

# Heuristic Evaluation:

OneView CRM current application

## Executive Summary

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This report contains the results of a heuristic evaluation undertaken on the OneView CRM application for Lloyds Banking Commercial business. For this report, Andy Budd's 9 Heuristics for Modern Web Application Development were used to evaluate the current application and identify usability issues.

The issues identified are ranked on severity using Nielsen's severity ratings score as well as ranked on ease of fixing using Olson's Ease of Fixing ratings.

### **The most severe problems identified are:**

1. Temperamental/ difficult to control global menu
2. Navigational elements too small/non-compliant by accessibility standards
3. Input affordance not clear
4. Expandable sections not obvious
5. Inconsistent navigation
6. Locked empty fields

# Heuristic Evaluation Technique

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## Methodology

The technique of Heuristic evaluation involves analysing and identifying any usability issues of a website or application against a set of heuristics.

It is generally thought that better results are produced when a number of evaluators take part, either working together or individually, and later combining their results. The evaluators will work through system tasks and assess anything they may identify as a usability issue against the heuristics along with a severity rating and an ease of fixing rating.

Due to resource shortages only one evaluator has undertaken and compiled this evaluation.

## Aims

The aim of the evaluation is to identify usability issues across the specific tasks of the current OneView CRM system that will be incorporated into the new MVP (Minimum Viable Product) design.

Identifying these issues will help to establish what can be carried over in to the new solution and what elements need to be addressed for usability.

## Heuristics

The heuristics used were devised by Andy Budd who recognised that other popular heuristics such as those by Jacob Nielsen as well as Bruce Tognazzini's Basic principles for interface design "didn't accurately describe the requirements of a modern web application. In particular I felt that Mr Nielsens heuristics were somewhat convoluted, contained a lot of overlap and varied widely in terms of scope and specificity." [2]

Budd used Nielsen and Tognazzini's work as a starting point to create his nine 'Heuristics for Modern Web Application Development'. These are the heuristics that have been used in this report and in analysing and identifying usability issues in the current OV CRM application

## Heuristics for Modern Web Application Development [2]

1	<b>Design for User Expectations</b>	Design the system around the users, their goals and expectations.
2	<b>Clarity</b>	Make the system as clear, concise and meaningful as possible for the intended audience.
3	<b>Minimize Unnecessary Complexity and Cognitive Load</b>	Make the system as simple as possible for users to accomplish their tasks, but no simpler.
4	<b>Efficiency and Task Completion</b>	Design for user productivity, not the system's. Optimise the system for the most common tasks.
5	<b>Provide Users with Context</b>	Interfaces should provide users with a sense of context in time and space.
6	<b>Consistency and Standards</b>	Labels, processes and interface elements should be used consistently throughout the system.
7	<b>Prevent Errors</b>	The system should help prevent errors wherever possible.
8	<b>Help users notice, understand and recover from errors</b>	Errors should be obvious and easy to recover from. Error messages should be clear, concise and easy to notice.
9	<b>Promote a pleasurable and positive user experience</b>	The users interactions with the system should be positive and where possible enhance their quality of life.

## Issue Prioritisation

The issues identified against the heuristics are then ranked according to their severity (how severe a usability issue it is) and how easy the issue will be to fix.

The severity ratings as developed by Nielsen take three separate factors in to account:

1. The frequency with which the problem occurs: Is it common or rare?
2. The impact of the problem if it occurs: Will it be easy or difficult for the users to overcome?
3. The persistence of the problem: Is it a one-time problem that users can overcome once they know about it or will users repeatedly be bothered by the problem?

### Severity Ratings for Nielsen's Ten Usability Heuristics [1]

<b>0 =</b>	I don't agree that this is a usability problem at all
<b>1 =</b>	Cosmetic problem only: need not be fixed unless extra time is available on the project
<b>2 =</b>	Minor usability problem: fixing this should be given low priority
<b>3 =</b>	Major usability problem: important to fix, so should be given high priority
<b>4 =</b>	Usability catastrophe: imperative to fix this before product can be released

### Ease of fixing ratings (Olson, 2004)

<b>0 =</b>	Problem would be extremely easy to fix. Could be completed by one team member before next release.
<b>1 =</b>	Problem would be easy to fix. Involves specific interface elements and solution is clear.
<b>2 =</b>	Problem would require some effort to fix. Involves multiple aspects of the interface or would require team of developers to implement changes before next release or solution is not clear.
<b>3 =</b>	Usability problem would be difficult to fix. Requires concentrated development effort to finish before next release, involves multiple aspects of interface. Solution may not be immediately obvious or may be disputed.

