

ENTERPRISE SEARCH AND FINDABILITY SURVEY 2014

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enterprise search &
findability survey

FINDWISE

EXECUTIVE SUMMARY

Information can become knowledge, but only after it is challenged, criticised and put in an understandable context. Information can never be knowledge if we can't even find it. The survey results show a need for organisations to improve Findability, with the most important drivers being:

- Increased knowledge sharing
- Greater re-use of information and knowledge
- Easier finding of relevant people and expertise
- Improved employee satisfaction

Search-driven solutions can be a powerful tool to address these challenges. However, from previous years we know that a large proportion of users are dissatisfied with their search applications and this proportion appears even bigger this year. The main obstacles in finding information are considered poor search functionality, irrelevant search results and not knowing where to look for information.

In overcoming these obstacles and making search useful, we have identified several success factors. Survey results indicate that engagement in the following activities have positive effects on user satisfaction and their ability to find desired information:

- Establish a *Search and Findability Strategy* to guide search investments
- Use *Key Performance Indicators* to measure the effects from search investments
- *Tailor the Search Experience* to the primary *User Target Groups*
- Establish a process to continuously collect *User Feedback*
- *Involve Business Stakeholders* in search governance and steering
- Perform *Search Analytics* to analyse and act on search statistics
- Establish a *Taxonomy* to enable consistent structuring of information
- Establish a *Content Lifecycle Management Process* to remove irrelevant content
- Establish a *Metadata Standard* to consistently enrich your information
- Utilise search to *Aggregate Content Sources* that are relevant to your users
- Implement a *Search-as-a-Service* architecture to effectively create targeted search applications

It is important to understand that no single factor can provide all the answers. The most successful organisations take a holistic approach to the challenge of leveraging business value with existing information, often with a starting point in a strategy for Search and Findability.

ABOUT THE REPORT

The *Enterprise Search and Findability Survey 2014* is the third annual report released by Findwise, investigating how Enterprise Search and Findability is being managed and utilised globally. In total 277 Enterprise Search practitioners have contributed with valuable insights by responding to the survey during April-May 2014. The respondents are associated with organisations from all different sectors, with a variation in size from less than 250 employees to more than 50 000 employees. 80% of the organisations originate from Europe.

Being the third annual survey, we can now look at possible trends and similarities over time, which adds a new and interesting element to this year's report.

A special thanks to Martin White of Intranet Focus Ltd www.intranetfocus.com and Lynda W Moulton of LWM Technology Services www.lwmtechnology.com for helping out with the formation of this year's survey by sharing their expertise as well as spreading the word about the survey.

The report will be presented at Findability Day in Copenhagen, September 11, 2014.

If you have any questions regarding this report or other matters concerning Findwise, please contact Mattias Ellison, mattias.ellison@findwise.com or Carl Björnfors, carl.bjornfors@findwise.com.

ABOUT US

We are world-leading experts within Search and Findability. Put briefly, we help companies find, analyse and act on information. Founded in 2005 by Enterprise Search professionals, we now create strategies, search-driven Findability solutions and Big Data driven analysis for our clients and their:

- Intranets
- Webs
- Applications
- E-commerce

As independent consultants we have knowledge and experience from commercial search technology and Big Data vendors such as: Dassault Systèmes, Google, HP, IBM, Microsoft, Oracle and Splunk. We are also used to open source platforms such as Apache Lucene/Solr, Elasticsearch and Hadoop.

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INTRODUCTION

Information can become knowledge, but only after being challenged, criticised and put in an understandable context. Information can however never become knowledge if we can't find it. With constant growth of stored data, finding information not only becomes difficult but also critical for business success. With amounts of data growing by the day, the challenge of utilising existing knowledge follow the same pattern, forcing organisations to discuss Enterprise Search and Findability.

Time is spent searching for, gathering and recreating information that already exists but can't be found. For many organisations, information overload is already a fact and it is becoming expensive to find the right information when needed.

Our previous studies show that Enterprise Search practitioners consider finding the right information

critical to business success. At the same time, actually finding information within their organisation is considered *difficult* or even *very difficult*.

This year is no different (figure 1). Findings show that users in almost half of the responding organisations (45%) are *dissatisfied* or *very dissatisfied*, having a hard time finding information they are looking for, as shown in figure 2.

An organisation with many employees will typically have to manage larger amounts of information compared to an organisation with fewer employees. Meaning that larger organisations will have the biggest challenges in creating business value from existing information. Findings from this year support this logic; larger organisations seem to face an even bigger challenge ahead (figure 3 and 4).



» In general, how **satisfied** are users with the existing search application(s) within your organisation? «

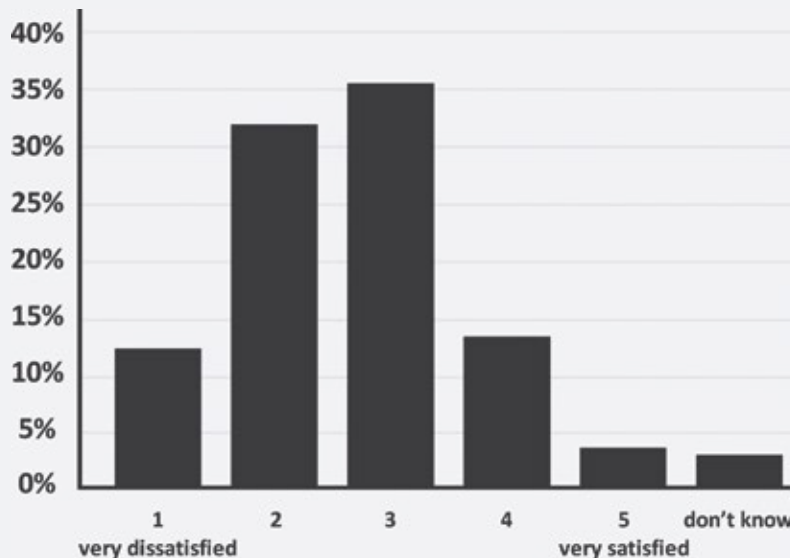


figure #02

» Respondents stating *Difficult* or *Very difficult* for users to find the information they are looking for «



figure #03

» Respondents stating users are *Dissatisfied* or *Very dissatisfied* with existing search application(s) «



figure #04

We also find some organisations doing it right. They are successfully using search technology to make information findable, generating business value and happy users. From experience we know that organisations with successful search solutions take a holistic approach to Enterprise Search and Findability. Such an approach typically focus on

several **Findability Dimensions** (figure 5):

- Users
- Business
- Organisation
- Information
- Technology

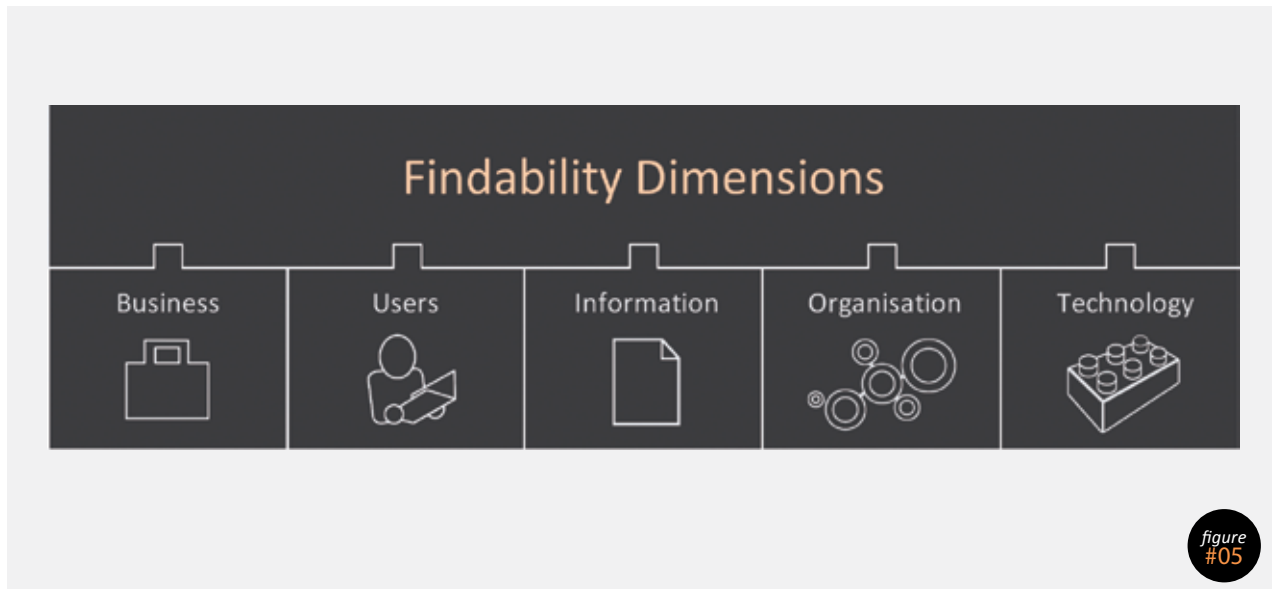


Figure 5 - The Findability Dimensions: business, users, information, organisation and technology.

In this report we aim to **identify success factors** behind Findability and user satisfaction by highlighting what the best (and worst) organisations are doing to create business value from existing information. Throughout this report, identified success factors will be marked (sf) when first mentioned.

The report structure is based on the Findability Dimensions and the success factors associated with each area.

USERS

» The user dimension is about understanding and involving end users, making sure the search solution is tailored to fit their needs and capabilities «

Nowadays, users arrive at the workplace or to a specific website and expect for the local search function to be as satisfying as public web search like Bing and Google. It's all about happy users and as already mentioned in the introduction, users in larger organisations tend to be more dissatisfied than users in smaller organisations.

Looking at levels of satisfaction over time, almost 50% of users remain dissatisfied with the search functionality (figure 6). Sadly we see no signs of improvement in satisfaction this year. In fact, there seems to be even more dissatisfied users. Even though organisations are taking actions to improve Findability, these efforts are not reflected in the survey results. Possible explanations are; constant growth of information making it (very) difficult to stay one step ahead and users tendency to increase expectations when comparing to public search applications.

Users experience a variety of obstacles in finding information. This year, respondents primarily point to *Poor search functionality*, *Non-relevant search results*, *Lack of appropriate tags* and to difficulties in knowing where to look for information (*Don't know where to look*) as being the main obstacles (figure 7).

