Cyberterrorism and the News Media

Final Report

June 2014

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project

About the Project

The Cyberterrorism Project is an international, interdisciplinary research network that was established by academics working across fields including Engineering, Law and Politics in 2011. The project has four primary objectives:

(1) To further understanding amongst the scientific community by engaging in original research on the concept, threat and possible responses to cyberterrorism.

(2) To facilitate global networking activities around this research theme.

(3) To engage with policymakers, opinion formers, citizens and other stakeholders at all stages of the research process, from data collection to dissemination.

(4) To do the above within a multidisciplinary and pluralist context that draws on expertise from the physical and social sciences.

Recent activities of the Cyberterrorism Project include hosting conferences in Birmingham (UK) and Swansea (UK), conducting a global survey of researchers, and constructing a database of international definitions of cyberterrorism. Findings from these activities have been published in top international journals including *Terrorism and Political Violence, Studies in Conflict and Terrorism,* and *Perspectives on Terrorism,* and in books including *Cyberterrorism: Understanding, Assessment and Response* (Springer, 2014) and *Terrorism Online: Politics, Law and Technology* (Routledge, forthcoming). Further information on the project, its members, and ongoing research activities is available via the project website: www.cyberterrorism-project.org.

For membership and media enquiries please contact the project directors (p. 17).

Acknowledgements

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About the Research

This report provides an overview of findings from a research project exploring how mainstream media represent cyberterrorism. The research was conducted in the summer of 2013, and focused on a sample of thirty-one news outlets:

- ABC News
- Aljazeera
- The Australian
- Australian Financial Review
- The Australian Telegraph
- BBC
- Boston Globe
- Channel 4 News
- China Daily
- CNN
- Daily Mail
- Financial Times
- Fox News
- The Guardian
- The Herald Sun
- The Independent
- LA Times
- The New York Times
- Reuters
- Russia Today
- Sky News
- South China Morning Post
- The Straits Times
- The Sun
- The Sydney Morning Herald
- The Telegraph
- The Times of India
- USA Today
- The Wall Street Journal
- The Washington Post
- The West Australian

These outlets were selected for reasons of accessibility, language, diversity of geographical origin, and, diversity of political perspective.

This report explores news content produced by these 31 outlets between 1 January 2008 and 8 June 2013. These dates were selected because they cover a significant period of time (over five years), during which a number of key events occurred including: the cyberattacks on Georgia, the Stuxnet revelations, and the release of the UK's Cyber Security Strategy. Items were added to our corpus using a keyword search for the terms "cyber terrorism", "cyberterrorism" and "cyber terror", with a total of 535 items identified for coding and analysis. Please contact the research team with any further enquiries on the project's methods and findings (see p.17 for our contact details).

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What was the temporal spread of the news media coverage?

This line chart breaks down the 535 news items by month of publication.

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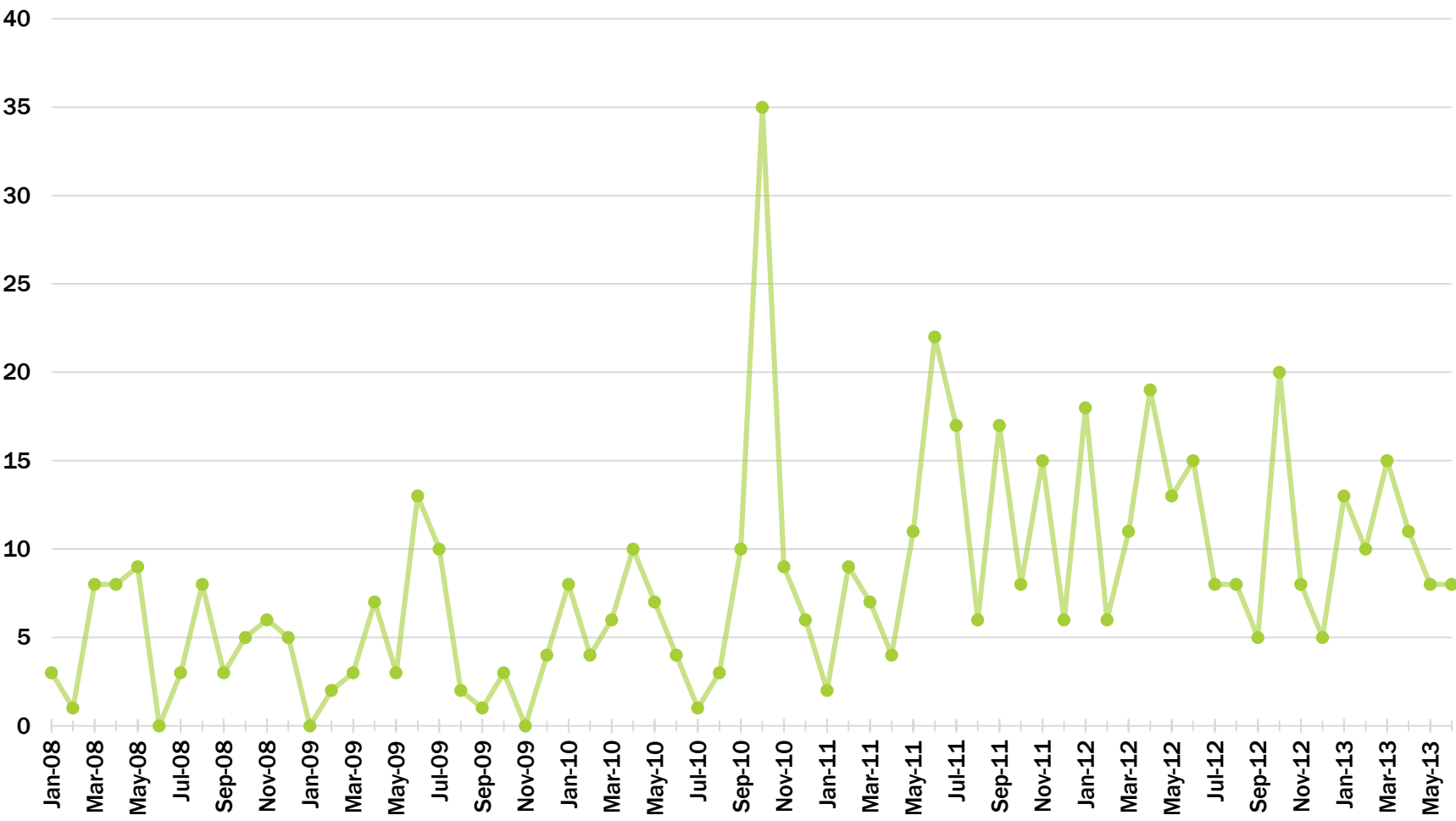
How many items were published in each news outlet?