## Summary of Findings

16 Usability issues were identified as violating the 9 heuristics used. These are summarised below along with their corresponding level of severity and ease of fixing rating. The issues are detailed further under the specific issues sections.

#	Problem	Severity Ranking	Ease of fixing ranking	Heuristic
1	Navigational elements too small/non-compliant by accessibility standards	3	1	#2 Clarity, #3 Minimise unnecessary complexity and cognitive load
2	User interface colour choice: menu	2	1	#2 Clarity, #6 Consistency and standards
3	Temperamental/ difficult to control global menu	3	2	#2 Clarity, #4 Efficiency and task completion,
4	Inconsistent navigation	3	2	#1 Design for user expectations, #2 Clarity, #6 Consistency and standards
5	Search input label	1	0	#2 Clarity, #3 Minimise unnecessary complexity and cognitive load
6	Sort functioning/ordering	2	1	#1 Design for user expectations,
7	Confusing layout	2	2	#2 Clarity, #3 Minimise unnecessary complexity and cognitive load
8	Inconsistent input fields	1	1	#6 Consistency and standards
9	Input affordance not clear	3	1	#2 Clarity, #1 Design for user expectations,
10	No key for asterisk	2	1	#2 Clarity, #6 Consistency and standards
11	Locked fields	3	2	#6 Consistency and standards,
12	Ambiguous tabs/navigational elements	2	1	#2 Clarity, #6 Consistency and standards
13	Overwhelming number/unnecessary options	1	0	#3 Minimise unnecessary complexity and cognitive load #5 Provide users with context
14	Expandable sections not obvious	3	1	#2 Clarity
15	Unclear/unnecessary menu options	2	2	#2 Clarity, #5 Provide users with context
16	Unnecessary elements on form	2	2	#2 Clarity, #3 Minimise unnecessary complexity and cognitive load, #5 Provide users with context

## Specific Issues

### 1. Global Navigation

#### Problem 1: Navigating to off screen tabs

#	Problem	Severity Ranking	Ease of fixing ranking	Heuristic
1	Navigational elements too small/ uncompliant	3	1	#2 Clarity, #3 Minimise unnecessary complexity and cognitive load

The global navigation within the application has been designed as both the main navigation and as a breadcrumb where new navigational elements appear on the top navigational bar as the user delves deeper into the content. The first element labelled 'WORKPLACE' with a down facing chevron can be selected to reveal the main navigation. Seven items appear at first with the seventh item partially hidden offscreen. To the right of the seventh item is a small grey right facing chevron. To access further items the user needs to select this chevron, after which a new set of options will slide across and replace the existing.

The chevron itself is only 10px in height, and with its position at the edge of the screen, does not command much attention. Adding to this, the fact the chevron itself is not compliant to WCAG 2.0 as the contrast ratio does not reach an AA rating and it becomes almost certainly a usability issue.

#### Example



#### Recommendation

Increase chevron size so it is more obvious to the user as a navigational element. Make the chevron easier to select by increasing the 'hot spot' (selectable) area.

#### Problem 2: User Interface colour choice: menu

#	Problem	Severity Ranking	Ease of fixing ranking	Heuristic
2	User interface colour choice: menu	2	1	#2 Clarity, #6 Consistency and standards

On first selection of the global navigation via the 'WORKPLACE' tab all but the first tab 'DASHBOARDS' are coloured a mid grey. As inactive elements are often displayed as 'greyed out' these could possibly be misinterpreted as inactive tabs and therefore the user may not attempt to select any of them.

### Example

See example above for problem 1

### Recommendation

Change tab colour from grey to a more suitable 'active' colour

### Problem 3: Temperamental interactions

#	Problem	Severity Ranking	Ease of fixing ranking	Heuristic
3	Temperamental interactions	3	2	#2 Clarity, #4 Efficiency and task completion,

The navigation drops down to 120px in height upon selecting a top level element such as 'WORKPLACE'. This secondary navigation is quite fickle with the user needing to move their mouse very precisely, left or right, to select an option, if the mouse moves outside of this space, the navigation collapses and the user must start again.

