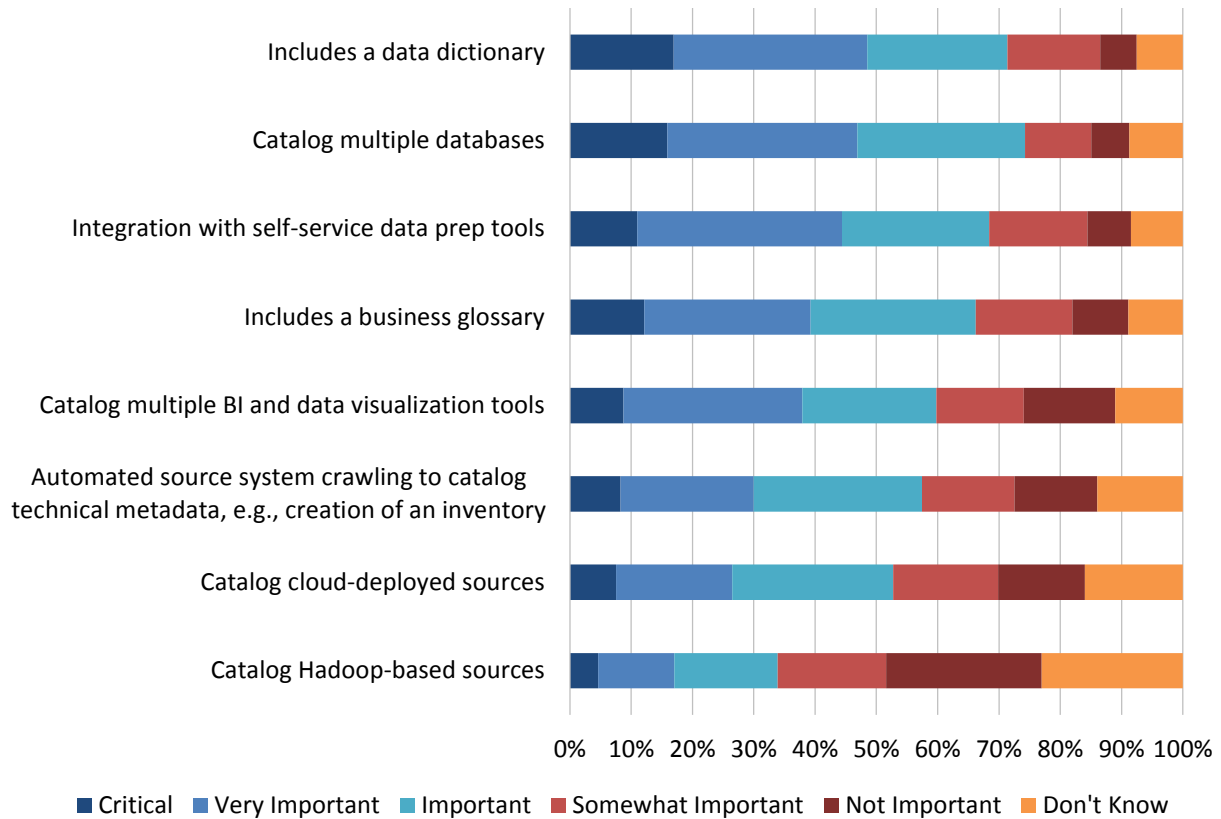


Figure 29 – Data catalog feature requirements

Data Catalog Feature Requirements 2018 - 2019

Year over year, a data dictionary is the primary data catalog requirement identified by our survey respondents (fig. 30). While the priority of all requirements increases year over year, the relative priority does not. The requirement for “catalog Hadoop-based sources” declines the most (-24%) percentage wise, year over year.

