

**From John Smeaton to #hurricanebawbag: The development
of social media use during emergencies by Strathclyde's
media and emergency responders**

**by
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A dissertation submitted in partial fulfilment of the requirements
of the Master of Science degree in
Corporate Communications and Public Affairs

The Robert Gordon University
Aberdeen Business School
Department of Communication, Marketing & Media

2012

Acknowledgements

I would like to thank the following people and organisations - without them this research would not have been possible:

- Sarah Pedersen for her comments, advice and quick responses
- South Lanarkshire Council for part funding my studies
- David Leask, Iain Pope, Cathie Russell, Rob Shorthouse and a chief reporter who shall remain nameless, for agreeing to be the subjects of my case studies
- Ken Wratten for answering my incessant questions about contingency planning
- Lynda Nicholson from ScoRDs for her continuing support
- my Twitter community for keeping me sane
- my family, for whom I have often been missing in action over the last three years

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Abstract

This retrospective, longitudinal, qualitative and quantitative study investigates the use of social media by journalists and emergency responders in Strathclyde over three emergency events: the terrorist attack on Glasgow airport in 2007; the Lanark school bus crash in early 2010; and the severe weather in December 2010. The Co-op building fire and the severe storm in late 2011 were also tracked live. The results show the development of social media's use by both groups and reveal that some are experienced users while others are just starting out on their social media journey. A comparison of the followers of the case study participants shows that each has a very different audience. Overall the results of this research suggest that official information would travel further and faster if emergency responders and the media were to work together during incidents, using mainly Twitter and its hashtag functionality. It also suggests that they should learn to use social media tools effectively during times of stability and that there should be an online platform where they could share best practice.

1 Introduction

1.1 *The research issue*

With more and more people owning phones capable of taking photographs and with access to the internet the public are using social media websites such as Flickr, Facebook and Twitter in emergency situations to both broadcast updates and to use those sites as places to meet other people in similar situations.

But how are emergency responders, particularly in the Strathclyde region, using social media to share their official statements and how much do journalists rely on the public's social media posts if the emergency responders aren't reacting quickly enough for news deadlines?

Specifically this research attempts to address four linked questions:

- how embedded is the monitoring of social media in local and regional media?
- how does the Strathclyde Emergency Co-ordination Group (SECG) monitor and use social media?
- how much of an emergency situation story is generated by the public on social media compared with how much originates from the SECG?
- is social media used to inform the SECG Communications Group?

1.2 *Rationale*

This research could be important in determining how embedded social media is in the day-to-day toolbox available to Scottish journalists and how engaged the SECG are with social media as a method of both spreading their official messages and gathering possible evidence.

It seeks to assess how far this channel has developed in the Scottish media and the extent to which its use is evident. It also assesses how the use of social media could be developed by the SECG communications group both in terms of broadcasting, in collecting possible evidence and gauging public feeling.

In these times of economic restraint it appears timely to determine how much these free media channels could be developed and used in an emergency situation, although there may be implications in terms of time and human resources.

The results of this research may benefit not only the SECG but other regional emergency planning groups and possibly at Scottish government level. It could potentially provide a framework for social media best practice in an emergency planning situation.

The audience for the research therefore, aside from other researchers in this field, would be emergency planning groups, emergency first responders and the media.

The general approach to the research problem is to examine four strands: how the Scottish media are using social media to inform stories; how the SECG monitors and uses social media; a comparison of how much of an emergency situation story is generated by the public on social media and how much from official SECG statements; and, if social media is used to inform the SECG Communications Group.

1.3 Aim and objectives

1.3.1 Aim

To assess how journalists use content created by the public to inform a story in an emergency situation and if this content is used to fill the gaps left by official statements.

1.3.2 Objectives

Social media monitoring

- to examine how embedded the monitoring of social media is in local and regional media in Strathclyde, Scotland
- to examine the SECG's monitoring of social media
- to compare the reach of emergency responders' and media organisations' Twitter accounts

Citizen journalism usage

- to quantify how much of a story, as reported in the media, is generated by the public on social media and compare it with how much is from the SECG
- to identify if social media is used to inform the SECG Communications Group

Recommendations

- to develop and suggest recommendations for social media use by the SECG and the wider emergency planning community

2 Background and global context

2.1 What is social media?

Boyd and Ellison (2007) define social network sites as web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system.

Twitter and Facebook, Bebo and MySpace are just four such sites currently in use by the general public, although the latter two have reduced in popularity considerably over the last four years due to a number of issues including security.

According to a BBC report in July 2010, the top five social networking sites in the UK were Facebook (24.2m users), Twitter (3.7m), Flickr (2.9m), MySpace (2.7m) and LinkedIn (2.1m) (BBC, 2010a). In the Strathclyde Police authority area at the beginning of 2012 there were approximately 860,000 Facebook users. This can be calculated by going through the first two steps of creating a Facebook advert and targeting it for a certain geographical area. At the moment there are no similar applications that will give the number of Twitter users for a specific area.

In fact in many areas the number of Twitter and/or Facebook users exceeds the circulation of the local newspaper. For example, at the time of writing in late 2011 in South Lanarkshire, situated in the southern part of Strathclyde, there were around 100,000 Facebook users. South Lanarkshire Council's main Twitter account had over 6,000 followers while the combined circulation figures for the four Scottish & Universal titles that cover the area was 39,575 in 2011, down an average of 7.8% on the previous year (UK Press Gazette, 2012).

There are many theories as to why newspaper circulations are dropping. Some of these touch on the fact that many people get their news online from news aggregators and social media sites, even bypassing newspaper websites and paywalls (Rosen, 1999 and Fenton, 2010).

This research looks mostly at Twitter, YouTube and Facebook.

2.1.1 Twitter

Twitter is an online micro-blogging service. Once an account has been set up the user can broadcast whatever they want in 140 characters. This will be seen automatically by anyone following the account or, if the hashtag symbol (#) and a keyword is added to the post, Twitter users can aggregate all posts containing the hashtag. However, Twitter only holds a public-facing archive for a short space of time. At the time of writing for instance, searching on #scotstorm brought back tweets about the storms Scotland experienced in late 2011 and early 2012.

2.1.2 YouTube

YouTube is an online video sharing website. Users can upload and watch videos and share them by embedding links in other social media channels and websites.

2.1.3 Facebook

Facebook allows individuals to set up profiles. Profiles create a two-way conversation between the individual and their friends. Businesses and organisations can set up pages and groups. Groups and pages can be set up either as two-way conversations or as a broadcast with the comment function switched off. Groups can be open to anyone, closed (by invitation only or with permission to join) or secret (unsearchable).

2.2 Social media use by emergency responders

Social media can be used by emergency responders in two ways. They can monitor it to assess where their services are needed most and they can use it to broadcast and share information in a real-time environment. White (2012, p.3) describes its use in this way as a 'new mindset of collaboration and collective intelligence' and a move away from the traditional command and control model. Quoting Craig Fugate, the chief of the US Federal Emergency

Management Agency speaking at the International Association of Emergency Managers conference in October 2010, White highlights the likelihood that the public will share information quicker than official sources and have the most accurate information about a disaster site, whether official sources like it or not.

2.3 What are journalists for?

Journalism's role in democracy has been analysed for many years and by many scholars. For democracy to work it needs a well-informed voting populace. Politics, as described by Leadbeater (2009, p.170), is becoming a 'highly sophisticated, professional, full-time profession' requiring, to keep it in check, an 'equally vigilant professional cadre of journalists' (p.170).

However, in an emergency, information can be classed as the facts that provide a snapshot of a situation, examined by journalists and presented as news as their interpretation of the event (Herbert 2000).

Herbert also claims that the rise of the internet means that the control of information is shifting away from governments into the control of journalists. However his research was undertaken before the advent of web 2.0 and social media. Web 2.0 can be described as a set of tools on the web that allow users to collaborate and create and publish their own content (Leadbeater, 2009).

This research hopes to show that the control has now shifted into the hands of the public and that journalists are using social media to get straight to the source of information, rather than waiting for the official statements of emergency responders such as police, health boards, fire services and councils. As Lee-Wright (2010, p.72) points out by quoting the Head of Newsgathering Operations at BBC News:

'There is no point in every broadcaster doing the same because the audience now has access to the original sources of information. The successful news organization will be the one that supplies distinctive information and context.'

Ten years previously Rosen (1999, p. 294) prophetically proclaimed that:

'on the Web, every reader is also a writer, every consumer a potential producer. Everyone there is in potential reach of everyone else who is

there. These are new conditions for journalists, and they stand out even at high tide in the hype that often surrounds Web talk.'

Before the advent of the social web, the very decision to cover a story made journalists and editors the judges of what was newsworthy and the gatekeepers of information, now the general public can decide for themselves. According to Freedman (2010) young people are increasingly deserting traditional media in favour of the immediacy of the internet and the ability to filter news to suit their taste – the traditional media have lost their previously privileged position as the sole providers of news.

2.4 Citizen journalism and User Generated Content

There has been much written about citizen journalism and user generated content (UGC) and White (2012, p.47) claims that 'citizens are the greatest source of untapped information as far as social media and emergency planning goes'.

Citizen journalism can be defined as 'the spontaneous actions of ordinary people – more often than not in the wrong place at the wrong time – compelled to adopt the role of reporter' (Allan and Thorsen, 2009 p.7).

This suggests a conscious decision to record a situation, whether by filming, writing or taking photographs and then publishing the record(s) online using social media channels such as a blog, YouTube, Flickr, Twitter or Facebook. There have been many incidences of this, for example the London bombings in 2005, the Arab Spring of 2010/11 and the UK riots in the summer of 2011. These citizen journalists' blogs, films and photographs are posted with the knowledge that they will be seen by friends and followers and the social media world if they go viral, and possibly picked up by the mainstream media. According to Fenton (2010) citizen journalism bleeds into traditional journalism and vice versa. Cottle (2009, p.xi) expands on this claiming 'citizen journalism(s)' now assert their presence *outside, through, and within* today's mainstream news media.' However he goes on to describe mainstream news editors as reluctant to give up their traditional role as agenda setters and gatekeepers, 'especially when reporting crises and catastrophes'.

Head of Newsgathering Operations at BBC News, Martin Turner admits that audiences now have access to the original sources of news via the internet so the news organisations that will succeed in the future will be those that supply original information and context. This is backed up by BBC anchor Ben Brown who says that UGC is best used when it is a 'unique source from a particular event' (Lee-Wright, 2010 p.78).

User generated content on the other hand has been described by Thurman (2008) as content on mainstream news websites that has been created by the public via polls, message boards and blogs with comments enabled. Therefore this content is invited by journalists and editors and provided by individuals who are aware that their contributions will be on the website and possibly used in TV news pieces or in print, depending in the news provider involved.

However, the online content this research will look at is that which individuals have posted on their own social media accounts which has then been picked up by mainstream journalists and embedded in news stories. This can be described as accidental journalism, content which was never intended by its creator for traditional, mainstream media (Allan and Thorsen, 2009). Analysing this will reveal how embedded social media monitoring is in journalism in Strathclyde and how this knowledge can help emergency responders use social media to inform both journalists and the public.

2.5 Recent global emergency events and their social media presence

2.5.1 September 11 terrorist attacks

On the morning of September 11, 2001 two hi-jacked planes hit the twin towers of the World Trade Center in New York and another hit the Pentagon near Washington. Hundreds of New York fire and police personnel were drafted in to the rescue operation which was well underway when both towers collapsed, killing thousands of civilians and rescue workers (September 11 News). Eyewitness accounts of the World Trade Center attack appeared on the internet within 10 minutes and traditional news sites, as well as Yahoo and

Google were so overwhelmed they began to crash. Soon the only places on the web to get updates were personal websites and blogs (Allan 2009).

The news was being created by 'the people formerly known as the audience' (Rosen, 2006 p.1). (See also 4.5)

2.5.2 South Asian tsunami

On Boxing Day 2004, an earthquake measuring 8.9 struck under the sea near Aceh in the Indian Ocean which then generated a massive tsunami and a wall of water that travelled hundreds of kilometres at high speed.

In the immediate aftermath over 4000 people had been killed in Indonesia, 3,500 in Sri Lanka and 2000 in India with the death toll and the casualty figures rising continuously for days afterwards. Communications in the area were difficult, especially in Aceh which suffered nine aftershocks. However, although official communications proved difficult many photographs and videos of the scenes spread around the world on personal websites and early social media channels due to the high numbers of holiday makers in the area (BBC News, 2004).

According to Allan (2009, p.18) for the first time traditional media organisations had to admit that they were dependent on the amateur video footage, photographs and written accounts posted on blogs and webpages, 'transforming what was once considered to be the exclusive domain of the professional'.

2.5.3 London bombings

Four suicide bombers attacked the London transport system during the morning rush hour of July 7, 2005, killing 52 and injuring over 700 people. Three bombs went off on three separate underground trains while another went off on a double-decker bus (BBC News, 2005). Quoting Helen Boaden, director of news at the BBC, Allan (2009) notes that the London bomb attacks were a turning point for citizen journalism and the point where the BBC realised that news gathering had changed forever. Victims and passers-by contributed directly to the BBC by email and texts, sending in digital photographs and film, documenting the day's events.

2.5.4 Haiti Earthquake

On January 12, 2010 an earthquake of magnitude 7.0 hit Haiti killing 230,000 people and left 1 million people homeless (BBC News, 2011). The disaster hit communication networks stopping all phone calls, although texts and Twitter were still available. According to White (2012) locals, relatives and news organisations all used social media to send requests for help and news. CNN even dedicated a group of journalists to analyse Twitter and opened a special Haiti social media section on their own website.

2.6 *The context for this research*

What this research will endeavour to do is look at the social media content created by people caught up in emergency situations in Strathclyde and how this content is picked up and used by the area's mainstream media. Are sources revealed? Are facts corroborated? Are the content creators aware their content has been used? What strategies do media organisations have in place for their journalists to monitor and use social media? How can emergency responders best use social media to evaluate emergency situations and disseminate the messages they want to get out to both the media and the public? Are the media using social media to fill the gaps in tight deadlines when responders are slow in getting out official statements?

3 The Strathclyde context

3.1 UK emergencies defined

An emergency is defined in the Civil Contingencies Act 2004 as:

- an event or situation which threatens serious damage to human welfare in a place in the UK
- an event or situation which threatens serious damage to the environment of a place in the UK
- war or terrorism which threatens serious damage to the security of the UK

Additionally to constitute an emergency the event or situation must also pose a considerable test for an organisation's ability to perform its functions.

