

# Study of User password policy costs Survey 1

Response ID	Completion date	
624141-624132-66099728	7 Oct 2020, 22:08 (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 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 information 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
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3	Select a rank on the below scale from 1 (very poor) to 5 (very knowledgeable) to describe your internet security knowledge.	
3.1	Internet security knowledge:	4

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	I had difficulty answering this. I think using a password manager is pretty much essential at this stage, so there's little or no cost if you do, but if you don't there's a mild cost in creating/remembering.

5	You should substitute symbols for the letters in your password (e.g. "pa\$\$word")	
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	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	Doesn't apply
5.6.b	Frequency Cost is Experienced	N/A
5.a	Do you approve of this advice?	No
5.b	Comments	This is dangerous advice, because people may get a false sense of password security. This is trivial to attack, if the password is not already otherwise strong.

## Personal password storage

6	Don't store your passwords in a computer file	
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	Positive
6.2.b	Frequency Cost is Experienced	Periodic
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	Terrible security practice if it's the user's own file and format, probably unencrypted. Huge security hole.
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## Expiry

7	Change your password regularly	
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	At Login
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	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	Major
7.6.b	Frequency Cost is Experienced	Periodic
7.a	Do you approve of this advice?	No

7.b	Comments	This is in conflict with evidence-based approaches to password security from NIST. Frequent password change requirements lead to people using worse passwords because they keep having to remember new ones. They will generally make minimal changes, and may be driven to record them somewhere insecure. This reduces security. It can cause upheaval with access issues across heterogeneous systems.
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8	Change your password if you suspect it has been compromised	
8.1	Makes it more difficult to create a password	
8.1.a	Severity of Cost	Minor
8.1.b	Frequency Cost is Experienced	Don't know
8.2	Makes it less easy to remember	
8.2.a	Severity of Cost	Minor
8.2.b	Frequency Cost is Experienced	Don't know
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	Don't know
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	The cost of a one-off change after a breach is minimal, and essential!

## 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	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	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	Yes, but ... to implement this really requires use of a password manager. Otherwise, pragmatically, people will ignore it.

## Sharing

10	Never share your password	
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	Doesn't apply
10.6.b	Frequency Cost is Experienced	N/A
10.a	Do you approve of this advice?	Yes
10.b	Comments	Basic password safety. Any system which results in people feeling the need to share a password probably has problems that need to be addressed.

11	Don't send passwords by email	
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	Minor
11.6.b	Frequency Cost is Experienced	Periodic
11.a	Do you approve of this advice?	Yes
11.b	Comments	Basic password safety. Never!

12	Check web pages are encrypted by looking for the padlock or "https"	
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
12.6.b	Frequency Cost is Experienced	At Login
12.a	Do you approve of this advice?	Yes



12.b	Comments	Requires consciousness, which some browsers may help with (Chrome flagging HTTP as insecure, for example).
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13	Log out after using public computers	
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	Doesn't apply
13.5.b	Frequency Cost is Experienced	N/A
13.6	Requires other extra time or effort	
13.6.a	Severity of Cost	Minor
13.6.b	Frequency Cost is Experienced	At Login
13.a	Do you approve of this advice?	Yes
13.b	Comments	Fairly low cost, super high risk. Definitely important.

## Logging in

14	You should not be able to paste your password when logging in	
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	Major
14.6.b	Frequency Cost is Experienced	N/A
14.a	Do you approve of this advice?	No
14.b	Comments	This is horrendous advice that leads to problems using password managers. It encourages using crappy passwords.

15	You should have an option to view your password after you have typed it	
15.1	Makes it more difficult to create a password	
15.1.a	Severity of Cost	Positive
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	There's a trade-off to be made. Context matters. If you're in a public space, it is riskier. If you're at home or otherwise alone, it can be helpful. Suitable for low security applications (meme generator account?). Not suitable for high security applications (bank?).

16	Make your security answers difficult to guess	
16.1	Makes it more difficult to create a password	
16.1.a	Severity of Cost	Major
16.1.b	Frequency Cost is Experienced	Once off
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	Minor
16.3.b	Frequency Cost is Experienced	Once off
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	At Login
16.a	Do you approve of this advice?	No
16.b	Comments	Security questions/answers are terrible. Either you answer truthfully and make it easier to compromise your account, or you answer with line noise and you have to have a way to store them (not usefully supported by the password manager I use -- I have to put them in a Notes section). Most people use public or discoverable information.

## Two factor authentication

17	You should use 2-factor authentication when logging into accounts (e.g. a code from an app 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	Once off
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	At Login

17.a	Do you approve of this advice?	Yes
17.b	Comments	

## Password manager

18	You should use a password manager to store your passwords	
18.1	Makes it more difficult to create a password	
18.1.a	Severity of Cost	Positive
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	Once off
18.4	Requires the creation of a new password	
18.4.a	Severity of Cost	Positive
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	At Login
18.a	Do you approve of this advice?	Yes
18.b	Comments	Definitely!!!