Different user groups, within and outside the organisation, will have separate needs and face their own obstacles in finding information. Enterprise Search practitioners need to identify and involve primary *User Target Groups (sf)*, making sure the search experience is tailored to fit their needs and capabilities. Furthermore, understanding user needs and obstacles over time requires some way of gathering user feedback. The survey indicates that only one out of three organisations have implemented such a *User Feedback Process (sf)*, as shown in figure 8.

» Respondents stating users are *Dissatisfied* or *Very dissatisfied* with existing search application(s) «

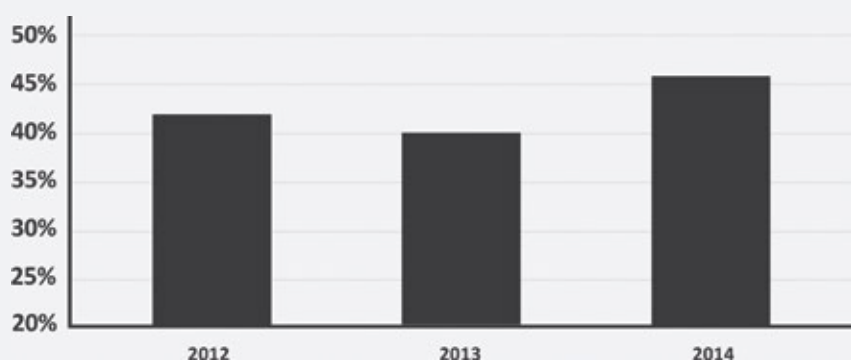


figure
#06

» What are the **main obstacles** for users to finding the information they are looking for? «

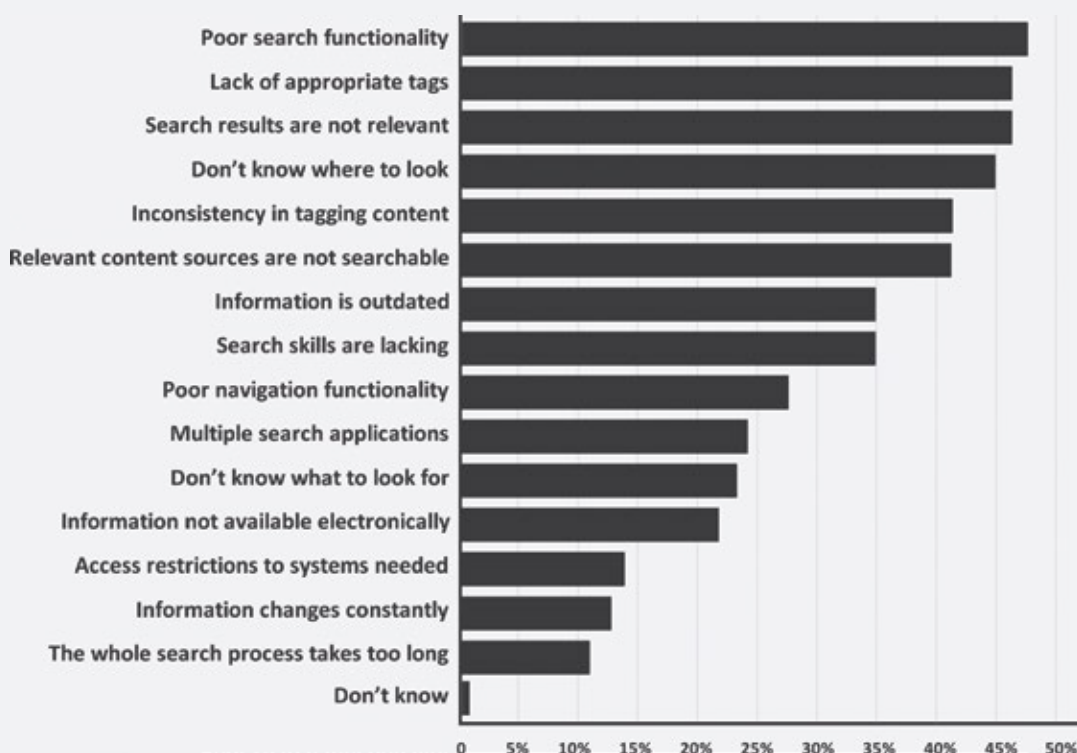


figure
#07

» Is there a process for users to provide feedback or suggestions for improving the search application(s) and/or search results? «

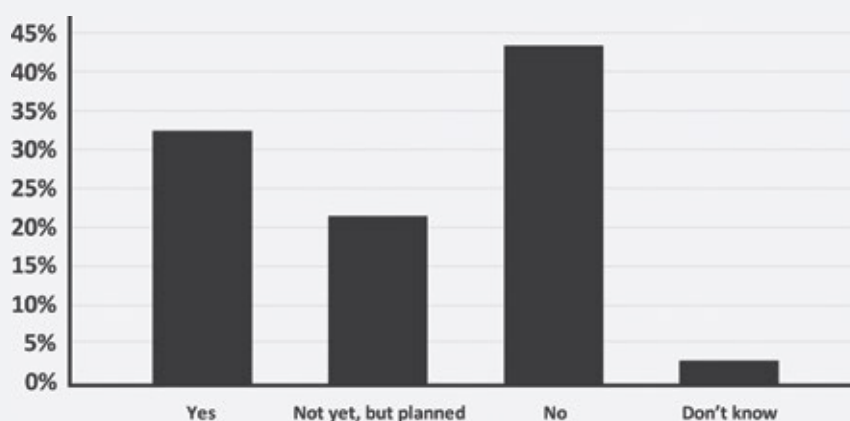


figure
#08

Implementing a User Feedback Process can generate significant improvements in Findability and user experience. In this survey, we see that organisations with a User Feedback Process have fewer users finding it *difficult* or *very difficult* to find information (figure 9). A simple feedback form on your search

result page may provide a cheap and easy way to collect valuable input from users. However, always keep in mind that it's not about gathering opinions but to **identify actual needs**.

» Respondents stating *Difficult* or *Very difficult* for users to find the information they are looking for «

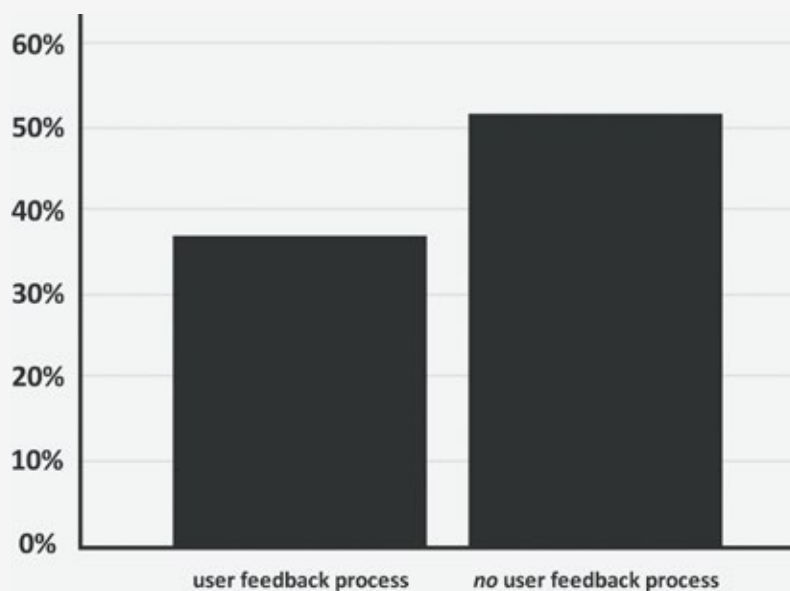


figure
#09

BUSINESS

» The business dimension is about understanding how search-driven solutions are best used to support organisational goals and how to measure **business impacts** «

Creating Findability and business value from existing information is a challenge taken seriously by survey respondents, as shown in figure 10.

» In your organisation, how important is it to **improve the ability to find** the right information (for employees, customers as well as other stakeholders)? «

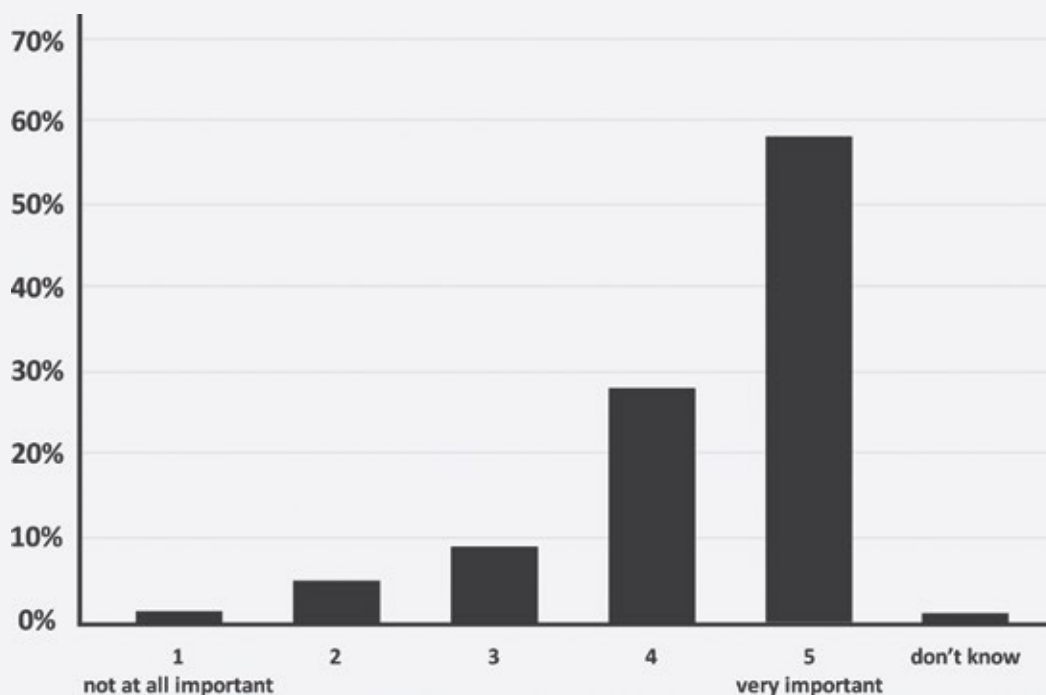


figure
#10

The motivation for improving Findability is further clarified when looking at what respondents consider an *important* or *very important* driver for using a search-driven solution (figure 11).

