

# Study of User password policy costs Survey 4

Response ID	Completion date	
624487-624478-66086963	7 Oct 2020, 16:36 (BST)	

1	Informed consent	
1.1	The purpose and nature of this study has been explained to me	
1.1.a		Yes
1.2	l am participating voluntarily.	
1.2.a		Yes
1.3	I understand that I can withdraw from the survey up until it is so point, as the survey is anonymous, it will not be possible to ide	
1.3.a		Yes
1.4	I understand the limits of confidentiality as described in the info	ormation sheet.
1.4.a		Yes
1.5	1.5 I understand that my anonymous responses may be used in future research projects and the data from this study may be deposited in an archive if I give permission here.	
1.5.a		Yes
2	I consent to participate in this survey:	Yes
3	Select a rank on the below scale from 1 (very poor) to 5 (very kno security knowledge.	owledgeable) to describe your internet
3.1	Internet security knowledge:	3

#### Password composition advice

4	Include specific character types in your password. E.g. your password must include uppercase, lowercase, digit, symbol	
4.1	Makes it more difficult to create a password	
4.1.a	Severity of Cost	Minor
4.1.b	Frequency Cost is Experienced	Once off

4.2	Makes it less easy to remember	
4.2.a	Severity of Cost	Major
4.2.b	Frequency Cost is Experienced	Periodic
4.3	Requires extra resources	
4.3.a	Severity of Cost	Doesn't apply
4.3.b	Frequency Cost is Experienced	N/A
4.4	Requires the creation of a new password	
4.4.a	Severity of Cost	Doesn't apply
4.4.b	Frequency Cost is Experienced	N/A
4.5	Increases the computing power needed	
4.5.a	Severity of Cost	Doesn't apply
4.5.b	Frequency Cost is Experienced	N/A
4.6	Requires other extra time or effort	
4.6.a	Severity of Cost	Major
4.6.b	Frequency Cost is Experienced	Periodic
4.a	Do you approve of this advice?	No
4.b	Comments	If you use a password "template", this advice fucks that up. It's the worst.

5	Don't use patterns in your password. E.g. do not choose a password such as "123abc"	
5.1	Makes it more difficult to create a password	
5.1.a	Severity of Cost	Positive
5.1.b	Frequency Cost is Experienced	Once off
5.2	Makes it less easy to remember	
5.2.a	Severity of Cost	Positive
5.2.b	Frequency Cost is Experienced	At Login
5.3	Requires extra resources	
5.3.a	Severity of Cost	Doesn't apply
5.3.b	Frequency Cost is Experienced	N/A
5.4	Requires the creation of a new password	
5.4.a	Severity of Cost	Doesn't apply
5.4.b	Frequency Cost is Experienced	N/A

5.5	Increases the computing power needed	
5.5.a	Severity of Cost	Doesn't apply
5.5.b	Frequency Cost is Experienced	N/A
5.6	Requires other extra time or effort	
5.6.a	Severity of Cost	Positive
5.6.b	Frequency Cost is Experienced	Once off
5.a	Do you approve of this advice?	Yes
5.b	Comments	I'm conflicted. These passwords seem so bad that they endanger the user.
	Described somethe too long (a.g. movethe long them 40 shows store	.1
6	Password cannot be too long (e.g. must be less than 40 characters	·)
6.1.a	Makes it more difficult to create a password	Major
	Severity of Cost	Major Once off
6.1.b	Frequency Cost is Experienced	Once on
6.2.a	Makes it less easy to remember	Descrit apply
	Severity of Cost	Doesn't apply
6.2.b	Frequency Cost is Experienced	N/A
6.3.a	Requires extra resources  Severity of Cost	Doesn't apply
6.3.b	•	N/A
6.4	Frequency Cost is Experienced  Requires the creation of a new password	N/A
	Requires the creation of a new password  Severity of Cost	Descrit apply
6.4.a 6.4.b	Frequency Cost is Experienced	Doesn't apply N/A
6.5	Increases the computing power needed	N/A
6.5.a	Severity of Cost	Doesn't apply
6.5.b	Frequency Cost is Experienced	N/A
6.6	Requires other extra time or effort	N/A
6.6.a	Severity of Cost	Doesn't apply
	•	
6.6.b	Frequency Cost is Experienced  Do you approve of this advise?	N/A
6.a	Do you approve of this advice?	No
6.b	Comments	I guess you have to set a limit so that people don't blow your database, but this seems excessive.

excessive.

#### **Expiry**

7.1

Makes it more difficult to create a password

7.1.a	Severity of Cost	Major
7.1.b	Frequency Cost is Experienced	Periodic
7.2	Makes it less easy to remember	
7.2.a	Severity of Cost	Major
7.2.b	Frequency Cost is Experienced	At Login
7.3	Requires extra resources	
7.3.a	Severity of Cost	Doesn't apply
7.3.b	Frequency Cost is Experienced	N/A
7.4	Requires the creation of a new password	
7.4.a	Severity of Cost	Major
7.4.b	Frequency Cost is Experienced	Periodic
7.5	Increases the computing power needed	
7.5.a	Severity of Cost	Doesn't apply
7.5.b	Frequency Cost is Experienced	N/A
7.6	Requires other extra time or effort	
7.6.a	Severity of Cost	Doesn't apply
7.6.b	Frequency Cost is Experienced	N/A
7.a	Do you approve of this advice?	No
7.a 7.b	Do you approve of this advice?  Comments	Especially bad when used in conjunction with other rules. You have to come up with more grotesque modifications of your password every time you forget it, which in turn makes the password even harder to remember.
7.b	Comments	Especially bad when used in conjunction with other rules. You have to come up with more grotesque modifications of your password every time you forget it, which in turn makes the password
7.b	Change your password regularly	Especially bad when used in conjunction with other rules. You have to come up with more grotesque modifications of your password every time you forget it, which in turn makes the password
7.b 8 8.1	Change your password regularly  Makes it more difficult to create a password	Especially bad when used in conjunction with other rules. You have to come up with more grotesque modifications of your password every time you forget it, which in turn makes the password even harder to remember.
8 8.1 8.1.a	Comments  Change your password regularly  Makes it more difficult to create a password  Severity of Cost	Especially bad when used in conjunction with other rules. You have to come up with more grotesque modifications of your password every time you forget it, which in turn makes the password even harder to remember.  Major
8 8.1 8.1.a 8.1.b	Comments  Change your password regularly  Makes it more difficult to create a password  Severity of Cost  Frequency Cost is Experienced	Especially bad when used in conjunction with other rules. You have to come up with more grotesque modifications of your password every time you forget it, which in turn makes the password even harder to remember.
8 8.1 8.1.a	Comments  Change your password regularly  Makes it more difficult to create a password  Severity of Cost	Especially bad when used in conjunction with other rules. You have to come up with more grotesque modifications of your password every time you forget it, which in turn makes the password even harder to remember.  Major

You should not be allowed to use a password that you used previously on this website or computer

8.2.a	Severity of Cost	Major
8.2.b	Frequency Cost is Experienced	Periodic
8.3	Requires extra resources	
8.3.a	Severity of Cost	Doesn't apply
8.3.b	Frequency Cost is Experienced	N/A
8.4	Requires the creation of a new password	
8.4.a	Severity of Cost	Major
8.4.b	Frequency Cost is Experienced	Periodic
8.5	Increases the computing power needed	
8.5.a	Severity of Cost	Doesn't apply
8.5.b	Frequency Cost is Experienced	N/A
8.6	Requires other extra time or effort	
8.6.a	Severity of Cost	Doesn't apply
8.6.b	Frequency Cost is Experienced	N/A
8.a	Do you approve of this advice?	No
8.b	Comments	I hate this! The only solution I've come up with is to increment a number in the password each time. So inconvenient and frustrating, especially when combined with other bad password advice.

#### Reuse

9	Never reuse a password	
9.1	Makes it more difficult to create a password	
9.1.a	Severity of Cost	Minor
9.1.b	Frequency Cost is Experienced	Periodic
9.2	Makes it less easy to remember	
9.2.a	Severity of Cost	Minor
9.2.b	Frequency Cost is Experienced	Periodic
9.3	Requires extra resources	
9.3.a	Severity of Cost	Doesn't apply
9.3.b	Frequency Cost is Experienced	N/A

9.4	Requires the creation of a new password	
9.4.a	Severity of Cost	Minor
9.4.b	Frequency Cost is Experienced	Periodic
9.5	Increases the computing power needed	
9.5.a	Severity of Cost	Doesn't apply
9.5.b	Frequency Cost is Experienced	N/A
9.6	Requires other extra time or effort	
9.6.a	Severity of Cost	Doesn't apply
9.6.b	Frequency Cost is Experienced	N/A
9.a	Do you approve of this advice?	No
9.b	Comments	It's impractical to create 100 different passwords and remember them all. More realistic advice is needed.

10	10 Don't reuse certain passwords between websites or computers	
10.1	Makes it more difficult to create a password	
10.1.a	Severity of Cost	Doesn't apply
10.1.b	Frequency Cost is Experienced	N/A
10.2	Makes it less easy to remember	
10.2.a	Severity of Cost	Positive
10.2.b	Frequency Cost is Experienced	N/A
10.3	Requires extra resources	
10.3.a	Severity of Cost	Doesn't apply
10.3.b	Frequency Cost is Experienced	N/A
10.4	Requires the creation of a new password	
10.4.a	Severity of Cost	Positive
10.4.b	Frequency Cost is Experienced	N/A
10.5	Increases the computing power needed	
10.5.a	Severity of Cost	Doesn't apply
10.5.b	Frequency Cost is Experienced	N/A
10.6	Requires other extra time or effort	
10.6.a	Severity of Cost	Doesn't apply

10.6.b	Frequency Cost is Experienced	N/A
10.a	Do you approve of this advice?	Neutral
10.b	Comments	More realistic than the "never reuse". My approval would depend on the exact advice being given.

## Sharing

11	Never share your password	
11.1	Makes it more difficult to create a password	
11.1.a	Severity of Cost	Doesn't apply
11.1.b	Frequency Cost is Experienced	N/A
11.2	Makes it less easy to remember	
11.2.a	Severity of Cost	Doesn't apply
11.2.b	Frequency Cost is Experienced	N/A
11.3	Requires extra resources	
11.3.a	Severity of Cost	Doesn't apply
11.3.b	Frequency Cost is Experienced	N/A
11.4	Requires the creation of a new password	
11.4.a	Severity of Cost	Doesn't apply
11.4.b	Frequency Cost is Experienced	N/A
11.5	Increases the computing power needed	
11.5.a	Severity of Cost	Doesn't apply
11.5.b	Frequency Cost is Experienced	N/A
11.6	Requires other extra time or effort	
11.6.a	Severity of Cost	Doesn't apply
11.6.b	Frequency Cost is Experienced	N/A
11.a	Do you approve of this advice?	Yes
11.b	Comments	

12	Keep your Email up-to-date and secure
12.1	Makes it more difficult to create a password

12.1.a	Severity of Cost	Doesn't apply
12.1.b	Frequency Cost is Experienced	N/A
12.2	Makes it less easy to remember	
12.2.a	Severity of Cost	Doesn't apply
12.2.b	Frequency Cost is Experienced	N/A
12.3	Requires extra resources	
12.3.a	Severity of Cost	Doesn't apply
12.3.b	Frequency Cost is Experienced	N/A
12.4	Requires the creation of a new password	
12.4.a	Severity of Cost	Doesn't apply
12.4.b	Frequency Cost is Experienced	N/A
12.5	Increases the computing power needed	
12.5.a	Severity of Cost	Doesn't apply
12.5.b	Frequency Cost is Experienced	N/A
12.6	Requires other extra time or effort	
12.6.a	Severity of Cost	Doesn't apply
12.6.b	Frequency Cost is Experienced	N/A
12.a	Do you approve of this advice?	Yes
12.b	Comments	Unsure what "up-to-date" means.
4.2		
13	Keep software updated	
13.1	Makes it more difficult to create a password	
13.1.a	Severity of Cost	
13.1.b	Frequency Cost is Experienced  Makes it less easy to remember	
13.2.a	Severity of Cost	
13.2.b	Frequency Cost is Experienced	
13.3	Requires extra resources	
13.3.a	Severity of Cost	
13.3.b	Frequency Cost is Experienced	
13.4	Requires the creation of a new password	
13.4.a	Severity of Cost	
13.4.b	Frequency Cost is Experienced	

13.5	Increases the computing power needed	
13.5.a	Severity of Cost	
13.5.b	Frequency Cost is Experienced	
13.6	Requires other extra time or effort	
13.6.a	Severity of Cost	Positive
13.6.b	Frequency Cost is Experienced	
13.a	Do you approve of this advice?	Yes
13.b	Comments	

14	Change the default passwords on your devices e.g. wifi, smart light bulbs etc.	
14.1	Makes it more difficult to create a password	
14.1.a	Severity of Cost	Doesn't apply
14.1.b	Frequency Cost is Experienced	N/A
14.2	Makes it less easy to remember	
14.2.a	Severity of Cost	Doesn't apply
14.2.b	Frequency Cost is Experienced	N/A
14.3	Requires extra resources	
14.3.a	Severity of Cost	Doesn't apply
14.3.b	Frequency Cost is Experienced	N/A
14.4	Requires the creation of a new password	
14.4.a	Severity of Cost	Positive
14.4.b	Frequency Cost is Experienced	N/A
14.5	Increases the computing power needed	
14.5.a	Severity of Cost	Doesn't apply
14.5.b	Frequency Cost is Experienced	N/A
14.6	Requires other extra time or effort	
14.6.a	Severity of Cost	Doesn't apply
14.6.b	Frequency Cost is Experienced	N/A
14.a	Do you approve of this advice?	Neutral
14.b	Comments	Depends on how bad the default password is.

### Logging in

15	You should not be able to paste your password when logging in	
15.1	Makes it more difficult to create a password	
15.1.a	Severity of Cost	Minor
15.1.b	Frequency Cost is Experienced	Once off
15.2	Makes it less easy to remember	
15.2.a	Severity of Cost	Doesn't apply
15.2.b	Frequency Cost is Experienced	N/A
15.3	Requires extra resources	
15.3.a	Severity of Cost	Doesn't apply
15.3.b	Frequency Cost is Experienced	N/A
15.4	Requires the creation of a new password	
15.4.a	Severity of Cost	Doesn't apply
15.4.b	Frequency Cost is Experienced	N/A
15.5	Increases the computing power needed	
15.5.a	Severity of Cost	Doesn't apply
15.5.b	Frequency Cost is Experienced	N/A
15.6	Requires other extra time or effort	
15.6.a	Severity of Cost	Doesn't apply
15.6.b	Frequency Cost is Experienced	N/A
15.a	Do you approve of this advice?	No
15.b	Comments	If someone is trying to copy/paste a password, they're probably beyond help. They can just type it in. You're just making life harder for competent users who use password managers.

#### Username

16	Your username should include specific character types (e.g. contain a minimum of 3 letters and 3 numbers)	
16.1	Makes it more difficult to create a password	
16.1.a	Severity of Cost	Doesn't apply

16.1.b	Frequency Cost is Experienced	N/A
16.2	Makes it less easy to remember	
16.2.a	Severity of Cost	Doesn't apply
16.2.b	Frequency Cost is Experienced	N/A
16.3	Requires extra resources	
16.3.a	Severity of Cost	Doesn't apply
16.3.b	Frequency Cost is Experienced	N/A
16.4	Requires the creation of a new password	
16.4.a	Severity of Cost	Doesn't apply
16.4.b	Frequency Cost is Experienced	N/A
16.5	Increases the computing power needed	
16.5.a	Severity of Cost	Doesn't apply
16.5.b	Frequency Cost is Experienced	N/A
16.6	Requires other extra time or effort	
16.6.a	Severity of Cost	Major
16.6.b	Frequency Cost is Experienced	Once off
16.a	Do you approve of this advice?	No
16.b	Comments	Stupid and pointless.

#### Two factor authentication

17	You should use 2-factor authentication when logging into accounts (e.g. enter an additional code from an app, text or a special device)	
17.1	Makes it more difficult to create a password	
17.1.a	Severity of Cost	Doesn't apply
17.1.b	Frequency Cost is Experienced	N/A
17.2	Makes it less easy to remember	
17.2.a	Severity of Cost	Doesn't apply
17.2.b	Frequency Cost is Experienced	N/A
17.3	Requires extra resources	
17.3.a	Severity of Cost	Doesn't apply
17.3.b	Frequency Cost is Experienced	N/A

17.4	Requires the creation of a new password	
17.4.a	Severity of Cost	Doesn't apply
17.4.b	Frequency Cost is Experienced	N/A
17.5	Increases the computing power needed	
17.5.a	Severity of Cost	Doesn't apply
17.5.b	Frequency Cost is Experienced	N/A
17.6	Requires other extra time or effort	
17.6.a	Severity of Cost	Minor
17.6.b	Frequency Cost is Experienced	Periodic
17.a	Do you approve of this advice?	Neutral
17.b	Comments	Depends on how important the account is.
18	You should use 2-factor authentication (e.g. an extra PIN) when lo	gging into accounts remotely
18.1	Makes it more difficult to create a password	
18.1.a	Severity of Cost	Doesn't apply
18.1.b	Frequency Cost is Experienced	N/A
18.2	Makes it less easy to remember	
18.2.a	Severity of Cost	Doesn't apply
18.2.b	Frequency Cost is Experienced	N/A
18.3	Requires extra resources	
18.3.a	Severity of Cost	Doesn't apply
18.3.b	Frequency Cost is Experienced	N/A
18.4	Requires the creation of a new password	
18.4.a	Severity of Cost	Doesn't apply
18.4.b	Frequency Cost is Experienced	N/A
18.5	Increases the computing power needed	
18.5.a	Severity of Cost	Doesn't apply
18.5.b	Frequency Cost is Experienced	N/A
18.6	Requires other extra time or effort	
18.6.a	Severity of Cost	Minor
18.6.b	Frequency Cost is Experienced	Periodic

Neutral

18.a

Do you approve of this advice?

### Password manager

19	You should use a password manager to store your passwords	
19.1	Makes it more difficult to create a password	
19.1.a	Severity of Cost	Positive
19.1.b	Frequency Cost is Experienced	Once off
19.2	Makes it less easy to remember	
19.2.a	Severity of Cost	Positive
19.2.b	Frequency Cost is Experienced	At Login
19.3	Requires extra resources	
19.3.a	Severity of Cost	Doesn't apply
19.3.b	Frequency Cost is Experienced	N/A
19.4	Requires the creation of a new password	
19.4.a	Severity of Cost	Doesn't apply
19.4.b	Frequency Cost is Experienced	N/A
19.5	Increases the computing power needed	
19.5.a	Severity of Cost	Doesn't apply
19.5.b	Frequency Cost is Experienced	N/A
19.6	Requires other extra time or effort	
19.6.a	Severity of Cost	Doesn't apply
19.6.b	Frequency Cost is Experienced	N/A
19.a	Do you approve of this advice?	Neutral
19.b	Comments	Haven't seriously considered using them before.

20	Every user in an organisation must have their own account	
20.1	Makes it more difficult to create a password	
20.1.a	Severity of Cost	Doesn't apply
20.1.b	Frequency Cost is Experienced	N/A
20.2	Makes it less easy to remember	

20.2.a	Severity of Cost	Doesn't apply
20.2.b	Frequency Cost is Experienced	N/A
20.3	Requires extra resources	
20.3.a	Severity of Cost	Doesn't apply
20.3.b	Frequency Cost is Experienced	N/A
20.4	Requires the creation of a new password	
20.4.a	Severity of Cost	Doesn't apply
20.4.b	Frequency Cost is Experienced	N/A
20.5	Increases the computing power needed	
20.5.a	Severity of Cost	Doesn't apply
20.5.b	Frequency Cost is Experienced	N/A
20.6	Requires other extra time or effort	
20.6.a	Severity of Cost	Don't know
20.6.b	Frequency Cost is Experienced	N/A
20.a	Do you approve of this advice?	Yes
20.b	Comments	I guess it depends on the system in question?

