



2015

# Design Rationale

**ARMY KNOWLEDGE EXCHANGE**  
ROBERT CLARK

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## Executive Summary

The Army Knowledge eXchange (AKX) is an intranet website designed to provide Land Environment knowledge predominantly for soldiers within the Ministry of Defence. The website holds a variety of different documents related to doctrine, training and military operations, among others.

As well as being a repository of documents the website also contains sponsored debates (forums).

AKX is the 'one-stop-shop' for Land Environment Knowledge but is not considered a ubiquitous tool within the armed forces. Therefore the goal is find ways to encourage users to use AKX as part of their everyday tasks.

## Information and Background

### Current Situation

AKX currently receives on average 800 clicks per working day (Monday to Friday) with approximately 12 new unique users accessing the site. In 2012 there were 101'000 service men and women in the British Army with an additional 37'000 reserves. Despite reforms to reduce the British Army to 80'000 this effectively means that only approximately 1% of the British Army use AKX on a regular basis.

This doesn't take into account that AKX is also used by other Armed Forces, Civil Servants and MoD Contracted Staff.

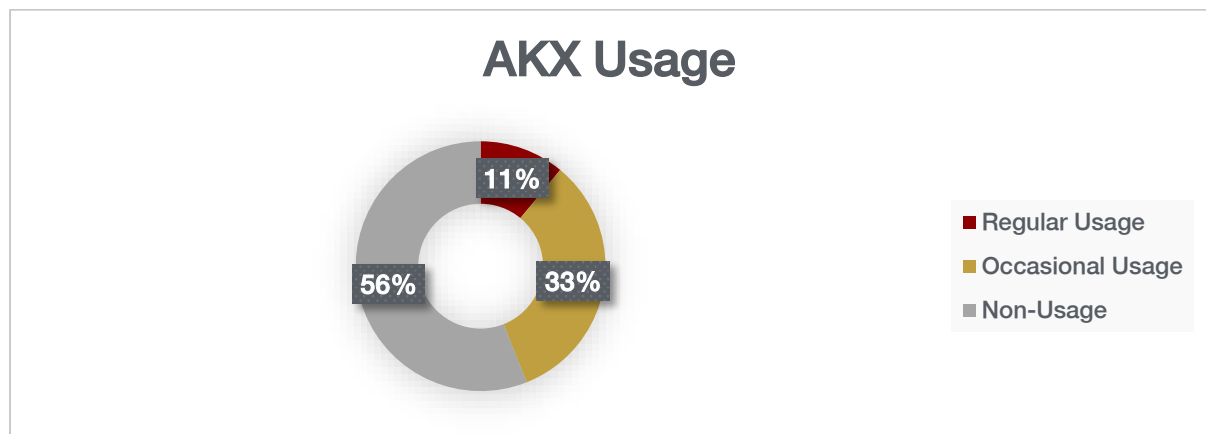
### Important Statistics

In 2012 Maj G Burton performed a user survey on the AKX in order to identify key elements of producing a communities of practice within the British Army. 961 service personnel were questioned on their use of AKX, and the information gained was used to identify reasons for the potential lack of use of the site.

While this survey was completed 2 years ago, AKX user experience has not been altered. Therefore it is safe to say that a majority of the data collected will still be accurate. The only change is that AKX is now more advertised, which might potentially affect the Frequency of Usage statistics.

### Frequency of Usage

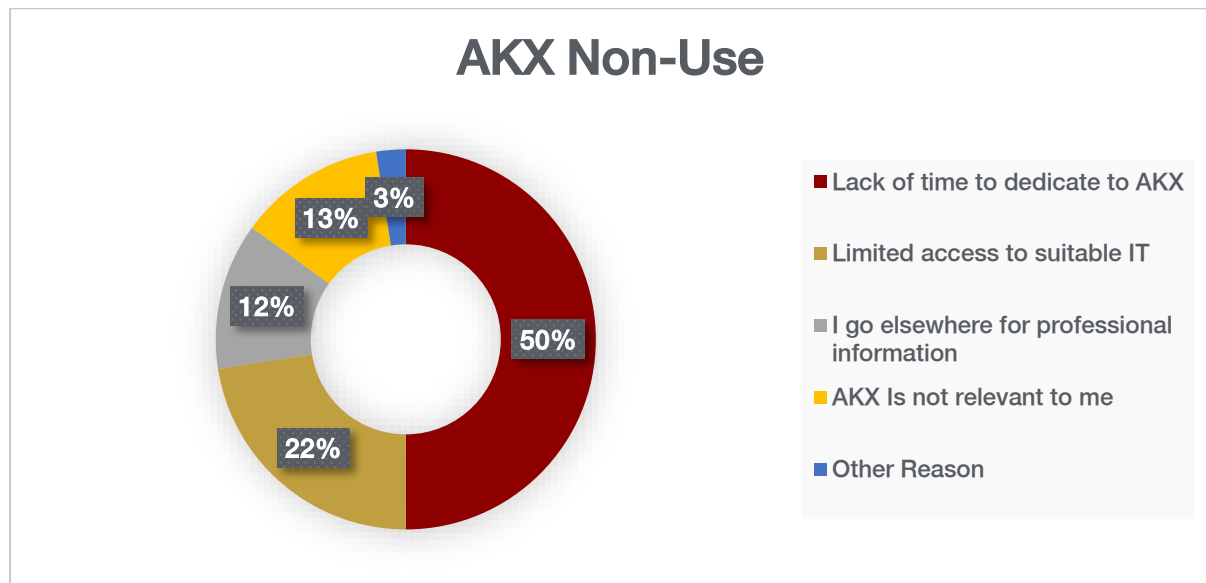
Only 11% of the users questioned considered themselves as a regular user of AKX (use the site at least once a week) while 33% were occasional users (use the site once a month or less). This therefore left a staggering 56% of non-users



*Fig 1 - AKX Usage stats – How often users use AKX*

## Reasons for Non-Use

The main reasons given for not using AKX is lack of awareness which contributes to 60% of the total results. Other reasons for non-use can be seen below.



*Fig 2. – Reason users do not use AKX*

## Other Key Points

### Technical Limitations

At present, AKX is sitting on a SharePoint 2007 platform and the only available Internet browser is Internet Explorer 8 due to network technical limitations. In future, AKX will be moved onto SharePoint 2013 and Google Chrome will also become available, which means that there are some advances in technology which open up more possibilities to improve the user experience. This will have an impact on the 'art of the possible' in the report.

### Networks

AKX is only available on the MoD's intranet which a large number of potential users do not have access to. In the future, AKX will also be placed on the MoD extranet meaning that users can access it anywhere in the world.

This has a significant impact on a number of things for example, at present the website only needs to be available on a desktop PC, but in future smart phones and tablets also need to be considered and the impact on what users can or can't do from these devices.

Two significant persona's (see Appendix A), the Regular Soldier and Reservist currently do not have access to the site due to not having access to the network. This will change which means that the scope of users that need to be reached also changes.

### Politics

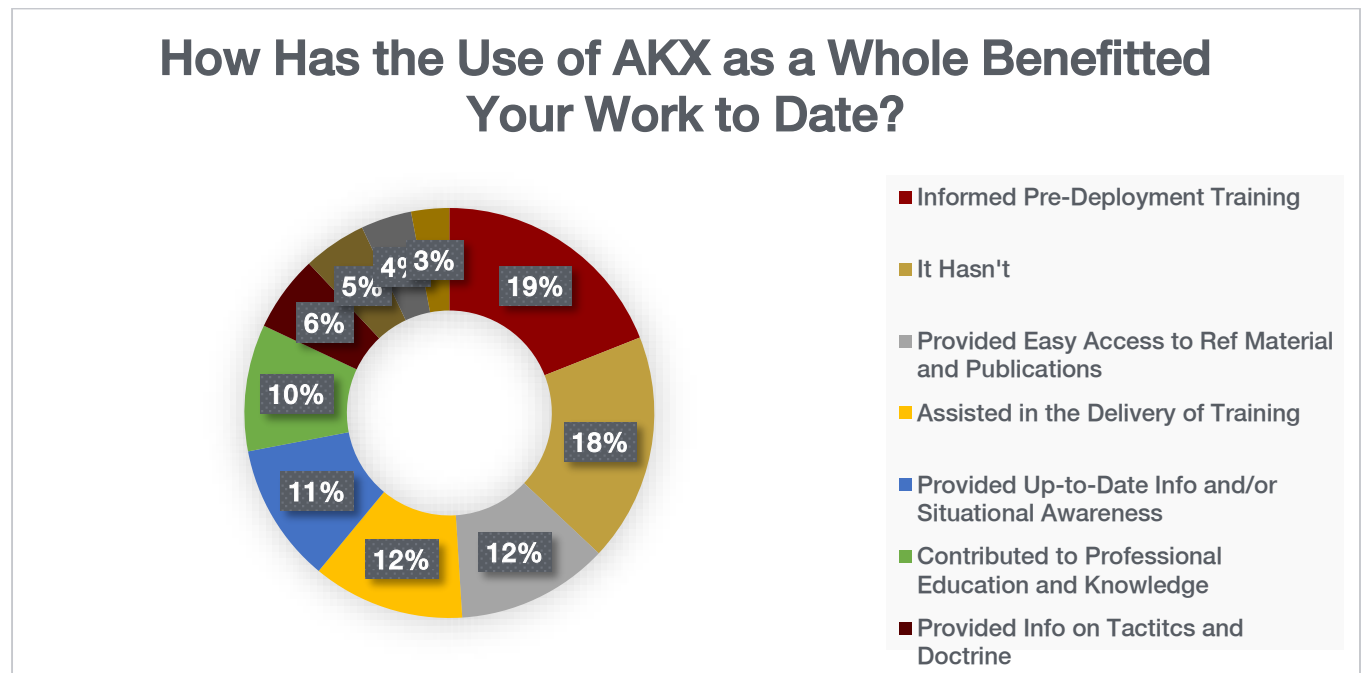
Due to the Armed Forces culture, sufficient endorsement from senior members of staff is required for an application to become a ubiquitous product. This report excludes this requirement.

## Design Aims

### Time Saving

When asked for the reasons for not using AKX, 50% of users stated that they lacked time to dedicate to AKX (see fig 2). This shows that there is a high belief that AKX is not a time-effective tool

When asked 'How Has the Use of AKX as a Whole Benefitted Your Work to Date?' the following results were found.



*Fig 3 – How has the use of AKX as a whole benefitted your work to date?*

Only 3% of the users questioned stated that time-saving was a benefit of AKX while 18% stated that AKX had not benefitted them at all.

This reflects a general trend in today's use of technology: As technology advances our overall tolerance for spending time on activities decreases unless there's great interest in that said activity. Chris Anderson states:

**“As much as we love the open, unfettered Web, we’re abandoning it for simpler, sleeker services that just work.”**

(CHRIS ANDERSON, 2010)

This quote reflects this approach to technology above is accurate as now a days users simply want to achieve their task quickly before moving onto other objectives, which moves onto the next design aim.