Before the Civil Contingencies Act 2004 such situations were termed major incidents among emergency responders and there is nothing in legislation to prevent responders continuing to declare a major incident when planning a response (SECG, 2011).

From the perspective of command and control there are two categories of emergency event. Rapid onset incidents happen without warning and require an immediate response. Slow onset incidents are identified before the scale of the incident is declared and the lead-in could be days, weeks or even months, allowing various degrees of planning.

3.2 The Strathclyde Emergencies Co-ordination Group

The Strathclyde Emergencies Co-ordination Group (SECG) was set up in 1987 and now has the overarching responsibility for ensuring the effective management of civil protection in the region, as required by the Civil Contingencies Act 2004.

It is a multi-agency group comprising representatives from the following organisations:

Local authorities

- Argyll and Bute Council

- East Ayrshire Council
- East Dunbartonshire Council
- East Renfrewshire Council
- Glasgow City Council
- Inverclyde Council
- North Ayrshire Council
- North Lanarkshire Council
- Renfrewshire Council
- South Ayrshire Council
- South Lanarkshire Council
- West Dunbartonshire Council

Emergency services

- British Transport Police
- Maritime and Coastguard Agency
- Scottish Ambulance Service
- Strathclyde Fire and Rescue
- Strathclyde Police

National Health Service (NHS) Boards

- NHS Ayrshire and Arran
- NHS Greater Glasgow and Clyde
- NHS Highland
- NHS Lanarkshire

Utilities

- Scottish Gas Network
- Scottish Gas
- Scottish Power
- Scottish and Southern Energy
- Scottish Water

Additional members

- Crown Office and Procurator Fiscal Service
- Ministry of Defence
- Scottish Environmental Protection Agency
- Scottish Government

These organisations are all classed as Category 1 responders.

Figure 1 shows the planning structure of the SECG. The Communications Group, which this research looks at, sits within the Tactical Group with its membership made up of communications professionals from each of the SECG member groups listed previously.

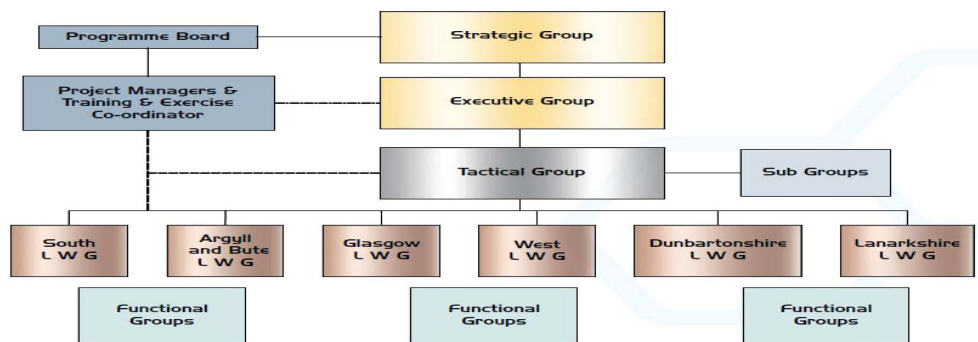


Figure 1: SECG structure during day-to-day business

One of the core principles of the SECG's communications group is to co-ordinate the arrangements for public information and media response with a recognition that good two-way communication is critical to an effective response to an emergency. 'Reliable information must be passed correctly and without delay between those who need to know, including the public' (SECG 2011, p.8).

Most emergency situations, at their outset, are considered to have happened as the result of a criminal act and, until confirmed otherwise Strathclyde Police lead on both the emergency response and communications. This is to avoid the risk of any prejudice to any future investigation of the incident.

The SECG recognises that due to the advancement of communications technology and social media that the media response to a major incident will

be almost immediate and potentially world-wide and also that members of the public involved in the incident are capable of broadcasting their own content. However, on the one hand they state that the media, if handled correctly can be used as 'an effective channel of information, communication, reassurance and appeal' (SECG, 2011 p.52), yet go on to state that all statements should be cleared by the Strategic Co-ordinating Group and that only the police should release information about casualty numbers. As can be seen by Figure 2, this is a cumbersome model for signing off official communications which, given the extensive use of mobile phones and social media, the more urgent and timely messages are likely to already be in the public domain, provided by citizen journalists, passers-by, eye witnesses and even victims themselves (Allan, 2009). The Public Communications Group (PCG) sits under the Strategic Group along with the Scientific and Technical Advice Cell (STAC), the Care for People group and the Recovery group. Members from the PCG will attend meetings of the STAC, Care for People and Recovery groups to form any communication to go out to the public and the media. However, any press releases or statements must first be signed off by the SECG Strategic Group which will also be in communication with the Scottish Government.

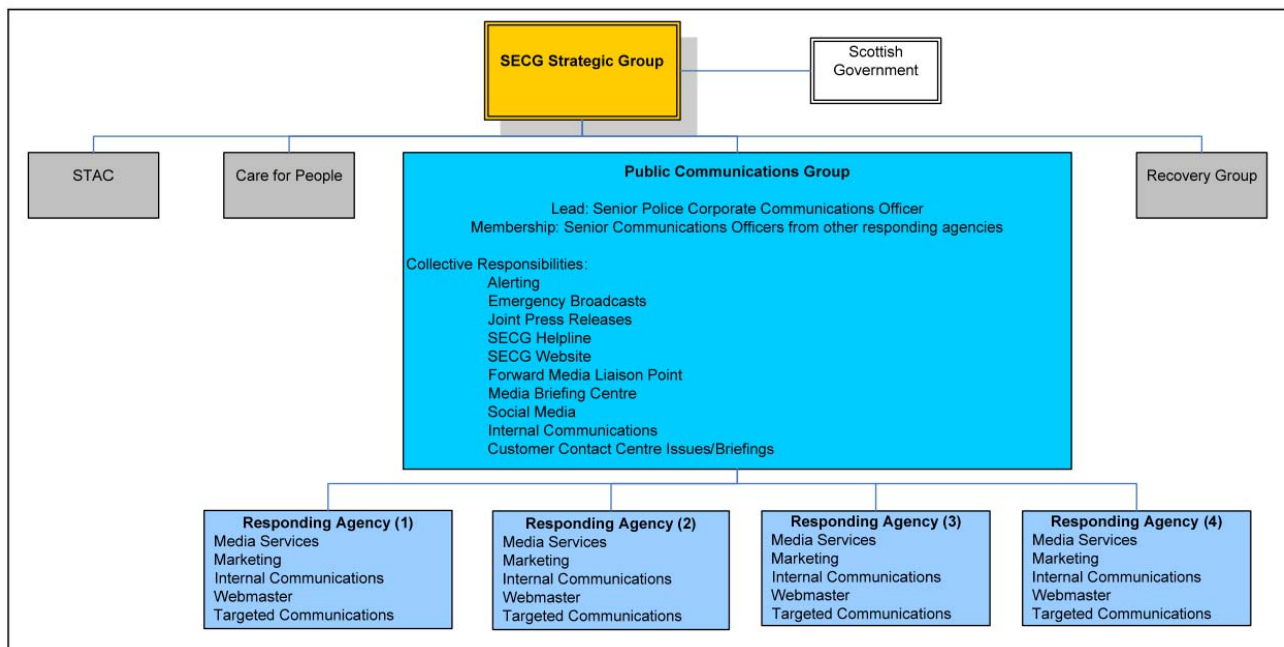


Figure 2: SECG response structure diagram

This becomes even more complicated in a national emergency as can be seen by Figure 3 when both Scottish and UK Government departments are included along with cross-cutting groups into the emergency response team.

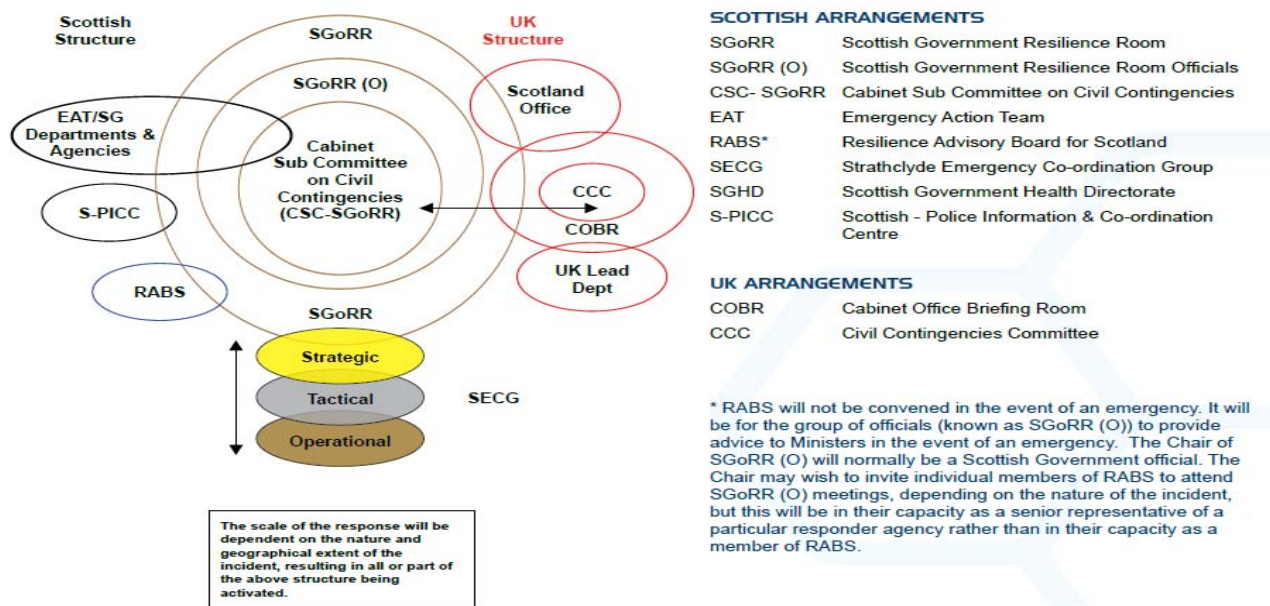


Figure 3: National structure during an emergency

3.2.1 The SECG Communications Plan

Once notified of the incident the lead agency, usually the police, should release a holding statement, preferably within 30 minutes. A Public Communications Liaison Officer should be appointed and a Media Liaison point set up, usually just outside of the cordon around the incident. If it is a large incident a media briefing centre can be set up. All of these points of contact will be in communication with the PCG which normally meets close to the Strategic Group to offer communications support.

There are clearance procedures for all information and most should flow upwards to the Strategic Group with non-operational information from individual agencies requiring clearance from the PCG.

The SECG Communications Plan states that 'our activity to warn and inform the public will be as quick and open as possible' (SECG:PCG, 2011 p.17).

The Plan also outlines that each agency should monitor social media, blogs and citizen journalism under the guidance and control of the PCG, and that

each organisation should keep its own website up-to-date. It also states that agencies should identify their key audiences and ensure 'effective two-way communication' (SECG:PCG, 2011 p.32).

This research will show if emergency responders are at a high enough level using social media to have two-way conversations, and indeed using it to monitor situations, to make it an effective communication tool during an emergency.

4 Literature review and local research

There has been much research into how the public uses social media during times of crisis. These have been truly global events, the first of which was the attacks on the twin towers of the World Trade Center in 2001, just as social media sites were beginning to appear, through to the Japanese earthquake and tsunami and the Christchurch earthquake in early 2011, by which time social media use had gone mainstream and there were many different platforms from which to choose.

There has also been research looking at how journalists use social media to broadcast their stories and drive traffic to their websites and how they have implemented user generated content tools.

The following papers and books were felt to be most relevant, both in content and in methodologies.

4.1 Literature Review

4.1.1 Citizen Photojournalism during Crisis Events

Liu et al (2009) look specifically at citizen photojournalism during crises, particularly the use of the photo-sharing site Flickr.

Theirs was a longitudinal, qualitative study covering the period December 2004 to November 2007. The crises studied were the Indian Ocean tsunami, the London bombings, Hurricane Katrina, the Virginia Tech shootings, the Minneapolis bridge collapse and the Southern California wildfires.

Contributors' profiles were analysed, as were the titles, tags, captions, views and comments of photographs. Email interviews were carried out with nine prolific uploaders.

They charted that during the first two events groups sprang up with the aim of raising awareness of the situations but that by the time of Hurricane Katrina in August 2005, the role of Flickr had been formalised with the creation of an 'image aggregator group' (p.49). By the time of the Virginia Tech shootings 18 months later this had evolved into an 'experience aggregator' (p.49). By the

time of the 2007 events it had become common practice for Flickr groups to be set up for the purpose of, not only sharing photos, but sharing information and links to other resources. News groups had also joined in to create their own groups, providing sets of eyewitness photographs for their own sites.

4.1.2 Social Media, Crisis Communication and Emergency Management: Leveraging Web 2.0 Technologies

White (2012) provides a practical guide to using social media platforms such as Twitter and Facebook for emergency planners as well as a history of recent crisis events and how social media use has developed over time. Open source disaster management systems and mapping tools are used to illustrate collaborative working in times of need and interviews with local level practitioners provide insight into best practice and innovation.

4.1.3 Social Media in Disasters and Emergencies

This American Red Cross research is the result of data gathering via an online survey of 1046 people and a telephone survey of 1011 people, representative of the American population aged 18 and over. This was carried out in the summer of 2011.

The survey asked questions about general social media use and also which social media channels people use during emergencies.

Over half of the respondents relied on online news services for emergency information. One in five online and one in seven telephone respondents have posted information about an emergency they have experienced on a social media site, the most popular of which was Facebook.

A quarter of telephone and a third of online respondents would also use social media to let loved ones now they are safe. The majority of respondents think responders should monitor and respond to postings on their websites.

4.1.4 Crisis in a Networked World: Features of Computer-Mediated Communication in the April 16, 2007, Virginia Tech Event

Palen et al (2009) collected data both online and on-site at Virginia Tech. Official and unofficial news activity was followed live, as the event unfolded and in the aftermath online activity was monitored. Palen et al recognised that the on-site crisis communications between the students, staff and responders would affect what was happening online. Face-to-face interviews were carried

out five days after the shootings focusing on how they found out about what was happening and how they kept up-to-date. Online monitoring and content analysis of news feeds and social media sites continued. The research team created a data visualised timeline to track the sentiment of social media postings. Their data shows a high level of 'decentralized highly distributed information production' (p.476) which, because of the nature of the event was peer-produced and highly accurate.

