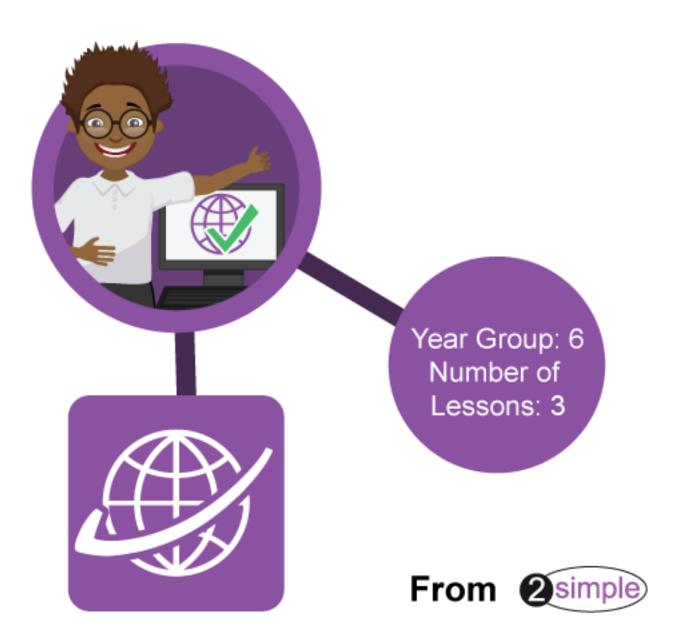


# Computing

Scheme of Work

## Unit 6.2 – Online Safety





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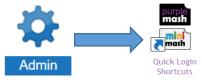
### Introduction

For these sessions, the children will need to have their own individual logins to Purple Mash.

If you are currently using a single login per class or group and would like to set up individual logins yourself, then please see our guide to doing so at <u>Create and Manage Users</u>. Alternatively, please contact support at support@2simple.com or 0208 203 1781.

Check with the Purple Mash Administrator in your school (usually the coordinator) if you need to change the children's passwords. You can create picture passwords for the younger children but if you're not sure how to do this just give the 2Simple office a call and we can talk you through it or set them up for you!

Your school administrator can put a shortcut to your school's Purple Mash portal on the devices so there is an icon to use for Purple Mash to save time when the children are logging in. The tool to do this can be found in the Admin tab:







Lesson	Aims	Success Criteria
1	<ul> <li>Identify benefits and risks of mobile devices broadcasting the location of the user/device, e.g. apps accessing location.</li> <li>Identify secure sites by looking for privacy seals of approval, e.g. https, padlock icon.</li> <li>Identify the benefits and risks of giving personal information and device access to different software.</li> </ul>	<ul> <li>Children have used the example game and further research to refresh their memories about risks online including sharing location, secure websites, spoof websites, phishing and other email scams.</li> <li>Children have used the example game and further research to refresh their memories about the steps they can take to protect themselves including protecting their digital footprint, where to go for help, smart rules and security software.</li> </ul>
<u>2</u>	<ul> <li>To review the meaning of a digital footprint and understand how and why people use their information and online presence to create a virtual image of themselves as a user.</li> <li>To have a clear idea of appropriate online behaviour and how this can protect themselves and others from possible online dangers, bullying and inappropriate behaviour.</li> <li>To begin to understand how information online can persist and give away details of those who share or modify it.</li> </ul>	<ul> <li>Children understand how what they share impacts upon themselves and upon others in the long-term.</li> <li>Children know about the consequences of promoting inappropriate content online and how to put a stop to such behaviour when they experience it or witness it as a bystander.</li> </ul>
<u>3</u>	<ul> <li>To understand the importance of balancing game and screen time with other parts of their lives, e.g. explore the reasons why they may be tempted to spend more time playing games or find it difficult to stop playing and the effect this has on their health.</li> <li>To identify the positive and negative influences of technology on health and the environment.</li> </ul>	<ul> <li>Children can take more informed ownership of the way that they choose to use their free time. They recognise a need to find a balance between being active and digital activities.</li> <li>Children can give reasons for limiting screen time.</li> <li>Children can talk about the positives and negative aspects of technology and balance these opposing views.</li> </ul>



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### Lesson 1 – Message in a Game

#### <u>Aims</u>

- Identify benefits and risks of mobile devices broadcasting the location of the user/device, e.g. apps accessing location.
- Identify secure sites by looking for privacy seals of approval, e.g. https, padlock icon.
- Identify the benefits and risks of giving personal information and device access to different software.