# Generated passwords

21	Passwords generated for you should be distribute in a sealed envelope	
21.1	Makes it more difficult to create a password	
21.1.a	Severity of Cost	Doesn't apply
21.1.b	Frequency Cost is Experienced	N/A
21.2	Makes it less easy to remember	
21.2.a	Severity of Cost	Doesn't apply
21.2.b	Frequency Cost is Experienced	N/A
21.3	Requires extra resources	
21.3.a	Severity of Cost	Doesn't apply
21.3.b	Frequency Cost is Experienced	N/A
21.4	Requires the creation of a new password	
21.4.a	Severity of Cost	Doesn't apply
21.4.b	Frequency Cost is Experienced	N/A

21.5	Increases the computing power needed	
21.5.a	Severity of Cost	Doesn't apply
21.5.b	Frequency Cost is Experienced	N/A
21.6	Requires other extra time or effort	
21.6.a	Severity of Cost	Doesn't apply
21.6.b	Frequency Cost is Experienced	N/A
21.a	Do you approve of this advice?	No
21.b	Comments	I thought it was common wisdom not to write down passwords.

#### **Final Comments**

22	Do you agree with the six cost categories that were used in the survey?	Yes
22.a	Are there any cost categories that you think should be added or removed?	

23 This is t	he end of the survey do you have any final comments	? My password is hunter2. Good luck Hazel!
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Response ID	Completion date	
624487-624478-66086439	7 Oct 2020, 18:03 (BST)	

1	Informed consent	
1.1	The purpose and nature of this study has been explained to me	
1.1.a		Yes
1.2	I am participating voluntarily.	
1.2.a		Yes
1.3	I understand that I can withdraw from the survey up until it is s point, as the survey is anonymous, it will not be possible to ide	
1.3.a		Yes
1.4	I understand the limits of confidentiality as described in the inf	ormation sheet.
1.4.a		Yes
1.5	I understand that my anonymous responses may be used in fut from this study may be deposited in an archive if I give permis	
1.5.a		Yes
2	I consent to participate in this survey:	Yes
3	Select a rank on the below scale from 1 (very poor) to 5 (very knowledge.	owledgeable) to describe your internet
3.1	Internet security knowledge:	4

## Password composition advice

4	Include specific character types in your password. E.g. your password must include uppercase, lowercase, digit, symbol	
4.1	Makes it more difficult to create a password	
4.1.a	Severity of Cost	Minor
4.1.b	Frequency Cost is Experienced	Once off
4.2	Makes it less easy to remember	
4.2.a	Severity of Cost	Minor
4.2.b	Frequency Cost is Experienced	At Login

4.3	Requires extra resources	
4.3.a	Severity of Cost	Doesn't apply
4.3.b	Frequency Cost is Experienced	N/A
4.4	Requires the creation of a new password	
4.4.a	Severity of Cost	Doesn't apply
4.4.b	Frequency Cost is Experienced	N/A
4.5	Increases the computing power needed	
4.5.a	Severity of Cost	Doesn't apply
4.5.b	Frequency Cost is Experienced	N/A
4.6	Requires other extra time or effort	
4.6.a	Severity of Cost	Doesn't apply
4.6.b	Frequency Cost is Experienced	N/A
4.a	Do you approve of this advice?	Yes
4.b	Comments	
5	Don't use patterns in your password. E.g. do not choose a password	rd such as "123abc"
5.1	Makes it more difficult to create a password	
5.1.a	Severity of Cost	Minor
5.1.b	Frequency Cost is Experienced	Once off
5.2	Makes it less easy to remember	
5.2.a	Severity of Cost	Minor
5.2.b	Frequency Cost is Experienced	At Login
5.3	Requires extra resources	
5.3.a	Severity of Cost	Doesn't apply
5.3.b	Frequency Cost is Experienced	N/A
5.4	Requires the creation of a new password	
5.4.a	Severity of Cost	Doesn't apply
5.4.b	Frequency Cost is Experienced	N/A
5.5	Increases the computing power needed	
5.5.a	Severity of Cost	Minor
5.5.b	Frequency Cost is Experienced	Once off
5.6	Requires other extra time or effort	

Doesn't apply

5.6.a

Severity of Cost

5.6.k	Frequency Cost is Experienced	N/A
5.a	Do you approve of this advice?	Yes
5.b	Comments	

6	Password cannot be too long (e.g. must be less than 40 characters	s)
6.1	Makes it more difficult to create a password	
6.1.a	Severity of Cost	Minor
6.1.b	Frequency Cost is Experienced	Once off
6.2	Makes it less easy to remember	
6.2.a	Severity of Cost	Minor
6.2.b	Frequency Cost is Experienced	At Login
6.3	Requires extra resources	
6.3.a	Severity of Cost	Doesn't apply
6.3.b	Frequency Cost is Experienced	N/A
6.4	Requires the creation of a new password	
6.4.a	Severity of Cost	Doesn't apply
6.4.b	Frequency Cost is Experienced	N/A
6.5	Increases the computing power needed	
6.5.a	Severity of Cost	Positive
6.5.b	Frequency Cost is Experienced	Once off
6.6	Requires other extra time or effort	
6.6.a	Severity of Cost	Doesn't apply
6.6.b	Frequency Cost is Experienced	N/A
6.a	Do you approve of this advice?	Yes
6.b	Comments	

# Expiry

7	You should not be allowed to use a password that you used previously on this website or computer	
7.1	Makes it more difficult to create a password	
7.1.a	Severity of Cost	Minor
7.1.b	Frequency Cost is Experienced	Once off

7.2	Makes it less easy to remember	
7.2.a	Severity of Cost	Major
7.2.b	Frequency Cost is Experienced	At Login
7.3	Requires extra resources	
7.3.a	Severity of Cost	Doesn't apply
7.3.b	Frequency Cost is Experienced	N/A
7.4	Requires the creation of a new password	
7.4.a	Severity of Cost	Major
7.4.b	Frequency Cost is Experienced	Periodic
7.5	Increases the computing power needed	
7.5.a	Severity of Cost	Minor
7.5.b	Frequency Cost is Experienced	Periodic
7.6	Requires other extra time or effort	
7.6.a	Severity of Cost	Doesn't apply
7.6.b	Frequency Cost is Experienced	N/A
7.a	Do you approve of this advice?	Yes
7.b	Comments	
8	Change your password regularly	
8.1	Makes it more difficult to create a password	
8.1.a	Severity of Cost	Minor
8.1.b	Frequency Cost is Experienced	Periodic
8.2	Makes it less easy to remember	
8.2.a	Severity of Cost	Major
8.2.b	Frequency Cost is Experienced	At Login
8.3	Requires extra resources	
8.3.a	Severity of Cost	Doesn't apply
8.3.b	Frequency Cost is Experienced	N/A
8.4	Requires the creation of a new password	
8.4.a	Severity of Cost	Major
8.4.b	Frequency Cost is Experienced	Periodic
8.5	Increases the computing power needed	
8.5.a	Severity of Cost	Doesn't apply

8.5.b	Frequency Cost is Experienced	N/A
8.6	Requires other extra time or effort	
8.6.a	Severity of Cost	Doesn't apply
8.6.b	Frequency Cost is Experienced	N/A
8.a	Do you approve of this advice?	Yes
8.b	Comments	

#### Reuse

9	Never reuse a password	
9.1	Makes it more difficult to create a password	
9.1.a	Severity of Cost	Major
9.1.b	Frequency Cost is Experienced	Once off
9.2	Makes it less easy to remember	
9.2.a	Severity of Cost	Major
9.2.b	Frequency Cost is Experienced	At Login
9.3	Requires extra resources	
9.3.a	Severity of Cost	Doesn't apply
9.3.b	Frequency Cost is Experienced	N/A
9.4	Requires the creation of a new password	
9.4.a	Severity of Cost	Major
9.4.b	Frequency Cost is Experienced	Once off
9.5	Increases the computing power needed	
9.5.a	Severity of Cost	Major
9.5.b	Frequency Cost is Experienced	Periodic
9.6	Requires other extra time or effort	
9.6.a	Severity of Cost	Doesn't apply
9.6.b	Frequency Cost is Experienced	N/A
9.a	Do you approve of this advice?	No
9.b	Comments	

10 Don't reuse certain passwords between websites or computers

10.1	Makes it more difficult to create a password	
10.1.a	Severity of Cost	Minor
10.1.b	Frequency Cost is Experienced	Once off
10.2	Makes it less easy to remember	
10.2.a	Severity of Cost	Minor
10.2.b	Frequency Cost is Experienced	At Login
10.3	Requires extra resources	
10.3.a	Severity of Cost	Doesn't apply
10.3.b	Frequency Cost is Experienced	N/A
10.4	Requires the creation of a new password	
10.4.a	Severity of Cost	Minor
10.4.b	Frequency Cost is Experienced	Once off
10.5	Increases the computing power needed	
10.5.a	Severity of Cost	Minor
10.5.b	Frequency Cost is Experienced	Periodic
10.6	Requires other extra time or effort	
10.6.a	Severity of Cost	Doesn't apply
10.6.b	Frequency Cost is Experienced	N/A
<b>10</b> .a	Do you approve of this advice?	Yes
10.b	Comments	

# Sharing

11	Never share your password	
11.1	Makes it more difficult to create a password	
11.1.a	Severity of Cost	Doesn't apply
11.1.b	Frequency Cost is Experienced	N/A
11.2	Makes it less easy to remember	
11.2.a	Severity of Cost	Minor
11.2.b	Frequency Cost is Experienced	At Login
11.3	Requires extra resources	
11.3.a	Severity of Cost	Doesn't apply

11.3.b	Frequency Cost is Experienced	N/A
11.4	Requires the creation of a new password	
11.4.a	Severity of Cost	Doesn't apply
11.4.b	Frequency Cost is Experienced	N/A
11.5	Increases the computing power needed	
11.5.a	Severity of Cost	Doesn't apply
11.5.b	Frequency Cost is Experienced	N/A
11.6	Requires other extra time or effort	
11.6.a	Severity of Cost	Doesn't apply
11.6.b	Frequency Cost is Experienced	N/A
11.a	Do you approve of this advice?	Yes
11.b	Comments	
12	Keep your Email up-to-date and secure	
12.1	Makes it more difficult to create a password	
12.1.a	Severity of Cost	Doesn't apply
12.1.b	Frequency Cost is Experienced	N/A
12.2	Makes it less easy to remember	
12.2.a	Severity of Cost	Doesn't apply
12.2.b	Frequency Cost is Experienced	N/A
12.3	Requires extra resources	
12.3.a	Severity of Cost	Doesn't apply
12.3.b	Frequency Cost is Experienced	N/A
12.4	Requires the creation of a new password	
12.4.a	Severity of Cost	Minor
12.4.b	Frequency Cost is Experienced	Periodic
12.5	Increases the computing power needed	
12.5.a	Severity of Cost	Doesn't apply
12.5.b	Frequency Cost is Experienced	N/A
12.6	Requires other extra time or effort	
12.6.a	Severity of Cost	Minor

Periodic

Frequency Cost is Experienced

12.a	Do you approve of this advice?	Yes
12.b	Comments	
13	Keep software updated	
13.1	Makes it more difficult to create a password	
13.1.a	Severity of Cost	Doesn't apply
13.1.b	Frequency Cost is Experienced	N/A
13.2	Makes it less easy to remember	
13.2.a	Severity of Cost	Doesn't apply
13.2.b	Frequency Cost is Experienced	N/A
13.3	Requires extra resources	
13.3.a	Severity of Cost	Doesn't apply
13.3.b	Frequency Cost is Experienced	N/A
13.4	Requires the creation of a new password	
13.4.a	Severity of Cost	Doesn't apply
13.4.b	Frequency Cost is Experienced	N/A
13.5	Increases the computing power needed	
13.5.a	Severity of Cost	Positive
13.5.b	Frequency Cost is Experienced	Periodic
13.6	Requires other extra time or effort	
13.6.a	Severity of Cost	Minor
13.6.b	Frequency Cost is Experienced	Periodic
13.a	Do you approve of this advice?	Yes
13.b	Comments	
14	Change the default passwords on your devices e.g. wifi, smart lig	ht bulbs etc.
14.1	Makes it more difficult to create a password	
14.1.a	Severity of Cost	Doesn't apply
14.1.b	Frequency Cost is Experienced	N/A
14.2	Makes it less easy to remember	
14.2.a	Severity of Cost	Positive
14.2.b	Frequency Cost is Experienced	Once off

14.3

Requires extra resources

14.3.a	Severity of Cost	Doesn't apply
14.3.b	Frequency Cost is Experienced	N/A
14.4	Requires the creation of a new password	
14.4.a	Severity of Cost	Minor
14.4.b	Frequency Cost is Experienced	Once off
14.5	Increases the computing power needed	
14.5.a	Severity of Cost	Doesn't apply
14.5.b	Frequency Cost is Experienced	N/A
14.6	Requires other extra time or effort	
14.6.a	Severity of Cost	Minor
14.6.b	Frequency Cost is Experienced	Once off
14.a	Do you approve of this advice?	Yes
14.b	Comments	

# Logging in

15	You should not be able to paste your password when logging in	
15.1	Makes it more difficult to create a password	
15.1.a	Severity of Cost	Doesn't apply
15.1.b	Frequency Cost is Experienced	N/A
15.2	Makes it less easy to remember	
15.2.a	Severity of Cost	Major
15.2.b	Frequency Cost is Experienced	At Login
15.3	Requires extra resources	
15.3.a	Severity of Cost	Doesn't apply
15.3.b	Frequency Cost is Experienced	N/A
15.4	Requires the creation of a new password	
15.4.a	Severity of Cost	Doesn't apply
15.4.b	Frequency Cost is Experienced	N/A
15.5	Increases the computing power needed	
15.5.a	Severity of Cost	Doesn't apply
15.5.b	Frequency Cost is Experienced	N/A

15.6	Requires other extra time or effort	
15.6.a	Severity of Cost	Minor
15.6.b	Frequency Cost is Experienced	At Login
15.a	Do you approve of this advice?	Yes
15.b	Comments	

#### Username

16	Your username should include specific character types (e.g. contain a minimum of 3 letters and 3 numbers)	
16.1	Makes it more difficult to create a password	
16.1.a	Severity of Cost	Doesn't apply
16.1.b	Frequency Cost is Experienced	N/A
16.2	Makes it less easy to remember	
16.2.a	Severity of Cost	Minor
16.2.b	Frequency Cost is Experienced	Once off
16.3	Requires extra resources	
16.3.a	Severity of Cost	Doesn't apply
16.3.b	Frequency Cost is Experienced	N/A
16.4	Requires the creation of a new password	
16.4.a	Severity of Cost	Doesn't apply
16.4.b	Frequency Cost is Experienced	N/A
16.5	Increases the computing power needed	
16.5.a	Severity of Cost	
16.5.b	Frequency Cost is Experienced	N/A
16.6	Requires other extra time or effort	
16.6.a	Severity of Cost	Doesn't apply
16.6.b	Frequency Cost is Experienced	N/A
16.a	Do you approve of this advice?	No
16.b	Comments	

#### Two factor authentication

17	You should use 2-factor authentication when logging into accounts from an app, text or a special device)	(e.g. enter an additional code
17.1	Makes it more difficult to create a password	
17.1.a	Severity of Cost	Doesn't apply
17.1.b	Frequency Cost is Experienced	N/A
17.2	Makes it less easy to remember	
17.2.a	Severity of Cost	Doesn't apply
17.2.b	Frequency Cost is Experienced	N/A
17.3	Requires extra resources	
17.3.a	Severity of Cost	Major
17.3.b	Frequency Cost is Experienced	At Login
17.4	Requires the creation of a new password	
17.4.a	Severity of Cost	Doesn't apply
17.4.b	Frequency Cost is Experienced	N/A
17.5	Increases the computing power needed	
17.5.a	Severity of Cost	Minor
17.5.b	Frequency Cost is Experienced	At Login
17.6	Requires other extra time or effort	
17.6.a	Severity of Cost	Minor
17.6.b	Frequency Cost is Experienced	At Login
17.a	Do you approve of this advice?	Yes
17.b	Comments	
18	You should use 2-factor authentication (e.g. an extra PIN) when log	gging into accounts remotely
18.1	Makes it more difficult to create a password	December of the control of the contr
18.1.a	Severity of Cost	Doesn't apply
18.1.b	Frequency Cost is Experienced	N/A
18.2	Makes it less easy to remember	
18.2.a	Severity of Cost	Doesn't apply
18.2.b	Frequency Cost is Experienced	N/A
18.3	Requires extra resources	
18.3.a	Severity of Cost	Major

At Login

18.3.b

Frequency Cost is Experienced

18.4	Requires the creation of a new password	
18.4.a	Severity of Cost	Doesn't apply
18.4.b	Frequency Cost is Experienced	N/A
18.5	Increases the computing power needed	
18.5.a	Severity of Cost	Minor
18.5.b	Frequency Cost is Experienced	At Login
18.6	Requires other extra time or effort	
18.6.a	Severity of Cost	Minor
18.6.b	Frequency Cost is Experienced	At Login
18.a	Do you approve of this advice?	Yes
18.b	Comments	

# Password manager

19	You should use a password manager to store your passwords	
19.1	Makes it more difficult to create a password	
19.1.a	Severity of Cost	Positive
19.1.b	Frequency Cost is Experienced	Once off
19.2	Makes it less easy to remember	
19.2.a	Severity of Cost	Positive
19.2.b	Frequency Cost is Experienced	At Login
19.3	Requires extra resources	
19.3.a	Severity of Cost	Minor
19.3.b	Frequency Cost is Experienced	At Login
19.4	Requires the creation of a new password	
19.4.a	Severity of Cost	Doesn't apply
19.4.b	Frequency Cost is Experienced	N/A
19.5	Increases the computing power needed	
19.5.a	Severity of Cost	Doesn't apply
19.5.b	Frequency Cost is Experienced	N/A
19.6	Requires other extra time or effort	
19.6.a	Severity of Cost	Positive

19	9.6.b	Frequency Cost is Experienced	At Login
1	9.a	Do you approve of this advice?	No
1	9.b	Comments	

20	Every user in an organisation must have their own account	
20.1	Makes it more difficult to create a password	
20.1.a	Severity of Cost	Doesn't apply
20.1.b	Frequency Cost is Experienced	N/A
20.2	Makes it less easy to remember	
20.2.a	Severity of Cost	Doesn't apply
20.2.b	Frequency Cost is Experienced	N/A
20.3	Requires extra resources	
20.3.a	Severity of Cost	Doesn't apply
20.3.b	Frequency Cost is Experienced	N/A
20.4	Requires the creation of a new password	
20.4.a	Severity of Cost	Minor
20.4.b	Frequency Cost is Experienced	Once off
20.5	Increases the computing power needed	
20.5.a	Severity of Cost	Minor
20.5.b	Frequency Cost is Experienced	Once off
20.6	Requires other extra time or effort	
20.6.a	Severity of Cost	Minor
20.6.b	Frequency Cost is Experienced	Once off
20.a	Do you approve of this advice?	Yes
20.b	Comments	

## Generated passwords

21	Passwords generated for you should be distribute in a sealed envelope	
21.1	Makes it more difficult to create a password	
21.1.a	Severity of Cost	
21.1.b	Frequency Cost is Experienced	

21.2	Makes it less easy to remember	
21.2.a	Severity of Cost	
21.2.b	Frequency Cost is Experienced	
21.3	Requires extra resources	
21.3.a	Severity of Cost	Minor
21.3.b	Frequency Cost is Experienced	Once off
21.4	Requires the creation of a new password	
21.4.a	Severity of Cost	
21.4.b	Frequency Cost is Experienced	
21.5	Increases the computing power needed	
21.5.a	Severity of Cost	
21.5.b	Frequency Cost is Experienced	
21.6	Requires other extra time or effort	
21.6.a	Severity of Cost	Minor
21.6.b	Frequency Cost is Experienced	Once off
21.a	Do you approve of this advice?	Yes
21.b	Comments	

#### **Final Comments**

22	Do you agree with the six cost categories that were used in the survey?	Yes
22.a	Are there any cost categories that you think should be added or removed?	

This is the end of the survey do you have any final comments?