### Delving Deeper

Ever gone to YouTube© to watch a specific video and an hour later you're still on the site watching something completely unrelated to your original task? Users are drawn into viewing related content if the thumbnail or title peaks their interest and feel the desire to explore further into the related content.

Hoa Loranger explains:

“Links that follow up on the user’s current interest encourage site exploration and reduce bounce rates. With the proper invitation, people will stay longer on your site.”

(HOA LORANGER, 2014)

Websites that have a huge amount of important and relevant content may be missing the opportunity to display that content to their users and AKX is no exception to this. Users will not feel that they lack the time to access the site if useful content is more discoverable

### Loyalty & Sharing

A powerful form of advertisement for any product is word of mouth. Loyalty in any product is extremely valuable.

Strong confirmation of the value of loyal users came from a recent study of Internet shoppers by Binary Compass Enterprises. The study found that **new users** at a merchant site spent an average of **\$127** per purchase, while **repeat users** spent almost twice as much, with an average of **\$251**.

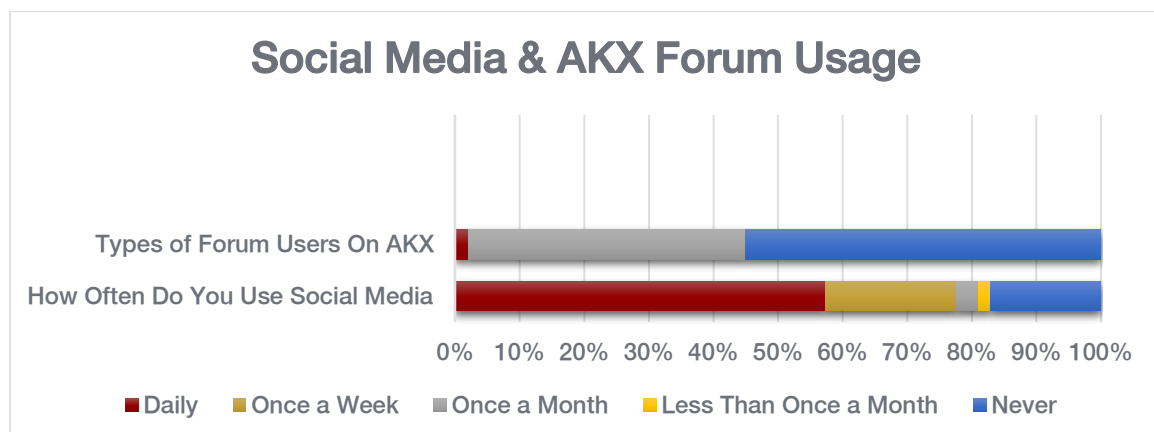
(JAKOB NIELSEN, 1997)

Though AKX’s raison d’être is not of a financial origin, the value of loyalty and repeat users effectively determines whether the product actually exists or not. At present Fig 1 states that only 11% of users use AKX on a regular basis (at least once a week).

Loyal customers share their good experiences of a product with others, encouraging them to also become loyal. Alternatively customers who are not satisfied can spread negative feedback on a product. Therefore it’s important that AKX reaches its target audience to a satisfactory level and beyond.

### Forum / Social Media

The user survey also gathered data on social media usage and the types of users on the current AKX Forum (see fig 4).



*Fig 4 – Social Media & AKX Forum Usage*

Active users (users that have contributed to AKX forums) only constitute 2% of all the users that participated in the survey compared to 54% that use social media daily.

“Perhaps more than any other corporate intranet innovation, social software technologies are **exposing the holes in corporate communication** and collaboration”

(JAKOB NIELSEN, 1994)

If users feel that communication roles in teams, departments or beyond are being supported by excellent social media tools within AKX. It will create more loyal customers and likely to encourage regular use.

## Design Research

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### Introduction

The following steps were used to identify pain points in the current AKX design and how to change the design to improve the overall user experience.

#### Persona's

Identify the types of users that are likely to use AKX, and focus on the key target audience(s)

#### Questionnaires

Ask focused questions on the current design and users' perceived opinions on it.

#### Interviews

Closed question interviews designed to get a greater understanding of the user journey and to pick up on the pain points. It should also identify areas of the site that might be doing very well.

#### Card Sorting

Mainly focused on the front page of the site. Used to identify what features users feel should appear on the front page of a site, should be featured on subpages or should not feature at all. This helps to identify ways of encouraging users to delve deeper into the site.

### Persona's & Participants

Due to the complexity of the culture within the Ministry of Defence there are potentially seven different personas likely to use AKX. This categorisation is based on information gained from the user survey and also the understanding of our current customers.

The personas are the Regular Officer, Regular Soldier, Regular Non Commissioned Officer (NCO), Reservist, Officer Cadet, Navy/Air Force and Civil Servant.

Four of these persona's, Regular Officer, Regular Soldier, Regular NCO and Reservist are identified as AKX target audiences and due to the vast difference in the skills, knowledge and website requirements of each of these personas it's essential to keep these separate instead of joining them all together as 1 persona. This also shows the complexity of the product and the challenges faced when designing the application.

Despite a large portion of Reservists and Regular Soldiers currently not having access to AKX, they are still considered a target audience and will be reached when AKX is available on the Armed Forces Extranet.

To view the full list of personas please see appendix a.

Based on the persona's a variety of different participants were asked to partake in completing the questionnaires, interviews and card sorting exercise.



ID	Service	Rank	Social Media Usage	AKX Usage	Device Access
001	Army	Private	Daily	Daily	Phone, Tablet, Laptop, Desktop
002	Army	Captain	Daily	Monthly	Phone, Tablet, Desktop
003	Army – US	Major	Daily	Daily	Phone, Tablet, Laptop, Desktop
004	Contractor	Colonel (Retired)	Daily	Weekly	Phone, Tablet, Laptop, Desktop
005	Army	Warrant Officer	Daily	Weekly	Phone, Desktop

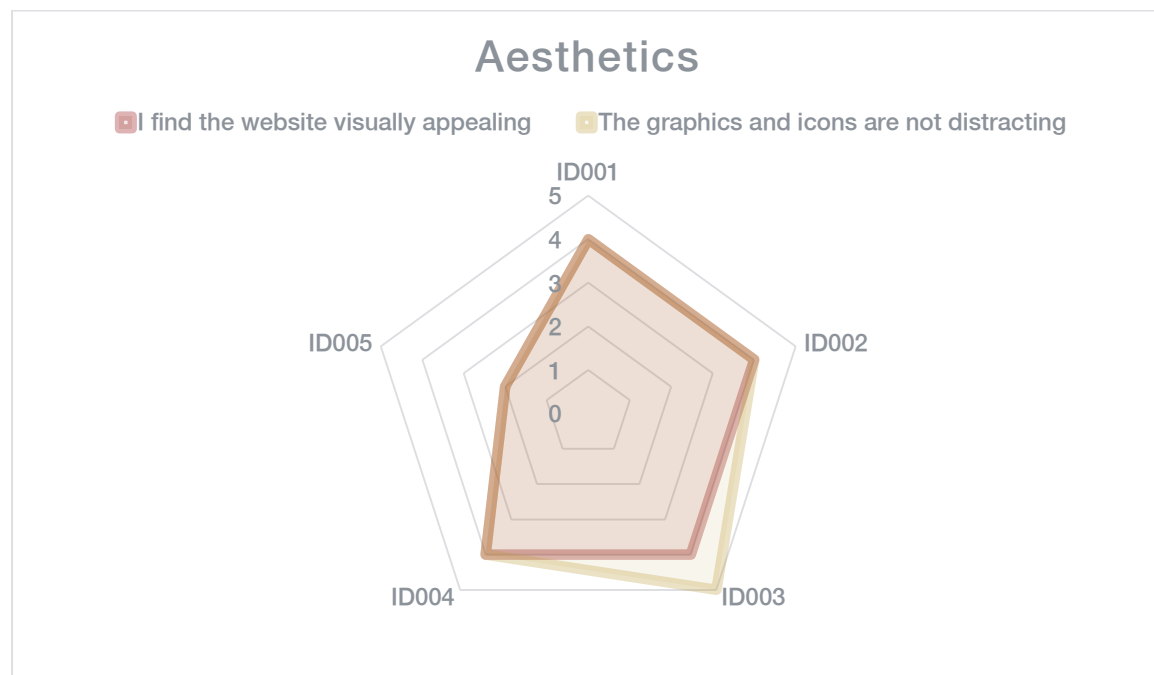
## Questionnaires

To get a feel of the current opinions of the site I asked the participants to fill in a questionnaire (see appendix b) based on the current site with a scale of 1 to 5 (1 disagree, 5 agree) indicating whether they agreed or disagreed with statements provided.

The following data was accumulated

### Aesthetics

ID	I find the website visually appealing	The graphics and icons are not distracting
001	4	4
002	4	4
003	4	5
004	4	4
005	2	2
Mean	4	4

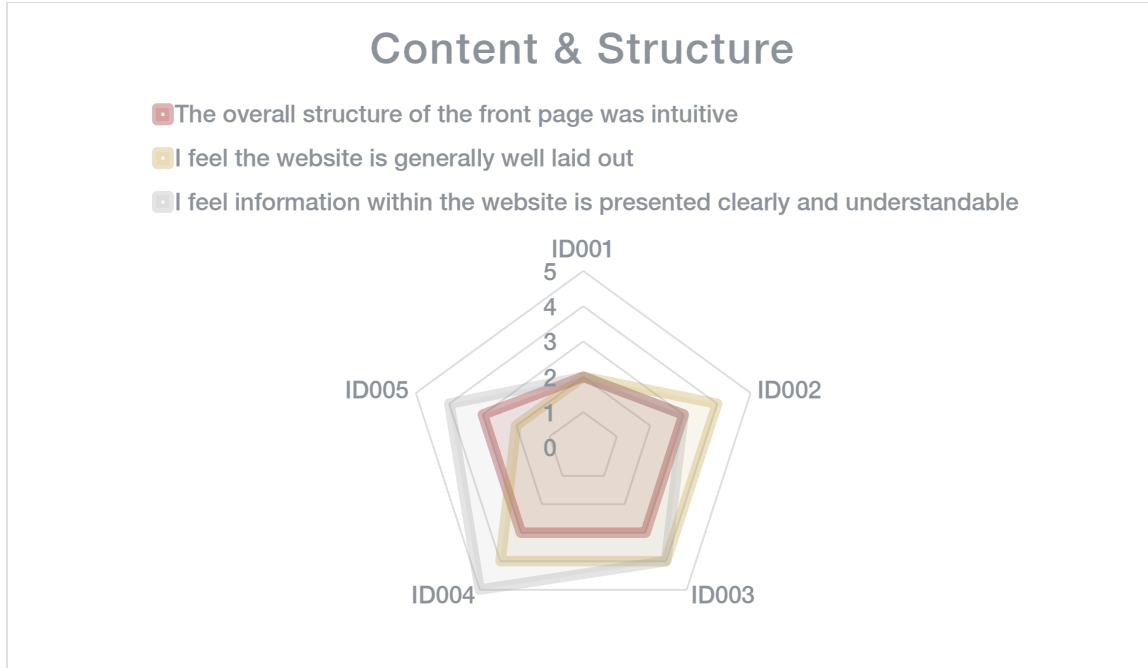


*Fig 5 – Aesthetics Questionnaire Results*

The overall feeling of the aesthetics were currently good.