19	When using a password manager, you should use it to create long random 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	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?	Yes
19.b	Comments	The only difficulty is when sites refuse good, long, strong passwords, or accept them at account creation (having different rules, or truncating) but break at login (your non-truncated password doesn't match the truncated password you don't know? There's different rules applied?).

## Generated passwords

20	Passwords generated for you should be generated with a random generator	
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	Minor
20.2.b	Frequency Cost is Experienced	Once off

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	Minor
20.6.b	Frequency Cost is Experienced	Once off
20.a	Do you approve of this advice?	Yes
20.b	Comments	This is more unavoidable than good. It's good to maybe try to generate them using some system that makes them a little easier to read/type, and require a password change at first login with the generated password.

## Final Comments

21	Do you agree with the six cost categories that were used in the survey?	Somewhat
21.a	Are there any cost categories that you think should be added or removed?	I think computing power is irrelevant, unless you mean computing power of an evil attacker.
22	This is the end of the survey do you have any final comments?	Took me ~30 minutes to complete.

Response ID	Completion date	
624141-624132-66108778	8 Oct 2020, 09:54 (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 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 information 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
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3	Select a rank on the below scale from 1 (very poor) to 5 (very knowledgeable) to describe your internet security knowledge.	
3.1	Internet security knowledge:	3

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	Don't know
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	Minor
4.6.b	Frequency Cost is Experienced	Once off
4.a	Do you approve of this advice?	Yes
4.b	Comments	

5	You should substitute symbols for the letters in your password (e.g. "pa\$\$word")	
5.1	Makes it more difficult to create a password	
5.1.a	Severity of Cost	Minor
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	
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?	Neutral
5.b	Comments	

## Personal password storage

6	Don't store your passwords in a computer file	
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	Minor
6.2.b	Frequency Cost is Experienced	N/A
6.3	Requires extra resources	
6.3.a	Severity of Cost	Major
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	Minor
6.5.b	Frequency Cost is Experienced	N/A
6.6	Requires other extra time or effort	
6.6.a	Severity of Cost	Major
6.6.b	Frequency Cost is Experienced	N/A
6.a	Do you approve of this advice?	Neutral
6.b	Comments	if encrypted maybe, but then there is software for that

## Expiry

7	Change your password regularly	
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	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	Positive
7.6.b	Frequency Cost is Experienced	Periodic
7.a	Do you approve of this advice?	Neutral
7.b	Comments	

8	Change your password if you suspect it has been compromised	
8.1	Makes it more difficult to create a password	
8.1.a	Severity of Cost	Positive
8.1.b	Frequency Cost is Experienced	Once off
8.2	Makes it less easy to remember	
8.2.a	Severity of Cost	Positive
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	Once off
8.4	Requires the creation of a new password	
8.4.a	Severity of Cost	Positive

8.4.b	Frequency Cost is Experienced	Once off
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	Major
8.6.b	Frequency Cost is Experienced	Once off
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	Positive
9.1.b	Frequency Cost is Experienced	N/A
9.2	Makes it less easy to remember	
9.2.a	Severity of Cost	Positive
9.2.b	Frequency Cost is Experienced	N/A
9.3	Requires extra resources	
9.3.a	Severity of Cost	Positive
9.3.b	Frequency Cost is Experienced	N/A
9.4	Requires the creation of a new password	
9.4.a	Severity of Cost	Positive
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	N/A
9.a	Do you approve of this advice?	Neutral

## Sharing

10	Never share your password	
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	Major
10.3.b	Frequency Cost is Experienced	Don't know
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	Positive
10.6.b	Frequency Cost is Experienced	N/A
10.a	Do you approve of this advice?	Yes
10.b	Comments	

11	Don't send passwords by email	
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	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	Major
11.6.b	Frequency Cost is Experienced	Periodic
11.a	Do you approve of this advice?	Yes
11.b	Comments	Sadly too many software such as mailman has to learn this still

12	Check web pages are encrypted by looking for the padlock or "https"	
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	At Login
12.a	Do you approve of this advice?	Yes
12.b	Comments	

13	Log out after using public computers	
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	Doesn't apply
13.5.b	Frequency Cost is Experienced	N/A
13.6	Requires other extra time or effort	
13.6.a	Severity of Cost	Doesn't apply
13.6.b	Frequency Cost is Experienced	N/A
13.a	Do you approve of this advice?	Yes
13.b	Comments	