#### Success criteria

- Children have used the example game and further research to refresh their memories about risks online including sharing location, secure websites, spoof websites, phishing and other email scams.
- Children have used the example game and further research to refresh their memories about the steps they can take to protect themselves including protecting their digital footprint, where to go for help, smart rules and security software.

#### **Resources**

Unless otherwise stated, all resources can be found on the <u>main unit 6.2 page</u>. From here, click on the icon to set a resource as a 2do for your class. Use the links below to preview the resources; right-click on the link and 'open in new tab' so you don't lose this page.

• <u>2DIY3D Online Safety Game</u> example, set this as a 2do.

#### **Activities**

- 1. If children have been following the scheme in previous years, then they will have come across many terms associated with online safety.
- 2. The first activity today is to play a 2DIY3D game where online risks and safety features are represented by symbols. To win the game they need to collect all the safe symbols and avoid the risks.
- 3. There are eight risks and 8 safety features. They should work out what all the 16 symbols are and what they represent to determine whether they are good or bad to online safety.
- 4. Children should be given time to play the game and notes down the 16 symbols and their meanings. Then go over them as a class. This will inform you of gaps in the children's knowledge for later in the session.

Risks:		Safety Features	
Symbol	Meaning	Symbol	Meaning
18 www.peg.info	PEGI Rating 18 – content for 18-year olds and over (Y3, lesson 3)	U	PEGI Rating U – content for everyone (Y3, lesson 3)
First cat space walk	Spoof website (Y3, lesson 2)	u 🚊 🖲 https://	Secure websites (Y4, lesson 1)
	Computer virus (Y4, lesson 2)		Teacher – trusted adult to tell
	(Y3, lesson 2) Computer virus (Y4, lesson	https://	Teacher – trusted



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Purple Mash Computing Scheme of Work Unit 6.2- Online Safety – Lesson 1

			(Y3, lesson 3 and others)
	Location sharing (Part of digital footprint work Y2, lesson 3 and Year 3, lesson 1)		Padlock symbol for secure websites (Year 4, lesson 1)
	Spam email (Year 4, lesson 1)		Securing all your devices with strong passwords (Year 5, lesson 2)
VARNING P	Malware (Year 4, lesson 2)	0	Firewall virus protection (Year 4, lesson 1)
<b>%</b>	Identity theft (Y4, lesson 1)	SAR ?	SMART rules (Year 5, lesson 1)
	Malware and AdFly (Year 4, lesson 2)		Tell a trusted adult (SMART rules) (Y3, lesson 3 and others)

5. Tell the children that they are going to create a game using 2DIY - Games or 2Quiz, 2DIY 3D or 2Code that uses online safety as the theme.

**NB** the children will already need to have had some experience using the programs to be able to make

6. You might want them to focus on an aspect that they did not recognise from the example game and research this area of online safety. The children will need to think about the following.

What type of game they are going to create? They will need to familiarise themselves with the different types of games creators on Purple Mash and how they function.

They will need to plan their game: think about the characters and what the message of the game is.

They will need to consider whether their game will have different levels and which would be the most appropriate tool to use in Purple Mash if it did.

- 7. Give the children the opportunity to explore 2DIY and 2DIY 3D and 2Code to find out which would be the best option for the game that they want to create.
- 8. Let the children explore and start to create their games. They will need time to continue creating their games either using Purple Mash at home or at some other point during the school week.



### Lesson 2

#### <u>Aims</u>

- To review the meaning of a digital footprint and understand how and why people use their information and online presence to create a virtual image of themselves as a user.
- To have a clear idea of appropriate online behaviour and how this can protect themselves and others from possible online dangers, bullying and inappropriate behaviour.
- To begin to understand how information online can persist and give away details of those who share or modify it.

#### Success criteria

- Children understand how what they share impacts upon themselves and upon others in the long-term.
- Children know about the consequences of promoting inappropriate content online and how to put a stop to such behaviour when they experience it or witness it as a bystander.