Data Catalog Feature Requirements 2018-2019

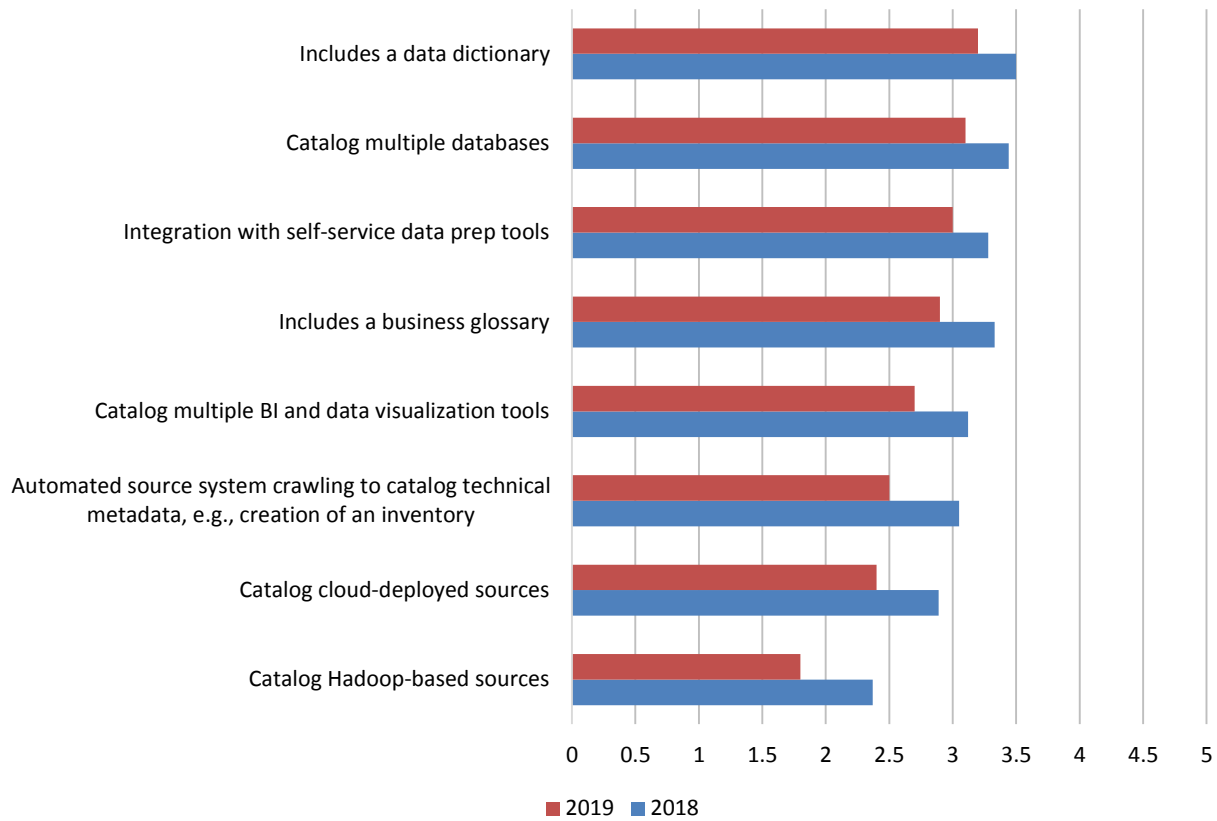


Figure 30 – Data catalog feature requirements 2018-2019

Respondents in most geographies indicate very similar priorities for data catalog features except for “catalog of Hadoop-based sources” (fig. 31). Like our 2018 results, Asia-Pacific respondents have the highest priority for data catalog features in general and the highest priority for the support of Hadoop-based sources compared to other regions.

Data Catalog Feature Requirements by Geography

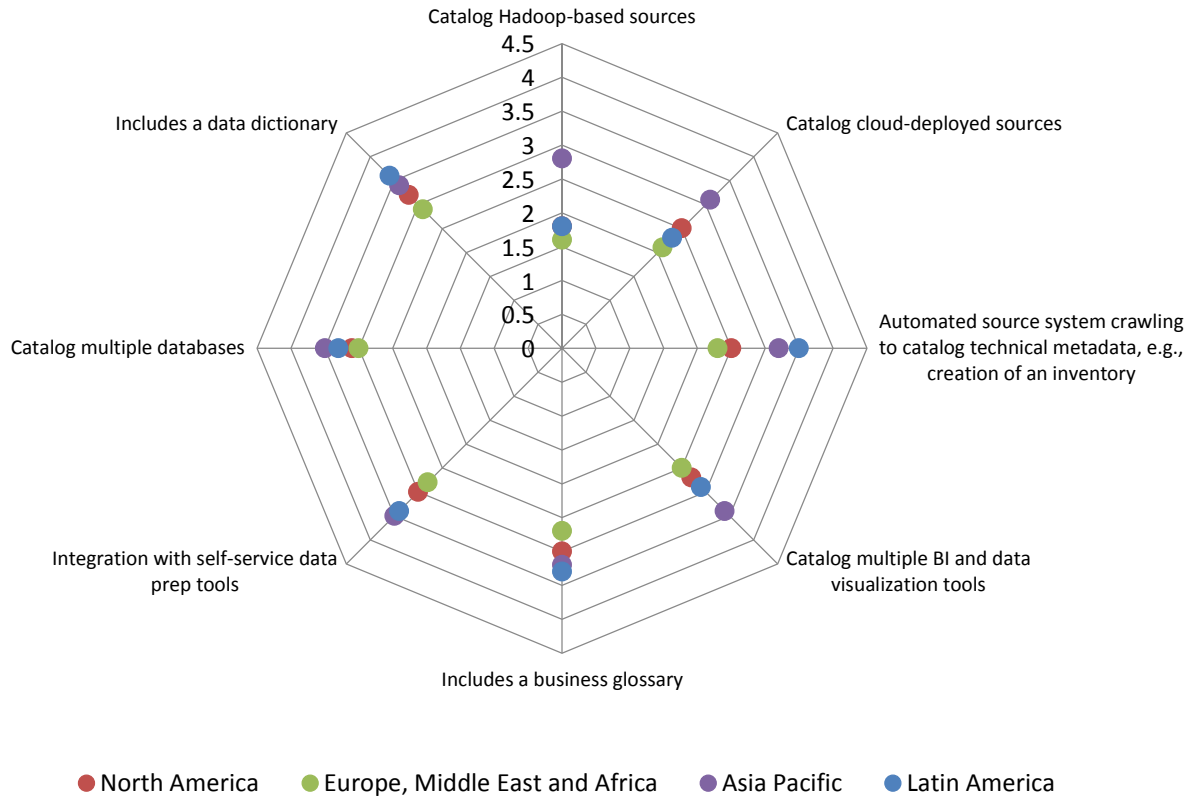


Figure 31 – Data catalog feature requirements by geography

Feature priorities for data catalogs vary by organization functions. A data dictionary is the top requirement for a data catalog across all functions (fig. 32). IT's and the BICC's top requirement is data cataloging support for multiple databases. Executive Management and Sales/Marketing functions rank "integration with self-service data prep tools" as their top requirement.