## Logging in

14	You should not be able to paste your password when logging in	
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	Major
14.3.b	Frequency Cost is Experienced	At Login
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	Major
14.6.b	Frequency Cost is Experienced	At Login
14.a	Do you approve of this advice?	Yes
14.b	Comments	auto-fill is okay, paste is not

15	You should have an option to view your password after you have typed it	
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?	Yes
15.b	Comments	And the opposite; one should be able not to see the password or its length at all (not even the letter currently typed)

16	Make your security answers difficult to guess	
16.1	Makes it more difficult to create a password	
16.1.a	Severity of Cost	Minor
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	Minor
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	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. a code from an app 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	Major
17.3.b	Frequency Cost is Experienced	Periodic
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	Major
17.5.b	Frequency Cost is Experienced	Periodic
17.6	Requires other extra time or effort	
17.6.a	Severity of Cost	Major
17.6.b	Frequency Cost is Experienced	Periodic
17.a	Do you approve of this advice?	No
17.b	Comments	Very few exceptions but not for general use.

## Password manager

18	You should use a password manager to store your passwords	
18.1	Makes it more difficult to create a password	
18.1.a	Severity of Cost	Don't know
18.1.b	Frequency Cost is Experienced	N/A
18.2	Makes it less easy to remember	

18.2.a	Severity of Cost	Positive
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	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	Positive
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?	Neutral
18.b	Comments	Password managers can be good. Muscle memory is better.

19	When using a password manager, you should use it to create long random 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	Major
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	Major
19.4.b	Frequency Cost is Experienced	Once off
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	

## Generated passwords

20	Passwords generated for you should be generated with a random generator	
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	Positive
20.5.b	Frequency Cost is Experienced	Once off
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	Can also be a random generator producing haikus ;-)

## Final Comments

21	Do you agree with the six cost categories that were used in the survey?	Somewhat
21.a	Are there any cost categories that you think should be added or removed?	
22	This is the end of the survey do you have any final comments?	

Response ID	Completion date	
624141-624132-66283296	13 Oct 2020, 11:36 (BST)	

1	Informed consent	
1.1	The purpose and nature of this study has been explained to me.	
1.1.a		Yes
1.2	I am participating voluntarily.	
1.2.a		Yes
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 information 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
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3	Select a rank on the below scale from 1 (very poor) to 5 (very knowledgeable) to describe your internet security knowledge.	
3.1	Internet security knowledge:	2

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	You should substitute symbols for the letters in your password (e.g. "pa\$\$word")	
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	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	Doesn't apply
5.6.b	Frequency Cost is Experienced	N/A
5.a	Do you approve of this advice?	Neutral

## Personal password storage

6	Don't store your passwords in a computer file	
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	Positive
6.2.b	Frequency Cost is Experienced	At Login
6.3	Requires extra resources	
6.3.a	Severity of Cost	Positive
6.3.b	Frequency Cost is Experienced	Once off
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	Minor
6.6.b	Frequency Cost is Experienced	At Login
6.a	Do you approve of this advice?	Yes
6.b	Comments	

## Expiry

7	Change your password regularly	
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	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	Major
7.6.b	Frequency Cost is Experienced	Periodic
7.a	Do you approve of this advice?	Neutral
7.b	Comments	

8	Change your password if you suspect it has been compromised	
8.1	Makes it more difficult to create a password	
8.1.a	Severity of Cost	Doesn't apply
8.1.b	Frequency Cost is Experienced	N/A
8.2	Makes it less easy to remember	
8.2.a	Severity of Cost	Minor
8.2.b	Frequency Cost is Experienced	Once off
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	Positive
8.4.b	Frequency Cost is Experienced	Once off
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	Minor
8.6.b	Frequency Cost is Experienced	Once off
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	Positive
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?	Yes
9.b	Comments	

## Sharing

10	Never share your password	
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	Positive
10.6.b	Frequency Cost is Experienced	N/A
10.a	Do you approve of this advice?	Yes
10.b	Comments	

11	Don't send passwords by email	
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	Check web pages are encrypted by looking for the padlock or "https"	
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
12.6.b	Frequency Cost is Experienced	Periodic
12.a	Do you approve of this advice?	Yes

12.b	Comments	
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13	Log out after using public computers	
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	Doesn't apply
13.5.b	Frequency Cost is Experienced	N/A
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	

## Logging in

14	You should not be able to paste your password when logging in	
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	Minor
14.6.b	Frequency Cost is Experienced	At Login
14.a	Do you approve of this advice?	Yes
14.b	Comments	

15	You should have an option to view your password after you have typed it	
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	

16	Make your security answers difficult to guess	
16.1	Makes it more difficult to create a password	
16.1.a	Severity of Cost	Minor
16.1.b	Frequency Cost is Experienced	Once off
16.2	Makes it less easy to remember	
16.2.a	Severity of Cost	Major
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	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?	Neutral
16.b	Comments	

## Two factor authentication

17	You should use 2-factor authentication when logging into accounts (e.g. a code from an app 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	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	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	Major
17.6.b	Frequency Cost is Experienced	At Login
17.a	Do you approve of this advice?	Neutral
17.b	Comments	If it is for something where high security is very important like online banking then yes, I approve. But if it's for something simpler then while I understand it might be a good idea, it's just frustrating.