Official news content relied on the information generated on-site and from relatives seeking reassurance about loved ones. Palen et al acknowledge that during crisis events, as people organise themselves and communicate to try to make sense of the situation, they are able to 'work in advance of conventional forms of news communication' (p.476). An example of this is that official news sources cannot release personal information until the next of kin have been informed but at Virginia Tech those involved could discuss the situation more freely amongst themselves and with others using social media. Their research suggests that computer-mediated communication provides a new space for people to converge and as a result emergency responders will be forced to reorganise themselves to adapt to this new set-up. However, they admit that data gathering tools need to be more powerful to provide the analysis required.

4.1.5 Interagency Communication Networks During Emergencies: Boundary Spanners in Multiagency Coordination

Kapucu (2006) looks at the importance of building good communication networks amongst emergency and non-emergency organisations and the public before, during and after an emergency event. The research examines the interaction between these groups during the aftermath of the terrorist attacks on the World Trade Center in New York on September 11, 2001. Effective management of emergency situations requires effective sharing and use of information but while hierarchical structures work well in routine operations, they struggle in emergencies. Extreme events require quicker problem solving and information sharing than under normal circumstances. The study uses content analysis of the New York Times over the six days after the attack, reports from the Federal Emergency Management Agency

(FEMA) and the Department of Health and Human Services between the attack and October 4 and interviews with managers and staff involved in the response, as well as primary data sources, observational data and document analysis. Data collected from interviews helped in the analysis of social networks.

The study indicates that communication networks should be established as a matter of course so that they are there in place in the event of an emergency and that it is critical that responders know where other agencies, victims and the public will go for information and help. It also states that the Internet is the most stable environment for information sharing as it has been designed to route traffic in the most intelligent way around busy ports, unlike land phone lines which pass through set networks that easily become congested and mobile phone networks which rely on a limited number of masts.

4.1.6 Forums for citizen journalists: Adoption of user generated content initiatives by online news media

Thurman (2008) uses qualitative research interviews with the editors and managing editors of nine key British news websites to discover the changing roles of journalists and the innovation taking place in newsrooms.

The results of the survey reveal seven main tools allowing public participation in news creation: polls; have your say areas; chat rooms; Q&As; comment-enabled blogs, pre-moderated message boards and post-moderated message boards. Q&As were the most popular with 70% using them, followed by polls at 50%.

From the interviews Thurman concludes that it is still strongly believed by editors that journalists need to 'control, moderate or sub' (p.144) contributions from the public so they meet professional standards, not only in correcting spelling and grammar but to try to keep a balance and to keep content broadly appealing to its readership. Editors appear to have a general 'distaste' (p.146) of blogs believing them to be more a vehicle for the blogger's personality rather than their message.

However, those organisations with an online presence as well as a print or broadcast capability often found the UGC on their websites provided exclusive content through 'internal syndication' (p.149), that is, comments from users of

the BBC website would be used by News 24, their rolling news service. Legal liability seems to be the main reason for mainstream news organisations avoiding the use of blogs.

Thurman's interviews also revealed that journalists often cut and paste readers' comments straight from emails into content management systems but that when it comes to online content editors prefer to remain in control to 'ensure quality and consistency in the editorial product' (p.152).

Moderating UGC is seen by editors as costly and time consuming but at the same time during emergencies and unusual events, readers can contribute vast quantities of information the journalists could only previously get from official sources.

4.1.7 Now Tweet This: How News Organisations Use Twitter

Armstrong and Fangfang (2010) used content analysis during the California wildfires of 2007, looking at how Twitter was used by the news industry as a tool to share information. It examines how gatekeeping and other journalistic values are displayed on Twitter, using nine print and broadcast news organisations, analysing 361 tweets during a four-month period.

Just over 25% of tweets were about crime, 22% were about public affairs/politics and just over 15% were about lifestyle. Just over 34% linked to a news story with a photo and the same to just text while 23% linked to multimedia sections. Significantly nearly 70% of tweets were either automated feeds from their websites to Twitter or had the same headline, suggesting that news agencies are trying to fit their existing model into social media rather than using it afresh. Rather than using Twitter for instantaneous updates they are using it to drive visitors to their website. The research also looked at the publishing tools used with 54% using Twitterfeed, just over 24% using Twitter on the web, just over 14% using Twhirl and nearly 6% on TweetDeck.

4.1.8 Effects of Narratives, Openness to Dialogic Communications, and Credibility on Engagement in Crisis Communication Through Organizational Blogs

Yang, Kang and Johnson's (2010) is an experimental study whereby various blog posts were written to compare audience engagement in crisis communications. The research team provided participants with a description

of a crisis situation and three blogs written by an employee at the fictitious company involved in the incident. Participants were asked to describe how they felt about the crisis before reading the three blogs, each with more openness than the last. Their results show that openness will lead to better audience engagement therefore a well-written blog can reduce negative emotions post-crisis.

4.1.9 #qldfloods and @QPSMedia: Crisis Communications on Twitter in the 2011 South East Queensland Floods

Bruns et al (2012) examine the use of Twitter for the sharing of information between the state, local authorities and the general public during the floods in Queensland, Australia in 2011.

They analyse the general use of Twitter, as well as the official Queensland Police account, @QPSMedia and the hashtag #qldfloods.

They found that during the crisis several Twitter users dedicated themselves to retweeting #qldfloods messages and that Twitter both 'drew on and became a source for mainstream media . . . often including photographs and videos in their tweets' (p.7).

They also ascertained that the @QPSMedia information on Twitter helped affected locals and onlookers make sense of the situation and begin the process of recovery, even as events unfolded.

After looking at existing research they believed that there are gaps in understanding how organisations and the public interact and rely on each other during crises and how social media is being used to facilitate this interaction.

They collected data on the hashtag using the open-source yourTwapperkeeper which uses Twitter's Application Programming Interface (API). This data was then categorised into the following types:

- information
- media sharing
- help and fundraising
- direct experience
- discussion and reaction

Among their recommendations are that social media should be used by both emergency services and media organisations to create conversations rather than to simply broadcast messages and that efforts between the two groups should be co-ordinated to avoid conflicting messages.

4.1.10 5 Days in August: An interim report on the 2011 English riots

In August 2011 there was widespread unrest in many English cities, resulting in riots over five days. Although there was no single cause, the incident that sparked the unrest was the shooting of Mark Duggan by police in Tottenham, London. Following the shooting there was a protest which began peacefully but turned violent later that evening and by the early hours of the next morning rioting had spread to nearby areas. Five people lost their lives and many lost their businesses and homes.

Following the riots the Prime Minister, the Deputy Prime Minister and the Leader of the Official Opposition established the Riots Communities and Victims Panel (the Panel) to consider, among other things, what had motivated people to riot, how public services engaged with the communities involved, how communities can be made more resilient and what could have been done differently.

During the riots there had been debate as to whether social media channels should be shut down to help prevent further riots being organised but the report by the Panel advises against this. Instead they recommend better use of social media to bring communities together. It also identified local councils' and the police's ability to use social media effectively as a 'major weakness' that 'needs urgently addressed' (Riots Communities and Victims Panel, 2012 p.73).

4.2 Local research

As far as could be ascertained there has been no research focusing on Strathclyde or indeed Scottish use of social media during crises and it is hoped that these results will help both journalists and emergency responders understand how each other use the tools available and how they could

possibly work better together in the future so that the public receive a unified message while simultaneously allowing journalists to find original content for their stories.

As discovered by Bruns et al (2012) there is a gap in the research around how organisations and individuals converse with each other and rely on each other using social media during emergency events and on the relationships built whilst doing so.

Whilst this research covers the Strathclyde area, similar research should be done throughout Scotland, the UK and the wider emergency planning community to allow for a comparison of results and a sharing of best practice.

5 Methodology

The methodology underpinning this study uses elements from some of the literature reviewed including: Thurman (2008), qualitative analysis of interviews; Armstrong and Fangfang (2010), content analysis and; Bruns et al (2012) analysis of the general use of Twitter.

5.1 Research design

This is mainly a retrospective, longitudinal qualitative and quantitative study that will investigate the use of social media by journalists and emergency responders in Strathclyde over the following three events: the terrorist attack on Glasgow airport in 2007; the Lanark school bus crash in early 2010; and the severe weather in December 2010 which affected the whole of Scotland.

The airport attack was chosen as it happened at a time when social media channels were relatively new. It would give a base as at the time traditional reporting methods were still being used in news rooms and by emergency response communications teams but social media was beginning to be used by the public. According to Allan, quoted by Liu et al (2009), phones with built-in cameras were also common by this time, making it more likely that passers-by would photograph or film the event, given that most would have been either on their way to or from holiday and would possibly have had cameras and video cameras, as well as mobile phones.

The Lanark school bus crash was included because, as can be seen by Figure 4, by 2010 social media channels such as Bebo and Facebook were being used by the age group of the children involved (SocialBakers, 2010). It was felt that, due to the difficulty of getting reporters to the scene quickly because of the weather conditions, news desks could have resorted to monitoring social media until such times as traditional news gathering could be done.

By the time of the severe weather event in early December 2010, social media use had gone mainstream (SocialBakers, 2010), as also can be seen in Figure 4.

Given the conditions there were also many people trapped in cars with mobile phones as their only means of communication. Many of these phones would have been smart phones with applications providing quick and easy access to social media accounts, news and emergency services' websites as well as websites providing travel information. Posts on Twitter and Facebook pages could have been a rich source of copy for news organisations and real-time information for emergency responders.



Figure 4: Age distribution of Facebook population in 2010 with increases on the previous year (Social Bakers, 2010)

5.2 The questionnaire

Following the example of Thurman (2008) it was decided to use a questionnaire for this research. Two were designed, one for journalists and one for emergency responders.

Both were designed to capture general information about how and when social media use was started by both groups. The questions then asked about its use during the three events to be researched. The final section looked at any formal social media policies, either in place or under development by both groups to track how embedded social media is or could become in the future.

The questions were first done in a Word document and tested by a colleague before transferring them to the online tool [Zoomerang](http://www.zoomerang.com) (www.zoomerang.com). Another colleague tested the online version. The two questionnaires can be seen in Appendix 1.

A contact list for journalists was compiled using contact details from news websites and a press contact list provided by South Lanarkshire Council's Corporate Communications and Public Affairs department.

A link, with a covering explanation of the research was emailed to everyone on the contact list.

After a first round of completions a reminder email was then sent two weeks later to those who hadn't replied.

A final identical reminder was sent, again two weeks later to those who hadn't responded.

This process was repeated with the emergency responders, a list of which was provided by the SECG.

5.3 Content analysis

Ideally this study would have tracked the three events live and captured the content of social media channels as they unfolded but as stated previously this is a retrospective study. Unfortunately Twitter only holds the latest 3,200

tweets in a person's stream or tweets using a common hashtag and so the content for the three events could not be analysed as it was no longer publicly available (Twitter, 2012). Also, given that the resources to carry out data analysis were limited, this study instead uses content analysis.

News sites were researched using simple Google searches using the following terms:

- Glasgow airport terrorist attack
- John Smeaton
- Lanark school bus crash
- Natasha Paton
- December 6 snow

The online resource UKNewsstand was also used to source content in the print versions of newspapers for the three events.

5.4 Interviews

Included in the questionnaire to the media was a question asking if the respondent would be willing to be interviewed for a case study of any of the events.

This is similar to the methodology of Thurman (2008) in which he used a survey to identify 10 UK online news editors to investigate their use of user generated content.

The lead responder in both the Glasgow Airport terrorist attack and the Lanark school bus crash was Strathclyde Police which was also a major player in the communications during the severe weather of 2010. South Lanarkshire Council's communications department was heavily involved in both the Lanark school bus crash and the severe weather and Local Emergency Groups were deployed for all three incidents. The lead communications personnel agreed in advance to be interviewed for all three case studies.

5.5 Live tracking

Although out of scope of the questionnaire, two live events were chosen to investigate, using both content analysis of print and online news sources, as well as Twitter content.

A major fire in Glasgow city centre on November 28, 2011 resulted in hundreds of residents and office workers being evacuated and drivers in the area being diverted as surrounding roads were cordoned off. The M8 motorway was also closed at the Kingston Bridge.

On December 8, 2011 predicted storms across the whole of the UK closed hundreds of schools, caused power outages and disrupted travel as trees and power cables came down. The Met Office had placed Scotland on red alert and on the day gusts of 165 miles per hour were recorded.

During interview, respondents were asked about these events so that they could be included in the case studies.

5.6 Comparison of influence

The online application [Followerwonk](http://www.followerwonk.com) (<http://www.followerwonk.com>) was used to compare the Twitter accounts of the emergency responders and media organisations that agreed to take part in the case studies.

6 Questionnaire results

The design of the questionnaire and the administration of them was done following Bell's (2010) outline. A record was kept of who they were sent to and on what date, as well as details of any follow-up.

6.1 Response levels

The response levels of the questionnaire at first seemed disappointing. Of the 14 emails sent to journalists with a covering message and a link to the online questionnaire, it was visited 25 times, with two partially completed and nine full completions. This, on closer inspection is a 64% completion rate. During the round of phone reminders to media organisations, the main reason for not taking the questionnaire was that they either were not using social media at all or considered their use too casual or light to be of any value to this study. A second reason was the time constraints of working in a busy news room and that they simply didn't have the time to complete it.

Response levels for the Category 1 responders' questionnaire were also disappointing but this could have been explained by the timing of issuing it. The first emails were sent before Christmas with the reminders sent out in January when many people were still on holiday. Of the 43 invitations sent out to emergency responders, there were three partially completed, 11 completed and the questionnaire was viewed a total of 23 times. This was a completion rate of 25.6%.

The media organisations' charts are in green and the emergency responders' in blue.

6.2 Social media use

Six of the media organisations who responded have social media accounts. Twitter is the most popular, used by all of those who have social media accounts, closely followed by Facebook with four users. Flickr is used by one

as is YouTube (Figure 5). One respondent used the free text box to explain that the organisation's website has a well-used comments section.