Response ID	Completion date	
624487-624478-66101140	7 Oct 2020, 22:42 (BST)	

1	Informed consent	
1.1	The purpose and nature of this study has been explained to me.	
1.1.a		Yes
1.2	l am participating voluntarily.	
1.2.a		Yes
1.3	I understand that I can withdraw from the survey up until it is suppoint, as the survey is anonymous, it will not be possible to idea	
1.3.a		Yes
1.4	I understand the limits of confidentiality as described in the info	ormation sheet.
1.4.a		Yes
1.5	I understand that my anonymous responses may be used in futor from this study may be deposited in an archive if I give permiss	
1.5.a		Yes
2	I consent to participate in this survey:	Yes
3	Select a rank on the below scale from 1 (very poor) to 5 (very kno security knowledge.	wledgeable) to describe your internet
3.1	Internet security knowledge:	2

## Password composition advice

4	Include specific character types in your password. E.g. your password must include uppercase, lowercase, digit, symbol	
4.1	Makes it more difficult to create a password	
4.1.a	Severity of Cost	Minor
4.1.b	Frequency Cost is Experienced	Periodic
4.2	Makes it less easy to remember	
4.2.a	Severity of Cost	Minor
4.2.b	Frequency Cost is Experienced	At Login

4.3	Requires extra resources	
4.3.a	Severity of Cost	Doesn't apply
4.3.b	Frequency Cost is Experienced	N/A
4.4	Requires the creation of a new password	
4.4.a	Severity of Cost	Don't know
4.4.b	Frequency Cost is Experienced	Don't know
4.5	Increases the computing power needed	
4.5.a	Severity of Cost	Don't know
4.5.b	Frequency Cost is Experienced	Don't know
4.6	Requires other extra time or effort	
4.6.a	Severity of Cost	Minor
4.6.b	Frequency Cost is Experienced	Periodic
4.a	Do you approve of this advice?	Yes
4.b	Comments	
5	Don't use patterns in your password. E.g. do not choose a passwor	rd such as "123abc"
5.1	Makes it more difficult to create a password	
5.1.a	Severity of Cost	Minor
5.1.b	Frequency Cost is Experienced	Periodic
5.2	Makes it less easy to remember	
5.2.a	Severity of Cost	Minor
5.2.b	Frequency Cost is Experienced	Periodic
5.3	Requires extra resources	
5.3.a	Severity of Cost	Doesn't apply
5.3.b	Frequency Cost is Experienced	N/A
5.4	Requires the creation of a new password	D " 1
5.4.a	Severity of Cost	Doesn't apply
5.4.b	Frequency Cost is Experienced	N/A
5.5	Increases the computing power needed	Doubling
5.5.a	Severity of Cost	Don't know
5.5.b	Frequency Cost is Experienced	Don't know
5.6	Requires other extra time or effort	Describeration
5.6.a	Severity of Cost	Doesn't apply

5.6.b	Frequency Cost is Experienced	N/A
5.a	Do you approve of this advice?	Yes
5.b	Comments	

6	Password cannot be too long (e.g. must be less than 40 characters)	
6.1	Makes it more difficult to create a password	
6.1.a	Severity of Cost	Doesn't apply
6.1.b	Frequency Cost is Experienced	N/A
6.2	Makes it less easy to remember	
6.2.a	Severity of Cost	Doesn't apply
6.2.b	Frequency Cost is Experienced	N/A
6.3	Requires extra resources	
6.3.a	Severity of Cost	Doesn't apply
6.3.b	Frequency Cost is Experienced	N/A
6.4	Requires the creation of a new password	
6.4.a	Severity of Cost	Doesn't apply
6.4.b	Frequency Cost is Experienced	N/A
6.5	Increases the computing power needed	
6.5.a	Severity of Cost	Don't know
6.5.b	Frequency Cost is Experienced	Don't know
6.6	Requires other extra time or effort	
6.6.a	Severity of Cost	Doesn't apply
6.6.b	Frequency Cost is Experienced	N/A
6.a	Do you approve of this advice?	Neutral
6.b	Comments	

# Expiry

7	You should not be allowed to use a password that you used previously on this website or computer	
7.1	Makes it more difficult to create a password	
7.1.a	Severity of Cost	Minor
7.1.b	Frequency Cost is Experienced	Periodic

7.2	Makes it less easy to remember	
7.2.a	Severity of Cost	Minor
7.2.b	Frequency Cost is Experienced	Periodic
7.3	Requires extra resources	
7.3.a	Severity of Cost	Doesn't apply
7.3.b	Frequency Cost is Experienced	N/A
7.4	Requires the creation of a new password	
7.4.a	Severity of Cost	Minor
7.4.b	Frequency Cost is Experienced	Periodic
7.5	Increases the computing power needed	
7.5.a	Severity of Cost	Don't know
7.5.b	Frequency Cost is Experienced	Don't know
7.6	Requires other extra time or effort	
7.6.a	Severity of Cost	Doesn't apply
7.6.b	Frequency Cost is Experienced	N/A
7.a	Do you approve of this advice?	Yes
7.b	Comments	
8	Change your password regularly	
8.1	Makes it more difficult to create a password	
8.1.a	Severity of Cost	Minor
8.1.b	Frequency Cost is Experienced	Periodic
8.2	Makes it less easy to remember	
8.2.a	Severity of Cost	Minor
8.2.b	Frequency Cost is Experienced	Periodic
8.3	Requires extra resources	
8.3.a	Severity of Cost	Doesn't apply
8.3.b	Frequency Cost is Experienced	N/A
8.4	Requires the creation of a new password	
8.4.a	Severity of Cost	Minor
8.4.b	Frequency Cost is Experienced	Periodic
8.5	Increases the computing power needed	
	. 3.	

8.5.b	Frequency Cost is Experienced	Don't know
8.6	Requires other extra time or effort	
8.6.a	Severity of Cost	Doesn't apply
8.6.b	Frequency Cost is Experienced	N/A
8.a	Do you approve of this advice?	Yes
8.b	Comments	

#### Reuse

9	Never reuse a password	
9.1	Makes it more difficult to create a password	
9.1.a	Severity of Cost	Minor
9.1.b	Frequency Cost is Experienced	Periodic
9.2	Makes it less easy to remember	
9.2.a	Severity of Cost	Minor
9.2.b	Frequency Cost is Experienced	Periodic
9.3	Requires extra resources	
9.3.a	Severity of Cost	Doesn't apply
9.3.b	Frequency Cost is Experienced	N/A
9.4	Requires the creation of a new password	
9.4.a	Severity of Cost	Minor
9.4.b	Frequency Cost is Experienced	Periodic
9.5	Increases the computing power needed	
9.5.a	Severity of Cost	Don't know
9.5.b	Frequency Cost is Experienced	Don't know
9.6	Requires other extra time or effort	
9.6.a	Severity of Cost	Doesn't apply
9.6.b	Frequency Cost is Experienced	N/A
9.a	Do you approve of this advice?	Yes
9.b	Comments	

#### 10 Don't reuse certain passwords between websites or computers

10.1	Makes it more difficult to create a password	
10.1.a	Severity of Cost	Minor
10.1.b	Frequency Cost is Experienced	Periodic
10.2	Makes it less easy to remember	
10.2.a	Severity of Cost	Minor
10.2.b	Frequency Cost is Experienced	Periodic
10.3	Requires extra resources	
10.3.a	Severity of Cost	Doesn't apply
10.3.b	Frequency Cost is Experienced	N/A
10.4	Requires the creation of a new password	
10.4.a	Severity of Cost	Minor
10.4.b	Frequency Cost is Experienced	Periodic
10.5	Increases the computing power needed	
10.5.a	Severity of Cost	Don't know
10.5.b	Frequency Cost is Experienced	Don't know
10.6	Requires other extra time or effort	
10.6.a	Severity of Cost	Doesn't apply
10.6.b	Frequency Cost is Experienced	N/A
10.a	Do you approve of this advice?	Yes
10.b	Comments	

# Sharing

11	Never share your password	
11.1	Makes it more difficult to create a password	
11.1.a	Severity of Cost	Doesn't apply
11.1.b	Frequency Cost is Experienced	N/A
11.2	Makes it less easy to remember	
11.2.a	Severity of Cost	Doesn't apply
11.2.b	Frequency Cost is Experienced	N/A
11.3	Requires extra resources	
11.3.a	Severity of Cost	Doesn't apply

11.3.b	Frequency Cost is Experienced	N/A
11.4	Requires the creation of a new password	
11.4.a	Severity of Cost	Doesn't apply
11.4.b	Frequency Cost is Experienced	N/A
11.5	Increases the computing power needed	
11.5.a	Severity of Cost	Doesn't apply
11.5.b	Frequency Cost is Experienced	N/A
11.6	Requires other extra time or effort	
11.6.a	Severity of Cost	Doesn't apply
11.6.b	Frequency Cost is Experienced	N/A
11.a	Do you approve of this advice?	Yes
11.b	Comments	
12	Keep your Email up-to-date and secure	
12.1	Makes it more difficult to create a password	
12.1.a	Severity of Cost	Doesn't apply
12.1.b	Frequency Cost is Experienced	N/A
12.2	Makes it less easy to remember	
12.2.a	Severity of Cost	Doesn't apply
12.2.b	Frequency Cost is Experienced	N/A
12.3	Requires extra resources	
12.3.a	Severity of Cost	Doesn't apply
12.3.b	Frequency Cost is Experienced	N/A
12.4	Requires the creation of a new password	
12.4.a	Severity of Cost	Doesn't apply
12.4.b	Frequency Cost is Experienced	N/A
12.5	Increases the computing power needed	
12.5.a	Severity of Cost	Doesn't apply
12.5.b	Frequency Cost is Experienced	N/A
12.6	Requires other extra time or effort	
12.6.a	Severity of Cost	Minor

Periodic

12.6.b

Frequency Cost is Experienced

12.a	Do you approve of this advice?	Yes
12.b	Comments	
13	Keep software updated	
13.1	Makes it more difficult to create a password	
13.1.a	Severity of Cost	
13.1.b	Frequency Cost is Experienced	
13.2	Makes it less easy to remember	
13.2.a	Severity of Cost	
13.2.b	Frequency Cost is Experienced	
13.3	Requires extra resources	
13.3.a	Severity of Cost	
13.3.b	Frequency Cost is Experienced	
13.4	Requires the creation of a new password	
13.4.a	Severity of Cost	
13.4.b	Frequency Cost is Experienced	
13.5	Increases the computing power needed	
13.5.a	Severity of Cost	Minor
13.5.b	Frequency Cost is Experienced	Periodic
13.6	Requires other extra time or effort	
13.6.a	Severity of Cost	Minor
13.6.b	Frequency Cost is Experienced	Periodic
13.a	Do you approve of this advice?	Yes
13.b	Comments	
14	Change the default passwords on your devices e.g. wifi, smart lig	nt bulbs etc.
14.1	Makes it more difficult to create a password	5
14.1.a	Severity of Cost	Doesn't apply
14.1.b	Frequency Cost is Experienced	N/A
14.2	Makes it less easy to remember	
14.2.a	Severity of Cost	Doesn't apply
14.2.b	Frequency Cost is Experienced	N/A

14.3

Requires extra resources

14.3.a	Severity of Cost	Doesn't apply
14.3.b	Frequency Cost is Experienced	N/A
14.4	Requires the creation of a new password	
14.4.a	Severity of Cost	Minor
14.4.b	Frequency Cost is Experienced	Once off
14.5	Increases the computing power needed	
14.5.a	Severity of Cost	Don't know
14.5.b	Frequency Cost is Experienced	Don't know
14.6	Requires other extra time or effort	
14.6.a	Severity of Cost	Minor
14.6.b	Frequency Cost is Experienced	Once off
14.a	Do you approve of this advice?	Yes
14.b	Comments	

# Logging in

15	You should not be able to paste your password when logging in	
15.1	Makes it more difficult to create a password	
15.1.a	Severity of Cost	Doesn't apply
15.1.b	Frequency Cost is Experienced	N/A
15.2	Makes it less easy to remember	
15.2.a	Severity of Cost	Minor
15.2.b	Frequency Cost is Experienced	At Login
15.3	Requires extra resources	
15.3.a	Severity of Cost	Doesn't apply
15.3.b	Frequency Cost is Experienced	N/A
15.4	Requires the creation of a new password	
15.4.a	Severity of Cost	Doesn't apply
15.4.b	Frequency Cost is Experienced	N/A
15.5	Increases the computing power needed	
15.5.a	Severity of Cost	Don't know
15.5.b	Frequency Cost is Experienced	Don't know

15.6	Requires other extra time or effort	
15.6.a	Severity of Cost	Doesn't apply
15.6.b	Frequency Cost is Experienced	N/A
15.a	Do you approve of this advice?	Yes
15.b	Comments	

#### Username

16	Your username should include specific character types (e.g. contain a minimum of 3 letters and 3 numbers)	
16.1	Makes it more difficult to create a password	
16.1.a	Severity of Cost	Doesn't apply
16.1.b	Frequency Cost is Experienced	N/A
16.2	Makes it less easy to remember	
16.2.a	Severity of Cost	Doesn't apply
16.2.b	Frequency Cost is Experienced	N/A
16.3	Requires extra resources	
16.3.a	Severity of Cost	Doesn't apply
16.3.b	Frequency Cost is Experienced	N/A
16.4	Requires the creation of a new password	
16.4.a	Severity of Cost	Doesn't apply
16.4.b	Frequency Cost is Experienced	N/A
16.5	Increases the computing power needed	
16.5.a	Severity of Cost	Don't know
16.5.b	Frequency Cost is Experienced	Don't know
16.6	Requires other extra time or effort	
16.6.a	Severity of Cost	Doesn't apply
16.6.b	Frequency Cost is Experienced	N/A
16.a	Do you approve of this advice?	Neutral
16.b	Comments	

#### Two factor authentication

17	You should use 2-factor authentication when logging into accounts from an app, text or a special device)	s (e.g. enter an additional code
17.1	Makes it more difficult to create a password	
17.1.a	Severity of Cost	Doesn't apply
17.1.b	Frequency Cost is Experienced	N/A
17.2	Makes it less easy to remember	
17.2.a	Severity of Cost	Doesn't apply
17.2.b	Frequency Cost is Experienced	N/A
17.3	Requires extra resources	
17.3.a	Severity of Cost	Minor
17.3.b	Frequency Cost is Experienced	At Login
17.4	Requires the creation of a new password	
17.4.a	Severity of Cost	Minor
17.4.b	Frequency Cost is Experienced	Once off
17.5	Increases the computing power needed	
17.5.a	Severity of Cost	Minor
17.5.b	Frequency Cost is Experienced	At Login
17.6	Requires other extra time or effort	
17.6.a	Severity of Cost	Minor
17.6.b	Frequency Cost is Experienced	At Login
17.a	Do you approve of this advice?	Neutral
17.b	Comments	Depends non what I'm logging in to
18	You should use 2-factor authentication (e.g. an extra PIN) when log	gging into accounts remotely
18.1	Makes it more difficult to create a password	
18.1.a	Severity of Cost	Doesn't apply
18.1.b	Frequency Cost is Experienced	N/A
18.2	Makes it less easy to remember	
18.2.a	Severity of Cost	Doesn't apply
18.2.b	Frequency Cost is Experienced	N/A
18.3	Requires extra resources	
18.3.a	Severity of Cost	Minor

18.3.b	Frequency Cost is Experienced	At Login
18.4	Requires the creation of a new password	
18.4.a	Severity of Cost	Minor
18.4.b	Frequency Cost is Experienced	Once off
18.5	Increases the computing power needed	
18.5.a	Severity of Cost	Minor
18.5.b	Frequency Cost is Experienced	At Login
18.6	Requires other extra time or effort	
18.6.a	Severity of Cost	Minor
18.6.b	Frequency Cost is Experienced	At Login
18.a	Do you approve of this advice?	Neutral
18.b	Comments	Depends on what I'm logging in to

### Password manager

19	You should use a password manager to store your passwords	
19.1	Makes it more difficult to create a password	
19.1.a	Severity of Cost	Doesn't apply
19.1.b	Frequency Cost is Experienced	N/A
19.2	Makes it less easy to remember	
19.2.a	Severity of Cost	Doesn't apply
19.2.b	Frequency Cost is Experienced	N/A
19.3	Requires extra resources	
19.3.a	Severity of Cost	Minor
19.3.b	Frequency Cost is Experienced	Once off
19.4	Requires the creation of a new password	
19.4.a	Severity of Cost	Minor
19.4.b	Frequency Cost is Experienced	Once off
19.5	Increases the computing power needed	
19.5.a	Severity of Cost	Minor
19.5.b	Frequency Cost is Experienced	Periodic
19.6	Requires other extra time or effort	

19.6.a	Severity of Cost	Minor
19.6.b	Frequency Cost is Experienced	Periodic
19.a	Do you approve of this advice?	Neutral
19.b	Comments	

20	Every user in an organisation must have their own account	
20.1	Makes it more difficult to create a password	
20.1.a	Severity of Cost	Doesn't apply
20.1.b	Frequency Cost is Experienced	N/A
20.2	Makes it less easy to remember	
20.2.a	Severity of Cost	Doesn't apply
20.2.b	Frequency Cost is Experienced	N/A
20.3	Requires extra resources	
20.3.a	Severity of Cost	Doesn't apply
20.3.b	Frequency Cost is Experienced	N/A
20.4	Requires the creation of a new password	
20.4.a	Severity of Cost	Doesn't apply
20.4.b	Frequency Cost is Experienced	N/A
20.5	Increases the computing power needed	
20.5.a	Severity of Cost	Doesn't apply
20.5.b	Frequency Cost is Experienced	N/A
20.6	Requires other extra time or effort	
20.6.a	Severity of Cost	Doesn't apply
20.6.b	Frequency Cost is Experienced	N/A
20.a	Do you approve of this advice?	No
20.b	Comments	Depends on what we're using

### Generated passwords

21	Passwords generated for you should be distribute in a sealed envelope
21.1	Makes it more difficult to create a password
21.1.a	Severity of Cost

21.1.b	Frequency Cost is Experienced	
21.2	Makes it less easy to remember	
21.2.a	Severity of Cost	
21.2.b	Frequency Cost is Experienced	
21.3	Requires extra resources	
21.3.a	Severity of Cost	Major
21.3.b	Frequency Cost is Experienced	Once off
21.4	Requires the creation of a new password	
21.4.a	Severity of Cost	Minor
21.4.b	Frequency Cost is Experienced	Once off
21.5	Increases the computing power needed	
21.5.a	Severity of Cost	
21.5.b	Frequency Cost is Experienced	
21.6	Requires other extra time or effort	
21.6.a	Severity of Cost	Major
21.6.b	Frequency Cost is Experienced	Once off
21.a	Do you approve of this advice?	No
21.b	Comments	

#### **Final Comments**

22	Do you agree with the six cost categories that were used in the survey?	Somewhat
22.a	Are there any cost categories that you think should be added or removed?	

This is the end of the survey do you have any final comments?