## Password manager

18	You should use a password manager to store your passwords	
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	Once off
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	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	Once off
18.a	Do you approve of this advice?	No
18.b	Comments	

19	When using a password manager, you should use it to create long random 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	Major
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?	No
19.b	Comments	

## Generated passwords

20	Passwords generated for you should be generated with a random generator	
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	Minor
20.2.b	Frequency Cost is Experienced	At Login
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	

## Final Comments

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

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

Response ID	Completion date	
624141-624132-66338242	14 Oct 2020, 14:09 (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 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 information 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
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3	Select a rank on the below scale from 1 (very poor) to 5 (very knowledgeable) to describe your internet security knowledge.	
3.1	Internet security knowledge:	3

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	You should substitute symbols for the letters in your password (e.g. "pa\$\$word")	
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	Major
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	Doesn't apply
5.6.b	Frequency Cost is Experienced	N/A
5.a	Do you approve of this advice?	No

## Personal password storage

6	Don't store your passwords in a computer file	
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?	Yes
6.b	Comments	

## Expiry

7	Change your password regularly	
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	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	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 if you suspect it has been compromised	
8.1	Makes it more difficult to create a password	
8.1.a	Severity of Cost	Doesn't apply
8.1.b	Frequency Cost is Experienced	N/A
8.2	Makes it less easy to remember	
8.2.a	Severity of Cost	Minor
8.2.b	Frequency Cost is Experienced	Once off
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?	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	At Login
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	Doesn't apply
9.6.b	Frequency Cost is Experienced	N/A
9.a	Do you approve of this advice?	No
9.b	Comments	



## Sharing

10	Never share your password	
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	Doesn't apply
10.6.b	Frequency Cost is Experienced	N/A
10.a	Do you approve of this advice?	Yes
10.b	Comments	

11	Don't send passwords by email	
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	Check web pages are encrypted by looking for the padlock or "https"	
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
12.6.b	Frequency Cost is Experienced	At Login

12.a	Do you approve of this advice?	Yes
12.b	Comments	

13	Log out after using public computers	
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	Doesn't apply
13.5.b	Frequency Cost is Experienced	N/A
13.6	Requires other extra time or effort	
13.6.a	Severity of Cost	Minor
13.6.b	Frequency Cost is Experienced	At Login
13.a	Do you approve of this advice?	Yes
13.b	Comments	

## Logging in

14	You should not be able to paste your password when logging in	
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	Major
14.6.b	Frequency Cost is Experienced	At Login
14.a	Do you approve of this advice?	No
14.b	Comments	

15	You should have an option to view your password after you have typed it	
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	At Login
15.a	Do you approve of this advice?	Yes
15.b	Comments	

16	Make your security answers difficult to guess	
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	Minor
16.6.b	Frequency Cost is Experienced	Once off
16.a	Do you approve of this advice?	Yes
16.b	Comments	

## Two factor authentication

17	You should use 2-factor authentication when logging into accounts (e.g. a code from an app 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	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	At Login
17.a	Do you approve of this advice?	Yes
17.b	Comments	

## Password manager

18	You should use a password manager to store your passwords	
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	Once off

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	At Login
18.a	Do you approve of this advice?	Yes
18.b	Comments	

19	When using a password manager, you should use it to create long random 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?	Yes

## Generated passwords

20	Passwords generated for you should be generated with a random generator	
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	

## Final Comments

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





Response ID	Completion date	
624141-624132-66412182	16 Oct 2020, 11:36 (BST)	

1	Informed consent	
1.1	The purpose and nature of this study has been explained to me.	
1.1.a		Yes
1.2	I am participating voluntarily.	
1.2.a		Yes
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 information 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
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3	Select a rank on the below scale from 1 (very poor) to 5 (very knowledgeable) to describe your internet security knowledge.	
3.1	Internet security knowledge:	2

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	At Login
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	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	Major
4.6.b	Frequency Cost is Experienced	At Login
4.a	Do you approve of this advice?	No
4.b	Comments	

5	You should substitute symbols for the letters in your password (e.g. "pa\$\$word")	
5.1	Makes it more difficult to create a password	
5.1.a	Severity of Cost	Major
5.1.b	Frequency Cost is Experienced	At Login
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	Minor
5.3.b	Frequency Cost is Experienced	At Login
5.4	Requires the creation of a new password	
5.4.a	Severity of Cost	Major
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	Minor
5.6.b	Frequency Cost is Experienced	Once off
5.a	Do you approve of this advice?	No