## Content & Structure

ID	The overall structure of the front page was intuitive	I feel the website is generally well laid out	I feel information within the website is presented clearly and was understandable
001	2	2	2
002	3	4	3
003	3	4	4
004	3	4	5
005	3	2	4
Mean	3	3	4



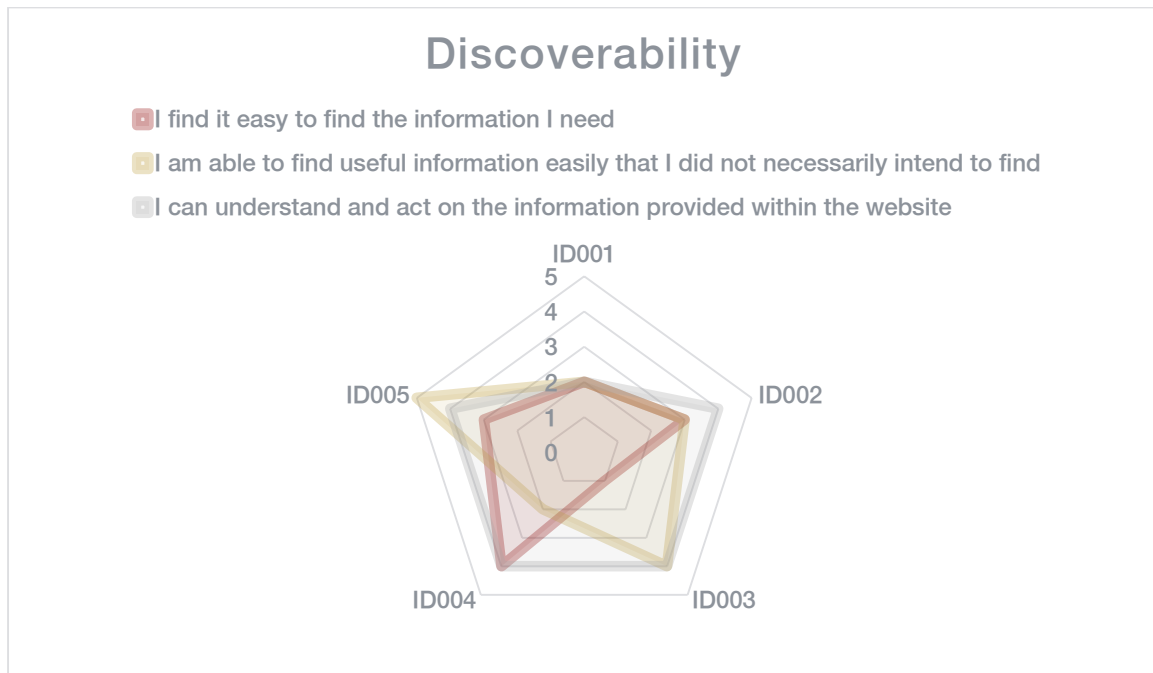
*Fig 6 – Content & Structure Questionnaire Results*

This information shows that the front page is clearly a problem in how it is structured and displayed. As this is the first impression users get, this might well be a pain point discouraging users to pursue further.

Participants considered the information on pages to be reasonably clear and understandable based on the average results displayed in the questionnaire.

## Discoverability

ID	I find it easy to find the information I need	I am able to find useful information easily that I did not necessarily intend to find	I can understand and act on the information provided within the website
001	2	2	2
002	3	3	4
003	1	4	4
004	4	2	4
005	3	5	4
Mean	3	3	4

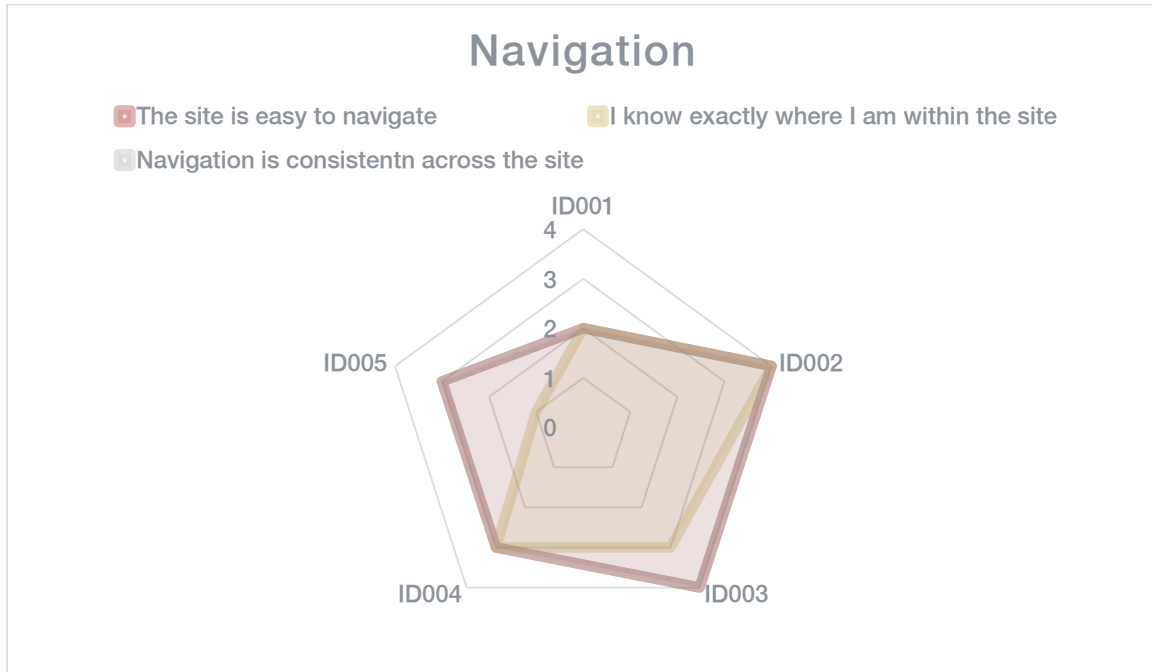


*Fig 7 – Discoverability Questionnaire Results*

The general consensus on the ease of finding information was that it was generally quite poor and the overall opinion within the results was average when referring to discovering other useful information. Information that was found, however, was proved to be useful and could be acted on.

#### Navigation

ID	The site is easy to navigate	I know exactly where I am within the site	Navigation is consistent across the site
001	2	2	2
002	4	4	4
003	4	3	4
004	3	3	3
005	3	1	3
Mean	3	3	3

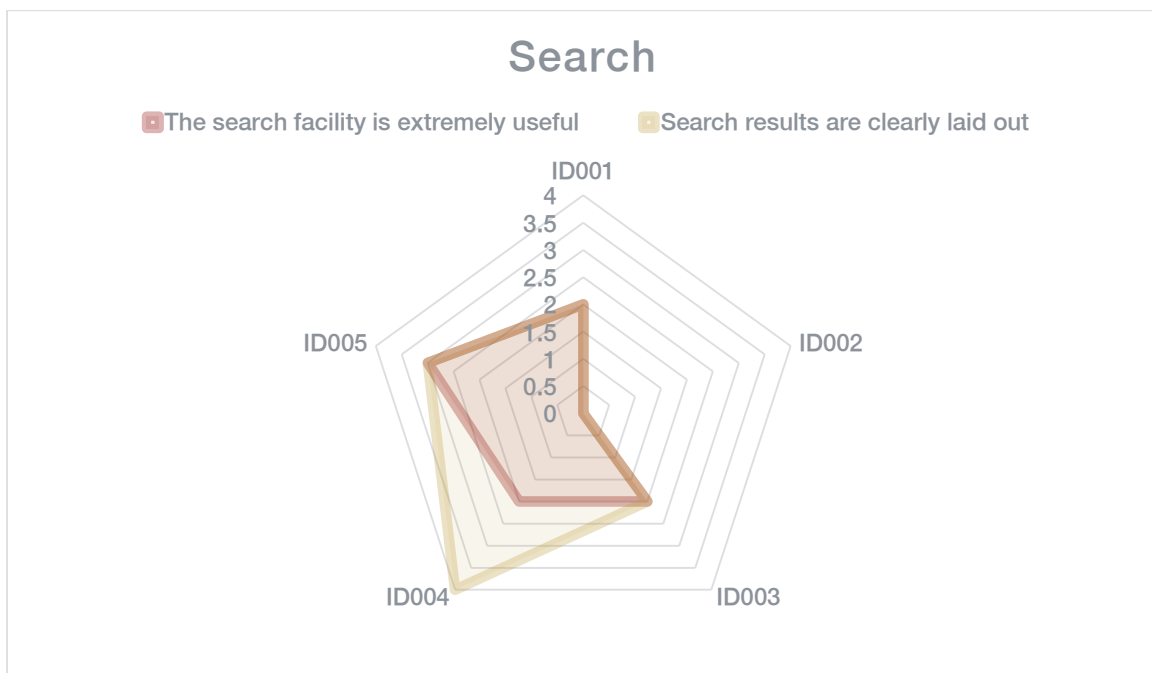


*Fig 8 – Navigation Questionnaire Results*

There were very average responses regarding the navigation in general. It was felt that navigation was relatively simple and consistent, but some participants felt it difficult to understand where they were within the site.

#### Search

ID	The search facility is extremely useful	Search results are clearly laid out
001	2	2
002	n/a	n/a
003	2	2
004	2	4
005	3	3
Mean	2	3



*Fig 9 – Search Questionnaire Results*

The results for search were considered to be below average and it was felt that the search facility was not overly useful. This is more down to the technology of the time due to the limitations of SharePoint 2007 and the expectations by users that all search facilities should return a Google experience. With the advances in technology in the new SharePoint 2013 platform some of these issues should be resolved, however how search results are laid out is a pain point that should be addressed.