» Respondents stating *Important* or *Very important* driver for using a search-driven solution «



figure #11

Looking only at the largest organisations (10,000+ employees), finding relevant people or competencies is considered the most important driver behind search-driven solutions (figure 12). The challenge to find people and competence exists in all organisations, but naturally the challenge and importance increases with size.

The complexity of making information findable keeps increasing, causing a great challenge especially in large organisations. The information and IT-landscape gets harder to overlook, with more applications and change programs running simultaneously. As a consequence, finding information becomes difficult and employees tend to be less satisfied. Effectively creating Findability involves seeing the big picture and at the same time understanding how individual decisions can affect search performance.

» Respondents stating that finding people is an *Important* or *Very important* driver for using a search-driven solution «



figure #12

This is what makes the *Search and Findability Strategy (sf)* so important. By strategy, we mean **how search-driven solutions can support the organisation and make information findable** to identified user groups. A proper Search and Findability Strategy is essential to plan, prioritise and make informed decisions regarding any search investment.

The strategy should include a vision for how Search and Findability shall bring value to the organisation, as well as define success factors with associated goals. From our experience, many organisations have a Search and Findability Strategy strongly tied to IT and technology, while others have a business-oriented strategy. Survey respondents were asked to select which type they had and results are illustrated in figure 13.

Compared to previous years, we see a positive increase when it comes to understanding the need for and value of a Search and Findability Strategy (figure 14).

It seems that organisations with a Search and Findability Strategy provide better Findability, as their users are more likely to easily find relevant information (figure 15).

Part of a successful Search and Findability Strategy is to identify how the business impact of search-driven solutions can be measured or evaluated. However, this year the number of respondents stating that their organisation use KPI - *Key Performance Indicators (sf)* to measure search investment effects was just 14% (figure 16).



» Respondents stating that their organisation have a **strategy for search** (IT and/or business focused) «

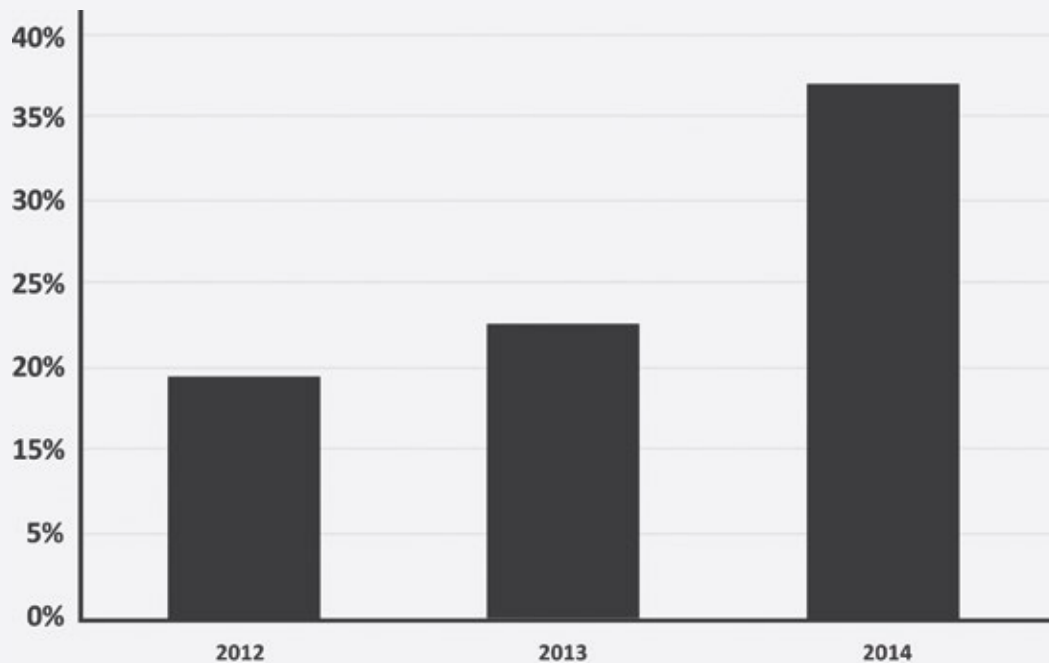


figure
#14

» Respondents stating *Easy* or *Very easy* for users to **find the information** they are looking for «

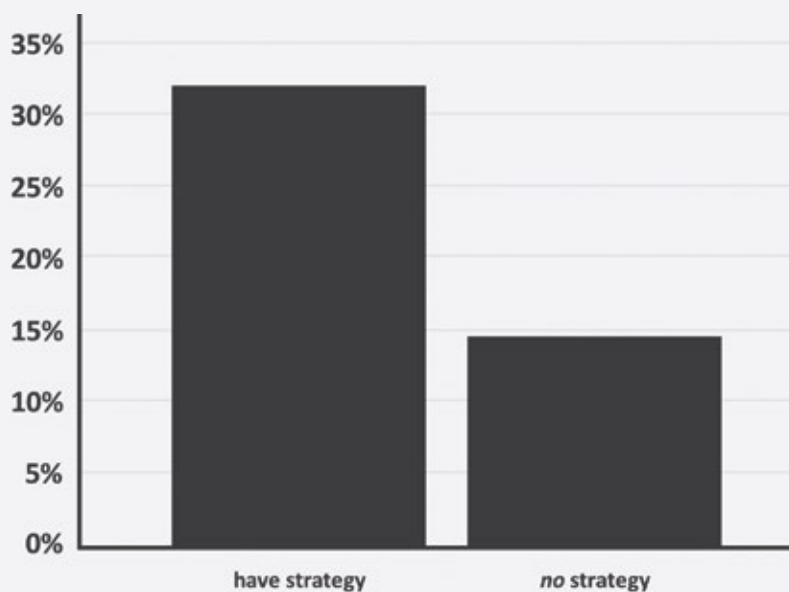
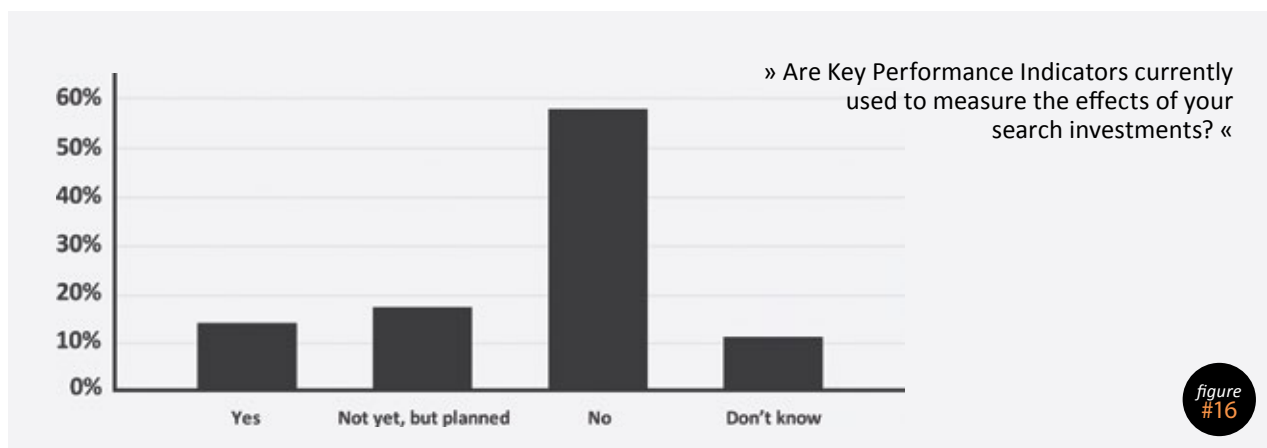
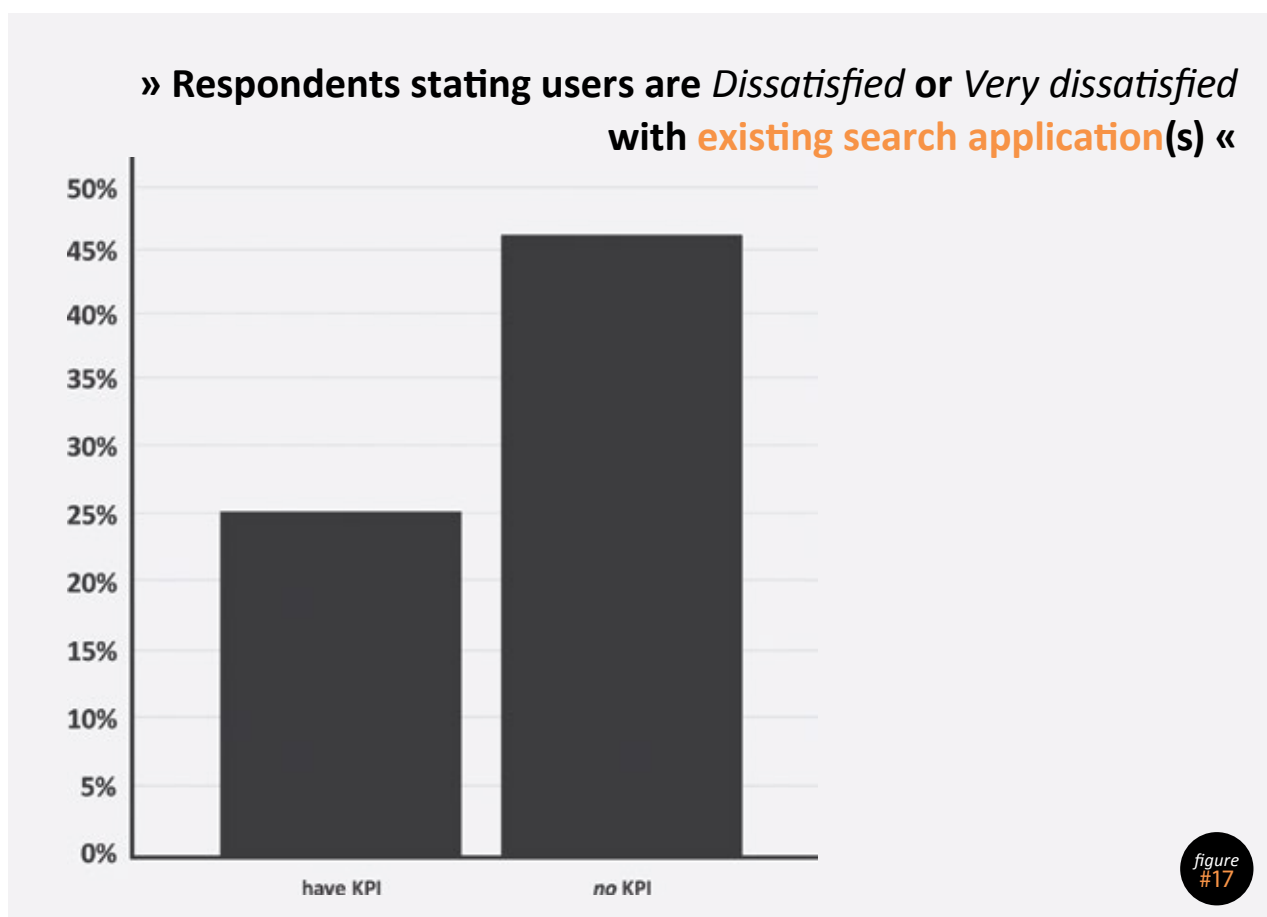


figure
#15



Notably, organisations without means to measure the impact of their investments in Search and Findability, typically rate users as more dissatisfied than those in organisations that have defined Key