### Recommendation

Change menu collapsing action from current off hover action to user action of clicking off the menu to collapse. Alternatively, increase menu height from 120px so user has more available space to navigate mouse without risk of accidentally moving off menu and inadvertently collapsing it.

### Problem 4: Inconsistent navigational elements

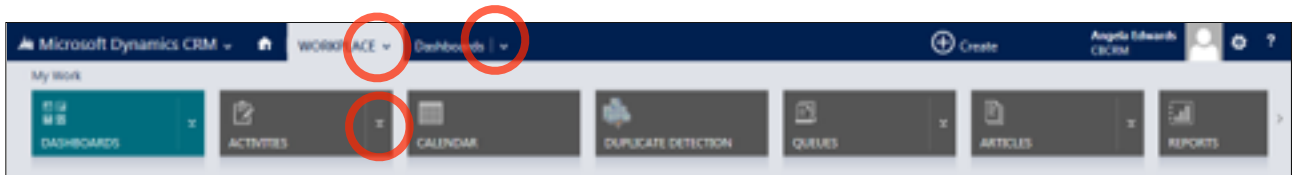
#	Problem	Severity Ranking	Ease of fixing ranking	Heuristic
4	Inconsistent navigation	3	2	#1 Design for user expectations, #2 Clarity, #6 Consistency and standards

The navigation contains a number of downward facing chevrons. The chevrons reveal different elements depending on what has been selected and this can be confusing. For example, selecting the 'WORKPLACE' tab chevron will reveal a secondary navigation showing child elements of 'WORKPLACE' however, selecting the



chevron associated to the 'Dashboards' tab will not reveal its child elements but instead show recently visited dashboards - an unexpected result.

## Example

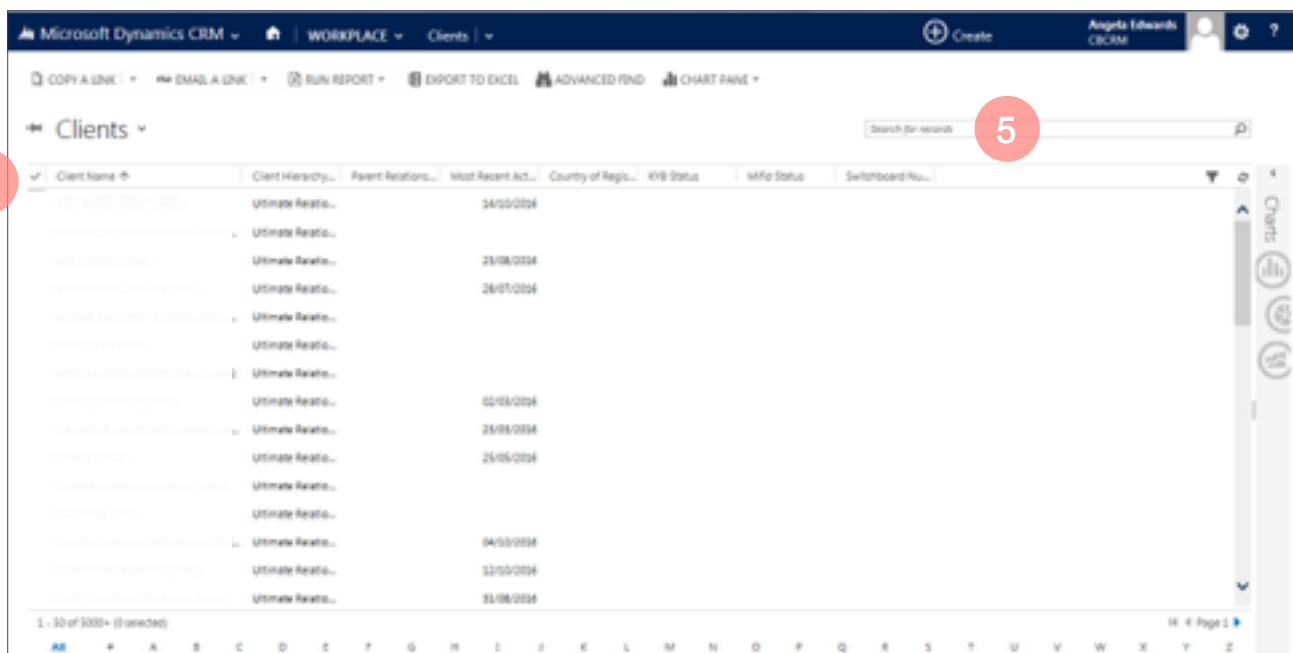


## Recommendation

Keep secondary menu options consistent by either only showing recently visited pages or child items. Not a mix of both. Or alternatively, use a different signifier for one or the other to align with users expectations.

