

DIGITOOLS – COUNTERING VIOLENT EXTREMISM ONLINE

CONCEPT PAPER¹

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1. CHALLENGE ASSIGNMENT

'Combating Violent Extremism Among Youth: The prevalence of the internet and the ease with which young people can access social media has revolutionised the way extremist ideology is propagated. It is important to educate young people about safe consumption of media so that they are capable of critiquing ideas, and propaganda, that they encounter whilst online. By enabling young people to identify misinformation, we can help stop the rise in young people being radicalised and their subsequent participation in violent, extremist activities.'

2. INTRODUCTION AND RELEVANCE

Online radicalisation is more pervasive than ever. At least 17 children, some as young as 14, have been arrested on terrorism charges over the past 18 months in the UK.² Extremist recruiters use propaganda and 'us vs them' narratives to target young people,³ with echo chambers further accelerating the radicalisation process.⁴ Data suggests that the average time frame from the initial exploration of extremist ideas to complete indoctrination used to amount to around five years,⁵ though the presence of the internet has now shortened this trajectory.⁶ Schmidle highlights the role of chat rooms in this acceleration effect, as extremists can exchange with like-minded individuals around the clock, regardless of geographical borders.⁷ Furthermore, a study conducted on the basis of 236 in-depth interviews with former and current extremists suggests that internet recruitment alone is now sufficient to radicalise people, eliminating the need for physical contact.⁸

² Mark Townsend, 'How far right uses video games and tech to lure and radicalize teenage recruits' (*The Guardian*, 14 February 2021)

<<https://www.theguardian.com/world/2021/feb/14/how-far-right-uses-video-games-tech-lure-radicalise-teenage-recruits-white-supremacists>> accessed 30 January 2022.

³ United Nations Office on Drug and Crime, 'Handbook on Children Recruited and Exploited by Terrorist and Violent Extremist Groups: The Role of the Justice System' (2017)

<https://www.unodc.org/documents/justice-and-prison-reform/Child-Victims/Handbook_on_Children_Recruited_and_Exploited_by_Terrorist_and_Violent_Extremist_Groups_the_Role_of_the_Justice_System.E.pdf> accessed 04 April 2022.

⁴ 'Echo-chambers on social media radicalise young people, according to study' (*Glasgow Caledonian University*, 15 July 2021) <<https://www.gcu.ac.uk/theuniversity/universitynews/2021-echo-chambers-social-media-radicalise/>> accessed 30 January 2022.

⁵ Jytte Klausen, Selene Campion, Nathan Needle, Giang Nguyen & Rosanne Libretti, 'Toward a Behavioral Model of "Homegrown" Radicalization Trajectories, *Studies in Conflict & Terrorism*' (2016)

<<https://www.tandfonline.com/doi/pdf/10.1080/1057610X.2015.1099995?needAccess=true>> accessed 04 April 2022.

⁶ Ines Von Behr, Anaïs Reding, Charlie Edwards, Luke Gribbon, 'Radicalisation in the digital era The use of the internet in 15 cases of terrorism and extremism' (2013)

<https://www.rand.org/content/dam/rand/pubs/research_reports/RR400/RR453/RAND_RR453.pdf> accessed 04 April 2022.

⁷ Robert E Schmidle, 'Positioning Theory and Terrorist Networks' (2009) 40 *Journal for the Theory of Social Behaviour* 65.

⁸ Anne Speckhard, 'Is Internet Recruitment Enough to Seduce a Vulnerable Individual into Terrorism?' (*Homeland Security Today*, 15 April 2020).

<<https://www.hstoday.us/subject-matter-areas/counterterrorism/is-internet-recruitment-enough-to-seduce-a-vulnerable-individual-into-terrorism/>> accessed 04 April 2022.

The COVID-19 pandemic has only exacerbated these concerns because it has meant that many vulnerable people have spent more time isolated and online, and with fewer of the protective factors that schooling, employment, friends and family typically provide.⁹ In the UK, the counter-terrorism policing network has seen more young people than ever being drawn towards terrorist activity in what it describes a 'new and worrying trend'.¹⁰

Despite these findings, pedagogical resources addressing the threat of extremism online are scarce.¹¹ Although there are many programmes teaching online safety, there are only few resources, which combine online extremism with media literacy, critical thinking skills, and digital citizenship.¹² This has the effect of undermining the values of the UN Convention on the Rights of the Child, such as free expression (article 13), education (article 28) and the safe access to reliable information (article 17).¹³ To uphold these rights, critical thinking skills as well as media and digital literacy education are essential and should - alongside peer safeguarding - be at the heart of prevention mechanisms.¹⁴

Research has yet to conclusively establish which age groups are more likely to radicalise within an online setting.¹⁵ Yet, 13% of all UK arrests for terrorist activity in 2020/21 were under the age of 18 - a record high¹⁶ - and young people from the age of 14 have been identified as a target audience for violent and extremist propaganda online.¹⁷ This means that adolescents aged 14 to 17 are particularly vulnerable. Providing this age group with adequate tools to stay safe in online environments is therefore crucial to thwart radicalisation attempts and mitigate the adverse effects caused by periods of isolation during the COVID-19 pandemic. As part of a generation that has never experienced life without the internet, our team is not only troubled by the current trend, but sees itself in a critical position to help reverse it.