Data Catalog Feature Requirements by Function

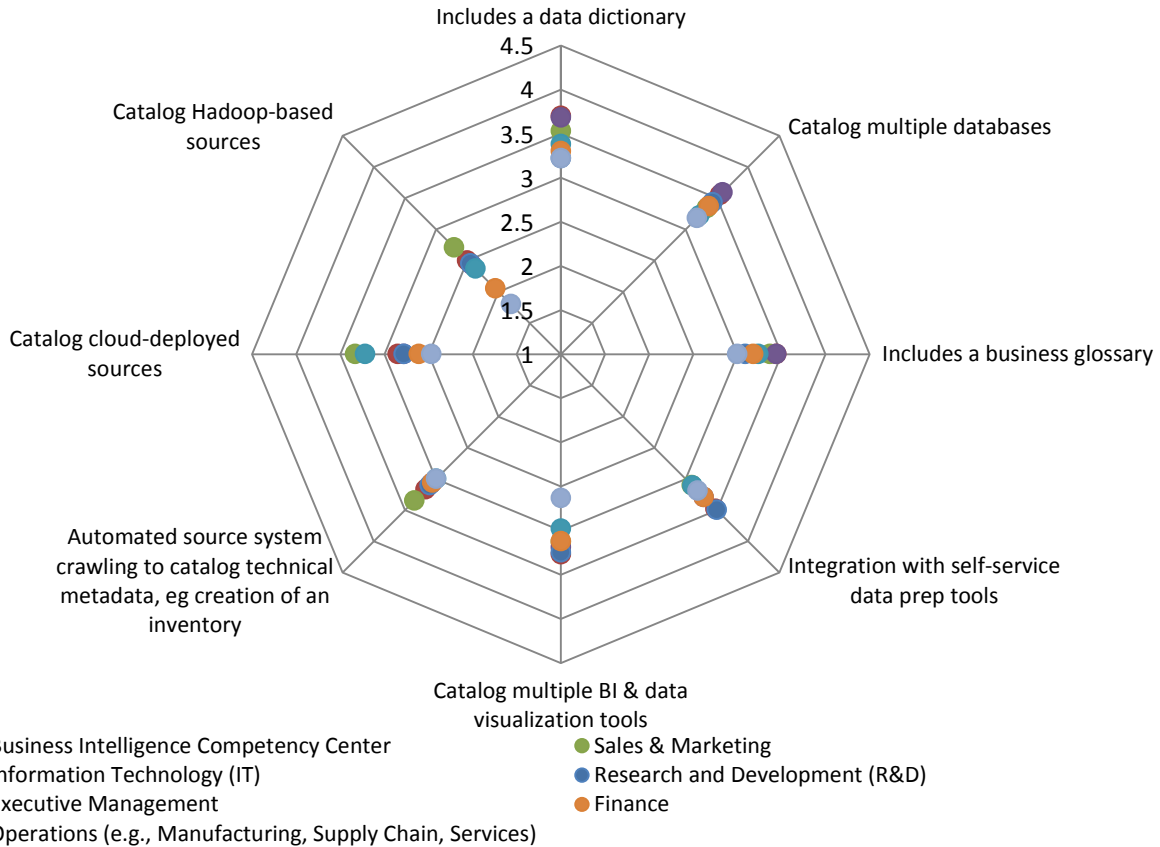


Figure 32-- Data catalog feature requirements by function

Data catalog feature priorities vary quite a bit by vertical industry with Insurance respondents having the highest priorities overall, followed by Telecommunications and Financial respondents (fig. 33). The top three priorities for Insurance respondents are “includes a data dictionary,” “includes a business glossary,” and “catalog multiple databases.”

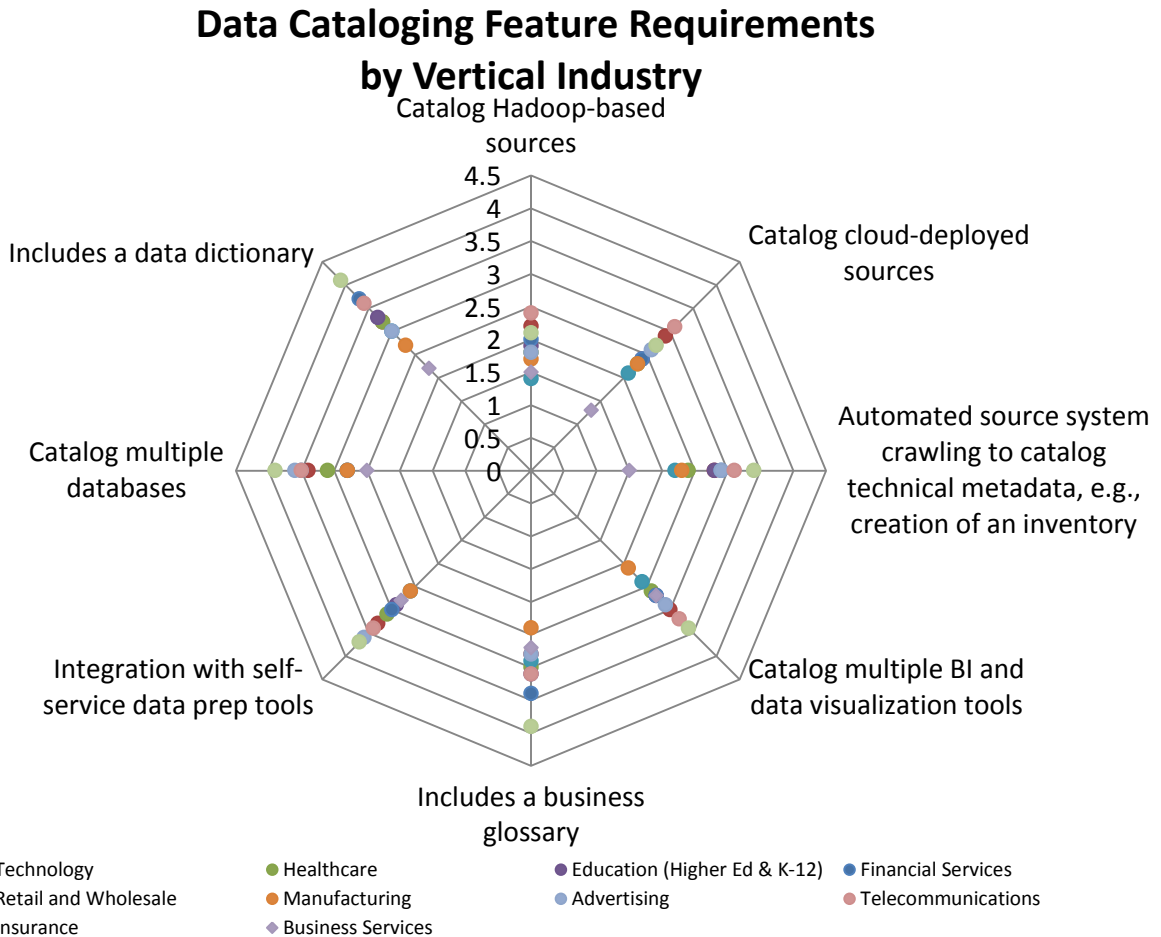


Figure 33 – Data catalog feature requirements by vertical industry

Priorities for data catalog features vary by organization size. Not surprisingly, organizations with more than 10,000 employees have the highest priority overall (fig. 34). It should also be noted that larger organizations also have the most difficulty in finding analytic content, given the complexity of data sources and diversity of functions and use cases requiring the data for analytic purposes. The priorities for smaller organizations (1-100 employees) are “catalog multiple databases” and “integration with self-service data prep tools.”