## 2. View All Clients

Once user has selected 'Clients' tab within the dropdown they are navigated to the Clients page which shows a list of all clients.



### Problem 5: Search input label

#	Problem	Severity Ranking	Ease of fixing ranking	Heuristic
5	Search input label	1	0	#2 Clarity, #3 Minimize unnecessary complexity and cognitive Load

Users wanting to search for a specific client would expect to find a search input field. The Top left input appears to allow for this function but has been labelled 'Search for records' rather than a more obvious or fitting label of 'Search for clients' which could be confusing for the user.

#### Example

Refer to point 5 on example above

#### Recommendation

Change label to 'Search for clients'

### Problem 6: Sort function/ordering

#	Problem	Severity Ranking	Ease of fixing ranking	Heuristic
6	Sort function/ordering	2	1	#1 Design for user expectations,

On page load, clients are listed in alphabetical order from A-Z, the user however will not be aware of a second ordering function which has been placed on this and that is the client hierarchy. This is set on page load to the Ultimate Relationship Group. This means that if a user is looking for a certain client using the pagination that isn't set to the Ultimate Relationship Group, they will not find it.

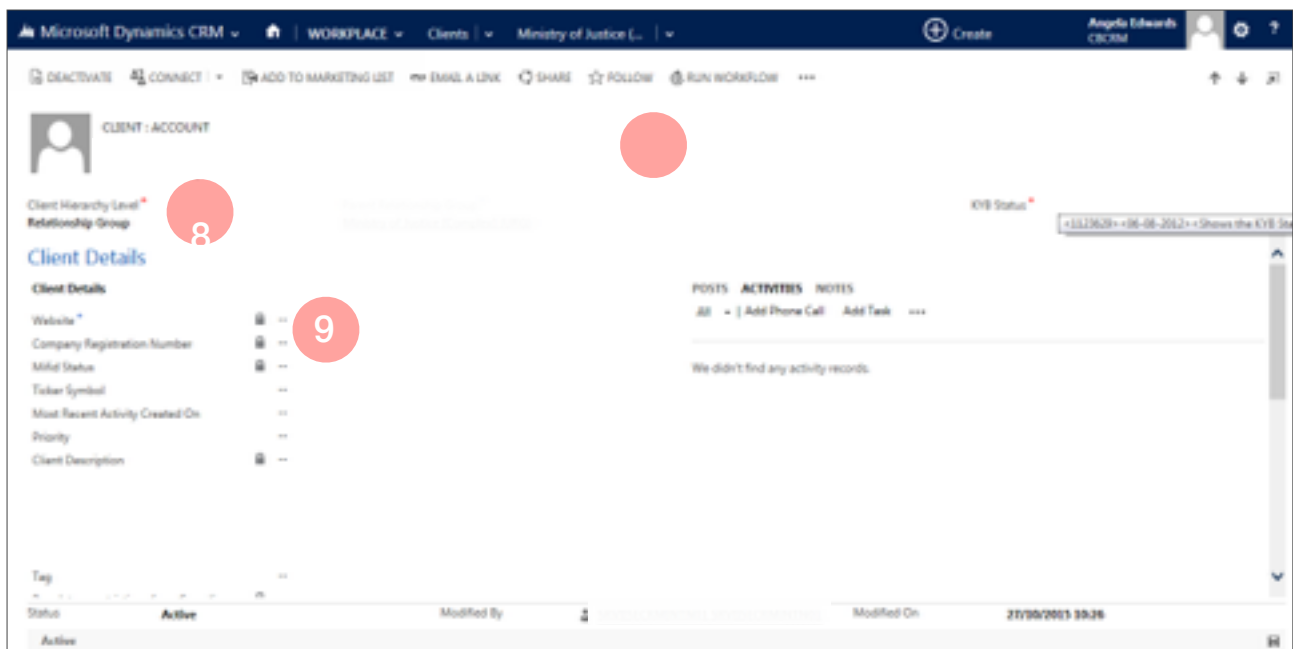
#### Example

Refer to point 6 on example above

#### Recommendation

Remove second ordering function on page load. Allow user to select multiple columns for sorting manually.