## Personal password storage

6	Don't store your passwords in a computer file	
6.1	Makes it more difficult to create a password	
6.1.a	Severity of Cost	Major
6.1.b	Frequency Cost is Experienced	At Login
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	Major
6.4.b	Frequency Cost is Experienced	At Login
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	Major
6.6.b	Frequency Cost is Experienced	At Login
6.a	Do you approve of this advice?	No
6.b	Comments	

## Expiry

7	Change your password regularly	
7.1	Makes it more difficult to create a password	
7.1.a	Severity of Cost	Major

7.1.b	Frequency Cost is Experienced	At Login
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	Major
7.6.b	Frequency Cost is Experienced	N/A
7.a	Do you approve of this advice?	No
7.b	Comments	

8	Change your password if you suspect it has been compromised	
8.1	Makes it more difficult to create a password	
8.1.a	Severity of Cost	Doesn't apply
8.1.b	Frequency Cost is Experienced	N/A
8.2	Makes it less easy to remember	
8.2.a	Severity of Cost	Doesn't apply
8.2.b	Frequency Cost is Experienced	N/A
8.3	Requires extra resources	
8.3.a	Severity of Cost	Major
8.3.b	Frequency Cost is Experienced	At Login
8.4	Requires the creation of a new password	
8.4.a	Severity of Cost	Major
8.4.b	Frequency Cost is Experienced	At Login

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

## Sharing

10	Never share your password	
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	Doesn't apply
10.6.b	Frequency Cost is Experienced	N/A
10.a	Do you approve of this advice?	Yes
10.b	Comments	

11	Don't send passwords by email	
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	Check web pages are encrypted by looking for the padlock or "https"	
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	Log out after using public computers	
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	Doesn't apply
13.5.b	Frequency Cost is Experienced	N/A
13.6	Requires other extra time or effort	
13.6.a	Severity of Cost	Doesn't apply
13.6.b	Frequency Cost is Experienced	N/A
13.a	Do you approve of this advice?	Yes
13.b	Comments	

## Logging in

14	You should not be able to paste your password when logging in	
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	

15	You should have an option to view your password after you have typed it	
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?	Yes
15.b	Comments	

16	Make your security answers difficult to guess	
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?	Yes
16.b	Comments	

## Two factor authentication

17	You should use 2-factor authentication when logging into accounts (e.g. a code from an app 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	Doesn't apply
17.6.b	Frequency Cost is Experienced	N/A
17.a	Do you approve of this advice?	No
17.b	Comments	

## Password manager

18	You should use a password manager to store your passwords	
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?	Yes
18.b	Comments	

19	When using a password manager, you should use it to create long random 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?	No

## Generated passwords

20	Passwords generated for you should be generated with a random generator	
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	

## Final Comments

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



Response ID	Completion date	
624141-624132-66423538	16 Oct 2020, 14:53 (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 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 information 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
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3	Select a rank on the below scale from 1 (very poor) to 5 (very knowledgeable) to describe your internet security knowledge.	
3.1	Internet security knowledge:	3

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	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	You should substitute symbols for the letters in your password (e.g. "pa\$\$word")	
5.1	Makes it more difficult to create a password	
5.1.a	Severity of Cost	Minor
5.1.b	Frequency Cost is Experienced	N/A
5.2	Makes it less easy to remember	
5.2.a	Severity of Cost	Major
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	
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?	Neutral

5.b	Comments	Increasing complexity is good for security but bothersome to remember for the user
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## Personal password storage

6	Don't store your passwords in a computer file	
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	Minor
6.6.b	Frequency Cost is Experienced	N/A
6.a	Do you approve of this advice?	Yes
6.b	Comments	It makes sense not to keep valuable information in an accessible area

## Expiry

7	Change your password regularly	
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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	Major
7.6.b	Frequency Cost is Experienced	Periodic
7.a	Do you approve of this advice?	Neutral
7.b	Comments	So long as the frequency isn't too short for renewal then it seems like a sensible protocol

8	Change your password if you suspect it has been compromised	
8.1	Makes it more difficult to create a password	
8.1.a	Severity of Cost	Minor
8.1.b	Frequency Cost is Experienced	Once off
8.2	Makes it less easy to remember	
8.2.a	Severity of Cost	Minor
8.2.b	Frequency Cost is Experienced	Once off
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	Positive
8.4.b	Frequency Cost is Experienced	Once off
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	It always better to be safe than sorry if you feel your data is unsafe

## 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	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	Major
9.6.b	Frequency Cost is Experienced	Periodic
9.a	Do you approve of this advice?	Neutral
9.b	Comments	using entirely new passwords for every site is taxing, but a varying part of the password for each site may be as effective