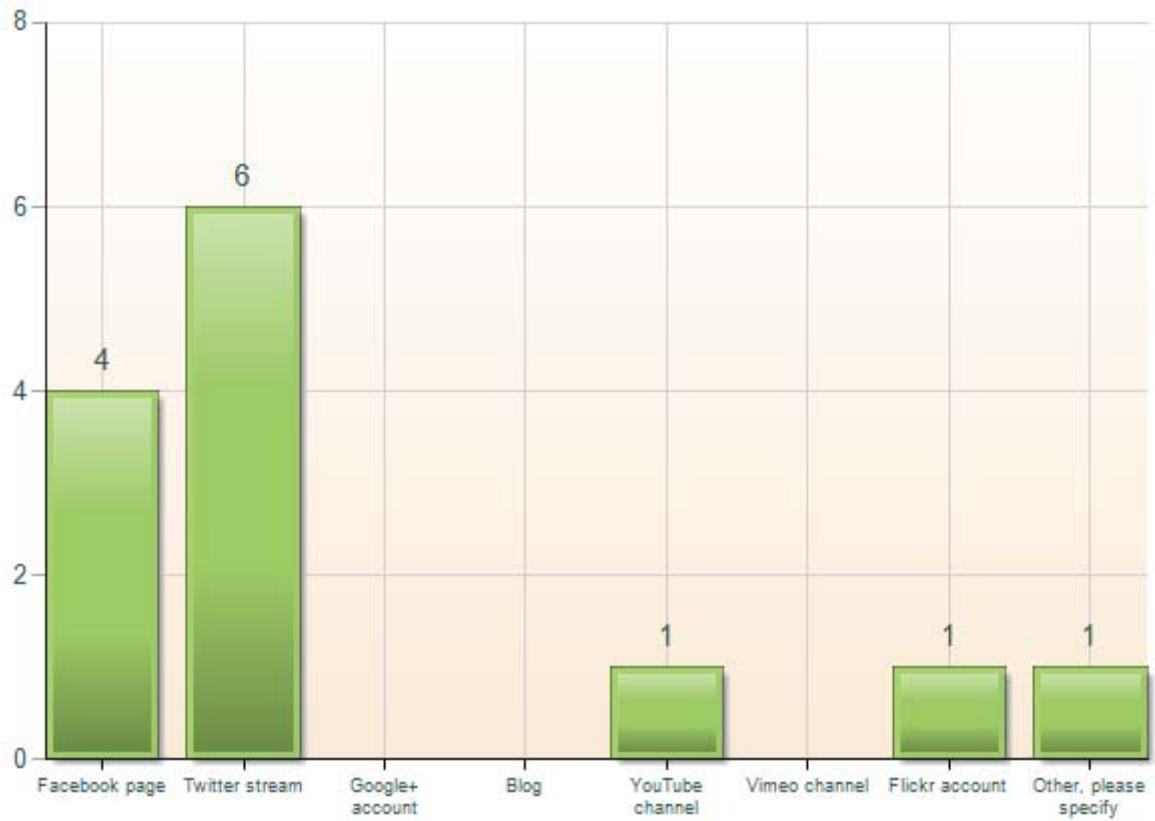


Figure 5: The social media accounts used by Strathclyde's media

Nine out of the 11 emergency responders to complete the questionnaire have social media streams. All of those with social media accounts have Twitter, six use YouTube and Flickr, five use Facebook and one uses Vimeo (Figure 6).

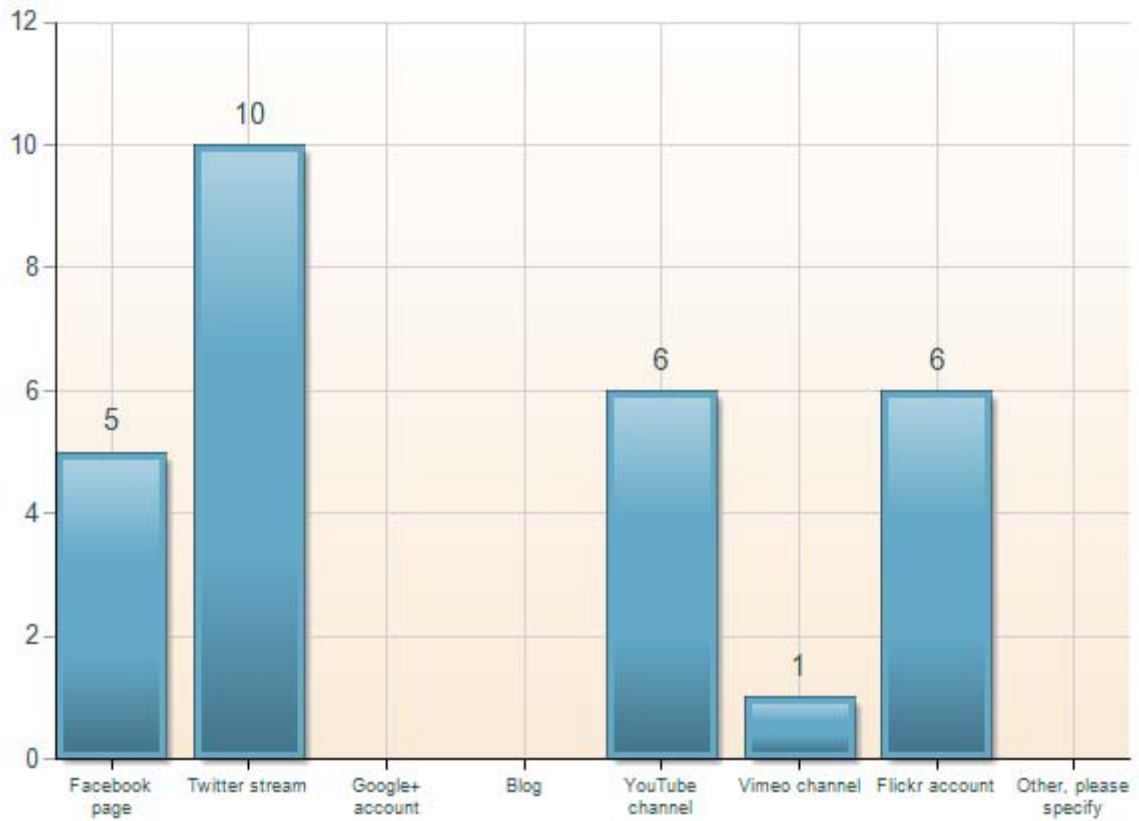


Figure 6: The social media accounts used by Strathclyde's emergency responders

When asked if they ever retweet/cross post items, five of the media organisations questioned repost content from local councils, four the fire service, police and NHS and three retweet/cross post content from members of the public (Figure 7).

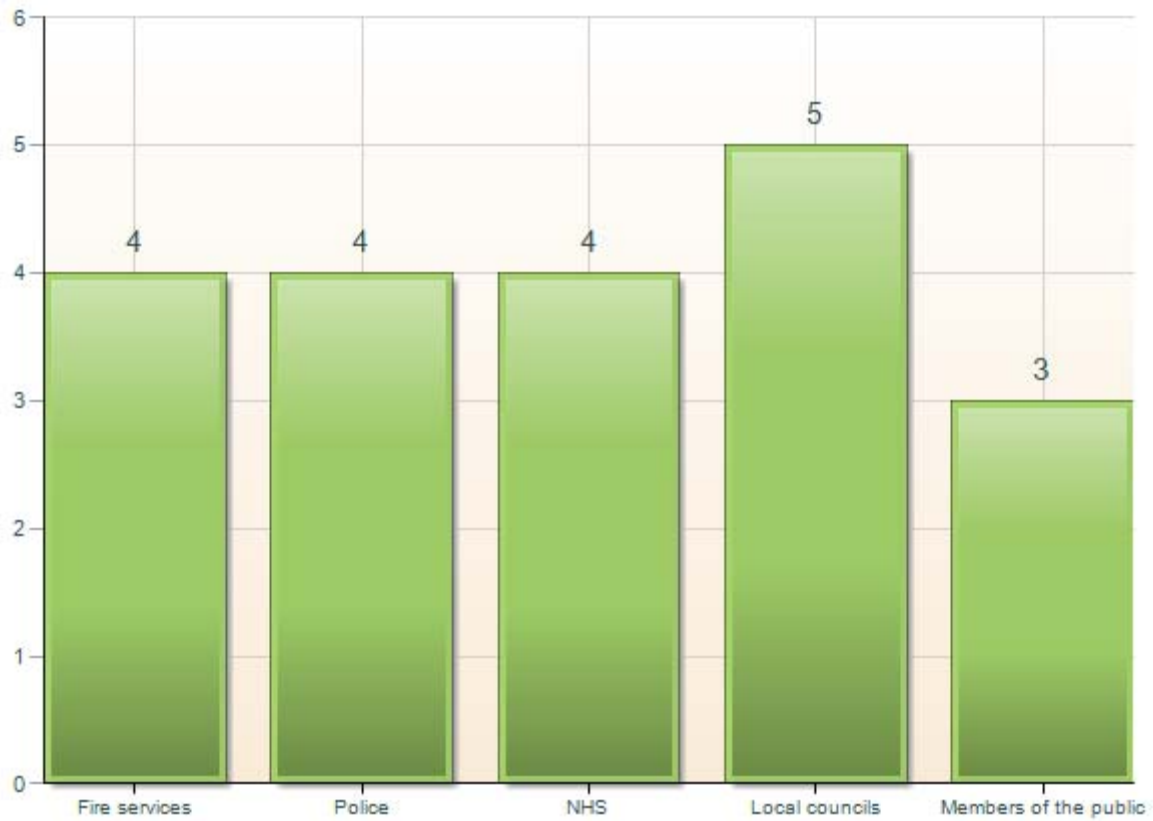


Figure 7: The sources of content that media organisations retweet/cross post

The re-posting done by first responders was similar with six re-posting NHS content, five re-posting Strathclyde Fire & Rescue, Strathclyde Police and local authorities and only three re-posting items from the media and the public (Figure 8).

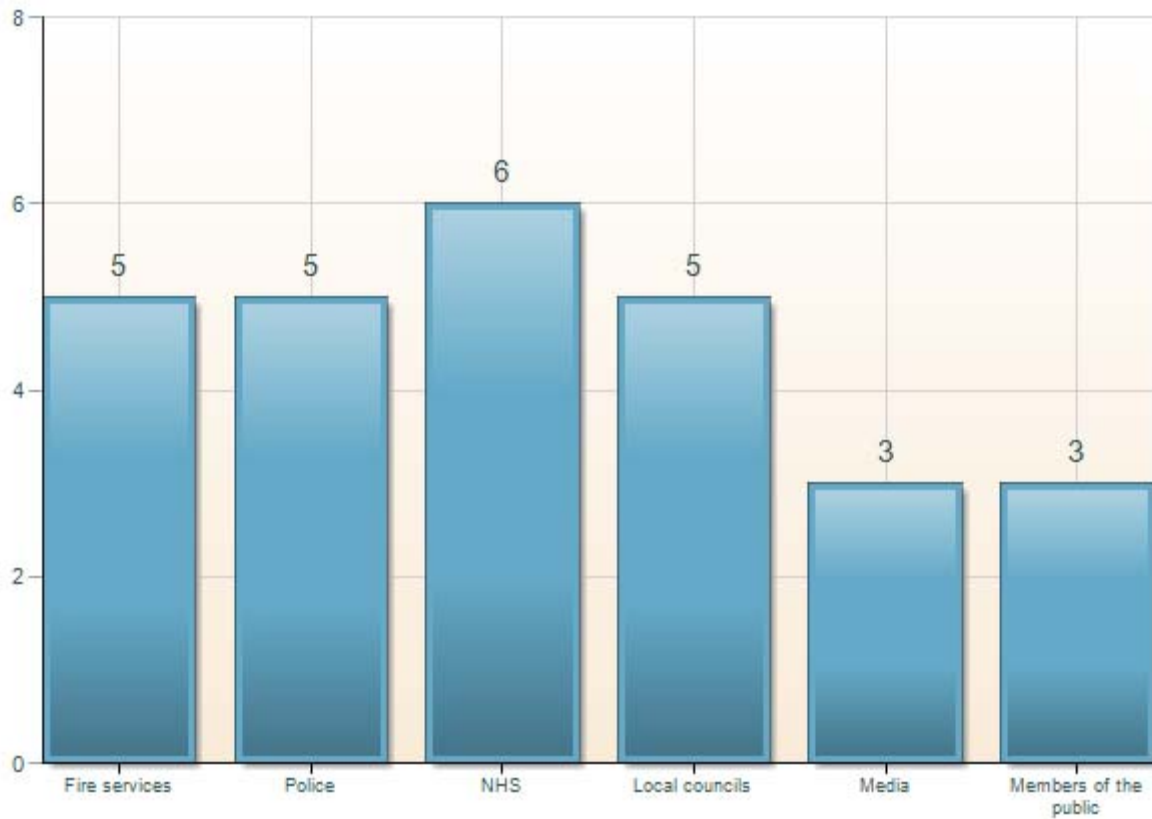


Figure 8: The sources of content that emergency responders retweet/cross post

When asked about the day-to-day monitoring of social media seven media organisations said their journalists monitor Twitter and Facebook as part of their job. Five monitor blogs and YouTube, three monitor Google+, two monitor Flickr and one LinkedIn (Figure 9).

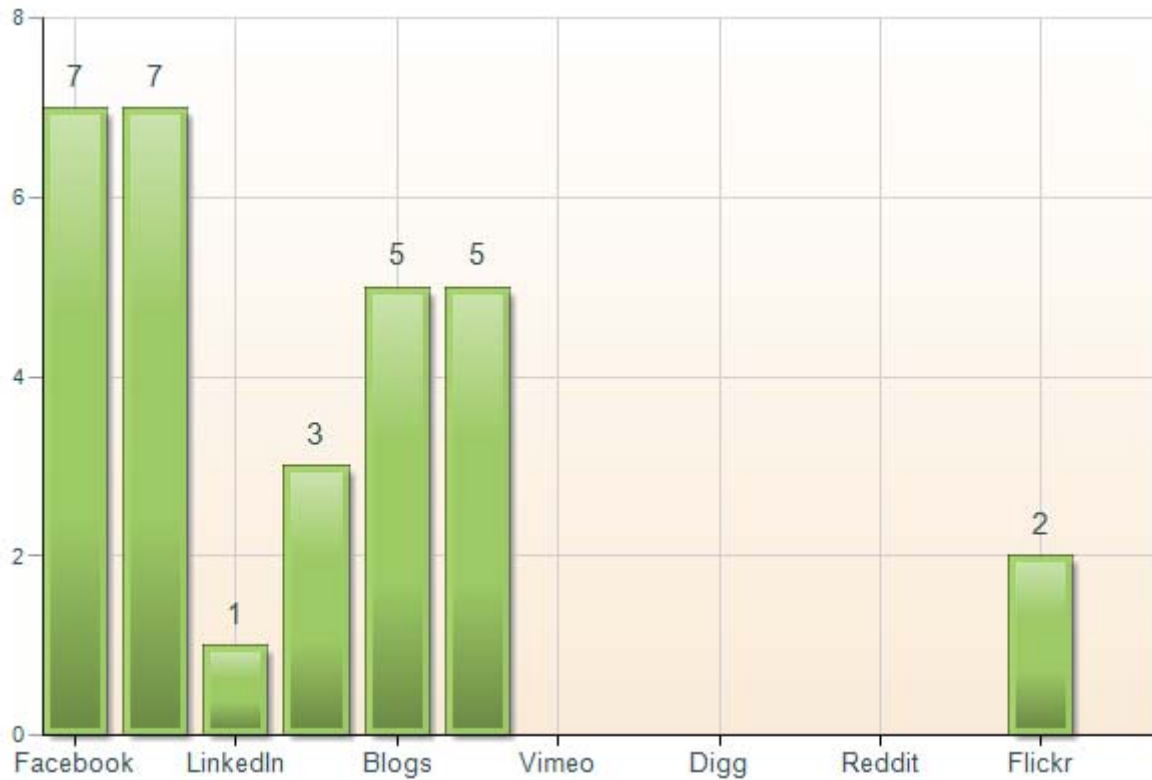


Figure 9: Social media channels monitored by media organisations

Ten emergency responders monitor Twitter, seven Facebook with a drop to two monitoring LinkedIn, YouTube, Flickr, Google+ and blogs. One responder monitors Newsvine but no news organisations (Figure 10).