### 3. View A Client



#### Problem 7: Confusing layout.

#	Problem	Severity Ranking	Ease of fixing ranking	Heuristic
7	Confusing Layout	2	2	#2 Clarity, #3 Minimise unnecessary complexity and cognitive load

The client page layout is multi column in places and single column in others, with a tabbed area (Posts, Activities, Notes) as well as the header and footer positions 'sticking' to the page. There are no clear containers for the content or any UI elements used to help differentiate the content which would allow for easier scanning and understanding of the content and therefore less cognitive load on the user.

With the current layout the users eyes need to skip all over the page to try and understand the information.

#### Example

Refer to point 7 on example above

#### Recommendation

Adjust layout for better clarity by using visual elements to help contain different pieces of information in a more clear and succinct way. Adjust mixed column layout, a single column layout is easier for users to scan and to process information.

#### Problem 8: Inconsistent input labels

#	Problem	Severity Ranking	Ease of fixing ranking	Heuristic
8	Inconsistent input fields	1	1	#6 Consistency and standards

The majority of the labels are left aligned to the content however the header, three column layout shows labels sitting above the input instead of aside.

#### Example

Refer to point 8 on example above

#### Recommendation

Make input labels consistent

#### Problem 9: Input affordance not clear

#	Problem	Severity Ranking	Ease of fixing ranking	Heuristic
9	Input affordance not clear	3	1	#2 Clarity, #1 Design for user expectations,

The fields themselves are not easily located as there is only white space where normally one would expect to find a rectangular input box. It isn't clear where, or even if, information can be added.

#### Example

Refer to point 9 on example above

#### Recommendation

Outline the input box with a border to clearly show the selectable area for input.

#### Problem 10: Missing Key for mandatory asterisk

#	Problem	Severity Ranking	Ease of fixing ranking	Heuristic
10	No key for asterisk	2	1	#2 Clarity, #6 Consistency and standards

Some of the field labels have a red asterisk after them - most users would recognise this as an indicator for a mandatory field.

Recommendation

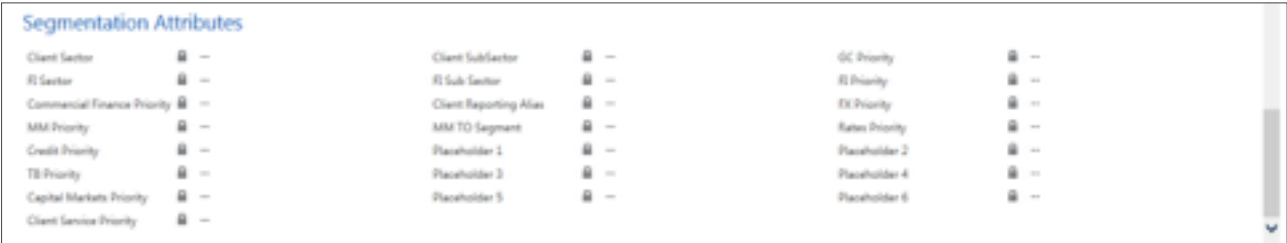
Place a simple key within the page such as \* Denotes mandatory field. To ensure users are not confused by what this asterisk refers to ( especially as this indicator is sometimes used, outside of this application, to denote optional fields)

Problem 11: Locked fields

#	Problem	Severity Ranking	Ease of fixing ranking	Heuristic
11	Locked fields	3	2	#6 Consistency and standards,

The majority of the fields are in a locked state and can not be unlocked by the user. Most of these fields are empty and some of these fields actually show a mandatory field asterisk even though these cannot be edited.

Example



Recommendation

Much of the field input is being pulled in from an external source and users would never have access to edit this. Recommend to hide all fields that are locked out to the user and that are showing as blank. Labelling should be clearer. Labels such as 'Placeholder 1' are of no value to the user.

## 4. Create dropdown (activity selection)

### Problem 12: Ambiguous tabs/navigation elements

#	Problem	Severity Ranking	Ease of fixing ranking	Heuristic
12	Ambiguous tabs/navigational elements	2	1	#2 Clarity, #6 Consistency and standards

The 'Create' tab within the global navigation reveals a dropdown menu with six items. Only two of these items have labels included alongside their corresponding icons. The icons are mostly recognisable however it is advisable to add a label for easier recognition especially with unusual icons such as the task icon (shown as a rectangular outline with a tick in the middle)

#### Example



#### Recommendation

Add labels with icons for easier recognition.