#### **Resources**

Unless otherwise stated, all resources can be found on the <u>main unit 6.2 page</u>. From here, click on the icon to set a resource as a 2do for your class. Use the links below to preview the resources; right-click on the link and 'open in new tab' so you don't lose this page.

- 2Investigate database <u>Applicants Database</u>, save this to a class folder for children to access.
- <u>Digital Footprint Detectives sheet</u> print out one for each child.
  - Optional (if children have not followed these units in previous year groups) <u>Digital Footprint</u> <u>Slideshow</u>
  - o Digital Footprint Quiz
  - o Digital Connections
- <u>Digital Footprint writing template</u>; set this as a 2do for the class.
- Print the <u>Screen-Time Record Card</u>. Each child will need a copy (each sheet has two record cards and can be cut in half), this is to hand out at the end of the session for children to complete over the week in preparation for the next lesson.

#### **Activities**

- Children first encountered the term digital footprint in Y2, lesson 3, Y4, lesson 1 (steps 8-11). If children
  have not followed the scheme in previous years, it might be worth reviewing the content of these lessons
  with children and using the prepared resources.
- Open the Applicants database. This is a simulation of applicants to a college funded by the local premier league football team Halliwell FC. The college has used online searches to fill in the information that they ind to help them assess who should be offered a place. Look at the record structure by clicking the button.
- Children need to use the database to answer the questions about the candidates on the Digital Footprints Database sheet.
- 4. Once children have done this, discuss the information using the completed worksheet below





Purple Mash Computing Scheme of Work Unit 6.2 - Online Safety – Lesson 2

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Candidate	Has the person shared private information that could identify them, what information?	Would they be a suitable candidate for the football management scholarship award*, why?	Any conflicting information on this candidate?	Any undesirable information or images online?	
Harriet Oak	DOB	No – dishonesty is not good in business	The meat dishes conflict with her stated veganism. The comment on Instagram suggests some dishonesty	Possible dishonesty	Janey has a great application form, is her digital footprint information suitable? She appears to have no digital footprint, this is not necessarily a good thing given the way that society is moving towards online presence. It might be better to cultivate a positive digital footprint going forwards.
Harrison Cluelo	Used real photo but not full name so not identifiable.	Yes; has led successful campaigns, is a role model for others, fundraising for charity.	No	No	
Fredrica French	Used real photo, full name full address, phone number and school.	She says that she hates football in the YouTube video but also tweeted about wanting the scholarship; this doesn't place her well. Does she just want the money?	Yes, regarding football	Not a strong candidate	Based on the digital footprint
Janey Brown	No information at all	No information at all	No information at all	No information at all	information, who should be offered a place on the course? Who gets the scholarship? Casey or Harrison look the most suitable going on digital footprint alone.
Casey Album	Used an avatar and no identifying details	Yes – has an interest in football. Is competitive; cycling award and does volunteer work.	No	No	
Verity Lowe	No identifying details but the photos are not good.	No – due to the photos even though she is interested in football and fitness.	The photos conflict with the information that she has given about herself	Yes – underage drinking, possibly smoking doesn't give a good impression.	
Sam Spearhead	Used real photo but not real name etc	Nothing about football or business interests so doesn't stand out from her digital footprint as being ideal.	No	No	
Derren Flint	Used real photo and full name	Runs a business already so could be ideal but the blog lets him down	The negatives outweigh the positives; other candidates are stronger.	Inappropriate videos on his blog and pictures posted by others	

\*Halliwell FC will be giving one student money to fund their further study in football business management. Candidates need to have an interest in this area.



5. Next, use the writing frame to discuss and record the following questions. Children could make notes on the writing frame as they go. Select which of these topics are relevant to the individual circumstances of your class:

#### Is a digital footprint a bad thing?

No: We are all online so much nowadays and the children will be adding to their online presence as they get older and access more sharing platforms ask children to suggest them (e.g. Instagram, Pinterest, Twitter and more are constantly developed.

It is important to keep control of your own digital footprint as it reflects how others see you. Much recruitment is now done via social networking platforms such as LinkedIn and therefore your future could depend upon maintaining a good image of yourself online, not just if your ambitions are to be a YouTube star!

#### Do you have complete control over what is in your digital footprint?

No, but that also makes you responsible for others' digital footprints. Remember to ask before tagging others in photos or sharing photos of others.