Response ID	Completion date	
624487-624478-66142431	8 Oct 2020, 19:06 (BST)	

1	Informed consent	
1.1	The purpose and nature of this study has been explained to me.	
1.1.a		Yes
1.2	l am participating voluntarily.	
1.2.a		Yes
1.3	I understand that I can withdraw from the survey up until it is suppoint, as the survey is anonymous, it will not be possible to idea	
1.3.a		Yes
1.4	I understand the limits of confidentiality as described in the info	ormation sheet.
1.4.a		Yes
1.5	I understand that my anonymous responses may be used in futor from this study may be deposited in an archive if I give permiss	
1.5.a		Yes
2	I consent to participate in this survey:	Yes
3	Select a rank on the below scale from 1 (very poor) to 5 (very kno security knowledge.	wledgeable) to describe your internet
3.1	Internet security knowledge:	2

### Password composition advice

4	Include specific character types in your password. E.g. your password must include uppercase, lowercase, digit, symbol	
4.1	Makes it more difficult to create a password	
4.1.a	Severity of Cost	Minor
4.1.b	Frequency Cost is Experienced	Periodic
4.2	Makes it less easy to remember	
4.2.a	Severity of Cost	Major
4.2.b	Frequency Cost is Experienced	At Login

4.3	Requires extra resources	
4.3.a	Severity of Cost	Doesn't apply
4.3.b	Frequency Cost is Experienced	N/A
4.4	Requires the creation of a new password	
4.4.a	Severity of Cost	Doesn't apply
4.4.b	Frequency Cost is Experienced	N/A
4.5	Increases the computing power needed	
4.5.a	Severity of Cost	Doesn't apply
4.5.b	Frequency Cost is Experienced	N/A
4.6	Requires other extra time or effort	
4.6.a	Severity of Cost	Doesn't apply
4.6.b	Frequency Cost is Experienced	N/A
4.a	Do you approve of this advice?	Neutral
4.b	Comments	
5	Don't use patterns in your password. E.g. do not choose a password	rd such as "123abc"
5.1	Makes it more difficult to create a password	
5.1.a	Severity of Cost	Doesn't apply
5.1.b	Frequency Cost is Experienced	N/A
5.2	Makes it less easy to remember	
5.2.a	Severity of Cost	Doesn't apply
5.2.b	Frequency Cost is Experienced	N/A
5.3	Requires extra resources	
5.3.a	Severity of Cost	Doesn't apply
5.3.b	Frequency Cost is Experienced	N/A
5.4	Requires the creation of a new password	
5.4.a	Severity of Cost	Doesn't apply
5.4.b	Frequency Cost is Experienced	N/A
5.5	Increases the computing power needed	
5.5.a	Severity of Cost	Doesn't apply
5.5.b	Frequency Cost is Experienced	N/A
5.6	Requires other extra time or effort	

Doesn't apply

5.6.a

Severity of Cost

5.6.b	Frequency Cost is Experienced	N/A
5.a	Do you approve of this advice?	Yes
5.b	Comments	

6	Password cannot be too long (e.g. must be less than 40 characters)	
6.1	Makes it more difficult to create a password	
6.1.a	Severity of Cost	Doesn't apply
6.1.b	Frequency Cost is Experienced	N/A
6.2	Makes it less easy to remember	
6.2.a	Severity of Cost	Doesn't apply
6.2.b	Frequency Cost is Experienced	N/A
6.3	Requires extra resources	
6.3.a	Severity of Cost	Doesn't apply
6.3.b	Frequency Cost is Experienced	N/A
6.4	Requires the creation of a new password	
6.4.a	Severity of Cost	Doesn't apply
6.4.b	Frequency Cost is Experienced	N/A
6.5	Increases the computing power needed	
6.5.a	Severity of Cost	Doesn't apply
6.5.b	Frequency Cost is Experienced	N/A
6.6	Requires other extra time or effort	
6.6.a	Severity of Cost	Doesn't apply
6.6.b	Frequency Cost is Experienced	N/A
6.a	Do you approve of this advice?	No
6.b	Comments	

### Expiry

7	You should not be allowed to use a password that you used previously on this website or computer	
7.1	Makes it more difficult to create a password	
7.1.a	Severity of Cost	Minor
7.1.b	Frequency Cost is Experienced	Periodic

7.2	Makes it less easy to remember	
7.2.a	Severity of Cost	Minor
7.2.b	Frequency Cost is Experienced	Periodic
7.3	Requires extra resources	
7.3.a	Severity of Cost	Doesn't apply
7.3.b	Frequency Cost is Experienced	N/A
7.4	Requires the creation of a new password	
7.4.a	Severity of Cost	Doesn't apply
7.4.b	Frequency Cost is Experienced	N/A
7.5	Increases the computing power needed	
7.5.a	Severity of Cost	Doesn't apply
7.5.b	Frequency Cost is Experienced	N/A
7.6	Requires other extra time or effort	
7.6.a	Severity of Cost	Doesn't apply
7.6.b	Frequency Cost is Experienced	N/A
7.a	Do you approve of this advice?	Neutral
7.b	Comments	
8	Change your password regularly	
8.1	Makes it more difficult to create a password	
8.1.a	Severity of Cost	Major
8.1.b	Frequency Cost is Experienced	Periodic
8.2	Makes it less easy to remember	
8.2.a	Severity of Cost	Major
8.2.b	Frequency Cost is Experienced	Periodic
8.3	Requires extra resources	
8.3.a	Severity of Cost	Doesn't apply
8.3.b	Frequency Cost is Experienced	N/A
8.4	Requires the creation of a new password	
8.4.a	Severity of Cost	Doesn't apply
8.4.b	Frequency Cost is Experienced	N/A
8.5	Increases the computing power needed	
8.5.a	Severity of Cost	Doesn't apply

8.5.b	Frequency Cost is Experienced	N/A
8.6	Requires other extra time or effort	
8.6.a	Severity of Cost	Doesn't apply
8.6.b	Frequency Cost is Experienced	N/A
8.a	Do you approve of this advice?	No
8.b	Comments	

#### Reuse

9	Never reuse a password	
9.1	Makes it more difficult to create a password	
9.1.a	Severity of Cost	Minor
9.1.b	Frequency Cost is Experienced	Periodic
9.2	Makes it less easy to remember	
9.2.a	Severity of Cost	Doesn't apply
9.2.b	Frequency Cost is Experienced	N/A
9.3	Requires extra resources	
9.3.a	Severity of Cost	Doesn't apply
9.3.b	Frequency Cost is Experienced	N/A
9.4	Requires the creation of a new password	
9.4.a	Severity of Cost	Doesn't apply
9.4.b	Frequency Cost is Experienced	N/A
9.5	Increases the computing power needed	
9.5.a	Severity of Cost	Doesn't apply
9.5.b	Frequency Cost is Experienced	N/A
9.6	Requires other extra time or effort	
9.6.a	Severity of Cost	Doesn't apply
9.6.b	Frequency Cost is Experienced	N/A
9.a	Do you approve of this advice?	Yes
9.b	Comments	

#### 10 Don't reuse certain passwords between websites or computers

10.1	Makes it more difficult to create a password	
10.1.a	Severity of Cost	Minor
10.1.b	Frequency Cost is Experienced	Once off
10.2	Makes it less easy to remember	
10.2.a	Severity of Cost	Doesn't apply
10.2.b	Frequency Cost is Experienced	N/A
10.3	Requires extra resources	
10.3.a	Severity of Cost	Doesn't apply
10.3.b	Frequency Cost is Experienced	N/A
10.4	Requires the creation of a new password	
10.4.a	Severity of Cost	Doesn't apply
10.4.b	Frequency Cost is Experienced	N/A
10.5	Increases the computing power needed	
10.5.a	Severity of Cost	Doesn't apply
10.5.b	Frequency Cost is Experienced	N/A
10.6	Requires other extra time or effort	
10.6.a	Severity of Cost	Doesn't apply
10.6.b	Frequency Cost is Experienced	N/A
10.a	Do you approve of this advice?	Yes
10.b	Comments	

# Sharing

11	Never share your password	
11.1	Makes it more difficult to create a password	
11.1.a	Severity of Cost	Minor
11.1.b	Frequency Cost is Experienced	Periodic
11.2	Makes it less easy to remember	
11.2.a	Severity of Cost	Doesn't apply
11.2.b	Frequency Cost is Experienced	N/A
11.3	Requires extra resources	
11.3.a	Severity of Cost	Doesn't apply

11.3.b	Frequency Cost is Experienced	N/A
11.4	Requires the creation of a new password	
11.4.a	Severity of Cost	Doesn't apply
11.4.b	Frequency Cost is Experienced	N/A
11.5	Increases the computing power needed	
11.5.a	Severity of Cost	Doesn't apply
11.5.b	Frequency Cost is Experienced	N/A
11.6	Requires other extra time or effort	
11.6.a	Severity of Cost	Doesn't apply
11.6.b	Frequency Cost is Experienced	N/A
11.a	Do you approve of this advice?	Yes
11.b	Comments	
12	Keep your Email up-to-date and secure	
12.1	Makes it more difficult to create a password	
12.1.a	Severity of Cost	Doesn't apply
12.1.b	Frequency Cost is Experienced	N/A
12.2	Makes it less easy to remember	
12.2.a	Severity of Cost	Doesn't apply
12.2.b	Frequency Cost is Experienced	N/A
12.3	Requires extra resources	
12.3.a	Severity of Cost	Doesn't apply
12.3.b	Frequency Cost is Experienced	N/A
12.4	Requires the creation of a new password	
12.4.a	Severity of Cost	Doesn't apply
12.4.b	Frequency Cost is Experienced	N/A
12.5	Increases the computing power needed	
12.5.a	Severity of Cost	Doesn't apply
12.5.b	Frequency Cost is Experienced	N/A
12.6	Requires other extra time or effort	
12.6.a	Severity of Cost	Doesn't apply

N/A

12.6.b

Frequency Cost is Experienced

12.a	Do you approve of this advice?	Neutral
12.b	Comments	
13	Keep software updated	
13.1	Makes it more difficult to create a password	
13.1.a	Severity of Cost	
13.1.b	Frequency Cost is Experienced	
13.2	Makes it less easy to remember	
13.2.a	Severity of Cost	
13.2.b	Frequency Cost is Experienced	
13.3	Requires extra resources	
13.3.a	Severity of Cost	
13.3.b	Frequency Cost is Experienced	
13.4	Requires the creation of a new password	
13.4.a	Severity of Cost	
13.4.b	Frequency Cost is Experienced	
13.5	Increases the computing power needed	
13.5.a	Severity of Cost	
13.5.b	Frequency Cost is Experienced	
13.6	Requires other extra time or effort	
13.6.a	Severity of Cost	
13.6.b	Frequency Cost is Experienced	
13.a	Do you approve of this advice?	Yes
13.b	Comments	
14	Change the default passwords on your devices e.g. wifi, smart lig	ht bulbs etc.
14.1	Makes it more difficult to create a password	The Builds Ctel
14.1.a	Severity of Cost	Doesn't apply
14.1.b	Frequency Cost is Experienced	N/A
14.2	Makes it less easy to remember	
14.2.a	Severity of Cost	Doesn't apply
14.2.b	Frequency Cost is Experienced	N/A
		, .

14.3

Requires extra resources

14.3.a	Severity of Cost	Doesn't apply
14.3.b	Frequency Cost is Experienced	N/A
14.4	Requires the creation of a new password	
14.4.a	Severity of Cost	Doesn't apply
14.4.b	Frequency Cost is Experienced	N/A
14.5	Increases the computing power needed	
14.5.a	Severity of Cost	Doesn't apply
14.5.b	Frequency Cost is Experienced	N/A
14.6	Requires other extra time or effort	
14.6.a	Severity of Cost	Doesn't apply
14.6.b	Frequency Cost is Experienced	N/A
14.a	Do you approve of this advice?	Neutral
14.b	Comments	

# Logging in

15	You should not be able to paste your password when logging in	
15.1	Makes it more difficult to create a password	
15.1.a	Severity of Cost	Doesn't apply
15.1.b	Frequency Cost is Experienced	N/A
15.2	Makes it less easy to remember	
15.2.a	Severity of Cost	Minor
15.2.b	Frequency Cost is Experienced	Periodic
15.3	Requires extra resources	
15.3.a	Severity of Cost	Doesn't apply
15.3.b	Frequency Cost is Experienced	N/A
15.4	Requires the creation of a new password	
15.4.a	Severity of Cost	Doesn't apply
15.4.b	Frequency Cost is Experienced	N/A
15.5	Increases the computing power needed	
15.5.a	Severity of Cost	Doesn't apply
15.5.b	Frequency Cost is Experienced	N/A

15.6	Requires other extra time or effort	
15.6.a	Severity of Cost	Doesn't apply
15.6.b	Frequency Cost is Experienced	N/A
15.a	Do you approve of this advice?	Neutral
15.b	Comments	

#### Username

16	Your username should include specific character types (e.g. contain a minimum of 3 letters and 3 numbers)	
16.1	Makes it more difficult to create a password	
16.1.a	Severity of Cost	Doesn't apply
16.1.b	Frequency Cost is Experienced	N/A
16.2	Makes it less easy to remember	
16.2.a	Severity of Cost	Doesn't apply
16.2.b	Frequency Cost is Experienced	N/A
16.3	Requires extra resources	
16.3.a	Severity of Cost	Doesn't apply
16.3.b	Frequency Cost is Experienced	N/A
16.4	Requires the creation of a new password	
16.4.a	Severity of Cost	Doesn't apply
16.4.b	Frequency Cost is Experienced	N/A
16.5	Increases the computing power needed	
16.5.a	Severity of Cost	Doesn't apply
16.5.b	Frequency Cost is Experienced	N/A
16.6	Requires other extra time or effort	
16.6.a	Severity of Cost	Doesn't apply
16.6.b	Frequency Cost is Experienced	N/A
16.a	Do you approve of this advice?	No
16.b	Comments	

#### Two factor authentication

17	You should use 2-factor authentication when logging into accounts from an app, text or a special device)	s (e.g. enter an additional code
17.1	Makes it more difficult to create a password	
17.1.a	Severity of Cost	Major
17.1.b	Frequency Cost is Experienced	At Login
17.2	Makes it less easy to remember	
17.2.a	Severity of Cost	Doesn't apply
17.2.b	Frequency Cost is Experienced	N/A
17.3	Requires extra resources	
17.3.a	Severity of Cost	Doesn't apply
17.3.b	Frequency Cost is Experienced	N/A
17.4	Requires the creation of a new password	
17.4.a	Severity of Cost	Doesn't apply
17.4.b	Frequency Cost is Experienced	N/A
17.5	Increases the computing power needed	
17.5.a	Severity of Cost	Doesn't apply
17.5.b	Frequency Cost is Experienced	N/A
17.6	Requires other extra time or effort	
17.6.a	Severity of Cost	Doesn't apply
17.6.b	Frequency Cost is Experienced	N/A
17.a	Do you approve of this advice?	No
17.b	Comments	
18	You should use 2-factor authentication (e.g. an extra PIN) when log	gging into accounts remotely
18.1	Makes it more difficult to create a password	
18.1.a	Severity of Cost	Doesn't apply
18.1.b	Frequency Cost is Experienced	N/A
18.2	Makes it less easy to remember	
18.2.a	Severity of Cost	Doesn't apply
18.2.b	Frequency Cost is Experienced	N/A
18.3	Requires extra resources	
18.3.a	Severity of Cost	Doesn't apply
18.3.b	Frequency Cost is Experienced	N/A

18.4	Requires the creation of a new password	
18.4.a	Severity of Cost	Doesn't apply
18.4.b	Frequency Cost is Experienced	N/A
18.5	Increases the computing power needed	
18.5.a	Severity of Cost	Doesn't apply
18.5.b	Frequency Cost is Experienced	N/A
18.6	Requires other extra time or effort	
18.6.a	Severity of Cost	Doesn't apply
18.6.b	Frequency Cost is Experienced	N/A
18.a	Do you approve of this advice?	No
18.b	Comments	I rarely use it. Sometimes get a number sent to phone and put that in. No problem.

### Password manager

19	You should use a password manager to store your passwords	
19.1	Makes it more difficult to create a password	
19.1.a	Severity of Cost	Doesn't apply
19.1.b	Frequency Cost is Experienced	N/A
19.2	Makes it less easy to remember	
19.2.a	Severity of Cost	Doesn't apply
19.2.b	Frequency Cost is Experienced	N/A
19.3	Requires extra resources	
19.3.a	Severity of Cost	Doesn't apply
19.3.b	Frequency Cost is Experienced	N/A
19.4	Requires the creation of a new password	
19.4.a	Severity of Cost	Doesn't apply
19.4.b	Frequency Cost is Experienced	N/A
19.5	Increases the computing power needed	
19.5.a	Severity of Cost	Doesn't apply
19.5.b	Frequency Cost is Experienced	N/A
19.6	Requires other extra time or effort	

19.6.a	Severity of Cost	Doesn't apply
19.6.b	Frequency Cost is Experienced	N/A
19.a	Do you approve of this advice?	Neutral
19.b	Comments	I don't know what a password manager is. I keep a book of passwords which I guard like my credit card!

20	Every user in an organisation must have their own account	
20.1	Makes it more difficult to create a password	
20.1.a	Severity of Cost	Doesn't apply
20.1.b	Frequency Cost is Experienced	N/A
20.2	Makes it less easy to remember	
20.2.a	Severity of Cost	Doesn't apply
20.2.b	Frequency Cost is Experienced	N/A
20.3	Requires extra resources	
20.3.a	Severity of Cost	Doesn't apply
20.3.b	Frequency Cost is Experienced	N/A
20.4	Requires the creation of a new password	
20.4.a	Severity of Cost	Doesn't apply
20.4.b	Frequency Cost is Experienced	N/A
20.5	Increases the computing power needed	
20.5.a	Severity of Cost	Doesn't apply
20.5.b	Frequency Cost is Experienced	N/A
20.6	Requires other extra time or effort	
20.6.a	Severity of Cost	Doesn't apply
20.6.b	Frequency Cost is Experienced	N/A
20.a	Do you approve of this advice?	Yes
20.b	Comments	

### Generated passwords

21	Passwords generated for you should be distribute in a sealed envelope

21.1 Makes it more difficult to create a password

21.1.a	Severity of Cost	
21.1.b	Frequency Cost is Experienced	
21.2	Makes it less easy to remember	
21.2.a	Severity of Cost	
21.2.b	Frequency Cost is Experienced	
21.3	Requires extra resources	
21.3.a	Severity of Cost	
21.3.b	Frequency Cost is Experienced	
21.4	Requires the creation of a new password	
21.4.a	Severity of Cost	
21.4.b	Frequency Cost is Experienced	
21.5	Increases the computing power needed	
21.5.a	Severity of Cost	
21.5.b	Frequency Cost is Experienced	
21.6	Requires other extra time or effort	
21.6.a	Severity of Cost	
21.6.b	Frequency Cost is Experienced	
21.a	Do you approve of this advice?	Yes
21.b	Comments	

#### **Final Comments**

22	Do you agree with the six cost categories that were used in the survey?	Somewhat
22.a	Are there any cost categories that you think should be added or removed?	

This is the end of the survey do you have any final comments?

Response ID	Completion date	
624487-624478-66147464	8 Oct 2020, 22:38 (BST)	

1	Informed consent	
1.1	The purpose and nature of this study has been explained to me.	
1.1.a		Yes
1.2	I am participating voluntarily.	
1.2.a		Yes
1.3	I understand that I can withdraw from the survey up until it is suppoint, as the survey is anonymous, it will not be possible to ide	
1.3.a		Yes
1.4	I understand the limits of confidentiality as described in the info	ormation sheet.
1.4.a		Yes
1.5	I understand that my anonymous responses may be used in futor from this study may be deposited in an archive if I give permiss	
1.5.a		Yes
2	I consent to participate in this survey:	Yes
3	Select a rank on the below scale from 1 (very poor) to 5 (very kno security knowledge.	wledgeable) to describe your internet
3.1	Internet security knowledge:	5

### Password composition advice

4	Include specific character types in your password. E.g. your password must include uppercase, lowercase, digit, symbol	
4.1	Makes it more difficult to create a password	
4.1.a	Severity of Cost	Major
4.1.b	Frequency Cost is Experienced	Periodic
4.2	Makes it less easy to remember	
4.2.a	Severity of Cost	Major
4.2.b	Frequency Cost is Experienced	At Login

4.3	Requires extra resources	
4.3.a	Severity of Cost	Doesn't apply
4.3.b	Frequency Cost is Experienced	N/A
4.4	Requires the creation of a new password	
4.4.a	Severity of Cost	Doesn't apply
4.4.b	Frequency Cost is Experienced	N/A
4.5	Increases the computing power needed	
4.5.a	Severity of Cost	Doesn't apply
4.5.b	Frequency Cost is Experienced	N/A
4.6	Requires other extra time or effort	
4.6.a	Severity of Cost	Positive
4.6.b	Frequency Cost is Experienced	Once off
4.a	Do you approve of this advice?	Neutral
4.b	Comments	Good idea for security, but painful for a user. Using a password manager removes the downsides of this advice.
5	Don't use patterns in your password. E.g. do not choose a passwo	rd such as "123abc"
5.1	Makes it more difficult to create a password	
5.1.a	Severity of Cost	Minor
5.1.b	Frequency Cost is Experienced	Periodic
5.2	Makes it less easy to remember	
5.2.a	Severity of Cost	Minor
5.2.b	Frequency Cost is Experienced	At Login
5.3	Requires extra resources	
5.3.a	Severity of Cost	Doesn't apply
5.3.b	Frequency Cost is Experienced	N/A
5.4	Requires the creation of a new password	
5.4.a	Severity of Cost	Doesn't apply
5.4.b	Frequency Cost is Experienced	N/A

Doesn't apply

N/A

Increases the computing power needed

Frequency Cost is Experienced

Severity of Cost

5.5

5.5.a

5.5.b

5.6	Requires other extra time or effort	
5.6.	Severity of Cost	Doesn't apply
5.6.	Frequency Cost is Experienced	N/A
5.a	Do you approve of this advice?	Yes
5.b	Comments	On its own, it's probably not effective for security. Would need to be combined with other policies.