⁹ National Police Chief Council, 'CTP launch new safeguarding website to combat 'perfect storm' of online radicalisation' (2020)

<<https://news.npcc.police.uk/releases/ctp-launch-new-safeguarding-website-to-combat-perfect-storm-of-online-radicalisation>> accessed 04 April 2022.

¹⁰ *ibid.*

¹¹ Louis Reynolds and Ralph Scott, 'Digital Citizens: Countering Extremism Online' (*Demos*, 2016), p 39

<<https://www.demos.co.uk/wp-content/uploads/2016/12/Digital-Citizenship-web-1.pdf>> accessed 31 January 2022.

¹² *ibid.*

¹³ Convention on the Rights of the Child (1989) <<https://www.unicef.org/child-rights-convention>> accessed 04 April 2022.

¹⁴ Reynolds and Scott (n 10).

¹⁵ Jonathan Kenyon, Jens Binder and Christopher Beaker-Ball, 'Exploring the role of the Internet in radicalisation and offending of convicted extremists' (Ministry of Justice Analytical Series, 2021), p 5

<https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1017413/exploring-role-of-internet-radicalisation.pdf> accessed 04 April 2022.

¹⁶ Counter Terrorism Policing, 'New stats reveal the number of children arrested for terrorism offences is highest since record began' (2021)

<<https://www.counterterrorism.police.uk/new-stats-reveal-the-number-of-children-arrested-for-terrorism-offences-is-highest-since-record-began/>> accessed 04 April 2022.

<<https://www.counterterrorism.police.uk/new-stats-reveal-the-number-of-children-arrested-for-terrorism-offences-is-highest-since-record-began/>> accessed 04 April 2022.

¹⁷ Séraphin Alava, Divina Frau-Meigs, Ghayda Hassan, *Youth and Violent Extremism on Social Media* (UNESCO 2017), p 24

<<https://unesdoc.unesco.org/ark:/48223/pf0000260382>> accessed 04 April 2022.

3. RESEARCH PROCESS

The first step was to define - and distinguish - the terms 'radicalisation' and 'extremism'. According to the European Commission's Expert Group on Violent Radicalisation, the term means the 'socialisation to extremism which manifests itself in terrorism'.¹⁸ It is a 'process of growing commitment to engage in acts of political terrorism'.¹⁹ In a similar fashion, the UK Government Prevent Strategy calls radicalisation 'the process by which a person comes to support terrorism and forms of extremism leading to terrorism'.²⁰ Extremism refers to the 'vocal or active opposition to ... democracy, the rule of law, individual liberty and mutual respect and tolerance of different faiths and beliefs'.²¹ However, beyond the fact that radicalisation refers to a process while (violent) extremism denotes the eventual outcome of that process, there is little academic consensus on how the radicalisation process in fact looks like. We, however, identified two widely cited radicalisation models. The first model was developed by the New York Police specifically with a focus on radical Islamism.²² It distinguishes between four stages: pre-radicalisation, self-identification, indoctrination and jihadisation. The second model, the so-called 'Staircase to Terrorism', was developed by the psychologist Prof. Fathali Moghaddam.²³ His model identifies six stages, which are explored through the development of the victim's psyche. Although these models are by no means comprehensive,²⁴ they provided us with a basis to develop our own working model. Thus, we synthesised the common elements of the different radicalisation models into five phases, namely, pre-radicalisation, first contact, connection, indoctrination and action (on which see below).

After completing our research on the nature of radicalisation and extremism, we identified the media and information literacy skills relevant to each of the radicalisation phases. For this, we examined existing pedagogical resources and educational mechanisms, such as the 'Be Internet Citizens' curriculum developed by the Institute for Strategic

¹⁸ European Commission's Expert Group on Violent Radicalisation, 'Radicalisation Processes Leading to Terrorism' (2008), p 7 <https://www.clingendael.org/sites/default/files/pdfs/20080500_cscp_report_vries.pdf> accessed 04 April 2022.

¹⁹ *ibid.*

²⁰ HM Government Prevent Strategy (2011), p 108.

<https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/97976/prevent-strategy-review.pdf> accessed 04 April 2022.

²¹ *ibid.*, p 107.

²² Mitchell D Silber and Arvin Bhatt, 'Radicalization in the West: The Homegrown Threat' (New York City Police Department White Paper 2005).

²³ Fathali Moghaddam, 'The Staircase to Terrorism: A Psychological Exploration' (2005) 60 *American Psychologist*, p 161 <<http://fathalimoghaddam.com/wp-content/uploads/2013/10/1256627851.pdf>> accessed 04 April 2022.

²⁴ For an overview of other radicalisation models see Diego Muro, 'What does Radicalisation Look Like? Four Visualisations of Socialisation into Violent Extremism' (CIDOB 2016) <https://www.cidob.org/es/publicaciones/serie_de_publicacion/notes_internacionales/n1_163/what_does_radicalisation_look_like_four_visualisations_of_socialisation_into_violent_extremism> accessed 04 April 2022.