Performance Indicators. That said, as many as 25% of respondents having defined KPIs state that they have dissatisfied users (figure 17).



The setup of good indicators can be tricky and while some indicators may be generic, ideally the indicators should be tied to organisation-specific Findability goals and be used to follow-up and steer towards desired effects. This requires establishment of a baseline, from which results can be com-

pared. This is especially true for organisations planning an investment in Search and Findability, since a before and after-discussion will generally follow to evaluate the success of the solution.

ORGANISATION

» The organisation dimension is about establishing an **organisational framework** to manage, maintain, analyse and refine the search solution, making sure it brings value over time «

This dimension focuses on the organisational framework and process to manage and refine Enterprise Search and Findability for current and future needs. From last year's survey we know this area is primarily in the hands of IT-departments. This was yet again confirmed as shown in figure 18. However, creating Findability is not only an IT challenge. On the contrary, it concerns most parts of the organisation and users with different needs and knowledge. It is therefore of great importance to involve different stakeholders in the governance and steering of Search and Findability.

Comparing organisations with an IT-focused Search and Findability Strategy to those with a business-

oriented strategy, some interesting differences come to light in terms of stakeholder involvement in search governance and steering. Results indicate that organisations with a business-oriented Search and Findability Strategy are better at involving different stakeholders (figure 19).

Organisations with involvement purely from IT seem to do worse than average when it comes to making information findable (figure 20). Hence, *Involving Business Stakeholders (sf)* can be considered a success factor for Findability.

» Who is involved in the governance/steering of your organisation's search programme? «

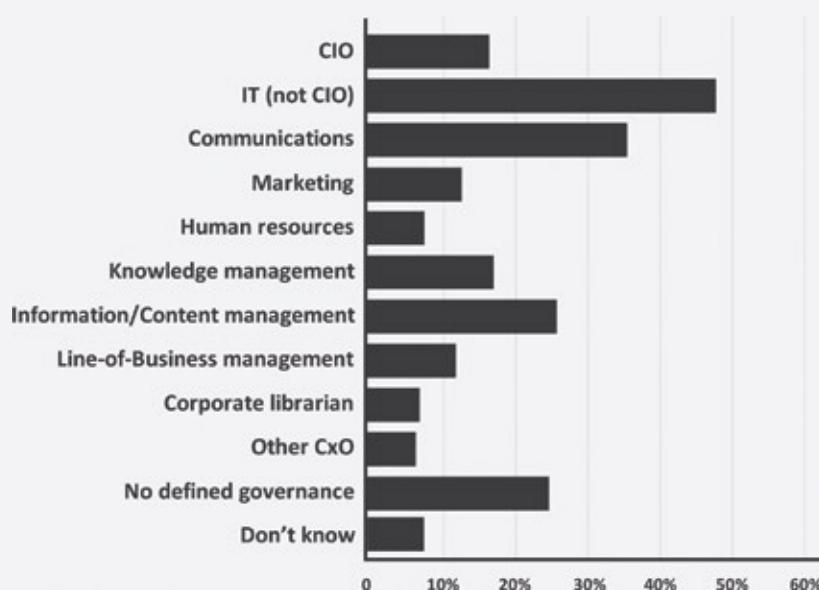
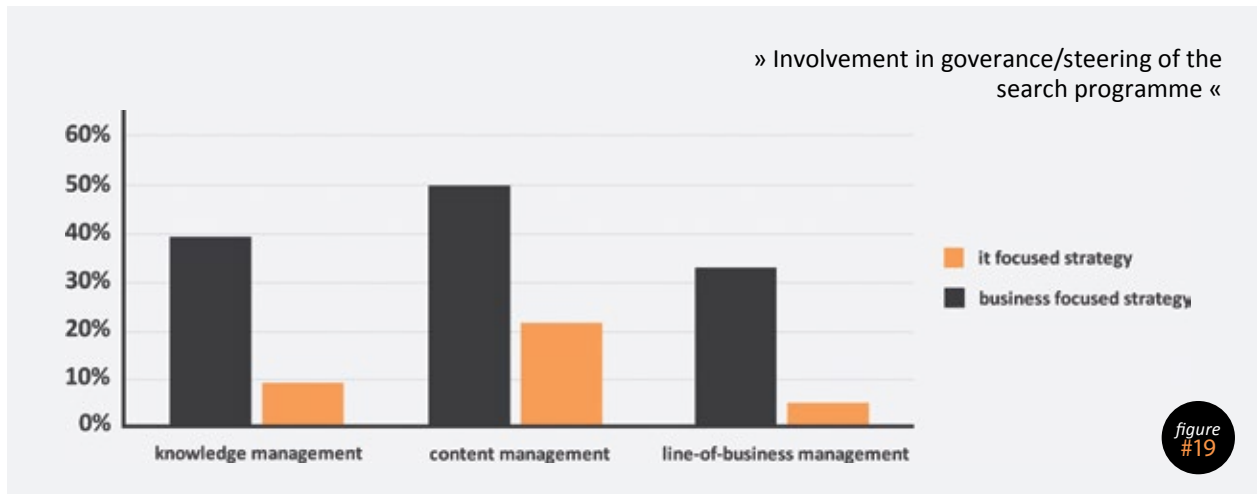
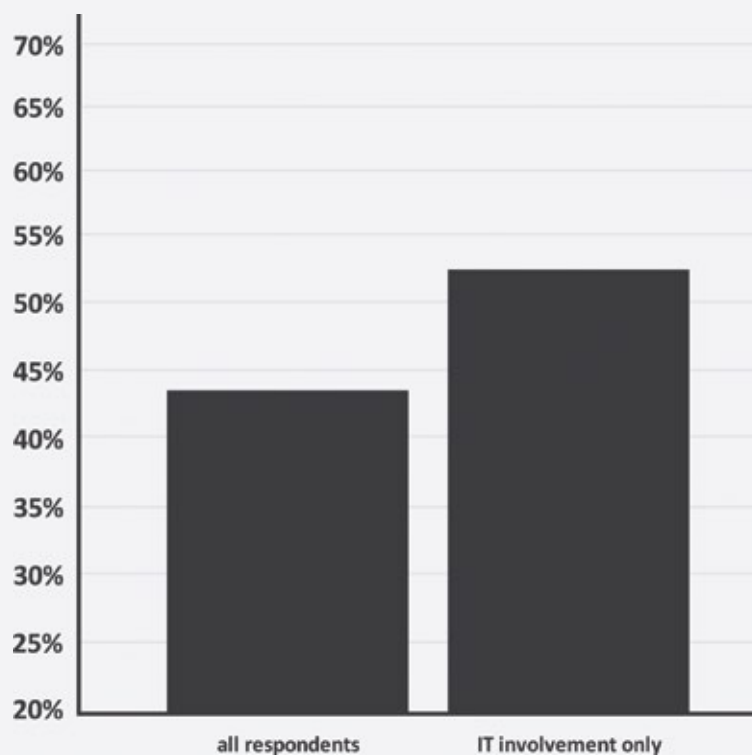


figure
#18



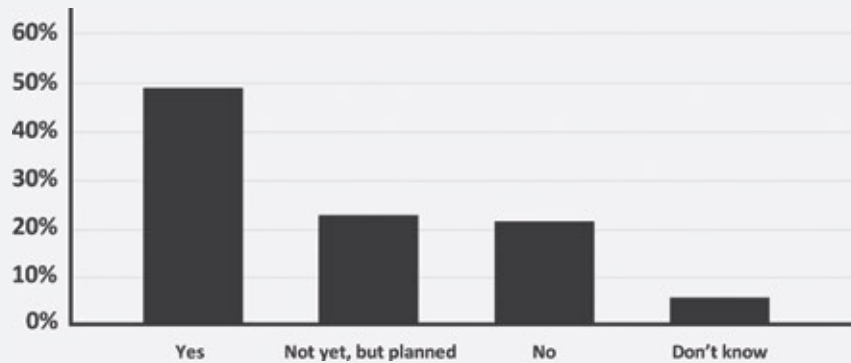
» Respondents stating *Difficult* or *Very difficult* for users to find the information they are looking for «



We also see that performing *Search Analytics (sf)* is an important activity to improve Search and Findability (figure 21). Typically, Search Analytics involves analysing and acting on search statistics or logs. This requires an understanding of the organisation and user needs, implying that representatives from different parts of the organisation need to be involved.