This chart breaks down the 535 news items by news outlet.

Outlet	Count
The Guardian	50
The Telegraph	43
Fox News	39
Reuters	28
BBC	26
The Washington Post	25
The Independent	24
Financial Times	23
Russia Today	22
The Australian	21
CNN	20
The Sun	20
The Times of India	20
Australian Telegraph	19
Australian Financial Review	18
The New York Times	16
China Daily	15
The Wall Street Journal	14
The Sydney Morning Herald	14
Daily Mail	12
The Straits Times	11
Channel 4 News	10
Aljazeera	10
Sky News	9
ABC News	8
LA Times	6
South China Morning Post	4
USA Today	3
Boston Globe	2
The West Australian	2
The Herald Sun	1

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Were there differing levels of coverage between the US, UK & Australian newspapers?

The search for news items included a total of six newspapers from each of these three countries. This page shows the total number of items in each.

■ UK: 172

■ Australia: 75

■ US: 66
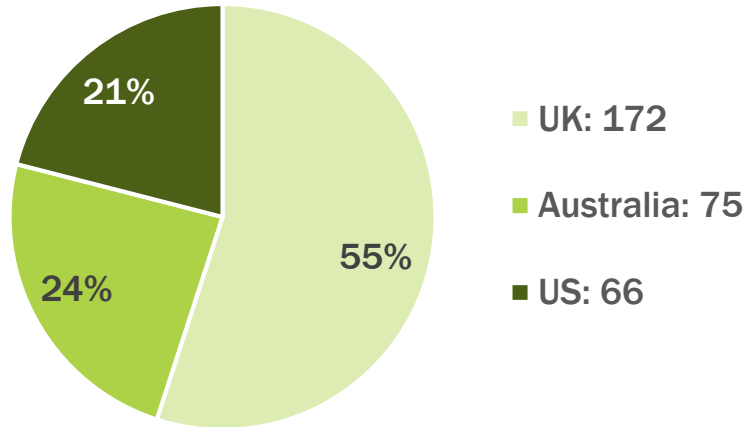
UK

Newspaper	Total number of items
The Guardian	50
The Telegraph	43
The Independent	24
Financial Times	23
The Sun	20
Daily Mail	12
Total	172

Australia

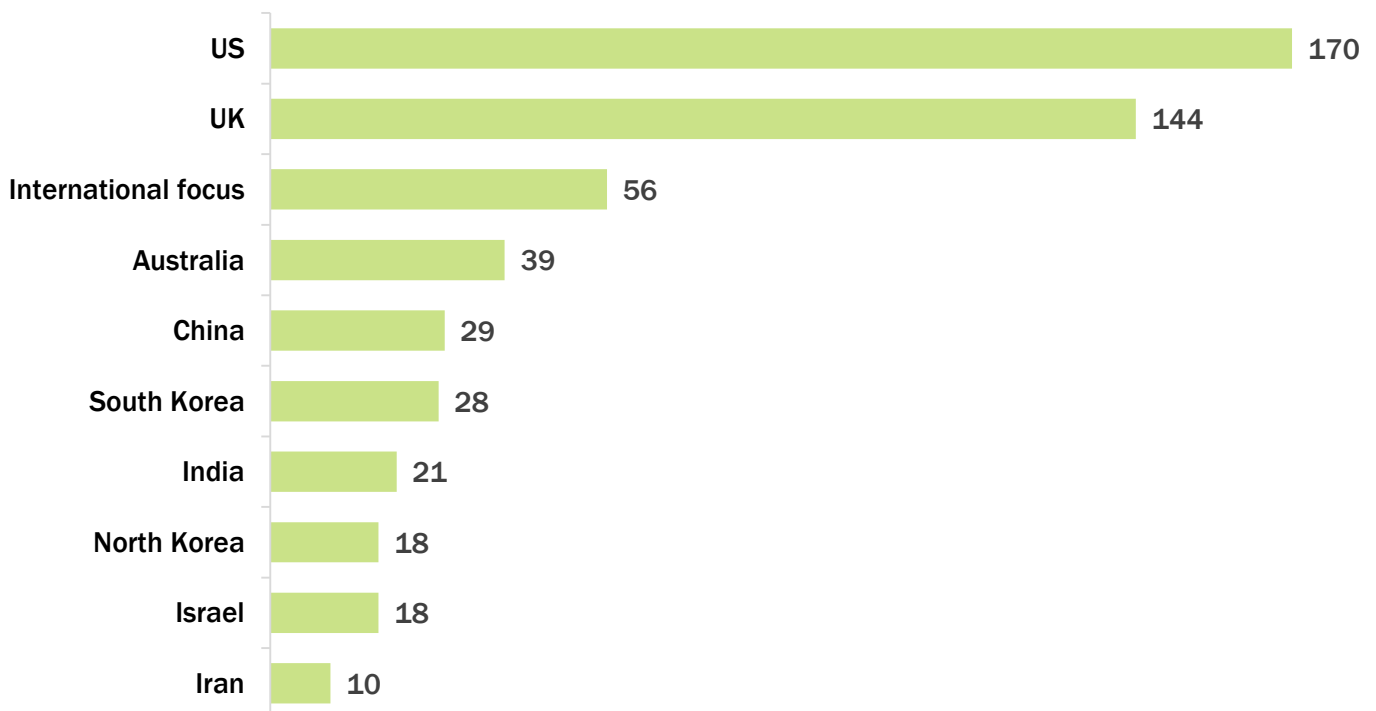| Newspaper	Total number of items
The Australian	21
Australian Telegraph	19
Australian Financial Review	18
The Sydney Morning Herald	14
The West Australian	2
The Herald Sun	1
Total	75