Data Cataloging Feature Requirements by Organization Size

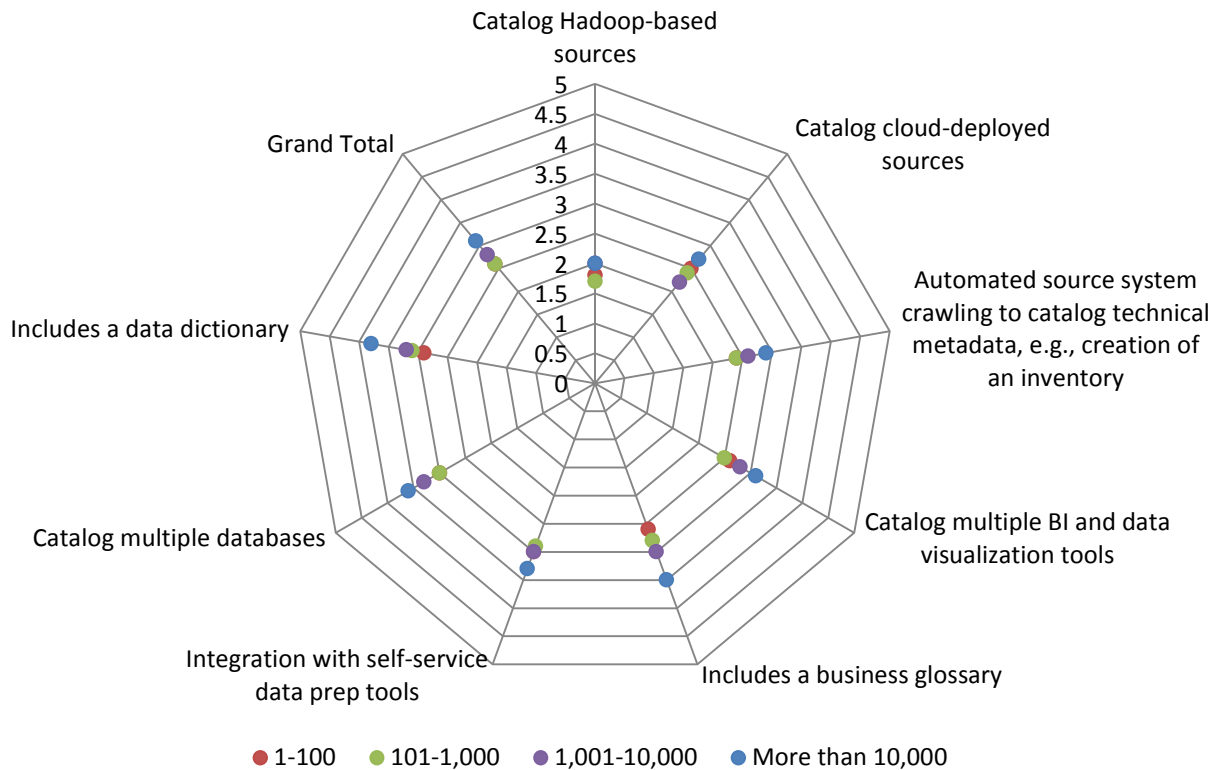
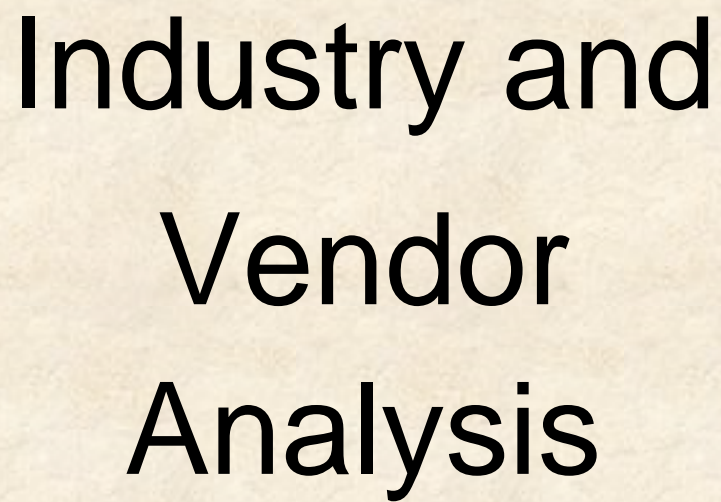


Figure 34 – Data catalog feature requirements by organization size



Industry and Vendor Analysis

Industry and Vendor Analysis

Importance of Sharing Content

As part of our 2019 vendor survey, we asked vendors to rate the importance of investing in and providing their customers with capabilities that support “sharing content in a group-based decision process” (fig. 35). Eighty-two percent of respondents indicate that providing the capabilities is critical or very important, compared to our 2018 vendor survey responses, which were closer to 83%.

Industry Importance of Sharing Content in a Group-Based Decision-Making Process 2017-2019