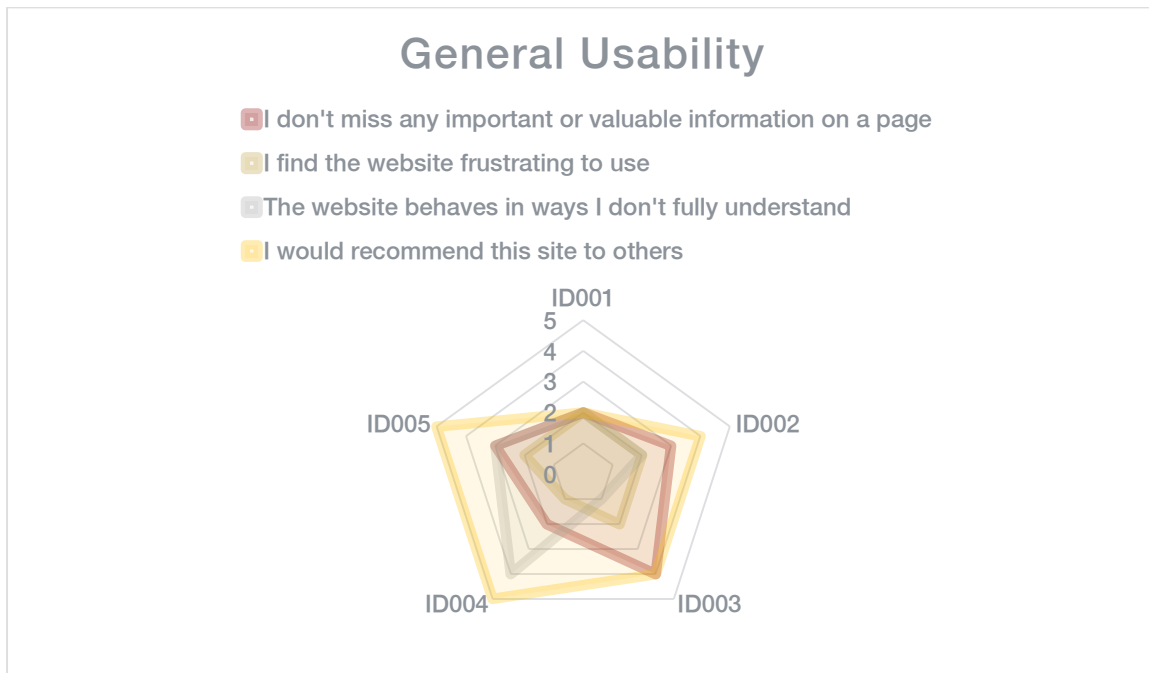
#### Forum

ID	I am interested to find out what discussions are currently going on	I feel I can easily contribute to the discussions	Are you more likely to contribute if using anonymous, pseudo name etc	The forum facility is very easy to use
001	n/a	n/a	n/a	n/a
002	n/a	n/a	n/a	n/a
003	n/a	n/a	n/a	n/a
004	4	5	4	3
005	4	3	4	3
Mean	4	4	4	3

These results show very clearly that the forum within AKX is not really used widely, however there was a reasonably positive response from those that used it. The forum facility usability could be improved as this received an average response.

#### General Usability

ID	I don't miss any important or valuable information on a page	I find the website frustrating to use	The website behaves in ways I don't fully understand	I would recommend this site to others
001	2	2	2	2
002	3	2	2	4
003	4	2	1	4
004	2	1	4	5
005	3	2	3	5
Mean	3	2	2	4



*Fig 10 – General Usability Questionnaire Results*

Overall the general usability of AKX received a quite positive response. Users felt that they were not frustrated using the site or that it behaved in ways they did not understand. Most users would actively recommend AKX to others.

A key component of this though was that some members felt they were missing valuable information when viewing content.

## Interviews

Each participant was involved in approximately 20 minute closed question interviews (see appendix c) This was to get a better understanding of the pain points within the site and what users found useful or struggled with.

### Awareness

**“Most of the time I know AKX will have what I’m looking for”**

#### PARTICIPANT 003

There was a general consensus among the participants that AKX included a lot of valuable knowledge and if they could not find it elsewhere it was likely to be on AKX. 3 of 5 of the participants signed up to the AKX newsletter to receive regular updates.

#### Interaction – Front Page

Most users found the front page rather cluttered with information and tended not to look into it in great detail. One key quote that came out when asking about the front page was:-

**“I tend to just look for what I came onto the site for, but looking now I realise there’s a lot of really interesting content”**

#### PARTICIPANT 001

Pointing out key information on the front page appears to be vital to gain interest instead of users just focusing on their task as a lot of key information was being missed by AKX customers.

Some users found the top banner distracting while others found it pleasing. Comments made, not from the interviews but through customer feedback suggest that not being able to move back and forth between article slides proved frustrating.

### Interaction – Navigation & Search

There was a common feeling that having used the site quite often, finding items within the navigation was relatively straight-forward. However users who used AKX's navigation less often found it difficult to find what they were looking for.

**“It takes on average 20 minutes to find what I’m looking for”**

#### PARTICIPANT 003

This comment shows that it takes users far too long to find what they are looking for, especially those who don't know the exact item that they want to find. Features like 'best bet's' or 'did you mean' within search results were suggested by participants as a possible solution, and this also points towards another reason for related content. Users may access a page thinking that what they are on is what they want but in closer inspection find out it isn't, having related content on that page may point the user to their actual goal.

### Investigation – Content

Participants were overall content with the way content was displayed on pages but most users didn't feel the need to stay on the site and browse once they found what they were looking for.

**“I tend not to look through additional content once I’ve found what I’m looking for”**

#### PARTICIPANT 005

Most participants were positive on the idea of having video content on the site however two key comments came from this question

**“Sometimes I feel colleagues think I’m not working when I’m watching a video”**

#### PARTICIPANT 002

**“Video would become a problem if I wanted to get hold of key information while I’m travelling somewhere”**

#### PARTICIPANT 004

While the first comment is more of a cultural issue and would be addressed over time as users get used to the idea of video content, the second quote points to a possible need for having multiple versions of content available for users to interact with.

### Investigation – Forums

Most of the participants did not get involved in the forums or were simply not aware of them.

“There is no discussions that I have an interest in”

PARTICIPANT 002

“The forums are just people’s opinions therefore they add little value”

PARTICIPANT 005

It was felt that discussions didn’t entice interest from those who did look into it and there was no way to identify if the person involved within the discussion was a subject matter expert (SME) or not. It appears that including a way of depicting a user’s credentials within discussions would be invaluable.

### Sharing & Loyalty

Participants were generally quite pleased with AKX and were happy to encourage others to use it. As a tool they considered it one of the better ones within the Ministry of Defence, but it was also agreed that compared to industry standard there was room for improvement.

### Card Sorting

To identify key components that should feature on the front page of the website, a card sorting exercise was used to try and identify common trends of user opinions of what should appear on the front page of the site. This will help decide what focus should be made on the front page.

Common suggested key features on the front page were.

- Key News Articles
- Key Pages
- Key Video / Audio Content

Sub features on the front page were.

- A-Z
- List of Topics
- Popular Articles / Pages
- Recent Articles / Pages
- Previous Newsletters

Footer items were.

- Newsletter Signup
- Main Contact Information
- RSS Feeds
- Twitter / Facebook Feeds
- Links to Blogs

Front page sub features or footer items were

- Links to Websites
- About Us
- Content based on geographical location

Items that should appear on subpages were

- Tag Clouds
- Personalised Content (Personal Relevance)
- Personalised Content (Role Relevance)



- Forum / Sponsored Debate Discussions
- Microsoft Office Interaction

Tag clouds and RSS Feeds were not fully understood by some users therefore their positioning could be effected by this.

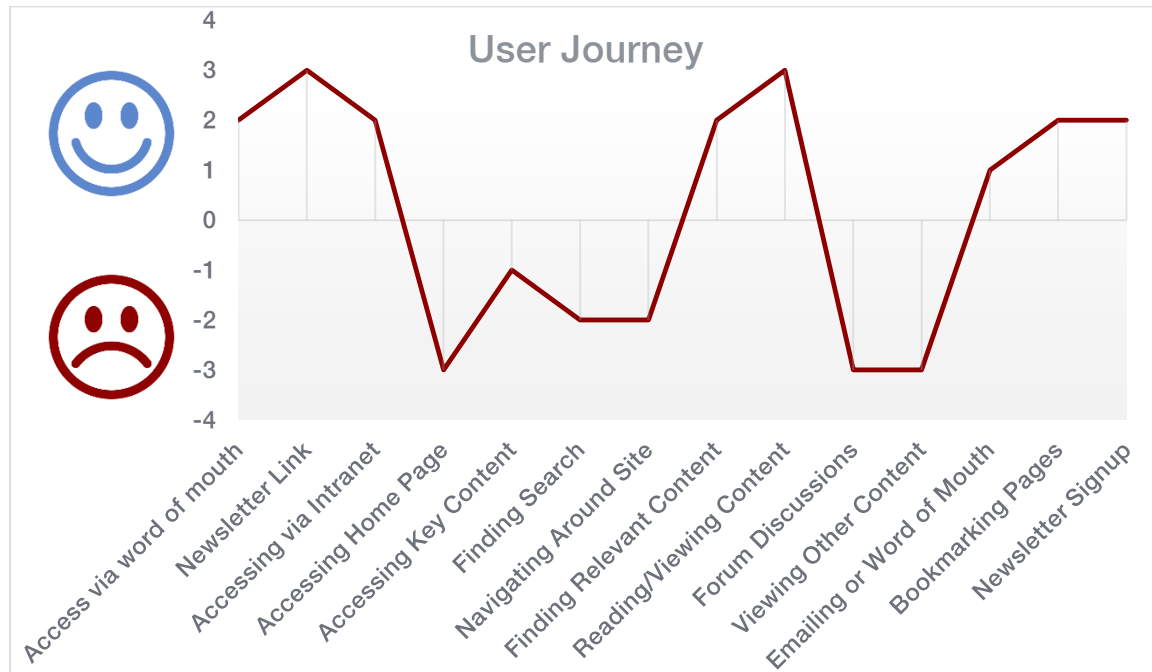
For the full list of findings please follow the link

<https://accounts.optimalworkshop.com/optimalsort/8rm62408/228t8g8o/shared-results>

## User Needs

### User Journey

Based on the questionnaires and the interviews the following user journey was created.



*Fig 11 – Current AKX User Journey*

There are two main obvious pain points that need to be addressed within the future design. The first is finding the important content and the second is viewing other content.

The following user needs were established to alleviate the pain points.

### Valuable Content

Directly from the front page of the website it must be made obvious what the current key content of the website is and also why it is key. By displaying this type of content efficiently a user should be drawn towards it and be encouraged to delve further into the site. The use of striking thumbnails with a small but intriguing synopsis are one way to achieve this.

Regularly changing content inspires users to check a site on a more frequent basis. Changes do not need to be massive. Small things like a new news article would be enough to encourage this. Once again the use of a striking image makes the change obvious for the returning user.