## 5. View all contacts

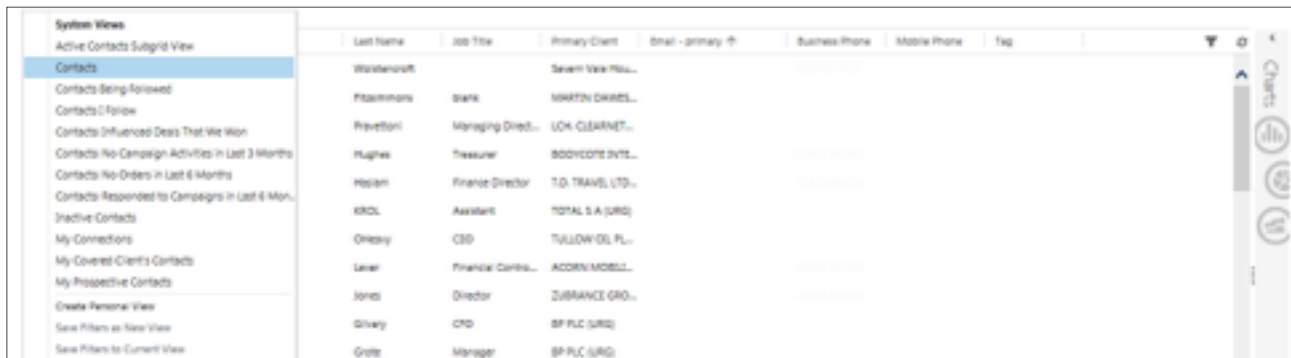
### Problem 13: Overwhelming number of options /unnecessary options

#	Problem	Severity Ranking	Ease of fixing ranking	Heuristic
13	Overwhelming number/unnecessary options	1	0	#3 Minimise unnecessary complexity and cognitive load #5 Provide users with context

Selecting the 'Contacts' header or the downward facing chevron to the left of this will reveal a list of 12 possible options as well as allowing for personal configurations of the contact list to be set.

There are many within this dropdown but most seem superfluous and this could overwhelm the user. Some of the options themselves are not relevant to the users either for example 'Contacts: No campaign activities in last 3 months', 'Contacts: Influenced deals that we won', 'Contacts: No orders in last 6 months', 'Contacts responded to campaigns in last 6 months' are not relevant for the user base.

## Example



System Views		Last Name	Job Title	Primary Client	Email - primary	Business Phone	Mobile Phone	Tag
Active Contacts Subgrid View	Contacts	Worstercraft		Severn Vale Hou...				
	Contacts Being Followed	Worstercraft	blank	WORTON DRIBES...				
	Contacts I Follow	Piquettoni	Managing Direct...	UDK CLEARNET...				
	Contacts Influenced Deals That We Won	Hughes	Treasurer	BOONICOTE INVT...				
	Contacts No Campaign Activities in Last 3 Months	Hosien	Finance Director	T.D. TRAVEL LTD...				
	Contacts No Orders in Last 6 Months	KRODL	Assistant	TOTAL S.A. (URG)				
	Contacts Responded to Campaigns in Last 6 Mon...	Oreary	CEO	TULLOW OIL PL...				
	Inactive Contacts	Laser	Financial Contro...	ACORN MOBIL...				
	My Connections	Jones	Director	ZURBRANCE GRO...				
	My Covered Client's Contacts	Givary	CEO	BP PLC (URG)				
	My Prospective Contacts	Grote	Manager	BP PLC (URG)				
	Create Personal View							
	Save Filters as New View							
	Save Filters to Current View							

## Recommendation

Remove all unnecessary list options : 'Contacts: No campaign activities in last 3 months', 'Contacts: Influenced deals that we won', 'Contacts: No orders in last 6 months', 'Contacts responded to campaigns in last 6 months'