Dialogue in collaboration with YouTube²⁵ and Google's 'Be Internet Legends' programme.²⁶ A difficulty we faced here is that there is no comprehensive curriculum that combines violent extremism online, critical thinking, media and information literacy as well as online rights and responsibilities. We therefore chose to amalgamate information from a set of key resources including research papers as well as existing websites, games and lesson plans designed to tackle the problem of online extremism. Furthermore, much of the research we found emphasises that there is no one way for radicalisation to occur and that there are no conclusive rules about its different aspects. We have reflected these limitations in our project by adding disclaimers throughout to highlight that experiences are complex and may vary.

3.1. OUR RADICALISATION MODEL

3.1.1. PRE-RADICALISATION

Pre-Radicalisation is the point at which an individual finds himself prior to radicalisation. Our key take-away at this stage was that, contrary to our initial assumptions, the majority of the individuals who go on to radicalise are 'unremarkable'²⁷ and certainly not 'psychopaths'.²⁸ Thus, terrorists are not 'crazy' and maybe 'there is a terrorist hidden in everyone'.²⁹ Poverty and lack of education are also not linked to most extremists.³⁰ Instead, the radicalisation process is frequently sparked by a particular life event, such as a personal crisis, a traumatic life event (e.g. death of a relative) or disillusionment,³¹ which in turn lead to *perceived* injustices.³² Furthermore, there are certain factors, which likely make an individual more susceptible to radicalisation, e.g., a propensity for risk taking behaviour, the need for identity or belonging³³ and a quest for significance.³⁴ There is, however, no single profile of people susceptible to violent extremism.³⁵

²⁵ Institute for Strategic Dialogue, 'Be Internet Citizens' (2017) <<https://internetcitizens.withyoutube.com/#about>> accessed 04 April 2022.

²⁶ Google, 'Be Internet Legends' <https://beinternetlegends.withgoogle.com/en_ie/> accessed 04 April 2022.

²⁷ Silber and Bhatt (n 21) p 78.

²⁸ Randy Borum, 'Psychology of Terrorism' (2004) Tampa: University of South Florida, p 3 <<https://www.ojp.gov/pdffiles1/nij/grants/208552.pdf>> accessed 04 April 2022.

²⁹ Bertjan Doosje et al, 'Terrorism, radicalization and de-radicalization' (2016) 11 Current Opinion in Psychology, p 79 <<https://www.sciencedirect.com/science/article/pii/S2352250X16300811>> accessed 04 April 2022.

³⁰ Fathali Moghaddam (n 22) p 162.

³¹ Jytte Klausen, Selene Campion, Nathan Needle, Giang Nguyen, Rosanne Libretti, 'Toward a Behavioral Model of "Homegrown" Radicalization Trajectories' in *Studies in Conflict and Terrorism* (2015), p 77 <<https://www.tandfonline.com/doi/full/10.1080/1057610X.2015.1099995>> accessed 04 April 2022.

³² Moghaddam (n 22) p 163.

³³ Borum (n 27).

³⁴ Bertjan Doosje et al (n 28).

³⁵ Silber and Blatt (n 21) p 84.

3.1.2. FIRST CONTACT

At this stage, the individual comes into contact with extremist content for the first time. This may happen through a wide range of media, be it a social media post, images, videos, games or music.³⁶ Initially, an individual may be curious about this content as it is designed to be provocative and captivating. Even if they are not initially convinced by the ideas presented, they may seek out more of it or gradually encounter more as a result of internet algorithms and strategies used by extremist accounts such as 'the slow red pill'.³⁷ This means that more 'typical' accounts will occasionally post radical content, incrementally exposing their following to extreme ideologies. Those who like to retweet, share or otherwise endorse propaganda may then be contacted by recruiters of extremist groups, who pay them lavish attention and try to meet their needs in an effort to seduce them into the group.³⁸ Being able to spot common manipulative tactics and evaluate the trustworthiness of different media is therefore critical at this stage.

3.1.3. CONNECTION

An individual begins to increasingly consume extremist content and may start to engage with it more directly, 'liking' and commenting on posts and following accounts. They begin to absorb some of the ideas they encounter. An individual's activity on radical social media pages may allow extremists to identify them as potential targets for further radicalisation and provide a platform for contact. Once a connection is established, the extremist attempts to push more radical ideas onto the individual and isolate them from other sources of comfort and information.³⁹

3.1.4. INDOCTRINATION

Indoctrination is the phase in which an individual progressively reinforces their beliefs, wholly adopts the extremist ideology and concludes that violent action can be justified to support and further the cause.⁴⁰ The world for these individuals becomes divided into two sides: the enlightened believers (themselves) and the unbelievers

³⁶ Andrew Dornbierer, 'How al-Qaeda Recruits Online' (*The Diplomat*, 13 September 2011) <<https://thediplomat.com/2011/09/how-al-qaeda-recruits-online/>> accessed 04 April 2022.