### Locate Quickly

A common theme in both the original survey and the present day interviews is that AKX is not a tool to locate things quickly. If users are able to complete their set tasks very quickly and efficiently it will encourage them to make AKX their first port of call to obtain information. Market Research found that 74% of users use Google as their primary option for finding

information on the web. Google is such a simple tool to use and most of the time it is extremely quick to locate your desired objective. With the high success and time rate it encourages that loyalty of consumers to return to the site every time they wish to search on anything. This also needs to be the case with AKX.

While some of this is down to the technology that is available, for example the search engine, there are ways of displaying results or location of tools on the user interface that could aid towards this, for example filter systems and displaying search results clearly.

### Discussion Gamification

Possible ways of encouraging users to participate in social activities on the site are to include gamification.

For example adding achievements to user accounts will encourage some users to participate more in the social media side of the site. Including achievements like the number of discussions created and contributed to, how many answers they can give to Q&A areas and responses that achieve high ratings are a number of ways to encourage participation.

The ability to rate pages and comments will make users feel that it is their site and if SME's respond to comments in a positive manner it can only produce a positive effect in user contribution.

Users should be able to add information about themselves, as this will help others understand whether responses are not just opinions but are from subject matter experts. This should also encourage networking within the Ministry of Defence as at present it is difficult to know who has specific skills and what skills these are.

### Encourage Interest

Displaying related content on pages and articles will encourage users delve deeper into the site. Users who do not necessarily know exactly what they are after may find it on a related page which they have found during their investigation. Users who know exactly what they are looking for may find something even more useful through these related items.

Ultimately, useful and valuable content that may be overlooked will be noticed more frequently by having striking thumbnails and small synopsis therefore reaching the delving deeper goal.

## Design Overview

In order to get a good understanding of some of the features within the site and the impact user interaction has with the design, the prototype was created in WordPress. Features like 'most popular' or 'highest rated' content are effected by the user interaction influencing what content appears on the front page.

It is also possible to add multimedia content to the prototype hopefully displaying how adding these can make the website more interesting and appealing.

Due to the complexity of the navigation and the number of pages that are currently stored within the AKX site a megamenu is used.

**“Mega menus allow for efficient, hierarchical organization and grouping, supporting visual emphasis of relationships between items and using progressive disclosure to guide users to the information they are looking for without overwhelming them with a barrage of other options.”**

(FORUM ONE, 2013)

While not displayed on the prototype, AKX consists of over 600 pages and the desire is most of these pages to be available directly from the menu. As a result of this a tablet version of the site is required to function differently from the desktop version. Therefore a separate prototype design is created in Justinmind to display the subtle differences.

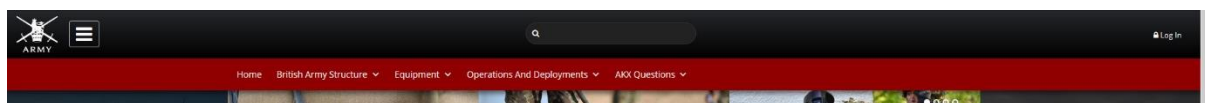
In a live environment the site will be responsive by being based on a device channel instead of a more fluid responsive design meaning that the site would detect the device that it's being viewed on and display the correct template based on this.

## Rationales

Here are a list of key design choices intended to achieve the user needs.

### 'Sticky' Header

The 'sticky' header (fig 12) is a header bar that sits at the very top of the page and scrolls down when you scroll down the page.

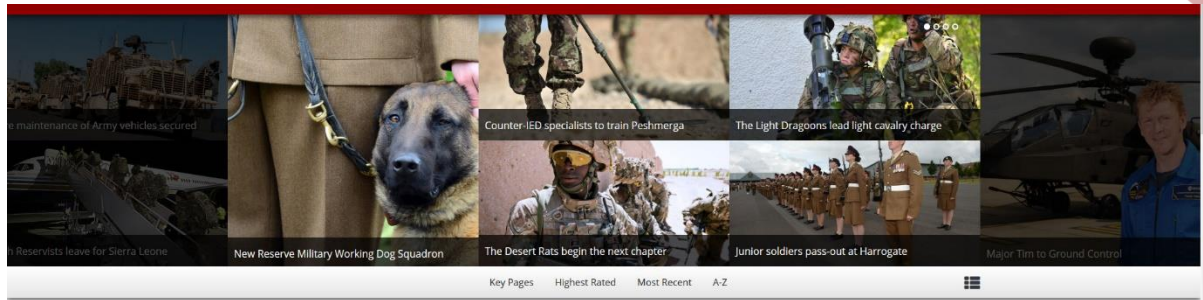


*Fig 12 – Navigational Bar on AKX prototype*

This is a time-saving tool for the user. When a user scrolls down a page they may feel that they wish to go to another page either via the menu or use the search to locate a different piece of content. The menu and the search is always available for them wherever they are on the page meaning it saves that small amount of time to move onto their next objective.

### Articles List

The article list (fig 13) is simply news articles about changes or announcements for the site and beyond.



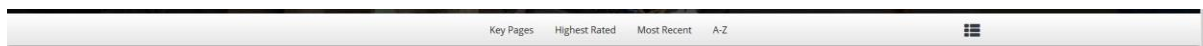
*Fig 13 – News Articles on AKX prototype*

If used correctly by including striking thumbnails and if it is updated on a regular basis this should encourage loyal customers to return to find out what the latest news is. It also shows users that the site is being kept up-to-date and that there is a certain 'human element' to the site.

The negative side to having this is if it's not regularly kept up to date or thumbnails used are not appealing, this could come across as the site is not maintained or very unprofessional.

### Page Display Tabs

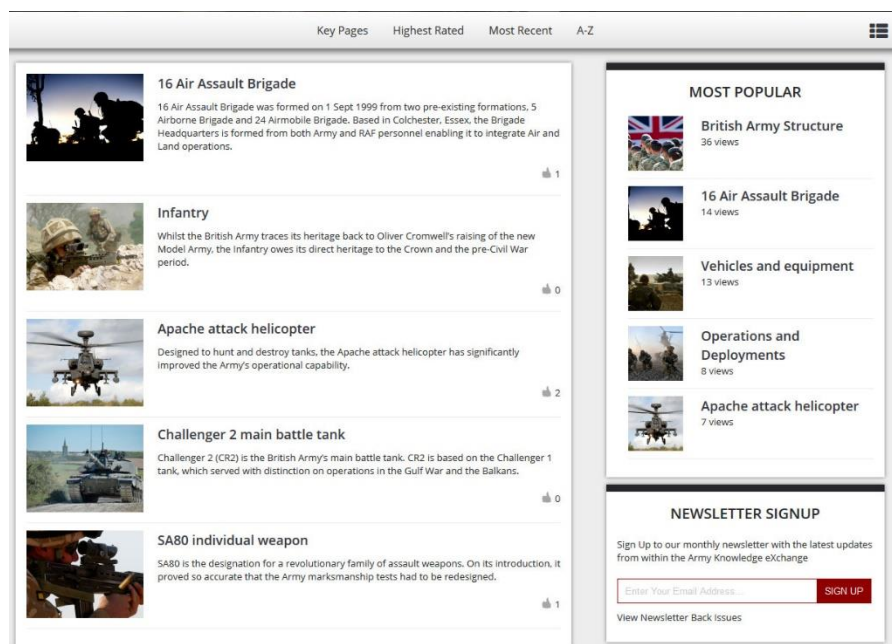
When there are over 600 pages within the website is good to know what other users consider to be important.



*Fig 14 – Pages tabs on AKX prototype*

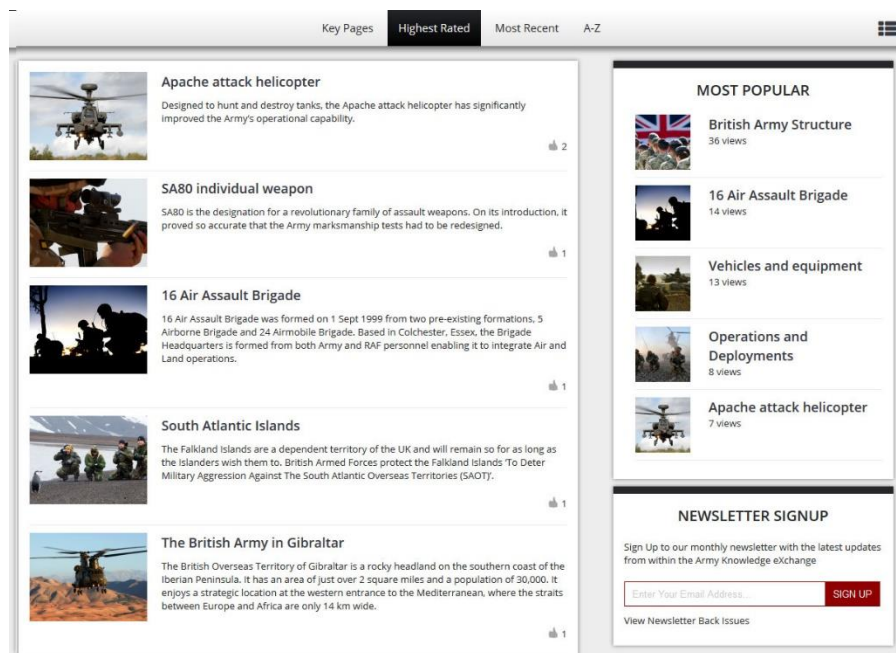
Hyperlink buttons, or tabs are used to display different key content. These tabs directly affect the display of the main content box below showing key pages, highest rated, most recent and an A-Z. It is likely that geographical location, displaying content by it's relevant country or location, would be featured in this area too.

The Key Pages section (Fig 15) is the section that the team responsible for the website believe should be seen by their users. This is also the default view and the first list of pages that people will see when they access the site.



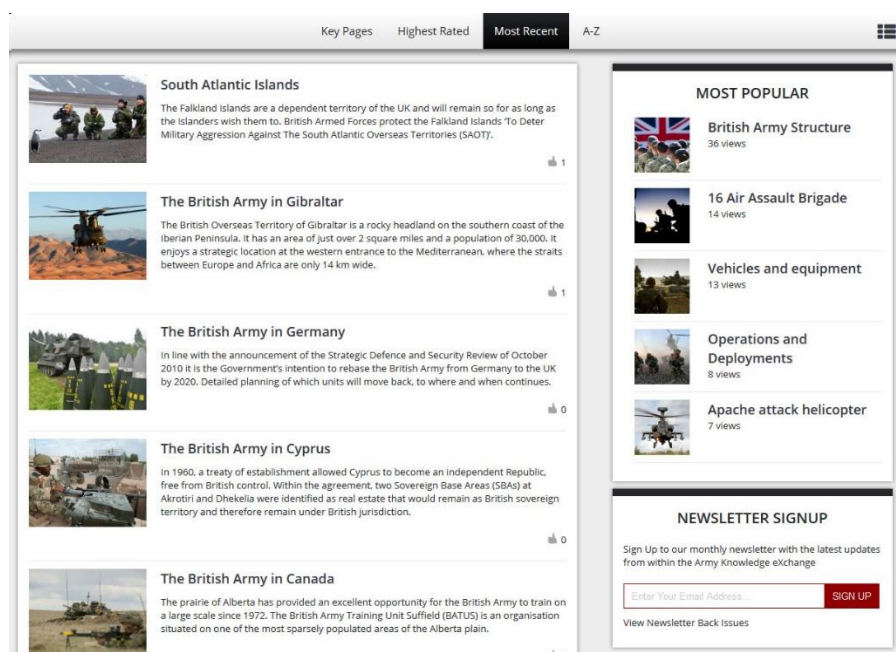
*Fig 15 – Key Pages tab & content on AKX prototype*

The Highest Rated (Fig 16) is based on the number of likes that a page has received, meaning that this is completely controlled by the users and their opinion on whether they considered a page to be useful or not.