#### What things out of your control can affect it?

Digital altering of images is one. Have any of the children used image altering apps or software; what have they been able to do (they will have done this is lesson 2 of unit 5.2 – if they did it) but have probably used apps to do the same thing. Can they imagine ways that images could be altered in a way that would negatively impact your digital footprint? Once an image is out there it is really hard to get rid of. Some apps such as Snapchat say that images are temporary, but they can easily be screenshot and then they are out of your control.

### Do you always read the small print when installing an app? What things could the small print authorise?

Access to your contacts, to your photos to your data, even to post on your behalf in social media. – they can then sell this information to others. Some websites allow you to login to them using your login from another site such as Facebook, this then means you lose control of your data, even if your privacy settings are tight on the original app, you are still authorising the second app to take your data and possibly sell it on.

Many search engines are also businesses and can use and sell on your data to target you with adverts or sell your interests to other companies who can target you. Look for the privacy setting on your search engine – you can usually find this in 'settings'. There are lesser known search engines who promise not to sell your information; do a search for private search engines and explore what they say about themselves and data-privacy.



#### Personal information or opinions sent to one person can be shared with a larger audience.

Think where this could end up. A 'funny' video you share now, could not seem so funny in 5 years' time and could even stop you getting a job. Sharing a funny tweet which originated from an offensive organisation will link you with that organisation.

#### Think about the things that people thought were acceptable even 25 years ago that are not now; this might

include racism, sexism, homophobia, transphobia. Many of these were thought acceptable in the past by some people but opinion has completely changed to the extent that you can now be arrested for them. You must use you own conscience as a guide however funny something seems now.

#### Metadata can track images back to you once you have shared them

It can contain information such as how it was produced, where and when, the name of the creator

Note for teacher, you might want to extend this to implications of sending intimate images and sexting.

At the end of the lesson, hand out the record-card to be completed for the next lesson. Children should record how much time they spend on (any) screen, which device and what they were doing as well as off-screen activities that they do including hours of sleep. Emphasise that you are not going to 'mark' individual responses and that pupils can choose to keep their information private if they wish.



### Lesson 3 – Screen time

**Note for teacher:** If the scheme has been followed all the way through then the children will have done a similar lesson in year 4, it might be useful to reflect upon whether they made changes and if these changes had a lasting effect.

#### <u>Aims</u>

- To understand the importance of balancing game and screen time with other parts of their lives, e.g. explore the reasons why they may be tempted to spend more time playing games or find it difficult to stop playing and the effect this has on their health.
- To identify the positive and negative influences of technology on health and the environment.

#### Success criteria

- Children can take more informed ownership of the way that they choose to use their free time. They recognise a need to find a balance between being active and digital activities.
- Children can give reasons for limiting screen time.
- Children can talk about the positives and negative aspects of technology and balance these opposing views.

#### **Resources**

Unless otherwise stated, all resources can be found on the <u>main unit 6.2 page</u>. From here, click on the icon to set a resource as a 2do for your class. Use the links below to preview the resources; right-click on the link and 'open in new tab' so you don't lose this page.

- Completed record cards handed out in the end of the last session.
- <u>Screen-Time 2Investigate Database</u>. You should save this in the shared class folder in Purple Mash but do not set the database to be collaborative yet.
- <u>Screen Time Study writing frame</u> to be set as a 2Do.
- <u>Improving Lives with Technology</u>; This writing frame can be found in Computing > Writing Projects. Some children might choose to research this area in step 13 of the lesson and use this alternative writing frame.

#### **Activities**

- 1. Ask children to look at their record cards and to work out the following:
  - The total screen time for the week in minutes.
  - The total non-screen time activity in minutes.
  - Which day had the most screen time
  - Which day had the least screen time.
  - Average hours of sleep per night (you might have to show children how to calculate this).
- 2. Ask them to (privately) consider whether they think they have the right balance between screen time and other activities.
- 3. Open the Screen-Time Database on the whiteboard. Explain that the 2Investigate database can be used to collect everyone's information easily. Each child will be creating their own record of data. Click on the

Design Database button Lto look at what the record will contain. Each question is called a 'field' of the database. This one contains the following fields:



- Screen time and activity time in minutes; as previously calculated.
- Screen-based activities; at this point, click on the pencil button for this field. You will see that there is list of activities. Ask children for any other required activities to include here and add them. Children should select the main activity they do.
- Highest/Lowest screen-time day, children will select which • day they had the lowest or highest screen time.
- Control of screen-time; this is a yes/no guestion. If children's screen time is controlled by adult intervention or timers or a timetable.
- Average hours of sleep per night
- Experienced upsetting content; this is a yes/no question. If they have ever been upset by something online, they should answer yes.
- . You might be Once you are happy with the record structure, click the collaboration button 4.

prompted to save again, then the button should indicate the database is now collaborative:

5. Children should open 2Invetigate on their own devices. They should then click on the Add Record button

and input their details. For Data Name, children can use their first name (you could anonymise this by giving each child a letter or random word to insert if you wish).

6. The database should update in real-time on the whiteboard. When all children have input their data, it will look something like this:

Screen-Time Database



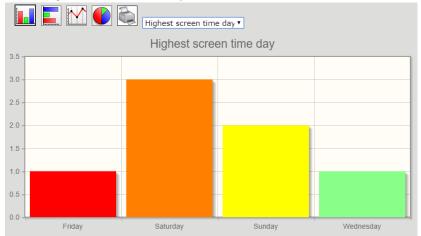




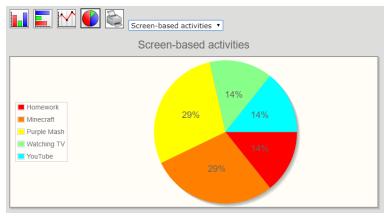


7. Now try making some graphs to find out about the class' screen time information. Click on the Charts

button . On the Charts screen, you can select the field to examine in the drop-down box, the example below shows Highest screen time day.



8. You can also create different types of charts using the buttons at the top, this example shows a pie-chart of the different on-screen activities.



- 9. Use your class' results to discuss how they feel about the amount of screen time they have in relation to the amount of time spent on other activities. Discuss the following:
  - Positive and negative influences of technology on their education, on their physical health, on mental wellbeing, on the environment.
  - Can they suggest reasons to balance screen-based activities with other activities in their life and what will prevent them from doing so; temptation, peer pressure, used to a routine, financial, weather, etc.
  - Do they see screen-time restriction as a bad thing imposed on them or can they see why such restriction is in place in some households?
  - How much screen time do you think that children of different ages should be allowed?
  - The effect of screen time on sleep; research shows that it is bad for people to look at screens before bed. It can lead to later bedtimes, difficulty getting to sleep and poorer quality of sleep. Many studies have shown how lack of sleep impacts on many areas of life including how well you do at school and your behaviour. Children need a lot more sleep than adults, pre-teens should get between nine and 12 hours. Are they getting enough sleep?
- 10. Show children how to take a screenshot of a graph. The method will be device dependent. On a PC use the Snipping Tool and then save the image to the computer. On an iPad click the home button and the



off/on button at the same time. The image will save to the Photos app and can then be cropped if needed. On many Android tablets, click the off/on button and volume down button at the same time, then crop the image which will be found in the Gallery.

- 11. Ask children to create one of the graphs on their own devices and then to save. They should then open the writing frame set as a 2do and insert their graph into the picture box on the writing frame (using the green up arrow).
- 12. Before completing the writing frame, turn to the last question about upsetting content. You might wish children to share what sort of things they have seen or experienced and your response will depend upon their experiences. The important teaching point is to give children the knowledge of what to do in this situation. Discuss:
  - Applying the screenshot technique to save any upsetting messages that they receive to save evidence to show an adult.
  - How to report upsetting content within an app e.g. the Report to teacher button in 2Email
     Report to teacher A and report buttons in online platforms.
  - Who to talk to if anyone or anything upsets them online.
- 13. They should complete the writing frame (or the alternative noted in the Resources section), recording the class discussion and their opinions and strategies. They could consider various aspects or concentrate on just one, doing further research into the area themselves. If they completed this lesson in year 4, then it would be better for children to research one area in more depth with different children allocated different areas. They should then share their results on a class blog or display board.