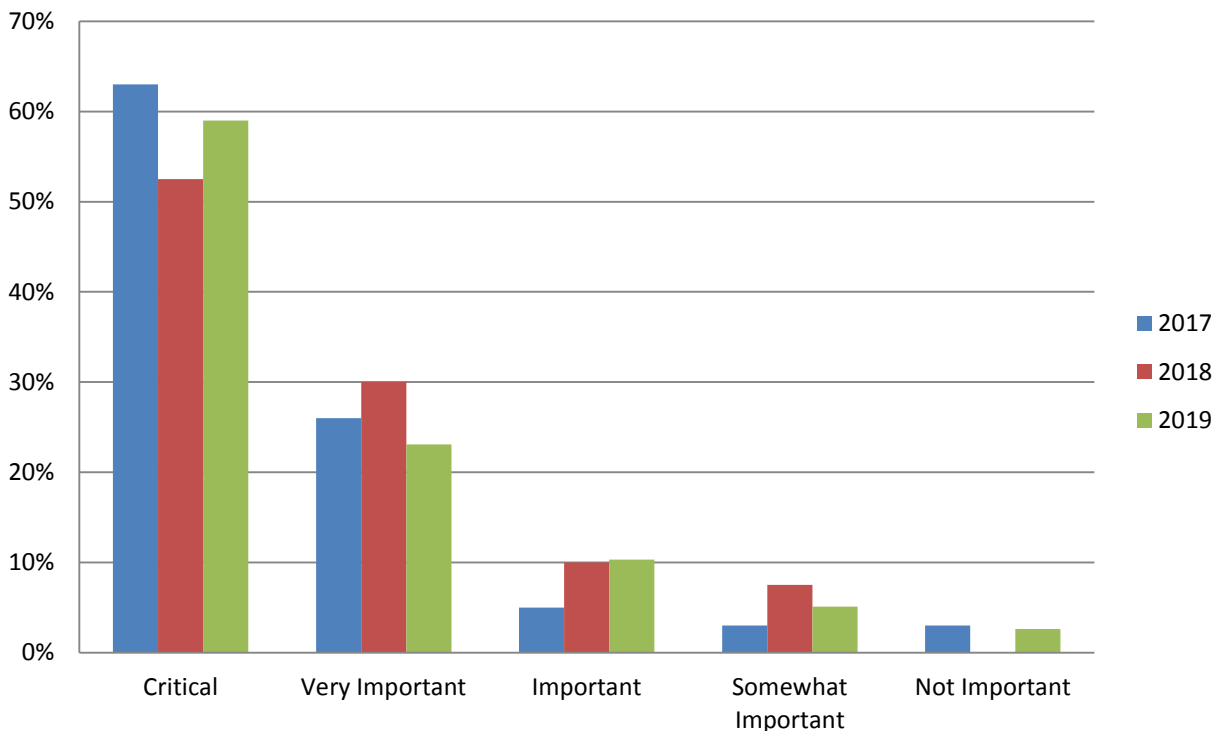


Figure 35 – Industry importance of sharing content in a group-based decision-making process 2017-2019

Importance of Governing Content Creation and Sharing

Eighty-three percent of vendor respondents indicate “governing content creation and sharing” is very important or critical (fig. 36). This is a slight decrease from our 2018 survey results in which 88% of the vendors responded that the capability is very important or critical. A very small percentage of the vendors we surveyed indicate that the importance is only somewhat or not important. Comparing the vendor responses to the user responses (see fig 36: importance of governing content creation and sharing), we see that the vendor importance exceeds the user importance (user importance is 79% of respondents versus vendor importance of 88% for critical and very important responses).

Industry Importance of Governing Content Creation and Sharing 2017-2019

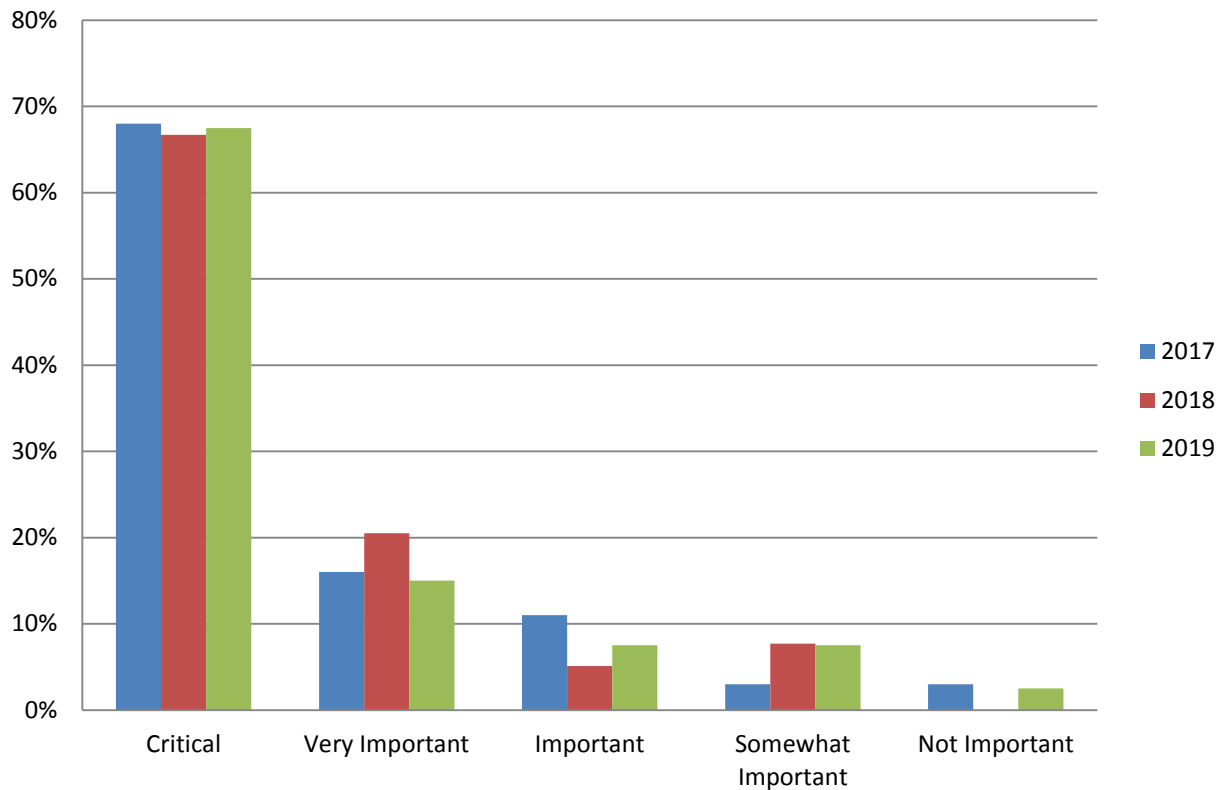


Figure 36 – Industry importance of governing content creation and sharing 2017-2019

Support for Collaborative Features

Vendors support a wide range of collaborative features today. User priorities for collaborative features is roughly in line with vendors' priorities (fig. 37). "Sharing content and commentary with other users" is the most common capability across vendors today, and it is the third priority for users. The top two collaborative feature for users is "search and navigation for content," and "share content and commentary with other users," which is in line with the users' indication of the difficulty of finding content in general.