US

Newspaper	Total number of items
The Washington Post	25
The New York Times	16
The Wall Street Journal	14
LA Times	6
USA Today	3
Boston Globe	2
Total	66

What was the geographical focus of the news media coverage?

The primary geographical focus of each news item was identified. The following table lists all countries, regions or territories that were the primary focus of at least one item.

Algeria	1	Ireland	2	Saudi Arabia	1
Australia	39	Israel	18	Singapre	7
China	29	Japan	3	Somalia	1
Estonia	2	Mexico	4	South Korea	28
Europe	3	Middle East	2	Spain	1
Georgia	1	Morocco	1	UK	144
Hong Kong	1	North Korea	18	US	170
India	21	Pakistan	5	Zimbabwe	1
Indonesia	1	Palestine	1	No geographical focus	12
International focus	56	Russia	6		
Iran	10				

(The primary focus of some news items was more than one country or region. Where this was the case both have been included.)

US	170
UK	144
International focus	56
Australia	39
China	29
South Korea	28
India	21
North Korea	18
Israel	18
Iran	10

To what extent did the news items' focus and origin coincide?

For each news item, the geographical focus of the item was compared to the country of publication.

- Items whose geographical focus was the country of publication: 286

- Items that did not have a specific geographical focus: 68

- Items that focussed on a country other than the country of publication: 181
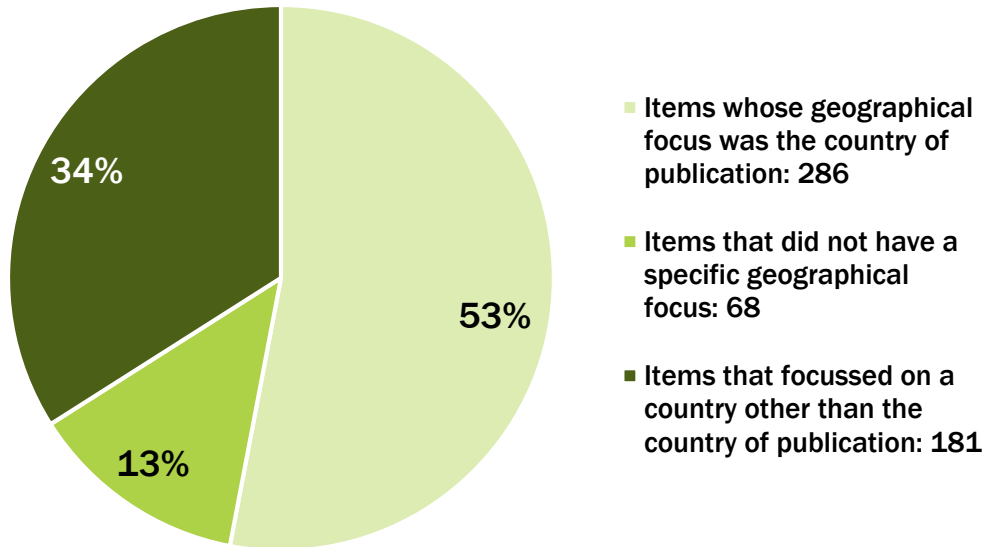
	Total number of items primarily focussed on this country	Percentage of these items that were published in this country
USA	170	52%
UK	144	87%
Australia	39	97%
China	29	31%
India	21	86%
Russia	6	17%
Singapore	7	100%

Which types of news item were the most common?

The following chart breaks down the 535 news items, separating them into nine different types of piece.

Type	Count
Current Affairs	167
Technology News	123
World News	116
Opinion Pieces	57
Business News	27
Culture and Arts	18
News in Brief	13
Editorials	7
Special Reports and Features	7

- Special Reports and Features: 1%
- News in Brief: 3%
- Culture and Arts: 3%
- Business News: 5%
- Editorials: 1%
- Opinion Pieces: 11%
- Current Affairs: 31%
- World News: 22%
- Technology News: 23%

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What images, if any, accompanied the news items?