³⁷ Joshua Citarella, 'There's a new tactic for exposing you to radical content online' *The Guardian* (London, 15 July 2021) <<https://www.theguardian.com/commentisfree/2021/jul/15/theres-a-new-tactic-for-exposing-you-to-radical-content-online-the-slow-red-pill>> accessed 04 April 2022.

³⁸ Anne Speckhard and Molly D Ellenberg, 'ISIS in Their Own Words: Recruitment History, Motivations for Joining, Travel, Experiences in ISIS, and Disillusionment over Time – Analysis of 220 In-Depth Interviews of ISIS Returnees, Defectors and Prisoners' (2020) 13 *Journal of Strategic Security* 82, p 92 <<https://www.jstor.org/stable/26907414>> accessed 05 April 2022. <<https://www.hstoday.us/subject-matter-areas/counterterrorism/is-internet-recruitment-enough-to-seducer-a-vulnerable-individual-into-terrorism/>> accessed 05 April 2022.

³⁹ JM Berger, 'How Terrorist recruit online (and how to stop it)' (*Brookings*, 9 November 2015)

<<https://www.brookings.edu/blog/markaz/2015/11/09/how-terrorists-recruit-online-and-how-to-stop-it/>> accessed 04 April.

⁴⁰ Silber and Blatt (n 21) p 38.

(everybody else), creating an 'us vs them' view of the world marked by in-group favoritism and out-group discrimination.⁴¹ This is one of the hallmarks of terrorist organizations and the people attracted to them.⁴² Understanding how hate speech and discrimination work is therefore critical.

In addition, those undergoing this brainwashing typically devote their time on the internet to extremist sites and chat rooms—tapping into virtual networks of like-minded individuals around the world who reinforce the individual's beliefs and commitment to them. Virtual echo chambers and filter bubbles further act as radicalisation accelerants.⁴³ Therefore, any successful educational mechanism must emphasise the role and impact of internet algorithms and a 'personalised web' at this stage.

3.1.5. ACTION

People challenge and encourage each other to take action. Instructions on constructing weapons, information on potential targets, and justification for attacks can be found online.⁴⁴ Furthermore, by categorizing their target, albeit civilians, as "the enemy" and exaggerating differences between the in-group and out-group, terrorists psychologically distance themselves from the humans they intend to destroy and thereby sidestep inhibitory mechanisms.⁴⁵ A key prevention measure is therefore educating against a categorical and inflexible 'us vs them' thinking, whether in an on- or offline environment.⁴⁶

3.2. HOW THE RESEARCH LED TO OUR PROTOTYPE

In considering different educational mechanisms, we took into account their feasibility and the need to spread the message widely. Research confirms that storytelling is a pedagogically effective tool due to its concreteness, specificity and narrative organisation.⁴⁷ At the same time, the radicalisation process naturally yields a narrative progression. Therefore, we settled on the idea of telling the story of a teenager radicalising online as forming the basis of our prototype. Moreover, we found that digital or web-based games have increasingly supported learning with results indicating that games and/or

⁴¹ Moghaddam (n 22) p 165.

⁴² *ibid.*

⁴³ Silber and Blatt (n 21) p 39.

⁴⁴ United Nations Office on Drug and Crime, 'The Use of the Internet for Terrorist Purposes' (2012) p 8 <https://www.unodc.org/documents/frontpage/Use_of_Internet_for_Terrorist_Purposes.pdf> accessed 04 April 2022.

⁴⁵ Moghaddam (n 22) p 166.

⁴⁶ *ibid.*, p 167.

⁴⁷ Eric Landrum and Karen Brakke, 'The pedagogical power of storytelling' (2019) *Scholarship of Teaching and Learning in Psychology* <https://www.researchgate.net/publication/335193649_The_pedagogical_power_of_storytelling> accessed 30 Mar 2022.

simulations have a positive impact on learning goals.⁴⁸ So, while we considered designing a physical handbook or comic, we were aware of the limitations these formats would pose as regards the incorporation of innovative teaching methods as well as their accessibility (considering the need to physically print and distribute them). The use of a website reduces limitations associated with time and place, as it can be accessed from portable devices, enabling students to learn anytime and anywhere. As the focus was on violent extremism in an *online context*, our target audience would inevitably have some access to digital devices. In the context of a UK audience, we proceeded with the understanding that the move to online learning during the COVID-19 pandemic increased internet access throughout educational institutions, with all schools to have internet access by 2025.⁴⁹

Therefore, we settled on designing an interactive website, which would combine a comic-style story with different interactive elements, allowing users to put their critical thinking and digital literacy skills to the test. Given the challenge assignment refers to educating young people, we furthermore decided to create a teacher's guide to complement the website and make it suitable for educational curriculums. In the UK, we hope that educators incorporate the website into school lessons (see more on the integration into UK curriculums below) whilst allowing for students to browse it in their own time. This is in line with the "prevent duty", which requires specified public authorities, including schools, to have regard to the need to prevent people from being drawn into terrorism.⁵⁰

In creating the website, we chose not to expressly identify the above radicalisation stages on the website as we did not want to create the impression that the stages we identified constitute a comprehensive model. Nonetheless, it is important to know what the stages are since we used them as working guidelines in creating the website's content. As such, these stages reappear throughout the project, either in connection with the interactive elements or as part of the lessons in the teacher's guide.