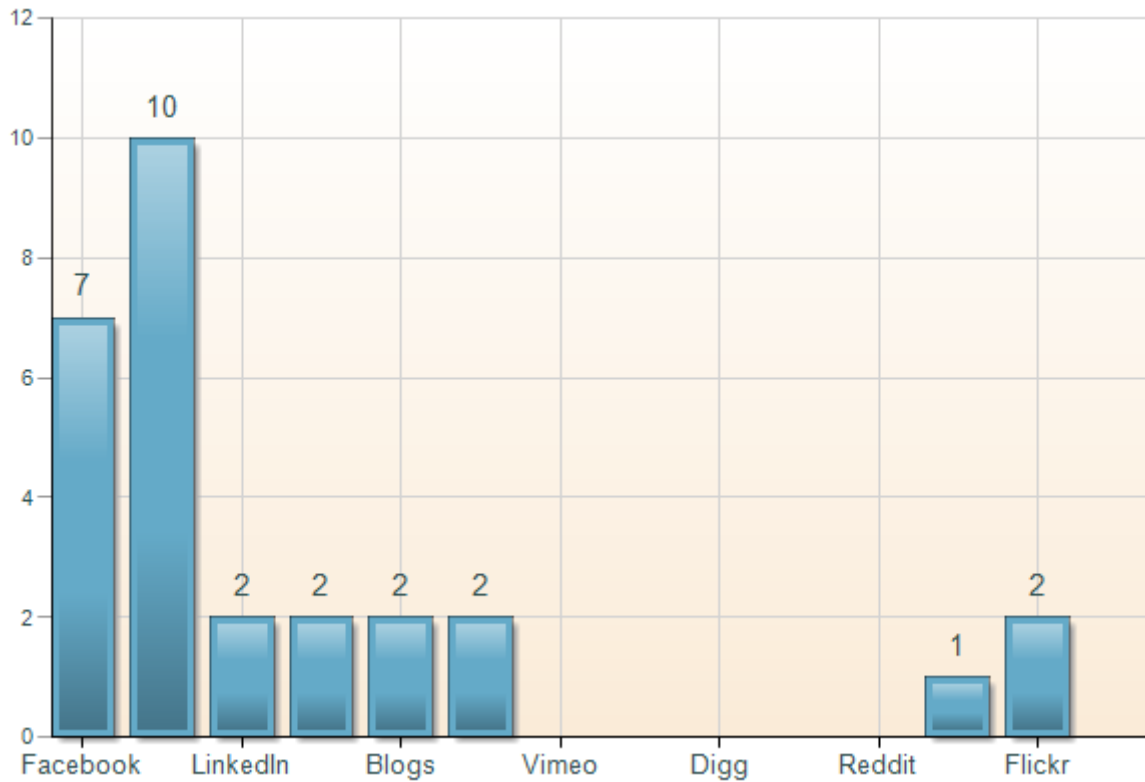


Figure 10: Social media channels monitored by emergency responders

Surprisingly four news organisations (Figure 11) and three emergency responders (Figure 12) don't use any monitoring tools at all, suggesting that they are looking directly at their live stream and using the simple site searches to find leads.

Four news organisations and four responders use Tweetdeck (Figure 12). The lower proportion of responders can possibly be explained by the fact that Tweetdeck requires software to be installed, which often isn't easy in public sector organisations due to strict IT rules. One news organisation and six responders use Hootsuite and two responders use CoTweet. One additional response showed the use Addict-o-matic, an online news aggregator. Again the high use of online monitoring tools by responders could be because they bypass the need to install software. (This was later discussed during case study interviews and was the main reason given by emergency responders for favouring online tools over Tweetdeck.)

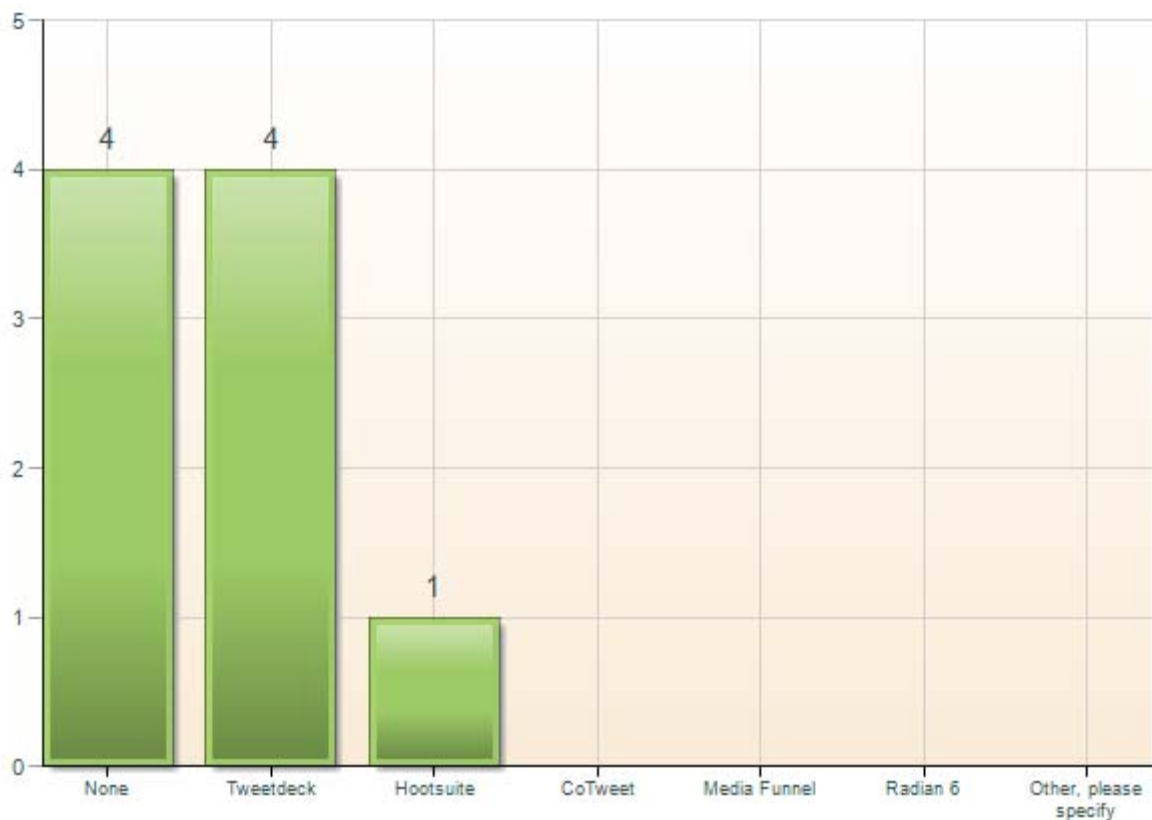


Figure 11: Monitoring tools used by news organisations

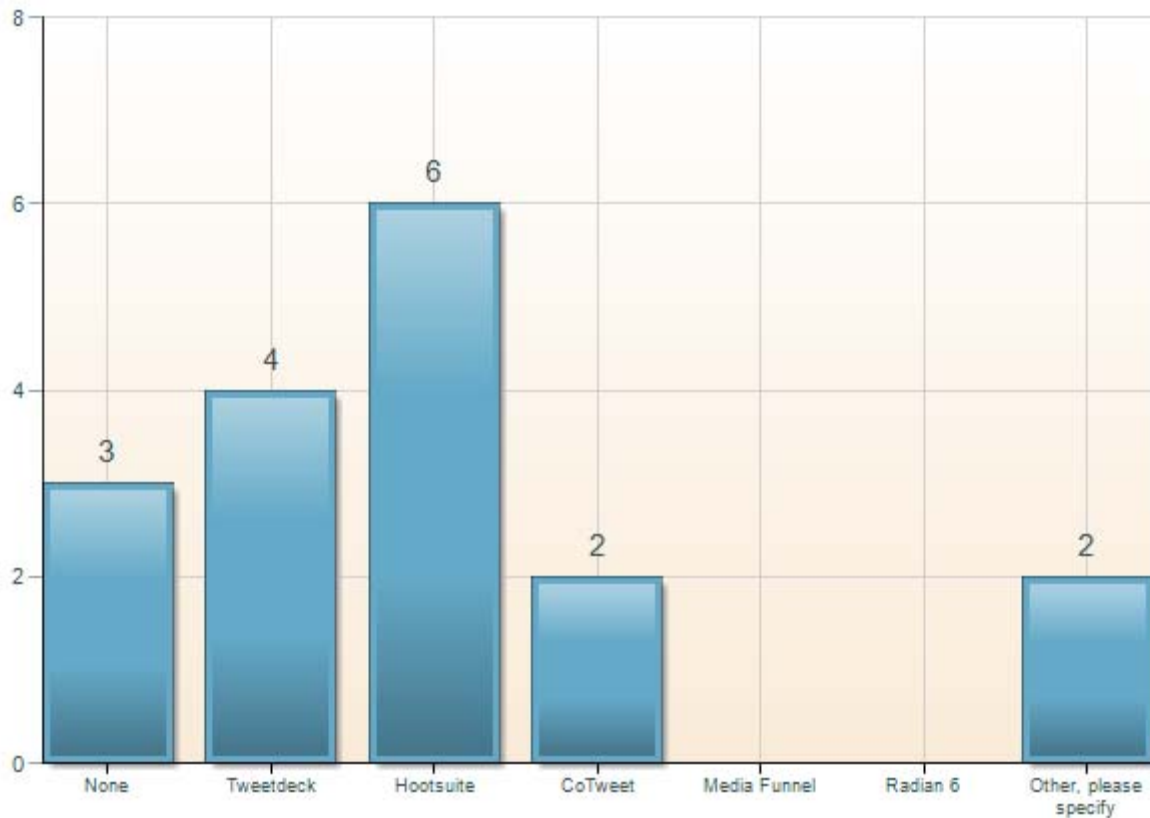


Figure 12: Monitoring tools used by emergency responders

The media organisations were then asked a series of questions about leads found on social media.

Seven respondents claim that they have found leads on social media channels. Eight provided free text responses about the kinds of leads they have found on social media: two mentioned celebrity leads; two mentioned using it to trace victims of crime, witnesses, relatives and even criminals themselves; four mentioned using social media to track emergency events such as fires and general police incidents; and one specified that Facebook and Bebo are a 'great source of pictures'.

Eight also provided free text responses about corroborating any lead found on social media channels. All claim leads would be checked, either with the source, emergency services or the local council. Two specifically mentioned

that they would be followed up by using traditional methods such as telephone calls or 'knocking on doors'.

When asked if stories from official channels have ever been supplemented by information taken from social media channels, seven responded that they had, with Facebook and Twitter being the most popular channels (seven and six respondents respectively). Three have used blogs and YouTube and one has used Flickr (Figure 13).