*Fig 16 – Highest Rated tabs and content on AKX prototype*

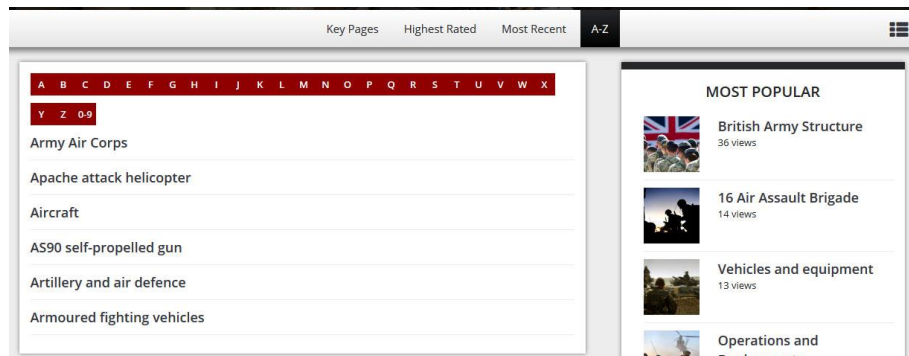
The Most Recent (Fig 17) features the latest pages that have been created showing loyal customers latest pages that may be of interest to them.



*Fig 17 – Most Recent tab and content on AKX prototype*

The A-Z (Fig 18) displays an A-Z of every single page within the site based by the first letter of the title





*Fig 18 – A to Z tab and content (displaying only A until another letter is clicked) on AKX prototype*

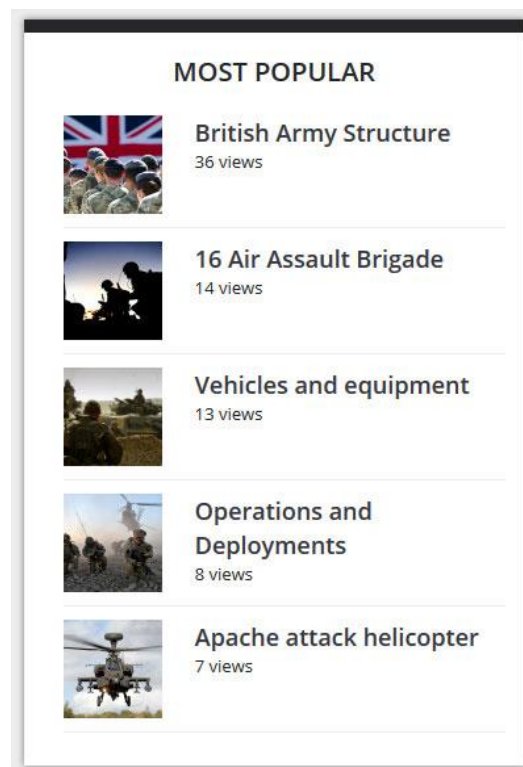
Users can use this to locate a specific item if they know the exact title of the page they want.

These tabs provide alternative ways of locating vital information. With the use of likes and the most popular box a trend should develop that should point out key pages which users have a great interest in. From this, users may not need to search for key content as it could already feature in one of these tabs.

Pages that should be read by users will then appear in the key pages section as these will be promoted by the website staff.

### Most Popular Box

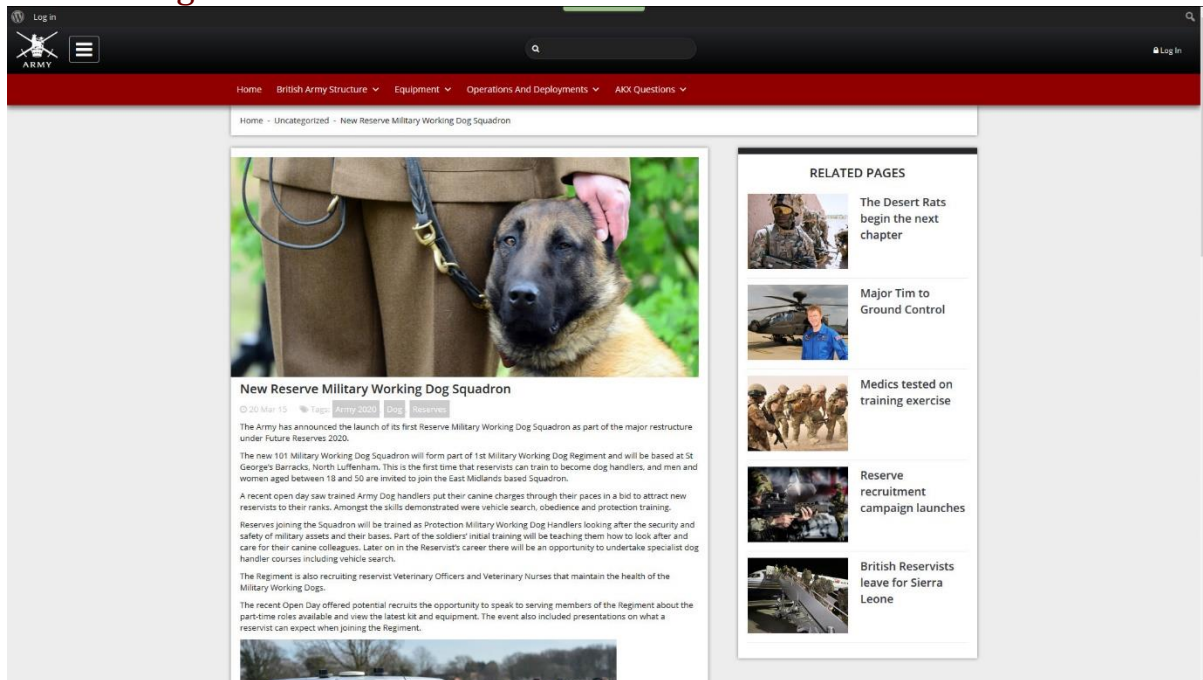
The Most Popular box (Fig 19) displays the pages with the most hits within a certain time frame (a month for example)



*Fig 19 – Most popular box on AKX prototype*

If a specific page is accessed more others, it is likely that there is some valuable content that should be accessed by other users. If these pages are displayed on and can be accessed directly from the front page, it helps users once again to save time.

## Related Pages



*Fig 20 – Article page on AKX prototype*

Fig 20 displays related pages on the right hand side of the main content of an article (this is the same on standard pages). Based on Meta data (for example tags) attached to the page, content that is related to this page will appear here.

There are a few reasons for displaying this. The first is that, if a user has searched for something yet has not necessarily located what they want, there is a possibility that the related pages will display the content they are looking for. Another reason is that encourages users to investigate further into the site.

While it is not possible to include this in the prototype, a short synopsis could also be included underneath the related page title. The synopsis, if well written, along with the alluring thumbnail, will encourage the user to investigate further into the page and the site.

## Share Article

Users who find information on AKX useful and believe that they should share this information with others can do so on the pages that through various channels. (See Fig 21)



*Fig 21 – Share and article bar on AKX prototype*

This could encourage users who are not currently avid AKX users to investigate the content and encourage them to also become loyal users.

Due to the fact that the website will be on either the intranet or extranet it is likely that only an email option will be available initially.

## Comments Box

Some articles and pages will have the option to host comments (Fig 22, not all as comments will need to be moderated by the SME responsible for that page's content)

*Fig 22 – Comments box on Article page in AKX prototype*

The comments allow users to display their opinions about the content on the page, once again providing them the opportunity to make it feel like it is their site. Useful and valuable comments could then aid towards content within the website to be improved, providing a two-way benefit.

While not all comments will need to be moderated by an SME, it is likely that an SME who is responsible for the page needs to monitor the comments and occasionally respond to user comments as otherwise the comment facility will lose credibility.

## Likes Button

Likes buttons will be added to all pages and articles (see Fig 23)



*Fig 23 – Likes button on AKX prototype*

Likes provides a small gamification feature that has a direct impact to content on the front page and what appears on the Highest Rated boxes.

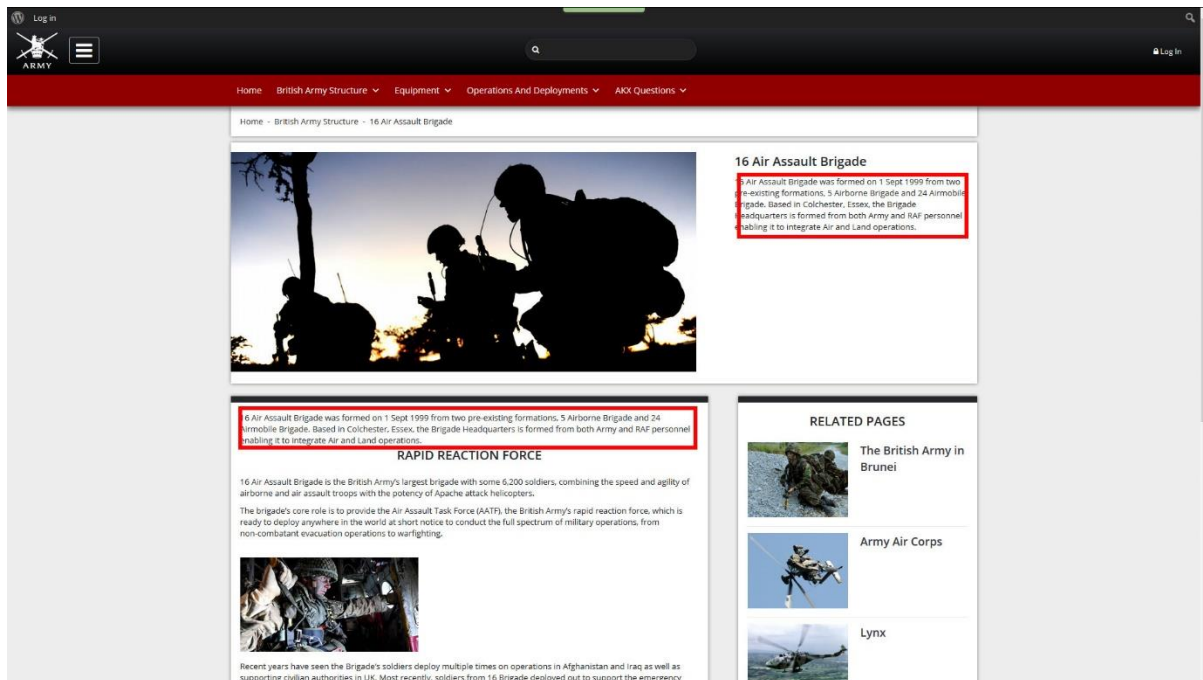
Likes should be used instead of ratings mainly due to time saving reasons. Users have to put some thought into the exact rating number of a page or article. Initially this could discourage users from participating. Likes, in contrast require very little thought.