6	Password cannot be too long (e.g. must be less than 40 characters)	
6.1	Makes it more difficult to create a password	
6.1.a	Severity of Cost	Minor
6.1.b	Frequency Cost is Experienced	Periodic
6.2	Makes it less easy to remember	
6.2.a	Severity of Cost	Minor
6.2.b	Frequency Cost is Experienced	At Login
6.3	Requires extra resources	
6.3.a	Severity of Cost	Doesn't apply
6.3.b	Frequency Cost is Experienced	N/A
6.4	Requires the creation of a new password	
6.4.a	Severity of Cost	Doesn't apply
6.4.b	Frequency Cost is Experienced	N/A
6.5	Increases the computing power needed	
6.5.a	Severity of Cost	Doesn't apply
6.5.b	Frequency Cost is Experienced	N/A
6.6	Requires other extra time or effort	
6.6.a	Severity of Cost	Doesn't apply
6.6.b	Frequency Cost is Experienced	N/A
6.a	Do you approve of this advice?	No
6.b	Comments	Terrible advice. The hashing function shouldn't care about length.

# Expiry

7	You should not be allowed to use a password that you used previ	ously on this website or computer
7.1	Makes it more difficult to create a password	
7.1.a	Severity of Cost	Major
7.1.b	Frequency Cost is Experienced	Periodic
7.2	Makes it less easy to remember	
7.2.a	Severity of Cost	Major
7.2.b	Frequency Cost is Experienced	At Login
7.3	Requires extra resources	
7.3.a	Severity of Cost	Doesn't apply
7.3.b	Frequency Cost is Experienced	N/A
7.4	Requires the creation of a new password	
7.4.a	Severity of Cost	Doesn't apply
7.4.b	Frequency Cost is Experienced	N/A
7.5	Increases the computing power needed	
7.5.a	Severity of Cost	Doesn't apply
7.5.b	Frequency Cost is Experienced	N/A
7.6	Requires other extra time or effort	
7.6.a	Severity of Cost	Positive
7.6.b	Frequency Cost is Experienced	Once off
7.a	Do you approve of this advice?	Yes
7.b	Comments	Good idea in general. Using a password manager removes the difficulty on the user.
8	Change your password regularly	
8.1	Makes it more difficult to create a password	
8.1.a	Severity of Cost	Major
8.1.b	Frequency Cost is Experienced	Periodic
8.2	Makes it less easy to remember	
8.2.a	Severity of Cost	Major
8.2.b	Frequency Cost is Experienced	At Login
8.3	Requires extra resources	
8.3.a	Severity of Cost	Doesn't apply

8.3.b	Frequency Cost is Experienced	N/A
8.4	Requires the creation of a new password	
8.4.a	Severity of Cost	Minor
8.4.b	Frequency Cost is Experienced	Periodic
8.5	Increases the computing power needed	
8.5.a	Severity of Cost	Doesn't apply
8.5.b	Frequency Cost is Experienced	N/A
8.6	Requires other extra time or effort	
8.6.a	Severity of Cost	Positive
8.6.b	Frequency Cost is Experienced	Periodic
8.a	Do you approve of this advice?	Neutral
8.b	Comments	Good idea in general, but only effective/reasonable if using a password manager.

#### Reuse

9	Never reuse a password	
9.1	Makes it more difficult to create a password	
9.1.a	Severity of Cost	Minor
9.1.b	Frequency Cost is Experienced	Periodic
9.2	Makes it less easy to remember	
9.2.a	Severity of Cost	Major
9.2.b	Frequency Cost is Experienced	At Login
9.3	Requires extra resources	
9.3.a	Severity of Cost	Doesn't apply
9.3.b	Frequency Cost is Experienced	N/A
9.4	Requires the creation of a new password	
9.4.a	Severity of Cost	Doesn't apply
9.4.b	Frequency Cost is Experienced	N/A
9.5	Increases the computing power needed	
9.5.a	Severity of Cost	Doesn't apply
9.5.b	Frequency Cost is Experienced	N/A

9.6	Requires other extra time or effort	
9.6.a	Severity of Cost	Positive
9.6.b	Frequency Cost is Experienced	Periodic
9.a	Do you approve of this advice?	Yes
9.b	Comments	Good idea in general, but only effective/reasonable if using a password manager.

10	Don't reuse certain passwords between websites or computers	
10.1	Makes it more difficult to create a password	
10.1.a	Severity of Cost	Positive
10.1.b	Frequency Cost is Experienced	Periodic
10.2	Makes it less easy to remember	
10.2.a	Severity of Cost	Major
10.2.b	Frequency Cost is Experienced	At Login
10.3	Requires extra resources	
10.3.a	Severity of Cost	Doesn't apply
10.3.b	Frequency Cost is Experienced	N/A
10.4	Requires the creation of a new password	
10.4.a	Severity of Cost	Positive
10.4.b	Frequency Cost is Experienced	Periodic
10.5	Increases the computing power needed	
10.5.a	Severity of Cost	Doesn't apply
10.5.b	Frequency Cost is Experienced	N/A
10.6	Requires other extra time or effort	
10.6.a	Severity of Cost	Positive
10.6.b	Frequency Cost is Experienced	Periodic
10.a	Do you approve of this advice?	Yes
10.b	Comments	Good idea in general, but only effective/reasonable if using a password manager.

# Sharing

11	Never share your password	
11.1	Makes it more difficult to create a password	
11.1.a	Severity of Cost	Doesn't apply
11.1.b	Frequency Cost is Experienced	N/A
11.2	Makes it less easy to remember	
11.2.a	Severity of Cost	Doesn't apply
11.2.b	Frequency Cost is Experienced	N/A
11.3	Requires extra resources	
11.3.a	Severity of Cost	Doesn't apply
11.3.b	Frequency Cost is Experienced	N/A
11.4	Requires the creation of a new password	
11.4.a	Severity of Cost	Minor
11.4.b	Frequency Cost is Experienced	Periodic
11.5	Increases the computing power needed	
11.5.a	Severity of Cost	Doesn't apply
11.5.b	Frequency Cost is Experienced	N/A
11.6	Requires other extra time or effort	
11.6.a	Severity of Cost	Minor
11.6.b	Frequency Cost is Experienced	Periodic
11.a	Do you approve of this advice?	Yes
11.b	Comments	Good advice. Requires more system storage for individual profiles.
12	Keep your Email up-to-date and secure	
12.1	Makes it more difficult to create a password	
12.1.a	Severity of Cost	Doesn't apply
12.1.b	Frequency Cost is Experienced	N/A
12.2	Makes it less easy to remember	
12.2.a	Severity of Cost	Doesn't apply
12.2.b	Frequency Cost is Experienced	N/A
12.3	Requires extra resources	
12.3.a	Severity of Cost	Doesn't apply

12.3.b	Frequency Cost is Experienced	N/A
12.4	Requires the creation of a new password	
12.4.a	Severity of Cost	Doesn't apply
12.4.b	Frequency Cost is Experienced	N/A
12.5	Increases the computing power needed	
12.5.a	Severity of Cost	Doesn't apply
12.5.b	Frequency Cost is Experienced	N/A
12.6	Requires other extra time or effort	
12.6.a	Severity of Cost	Positive
12.6.b	Frequency Cost is Experienced	Periodic
12.a	Do you approve of this advice?	Yes
12.b	Comments	
13	Keep software updated	
13.1	Makes it more difficult to create a password	
13.1.a	Severity of Cost	
13.1.b	Frequency Cost is Experienced	
13.2	Makes it less easy to remember	
13.2.a	Severity of Cost	
13.2.b	Frequency Cost is Experienced	
13.3	Requires extra resources	
13.3.a	Severity of Cost	
13.3.b	Frequency Cost is Experienced	
13.4	Requires the creation of a new password	
13.4.a	Severity of Cost	
13.4.b	Frequency Cost is Experienced	
13.5	Increases the computing power needed	
13.5.a	Severity of Cost	
13.5.b	Frequency Cost is Experienced	
13.6	Requires other extra time or effort	
13.6.a	Severity of Cost	Positive
13.6.b	Frequency Cost is Experienced	Periodic

Yes

Do you approve of this advice?

13.a

#### 13.b Comments

14	Change the default passwords on your devices e.g. wifi, smart light bulbs etc.	
14.1	Makes it more difficult to create a password	
14.1.a	Severity of Cost	Major
14.1.b	Frequency Cost is Experienced	Periodic
14.2	Makes it less easy to remember	
14.2.a	Severity of Cost	Major
14.2.b	Frequency Cost is Experienced	At Login
14.3	Requires extra resources	
14.3.a	Severity of Cost	Doesn't apply
14.3.b	Frequency Cost is Experienced	N/A
14.4	Requires the creation of a new password	
14.4.a	Severity of Cost	Positive
14.4.b	Frequency Cost is Experienced	Periodic
14.5	Increases the computing power needed	
14.5.a	Severity of Cost	Doesn't apply
14.5.b	Frequency Cost is Experienced	N/A
14.6	Requires other extra time or effort	
14.6.a	Severity of Cost	Positive
14.6.b	Frequency Cost is Experienced	Periodic
14.a	Do you approve of this advice?	Yes
14.b	Comments	Good idea in general, but only effective/reasonable if using a password manager.

### Logging in

15	You should not be able to paste your password when logging in	
15.1	Makes it more difficult to create a password	
15.1.a	Severity of Cost	Major
15.1.b	Frequency Cost is Experienced	At Login
15.2	Makes it less easy to remember	

15.2.a	Severity of Cost	Major
15.2.b	Frequency Cost is Experienced	At Login
15.3	Requires extra resources	
15.3.a	Severity of Cost	Doesn't apply
15.3.b	Frequency Cost is Experienced	N/A
15.4	Requires the creation of a new password	
15.4.a	Severity of Cost	Doesn't apply
15.4.b	Frequency Cost is Experienced	N/A
15.5	Increases the computing power needed	
15.5.a	Severity of Cost	Doesn't apply
15.5.b	Frequency Cost is Experienced	N/A
15.6	Requires other extra time or effort	
15.6.a	Severity of Cost	Major
15.6.b	Frequency Cost is Experienced	At Login
15.a	Do you approve of this advice?	No
15.b	Comments	Terrible, outdated idea. User becomes frustrated and loses interest in site. Should allow pasting from password managers.

#### Username

16	Your username should include specific character types (e.g. contain a minimum of 3 letters and 3 numbers)	
16.1	Makes it more difficult to create a password	
16.1.a	Severity of Cost	Doesn't apply
16.1.b	Frequency Cost is Experienced	N/A
16.2	Makes it less easy to remember	
16.2.a	Severity of Cost	Minor
16.2.b	Frequency Cost is Experienced	At Login
16.3	Requires extra resources	
16.3.a	Severity of Cost	Doesn't apply
16.3.b	Frequency Cost is Experienced	N/A

16.4	Requires the creation of a new password	
16.4.a	Severity of Cost	Doesn't apply
16.4.b	Frequency Cost is Experienced	N/A
16.5	Increases the computing power needed	
16.5.a	Severity of Cost	Doesn't apply
16.5.b	Frequency Cost is Experienced	N/A
16.6	Requires other extra time or effort	
16.6 16.6.a	Requires other extra time or effort  Severity of Cost	Minor
	· ·	Minor Periodic
16.6.a	Severity of Cost	

#### Two factor authentication

17	You should use 2-factor authentication when logging into accounts (e.g. enter an additional code from an app, text or a special device)	
17.1	Makes it more difficult to create a password	
17.1.a	Severity of Cost	Doesn't apply
17.1.b	Frequency Cost is Experienced	N/A
17.2	Makes it less easy to remember	
17.2.a	Severity of Cost	Doesn't apply
17.2.b	Frequency Cost is Experienced	N/A
17.3	Requires extra resources	
17.3.a	Severity of Cost	Positive
17.3.b	Frequency Cost is Experienced	At Login
17.4	Requires the creation of a new password	
17.4.a	Severity of Cost	Doesn't apply
17.4.b	Frequency Cost is Experienced	N/A
17.5	Increases the computing power needed	
17.5.a	Severity of Cost	Minor
17.5.b	Frequency Cost is Experienced	Periodic

17.6	Requires other extra time or effort	
17.6.a	Severity of Cost	Minor
17.6.b	Frequency Cost is Experienced	Periodic
17.a	Do you approve of this advice?	Yes
17.b	Comments	Good idea in general, but should be combined with "remember me for X days" to be less onerous. Assumes the user has access to a smart phone (ubiquitous now?) or device; could be problematic for some people.

18	You should use 2-factor authentication (e.g. an extra PIN) when logging into accounts remotely	
18.1	Makes it more difficult to create a password	
18.1.a	Severity of Cost	Doesn't apply
18.1.b	Frequency Cost is Experienced	N/A
18.2	Makes it less easy to remember	
18.2.a	Severity of Cost	Doesn't apply
18.2.b	Frequency Cost is Experienced	N/A
18.3	Requires extra resources	
18.3.a	Severity of Cost	Positive
18.3.b	Frequency Cost is Experienced	At Login
18.4	Requires the creation of a new password	
18.4.a	Severity of Cost	Minor
18.4.b	Frequency Cost is Experienced	Periodic
18.5	Increases the computing power needed	
18.5.a	Severity of Cost	Doesn't apply
18.5.b	Frequency Cost is Experienced	N/A
18.6	Requires other extra time or effort	
18.6.a	Severity of Cost	Minor
18.6.b	Frequency Cost is Experienced	Periodic
18.a	Do you approve of this advice?	Yes
18.b	Comments	Good idea for remote logins

### Password manager

19	You should use a password manager to store your passwords	
19.1	Makes it more difficult to create a password	
19.1.a	Severity of Cost	Positive
19.1.b	Frequency Cost is Experienced	Periodic
19.2	Makes it less easy to remember	
19.2.a	Severity of Cost	Positive
19.2.b	Frequency Cost is Experienced	Periodic
19.3	Requires extra resources	
19.3.a	Severity of Cost	Minor
19.3.b	Frequency Cost is Experienced	Periodic
19.4	Requires the creation of a new password	
19.4.a	Severity of Cost	Positive
19.4.b	Frequency Cost is Experienced	Periodic
19.5	Increases the computing power needed	
19.5.a	Severity of Cost	Minor
19.5.b	Frequency Cost is Experienced	Periodic
19.6	Requires other extra time or effort	
19.6.a	Severity of Cost	Positive
19.6.b	Frequency Cost is Experienced	Once off
19.a	Do you approve of this advice?	Yes
19.b	Comments	Would almost consider it essential for modern Internet usage. Some additional setup and potentially cost, but absolutely worth it.
20	Every user in an organisation must have their own account	
20.1	Makes it more difficult to create a password	
20.1.a	Severity of Cost	Doesn't apply
20.1.b	Frequency Cost is Experienced	N/A
20.2	Makes it less easy to remember	
20.2.a	Severity of Cost	Doesn't apply

20.2.b	Frequency Cost is Experienced	N/A
20.3	Requires extra resources	
20.3.a	Severity of Cost	Doesn't apply
20.3.b	Frequency Cost is Experienced	N/A
20.4	Requires the creation of a new password	
20.4.a	Severity of Cost	Doesn't apply
20.4.b	Frequency Cost is Experienced	N/A
20.5	Increases the computing power needed	
20.5.a	Severity of Cost	Major
20.5.b	Frequency Cost is Experienced	Periodic
20.6	Requires other extra time or effort	
20.6.a	Severity of Cost	Doesn't apply
20.6.b	Frequency Cost is Experienced	N/A
20.a	Do you approve of this advice?	Yes
20.b	Comments	Additional storage required for the org. Additional resources around user management and security management. But the alternative is unthinkable now.

### Generated passwords

21	Passwords generated for you should be distribute in a sealed envelope	
21.1	Makes it more difficult to create a password	
21.1.a	Severity of Cost	Doesn't apply
21.1.b	Frequency Cost is Experienced	N/A
21.2	Makes it less easy to remember	
21.2.a	Severity of Cost	Minor
21.2.b	Frequency Cost is Experienced	Once off
21.3	Requires extra resources	
21.3.a	Severity of Cost	Doesn't apply
21.3.b	Frequency Cost is Experienced	
21.4	Requires the creation of a new password	
21.4.a	Severity of Cost	Minor

21.4.b	Frequency Cost is Experienced	Once off
21.5	Increases the computing power needed	
21.5.a	Severity of Cost	Doesn't apply
21.5.b	Frequency Cost is Experienced	N/A
21.6	Requires other extra time or effort	
21.6.a	Severity of Cost	Minor
21.6.b	Frequency Cost is Experienced	Periodic
21.a	Do you approve of this advice?	Yes
21.b	Comments	Good idea for mass sign-up, eg students at start of year. Very costly for the org though.

#### **Final Comments**

22	Do you agree with the six cost categories that were used in the survey?	Yes
22.a	Are there any cost categories that you think should be added or removed?	
23	This is the end of the survey do you have any final comments?	I got confused at times considering the questions from the point of view of the user, or the organisation.

Response ID	Completion date	
624487-624478-66149144	8 Oct 2020, 23:09 (BST)	

1	Informed consent	
1.1	The purpose and nature of this study has been explained to me	
1.1.a		Yes
1.2	I am participating voluntarily.	
1.2.a		Yes
1.3	I understand that I can withdraw from the survey up until it is suppoint, as the survey is anonymous, it will not be possible to ide	
1.3.a		Yes
1.4	I understand the limits of confidentiality as described in the info	ormation sheet.
1.4.a		Yes
1.5	1.5 I understand that my anonymous responses may be used in future research projects and the data from this study may be deposited in an archive if I give permission here.	
1.5.a		Yes
2	I consent to participate in this survey:	Yes
3	Select a rank on the below scale from 1 (very poor) to 5 (very kno security knowledge.	wledgeable) to describe your internet
3.1	Internet security knowledge:	3

## Password composition advice

4	Include specific character types in your password. E.g. your password must include uppercase, lowercase, digit, symbol	
4.1	Makes it more difficult to create a password	
4.1.a	Severity of Cost	Doesn't apply
4.1.b	Frequency Cost is Experienced	N/A
4.2	Makes it less easy to remember	
4.2.a	Severity of Cost	Minor
4.2.b	Frequency Cost is Experienced	N/A

4.3	Requires extra resources	
4.3.a	Severity of Cost	Minor
4.3.b	Frequency Cost is Experienced	N/A
4.4	Requires the creation of a new password	
4.4.a	Severity of Cost	Minor
4.4.b	Frequency Cost is Experienced	N/A
4.5	Increases the computing power needed	
4.5.a	Severity of Cost	Doesn't apply
4.5.b	Frequency Cost is Experienced	N/A
4.6	Requires other extra time or effort	
4.6.a	Severity of Cost	Doesn't apply
4.6.b	Frequency Cost is Experienced	N/A
4.a	Do you approve of this advice?	Yes
4.b	Comments	
5	Don't use patterns in your password. E.g. do not choose a passwo	rd such as "123abc"
5.1	Makes it more difficult to create a password	
5.1.a	Severity of Cost	Doesn't apply
5.1.a 5.1.b	Severity of Cost Frequency Cost is Experienced	Doesn't apply N/A
5.1.a 5.1.b 5.2	Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember	N/A
5.1.a 5.1.b 5.2 5.2.a	Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost	N/A  Doesn't apply
5.1.a 5.1.b 5.2 5.2.a 5.2.b	Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced	N/A
5.1.a 5.1.b 5.2 5.2.a 5.2.b 5.3	Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources	N/A  Doesn't apply N/A
5.1.a 5.1.b 5.2 5.2.a 5.2.b 5.3.a	Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources  Severity of Cost	N/A  Doesn't apply  N/A  Doesn't apply
5.1.a 5.1.b 5.2 5.2.a 5.2.b 5.3.a 5.3.b	Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources  Severity of Cost  Frequency Cost is Experienced	N/A  Doesn't apply N/A
5.1.a 5.1.b 5.2 5.2.a 5.2.b 5.3 5.3.a 5.3.b 5.4	Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources  Severity of Cost  Frequency Cost is Experienced  Requires the creation of a new password	N/A  Doesn't apply N/A  Doesn't apply N/A
5.1.a 5.1.b 5.2 5.2.a 5.2.b 5.3 5.3.a 5.3.b 5.4 5.4.a	Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources  Severity of Cost  Frequency Cost is Experienced  Requires the creation of a new password  Severity of Cost	N/A  Doesn't apply  N/A  Doesn't apply  N/A  Doesn't apply
5.1.a 5.1.b 5.2 5.2.a 5.2.b 5.3.a 5.3.a 5.3.b 5.4.a 5.4.a	Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources  Severity of Cost  Frequency Cost is Experienced  Requires the creation of a new password  Severity of Cost  Frequency Cost is Experienced	N/A  Doesn't apply N/A  Doesn't apply N/A
5.1.a 5.1.b 5.2 5.2.a 5.2.b 5.3.a 5.3.a 5.3.b 5.4.a 5.4.b 5.5.5	Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources  Severity of Cost  Frequency Cost is Experienced  Requires the creation of a new password  Severity of Cost  Frequency Cost is Experienced  Increases the computing power needed	N/A  Doesn't apply  N/A  Doesn't apply  N/A  Doesn't apply  N/A
5.1.a 5.1.b 5.2 5.2.a 5.2.b 5.3.a 5.3.a 5.3.b 5.4.a 5.4.a 5.4.b 5.5.a	Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources  Severity of Cost  Frequency Cost is Experienced  Requires the creation of a new password  Severity of Cost  Frequency Cost is Experienced  Increases the computing power needed  Severity of Cost	N/A  Doesn't apply N/A  Doesn't apply N/A  Doesn't apply N/A  Doesn't apply
5.1.a 5.1.b 5.2 5.2.a 5.2.b 5.3.a 5.3.a 5.3.b 5.4.a 5.4.b 5.5.5	Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources  Severity of Cost  Frequency Cost is Experienced  Requires the creation of a new password  Severity of Cost  Frequency Cost is Experienced  Increases the computing power needed	N/A  Doesn't apply  N/A  Doesn't apply  N/A  Doesn't apply  N/A