4. PROTOTYPE

4.1. GOAL

The goal of our interactive website is to provide an accessible medium educating young people on how violent extremism spreads in an online environment and how they

⁴⁸ Dimitrios Vlachopoulos and Agoritsa Makri, 'The effect of games and simulations on higher education: a systematic literature review' (2017) 14 *Int J Educ Technol High Educ*

<<https://educationaltechnologyjournal.springeropen.com/articles/10.1186/s41239-017-0062-1>> accessed 04 April 2022.

⁴⁹ See <https://www.gov.uk/government/news/all-schools-to-have-high-speed-internet-by-2025>.

⁵⁰ See <https://www.gov.uk/government/publications/prevent-duty-guidance>.

can use the internet safely and wisely. Users should be able to understand the typical process of online radicalisation, identify extremist content and recognise how the internet is used as a tool to advance extremist ideologies.

4.2. TARGET GROUP

As university students based in London, we developed our website with a focus on the UK. In line with the findings of our research outlined above, our target group are adolescents between the ages of 14 and 17. While UK Government statistics suggest that people up to the age of 30 are affected by radicalisation the most,⁵¹ a target group consisting of people between the ages of 14 and 30 would evidently be too wide. In limiting our target groups to adolescents between 14 and 17, we considered that teenagers in this age group begin to use the internet more frequently and independently,⁵² and grapple with new ideas and different ways of thinking about the world. Therefore, this is a crucial period during which to equip teenagers with the tools to think critically about the vast amount of information they encounter in an increasingly digital world. Furthermore, the fact that we intended the website to work alongside educational curriculums and we accordingly chose to design a teacher's guide was a further reason for narrowing down our target group to adolescents of school age. Thus, the website in conjunction with the lesson plans provided in the teacher's guide are most suitable for the curriculums of secondary schools.

Apart from the age group and target country, a further consideration in setting our target group was the type of extremism the website would focus on. Two main forms we initially focused on were right-wing and Islamist extremism, representing 25% and 22% of all referrals to the UK Government's Prevent programme respectively.⁵³ Considering, however, that most referrals (51% in the year ending March 2021) are for individuals with a mixed, unstable or unclear ideology, we decided to keep the type of extremism ambiguous and instead address the elements which generally underpin violent extremism online, such as the use of persuasive language, hate speech, and 'us vs them' narratives. We wanted to be

⁵¹ HM Government, 'Individuals referred to and supported through the Prevent Programme, England and Wales, April 2020 to March 2021' (2021) <https://www.gov.uk/government/statistics/individuals-referred-to-and-supported-through-the-prevent-programme-april-2020-to-march-2021/individuals-referred-to-and-supported-through-the-prevent-programme-england-and-wales-april-2020-to-march-2021#:~:text=For%20concerns%20related%20to%20Islamist.134%20of%20205%3B%2065%25> accessed 04 April 2022.

⁵² Victoria Rideout and Susannah Fox, 'Digital Health Practices, Social Media Use, and Mental Well-Being Among Teens and Young Adults in the U.S.' (2018) Hopelab and Well Being Trust assets.hopelab.org/wp-content/uploads/2020/08/a-national-survey-by-hopelab-and-well-being-trust-2018.pdf accessed 04 April 2022.

⁵³ HM Government (n 50).

as inclusive as possible and avoid creating the impression that one type of violent extremism was more dangerous than another.

Considering that our website does not address a specific type of extremism, it should be highlighted that it can be used beyond our UK target group to reach an (English speaking) audience worldwide. While the website contains some information specific to the UK, such as references to the 'ACT Early' support line⁵⁴ and English speech laws,⁵⁵ these could be easily replaced with the laws and help lines of other countries. Similarly, the characters of our story were designed as having an English background, but could be adapted to fit another nationality. Lastly, although the accompanying teacher's guide is tailored to UK schools, it contains nothing which inherently limits it to the UK and it could be integrated into educational curricula of other (English-speaking) countries.

4.3. NAME

The name of the website is 'DigiTools' with the slogan being 'Ready? Cool! Know your digitoools'. 'Ready? Cool!' subtly echoes the word 'radical' and the word 'DigiTools' combines the words 'digital' and 'tools'. The name aligns with the website's purpose of teaching young people to identify violent extremism online as well as to be responsible and savvy internet users. Through this play of words, we aim to catch the reader's attention and provide them with a memorable experience from the outset.

4.4. ELEMENTS OF THE PROTOTYPE

Our prototype consists of an interactive website accompanied by a teacher's guide. They can be accessed at <https://thorekohl.wixsite.com/digitools>.