This page shows the proportion of news items that had an accompanying image, and lists the images that were the most common.

No accompanying
image
39%

Accompanying
image(s)
61%
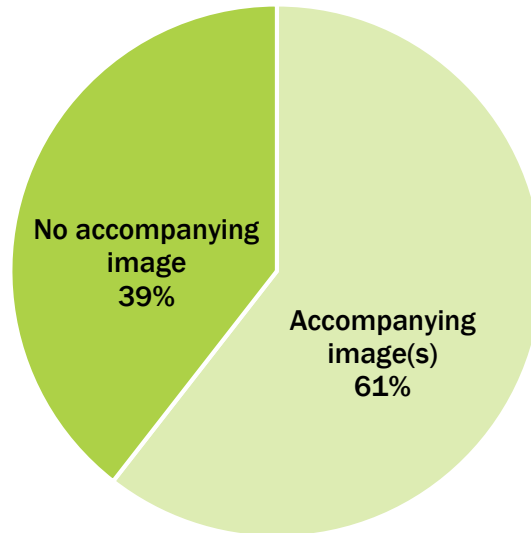
(In 51 cases original copies of the items were unobtainable. These have been omitted from our results accordingly.)

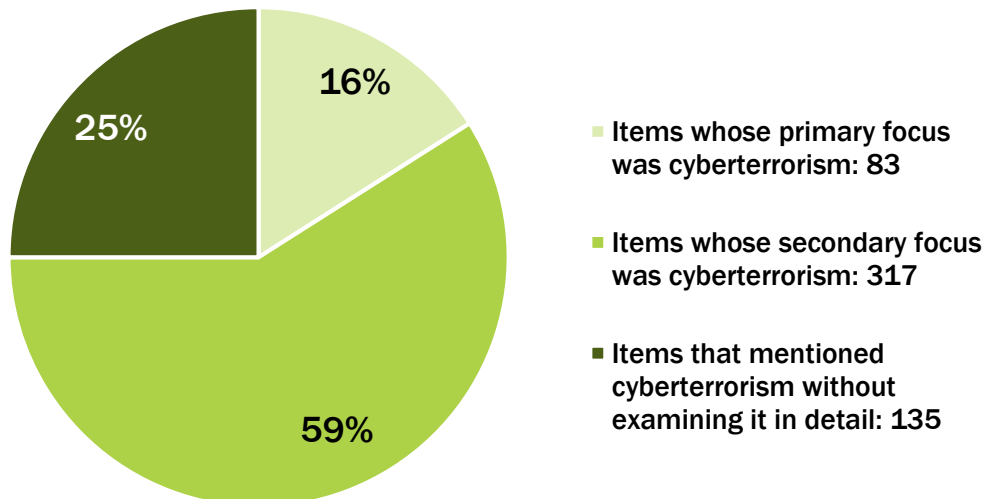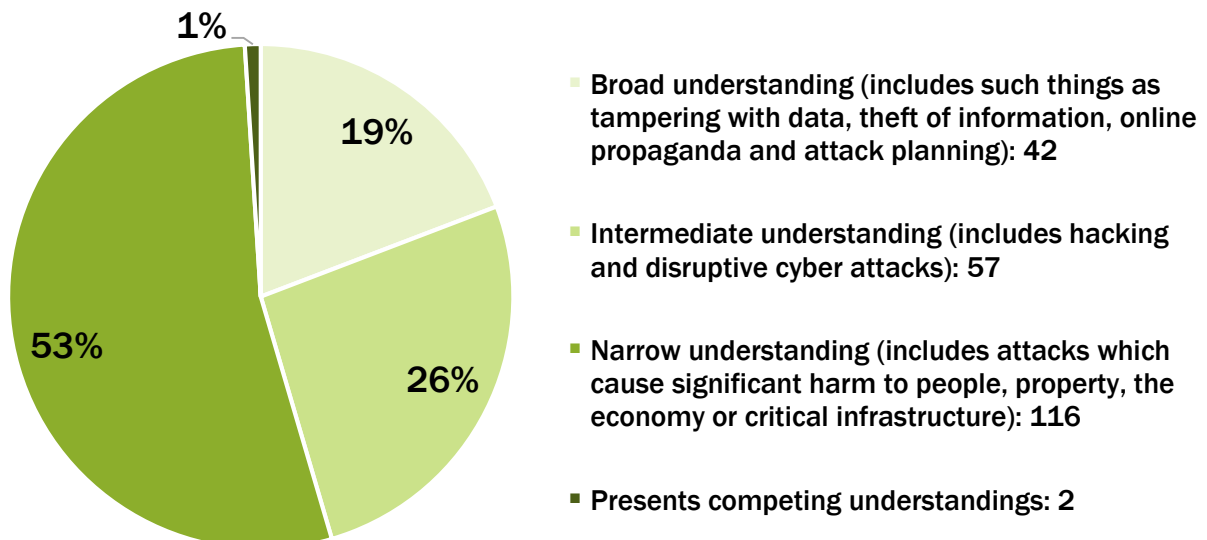| Type of Imagery	Number of Appearances
Individuals, hackers or disembodied hands at a laptop or keyboard	27
Government Security buildings (e.g., GCHQ)	13
Imagery associated with Anonymous (e.g., Guy Fawkes masks)	11
Computer Code	8
Military/cyber hybrid imagery	7

What were the different levels of focus on, and understandings of, cyberterrorism?