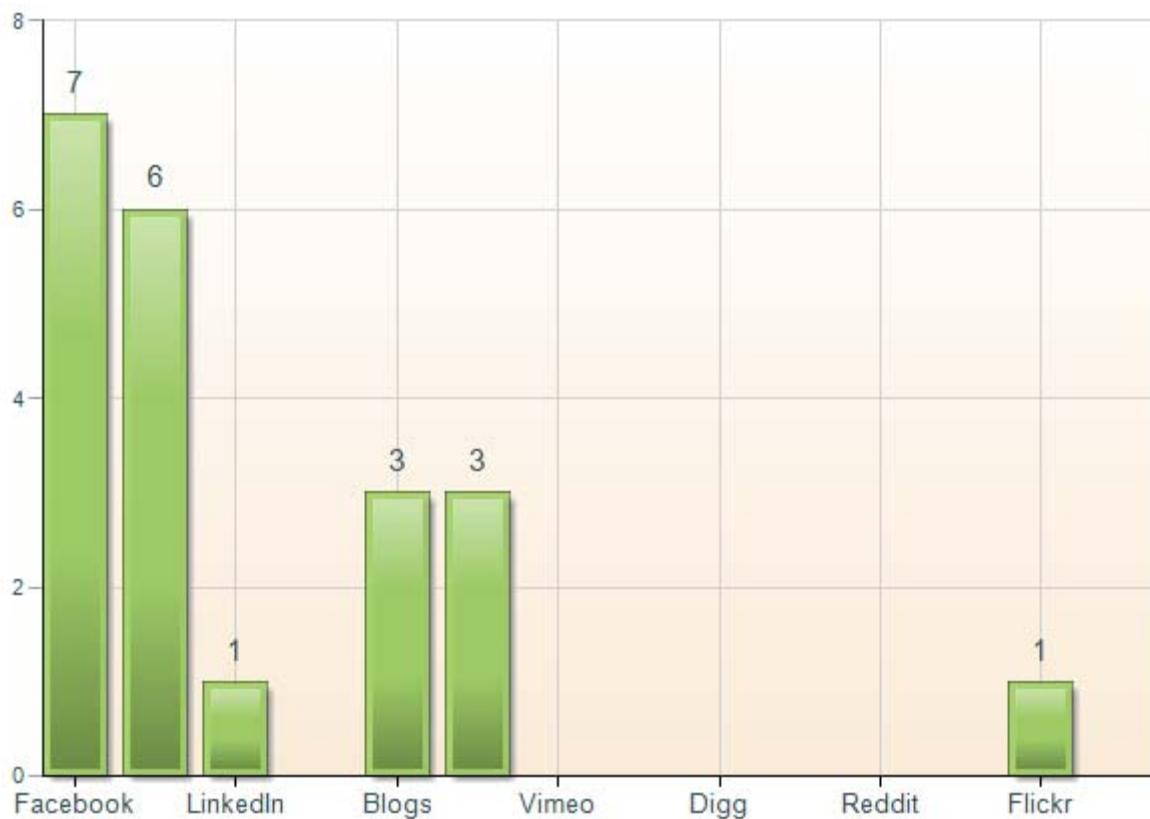


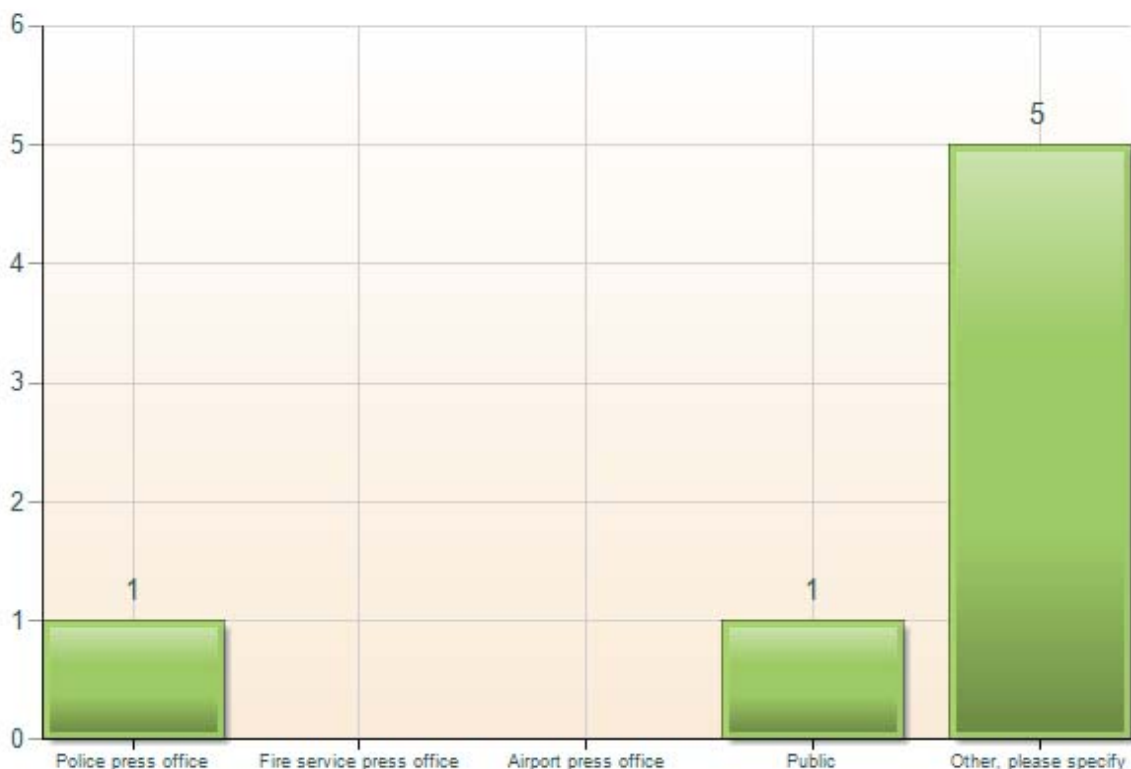
Figure 13: Social media channels used by media organisations to supplement official information

In the free text responses two organisations mentioned using social media to find tributes from the friends and relatives of a deceased person as well as pictures of the deceased. One respondent mentioned using the Rangers football club site www.followfollow.com to find quotes from fans to supplement features. The same respondent also claimed that quotes were also used from social media channels to supplement news and features about the severe weather in 2010.

6.3 Glasgow Airport terrorist attack

At 3.15pm on June 30, 2007, a Jeep packed with home made explosives was driven into the main terminal building of Glasgow Airport, sparking a full-scale terrorism emergency response, involving Strathclyde Police, Strathclyde Fire and Rescue, NHS Greater Glasgow and Clyde and the Scottish Government (BBC News, 2007a). The hero of the day was airport worker John Smeaton who tackled and restrained the suspects (BBC News, 2007b)

Only one of the nine news organisations who responded to the questionnaire were alerted by Strathclyde Police's press office and one was alerted by a member of the public. In the free text responses two respondent's were tipped off by phone calls from the public, one picked up the story from BBC rolling news and one heard about it via a phone call from the news desk of a national newspaper (Figure 14). Three were contacted by telephone and a further three responded using free text to answer that they found out about the



incident via news wires such as the Press Association and Reuters.

Figure 14: How media organisations were alerted to the Glasgow Airport terrorist attack

When asked about the delay between first hearing about the incident and hearing from official channels two heard from official channels between 10 and 30 minutes after they first heard from the public and one heard within 10 minutes.

When asked about using social media to monitor the event as it unfolded three organisations reported monitoring Facebook, two used Bebo and one used Twitter and YouTube. However, bearing in mind that social media was in its infancy at the time of the Glasgow Airport attack in 2007, two organisations admitted to not monitoring any social media at all (Figure 15).

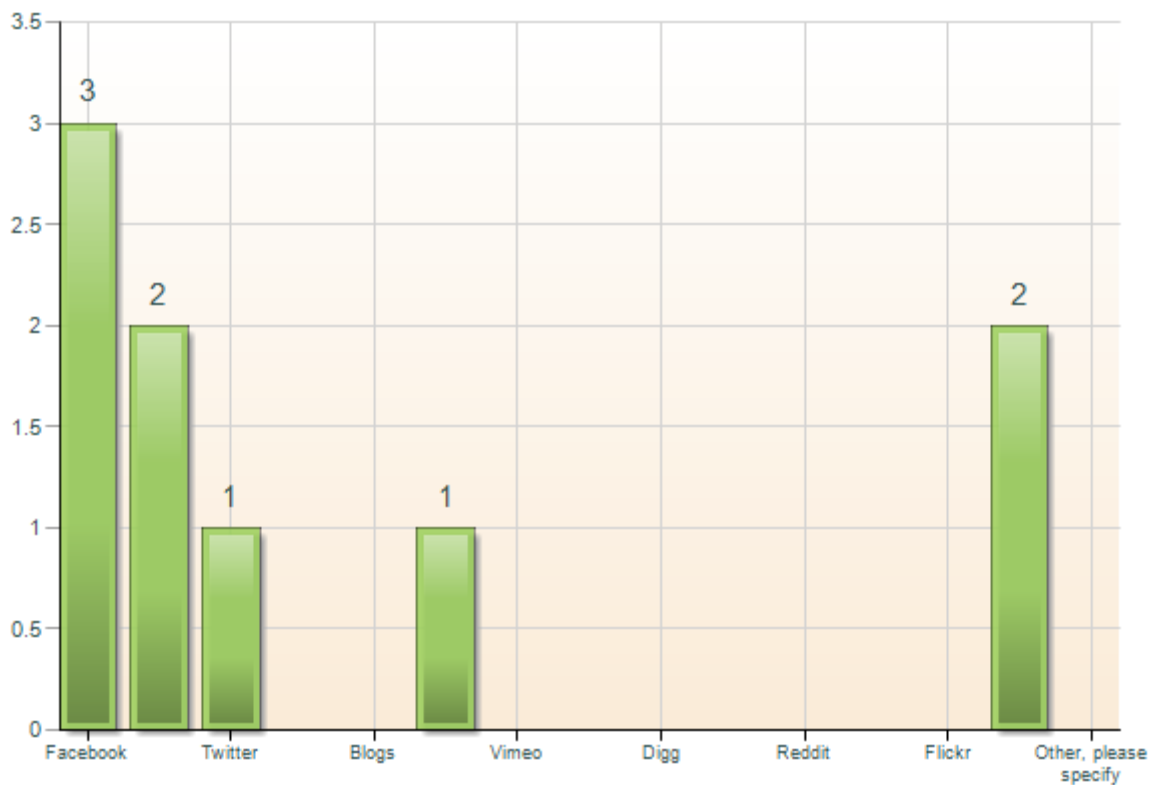


Figure 15: Social media channels used by media organisations to monitor the Glasgow Airport terrorist attack

When asked if any information from social media was used in their coverage three respondents replied that it wasn't and one that it was, with the other five not answering at all. Only one media organisation that used social media in their coverage revealed its social media source.

The questionnaire then went on to ask about response times from official channels and if the news organisations used social media to fill any gaps in official information.

Three organisations responded that the official responses were quick enough, one that they weren't and one that the question wasn't applicable to their circumstances.

When it came to filling information gaps with social media two organisations responded that they had, two that they hadn't and five that the question wasn't applicable to their circumstances.

Of the six emergency responders for whom the Glasgow Airport questions were relevant, half said they used the phone. The other half responded that the question wasn't applicable. This would suggest that the response should actually be 100% responding by telephone as not all emergency responders would have been involved with the Glasgow Airport attack but of the ones who were, communication with the media would have been co-ordinated through Strathclyde Police.

Asking specifically about communicating with the public one emergency responder used phone and one used email. Three responders used the free text answer with one response being that the main way to communicate with the public was the Glasgow Airport website and two saying that responding with the public wasn't applicable. This would suggest that in 2007, when social media was in its infancy that emergency responders saw themselves as the provider of official communication and the media as the communication channel, rather than communicating directly with the public. Questionnaire responses to the Lanark school bus crash and the severe weather of 2010 and the case study interviews will track how this perception has and is changing over time.

Respondents also admitted that they didn't monitor the situation as it unfolded because they weren't using social media at the time.

6.4 Lanark school bus crash

On March 31, 2010 a bus left Lanark Grammar school in the early morning to take sixth year pupils on a trip to Alton Towers. It had been snowing and a few miles outside the town of Biggar the bus overturned, breaking through the parapet of a bridge, falling 10 feet into the river below. One pupil, Natasha Paton died at the scene and 44 people needed treatment in various Lanarkshire and Glasgow hospitals (BBC News, 2010b).

By early 2010 many more members of the public were using social media than had been at the time of the Glasgow Airport attack.

The emergency responders involved in this incident would have been Strathclyde Police, Strathclyde Fire and Rescue, South Lanarkshire Council, NHS Lanarkshire and NHS Greater Glasgow and Clyde.

By this time the response as to how media organisations first found out about the incident had changed dramatically with four saying that it was the public who first informed them. In the free text responses one organisation said they found out through a news wire service and one specifically mentions Twitter as the first source.

When asked about the time lapsed between hearing from the public and from official sources one respondent said less than 10 minutes and two between 10 and 30 minutes. One respondent said between 30 minutes and an hour and another said more than an hour (Figure 16).

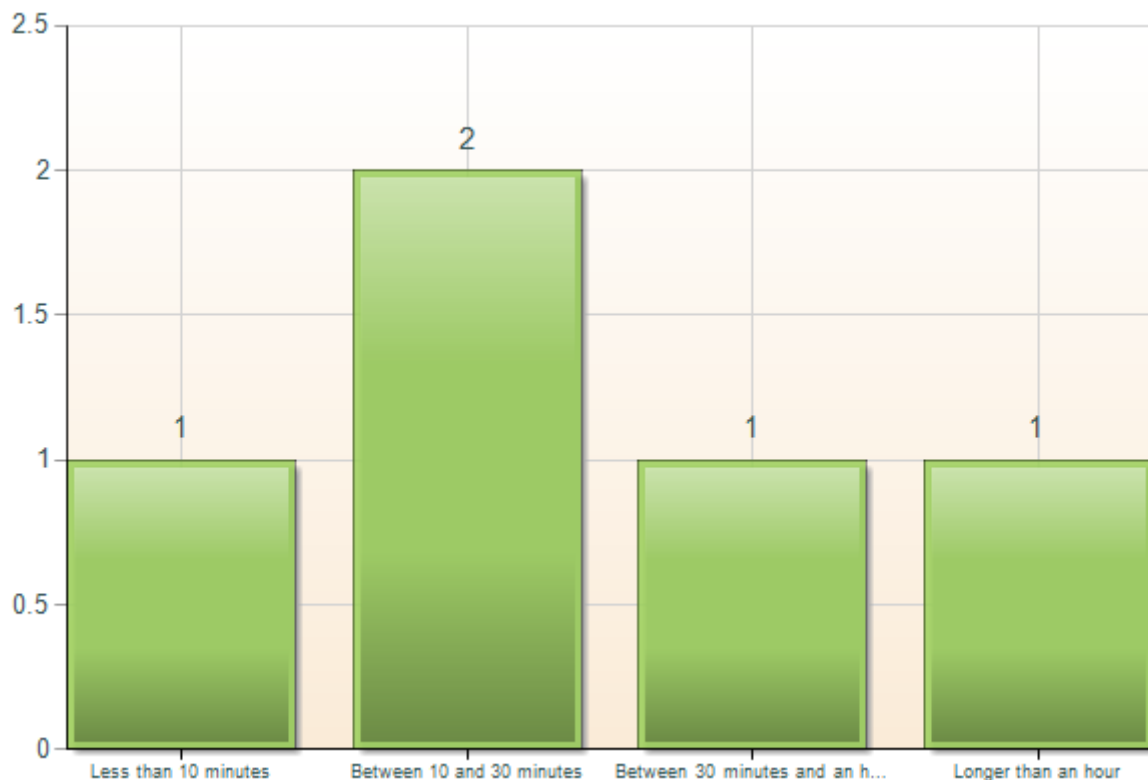


Figure 16: Time lapse before the media heard about the bus crash from official sources

This corresponds with the answers provided by emergency responders as to how they first communicated with the media. Four responders said they communicated by phone and two used the free text to explain that they weren't using social media to communicate with the media.

As the incident unfolded five news organisations monitored the situation on Facebook, three used Twitter, three used Bebo and one monitored blogs while one admitted to no monitoring of social media.

Four media organisations used information from social media in their reports with only half of those revealing their source.

When asked about the speed of official responses four media organisations said they were fast enough for their deadlines and two said they weren't. One online news respondent use the free text to point out that he/she doesn't have specific deadlines.

When asked specifically if they felt that they'd used social media to fill in any gaps left by official channels five media organisations felt they had.

When asked specifically about communicating with the public using social media all of the emergency responders admitted that they didn't, suggesting that, as with the Glasgow Airport attack, they felt that their responsibility was to communicate with the media who would in turn communicate with the public on their behalf.

They also admitted that social media channels were not monitored as the incident unfolded.