Industry Support for Collaborative Features

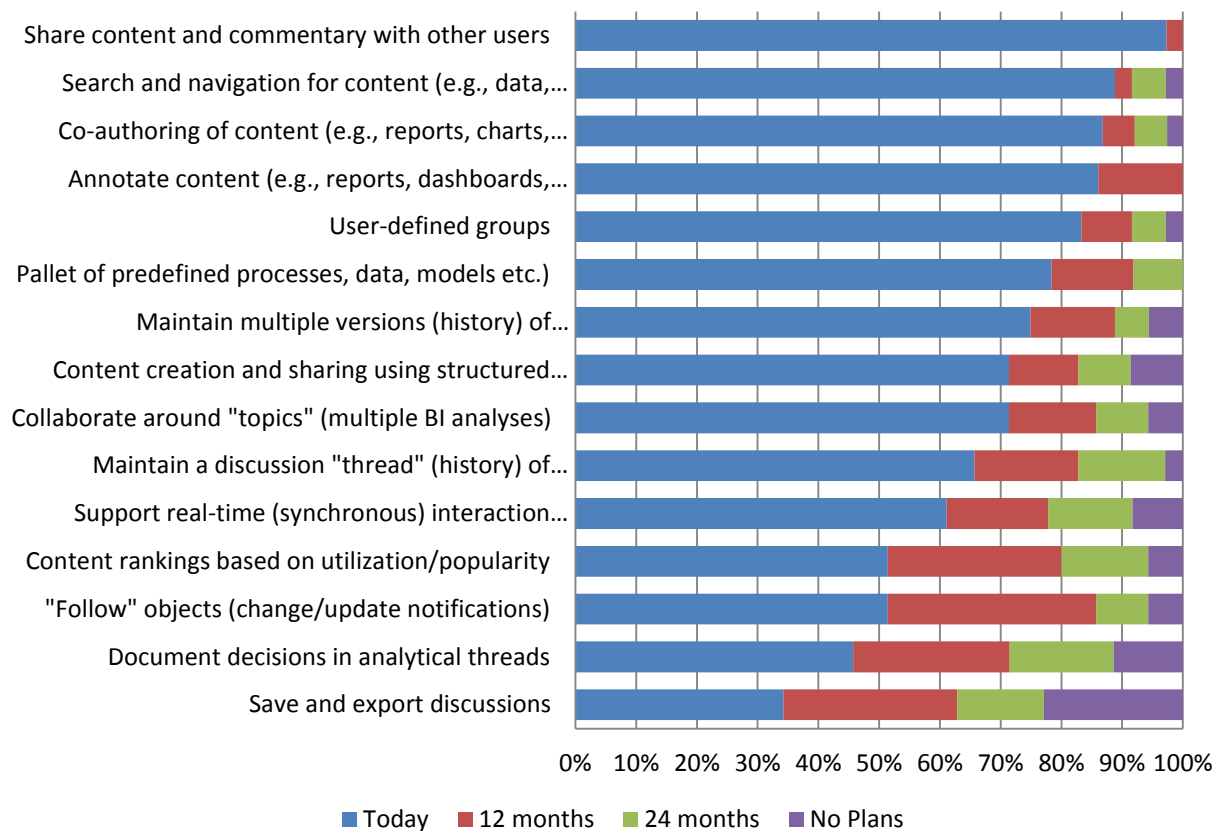


Figure 37 – Industry support for collaborative features

Support for Content Governance Features

Industry support for content governance is consistent across the vendors we surveyed. Almost all vendors have the ability today to “define levels of access to shared documents, data etc.,” “integration with access/identity management systems,” and “APIs available to program functionality and data/metadata.” With some exceptions, vendor capabilities generally match users’ priorities for content governance features (fig. 38). For example, user respondents place “support for lineage and impact analysis” lowest in terms of priority, whereas a majority of vendors offer that capability today or have plans to do so within the next 24 months.

Industry Support for Content Governance Features

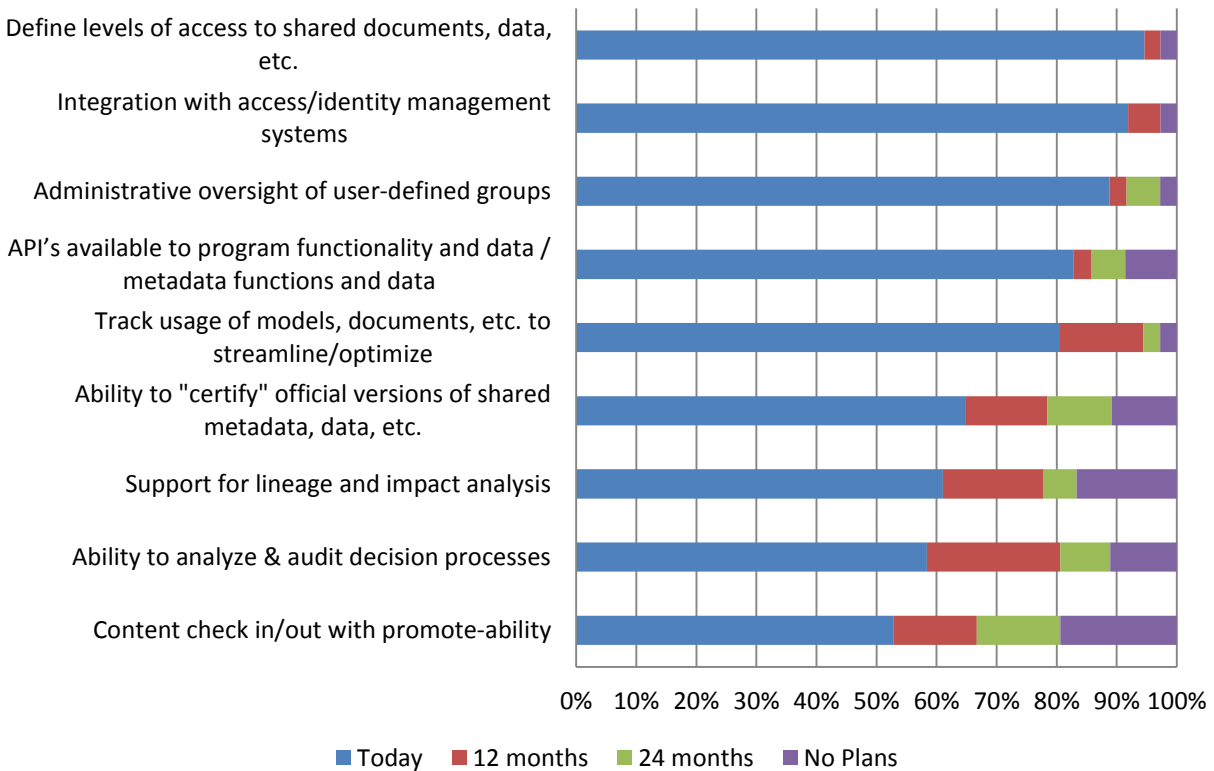


Figure 38 – Industry support for content governance features

Support for Extended Data Catalog Features

Of the vendors we surveyed, only 60% offer extended data catalog capabilities today, with many planning to add this functionality over the next 24 months. The most common features supported today or planned focus on helping users find analytic content/models/metrics. The top feature planned in the next 24 months by most vendors is “automated source system crawling to catalog technical metadata.”