As more users get involved and the site becomes more popular and ubiquitous, likes can be reverted to ratings to give a more accurate display on what users consider to be good or not.



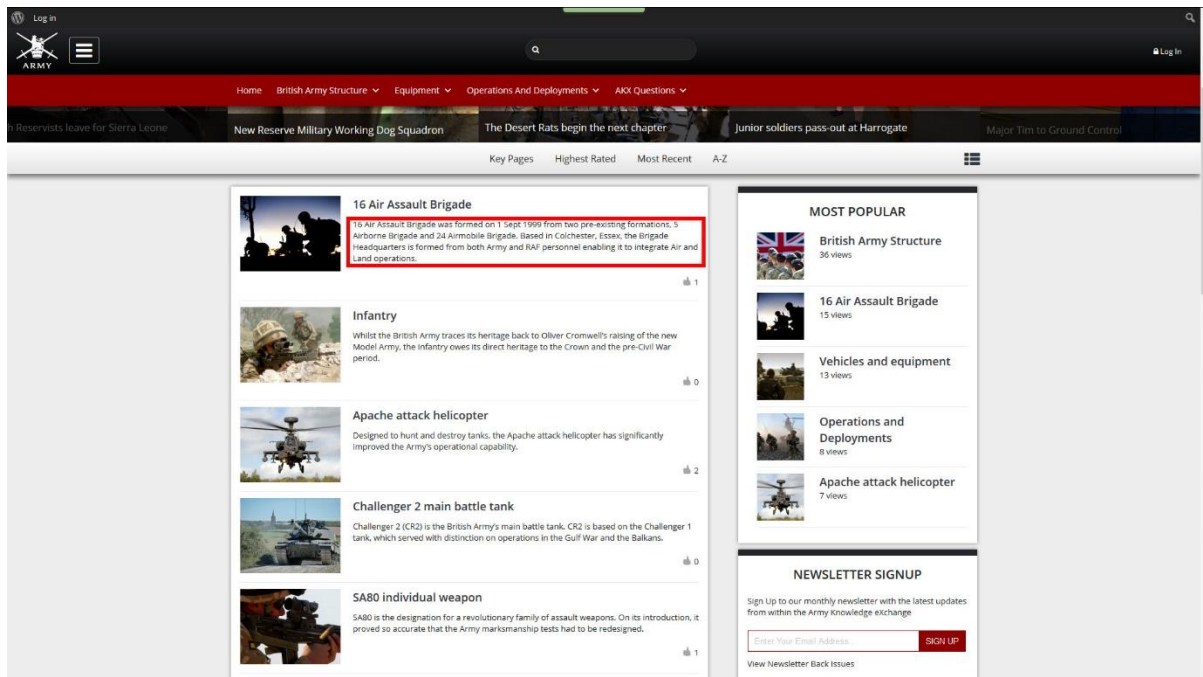
## Page Synopsis

Each page consists of a short synopsis or description of what the page is about. Fig24 shows that the synopsis is a snap shot of the main content which users can read to then identify if the page they are on is the one they are looking for.



*Fig 24 – Page synopsis on AKX prototype*

Fig 25 also displays the synopsis of other areas on the site (In this example the front page). The idea is that users will know if that's the page they want before they waste the time investigating it. Alternatively the synopsis could encourage users to look further into a page when they initially had no intention of doing so.



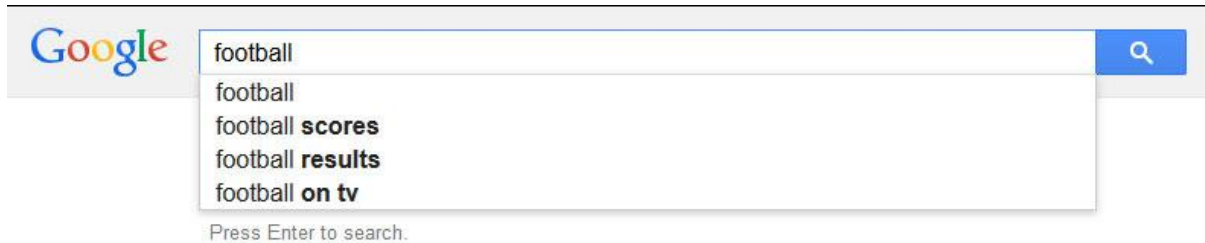
*Fig 25 – Page synopsis as displayed from home page on AKX prototype*

## Search

The search box has been placed directly in the centre of the top of the page (see Fig 12)

As the search is part of the sticky header it is always available on every page at the very top. As it is likely to be the most used aspect of AKX it will save considerable time for users to find what they are looking for from this search box.

Ideally, however not possible within the current prototype, a 'did you mean' box should appear, similar to the google search (see fig 26).

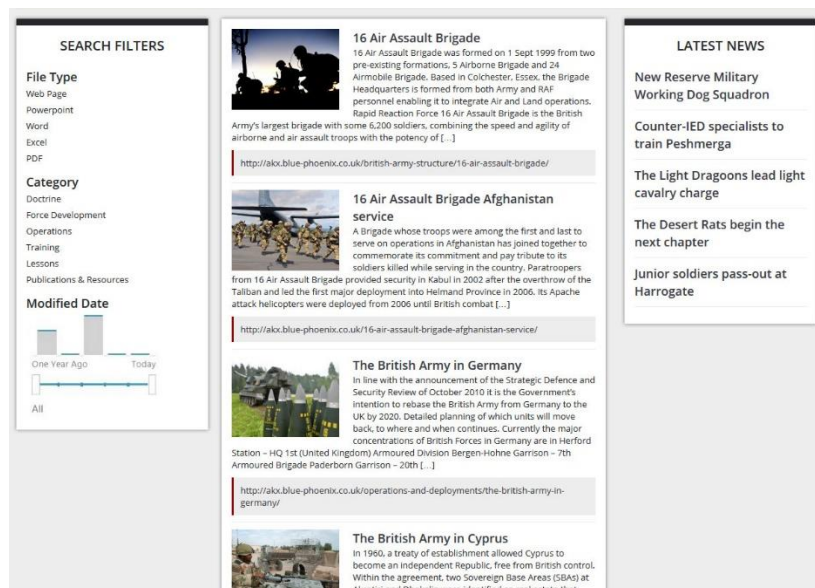


*Fig 26 – Search guess on Google*

This feature is for user who may not necessarily know exactly what they are looking for. By adding this feature users are able to start typing what they think they are looking for and AKX's search should then show potential options. This will hopefully allow the user to find what they are looking for quickly instead of having to hunt around.

## Search Filter

Fig 27 displays the search results page along with a search filter on the left hand side.



*Fig 27 – Search results page on AKX prototype*

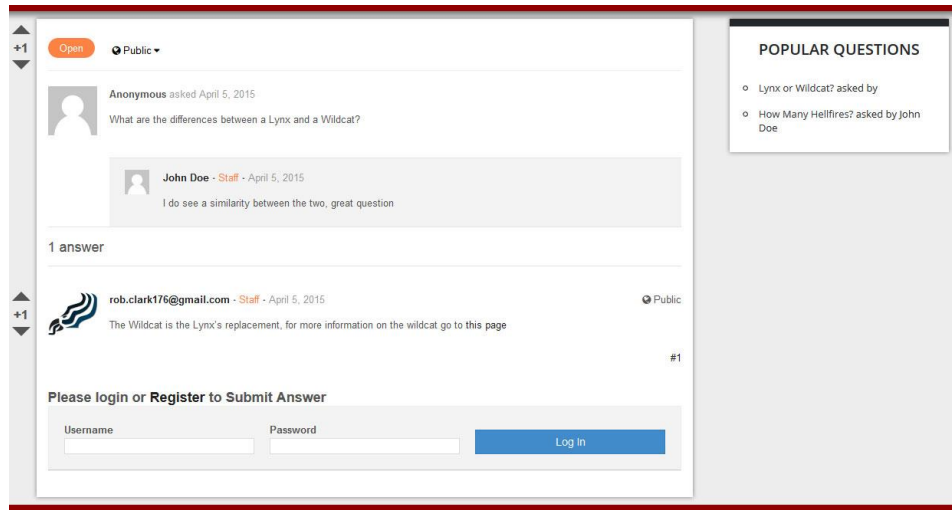
Most users tend to only look at the first few results on any search page and if they are unable to find what they are looking for straight away they could get potentially frustrated.

Providing a filter based on criteria like categories or tags among others could help users to find what they want without having to rethink their search query.

## AKX Questions & Answers

One of the biggest questions is what type of social media feature should be attached to AKX. This is mainly due to the culture of the armed forces and their lack of acceptance to share ideas as they have a more of a 'do what you're told' mentality. While for the prototype Question and Answer features have been selected it does not necessarily mean that this is the final option and further investigation would be required to fully identify this.

Questions and Answers (fig 28) is an opportunity for users to base questions of a specific topic and receive answers from the general public. Answers that are considered good are rated with the best answer featuring at the top of the page.



*Fig 28 – Answer page on AKX Prototype*

The added gamification of rating good questions and good answers could encourage users to get involved in the Q&A area of AKX providing that questions are answered at a relatively quick pace.

Unfortunately this option requires a critical mass of interested users for it to be successful.

## User Details Page

By clicking on a user's name within the social area, full details should be shown (see fig 29).



*Fig 29 – User details on AKX prototype*

When a user answers a question, contributes to a forum or leaves a comment, other users are then able to see if that user is a subject matter expert, helping them to identify whether this is opinion or fact.

The negative aspects of this is that it requires the user to actually fill in their correct details, As incorrect details are as bad, if not worse than no details at all.

## Discussion

The following are a few variables that may have an impact on a successful result of the proposed design.