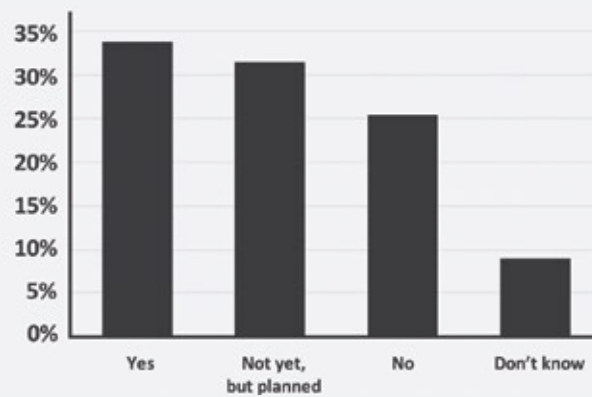
The most successful organisations not only analyse search logs but have also implemented a process for improving the search experience based on findings from Search Analytics (figure 22). Establishing an easy to use, customised tool for analysing and acting on statistics can greatly improve the search experience.

» Organisations performing Search Analytics «

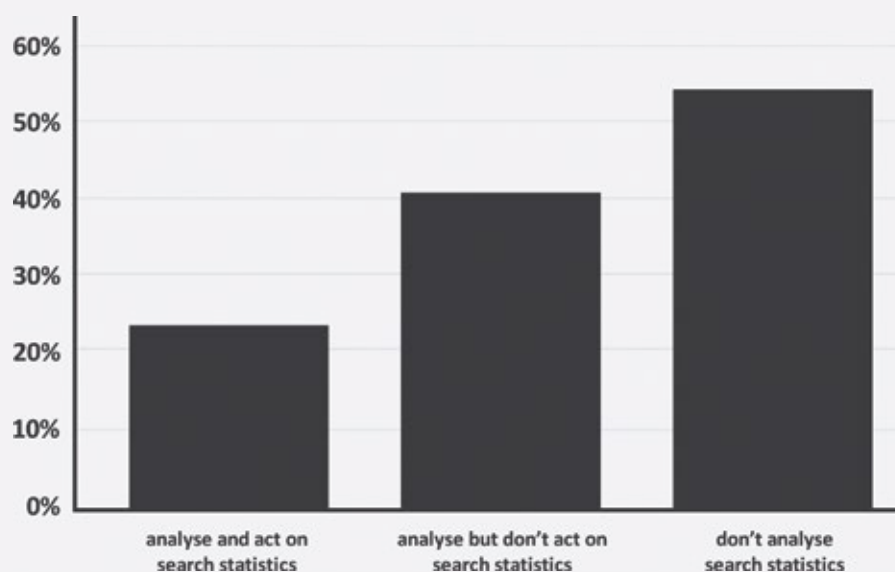
figure
#21

Looking at organisations stating that it is *Difficult* or *Very difficult* for users to find information, we see indications that Search Analytics is important when creating a good search experience and Findability (figure 23). Having a process for both analysing and acting on statistics seem to greatly reduce difficulties in finding information.

» Acting on search statistics «

figure
#22

» Respondents stating *Difficult* or *Very difficult* for users to **find the information** they are looking for «

figure
#23

INFORMATION

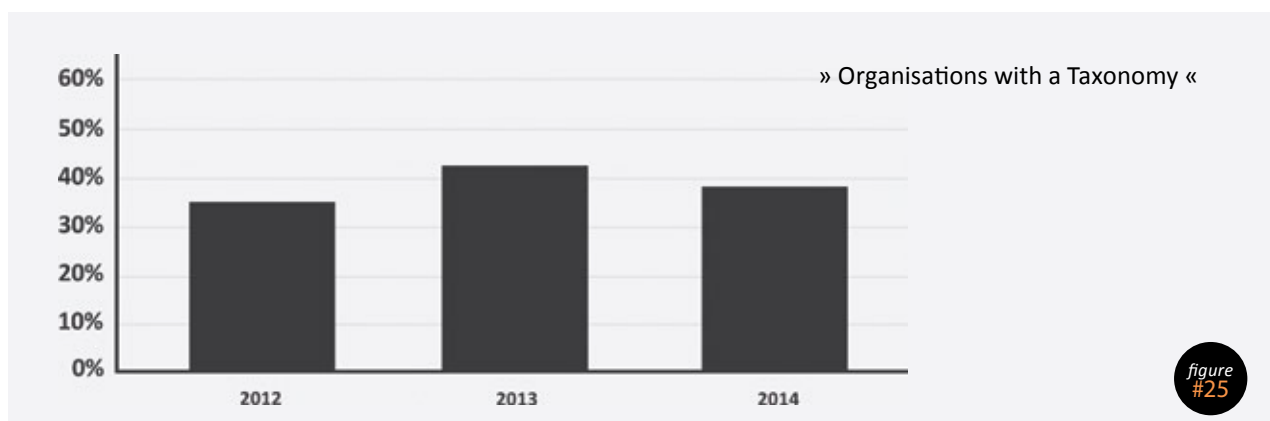
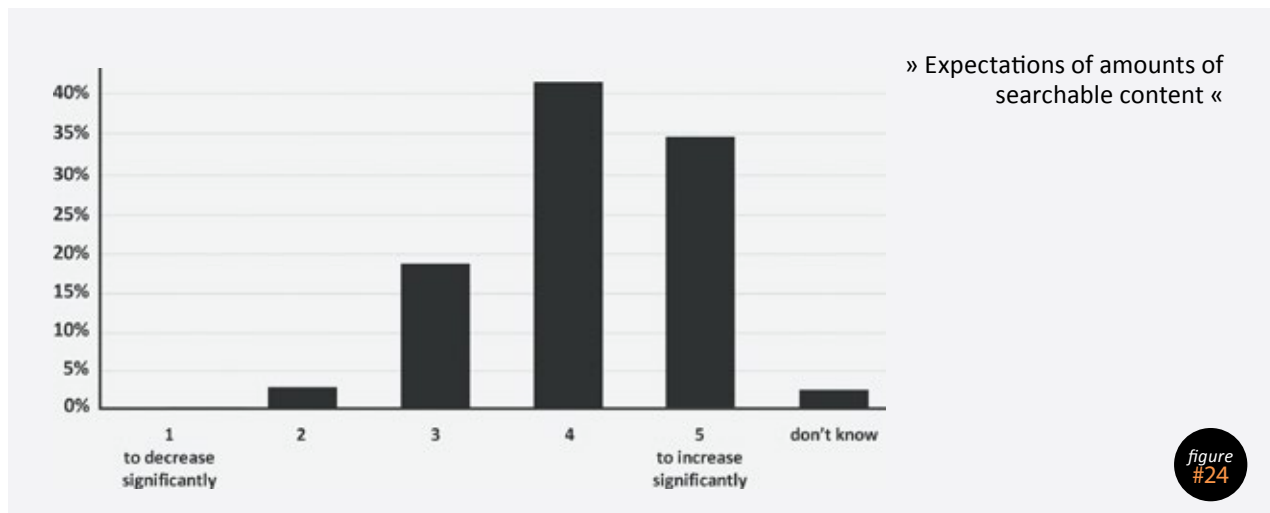
» The information dimension is about **preparing information** to make it findable
- ensuring quality by washing data and adding structure «

Lack of appropriate tags is considered the second largest obstacle for users to find information, as shown in figure 7.

Improving information quality, ensuring that information is published and is structured to become findable, are all crucial elements for improving the search experience. The amount of information created and held by organisations is believed to grow (figure 24); hence the need for proper handling of information is also likely to increase.

Having a *Taxonomy (sf)* is the base of a good

information structure. A Taxonomy gives the organisation a basis for structuring information consistently. Without a Taxonomy, the classification of information becomes arbitrary and inconsistent across different applications and user groups. It is possible to unify metadata tags in the search solution but you either end up with the least common denominator of metadata or a large set of similar metadata tags for filtering search results. Unfortunately, this year's survey gives little support for any positive progress in the number of organisations having a Taxonomy (figure 25).



Search-driven solutions can make information more findable, however it is impossible for the search solution to determine scope and context without a correct information classification. Taxonomy is the foundation for classifying information. With Taxonomy, good policies and processes for structuring information - you get more out of the search solution.

Once again, doing it right seem to increase satisfaction amongst users (figure 26).

Taxonomy information is preferably added as meta-data to published information using a *Metadata Standard (sf)*. Organisations without a Metadata Standard seem to have more dissatisfied users (figure 27 and 28). This is not a surprise as a Metadata Standard increases the precision of search results. In a search interface, added metadata can be directly applied as filters or be displayed on the search result itself.

» Respondents stating users are *Satisfied* or *Very satisfied* with existing search application(s) «

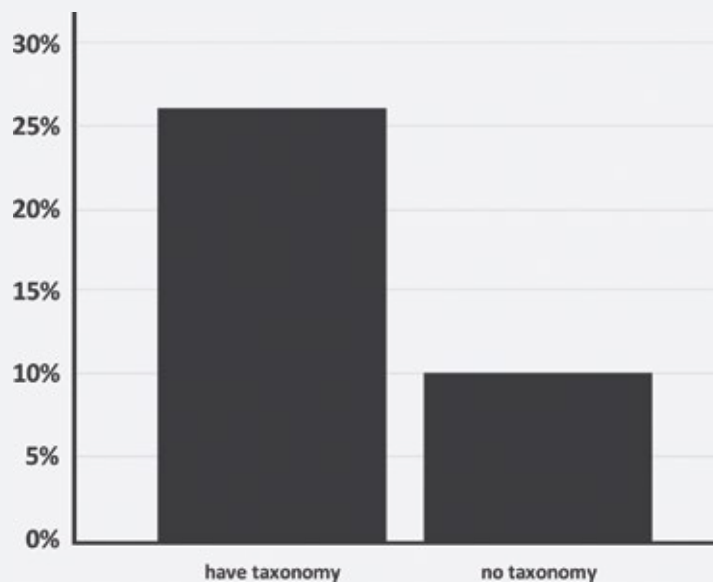


figure #26

» Organisations with a Metadata Standard «

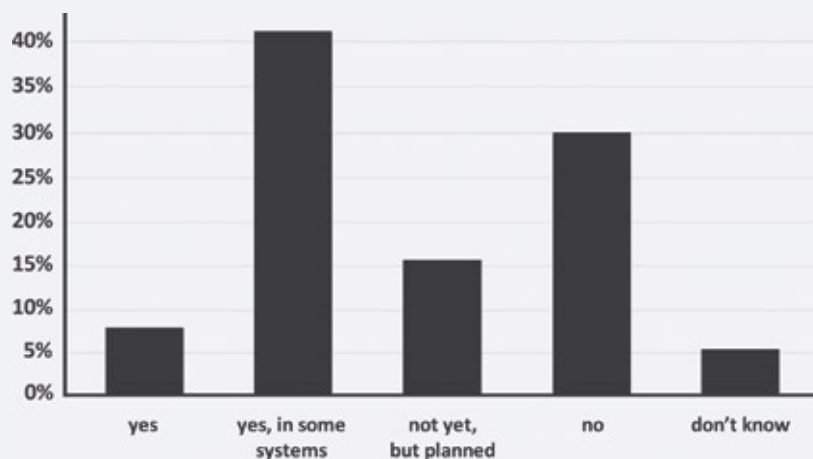


figure #27

» Respondents stating users are *Dissatisfied* or *Very dissatisfied* with existing search application(s) «