## Sharing

10	Never share your password	
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	Doesn't apply
10.6.b	Frequency Cost is Experienced	N/A
10.a	Do you approve of this advice?	Neutral
10.b	Comments	This feel obvious and not something a website needs to point out

11	Don't send passwords by email	
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	Makes sense if email security is breached

12	Check web pages are encrypted by looking for the padlock or "https"	
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	Log out after using public computers	
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	Doesn't apply
13.5.b	Frequency Cost is Experienced	N/A
13.6	Requires other extra time or effort	
13.6.a	Severity of Cost	Positive
13.6.b	Frequency Cost is Experienced	Periodic

13.a	Do you approve of this advice?	Yes
13.b	Comments	

## Logging in

14	You should not be able to paste your password when logging in	
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	Minor
14.2.b	Frequency Cost is Experienced	Periodic
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	Minor
14.6.b	Frequency Cost is Experienced	Periodic
14.a	Do you approve of this advice?	No
14.b	Comments	It's a nuisance

15	You should have an option to view your password after you have typed it	
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?	Yes
15.b	Comments	

16	Make your security answers difficult to guess	
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	Periodic
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	Positive
16.6.b	Frequency Cost is Experienced	Once off
16.a	Do you approve of this advice?	Neutral
16.b	Comments	Security questions should be something only you should know

## Two factor authentication

17	You should use 2-factor authentication when logging into accounts (e.g. a code from an app 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	Periodic
17.3	Requires extra resources	
17.3.a	Severity of Cost	Minor
17.3.b	Frequency Cost is Experienced	Periodic
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	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?	Yes
17.b	Comments	

## Password manager

18	You should use a password manager to store your passwords	
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	Don't know
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	Don't know
18.6.b	Frequency Cost is Experienced	N/A
18.a	Do you approve of this advice?	Neutral
18.b	Comments	I've never been recommended one or used one

19	When using a password manager, you should use it to create long random 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	Periodic
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	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	Could be effective but irksome to input

## Generated passwords

20	Passwords generated for you should be generated with a random generator	
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	Major
20.2.b	Frequency Cost is Experienced	At Login
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?	Neutral
20.b	Comments	The option to change is afterwards to something more personal and memorable should be given

## Final Comments

21	Do you agree with the six cost categories that were used in the survey?	Yes
21.a	Are there any cost categories that you think should be added or removed?	No seems reasonable
22	This is the end of the survey do you have any final comments?	A good prompt to think about my own password generation and memorizing methods!

Response ID	Completion date	
624141-624132-66426525	16 Oct 2020, 15:23 (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 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 information 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
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3	Select a rank on the below scale from 1 (very poor) to 5 (very knowledgeable) to describe your internet security knowledge.	
3.1	Internet security knowledge:	3

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	Positive
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	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	Major
4.4.b	Frequency Cost is Experienced	N/A
4.5	Increases the computing power needed	
4.5.a	Severity of Cost	Minor
4.5.b	Frequency Cost is Experienced	N/A
4.6	Requires other extra time or effort	
4.6.a	Severity of Cost	Minor
4.6.b	Frequency Cost is Experienced	N/A
4.a	Do you approve of this advice?	Yes
4.b	Comments	

5	You should substitute symbols for the letters in your password (e.g. "pa\$\$word")	
5.1	Makes it more difficult to create a password	
5.1.a	Severity of Cost	Positive
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	At Login
5.3	Requires extra resources	
5.3.a	Severity of Cost	Minor
5.3.b	Frequency Cost is Experienced	At Login
5.4	Requires the creation of a new password	
5.4.a	Severity of Cost	Positive
5.4.b	Frequency Cost is Experienced	At Login
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	
5.6.a	Severity of Cost	Minor
5.6.b	Frequency Cost is Experienced	Periodic
5.a	Do you approve of this advice?	Yes

## Personal password storage

6	Don't store your passwords in a computer file	
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	Major
6.2.b	Frequency Cost is Experienced	
6.3	Requires extra resources	
6.3.a	Severity of Cost	Minor
6.3.b	Frequency Cost is Experienced	At Login
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?	Yes
6.b	Comments	

## Expiry

7	Change your password regularly	
7.1	Makes it more difficult to create a password	
7.1.a	Severity of Cost	Major
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	
7.3	Requires extra resources	
7.3.a	Severity of Cost	Minor
7.3.b	Frequency Cost is Experienced	At Login
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	

8	Change your password if you suspect it has been compromised	
8.1	Makes it more difficult to create a password	
8.1.a	Severity of Cost	Positive
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	Minor
8.3.b	Frequency Cost is Experienced	Once off
8.4	Requires the creation of a new password	
8.4.a	Severity of Cost	Minor
8.4.b	Frequency Cost is Experienced	At Login
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	At Login
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	Major
9.3.b	Frequency Cost is Experienced	At Login
9.4	Requires the creation of a new password	
9.4.a	Severity of Cost	Minor
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	