### **Assessment Guidance**

The unit overview for year 6 contains details of national curricula mapped to the Purple Mash Units. The following information is an exemplar of what a child at an expected level would be able to demonstrate when completing this unit with additional exemplars to demonstrate how this would vary for a child with emerging or exceeding achievements.

	Assessment Guidance
Emerging	Children can refer to the SMART rules to guide them online. They can navigate networks within Purple Mash (Work folders, class folders and group folders), the local network (school) and the Internet (using as a source for research or leisure time). They use these networks to collaborate with support using Purple Mash tools such as 2Write and 2Connect.
	They can use search tools and have an awareness of the need to select sources carefully.
	They can recognise features online that are risks and those that exist to protect them (lesson 1). Children are aware that their actions online have an impact not only on themselves but on others as well. They know to ask for help if they are worried or distressed by something online.
Expected	Children have a good knowledge of the benefits and risks to working collaboratively. They have no trouble navigating networks within Purple Mash (Work folders, class folders and group folders), the local network (school) and the Internet (using as a source for research or leisure time). They use these networks to collaborate using Purple Mash tools such as 2Write, 2Connect and 2Blog and can use a variety of networked devices such as webcams, online tools, printers, and tablets in a connected way for their educational benefit.
	Children can use search tools and routinely try to verify the validity and reliability of their sources. They look for corroborating sources for information and enter keywords that help them to choose the best results.
	Children demonstrate an understanding of their responsibility to others as well as to themselves when communicating and sharing content online. They can identify a variety of risks and benefits of technology (lessons 1 and 3). They feel confident in having strategies to help them promote a positive online image of themselves in their digital footprint.
	Children can identify location sharing as a risk to online safety in lesson 1 and could relate this to work done on protecting their identifying private information.
	Children were able to identify the padlock and https as aids to the online safety in lesson 1 and could explain what these means referring to the work that they did on this in previous years' online safety units.
	Children's work in lesson 1, indicates that they have a clear understanding of terms such as Computer virus, Location sharing, phishing scams, spam email, Malware and Identity theft. In lesson 2, they make sensible contributions to the question of what risks there are when installing an App and the possible risks hidden in the small print.
	Children's work as digital footprint detectives in lesson 2 demonstrates that they understand the impact of a positive and negative digital footprint and how to take control of their own online virtual image.
	Most children can balance the positive impact of technology with the reasons for limiting screen time that include the effect on physical and mental health. In lesson 3, they were able to reflect on their own screen time and collective class screen time and begin to make informed decisions about when to limit their own screen time



	Assessment Guidance
	Having studied this aspect in depth in year 5 (lesson 3), children routinely include citations in their research work across subjects. They also take care to credit the artist when using images from the Internet. In lesson 2, as part of the discussion surrounding digital footprints, children explored the existence of metadata to track the source of images.
	Having studied this aspect in depth in year 5 (lesson 2, step 11+ and lesson 3, step 6+), children take care to credit the artist when using images from the Internet and know how to explore the rights and permissions associated with an image online. They can explain the difference between copyright and privacy and are mindful of both aspects when working with images.
	Most children can make informed choices when communicating online for example selecting the appropriate form of communication for its purpose and audience. They can discuss the use of instant messaging in social contexts, aware of the pros and cons of using such tools.
Exceeding	Children view their own/school devices as a means to access a wealth and mixture of networked and local resources. They use these in an integrated way; for example, they can take information and images from one source, compare them to others, include them in their written work alongside their own original images and text to enhance their own understanding and produce high quality comprehensive work. They are implicitly aware of the benefits and risks to working collaboratively. They navigate networks within Purple Mash (Work folders, class folders and group folders), the local network (school) and the Internet and use these networks to collaborate using Purple Mash tools such as 2Write, 2Connect and 2Blog.
	Children can use search tools effectively, routinely verifying the validity and reliability of their sources. They look for corroborating sources for information and enter keywords that help them to choose the most suitable results. They are aware that search engines are also often money-making ventures for their providers and that this has personal privacy implications. They know where to look to investigate their privacy settings on search engines.
	Children have an internalised in-depth understanding of the risks and benefits of an online presence (lessons 1 and 3). Their actions demonstrate that they also feel a responsibility to others when communicating and sharing content online. They feel confident in having strategies to help them promote a positive online image of themselves and deal with issues that might arise in the future.