The following pie chart divides the news items into three categories, by the degree of engagement with the concept of cyberterrorism.

- Items whose primary focus was cyberterrorism: 83

- Items whose secondary focus was cyberterrorism: 317

- Items that mentioned cyberterrorism without examining it in detail: 135

Particular understandings of cyberterrorism were evident in a total of 217 items (54% of the items that had cyberterrorism as their primary or secondary focus). The breakdown of these understandings was as follows:

- Broad understanding (includes such things as tampering with data, theft of information, online propaganda and attack planning): 42

- Intermediate understanding (includes hacking and disruptive cyber attacks): 57

- Narrow understanding (includes attacks which cause significant harm to people, property, the economy or critical infrastructure): 116

- Presents competing understandings: 2
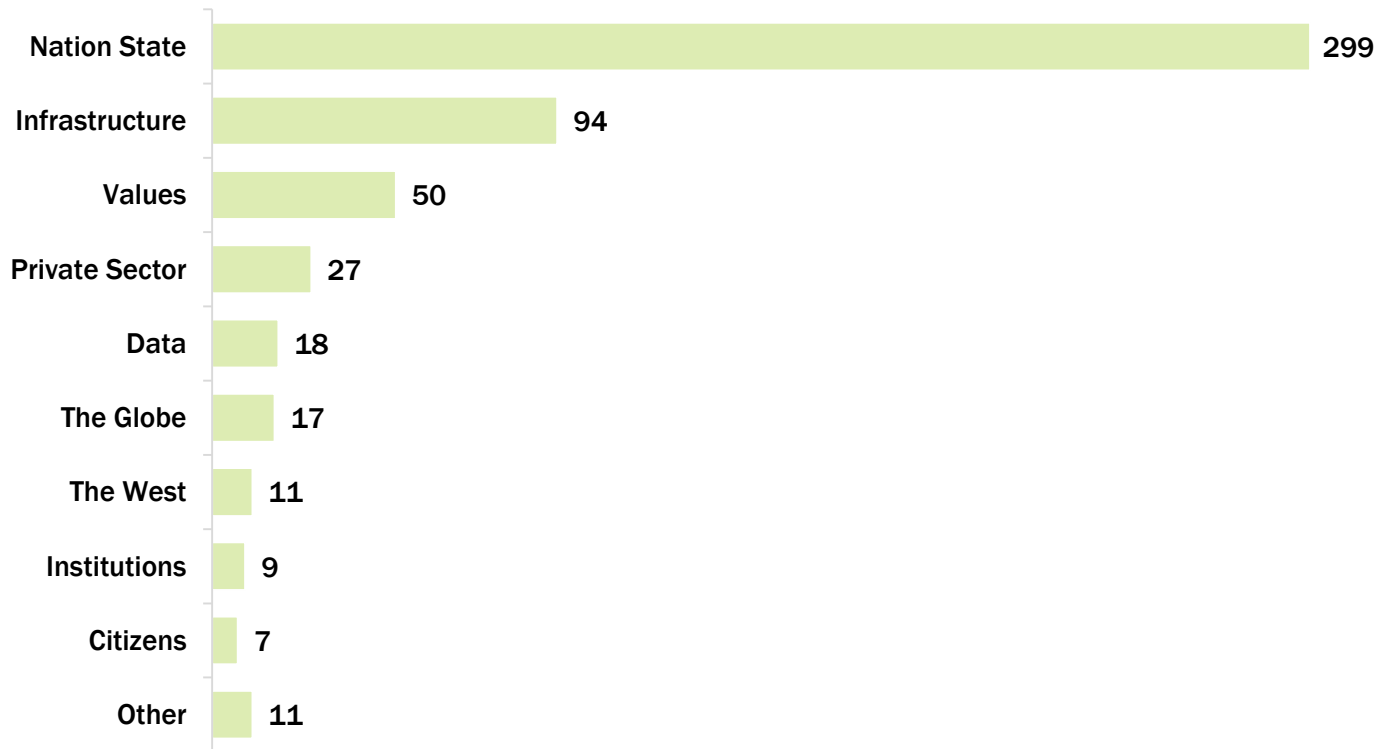
How were cyberterrorists represented?

The 400 news items that had cyberterrorism as their primary or secondary focus offered various representations of cyberterrorists. The following chart presents these, with the table below offering further information on whether cyberterrorists were presented as state or non-state actors.