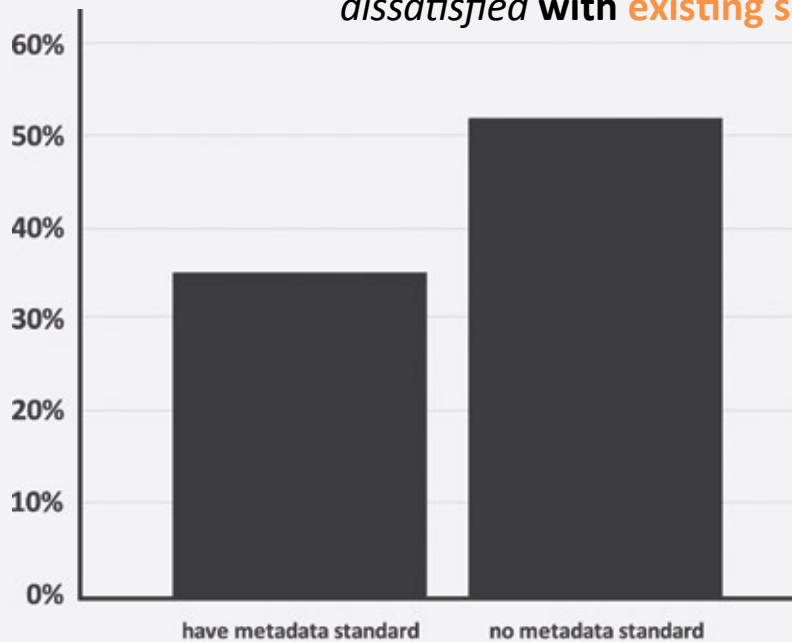


figure
#28

Furthermore, the survey results indicate that organisations with a *Content Lifecycle Management Process (sf)* tend to find information easier than organisations without such a process (figure 29 and 30). Reducing ROT (Redundant,

Out-dated and Trivial) information will ensure that the quality of search results improves. Basically, it means we reduce irrelevant results.

» Organisations with a Content Lifecycle Management Process «

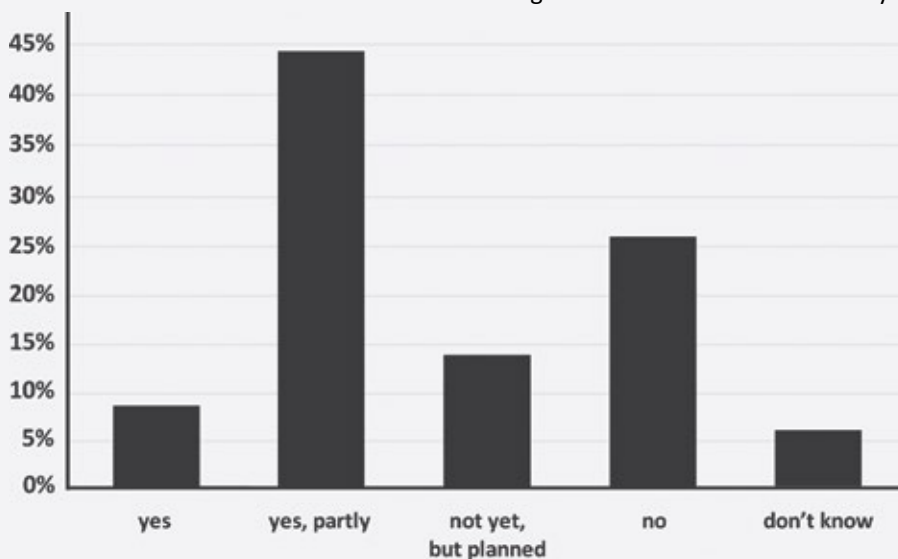


figure
#29

» Respondents stating *Easy* or *Very easy* for users to find the information they are looking for «

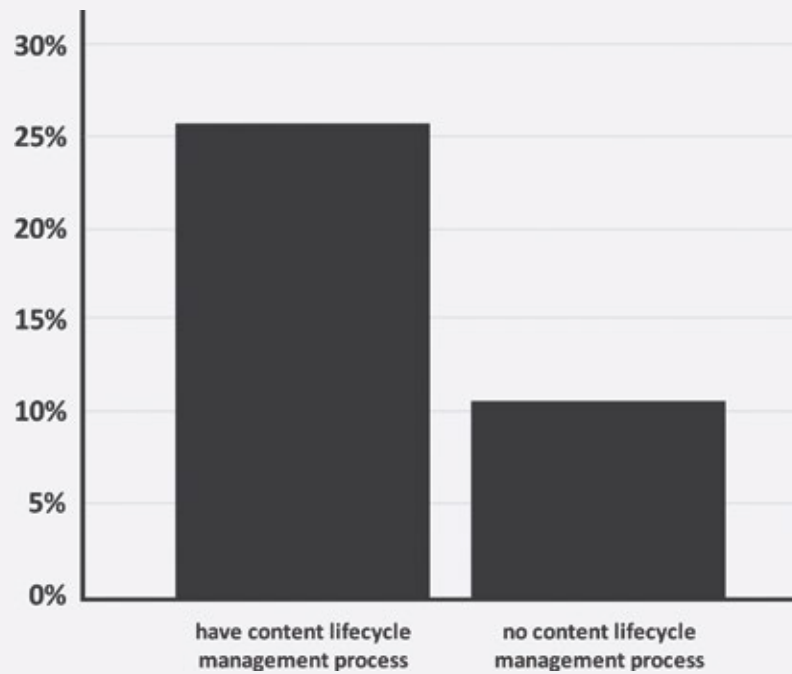


figure
#30

TECHNOLOGY

» The technology dimension is about choosing, installing, configuring and customising **a platform** to support technical requirements, business goals and user needs «

As expected, a majority of the responding organisations have multiple search applications and interfaces for different purposes (figure 31).

From a technical point of view, it is common that each application is based on a separate search

engine. Often these are built into and search only within one system such as a Document Management system or CMS. A separated search architecture means that users can only search in siloed repositories rather than being able to access all relevant information as illustrated in figure 32.

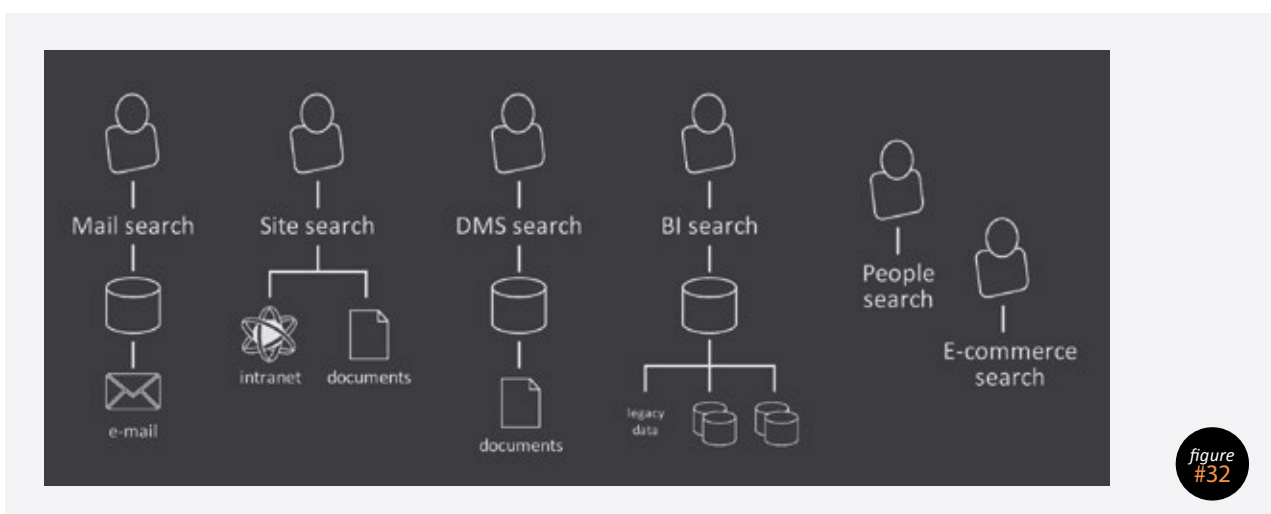
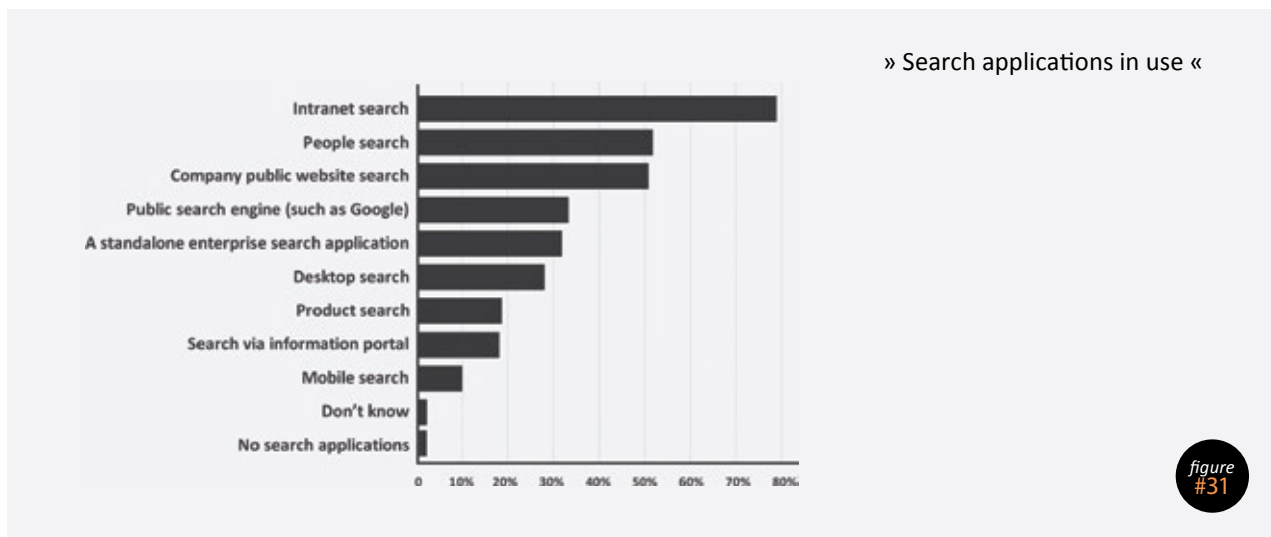
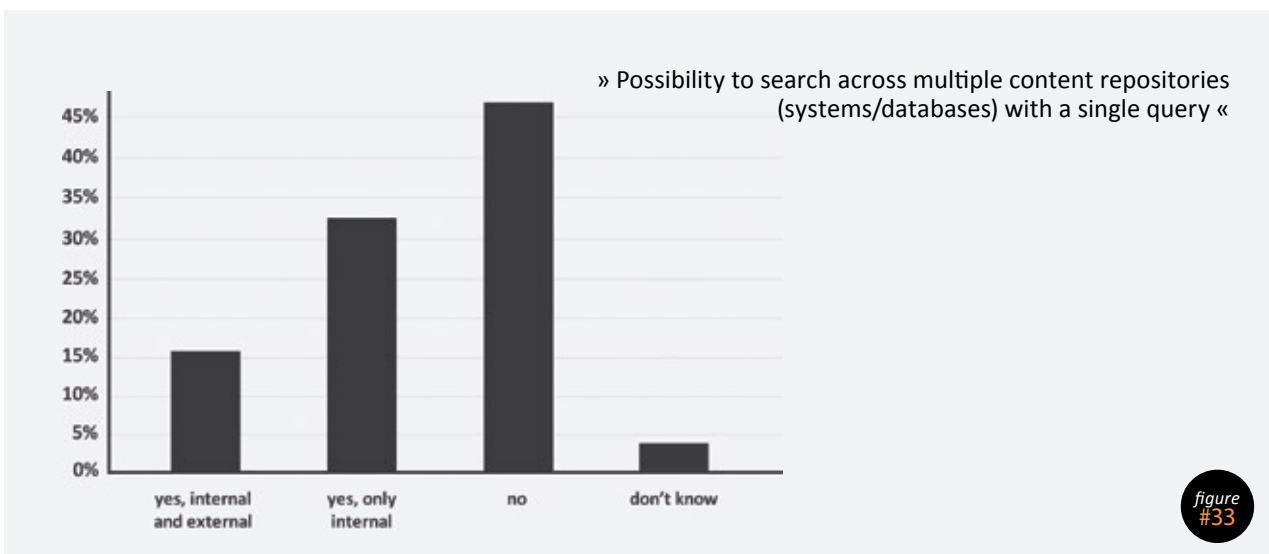