6.5 Severe weather 2010

On December 6, 2010 heavy snow brought the country to a standstill, leaving many drivers stuck in their cars for several hours and some overnight. Parts of the M8 motorway were closed for two days and many schools in Strathclyde were closed for up to three days. Train and bus services were seriously disrupted, airports closed and there were fuel shortages because tankers couldn't get to the refineries at Grangemouth (BBC News, 2010c).

By the time of the severe weather six of the news organisations who responded were monitoring social media.

All respondents were monitoring Twitter, five were monitoring Facebook, three YouTube, two Flickr, one LinkedIn and one blogs (Figure 17).

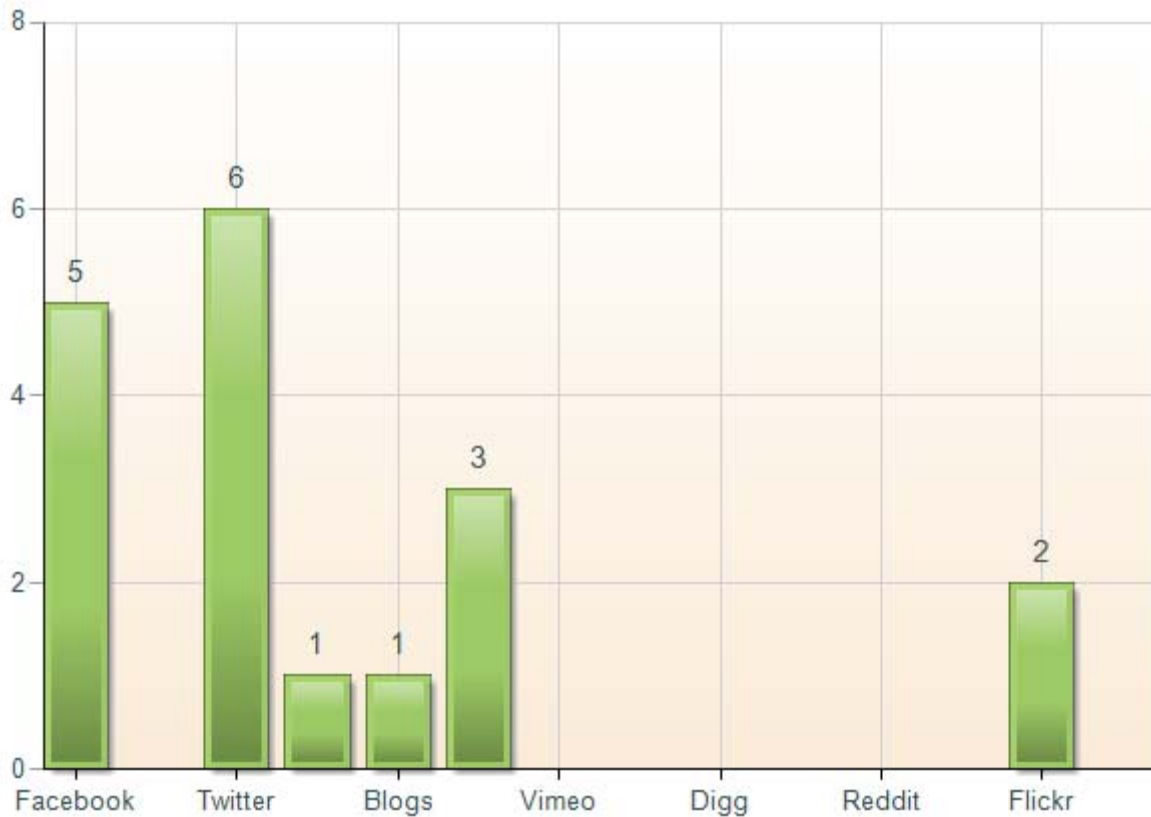


Figure 17: Social media channels monitored by news organisations during the severe weather, 2010

By this time the questionnaire results show that emergency responders are beginning to catch up with news organisations in their use of social media. Nine responders were using social media to monitor the situation with eight using Twitter, five using Facebook, two using blogs and one using YouTube. One used the free text to explain that their monitoring of the weather was done using Glasgow Airport's website.

Six of the news organisations who responded used social media content in their reports and four of those revealed their sources.

As for the emergency responders only one reported using social media content in their official communications and they didn't reveal which channels the information had come from.

When asked about the timeousness of communications from emergency responders three news organisations said they received information quickly

enough and four said they didn't. One respondent used the free text to explain that they used live blogging for the first time during this event and that most of their online content was collated directly from members of the public.

Five news organisations felt that social media content was used to fill gaps in the information provided by the emergency services while two didn't. One respondent used the free text to single out the importance of Twitter in alerting them to human interest stories during this incident.

6.6 Social media policy and strategy snapshot

When asked how important they felt social media would be when communicating about emergencies, three news organisations said it would be essential, two felt it very important, one important and two reasonably important (Figure 18). Half of the news organisations who responded said they have or are working on a social media strategy or policy and half said they don't.

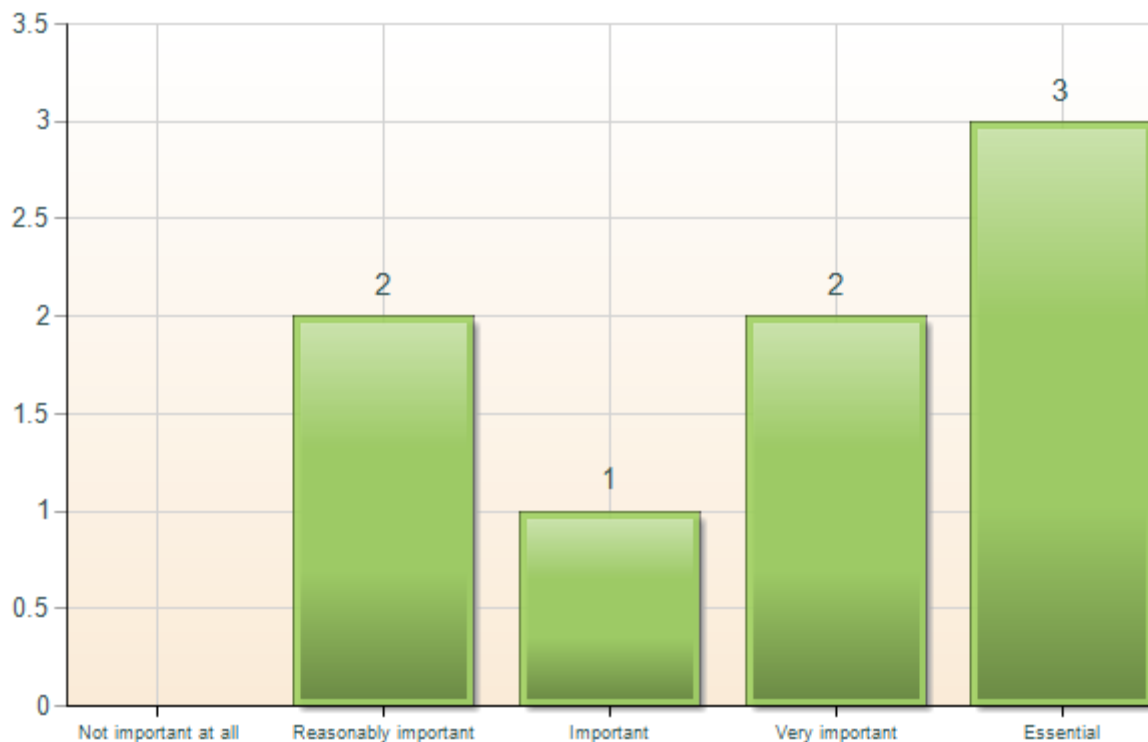


Figure 18: Importance of social media in the journalist's job in the future

When asked how important they felt social media would be when communicating about emergencies, six emergency responders said it would be essential, four said very important and one reasonably important (Figure 19). Ten said they either have or are working on a social media strategy and policy.

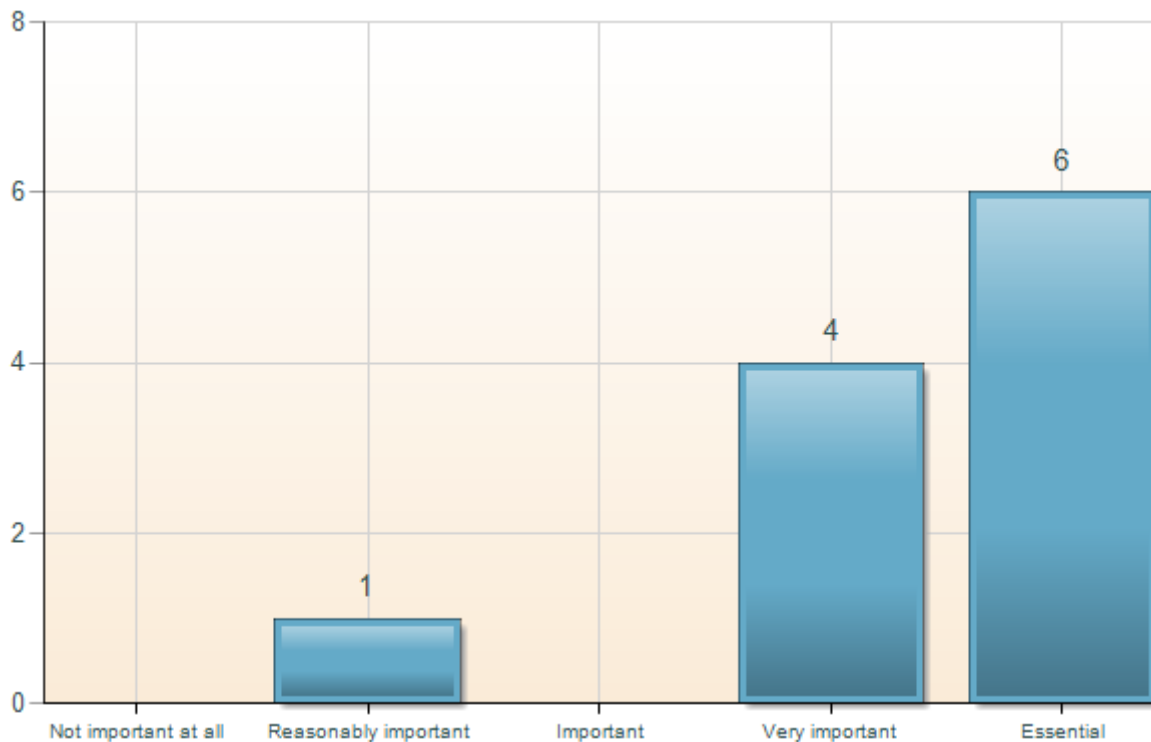


Figure 19: Importance of social media for emergency responders in the future

6.7 Conclusions from the questionnaire

Initial results would tend to suggest that social media is becoming increasingly embedded in the day-to-day business of both journalists and emergency responders' communications teams. It became obvious while analysing the answers about the Glasgow Airport attack and the Lanark school bus crash that emergency responders felt that their duty lay in informing the media about events and not in communicating directly with the public, even although the tools to do so were available. A question asking specifically about this could have been included in the questionnaire about the severe weather to see if

attitudes had changed. However, this came up during the interviews for the case studies.

The questionnaire also revealed that there is still some way to go for both groups in using the social media tools available effectively, especially the monitoring tools. This is similar to the findings of the Riots Communities and Victims Panel (2011) whose research showed that during the English riots in the summer of 2011, the police and the councils' use of social media was lacking and that this should be looked at as a matter of urgency.

7 Case studies

7.1 Background

Two media organisations offered to take part in the case studies – STV Local and a Scottish regional tabloid which preferred to remain anonymous. *The Herald and Evening Times* were approached but they were not using social media at the times of the three case studies. However, they were using it by the time of the fire in the Co-op building in Glasgow in November 2011 and agreed to talk about their experience during the period of live tracking. Several local titles were approached to take part but all felt they were in the early stages of using social media and that taking part in the case studies would not add anything to the research.

South Lanarkshire Council and Strathclyde Police took part to represent emergency responders. The following people were interviewed in February and March 2012. Job titles are as they were at the time of interview:

- Chief Reporter, Scottish regional tabloid
- Iain Pope, Glasgow Editor, STV Local
- Rob Shorthouse, Director of Communications, Strathclyde Police
- Cathie Russell, Corporate Communications Manager, South Lanarkshire Council
- David Leask, Investigations Reporter, the *Evening Times*

At the time of interview Iain Pope was the Glasgow Editor at STV Local Glasgow but during the case study events he was Online Editor at the *Daily Record*.

At the anonymous Scottish regional tabloid there has been no specific policy to develop social media use and the Chief Reporter is one of several reporters using and researching social media. He admits that it isn't used to engage with readers, but rather is used to link back to stories on the paper's website. This is mainly down to a lack of time dedicated to using and researching social media:

We did have some training initially but social media is changing all the time and in the news environment we don't have time to research the latest developments. We're always working on the next day's paper so there just isn't time (Chief Reporter, 2012).

At the time of the interview the tabloid's Twitter account had 4792 followers and followed only 75, demonstrating, as their Chief Reporter says, that they could be doing social media better:

I do use Twitter to monitor and look for leads rather than to engage with readers but more and more often these days the news desk ask if I can look after Twitter over and above my normal job (Chief Reporter, 2012).

When a story breaks he does scan Twitter for comments that can be used in the newspaper and he finds the 140-character format ideal for 'snappy comments which can be hard to come by during a rolling news event.' Twitter comments are attributed in the paper by adding the Twitter bird logo.

At the *Daily Record*, Iain Pope inherited Twitter accounts, a Facebook account, YouTube accounts and the monitoring tool TweetDeck from his predecessor at the paper but their use grew organically, rather than following a policy or strategy:

Its development was really organic but was driven by events, especially weather events. When it came down to people really needing news and information because they had decisions to make on the back of it, for example parents and schools, we saw that as something our website could do that perhaps the print edition couldn't because of its constraints, not only in terms of time but of space. We could also see that the online avenue might feed the print edition the next day (Pope, 2012).

When the *Daily Record* began using social media there was a small core of journalists using it but this developed over time, first involving the 'digitally-minded' reporters and then more people as they began to realise its value when highlighted by weather events.

Strathclyde Police admit to being late starters with social media and although they'd been using it operationally for intelligence they didn't have a corporate account until 2011:

Cops kept telling us we should be using social media, probably because their children were using it but we resisted because we couldn't quite work out what we'd use it for. We didn't have any public-facing social media accounts until 2011 when we decided to develop a wider strategy but in order for us to get to grips with the mechanics of how it works we thought we'd start with a corporate one (Shorthouse, 2012).