Category	Value
Professionals	118
Hackers	77
Unskilled	39
Non-state actors	7
Hacktivists	6
Presented as non-existent	1
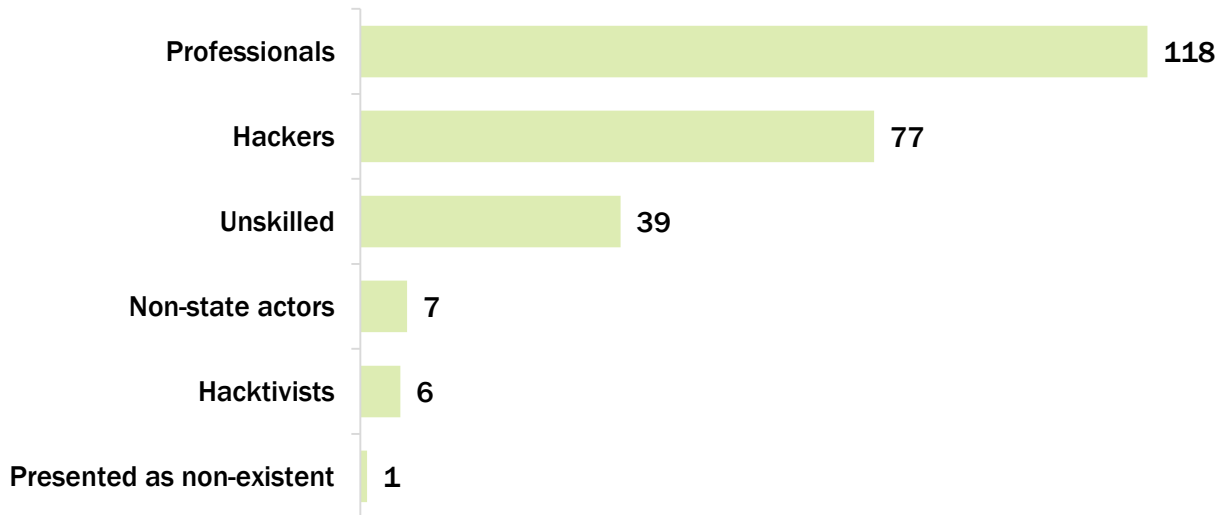
Hackers	**77**
Of which:	
Represented as state actors	*11*
Represented as non-state actors	*29*
Not presented as either state or non-state	*37*
Hacktivists	**6**
Professionals	**118**
Of which:	
Represented as state actors	*34*
Represented as non-state actors	*43*
Not presented as either state or non-state	*41*
Unskilled	**39**
Of which:	
Represented as state actors	*0*
Represented as non-state actors	*22*
Not presented as either state or non-state	*17*
Non-state actors	**7**
Presented as non-existent	**1**

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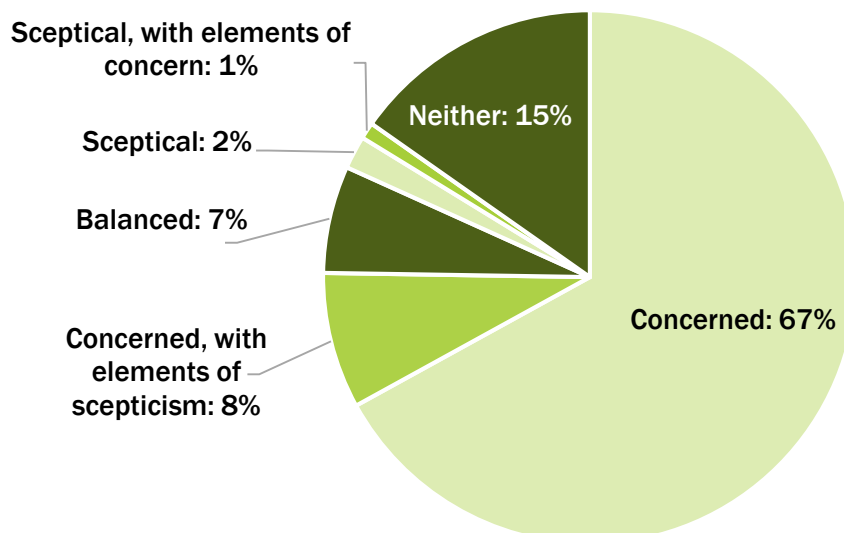
Who or what is threatened by cyberterrorism?

The 400 news items that had cyberterrorism as their primary or secondary focus offered a diverse range of referent objects, which are presented in the following chart.

Referent	Count
Nation State	299
Infrastructure	94
Values	50
Private Sector	27
Data	18
The Globe	17
The West	11
Institutions	9
Citizens	7
Other	11

(Some news items included more than one referent object and so are included multiple times.)
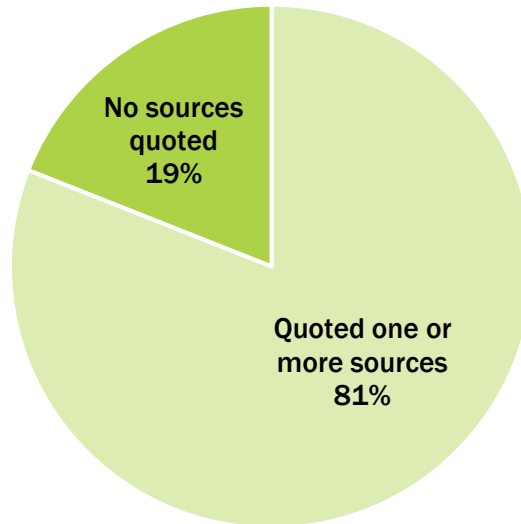
What level of concern did the news items exhibit?

The following chart breaks down the 400 news items that had cyberterrorism as their primary or secondary focus by the level of concern they expressed at the threat posed by cyberterrorism.