Figure 32 - Separated search architecture

Enterprise Search can be described as the process of enabling information from different systems to come together in one search experience (figure 35). About half of the responding organisations have utilised search technology to perform this aggregation work for some or all of their information systems (figure 33).

As expected, *Aggregating Content Sources (sf)* seems to reduce difficulty in finding information (figure 34). Surprisingly, it is still a low percentage

of organisations that allow search across multiple content repositories. From experience we know that aggregating all available content sources and making them accessible via one search interface is expensive and does not necessarily generate Findability. In fact, users may experience information overload if search results are inaccurate and irrelevant. Always keep in mind that a search engine can't fit user needs straight out of the box. Relevance tuning is an absolute necessity for users not to experience poor search results.



» Respondents stating *Difficult* or *Very difficult* for users to find the information they are looking for «

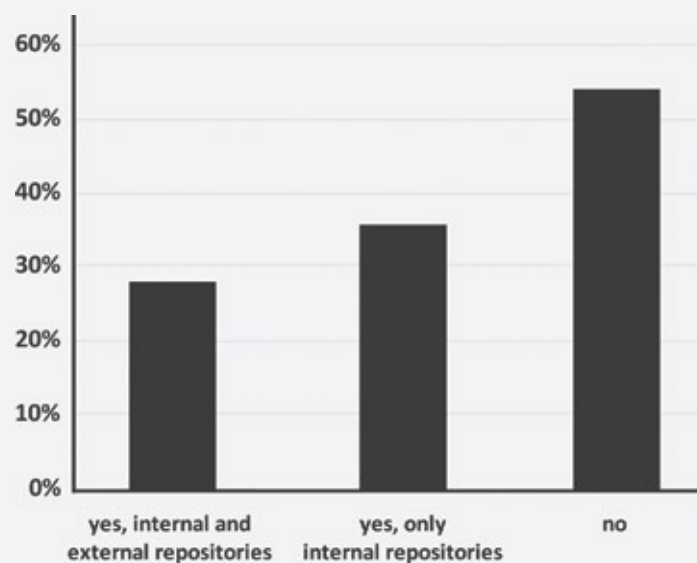


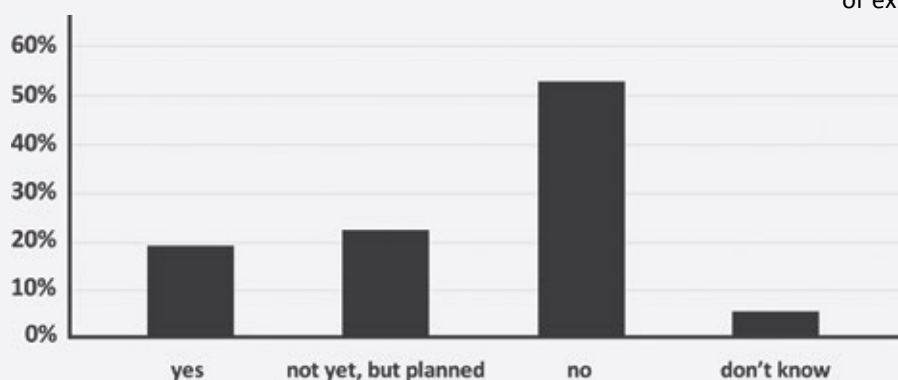
figure
#35**Figure 35** - Many sources, one search experience

As was discussed in both the user and information chapters, tailoring retrieved information and search experience to User Target Groups makes it possible to increase relevance and user satisfaction. For example, the search experience can be tailored based on organisational belonging, location, work task or previous search behaviour. As shown in figure 36, less than 20% of the participating organisations use

the search technology for creating a *Tailored Search Experience (sf)* today.

When comparing the ability to find information, it is clear that Findability improves when organisations invest time in a Tailored Search Experience as shown in figure 37.

» Is the technical search solution/platform currently used to display information tailored to the user (e.g. to create a personalised intranet or external web experience)? «

figure
#36

» Respondents stating *Easy* or *Very easy* for users to find the information they are looking for «

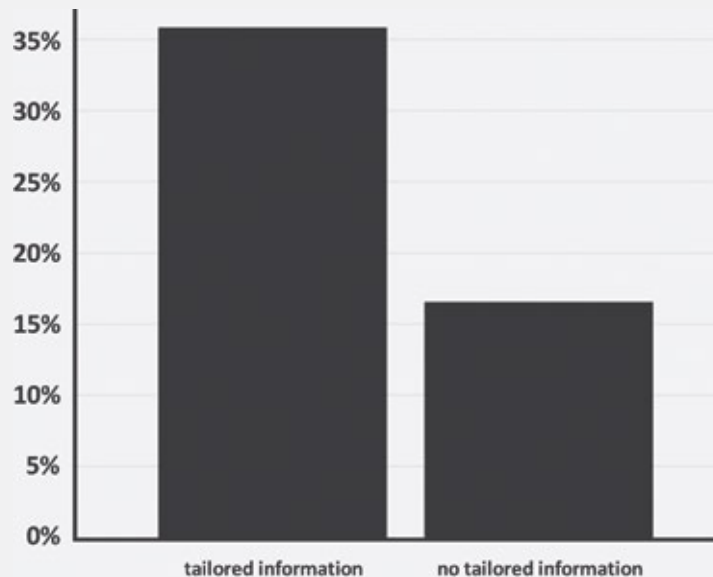


figure
#37

A pragmatic approach to create multi-purpose search applications (figure 38) capable of serving tailored access to relevant information is to implement a *Search-as-a-Service (sf)* architecture. Such a design allows hiding the complex interaction behind a self-contained, centrally manageable search service. Ideally a Search-as-a-Service architecture is based on a common search technology platform that aggregates information from multiple content

sources and provides a uniform approach to access it. The search solution can then be effectively re-used to deliver Search-as-a-Service to multiple consuming applications thereby allowing users to access the most relevant information for their current situation. As illustrated in figure 39, approximately one third of the respondents have currently implemented a Search-as-a-Service architecture.