4.4.1. THE WEBSITE

The main part of our prototype is the website. It consists of a home page created through the website builder WIX as well as an 'e-learning course' containing the comic-style story and a variety of interactive elements and quizzes. Upon opening the WIX home page, users are shown a 'Start' button, which takes them to a new tab with the e-learning course. The e-learning course features 74 slides originally developed in Microsoft PowerPoint, which take the user along the journey of the 15-year old protagonist Lucas as he is radicalised online. Following each scene in the story, there are a number of slides explaining the key concepts relevant to the preceding section of the story, such as dis- and

⁵⁴ For more information, see <https://actearly.uk/>.

⁵⁵ E.g. the Equality Act 2010 and the Public Order Act 1986.

misinformation, echo chambers and filter bubbles. These definitions are accompanied by quizzes and chat simulations, allowing users to apply the media and information literacy skills they have just learnt. The story elements were hand drawn and any graphics created in Adobe Illustrator and Photoshop before being embedded into the PowerPoint slide deck. The interactive quiz functions were developed using the PowerPoint-based e-learning course creator 'iSpring'.

The aim of the interactive story is three-fold: First, it aims to give users an understanding of how someone might radicalise online. This is primarily achieved through the story of Lucas, showing how he is gradually manipulated and turned against the government and political system following the closure of his local football club.

The second aim is to equip the target group with the necessary skills to avoid being radicalised online themselves. This is primarily achieved through the interactive elements. Based on research we gathered on the pre-radicalisation stage, the users are first introduced to Lucas and his friends and are then asked to consider in a 'true or false' quiz which factors and personality traits may increase an individual's susceptibility to radicalisation (and which do not) (see slide 11). As the story of the protagonist Lucas develops, users are asked to assess whether particular social media posts and media are trustworthy (see slide 24), point out manipulative tactics in an online article (see slides 28-29) and categorise chat messages received from a stranger as suspicious or not suspicious (see slides 38-39). We made an effort to incorporate as many different media formats as possible and have, thus, also included a section on so-called deep-fakes (see slides 25-26). In considering how 'us vs them' narratives are created, users can explore how their unconscious biases lead to social categorisations (see slides 50-55). They are asked to imagine a certain profession (e.g. a scientist or a ballet dancer) and are then given two pictures, one constituting a 'stereotypical' depiction of that profession (e.g., white old male scientist or female ballet dancer) and another representing a depiction found less frequently (e.g. young black scientist or male ballet dancer). This exercise aims to encourage users to think about how we stereotype and categorise the world around us based on the (online) media we consume.

Third, the interactive story aims to make young people aware of their rights and responsibilities online and encourage them to become *digital citizens*. Thus, the slide deck features a section on the difference between hate speech and free speech and legal restrictions imposed on speech (see slide 57-59). In addition, the activity on slide 61 tasks users to classify two video clips as falling either within the acceptable bounds of free speech or as constituting hate speech. Thereby, users are encouraged to critically think about the

boundaries of acceptable and unacceptable behaviour online. The final slides (slides 71-73) ask users to reflect about what it means to be a good digital citizen, encouraging them to champion positive action online.

The remaining elements on the WIX homepage are an 'About' section, which provides a brief overview of the website's aims and content, and a section on peer-support ('How to Help a Friend'). Users are given information, divided into three steps, on how they can support a friend, relative or other individual close to them if they are suspected of being radicalised. We laid this out in a separate section on the homepage so that users have immediate and easy access to the information. Finally, the last section on the WIX page entitled 'Classroom' allows educators to download the teacher's guide.

4.4.2. THE TEACHER'S GUIDE

In addition to our main product, the website, we also produced a teacher's guide which can form the basis of the website's use in a classroom setting. The guide consists of five lesson plans which correspond to the different radicalisation stages within our storyline linked to a specific area of relevant media and information literacy.

Every lesson plan contains the corresponding location of the topic on the DigiTools website, the learning outcomes and a number of classroom activities with detailed instructions on how to deliver them. The activities have been designed to be easily implementable without any further resources needed. They also include practical tips on how to increase students' engagement with and understanding of the material. Furthermore, each section provides additional explanations and information for teachers so that they can familiarise themselves with the relevant material and lead engaging discussions with their students.

Lastly, the guide explains the different stages of online radicalisation so that teachers understand the underlying structure of both the DigiTools interactive story and the five lessons plans. Overall, the guide has been designed as a comprehensive resource, allowing teachers to find everything they need to deliver this digital literacy unit in one place.

In order to best facilitate the students' learning process, we recommend letting students go through the interactive DigiTools website in its entirety before delivering these lessons as 30 minute units in chronological order. However, the teacher's guide has been designed in a way that allows it to be used flexibly. Thus, if better suited to the circumstances, teachers may wish to work through the website in conjunction with the teacher's guide section by section or to only pick out a few lessons from the suggested five. Additionally, teachers can extend the lessons as long as necessary, depending on the depth

of discussion and the level of student engagement. Regarding when these lessons can be delivered, see more on the integration into UK curriculums below.