Sceptical, with elements of concern: 1%
Sceptical: 2%
Balanced: 7%
Concerned, with elements of scepticism: 8%
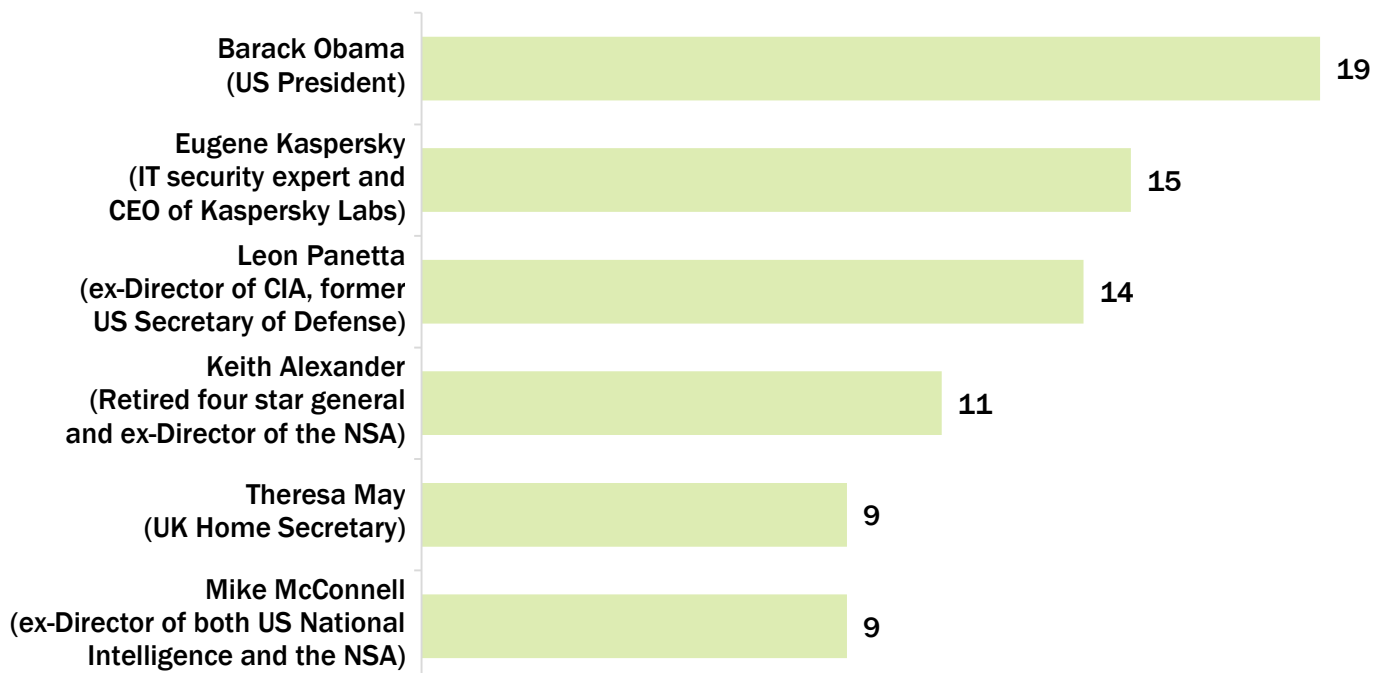Neither: 15%
Concerned: 67%

Which sources, if any, did the news items quote?

Of the 400 news items that had cyberterrorism as their primary or secondary focus, 322 included quotations from sources.

No sources
quoted
19%

Quoted one or
more sources
81%

Of these sources the most common were:

Barack Obama
(US President) — **19**

Eugene Kaspersky
(IT security expert and
CEO of Kaspersky Labs) — **15**

Leon Panetta
(ex-Director of CIA, former
US Secretary of Defense) — **14**

Keith Alexander
(Retired four star general
and ex-Director of the NSA) — **11**

Theresa May
(UK Home Secretary) — **9**

Mike McConnell
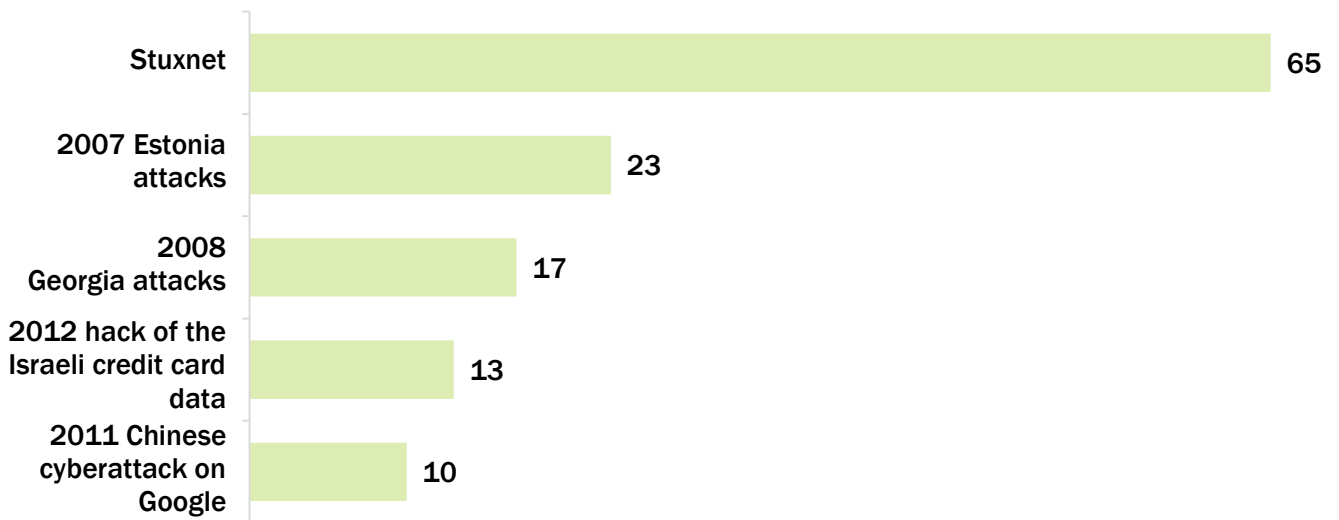(ex-Director of both US National
Intelligence and the NSA) — **9**
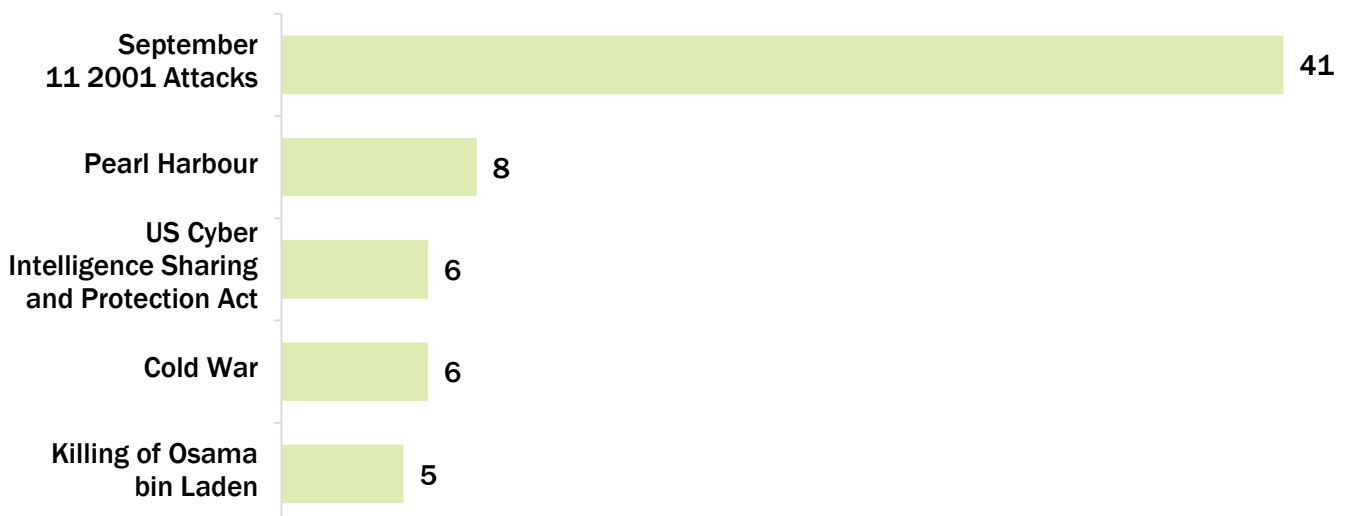
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Did the news items refer to past (cyber or non-cyber) events?

Of the 400 news items that had cyberterrorism as a primary or secondary focus, 355 mentioned one or more cyber events. The most commonly mentioned were as follows:

Event	Count
Stuxnet	65
2007 Estonia attacks	23
2008 Georgia attacks	17
2012 hack of the Israeli credit card data	13
2011 Chinese cyberattack on Google	10

Meanwhile, 164 mentioned one or more non-cyber events. The most commonly mentioned were as follows:

Event	Count
September 11 2001 Attacks	41
Pearl Harbour	8
US Cyber Intelligence Sharing and Protection Act	6
Cold War	6
Killing of Osama bin Laden	5

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Professor Thomas Chen is an expert in computer and network security. His previous research projects have explored Internet security, intrusion detection, attack modelling, malicious software and cybercrime, with support from various US agencies and companies. He is co-editor of *Broadband Mobile Multimedia: Techniques and Applications* (2008), *Mathematical Foundations for Signal Processing, Communications, and Networking* (2011), *Cyberterrorism: Understanding, Assessment and Response* (2014) and *Terrorism Online: Politics, Law and Technology* (forthcoming), co-author of *ATM Switching Systems* (1995), and has published papers in a number of IEEE journals including *IEEE Computer*, *IEEE Security and Privacy*, *IEEE Internet Computing*, and *IEEE Transactions on Smart Grid*.

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Dr Lee Jarvis is Senior Lecturer in International Security at the University of East Anglia (UK). His books include *Times of Terror: Discourse, Temporality and the War on Terror* (Palgrave, 2009); *Terrorism: A Critical Introduction* (Palgrave, 2011, with Richard Jackson, Jeroen Gunning and Marie Breen Smyth); *Cyberterrorism: Understanding, Assessment and Response* (Springer, 2014, co-edited with Tom Chen and Stuart Macdonald); and, *Counter-Radicalisation: Critical Perspectives* (Routledge, 2014, co-edited with Christopher Baker-Beall and Charlotte Heath-Kelly). His research on the politics of terrorism, counter-terrorism and security has been published in journals including *Security Dialogue*, *Political Studies*, *Millennium: Journal of International Studies*, *International Relations*, *Terrorism and Political Violence* and *Critical Studies on Terrorism*.

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Dr Stuart Macdonald is Associate Professor in Law at Swansea University (UK). He has written a number of articles on counterterrorism legislation and policy which have been published in leading international journals, including *Terrorism and Political Violence*, *Studies in Conflict & Terrorism*, *Sydney Law Review*, *Criminal Law & Philosophy* and *Cornell Journal of Law and Public Policy*. He is co-editor (with Lee Jarvis and Tom Chen) of *Cyberterrorism: Understanding, Assessment and Response* (Springer, 2014) and *Terrorism Online: Politics, Law and Technology* (Routledge, forthcoming). He has held visiting scholarships at Columbia University Law School, New York, and the Institute of Criminology at the University of Sydney. His project on security and liberty was funded by the British Academy.