## Sharing

10	Never share your password	
10.1	Makes it more difficult to create a password	
10.1.a	Severity of Cost	Minor
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	
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	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	

11	Don't send passwords by email	
11.1	Makes it more difficult to create a password	
11.1.a	Severity of Cost	Positive
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	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	Check web pages are encrypted by looking for the padlock or "https"	
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	

13	Log out after using public computers	
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	Doesn't apply
13.5.b	Frequency Cost is Experienced	N/A
13.6	Requires other extra time or effort	
13.6.a	Severity of Cost	Doesn't apply
13.6.b	Frequency Cost is Experienced	N/A
13.a	Do you approve of this advice?	Yes
13.b	Comments	

## Logging in

14	You should not be able to paste your password when logging in	
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	Major
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	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	

15	You should have an option to view your password after you have typed it	
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?	Yes
15.b	Comments	

16	Make your security answers difficult to guess	
16.1	Makes it more difficult to create a password	
16.1.a	Severity of Cost	Minor
16.1.b	Frequency Cost is Experienced	N/A
16.2	Makes it less easy to remember	
16.2.a	Severity of Cost	Major
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	Minor
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?	Yes
16.b	Comments	

## Two factor authentication

17	You should use 2-factor authentication when logging into accounts (e.g. a code from an app 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	Doesn't apply
17.6.b	Frequency Cost is Experienced	N/A
17.a	Do you approve of this advice?	Yes
17.b	Comments	

## Password manager

18	You should use a password manager to store your passwords	
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?	Yes
18.b	Comments	

19	When using a password manager, you should use it to create long random passwords	
19.1	Makes it more difficult to create a password	
19.1.a	Severity of Cost	Major
19.1.b	Frequency Cost is Experienced	N/A
19.2	Makes it less easy to remember	
19.2.a	Severity of Cost	Major
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	Major
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	Major
19.6.b	Frequency Cost is Experienced	N/A
19.a	Do you approve of this advice?	Neutral
19.b	Comments	

## Generated passwords

20	Passwords generated for you should be generated with a random generator	
20.1	Makes it more difficult to create a password	
20.1.a	Severity of Cost	Minor
20.1.b	Frequency Cost is Experienced	N/A
20.2	Makes it less easy to remember	
20.2.a	Severity of Cost	Major
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	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	

## Final Comments

21	Do you agree with the six cost categories that were used in the survey?	Somewhat
21.a	Are there any cost categories that you think should be added or removed?	
22	This is the end of the survey do you have any final comments?	

Response ID	Completion date	
624141-624132-66420857	16 Oct 2020, 15:23 (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 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 information 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
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3	Select a rank on the below scale from 1 (very poor) to 5 (very knowledgeable) to describe your internet security knowledge.	
3.1	Internet security knowledge:	2

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	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	Don't know

4.3.b	Frequency Cost is Experienced	N/A
4.4	Requires the creation of a new password	
4.4.a	Severity of Cost	Major
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	N/A
4.6	Requires other extra time or effort	
4.6.a	Severity of Cost	Minor
4.6.b	Frequency Cost is Experienced	Once off
4.a	Do you approve of this advice?	No
4.b	Comments	

5	You should substitute symbols for the letters in your password (e.g. "pa\$\$word")	
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	Major
5.4.b	Frequency Cost is Experienced	Once off
5.5	Increases the computing power needed	
5.5.a	Severity of Cost	Don't know
5.5.b	Frequency Cost is Experienced	N/A
5.6	Requires other extra time or effort	
5.6.a	Severity of Cost	Minor
5.6.b	Frequency Cost is Experienced	Once off
5.a	Do you approve of this advice?	Neutral

## Personal password storage

6	Don't store your passwords in a computer file	
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	Major
6.2.b	Frequency Cost is Experienced	At Login
6.3	Requires extra resources	
6.3.a	Severity of Cost	Minor
6.3.b	Frequency Cost is Experienced	Once off
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	N/A
6.6	Requires other extra time or effort	
6.6.a	Severity of Cost	Minor
6.6.b	Frequency Cost is Experienced	At Login
6.a	Do you approve of this advice?	No
6.b	Comments	

## Expiry

7	Change your password regularly	
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	Minor
7.3.b	Frequency Cost is Experienced	Once off
7.4	Requires the creation of a new password	
7.4.a	Severity of Cost	Major
7.4.b	Frequency Cost is Experienced	At Login
7.5	Increases the computing power needed	
7.5.a	Severity of Cost	Don't know
7.5.b	Frequency Cost is Experienced	N/A
7.6	Requires other extra time or effort	
7.6.a	Severity of Cost	Major
7.6.b	Frequency Cost is Experienced	At Login
7.a	Do you approve of this advice?	No
7.b	Comments	