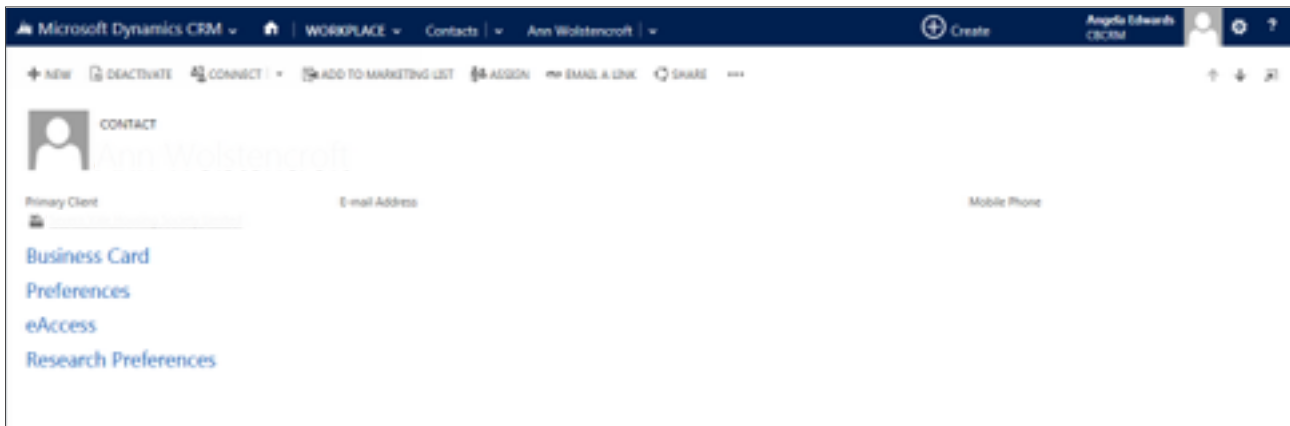
## 6. View A Contact

### Problem 14: Expandable sections not obvious

#	Problem	Severity Ranking	Ease of fixing ranking	Heuristic
14	Expandable sections not obvious	2	2	#3 Minimise unnecessary complexity and cognitive load, #5 Provide users with context

The different sections on the contact page are separated out with headers as expandable content. On page load all pieces of content are collapsed and there is nothing to signify that these areas are hidden. A user may not realise that these areas are populated with content.

## Example



## Recommendation

Add a signifier such as a plus icon or chevron to show that these areas hold further content and that they can be expanded out on selection.

### Problem 15: unclear/unnecessary secondary menu options

#	Problem	Severity Ranking	Ease of fixing ranking	Heuristic
15	Unclear/unnecessary secondary menu options	2	2	#2 Clarity, #5 Provide users with context

On the contact page below the Global Navigation is a secondary contextual navigation which includes seven items to the left and three items to the far right.

Some of these items could be labelled clearer e.g what is assign in reference to a contact? what is 'connect' in reference to a contact? The triple dot icon is becoming used more often now as an indicator of where more menu options are located but it also would not hurt to point this out with a label such as 'more'

## Example



## Recommendation

Remove unnecessary secondary menu options, place most used options so these are visible and least used options can be moved to behind the three dot menu. Label the three dot menu with 'More'. Label any ambiguous elements more clearly.



## 9. New Appointment

### Problem 16: Unnecessary elements on form

#	Problem	Severity Ranking	Ease of fixing ranking	Heuristic
16	Unnecessary elements on form	2	2	#2 Clarity, #3 Minimise unnecessary complexity and cognitive load, #5 Provide users with context

The new appointment form itself is quite lengthy with many fields a user needs to fill before saving or sending it. to the right of the appointment fields is a 'social pane' where users can post notes etc. It seems unnecessary to have this component here where the user is trying to perform a specific action - that of creating an appointment and could be a confusing element on the page where it has nothing to do with actually creating a new appointment.

### Example

The screenshot shows a web form titled 'New Appointment'. On the left, under 'Appointment Details', there are several fields: 'Location' (text input), 'Deal Related' (radio button, selected 'No'), 'Activity' (dropdown), 'Format Of Meeting' (radio button, selected 'Face-to-face - Client office'), 'Meeting Purpose' (dropdown), 'Subject' (text input), 'All BU in Attendance' (checkbox), 'Regarding' (dropdown), and 'UBG Owner' (radio button, selected 'Angela Edwards'). On the right, there is a 'Social Pane' with tabs for 'POSTS' and 'NOTES'. Below the tabs is a text input field with the placeholder 'Enter post here' and a 'POST' button. Below that are radio buttons for 'Both', 'Auto posts', and 'User posts'. At the bottom of the social pane, it says 'We didn't find any posts.'

### Recommendation

Remove the social pane from the create new appointment form.