4.5. DISTINGUISHING FEATURES

Our guide has three essential features that make it effective. First, it illustrates the online radicalisation process through a character. Following the journey of Lucas, who falls within the age group of the target audience, helps the audience to relate to the feelings that Lucas has and the actions that he takes in response to the extremist ideology he is exposed to. This has the effect of making the topic more relatable to adolescents' own concerns and identities as opposed to merely engaging in an abstract analysis of ideology.⁵⁶

Second, the interactive elements incorporated into our website give students the opportunity to experience learning in a multi-sensory, active and experimental environment. Specifically, they can use these educational games for experimental learning to develop their decision-making and problem-solving skills in a dynamic learning environment.⁵⁷ In addition, students receive feedback and results immediately to get answers, instead of receiving delayed feedback as is the case with traditional assessment methods (e.g., tests and examinations). Using interactive elements and classroom-based activities also means that users will not only be educated in digital literacy skills, (e.g. the ability to decode propaganda techniques or verify sources) but will moreover be encouraged to speak out as digital *citizens*.⁵⁸

Third, we designed the website with the intention that it is a 'one stop shop'. Thus, the interactive story, the teacher's guide, and the additional guidance on peer-support are all incorporated into, and accessible from, the same webpage, making our prototype particularly versatile.

4.6. LIMITATIONS

One limitation arises from the fact that there still exists widespread digital exclusion. In the UK, the likelihood of having access to the internet from home increases along with

⁵⁶ Maria Ranieri et al, *Understanding and Representing Diversity* (UNESCO MILID Yearbook 2016) p 114
<<https://unesdoc.unesco.org/ark:/48223/pf0000246371?posInSet=2&queryId=9d87875d-372b-4c7c-a27d-e9fe54c04596>>
accessed 31 January 2022.

⁵⁷ Paul J C Adachi and Teena Willoughby, 'More Than Just Fun and Games: The Longitudinal Relationships Between Strategic Video Games, Self-Reported Problem Solving Skills, and Academic Grades' (2013) 42 *J Youth Adolescence* 1041
<<https://link.springer.com/article/10.1007/s10964-013-9913-9>> accessed 04 April 2022.

⁵⁸ Matthew Johnson, *Bridging the Gap: Empowering Digital Citizens to Build Positive Online Communities* (UNESCO MILID Yearbook 2016), p 91
<<https://unesdoc.unesco.org/ark:/48223/pf0000246371?posInSet=2&queryId=9d87875d-372b-4c7c-a27d-e9fe54c04596>>
accessed 31 January 2022.

income, such that only 51% of households earning between £6000-10,000 had home internet access compared with 99% of households with an income of over £40,001.⁵⁹ Furthermore, the digital divide is also seen between state and private schools with state schools being less capable of using various forms of technology.⁶⁰ This means that our website is much less likely to reach young people living in poverty. Looking beyond the UK, two thirds of the world's school-age children have no internet access at home,⁶¹ compared to 14% in high-income countries.⁶² So, if the website is to be used in countries other than the UK, these would likely be limited to higher-income countries with a developed internet infrastructure. Considering the ongoing COVID-19 pandemic, however, providing students with paper-based alternatives is also fraught with difficulty and not necessarily a more viable alternative. Furthermore, there is some data showing a positive correlation between the number of ISIS recruits and a country's GDP,⁶³ suggesting that the risk of radicalisation may be greater in more developed countries, where greater internet access means that extremist ideologies can reach more.

4.7. IMPLEMENTATION

4.7.1. MAINTENANCE OF WEBSITE

The website is fully functional, though, currently, running on a free WIX domain. Upgrading the website to a custom domain and removing all WIX advertisements from the website would require a plan costing £6.50 per month.⁶⁴ The interactive slide deck consists of an HTML5 file, which has been uploaded to 'AwardSpace', a free web-hosting service, and embedded as a hyperlink in the 'Start' button on the WIX homepage. To make the implementation of the website as smooth as possible, we have ensured that ownership to the website can be easily transferred to a different account. Therefore, the website's operating costs are low, and running it should be straightforward. However, if the website is to be implemented, we recommend upgrading to a paid web hosting server as this would allow for unmetered bandwidth, faster uptime, and 'https' encryption. Currently, monthly

⁵⁹ Office for National Statistics, *Exploring the UK's digital divide* (2019) <<https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/articles/exploringtheuksdigitaldivide/2019-03-04>> accessed 04 April 2022.

⁶⁰ Victoria Coleman, *Digital divide in UK education during COVID-19 pandemic: Literature review* (Cambridge Assessment Research Report 2021), p 4 <<https://www.cambridgeassessment.org.uk/Images/628843-digital-divide-in-uk-education-during-covid-19-pandemic-literature-review.pdf>> accessed 04 April 2022.

⁶¹ UNICEF Press Release, 'Two thirds of the world's school-age children have no internet access at home' (2020) <<https://www.unicef.org/press-releases/two-thirds-worlds-school-age-children-have-no-internet-access-home-new-unicef-itu>> accessed 04 April 2022.