Industry Support for Extended Data Catalog Features

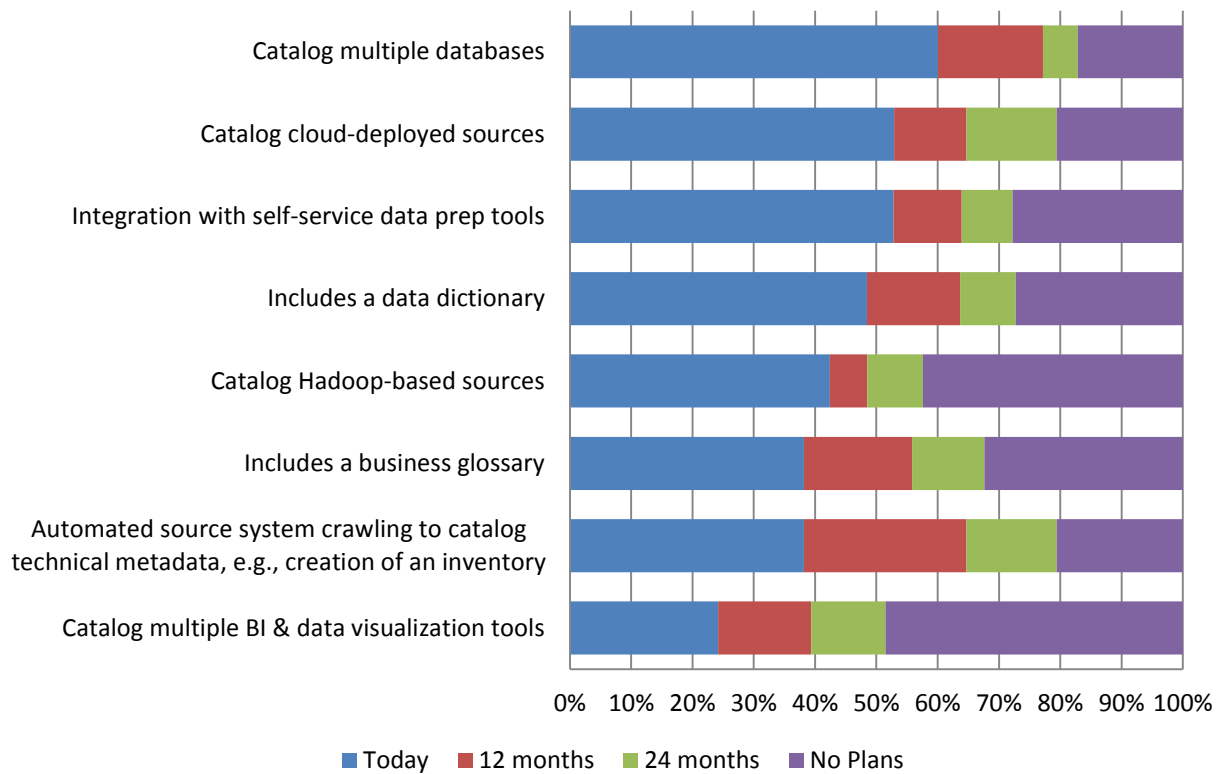


Figure 39 – Industry support for extended data catalog features

Data Catalog Vendor Ratings

In rating the vendors, we considered all data catalog, collaborative, and governance features as reported by suppliers and weighted by users. Thus, this chart (fig. 40), represents those vendors with the strongest (or most complete) capabilities. Top vendors include Alation (1st), Collibra (1st), Pyramid (2nd), Domo (3rd), Microsoft (4th), Information Builders (5th), Looker (5th), and Sisense (5th).