8	Change your password if you suspect it has been compromised	
8.1	Makes it more difficult to create a password	
8.1.a	Severity of Cost	Doesn't apply
8.1.b	Frequency Cost is Experienced	N/A
8.2	Makes it less easy to remember	
8.2.a	Severity of Cost	Doesn't apply
8.2.b	Frequency Cost is Experienced	N/A
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	Minor
8.5.b	Frequency Cost is Experienced	Periodic
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	At Login
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	Minor
9.3.b	Frequency Cost is Experienced	Once off
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	Minor
9.5.b	Frequency Cost is Experienced	At Login
9.6	Requires other extra time or effort	
9.6.a	Severity of Cost	Minor
9.6.b	Frequency Cost is Experienced	Once off
9.a	Do you approve of this advice?	No
9.b	Comments	

## Sharing

10	Never share your password	
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	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	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	Don't know
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	

11	Don't send passwords by email	
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	Minor
11.3.b	Frequency Cost is Experienced	Once off
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	Once off
11.a	Do you approve of this advice?	Yes
11.b	Comments	

12	Check web pages are encrypted by looking for the padlock or "https"	
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	Don't know
12.5.b	Frequency Cost is Experienced	N/A
12.6	Requires other extra time or effort	
12.6.a	Severity of Cost	Minor
12.6.b	Frequency Cost is Experienced	At Login

12.a	Do you approve of this advice?	Yes
12.b	Comments	

13	Log out after using public computers	
13.1	Makes it more difficult to create a password	
13.1.a	Severity of Cost	Minor
13.1.b	Frequency Cost is Experienced	Once off
13.2	Makes it less easy to remember	
13.2.a	Severity of Cost	Major
13.2.b	Frequency Cost is Experienced	At Login
13.3	Requires extra resources	
13.3.a	Severity of Cost	Minor
13.3.b	Frequency Cost is Experienced	Once off
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	Major
13.5.b	Frequency Cost is Experienced	At Login
13.6	Requires other extra time or effort	
13.6.a	Severity of Cost	Minor
13.6.b	Frequency Cost is Experienced	At Login
13.a	Do you approve of this advice?	Yes
13.b	Comments	

## Logging in

14	You should not be able to paste your password when logging in	
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	Major
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	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	Minor
14.6.b	Frequency Cost is Experienced	At Login
14.a	Do you approve of this advice?	Neutral
14.b	Comments	

15	You should have an option to view your password after you have typed it	
15.1	Makes it more difficult to create a password	
15.1.a	Severity of Cost	Positive
15.1.b	Frequency Cost is Experienced	Once off
15.2	Makes it less easy to remember	
15.2.a	Severity of Cost	Positive
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	Minor
15.5.b	Frequency Cost is Experienced	At Login

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

16	Make your security answers difficult to guess	
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	Major
16.3.b	Frequency Cost is Experienced	Periodic
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	Major
16.5.b	Frequency Cost is Experienced	Periodic
16.6	Requires other extra time or effort	
16.6.a	Severity of Cost	Major
16.6.b	Frequency Cost is Experienced	Periodic
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. a code from an app 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	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	Major
17.5.b	Frequency Cost is Experienced	At Login
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	

## Password manager

18	You should use a password manager to store your passwords	
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	Positive
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	Minor
18.5.b	Frequency Cost is Experienced	At Login
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	

19	When using a password manager, you should use it to create long random passwords	
19.1	Makes it more difficult to create a password	
19.1.a	Severity of Cost	Minor
19.1.b	Frequency Cost is Experienced	Once off
19.2	Makes it less easy to remember	
19.2.a	Severity of Cost	Major
19.2.b	Frequency Cost is Experienced	Periodic
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	Positive
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	At Login
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

## Generated passwords

20	Passwords generated for you should be generated with a random generator	
20.1	Makes it more difficult to create a password	
20.1.a	Severity of Cost	Positive
20.1.b	Frequency Cost is Experienced	Once off
20.2	Makes it less easy to remember	
20.2.a	Severity of Cost	Major
20.2.b	Frequency Cost is Experienced	At Login
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	Major
20.4.b	Frequency Cost is Experienced	Once off
20.5	Increases the computing power needed	
20.5.a	Severity of Cost	Don't know
20.5.b	Frequency Cost is Experienced	N/A
20.6	Requires other extra time or effort	
20.6.a	Severity of Cost	Positive
20.6.b	Frequency Cost is Experienced	N/A
20.a	Do you approve of this advice?	Yes
20.b	Comments	

## Final Comments

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