⁶² UNICEF Publication, 'How many children and young people have internet access at home?' (2020) <<https://data.unicef.org/resources/children-and-young-people-internet-access-at-home-during-covid19/>>

⁶³ Efraim Benmelech and Esteban F Klor, 'What Explains the Flow of Foreign Fighters to ISIS?' (2018) 32 *Terrorism and Political Violence*, p 1458 <<https://www.tandfonline.com/doi/abs/10.1080/09546553.2018.1482214>> accessed 04 April 2022.

⁶⁴ For more information on pricing, see <https://www.wix.com/upgrade/website>.

bandwidth is capped at 5 GB, meaning that it can only be used a limited number of times. The monthly cost of a paid web hosting service typically lies between £2-3.⁶⁵

4.7.2. IMPLEMENTATION IN THE UK CURRICULUM

As the project's main target group is a UK audience, the teacher's guide was developed with regard to the UK curriculum. Nonetheless, with some slight adaptations (e.g. lesson time and structure), the guide could be translated and implemented according to the guidelines in many different countries. For illustration purposes, the UK can provide a leading example as to how the teacher's guide may be used.

In the UK, media literacy education is part of the curriculum. Since September 2020, relationship education is compulsory for all primary aged pupils, relationships and sex education is compulsory for all secondary aged pupils and health education is compulsory for all state-funded schools in England.⁶⁶ In these new subjects, pupils will, amongst other things, be taught about online safety and harms. This will include being taught what positive, healthy and respectful online relationships look like, the effects of their online actions on others and knowing how to recognise and display respectful behaviour online. Throughout these subjects, teachers will address online safety and appropriate behaviour in a way that is age-appropriate and relevant to the pupils' lives.

The teacher's guide can also be used as a complementary recourse to the computing curriculum, which covers the principles of online safety at all key stages, thereby reflecting the progressively escalating risks that pupils face. This includes how to use technology safely, responsibly, respectfully and securely, and where to go for help and support when they have concerns about content or contact on the internet or other online technologies. There are also other curriculum subjects which include material relevant to teaching pupils how to use the internet safely. For example, citizenship education covers media literacy - distinguishing fact from opinion as well as exploring freedom of speech and the role and responsibility of the media in informing and shaping public opinion. It also supports teaching about the concept of democracy, freedom, rights, and responsibilities.

⁶⁵ For an overview of paid webhosting providers, see <https://www.techradar.com/uk/web-hosting/best-web-hosting-service-websites>.

⁶⁶ For more information, see <https://www.gov.uk/government/publications/relationships-education-relationships-and-sex-education-rse-and-health-education>.

5. CONCLUSION

Our aim is to equip young people with the necessary skills and tools to help them avoid becoming targets of violent extremism online. In order to achieve this, we have developed a website, where adolescents can in a fun way learn about the pitfalls relating to online radicalisation, such as certain architectural features of social media and recruitment techniques used by extremists. Users of the website embark on an adventure in which they follow a fictional character, Lucas, who is eventually targeted and manipulated by an extremist group. As the story evolves, Lucas goes through the different stages of the radicalisation process whilst users receive insight into various tips and techniques with the help of which they can prevent the same happening to them.

Violent extremism among young people caused by online radicalisation is a troubling issue capable of undermining democratic values and the rule of law. DigiTools is our contribution to make a change for the better by fostering a culture of digital citizenship.

6. APPENDIX

Radicalisation stage	Storyline	Issues addressed by interactive website elements
Pre-radicalisation	<ul style="list-style-type: none"> - Main character, Lucas, and his friends get introduced - Lucas receives the news that his football club will be shut down 	<ul style="list-style-type: none"> - Vulnerabilities (& myths about them) - Relevance of triggering events
First contact	<ul style="list-style-type: none"> - Lucas comes across a post blaming the government for the football clubs closure, Lucas leaves a comment - Thereafter, Lucas is shown more similar content 	<ul style="list-style-type: none"> - When to share (and not to share) information online - Identifying sources & their trustworthiness - Manipulation techniques
Connection	<ul style="list-style-type: none"> - Gradually, more government hostile content appears in Lucas's feed - Lucas is curious and leaves comments reflecting on the ideas and their degrees of radicality - Eventually, Lucas tries to get access to a private group and is directly contacted by an extremist member of that group - Slowly, Lucas becomes integrated into the extremist's micro online community 	<ul style="list-style-type: none"> - Identifying dodgy and suspicious messages - Reacting to unwanted messages or content
Indoctrination	<ul style="list-style-type: none"> - Lucas withdraws more and more from his non-virtual day to day life - He increasingly consumes extremist propaganda videos and begins to replicate extreme content containing hate speech and advocating violence 	<ul style="list-style-type: none"> - Role of echo-chambers & filter bubbles in radicalising people online - "Us vs them" narratives, stereotyping and biases - Boundaries between hate speech & free speech
Action	<ul style="list-style-type: none"> - Lucas is being asked to carry out an attack, pressure from other members within the micro-community builds up - An internal battle, between pride and horror, takes place in Lucas - Eventually, one of Lucas's old friends reaches out and supports Lucas in finding professional help 	<ul style="list-style-type: none"> - Peer support: 'How to Help a Friend' - Digital citizenship: how to use the internet for positive action