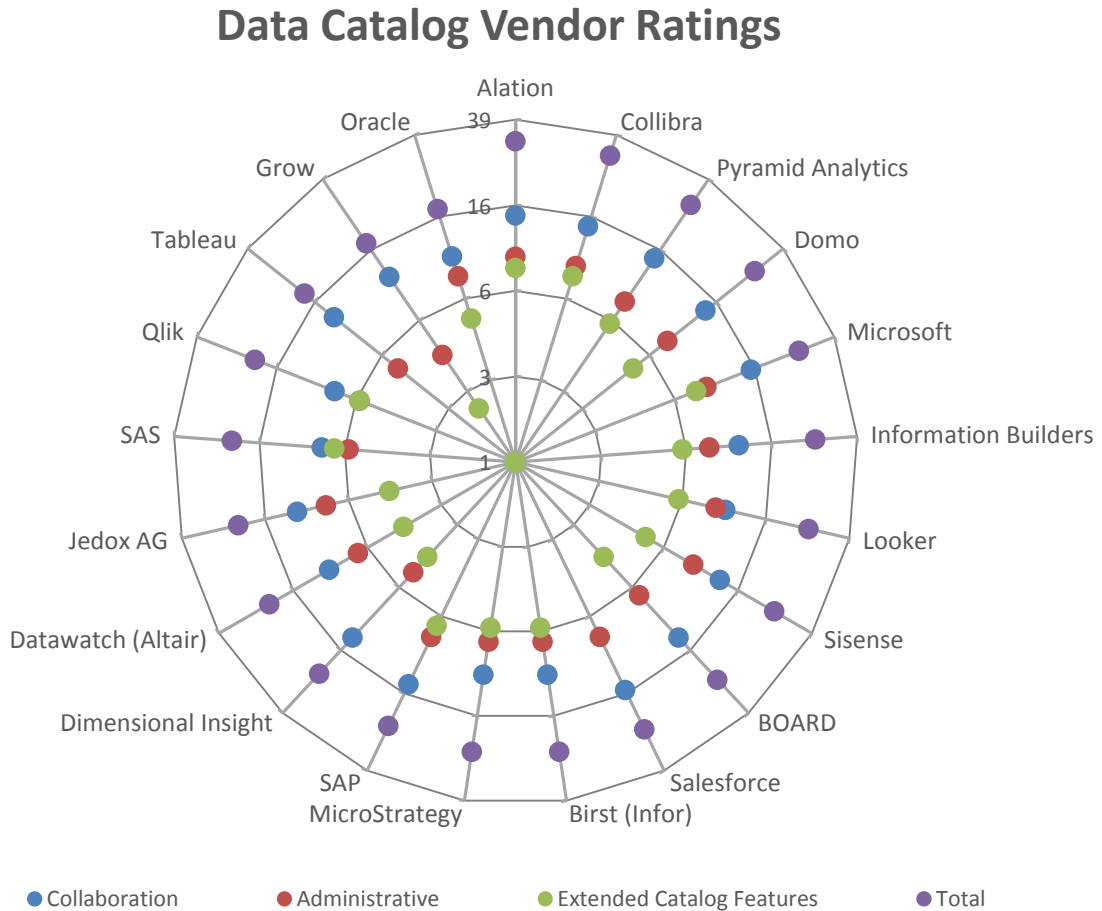


Figure 40 – Data catalog vendor ratings

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Appendix: 2019 Data Catalog Survey Instrument

First Name*: _____

Last Name*: _____

Title: _____

Company Name*: _____

Street Address: _____

City: _____

State: _____

Zip: _____

Country: _____

Email Address*: _____

Phone Number: _____

URL: _____

May we contact you to discuss your responses and for additional information?

Yes

No

What major geography do you reside in?*

North America

Europe, Middle East and Africa

Latin America

Asia Pacific

Please identify your primary industry*

- () Advertising
- () Aerospace
- () Agriculture
- () Apparel & accessories
- () Automotive
- () Aviation
- () Biotechnology
- () Broadcasting
- () Business services
- () Chemical
- () Construction
- () Consulting
- () Consumer products
- () Defense
- () Distribution & logistics
- () Education (Higher Ed)
- () Education (K-12)
- () Energy
- () Entertainment and leisure
- () Executive search
- () Federal government
- () Financial services
- () Food, beverage and tobacco
- () Healthcare
- () Hospitality
- () Insurance

- Legal
- Manufacturing
- Mining
- Motion picture and video
- Not for profit
- Pharmaceuticals
- Publishing
- Real estate
- Retail and wholesale
- Sports
- State and local government
- Technology
- Telecommunications
- Transportation
- Utilities
- Other - Please specify below

Please type in your industry

How many employees does your company employ worldwide?

- 1-100
- 101-1,000
- 1,001-2,000
- 2,001-5,000
- 5,001-10,000
- More than 10,000

7) What function do you report into?*

- Business Intelligence Competency Center
- Executive management
- Faculty (Education)
- Finance
- Human resources
- Information Technology (IT)
- Manufacturing
- Marketing
- Medical staff (Healthcare)
- Operations
- Research and development (R&D)
- Sales
- Strategic planning function
- Supply chain
- Other - Write In

How important is it to control access to and ensure accuracy and consistency across data, models and analyses shared across decision makers?

- Critical
- Very important
- Important
- Somewhat important
- Not important

How important are the following features for BI and analytics co-creation and sharing (i.e., collaboration)?

	Critical	Very important	Important	Somewhat important	Not important	Don't know
"Follow" objects (change/update notifications)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Annotate content (e.g., reports, dashboards, charts, data tables) with comments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Co-authoring of content (e.g., reports, charts, analysis, models)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collaborate around "topics" (multiple BI analyses)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Content creation and sharing using structured workflow	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2019 Data Catalog Study

Content rankings based on utilization/popularity	()	()	()	()	()	()
Document decisions in analytical threads	()	()	()	()	()	()
Maintain a discussion "thread" (history) of interactions/discussions (asynchronous sharing)	()	()	()	()	()	()
Maintain multiple versions (history) of content/objects	()	()	()	()	()	()
Pallet of pre-defined processes, data, models etc.)	()	()	()	()	()	()
Save and export discussions	()	()	()	()	()	()
Search and navigation for content (e.g., data, models, metadata)	()	()	()	()	()	()
Share content and commentary with other users	()	()	()	()	()	()
Support real-time (synchronous) interaction between users with content	()	()	()	()	()	()
User-defined groups	()	()	()	()	()	()

How difficult is it to find content (e.g., models, datasets, reports, dashboards) created by others?

0 _____ [] _____ 100

How important are the following administrative features for governing content creation and sharing?

	Critical	Very important	Important	Somewhat important	Not important	Don't know
Content check in/out with promote-ability	()	()	()	()	()	()
Ability to "certify" official versions of shared metadata, data, etc.	()	()	()	()	()	()
Ability to analyze and audit decision processes	()	()	()	()	()	()
Support for lineage and impact analysis	()	()	()	()	()	()
Define levels of access to shared documents, data, etc.	()	()	()	()	()	()
Integration with access/identity management systems	()	()	()	()	()	()
APIs available to program functionality and data/metadata functions and data	()	()	()	()	()	()
Track usage of models, documents, etc. to streamline/optimize	()	()	()	()	()	()
Administrative oversight of user-defined groups	()	()	()	()	()	()

How important are the following data cataloging features for governing content creation and sharing?

	Critical	Very important	Important	Somewhat important	Not important	Don't know
Automated source system crawling to catalog technical metadata, e.g. creation of an inventory	()	()	()	()	()	()
Catalog cloud-deployed sources	()	()	()	()	()	()
Catalog Hadoop-based sources	()	()	()	()	()	()
Catalog multiple BI & data visualization tools	()	()	()	()	()	()
Catalog multiple databases	()	()	()	()	()	()
Integration with self-service data prep tools	()	()	()	()	()	()
Includes a business glossary	()	()	()	()	()	()
Includes a data dictionary	()	()	()	()	()	()