Doesn't apply

Severity of Cost

5.6.a

5.6.b	Frequency Cost is Experienced	N/A
5.a	Do you approve of this advice?	Neutral
5.b	Comments	

6	Password cannot be too long (e.g. must be less than 40 characters	s)
6.1	Makes it more difficult to create a password	
6.1.a	Severity of Cost	Minor
6.1.b	Frequency Cost is Experienced	N/A
6.2	Makes it less easy to remember	
6.2.a	Severity of Cost	Doesn't apply
6.2.b	Frequency Cost is Experienced	N/A
6.3	Requires extra resources	
6.3.a	Severity of Cost	Doesn't apply
6.3.b	Frequency Cost is Experienced	N/A
6.4	Requires the creation of a new password	
6.4.a	Severity of Cost	Doesn't apply
6.4.b	Frequency Cost is Experienced	N/A
6.5	Increases the computing power needed	
6.5.a	Severity of Cost	Doesn't apply
6.5.b	Frequency Cost is Experienced	N/A
6.6	Requires other extra time or effort	
6.6.a	Severity of Cost	Doesn't apply
6.6.b	Frequency Cost is Experienced	N/A
6.a	Do you approve of this advice?	Neutral
6.b	Comments	

# Expiry

7	You should not be allowed to use a password that you used previously on this website or computer	
7.1	Makes it more difficult to create a password	
7.1.a	Severity of Cost	Doesn't apply
7.1.b	Frequency Cost is Experienced	N/A

7.2	Makes it less easy to remember	
7.2.a	Severity of Cost	Doesn't apply
7.2.b	Frequency Cost is Experienced	N/A
7.3	Requires extra resources	
7.3.a	Severity of Cost	Doesn't apply
7.3.b	Frequency Cost is Experienced	N/A
7.4	Requires the creation of a new password	
7.4.a	Severity of Cost	Doesn't apply
7.4.b	Frequency Cost is Experienced	N/A
7.5	Increases the computing power needed	
7.5.a	Severity of Cost	Doesn't apply
7.5.b	Frequency Cost is Experienced	N/A
7.6	Requires other extra time or effort	
7.6.a	Severity of Cost	Doesn't apply
7.6.b	Frequency Cost is Experienced	N/A
7.a	Do you approve of this advice?	Neutral
7.b	Comments	
7.b	Change your password regularly	
8 8.1	Change your password regularly  Makes it more difficult to create a password	
8 8.1 8.1.a	Change your password regularly  Makes it more difficult to create a password  Severity of Cost	Doesn't apply
8 8.1 8.1.a 8.1.b	Change your password regularly  Makes it more difficult to create a password  Severity of Cost  Frequency Cost is Experienced	Doesn't apply N/A
8 8.1.a 8.1.b 8.2	Change your password regularly  Makes it more difficult to create a password  Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember	N/A
8 8.1.a 8.1.b 8.2 8.2.a	Change your password regularly  Makes it more difficult to create a password  Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost	N/A  Doesn't apply
8 8.1.a 8.1.b 8.2 8.2.a 8.2.b	Change your password regularly  Makes it more difficult to create a password  Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced	N/A
8 8.1.a 8.1.b 8.2 8.2.a 8.2.b 8.3	Change your password regularly  Makes it more difficult to create a password  Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources	N/A  Doesn't apply
8 8.1.a 8.1.b 8.2 8.2.a 8.2.b	Change your password regularly  Makes it more difficult to create a password  Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced	N/A  Doesn't apply
8 8.1.a 8.1.b 8.2 8.2.a 8.2.b 8.3.a 8.3.b	Change your password regularly  Makes it more difficult to create a password  Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources  Severity of Cost  Frequency Cost is Experienced	N/A  Doesn't apply N/A
8 8.1.a 8.1.b 8.2 8.2.a 8.2.b 8.3 8.3.a 8.3.b 8.4	Change your password regularly  Makes it more difficult to create a password  Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources  Severity of Cost  Frequency Cost is Experienced  Requires the creation of a new password	N/A  Doesn't apply  N/A  Doesn't apply
8 8.1.a 8.1.b 8.2 8.2.a 8.2.b 8.3.a 8.3.b	Change your password regularly  Makes it more difficult to create a password  Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources  Severity of Cost  Frequency Cost is Experienced	N/A  Doesn't apply  N/A  Doesn't apply
8 8.1.a 8.1.b 8.2 8.2.a 8.2.b 8.3 8.3.a 8.3.b 8.4	Change your password regularly  Makes it more difficult to create a password  Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources  Severity of Cost  Frequency Cost is Experienced  Requires the creation of a new password	N/A  Doesn't apply N/A  Doesn't apply N/A
8 8.1.a 8.1.b 8.2 8.2.a 8.2.b 8.3 8.3.a 8.3.b 8.4.a	Change your password regularly  Makes it more difficult to create a password  Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources  Severity of Cost  Frequency Cost is Experienced  Requires the creation of a new password  Severity of Cost	N/A  Doesn't apply N/A  Doesn't apply N/A  Doesn't apply

8.5.b	Frequency Cost is Experienced	N/A
8.6	Requires other extra time or effort	
8.6.a	Severity of Cost	Minor
8.6.b	Frequency Cost is Experienced	N/A
8.a	Do you approve of this advice?	No
8.b	Comments	Results in people writing down passwords and incrementing a number in the password to create a new onedefeats the purpose in my view.

## Reuse

9	Never reuse a password	
9.1	Makes it more difficult to create a password	
9.1.a	Severity of Cost	Doesn't apply
9.1.b	Frequency Cost is Experienced	N/A
9.2	Makes it less easy to remember	
9.2.a	Severity of Cost	Doesn't apply
9.2.b	Frequency Cost is Experienced	N/A
9.3	Requires extra resources	
9.3.a	Severity of Cost	Doesn't apply
9.3.b	Frequency Cost is Experienced	N/A
9.4	Requires the creation of a new password	
9.4.a	Severity of Cost	Doesn't apply
9.4.b	Frequency Cost is Experienced	N/A
9.5	Increases the computing power needed	
9.5.a	Severity of Cost	Doesn't apply
9.5.b	Frequency Cost is Experienced	N/A
9.6	Requires other extra time or effort	
9.6.a	Severity of Cost	Doesn't apply
9.6.b	Frequency Cost is Experienced	N/A
9.a	Do you approve of this advice?	Neutral

9.b Commen
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10	Don't reuse certain passwords between websites or computers	
10.1	Makes it more difficult to create a password	
10.1.a	Severity of Cost	Doesn't apply
10.1.b	Frequency Cost is Experienced	N/A
10.2	Makes it less easy to remember	
10.2.a	Severity of Cost	Doesn't apply
10.2.b	Frequency Cost is Experienced	N/A
10.3	Requires extra resources	
10.3.a	Severity of Cost	Doesn't apply
10.3.b	Frequency Cost is Experienced	N/A
10.4	Requires the creation of a new password	
10.4.a	Severity of Cost	Doesn't apply
10.4.b	Frequency Cost is Experienced	N/A
10.5	Increases the computing power needed	
10.5.a	Severity of Cost	Doesn't apply
10.5.b	Frequency Cost is Experienced	N/A
10.6	Requires other extra time or effort	
10.6.a	Severity of Cost	Minor
10.6.b	Frequency Cost is Experienced	N/A
10.a	Do you approve of this advice?	Yes
10.b	Comments	

# Sharing

11	Never share your password	
11.1	Makes it more difficult to create a password	
11.1.a	Severity of Cost	Doesn't apply
11.1.b	Frequency Cost is Experienced	N/A
11.2	Makes it less easy to remember	
11.2.a	Severity of Cost	Doesn't apply

11 2 h	Francisco Contribution and	NIZA
11.2.b	Frequency Cost is Experienced	N/A
11.3	Requires extra resources	5 " '
11.3.a	Severity of Cost	Doesn't apply
11.3.b	Frequency Cost is Experienced	N/A
11.4	Requires the creation of a new password	-
11.4.a	Severity of Cost	Doesn't apply
11.4.b	Frequency Cost is Experienced	N/A
11.5	Increases the computing power needed	
11.5.a	Severity of Cost	Doesn't apply
11.5.b	Frequency Cost is Experienced	N/A
11.6	Requires other extra time or effort	
11.6.a	Severity of Cost	Doesn't apply
11.6.b	Frequency Cost is Experienced	N/A
<b>11.</b> a	Do you approve of this advice?	Yes
11.b	Comments	
12	Keep your Email up-to-date and secure	
12.1	Makes it more difficult to create a password	
12.1.a	Severity of Cost	Doesn't apply
12.1.b	Frequency Cost is Experienced	N/A
12.2	Makes it less easy to remember	
12.2.a	Severity of Cost	Doesn't apply
12.2.b	Frequency Cost is Experienced	N/A
12.3	Requires extra resources	
12.3.a	Severity of Cost	Doesn't apply
12.3.b	Frequency Cost is Experienced	N/A
12.4	Requires the creation of a new password	
12.4.a	Severity of Cost	Doesn't apply
12.4.b	Frequency Cost is Experienced	N/A
12.5	Increases the computing power needed	
12.5.a	Severity of Cost	Doesn't apply
12.5.b	Frequency Cost is Experienced	N/A

12.6

Requires other extra time or effort

12.6.a	Severity of Cost	Doesn't apply
12.6.b	Frequency Cost is Experienced	N/A
12.a	Do you approve of this advice?	Neutral
12.b	Comments	
13	Keep software updated	
13.1	Makes it more difficult to create a password	
13.1.a	Severity of Cost	
13.1.b	Frequency Cost is Experienced	
13.2	Makes it less easy to remember	
13.2.a	Severity of Cost	
13.2.b	Frequency Cost is Experienced	
13.3	Requires extra resources	
13.3.a	Severity of Cost	
13.3.b	Frequency Cost is Experienced	
13.4	Requires the creation of a new password	
13.4.a	Severity of Cost	
13.4.b	Frequency Cost is Experienced	
13.5	Increases the computing power needed	
13.5.a	Severity of Cost	
13.5.b	Frequency Cost is Experienced	
13.6	Requires other extra time or effort	
13.6.a	Severity of Cost	
13.6.b	Frequency Cost is Experienced	
13.a	Do you approve of this advice?	Yes
13.b	Comments	
14	Change the default passwords on your devices e.g. wifi, smart lig	ht bulbs etc.
14.1	Makes it more difficult to create a password	
14.1.a	Severity of Cost	Doesn't apply
14.1.b	Frequency Cost is Experienced	N/A
14.2	Makes it less easy to remember	
14.2.a	Severity of Cost	Doesn't apply

14.2.b	Frequency Cost is Experienced	N/A
14.3	Requires extra resources	
14.3.a	Severity of Cost	Doesn't apply
14.3.b	Frequency Cost is Experienced	N/A
14.4	Requires the creation of a new password	
14.4.a	Severity of Cost	Doesn't apply
14.4.b	Frequency Cost is Experienced	N/A
14.5	Increases the computing power needed	
14.5.a	Severity of Cost	Doesn't apply
14.5.b	Frequency Cost is Experienced	N/A
14.6	Requires other extra time or effort	
14.6.a	Severity of Cost	Doesn't apply
14.6.b	Frequency Cost is Experienced	N/A
14.a	Do you approve of this advice?	Yes
14.b	Comments	

## Logging in

15	You should not be able to paste your password when logging in	
15.1	Makes it more difficult to create a password	
15.1.a	Severity of Cost	Doesn't apply
15.1.b	Frequency Cost is Experienced	N/A
15.2	Makes it less easy to remember	
15.2.a	Severity of Cost	Doesn't apply
15.2.b	Frequency Cost is Experienced	N/A
15.3	Requires extra resources	
15.3.a	Severity of Cost	Doesn't apply
15.3.b	Frequency Cost is Experienced	N/A
15.4	Requires the creation of a new password	
15.4.a	Severity of Cost	Doesn't apply
15.4.b	Frequency Cost is Experienced	N/A
15.5	Increases the computing power needed	

15.5.a	Severity of Cost	Doesn't apply
15.5.b	Frequency Cost is Experienced	N/A
15.6	Requires other extra time or effort	
15.6.a	Severity of Cost	Minor
15.6.b	Frequency Cost is Experienced	N/A
15.a	Do you approve of this advice?	Neutral
15.b	Comments	

### Username

16	Your username should include specific character types (e.g. contain a minimum of 3 letters and 3 numbers)	
16.1	Makes it more difficult to create a password	
16.1.a	Severity of Cost	Doesn't apply
16.1.b	Frequency Cost is Experienced	N/A
16.2	Makes it less easy to remember	
16.2.a	Severity of Cost	Minor
16.2.b	Frequency Cost is Experienced	N/A
16.3	Requires extra resources	
16.3.a	Severity of Cost	Doesn't apply
16.3.b	Frequency Cost is Experienced	N/A
16.4	Requires the creation of a new password	
16.4.a	Severity of Cost	Doesn't apply
16.4.b	Frequency Cost is Experienced	N/A
16.5	Increases the computing power needed	
16.5.a	Severity of Cost	Doesn't apply
16.5.b	Frequency Cost is Experienced	N/A
16.6	Requires other extra time or effort	
16.6.a	Severity of Cost	Minor
16.6.b	Frequency Cost is Experienced	N/A
16.a	Do you approve of this advice?	No
16.b	Comments	

## Two factor authentication

17	You should use 2-factor authentication when logging into accounts (e.g. enter an additional code from an app, text or a special device)	
17.1	Makes it more difficult to create a password	
17.1.a	Severity of Cost	Doesn't apply
17.1.b	Frequency Cost is Experienced	N/A
17.2	Makes it less easy to remember	
17.2.a	Severity of Cost	Doesn't apply
17.2.b	Frequency Cost is Experienced	N/A
17.3	Requires extra resources	
17.3.a	Severity of Cost	Minor
17.3.b	Frequency Cost is Experienced	N/A
17.4	Requires the creation of a new password	
17.4.a	Severity of Cost	Doesn't apply
17.4.b	Frequency Cost is Experienced	N/A
17.5	Increases the computing power needed	
17.5.a	Severity of Cost	Doesn't apply
17.5.b	Frequency Cost is Experienced	N/A
17.6	Requires other extra time or effort	
17.6.a	Severity of Cost	Minor
17.6.b	Frequency Cost is Experienced	N/A
17.a	Do you approve of this advice?	No
17.b	Comments	At this stage I have a box of card readers and code generators as well as phone apps and spend a good part of my day switching back and forth and looking for cards and readers to go with the relevant service or client. A major headache and consumer of time.

18	You should use 2-factor authentication (e.g. an extra PIN) when logging into accounts remotely	
18.1	Makes it more difficult to create a password	
18.1.a	Severity of Cost	Doesn't apply
18.1.b	Frequency Cost is Experienced	N/A

18.2	Makes it less easy to remember	
18.2.a	Severity of Cost	Doesn't apply
18.2.b	Frequency Cost is Experienced	N/A
18.3	Requires extra resources	
18.3.a	Severity of Cost	Doesn't apply
18.3.b	Frequency Cost is Experienced	N/A
18.4	Requires the creation of a new password	
18.4.a	Severity of Cost	Doesn't apply
18.4.b	Frequency Cost is Experienced	N/A
18.5	Increases the computing power needed	
18.5.a	Severity of Cost	Doesn't apply
18.5.b	Frequency Cost is Experienced	N/A
18.6	Requires other extra time or effort	
18.6.a	Severity of Cost	Major
18.6.b	Frequency Cost is Experienced	Periodic
18.a	Do you approve of this advice?	No
18.b	Comments	

## Password manager

19	You should use a password manager to store your passwords	
19.1	Makes it more difficult to create a password	
19.1.a	Severity of Cost	Doesn't apply
19.1.b	Frequency Cost is Experienced	N/A
19.2	Makes it less easy to remember	
19.2.a	Severity of Cost	Doesn't apply
19.2.b	Frequency Cost is Experienced	N/A
19.3	Requires extra resources	
19.3.a	Severity of Cost	Minor
19.3.b	Frequency Cost is Experienced	N/A
19.4	Requires the creation of a new password	
19.4.a	Severity of Cost	Doesn't apply

19.4.b	Frequency Cost is Experienced	N/A
19.5	Increases the computing power needed	
19.5.a	Severity of Cost	Doesn't apply
19.5.b	Frequency Cost is Experienced	N/A
19.6	Requires other extra time or effort	
19.6.a	Severity of Cost	Minor
19.6.b	Frequency Cost is Experienced	At Login
19.a	Do you approve of this advice?	Yes
19.b	Comments	

20	Every user in an organisation must have their own account	
20.1	Makes it more difficult to create a password	
20.1.a	Severity of Cost	Doesn't apply
20.1.b	Frequency Cost is Experienced	N/A
20.2	Makes it less easy to remember	
20.2.a	Severity of Cost	Doesn't apply
20.2.b	Frequency Cost is Experienced	N/A
20.3	Requires extra resources	
20.3.a	Severity of Cost	Doesn't apply
20.3.b	Frequency Cost is Experienced	N/A
20.4	Requires the creation of a new password	
20.4.a	Severity of Cost	Doesn't apply
20.4.b	Frequency Cost is Experienced	N/A
20.5	Increases the computing power needed	
20.5.a	Severity of Cost	Doesn't apply
20.5.b	Frequency Cost is Experienced	N/A
20.6	Requires other extra time or effort	
20.6.a	Severity of Cost	Doesn't apply
20.6.b	Frequency Cost is Experienced	N/A
20.a	Do you approve of this advice?	Yes
20.b	Comments	

## Generated passwords

21	Passwords generated for you should be distribute in a sealed env	elope
21.1	Makes it more difficult to create a password	
21.1.a	Severity of Cost	
21.1.b	Frequency Cost is Experienced	
21.2	Makes it less easy to remember	
21.2.a	Severity of Cost	
21.2.b	Frequency Cost is Experienced	
21.3	Requires extra resources	
21.3.a	Severity of Cost	
21.3.b	Frequency Cost is Experienced	
21.4	Requires the creation of a new password	
21.4.a	Severity of Cost	
21.4.b	Frequency Cost is Experienced	
21.5	Increases the computing power needed	
21.5.a	Severity of Cost	
21.5.b	Frequency Cost is Experienced	
21.6	Requires other extra time or effort	
21.6.a	Severity of Cost	
21.6.b	Frequency Cost is Experienced	
21.a	Do you approve of this advice?	No
21.b	Comments	Issue temp password and insist on changing it on 1st login.

## **Final Comments**

22	Do you agree with the six cost categories that were used in the survey?	No
22.a	Are there any cost categories that you think should be added or removed?	In most cases the categories seemed not applicable to the points so most were of no cost to me.

This is the end of the survey do you have any final comments?