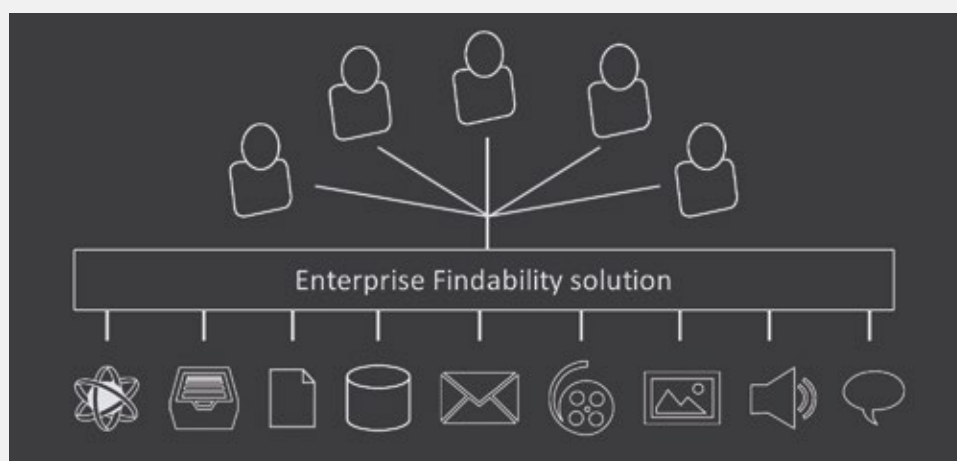
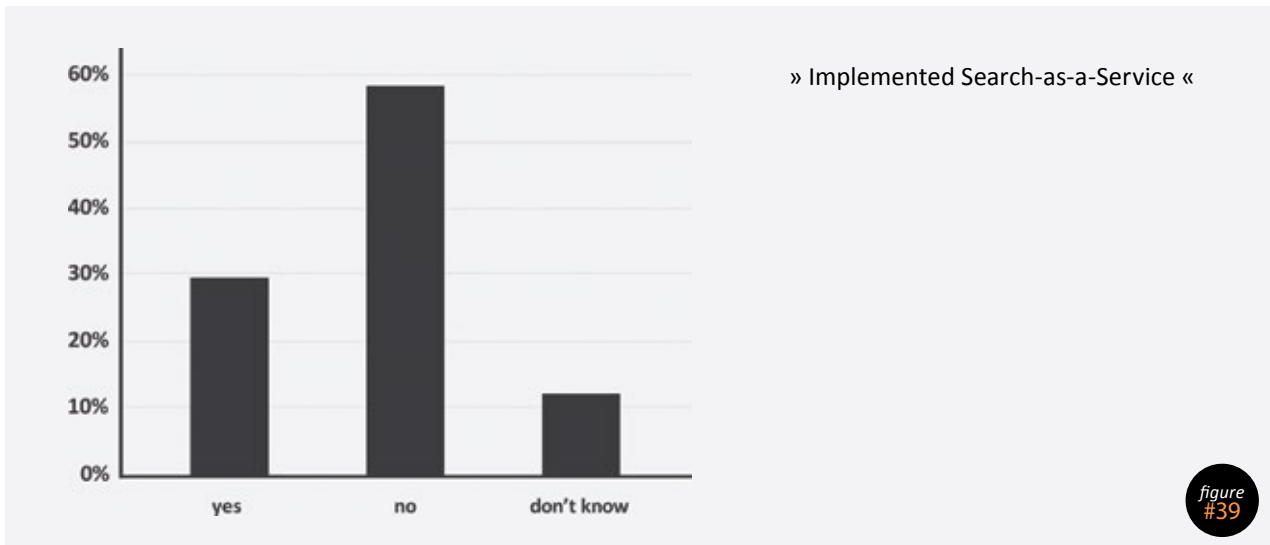
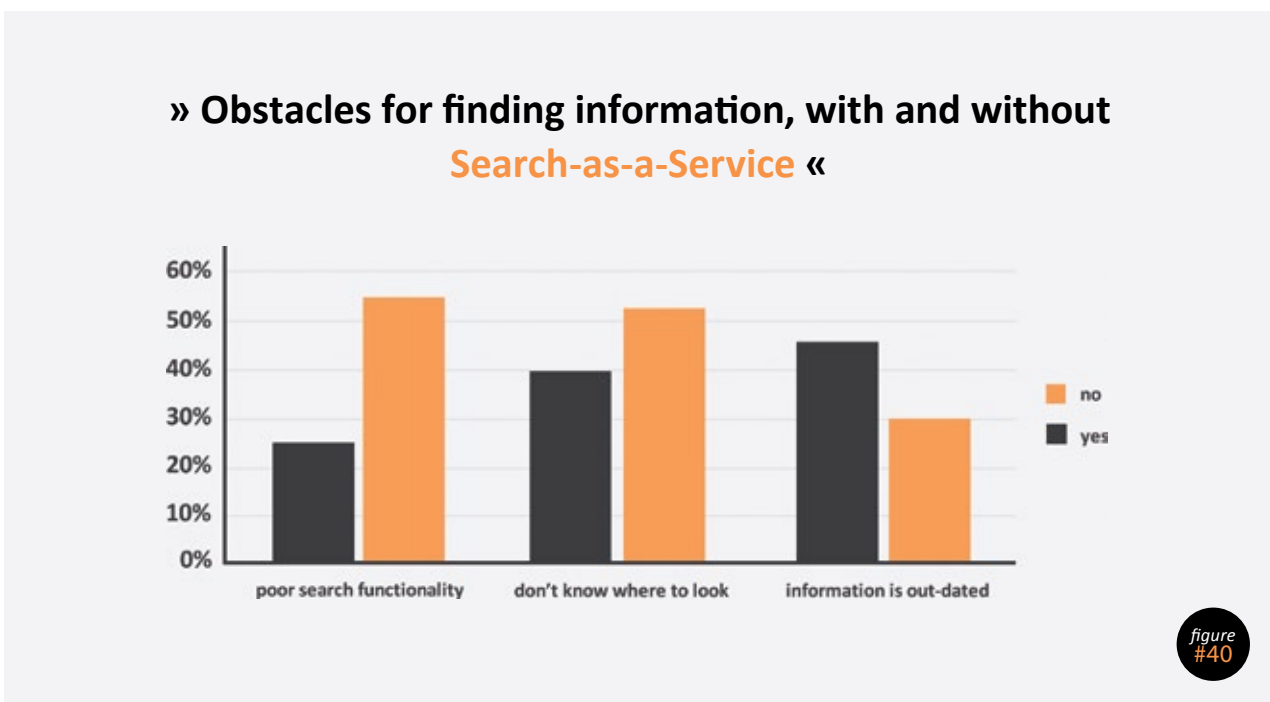


figure
#38

Figure 38 - Multi-purpose search applications



It seems that implementing Search-as-a-Service reduce some of the biggest obstacles that users are faced with when trying to find information (figure 40).



The above results is likely a consequence of increased maturity in the area of Search and Findability among organisations that have implemented Search-as-a-Service. The search functionality and experience is often better crafted in tailored search applications, which are designed in accordance with user needs. Also it is likely that users have better

awareness of the existence and capabilities of the tailored search applications and know where to search for information. It is also likely that more mature organisations identify that poor quality and structure of information, such as out-dated information and lack of tags, are a major obstacle to creating Findability.

Perhaps not surprisingly, those organisations that have a Search and Findability Strategy are more likely to have implemented a Search-as-a-Service architecture, which in turn suggests a relatively high maturity in the area (figure 41).

Criteria for choosing a suitable search platform are specific to each organisation. Sometimes needs are similar but there are always something unique in every organisation. About one third of respondents state that their organisation is planning to replace their current search platform. Results do not indicate which platform respondents are to replace, neither the platform they wish to replace it with.

There are however plenty of good options available on the market. Currently, results indicate products based on Microsoft SharePoint/FAST ESP are most commonly used followed by the open source search engine Apache Solr.

In 2014, 25% of organisations state that they use open source search technology. Since the first survey in 2012, we can see a steady growth in the number of organisations using open source search technologies (figure 42). This corresponds to the growth of open source software market shares in other areas, such as Content and Document Management Systems.

» Search implemented as a service «

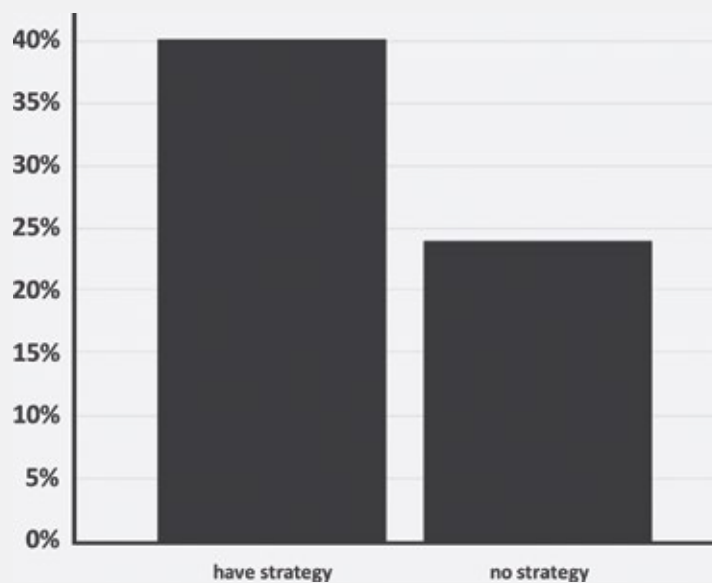


figure #41

» Open source usage «

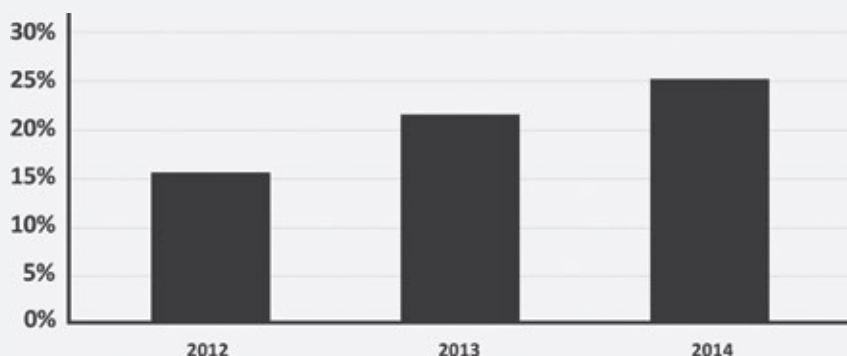


figure #42

CONCLUDING REMARKS

This year, same as previous years, the survey results show that many organisations have a hard time making search solutions useful and valuable. A high proportion of users seem dissatisfied with the offered search experience, unable to find the information they are looking for.

We also see some organisations doing it right. They successfully utilise search technology to make information findable, generating both business value and happy users. By comparing the successful and the unsuccessful organisations, the survey results show that engagement in certain activities are particularly important to succeed with Enterprise Search and Findability. These **success factors** of Enterprise Search and Findability are summarised and illustrated in figure 43.



figure
#43

The survey results show that no single factor provides all the answers. The most successful organisations take a holistic approach to the challenge of creating business value from existing information, typically working actively with all five Findability Dimensions as illustrated above.