- The coursework does not take into account the culture differences within the British Armed Forces. There is a culture of reluctance to question comments due to the 'follow orders' mentality.
- There also needs to be substantial 'buy-in' from senior members of staff and encouragement from them to make the site ubiquitous.
- The success of reaching the Regular Soldier persona (see appendix a) depends on the availability of the site on the internet and the ease of access through the security gateway required to access the site. A complex authentication system could cause a negative effect on potential users.
- The prototype only displays a simple megamenu and not the megamenu required to complete the site due to only 60 pages being created within the prototype compared to the over 600 within the actual site. The structure of the navigation and the site could have a negative effect due to over complexity. Ideally a card sorting exercise based on the navigation would be required to structure the navigation accordingly.
- While the technology is available for the suggested results, there is still a requirement for user input, for example adding correct Meta data, moderating comments, keeping pages up to date etc. If these tasks are neglected the success of certain parts of the site, for example related content, will fall apart.
- The idea of whether 'Questions & Answers' should be used as a form of social media tool is still up for debate and may not be the best tool for encouraging users to participate. Other options are forums, blogs or social networks. A separate study focused solely on how to get users to participate in social media within a work environment may be required.
- The details that are within the user details page need to be investigated in further detail. This includes for example, finding out exactly what details users would be interested to read about, and what information users are likely to fill in. Depending on the social feature required, looking into achievement, badge or promotion features for contributing users is something that will need to be incorporated.
- Once an initial design stage is completed the next step would be to perform a CIF standard usability test to find out if the four user needs are reached.

# Appendix

## Appendix a – Personas

### PERSONAS

Who will access the AKX?



**REGULAR OFFICER**

Regular Officers are of ranks Captain to Brigadier, however there are occasions where Generals have been known to involve themselves on the website.

Their aims for the website are to find specific pieces of knowledge for professional, project or personal reasons. They may also involve themselves within the forum discussions to place their opinions on issues that concern their careers within the army.

#### DEVICES REGULARLY USED



#### IT SKILLS

#### INTERNET USAGE

#### INTRANET USAGE

#### SOCIAL MEDIA USAGE

#### KEY REQUIREMENTS

- ✓ Quick and easy to locate information
- ✓ Unlikely to have issues reading through a mass of content
- ✓ More interested in content than aesthetics
- ✓ Easy to identify key content

### PERSONAS

Who will access the AKX?



**REGULAR SOLDIER**

Regular Soldiers are of rank Private to Corporal.

Users from this group are generally ordered to access the site therefore do not necessarily access out of their own will.

This is a large target audience which are generally not using the site and missing out on the vast amount of valuable knowledge available.

#### DEVICES REGULARLY USED



#### IT SKILLS

#### INTERNET USAGE

#### INTRANET USAGE

#### SOCIAL MEDIA USAGE

#### KEY REQUIREMENTS

- ✓ Aesthetically Pleasing
- ✓ Not interested in vast amount of content
- ✓ Videos of great interest
- ✓ Social interactivity may be of interest
- ✓ Would be interested in related content



## OTHER PERSONAS

Other Potential Personas

					
	<b>REGULAR NCO</b> Sergeant – Warrant Officer	<b>RESERVIST</b> Private– Colonel	<b>OFFICER CADETS</b> Officer Cadet – Lieutenant	<b>NAVY / AIR FORCE</b> Lieutenant – Captain Flight Lieutenant – Group Cpt	<b>CIVIL SERVANT</b> E2 – SCS
<b>TECH KNOWLEDGE</b>	Reasonable IT literacy	Likely to be IT literate	Very IT literate	IT literate	IT literate
<b>SOCIAL MEDIA USE</b>	May use social media, not to the extent of subordinates	Reasonable use of Social Media	Frequent use of Social Media	Infrequent use of Social Media	Frequent use of Social Media
<b>WEBSITE NEEDS / REQUIREMENTS</b>	<ul style="list-style-type: none"> <li>✓ Aesthetically pleasing</li> <li>✓ Quick and easy to find information</li> <li>✓ Videos likely of interest</li> </ul>	<ul style="list-style-type: none"> <li>✓ Familiar with modern web trends</li> <li>✓ Quick and easy to find information</li> <li>✓ Videos likely of interest</li> </ul>	<ul style="list-style-type: none"> <li>✓ Aesthetically pleasing</li> <li>✓ May be interested in social aspect</li> <li>✓ Videos likely to be of interest</li> </ul>	<ul style="list-style-type: none"> <li>✓ More interested in content than Aesthetics</li> <li>✓ Well-presented content</li> <li>✓ Quick and easy to locate information</li> </ul>	<ul style="list-style-type: none"> <li>✓ Quick and easy to locate information</li> <li>✓ Video/interactive content preferred</li> </ul>

## Appendix B

# Participant Profile Questionnaire

As part of the usability test is important to gather a few bits of information related to yourself and the use of the website in which you'll be testing. Please answer all questions where possible, and space will be left for you to add any additional information below

GENERAL INFORMATION									
1. Which Service do you belong to?									
Army	<input type="checkbox"/>	RAF	<input type="checkbox"/>	Navy	<input type="checkbox"/>	Civil Servant	<input type="checkbox"/>	Other	<input type="checkbox"/>
2. Please state your rank									
INTERNET USAGE INFORMATION									
3. What devices do you use the internet on?									
Smart Phone (iPhone, Android, Windows etc.)	<input type="checkbox"/>	Tablet (iPad, Nexus, Surface etc.)	<input type="checkbox"/>	Laptop (MacBook Pro, Surface Pro etc.)	<input type="checkbox"/>	Desktop (iMac, PC etc.)	<input type="checkbox"/>		
4. How often do you visit social media?									
Daily	<input type="checkbox"/>	Weekly	<input type="checkbox"/>	Monthly	<input type="checkbox"/>	Less than once a month	<input type="checkbox"/>	Never	<input type="checkbox"/>
WEBSITE INFORMATION									
5. How often do you use AKX									
Daily	<input type="checkbox"/>	Weekly	<input type="checkbox"/>	Monthly	<input type="checkbox"/>	Less than once a month	<input type="checkbox"/>	Never	<input type="checkbox"/>
6. What is your primary use of AKX									
Access to external products, e.g. BAeBB	<input type="checkbox"/>	Professional Knowledge and Awareness	<input type="checkbox"/>	Personnel Knowledge and Awareness	<input type="checkbox"/>	Project Knowledge and Awareness	<input type="checkbox"/>	Forums or Discussions	<input type="checkbox"/>
								Other	<input type="checkbox"/>

If Other Please specify

7. How likely would you be to use AKX would it be available on the internet?

Very Likely ☐ Likely ☐ Unlikely ☐ Very Unlikely ☐

8. Given the opportunity would you access AKX on any of the following devices

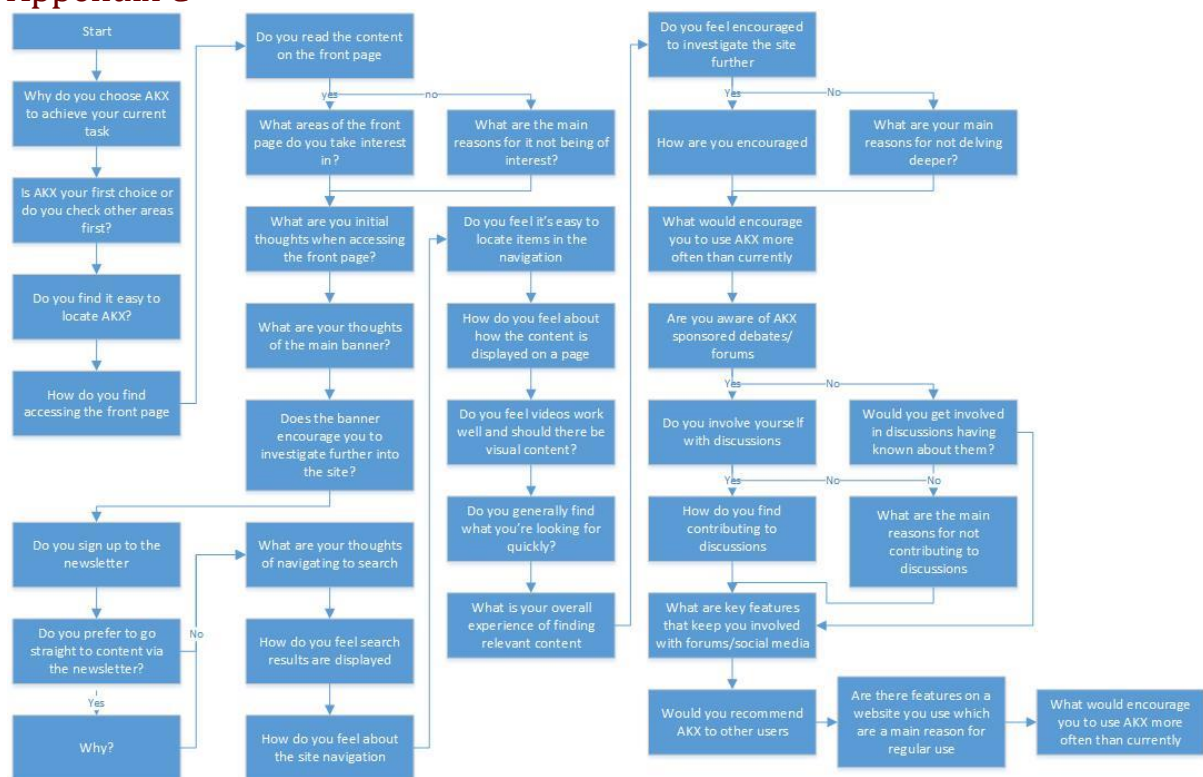
Smart Phone (iPhone, Android, Windows Phone etc.) ☐ Tablet (iPad, Nexus, Surface etc.) ☐

### ADDITIONAL QUESTIONS

	Disagree				Agree		
	1	2	3	4	5	n/a	
<b>Aesthetics</b>							
9. I find the website visually appealing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. The graphics and icons used are not distracting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Content &amp; Structure</b>							
11. The overall structure of the front page was intuitive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12. I feel the website is generally well laid out	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13. I feel information within the website is presented clearly and was understandable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
14. I find it easy to find the information I need	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
15. I am able to find useful information easily that I did not necessarily intend to find	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
16. I can understand and act on the information provided within the website	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Navigation</b>							
17. The site is easy to navigate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
18. I know exactly where I am within the site	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
19. Navigation is consistent across the site	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Search</b>							
20. The search facility is extremely useful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
21. Search results are clearly laid out	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Forum</b>							
22. I am interested to find out what discussions are currently going on	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
23. I feel I can easily contribute to the discussions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
24. Are you more likely to contribute if using anonymous, pseudo name etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
25. The forum facility is very easy to use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>General Usability</b>							
26. I don't miss any important or valuable information on a page	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
27. I find the website frustrating to use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
28. The website behaves in ways I don't fully understand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
29. I would recommend this site to others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Additional Information

## Appendix C



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