Response ID	Completion date	
624487-624478-66157604	9 Oct 2020, 11:01 (BST)	

1	Informed consent	
1.1	The purpose and nature of this study has been explained to me.	
1.1.a		Yes
1.2	I am participating voluntarily.	
1.2.a		Yes
1.3	I understand that I can withdraw from the survey up until it is suppoint, as the survey is anonymous, it will not be possible to idea	
1.3.a		Yes
1.4	I understand the limits of confidentiality as described in the info	ormation sheet.
1.4.a		Yes
1.5	I understand that my anonymous responses may be used in future research projects and the data from this study may be deposited in an archive if I give permission here.	
1.5.a		Yes
2	I consent to participate in this survey:	Yes
3	Select a rank on the below scale from 1 (very poor) to 5 (very kno security knowledge.	wledgeable) to describe your internet
3.1	Internet security knowledge:	3

## Password composition advice

4	Include specific character types in your password. E.g. your password must include uppercase, lowercase, digit, symbol	
4.1	Makes it more difficult to create a password	
4.1.a	Severity of Cost	Minor
4.1.b	Frequency Cost is Experienced	Once off
4.2	Makes it less easy to remember	
4.2.a	Severity of Cost	Major
4.2.b	Frequency Cost is Experienced	At Login

4.3	Requires extra resources	
4.3.a	Severity of Cost	Minor
4.3.b	Frequency Cost is Experienced	Periodic
4.4	Requires the creation of a new password	
4.4.a	Severity of Cost	Minor
4.4.b	Frequency Cost is Experienced	Once off
4.5	Increases the computing power needed	
4.5.a	Severity of Cost	Don't know
4.5.b	Frequency Cost is Experienced	Don't know
4.6	Requires other extra time or effort	
4.6.a	Severity of Cost	Minor
4.6.b	Frequency Cost is Experienced	At Login
4.a	Do you approve of this advice?	No
4.b	Comments	
5	Don't use patterns in your password. E.g. do not choose a password	rd such as "123abc"
5.1	Makes it more difficult to create a password	
5.1.a	Severity of Cost	Minor
5.1.a 5.1.b	· · · · · · · · · · · · · · · · · · ·	Minor Once off
	Severity of Cost	
5.1.b	Severity of Cost Frequency Cost is Experienced	
5.1.b 5.2	Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember	Once off
5.1.b 5.2 5.2.a	Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost	Once off Minor
5.1.b 5.2 5.2.a 5.2.b	Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced	Once off Minor
5.1.b 5.2 5.2.a 5.2.b 5.3	Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources	Once off  Minor  At Login
5.1.b 5.2 5.2.a 5.2.b 5.3.a	Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources  Severity of Cost	Once off  Minor  At Login  Minor
5.1.b 5.2 5.2.a 5.2.b 5.3 5.3.a 5.3.b	Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources  Severity of Cost  Frequency Cost is Experienced	Once off  Minor  At Login  Minor
5.1.b 5.2 5.2.a 5.2.b 5.3 5.3.a 5.3.b 5.4	Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources  Severity of Cost  Frequency Cost is Experienced  Requires tra resources  Severity of Cost  Frequency Cost is Experienced  Requires the creation of a new password	Once off  Minor  At Login  Minor  At Login
5.1.b 5.2 5.2.a 5.2.b 5.3 5.3.a 5.3.b 5.4 5.4 5.4.a	Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources  Severity of Cost  Frequency Cost is Experienced  Requires the creation of a new password  Severity of Cost	Once off  Minor  At Login  Minor  At Login  Don't know
5.1.b 5.2 5.2.a 5.2.b 5.3 5.3.a 5.3.b 5.4 5.4.a 5.4.b	Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources  Severity of Cost  Frequency Cost is Experienced  Requires the creation of a new password  Severity of Cost  Frequency Cost is Experienced	Once off  Minor  At Login  Minor  At Login  Don't know
5.1.b 5.2 5.2.a 5.2.b 5.3 5.3.a 5.3.b 5.4 5.4.a 5.4.b 5.5	Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources  Severity of Cost  Frequency Cost is Experienced  Requires the creation of a new password  Severity of Cost  Frequency Cost is Experienced  Increases the computing power needed	Once off  Minor  At Login  Minor  At Login  Don't know  Once off

Minor

5.6.a

Severity of Cost

5.6.b	Frequency Cost is Experienced	Once off
5.a	Do you approve of this advice?	Yes
5.b	Comments	

6	Password cannot be too long (e.g. must be less than 40 characters)	
6.1	Makes it more difficult to create a password	
6.1.a	Severity of Cost	Doesn't apply
6.1.b	Frequency Cost is Experienced	N/A
6.2	Makes it less easy to remember	
6.2.a	Severity of Cost	Don't know
6.2.b	Frequency Cost is Experienced	N/A
6.3	Requires extra resources	
6.3.a	Severity of Cost	Doesn't apply
6.3.b	Frequency Cost is Experienced	N/A
6.4	Requires the creation of a new password	
6.4.a	Severity of Cost	Doesn't apply
6.4.b	Frequency Cost is Experienced	N/A
6.5	Increases the computing power needed	
6.5.a	Severity of Cost	Doesn't apply
6.5.b	Frequency Cost is Experienced	N/A
6.6	Requires other extra time or effort	
6.6.a	Severity of Cost	Doesn't apply
6.6.b	Frequency Cost is Experienced	N/A
6.a	Do you approve of this advice?	Yes
6.b	Comments	

# Expiry

7	You should not be allowed to use a password that you used previously on this website or computer	
7.1	Makes it more difficult to create a password	
7.1.a	Severity of Cost	Major
7.1.b	Frequency Cost is Experienced	Periodic

1		
7.2	Makes it less easy to remember	
7.2.a	Severity of Cost	Major
7.2.b	Frequency Cost is Experienced	Periodic
7.3	Requires extra resources	
7.3.a	Severity of Cost	Major
7.3.b	Frequency Cost is Experienced	Periodic
7.4	Requires the creation of a new password	
7.4.a	Severity of Cost	Major
7.4.b	Frequency Cost is Experienced	Periodic
7.5	Increases the computing power needed	
7.5.a	Severity of Cost	Don't know
7.5.b	Frequency Cost is Experienced	Don't know
7.6	Requires other extra time or effort	
7.6.a	Severity of Cost	Major
7.6.b	Frequency Cost is Experienced	Periodic
7.a	Do you approve of this advice?	No
7.b	Comments	
8	Change your password regularly	
8.1	Makes it more difficult to create a password	
8.1.a	Severity of Cost	Minor
8.1.b	Frequency Cost is Experienced	Periodic
8.2	Makes it less easy to remember	
8.2.a	Severity of Cost	Major
8.2.b	Frequency Cost is Experienced	Periodic
8.3	Requires extra resources	
8.3.a	Severity of Cost	Major
8.3.b	Frequency Cost is Experienced	Periodic
8.4	Requires the creation of a new password	
8.4.a	Severity of Cost	Minor
8.4.b	Frequency Cost is Experienced	Periodic
8.5	Increases the computing power needed	
	Severity of Cost	Don't know

8.5.b	Frequency Cost is Experienced	Don't know
8.6	Requires other extra time or effort	
8.6.a	Severity of Cost	Major
8.6.b	Frequency Cost is Experienced	Periodic
8.a	Do you approve of this advice?	Yes
8.b	Comments	

### Reuse

9	Never reuse a password	
9.1	Makes it more difficult to create a password	
9.1.a	Severity of Cost	Major
9.1.b	Frequency Cost is Experienced	Periodic
9.2	Makes it less easy to remember	
9.2.a	Severity of Cost	Major
9.2.b	Frequency Cost is Experienced	Periodic
9.3	Requires extra resources	
9.3.a	Severity of Cost	Major
9.3.b	Frequency Cost is Experienced	Periodic
9.4	Requires the creation of a new password	
9.4.a	Severity of Cost	Major
9.4.b	Frequency Cost is Experienced	Periodic
9.5	Increases the computing power needed	
9.5.a	Severity of Cost	Don't know
9.5.b	Frequency Cost is Experienced	Don't know
9.6	Requires other extra time or effort	
9.6.a	Severity of Cost	Major
9.6.b	Frequency Cost is Experienced	Periodic
9.a	Do you approve of this advice?	No
9.b	Comments	

10 Don't reuse certain passwords between websites or computers

10.1	Makes it more difficult to create a password	
10.1.a	Severity of Cost	Major
10.1.b	Frequency Cost is Experienced	Periodic
10.2	Makes it less easy to remember	
10.2.a	Severity of Cost	Major
10.2.b	Frequency Cost is Experienced	Periodic
10.3	Requires extra resources	
10.3.a	Severity of Cost	Major
10.3.b	Frequency Cost is Experienced	Periodic
10.4	Requires the creation of a new password	
10.4.a	Severity of Cost	Major
10.4.b	Frequency Cost is Experienced	Periodic
10.5	Increases the computing power needed	
10.5.a	Severity of Cost	Don't know
10.5.b	Frequency Cost is Experienced	Don't know
10.6	Requires other extra time or effort	
10.6.a	Severity of Cost	Major
10.6.b	Frequency Cost is Experienced	Periodic
10.a	Do you approve of this advice?	No
10.b	Comments	

# Sharing

11	Never share your password	
11.1	Makes it more difficult to create a password	
11.1.a	Severity of Cost	Doesn't apply
11.1.b	Frequency Cost is Experienced	N/A
11.2	Makes it less easy to remember	
11.2.a	Severity of Cost	Doesn't apply
11.2.b	Frequency Cost is Experienced	N/A
11.3	Requires extra resources	
11.3.a	Severity of Cost	Minor

11.3.b	Frequency Cost is Experienced	Periodic
11.4	Requires the creation of a new password	
11.4.a	Severity of Cost	Doesn't apply
11.4.b	Frequency Cost is Experienced	N/A
11.5	Increases the computing power needed	
11.5.a	Severity of Cost	Doesn't apply
11.5.b	Frequency Cost is Experienced	N/A
11.6	Requires other extra time or effort	
11.6.a	Severity of Cost	Minor
11.6.b	Frequency Cost is Experienced	Periodic
11.a	Do you approve of this advice?	Neutral
11.b	Comments	It is sometimes necessary to share passwords with family members on shared devices or accounts.
12	Keep your Email up-to-date and secure	
12.1	Makes it more difficult to create a password	
12.1.a	Severity of Cost	Doesn't apply
12.1.b	Frequency Cost is Experienced	N/A
12.2	Makes it less easy to remember	
12.2.a	Severity of Cost	Doesn't apply
12.2.b	Frequency Cost is Experienced	N/A
12.3	Requires extra resources	
12.3.a	Severity of Cost	Doesn't apply
12.3.b	Frequency Cost is Experienced	N/A
12.4	Requires the creation of a new password	
12.4.a	Severity of Cost	Doesn't apply
12.4.b	Frequency Cost is Experienced	N/A
12.5	Increases the computing power needed	
12.5.a	Severity of Cost	Doesn't apply
12.5.b	Frequency Cost is Experienced	N/A

Doesn't apply

Requires other extra time or effort

Severity of Cost

12.6

12.6.a

12.6.b	Frequency Cost is Experienced	N/A
12.a	Do you approve of this advice?	Neutral
12.b	Comments	
13	Keep software updated	
13.1	Makes it more difficult to create a password	
13.1.a	Severity of Cost	
13.1.b	Frequency Cost is Experienced	
13.2	Makes it less easy to remember	
13.2.a	Severity of Cost	
13.2.b	Frequency Cost is Experienced	
13.3	Requires extra resources	
13.3.a	Severity of Cost	
13.3.b	Frequency Cost is Experienced	
13.4	Requires the creation of a new password	
13.4.a	Severity of Cost	
13.4.b	Frequency Cost is Experienced	
13.5	Increases the computing power needed	
13.5.a	Severity of Cost	
13.5.b	Frequency Cost is Experienced	
13.6	Requires other extra time or effort	
13.6.a	Severity of Cost	
13.6.b	Frequency Cost is Experienced	
13.a	Do you approve of this advice?	Neutral
13.b	Comments	
14	Change the default passwords on your devices e.g. wifi, smart ligh	ht bulbs etc.
14.1	Makes it more difficult to create a password	
14.1.a	Severity of Cost	Positive
14.1.b	Frequency Cost is Experienced	Once off
14.2	Makes it less easy to remember	
14.2.a	Severity of Cost	Doesn't apply
14.2.b	Frequency Cost is Experienced	At Login

14.3	Requires extra resources	
14.3.a	Severity of Cost	Minor
14.3.b	Frequency Cost is Experienced	Once off
14.4	Requires the creation of a new password	
14.4.a	Severity of Cost	Positive
14.4.b	Frequency Cost is Experienced	Once off
14.5	Increases the computing power needed	
14.5.a	Severity of Cost	Don't know
14.5.b	Frequency Cost is Experienced	Don't know
14.6	Requires other extra time or effort	
14.6.a	Severity of Cost	Minor
14.6.b	Frequency Cost is Experienced	Periodic
14.a	Do you approve of this advice?	Yes
14.b	Comments	

## Logging in

15	You should not be able to paste your password when logging in	
15.1	Makes it more difficult to create a password	
15.1.a	Severity of Cost	Doesn't apply
15.1.b	Frequency Cost is Experienced	N/A
15.2	Makes it less easy to remember	
15.2.a	Severity of Cost	Doesn't apply
15.2.b	Frequency Cost is Experienced	N/A
15.3	Requires extra resources	
15.3.a	Severity of Cost	Doesn't apply
15.3.b	Frequency Cost is Experienced	N/A
15.4	Requires the creation of a new password	
15.4.a	Severity of Cost	Doesn't apply
15.4.b	Frequency Cost is Experienced	N/A
15.5	Increases the computing power needed	
15.5.a	Severity of Cost	Doesn't apply

15.5.b	Frequency Cost is Experienced	N/A
15.6	Requires other extra time or effort	
15.6.a	Severity of Cost	Doesn't apply
15.6.b	Frequency Cost is Experienced	N/A
15.a	Do you approve of this advice?	Neutral
15.b	Comments	

### Username

16	Your username should include specific character types (e.g. contain a minimum of 3 letters and 3 numbers)	
16.1	Makes it more difficult to create a password	
16.1.a	Severity of Cost	Doesn't apply
16.1.b	Frequency Cost is Experienced	N/A
16.2	Makes it less easy to remember	
16.2.a	Severity of Cost	Doesn't apply
16.2.b	Frequency Cost is Experienced	N/A
16.3	Requires extra resources	
16.3.a	Severity of Cost	Doesn't apply
16.3.b	Frequency Cost is Experienced	N/A
16.4	Requires the creation of a new password	
16.4.a	Severity of Cost	Doesn't apply
16.4.b	Frequency Cost is Experienced	N/A
16.5	Increases the computing power needed	
16.5.a	Severity of Cost	Doesn't apply
16.5.b	Frequency Cost is Experienced	N/A
16.6	Requires other extra time or effort	
16.6.a	Severity of Cost	Doesn't apply
16.6.b	Frequency Cost is Experienced	N/A
16.a	Do you approve of this advice?	Neutral
16.b	Comments	

## Two factor authentication

17	You should use 2-factor authentication when logging into accounts (e.g. enter an additional code from an app, text or a special device)	
17.1	Makes it more difficult to create a password	
17.1.a	Severity of Cost	Major
17.1.b	Frequency Cost is Experienced	Once off
17.2	Makes it less easy to remember	
17.2.a	Severity of Cost	Major
17.2.b	Frequency Cost is Experienced	At Login
17.3	Requires extra resources	
17.3.a	Severity of Cost	Major
17.3.b	Frequency Cost is Experienced	At Login
17.4	Requires the creation of a new password	
17.4.a	Severity of Cost	Major
17.4.b	Frequency Cost is Experienced	Once off
17.5	Increases the computing power needed	
17.5.a	Severity of Cost	Don't know
17.5.b	Frequency Cost is Experienced	Don't know
17.6	Requires other extra time or effort	
17.6.a	Severity of Cost	Major
17.6.b	Frequency Cost is Experienced	At Login
17.a	Do you approve of this advice?	No
17.b	Comments	
18	You should use 2-factor authentication (e.g. an extra PIN) when lo	ogging into accounts remotely
18.1	Makes it more difficult to create a password	
18.1.a	Severity of Cost	Major
18.1.b	Frequency Cost is Experienced	Once off
18.2	Makes it less easy to remember	
18.2.a	Severity of Cost	Major
18.2.b	Frequency Cost is Experienced	At Login
18.3	Requires extra resources	

18.3.a	Severity of Cost	Major
18.3.b	Frequency Cost is Experienced	At Login
18.4	Requires the creation of a new password	
18.4.a	Severity of Cost	Major
18.4.b	Frequency Cost is Experienced	Once off
18.5	Increases the computing power needed	
18.5.a	Severity of Cost	Don't know
18.5.b	Frequency Cost is Experienced	Don't know
18.6	Requires other extra time or effort	
18.6.a	Severity of Cost	Major
18.6.b	Frequency Cost is Experienced	At Login
18.a	Do you approve of this advice?	No
18.b	Comments	

# Password manager

19	You should use a password manager to store your passwords	
19.1	Makes it more difficult to create a password	
19.1.a	Severity of Cost	Doesn't apply
19.1.b	Frequency Cost is Experienced	N/A
19.2	Makes it less easy to remember	
19.2.a	Severity of Cost	Doesn't apply
19.2.b	Frequency Cost is Experienced	N/A
19.3	Requires extra resources	
19.3.a	Severity of Cost	Minor
19.3.b	Frequency Cost is Experienced	Once off
19.4	Requires the creation of a new password	
19.4.a	Severity of Cost	Doesn't apply
19.4.b	Frequency Cost is Experienced	N/A
19.5	Increases the computing power needed	
19.5.a	Severity of Cost	Don't know
19.5.b	Frequency Cost is Experienced	Don't know

19.6	Requires other extra time or effort	
19.6.a	Severity of Cost	Minor
19.6.b	Frequency Cost is Experienced	Once off
19.a	Do you approve of this advice?	Yes
19.b	Comments	

20	Every user in an organisation must have their own account	
20.1	Makes it more difficult to create a password	
20.1.a	Severity of Cost	Minor
20.1.b	Frequency Cost is Experienced	Don't know
20.2	Makes it less easy to remember	
20.2.a	Severity of Cost	Doesn't apply
20.2.b	Frequency Cost is Experienced	Don't know
20.3	Requires extra resources	
20.3.a	Severity of Cost	Major
20.3.b	Frequency Cost is Experienced	Periodic
20.4	Requires the creation of a new password	
20.4.a	Severity of Cost	Positive
20.4.b	Frequency Cost is Experienced	Don't know
20.5	Increases the computing power needed	
20.5.a	Severity of Cost	Don't know
20.5.b	Frequency Cost is Experienced	Don't know
20.6	Requires other extra time or effort	
20.6.a	Severity of Cost	Major
20.6.b	Frequency Cost is Experienced	Periodic
20.a	Do you approve of this advice?	Neutral
20.b	Comments	

# Generated passwords

21	Passwords generated for you should be distribute in a sealed envelope
21.1	Makes it more difficult to create a password

21.1.a	Severity of Cost	Don't know
21.1.b	Frequency Cost is Experienced	Don't know
21.2	Makes it less easy to remember	
21.2.a	Severity of Cost	Major
21.2.b	Frequency Cost is Experienced	At Login
21.3	Requires extra resources	
21.3.a	Severity of Cost	Major
21.3.b	Frequency Cost is Experienced	Once off
21.4	Requires the creation of a new password	
21.4.a	Severity of Cost	Don't know
21.4.b	Frequency Cost is Experienced	Don't know
21.5	Increases the computing power needed	
21.5.a	Severity of Cost	Don't know
21.5.b	Frequency Cost is Experienced	Don't know
21.6	Requires other extra time or effort	
21.6.a	Severity of Cost	Major
21.6.b	Frequency Cost is Experienced	Once off
21.a	Do you approve of this advice?	Neutral
21.b	Comments	

## **Final Comments**

22	Do you agree with the six cost categories that were used in the survey?	Somewhat
22.a	Are there any cost categories that you think should be added or removed?	

This is the end of the survey do you have any final comments?

Response ID	Completion date	
624487-624478-66173650	9 Oct 2020, 15:24 (BST)	

1	Informed consent	
1.1	The purpose and nature of this study has been explained to me	
1.1.a		Yes
1.2	I am participating voluntarily.	
1.2.a		Yes
1.3	1.3 I understand that I can withdraw from the survey up until it is submitted. I understand that after that point, as the survey is anonymous, it will not be possible to identify and remove the data.	
1.3.a		Yes
1.4	I understand the limits of confidentiality as described in the info	ormation sheet.
1.4.a		Yes
1.5	I understand that my anonymous responses may be used in fut from this study may be deposited in an archive if I give permiss	
1.5.a		Yes
2	I consent to participate in this survey:	Yes
3	Select a rank on the below scale from 1 (very poor) to 5 (very kno security knowledge.	wledgeable) to describe your internet
3.1	Internet security knowledge:	5

## Password composition advice

4	Include specific character types in your password. E.g. your password must include uppercase, lowercase, digit, symbol	
4.1	Makes it more difficult to create a password	
4.1.a	Severity of Cost	Major
4.1.b	Frequency Cost is Experienced	Periodic
4.2	Makes it less easy to remember	
4.2.a	Severity of Cost	Major
4.2.b	Frequency Cost is Experienced	N/A

4.3	Requires extra resources	
4.3.a	Severity of Cost	Minor
4.3.b	Frequency Cost is Experienced	Periodic
4.4	Requires the creation of a new password	
4.4.a	Severity of Cost	Major
4.4.b	Frequency Cost is Experienced	Periodic
4.5	Increases the computing power needed	
4.5.a	Severity of Cost	Doesn't apply
4.5.b	Frequency Cost is Experienced	N/A
4.6	Requires other extra time or effort	
4.6.a	Severity of Cost	Doesn't apply
4.6.b	Frequency Cost is Experienced	N/A
4.a	Do you approve of this advice?	No
4.b	Comments	
5	Don't use patterns in your password. E.g. do not choose a password	rd such as "123abc"
5.1	Makes it more difficult to create a password	
5.1.a	Severity of Cost	Minor
5.1.b	Frequency Cost is Experienced	Periodic
5.2	Makes it less easy to remember	
5.2.a	Severity of Cost	Minor
5.2.b	Frequency Cost is Experienced	Periodic
5.3	Requires extra resources	De coult oursly
5.3.a	Severity of Cost	Doesn't apply
5.3.b	Frequency Cost is Experienced	N/A
5.4	Requires the creation of a new password	Minor
5.4.a	Severity of Cost	Minor
5.4.b 5.5	Increases the computing power peeded	Periodic
5.5.a	Increases the computing power needed  Severity of Cost	Doesn't annly
5.5.a 5.5.b	Frequency Cost is Experienced	Doesn't apply N/A
5.6	Requires other extra time or effort	IV/A
	•	
5.6.a	Severity of Cost	Doesn't apply

5.6.b	Frequency Cost is Experienced	N/A
5.a	Do you approve of this advice?	Yes
5.b	Comments	

6	Password cannot be too long (e.g. must be less than 40 characters)	
6.1	Makes it more difficult to create a password	
6.1.a	Severity of Cost	Minor
6.1.b	Frequency Cost is Experienced	Periodic
6.2	Makes it less easy to remember	
6.2.a	Severity of Cost	Doesn't apply
6.2.b	Frequency Cost is Experienced	N/A
6.3	Requires extra resources	
6.3.a	Severity of Cost	Doesn't apply
6.3.b	Frequency Cost is Experienced	N/A
6.4	Requires the creation of a new password	
6.4.a	Severity of Cost	Minor
6.4.b	Frequency Cost is Experienced	Periodic
6.5	Increases the computing power needed	
6.5.a	Severity of Cost	Doesn't apply
6.5.b	Frequency Cost is Experienced	N/A
6.6	Requires other extra time or effort	
6.6.a	Severity of Cost	Doesn't apply
6.6.b	Frequency Cost is Experienced	N/A
6.a	Do you approve of this advice?	No
6.b	Comments	

# Expiry

7	You should not be allowed to use a password that you used previously on this website or computer	
7.1	Makes it more difficult to create a password	
7.1.a	Severity of Cost	Minor
7.1.b	Frequency Cost is Experienced	Periodic

7.2	Makes it less easy to remember	
7.2.a	Severity of Cost	Major
7.2.b	Frequency Cost is Experienced	Periodic
7.3	Requires extra resources	
7.3.a	Severity of Cost	Doesn't apply
7.3.b	Frequency Cost is Experienced	N/A
7.4	Requires the creation of a new password	
7.4.a	Severity of Cost	Major
7.4.b	Frequency Cost is Experienced	Periodic
7.5	Increases the computing power needed	
7.5.a	Severity of Cost	Doesn't apply
7.5.b	Frequency Cost is Experienced	N/A
7.6	Requires other extra time or effort	
7.6.a	Severity of Cost	Doesn't apply
7.6.b	Frequency Cost is Experienced	N/A
7.a	Do you approve of this advice?	Yes
7.b	Comments	
7.b	Comments	
7.b	Change your password regularly	
8	Change your password regularly	Major
8 8.1	Change your password regularly  Makes it more difficult to create a password	Major Periodic
8 8.1 8.1.a	Change your password regularly  Makes it more difficult to create a password  Severity of Cost	•
8 8.1 8.1.a 8.1.b	Change your password regularly  Makes it more difficult to create a password  Severity of Cost  Frequency Cost is Experienced	•
8 8.1.a 8.1.b 8.2	Change your password regularly  Makes it more difficult to create a password  Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember	Periodic
8 8.1.a 8.1.b 8.2 8.2.a	Change your password regularly  Makes it more difficult to create a password  Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost	Periodic  Minor
8 8.1.a 8.1.b 8.2 8.2.a 8.2.b	Change your password regularly  Makes it more difficult to create a password  Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced	Periodic  Minor
8 8.1.a 8.1.b 8.2 8.2.a 8.2.b 8.3	Change your password regularly  Makes it more difficult to create a password  Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources	Periodic  Minor  Periodic
8 8.1.a 8.1.b 8.2 8.2.a 8.2.b 8.3.a	Change your password regularly  Makes it more difficult to create a password  Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources  Severity of Cost	Periodic  Minor  Periodic  Doesn't apply
8 8.1.a 8.1.b 8.2 8.2.a 8.2.b 8.3.a 8.3.b	Change your password regularly  Makes it more difficult to create a password  Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources  Severity of Cost  Frequency Cost is Experienced	Periodic  Minor  Periodic  Doesn't apply
8 8.1.a 8.1.b 8.2 8.2.a 8.2.b 8.3 8.3.a 8.3.b 8.4	Change your password regularly  Makes it more difficult to create a password  Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources  Severity of Cost  Frequency Cost is Experienced  Requires the creation of a new password	Periodic  Minor  Periodic  Doesn't apply  N/A
8 8.1.a 8.1.b 8.2 8.2.a 8.2.b 8.3 8.3.a 8.3.b 8.4.a	Change your password regularly  Makes it more difficult to create a password  Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources  Severity of Cost  Frequency Cost is Experienced  Requires the creation of a new password  Severity of Cost	Periodic  Minor  Periodic  Doesn't apply  N/A  Major
8 8.1.a 8.1.b 8.2 8.2.a 8.2.b 8.3.a 8.3.a 8.3.b 8.4.a 8.4.a	Change your password regularly  Makes it more difficult to create a password  Severity of Cost  Frequency Cost is Experienced  Makes it less easy to remember  Severity of Cost  Frequency Cost is Experienced  Requires extra resources  Severity of Cost  Frequency Cost is Experienced  Requires the creation of a new password  Severity of Cost  Frequency Cost is Experienced	Periodic  Minor  Periodic  Doesn't apply  N/A  Major

8.5.b	Frequency Cost is Experienced	N/A
8.6	Requires other extra time or effort	
8.6.a	Severity of Cost	Doesn't apply
8.6.b	Frequency Cost is Experienced	N/A
8.a	Do you approve of this advice?	No
8.b	Comments	

#### Reuse

9	Never reuse a password	
9.1	Makes it more difficult to create a password	
9.1.a	Severity of Cost	Major
9.1.b	Frequency Cost is Experienced	Periodic
9.2	Makes it less easy to remember	
9.2.a	Severity of Cost	Minor
9.2.b	Frequency Cost is Experienced	Periodic
9.3	Requires extra resources	
9.3.a	Severity of Cost	Doesn't apply
9.3.b	Frequency Cost is Experienced	N/A
9.4	Requires the creation of a new password	
9.4.a	Severity of Cost	Major
9.4.b	Frequency Cost is Experienced	At Login
9.5	Increases the computing power needed	
9.5.a	Severity of Cost	Doesn't apply
9.5.b	Frequency Cost is Experienced	N/A
9.6	Requires other extra time or effort	
9.6.a	Severity of Cost	Doesn't apply
9.6.b	Frequency Cost is Experienced	N/A
9.a	Do you approve of this advice?	Yes
9.b	Comments	

### 10 Don't reuse certain passwords between websites or computers

10.1	Makes it more difficult to create a password	
10.1.a	Severity of Cost	Major
10.1.b	Frequency Cost is Experienced	Periodic
10.2	Makes it less easy to remember	
10.2.a	Severity of Cost	Major
10.2.b	Frequency Cost is Experienced	N/A
10.3	Requires extra resources	
10.3.a	Severity of Cost	Doesn't apply
10.3.b	Frequency Cost is Experienced	N/A
10.4	Requires the creation of a new password	
10.4.a	Severity of Cost	Major
10.4.b	Frequency Cost is Experienced	At Login
10.5	Increases the computing power needed	
10.5.a	Severity of Cost	Doesn't apply
10.5.b	Frequency Cost is Experienced	N/A
10.6	Requires other extra time or effort	
10.6.a	Severity of Cost	Doesn't apply
10.6.b	Frequency Cost is Experienced	N/A
10.a	Do you approve of this advice?	Yes
10.b	Comments	

# Sharing

11	Never share your password	
11.1	Makes it more difficult to create a password	
11.1.a	Severity of Cost	Doesn't apply
11.1.b	Frequency Cost is Experienced	N/A
11.2	Makes it less easy to remember	
11.2.a	Severity of Cost	Doesn't apply
11.2.b	Frequency Cost is Experienced	N/A
11.3	Requires extra resources	
11.3.a	Severity of Cost	Doesn't apply

11.3.b	Frequency Cost is Experienced	N/A
11.4	Requires the creation of a new password	
11.4.a	Severity of Cost	Doesn't apply
11.4.b	Frequency Cost is Experienced	N/A
11.5	Increases the computing power needed	
11.5.a	Severity of Cost	Doesn't apply
11.5.b	Frequency Cost is Experienced	N/A
11.6	Requires other extra time or effort	
11.6.a	Severity of Cost	Doesn't apply
11.6.b	Frequency Cost is Experienced	N/A
11.a	Do you approve of this advice?	Yes
11.b	Comments	
12	Keep your Email up-to-date and secure	
12.1	Makes it more difficult to create a password	
12.1.a	Severity of Cost	Doesn't apply
12.1.b	Frequency Cost is Experienced	N/A
12.2	Makes it less easy to remember	
12.2.a	Severity of Cost	Doesn't apply
12.2.b	Frequency Cost is Experienced	N/A
12.3	Requires extra resources	
12.3.a	Severity of Cost	Doesn't apply
12.3.b	Frequency Cost is Experienced	N/A
12.4	Requires the creation of a new password	
12.4.a	Severity of Cost	Doesn't apply
12.4.b	Frequency Cost is Experienced	N/A
12.5	Increases the computing power needed	
12.5.a	Severity of Cost	Doesn't apply
12.5.b	Frequency Cost is Experienced	N/A
12.6	Requires other extra time or effort	
12.6.a	Severity of Cost	Minor

Periodic

12.6.b

Frequency Cost is Experienced

12.a	Do you approve of this advice?	Yes
12.b	Comments	
13	Keep software updated	
13.1	Makes it more difficult to create a password	
13.1.a	Severity of Cost	Doesn't apply
13.1.b	Frequency Cost is Experienced	N/A
13.2	Makes it less easy to remember	
13.2.a	Severity of Cost	Doesn't apply
13.2.b	Frequency Cost is Experienced	N/A
13.3	Requires extra resources	
13.3.a	Severity of Cost	Doesn't apply
13.3.b	Frequency Cost is Experienced	N/A
13.4	Requires the creation of a new password	
13.4.a	Severity of Cost	Doesn't apply
13.4.b	Frequency Cost is Experienced	Periodic
13.5	Increases the computing power needed	
13.5.a	Severity of Cost	Minor
13.5.b	Frequency Cost is Experienced	Periodic
13.6	Requires other extra time or effort	
13.6.a	Severity of Cost	Minor
13.6.b	Frequency Cost is Experienced	Periodic
13.a	Do you approve of this advice?	Yes
13.b	Comments	
14	Change the default passwords on your devices e.g. wifi, smart lig	ht bulbs etc.
14.1	Makes it more difficult to create a password	
14.1.a	Severity of Cost	Minor
14.1.b	Frequency Cost is Experienced	Once off
14.2	Makes it less easy to remember	
14.2.a	Severity of Cost	Minor
14.2.b	Frequency Cost is Experienced	N/A

14.3

Requires extra resources

14.3.a	Severity of Cost	Doesn't apply
14.3.b	Frequency Cost is Experienced	N/A
14.4	Requires the creation of a new password	
14.4.a	Severity of Cost	Minor
14.4.b	Frequency Cost is Experienced	Once off
14.5	Increases the computing power needed	
14.5.a	Severity of Cost	Doesn't apply
14.5.b	Frequency Cost is Experienced	N/A
14.6	Requires other extra time or effort	
14.6.a	Severity of Cost	Doesn't apply
14.6.b	Frequency Cost is Experienced	N/A
14.a	Do you approve of this advice?	Yes
14.b	Comments	

# Logging in

15	You should not be able to paste your password when logging in	
15.1	Makes it more difficult to create a password	
15.1.a	Severity of Cost	Major
15.1.b	Frequency Cost is Experienced	Once off
15.2	Makes it less easy to remember	
15.2.a	Severity of Cost	Minor
15.2.b	Frequency Cost is Experienced	At Login
15.3	Requires extra resources	
15.3.a	Severity of Cost	Minor
15.3.b	Frequency Cost is Experienced	At Login
15.4	Requires the creation of a new password	
15.4.a	Severity of Cost	Major
15.4.b	Frequency Cost is Experienced	Once off
15.5	Increases the computing power needed	
15.5.a	Severity of Cost	Doesn't apply
15.5.b	Frequency Cost is Experienced	N/A

15.6	Requires other extra time or effort	
15.6.a	Severity of Cost	Doesn't apply
15.6.b	Frequency Cost is Experienced	N/A
15.a	Do you approve of this advice?	No
15.b	Comments	

### Username

16	Your username should include specific character types (e.g. contain a minimum of 3 letters and 3 numbers)	
16.1	Makes it more difficult to create a password	
16.1.a	Severity of Cost	Doesn't apply
16.1.b	Frequency Cost is Experienced	N/A
16.2	Makes it less easy to remember	
16.2.a	Severity of Cost	Doesn't apply
16.2.b	Frequency Cost is Experienced	N/A
16.3	Requires extra resources	
16.3.a	Severity of Cost	Doesn't apply
16.3.b	Frequency Cost is Experienced	N/A
16.4	Requires the creation of a new password	
16.4.a	Severity of Cost	Doesn't apply
16.4.b	Frequency Cost is Experienced	N/A
16.5	Increases the computing power needed	
16.5.a	Severity of Cost	Doesn't apply
16.5.b	Frequency Cost is Experienced	N/A
16.6	Requires other extra time or effort	
16.6.a	Severity of Cost	Doesn't apply
16.6.b	Frequency Cost is Experienced	N/A
16.a	Do you approve of this advice?	No
16.b	Comments	

## Two factor authentication

17	You should use 2-factor authentication when logging into account from an app, text or a special device)	ts (e.g. enter an additional code
17.1	Makes it more difficult to create a password	
17.1.a	Severity of Cost	Minor
17.1.b	Frequency Cost is Experienced	Once off
17.2	Makes it less easy to remember	
17.2.a	Severity of Cost	Doesn't apply
17.2.b	Frequency Cost is Experienced	N/A
17.3	Requires extra resources	
17.3.a	Severity of Cost	Minor
17.3.b	Frequency Cost is Experienced	At Login
17.4	Requires the creation of a new password	
17.4.a	Severity of Cost	Minor
17.4.b	Frequency Cost is Experienced	At Login
17.5	Increases the computing power needed	
17.5.a	Severity of Cost	Doesn't apply
17.5.b	Frequency Cost is Experienced	N/A
17.6	Requires other extra time or effort	
17.6.a	Severity of Cost	Doesn't apply
17.6.b	Frequency Cost is Experienced	N/A
17.a	Do you approve of this advice?	Yes
17.b	Comments	
18	You should use 2-factor authentication (e.g. an extra PIN) when lo	ogging into accounts remotely
18.1	Makes it more difficult to create a password	
18.1.a	Severity of Cost	Minor
18.1.b	Frequency Cost is Experienced	Once off

18.1.a	Severity of Cost	Minor
18.1.b	Frequency Cost is Experienced	Once off
18.2	Makes it less easy to remember	
18.2.a	Severity of Cost	Doesn't apply
18.2.b	Frequency Cost is Experienced	N/A
18.3	Requires extra resources	
18.3.a	Severity of Cost	Minor
18.3.b	Frequency Cost is Experienced	At Login

18.4	Requires the creation of a new password	
18.4.a	Severity of Cost	Minor
18.4.b	Frequency Cost is Experienced	At Login
18.5	Increases the computing power needed	
18.5.a	Severity of Cost	Doesn't apply
18.5.b	Frequency Cost is Experienced	N/A
18.6	Requires other extra time or effort	
18.6.a	Severity of Cost	Doesn't apply
18.6.b	Frequency Cost is Experienced	N/A
18.a	Do you approve of this advice?	Yes
18.b	Comments	

# Password manager

19	You should use a password manager to store your passwords	
19.1	Makes it more difficult to create a password	
19.1.a	Severity of Cost	Doesn't apply
19.1.b	Frequency Cost is Experienced	N/A
19.2	Makes it less easy to remember	
19.2.a	Severity of Cost	Doesn't apply
19.2.b	Frequency Cost is Experienced	N/A
19.3	Requires extra resources	
19.3.a	Severity of Cost	Minor
19.3.b	Frequency Cost is Experienced	At Login
19.4	Requires the creation of a new password	
19.4.a	Severity of Cost	Minor
19.4.b	Frequency Cost is Experienced	At Login
19.5	Increases the computing power needed	
19.5.a	Severity of Cost	Doesn't apply
19.5.b	Frequency Cost is Experienced	N/A
19.6	Requires other extra time or effort	
19.6.a	Severity of Cost	Doesn't apply

19.6.b	Frequency Cost is Experienced	N/A
19.a	Do you approve of this advice?	Yes
19.b	Comments	Password managers make everything much better and more secure, make generation of password much easier. If only one advice should be kept it would be that one

20	Every user in an organisation must have their own account	
20.1	Makes it more difficult to create a password	
20.1.a	Severity of Cost	Minor
20.1.b	Frequency Cost is Experienced	Once off
20.2	Makes it less easy to remember	
20.2.a	Severity of Cost	Doesn't apply
20.2.b	Frequency Cost is Experienced	N/A
20.3	Requires extra resources	
20.3.a	Severity of Cost	Doesn't apply
20.3.b	Frequency Cost is Experienced	N/A
20.4	Requires the creation of a new password	
20.4.a	Severity of Cost	Minor
20.4.b	Frequency Cost is Experienced	At Login
20.5	Increases the computing power needed	
20.5.a	Severity of Cost	Doesn't apply
20.5.b	Frequency Cost is Experienced	N/A
20.6	Requires other extra time or effort	
20.6.a	Severity of Cost	Doesn't apply
20.6.b	Frequency Cost is Experienced	N/A
20.a	Do you approve of this advice?	Yes
20.b	Comments	

## Generated passwords

21 Passwords generated for you should be distribute in a sealed envelope

21.1	Makes it more difficult to create a password	
21.1.a	Severity of Cost	Doesn't apply
21.1.b	Frequency Cost is Experienced	Once off
21.2	Makes it less easy to remember	
21.2.a	Severity of Cost	Minor
21.2.b	Frequency Cost is Experienced	At Login
21.3	Requires extra resources	
21.3.a	Severity of Cost	Minor
21.3.b	Frequency Cost is Experienced	Once off
21.4	Requires the creation of a new password	
21.4.a	Severity of Cost	Doesn't apply
21.4.b	Frequency Cost is Experienced	N/A
21.5	Increases the computing power needed	
21.5.a	Severity of Cost	Minor
21.5.b	Frequency Cost is Experienced	Once off
21.6	Requires other extra time or effort	
21.6.a	Severity of Cost	Minor
21.6.b	Frequency Cost is Experienced	Once off
21.a	Do you approve of this advice?	Yes
21.b	Comments	But I'd prefer forcing changing the password at first login especially when using a password manager

## **Final Comments**

22	Do you agree with the six cost categories that were used in the survey?	Yes
22.a	Are there any cost categories that you think should be added or removed?	

23	This is the end of the survey do you have any final comments?	Use a password manager, it contribute to a more secure environment if only because most of the constraints of current password based system just disappear with one