Led by Corporate Communications, the Facebook account, and later the Twitter account were passed around 'as just another communications tool', with little structure. Their first forays into social media content was to repeat what was going out in press releases and onto the corporate website.

It was a police incident involving a member of the public taking photographs in a public place without permission that showed them the power of social media. Details were posted on various Facebook pages and the incident trended on Twitter. Once investigations had come to a conclusion the findings were published on the corporate Facebook account and the final incident report referenced the impact of social media on the investigation.

South Lanarkshire Council's first social media account was a corporate Twitter account, run by an Information Officer in Corporate Communications. This was shortly followed by an account for road closures with posts done by the department's web publisher. Their first monitoring and publishing tool was Hootsuite and the aim of the account was to drive people to the corporate website. These accounts, and later a Facebook account for the International Children's Games were run as pilot projects, the aim of which was to gain experience to help formulate a social media strategy and policy.

7.2 Glasgow Airport terrorist attack

As shown by the questionnaire results, social media wasn't really being used by either media organisations or emergency responders at the time of the Glasgow Airport terrorist attack on June 30, 2007.

However, given the surroundings there were many holidaymakers in the vicinity at the time of the attack, who had cameras and video cameras and recorded what was going on. The Chief Reporter at the Scottish regional tabloid remembers that footage was emailed in to their news desk but he doesn't remember it being used, although he is certain that in today's environment it would certainly be used on the paper's website.

The *Daily Record* and its Sunday paper *The Sunday Mail* were beginning to develop their digital presence. However, although they had a website, the call to action for any witnesses to the attack was to phone the news desk. All nine pages of coverage were filled using traditional journalistic methods such as phoning, being at the scene and face-to-face interviews.

Strathclyde Police weren't using social media at this time, either corporately or as a covert monitoring tool:

We weren't aware of the media using it either – it was a very traditional set-up. Now, during incidents like that, one of the Corporate Communications team sits on Twitter all the time. We can join in conversations and rebut if necessary. The airport attack was only five years ago but everything has changed now (Shorthouse, 2012).

7.3 Lanark school bus crash

The Chief Reporter at the Scottish regional tabloid admits that they weren't following the events of the Lanark school bus crash online. News of the crash would first have come from a local source.

However, one pupil died at the scene and he admits that once they had her name they looked for any social media accounts she had. This differs from visiting the family of a deceased person to collect a photograph as it would be given with consent but digital media ethics are still a grey area where much

international research is going on (Ess, 2009) However, the reporter interviewed seem comfortable with taking photographs from social media accounts :

'We would have looked online for her accounts to look for photographs. We would do family trees, probably with a team of two or three working on information gathering and we'd have a reporter, either at the scene or with the family but if we can get a picture from the Internet then we will. I'm staggered at the amount of information people put out there about themselves and their family (Chief Reporter, 2012).

This is borne out by the fact that in the online edition of that day's paper and the print edition the next day pictures of the dead school girl, Natasha Paton appeared that had been lifted from her Bebo account, although the source was not acknowledged (Figure 20). The same photograph appeared on many news websites and print editions, suggesting that this is common practice amongst news organisations. It is unclear as to the source of the photograph of the bus but, given where it was taken, it seems likely that it was either taken by one of the children on their phones or by one of the local residents who came to the scene to help. This image was used by many media organisations, both online and in print (Figure 21).



Figure 20: Natasha Paton's photograph from the website of the Scottish regional tabloid (originates from her Bebo account)



Figure 21: The crash scene from the website of the Scottish regional tabloid (possibly taken by the children or local residents)

The Chief Reporter also describes a 'low expectation' about what he'll get from police and council press offices and the fact that the flow of information

is more likely to be a phone call from a witness to the news desk that they then have to confirm with the police press office:

Sometimes we don't get a name officially until two days after the event. Everything is hidden under the banner of 'there's an ongoing investigation' which for a reporter is really frustrating. However we recognise that the police aren't there to give us information - they're there to solve crimes. Often it's better for us to be at the scene than on the phone waiting for the press office (Chief Reporter, 2012).

By the time of the crash in March 2010 The *Daily Record* was using social media to monitor news. Its news desk first became aware of the incident when a post was spotted on the social media site Bebo. The story was checked by phoning the Strathclyde Police press office who according to Iain Pope, 'wondered how we knew about it so quickly'. Once the news desk had the name of the victim from social media channels this would have been presented to the police for verification because as Iain points out, 'We wouldn't take social media confirmation as confirmation'.

As the day unfolded The *Daily Record* sent a team of reporters to the scene but part of the role of the news desk and the editors back in the office was to get themselves up to speed on social media and the sourcing of information, which according to Iain was 'a very steep learning curve':

Social media is just another source of information and leads. If we have a story we can do a lot of legwork identifying someone's social media presence by following clues. We would source a user name then search across the whole of the Internet and probably find other lesser known social media accounts. We'd then track back conversations and if we found the right information it could form the basis of a story in the next day's paper. We've become pretty adept at it and it's become part of the job. There are lots of tools that journalists should and could be using but because of time constraints we don't use them properly (Pope, 2012).

Iain doesn't remember the emergency responders being particularly slow at getting them information on the day of the crash but he does remember Strathclyde Police being impressed at how quickly The *Daily Record* reporters were finding things out:

'We were only one step ahead of everyone else, not by doing anything nefarious but by using tools that were widely and publicly available. We used tools that the age group involved in the crash were using themselves. Once we knew the bus had been headed to Alton Towers we could phone ahead to find out what group bookings they'd had for that day. We knew which bus company was involved because of the photographs that came though from the kids and onlookers at the scene so we reverse checked by phoning the company and then we knew which school the driver had picked up from. Then we searched for anyone using that school as a search term and discovered all the people tweeting about the incident. We used about five search terms to build up a picture but then social media was just one of the tools we used that day, along with all the traditional tools a journalist would use (Pope, 2012).

Strathclyde Police's Director of Communications Rob Shorthouse agrees with Iain that they were surprised at how quickly the press were picking things up but that they themselves never stopped to think that maybe they should be using social media too:

We still weren't using any social media at all at the time of the crash. If we needed a good reason to be on social media it was probably that incident but we just didn't do it. By that point we were monitoring it from a police operational point of view but that work had just started and we didn't have any kind of public engagement model at all. Now we would be better at it but at the time we weren't using social media, we weren't monitoring it and it was a huge mistake not to be (Shorthouse, 2012).

Rob points out that in the immediate aftermath people using social media were by and large critical of the public bodies involved and social media gave the public the 'power to vent their spleen in public' without the facts in front of them, whereas he believes the traditional media would have covered the human tragedy on the first day and then moved on to who was to blame as the facts came into the open.

The children on the bus were from a South Lanarkshire school and the accident happened within the South Lanarkshire Council boundary. As a

Category 1 responder (see 3.2) the Council Communications team was involved in dealing with press enquiries and organising a press conference at Lanark Grammar School. The council was one part of the flow of information between themselves, Strathclyde Police, Strathclyde Fire & Rescue and NHS Lanarkshire and Greater Glasgow and Clyde who were dealing with the casualties.

South Lanarkshire Council's communications team had opened a corporate Twitter account a year before the accident and had been using it mainly to drive visitors to the corporate website, although they were also happy to use it as a conversation tool unless it was more appropriate to direct enquiries to their Customer Call Centre.

On the morning of the accident it was noted by a member of the team using Hootsuite that the crash was being mentioned on Twitter:

As the day progressed we could see that the media were using social media to source photos of the girl who died and although we were keeping an eye on what was being said on Twitter we wouldn't have said anything ourselves as it was the police who were leading the enquiry and therefore also sending out the information. It was all done in a very traditional way and if a journalist called us we passed them on to the police or issued the statements the police gave us (Russell, 2012).

7.4 Severe weather 2010

The snow started during the morning rush hour on December 6, 2010 but by mid-morning there was traffic chaos across the whole of the country with motorways and roads gridlocked. Schools needed to close but some parents couldn't get to the schools to pick up their children, leaving some pupils in schools overnight with teachers who were also stuck.

By this time the Scottish regional tabloid had its own Twitter account but it was being used to put out headlines and to link to the website rather than as a monitoring tool.

The Chief Reporter did use his own account to follow what was happening on the M8 motorway while he was out following other leads that had come in to the news desk:

We did pick up some good photos from Twitter and we used comments from the public in the paper and on the website. That kind of content was great because we didn't have to go out for it and in those conditions we probably wouldn't have got it anyway. We don't really use Twitter to talk to people – sometimes I'll send someone a message asking them to phone me but they never do (Chief Reporter, 2012).

In the print edition of the next day's paper (December 7, 2010) there was a call to action asking for 'tales of travel terror' but the only options given were to phone, text or email. There was no mention of using Twitter to contact them, even although by this time they had an account and were using it for leads, proving that they weren't using it to strike up conversations with readers (Scottish regional tabloid, 2010).

At the *Daily Record* Iain Pope tells different story. They, along with STV, saw themselves as the digital news community in Scotland and when the snow started they phoned each other to discuss which hashtags they should use that were 'going to benefit people most and what the best avenues for getting information to them was'. The *Daily Record* used Cover It Live, software that allowed them to use live feeds and blogs on their website, to create live rolling news. They noticed a massive traffic spike on the website as a result which they felt was 'because it was content that was relevant to what was happening there and then':

We decided to curate lists of school closures from all 32 Scottish local authorities but it was a strain on our resources and it was tricky to keep hold of. We wanted the information to be easy for someone with no web experience to understand but we quickly realised that the local authorities weren't particularly good in updating their own information on their websites. We were phoning all 32 councils asking if the information would be there if we linked to it and some admitted it wouldn't. That's when we created the Cover It Live account and the information, as it came in, went directly onto our site (Pope, 2012).

The main aim of The *Daily Record's* social media use was to drive people to the paper's website. Although they were using different kinds of social media channels, their main focus was their website and they felt that the website was where their readers would go for the latest information.

The content that was picked up from social media and went onto the website via Cover It Live was also used in the print edition of The *Daily Record*. As Online Editor Iain didn't have a reporting team working directly for him. The news desk fed the paper because that was its historic function and the news desk fed the online content. However, Cover It Live was:

us putting another set of antennae up to see what was happening - any good information I got was kicked back to the news desk for them to go and tell reporters what to do with it for the next day's paper (Pope, 2012).

However, The *Daily Record* did put out a call to action in its print edition looking for weather stories but only gave the options to phone the news desk, text or email so although they were using social media, it wasn't being used as a two-way communication tool (Daily Record, 2010).

Strathclyde Police had by the time of the snow event realised the potential of social media and had opened a Facebook account but admit that, because they were just learning, they were using it as a broadcast tool, rather than to have conversations and were also putting out the wrong kind of information:

'We weren't getting information out quickly enough and it was more safety messages rather than specific information. Back then our approach was very traditional – we didn't put out traffic advice because we thought that was other organisations' jobs but now we recognise that all public agencies who have information should tweet their own information and retweet others' because someone might be following you that doesn't follow them' (Shorthouse, 2012).

Strathclyde Police also learned during the snow that social media allows you to be much more direct with the public:

In 2010 we still thought the best way to speak to people was through their car radios so we sent everything to local radio stations. We weren't thinking that those people stuck in their cars all had phones with access to Facebook and Twitter. Until then we weren't thinking

about communicating directly with the public, we still thought we had to communicate with the media to get our message out. What we would do now is still give our message to the media but part of that message would be to follow Strathclyde Police on Twitter because we'd be posting the most up-to-date information there. We know now that our audience wants advance warning of the seriousness of the road conditions and the likelihood of there being disruption so we were better prepared by the time of the storms in 2011 (Shorthouse, 2012).

There had been some snow a fortnight before December 6 and it was during this that South Lanarkshire Council recognised the importance of Twitter. A power outage resulted in their corporate website being unavailable, leaving only their main Twitter account and the new Roads information account to inform the public about school and road closures:

We made arrangements with our Education department that weekend that on the Monday morning we'd post school closures on Twitter and the word spread quickly amongst parents and even amongst the school children. By the Tuesday the kids were begging us on Twitter to close their schools and we struck up a few worthwhile conversations with them and some parents. We were thanked by many people for using Twitter and our followers rose by about 1500 over two weeks (Russell, 2012).

It was the severe snow that made senior management at South Lanarkshire Council see social media as a serious communication and customer service tool.

7.5 Case study conclusions

As can be seen by the comments from both Strathclyde Police and South Lanarkshire Council there has been a slow realisation that social media can be used by emergency responders to communicate directly with the public instead of the traditional way of using the media as a conduit for information.

It can also be seen that the media is also beginning to respond to the public's use of social media and a recognition that sites such as Facebook

and Bebo are ways of sourcing photographs and Twitter can be a source of concise comments to add to news stories, both online and in print.

However, for both the media and emergency responders, from 2007 to 2010 there seems to have been little appetite to learn how to use social media effectively – learning seems to have been driven by events, with little or no sharing of best practice, either within each group or across groups.

This is consistent with the findings of the Riots, Communities and Victims Panel (2011) which advised a review of how councils and the police use social media and an assessment carried out as to how they could improve.

It is also similar to the research undertaken by Bruns et al (2012) around the Queensland floods of 2011 where they showed that both groups had a role to play in emergencies: emergency services are the trusted source of information but the media is best placed to collate emergency information.

The case studies, together with the questionnaire results also show that there is a propensity to favour Twitter over other social media channels in gathering, broadcasting and sharing emergency information which is again borne out by Bruns et al (2012, p.12), mainly due to the 'retweet' function but also due to the difficulty of managing conversations on Facebook which can 'rapidly swamp important information'.

8 Live event tracking

8.1 Scottish storm, 2011: #scotstorm, #HurricaneBawbag

In the days before December 8, Scotland braced itself for one of its worst storms in living memory. The Met Office had forecast the storm and had issued alerts. In Strathclyde local emergency groups had been set up in most councils to discuss school closures, social care provision, flood alerts, road closures, tree removal and general contingency planning. On December 7 the Scottish Government recommended that councils should close all schools.

The storm resulted in 'widespread disruption' including 60,000 houses left with no power, travel disruption, storm damage to homes and cars due to fallen trees and airborne debris and police forces around the country recommended not travelling (*Daily Record*, 2011).

The Met Office not only prepared the public for the weather, the media was also prepared for a busy news day.

Even the anonymous Scottish regional tabloid, which hadn't really been using social media before, used it during the storm as its Chief Reporter explains:

We had a great day on it. I was pulling people's comments off Twitter and contacting people who had posted interesting photos or had tweeted something that might make a story. A big part of my job that day was filtering out a lot of the white noise. However, during the storm we ran a photo competition on Twitter and we only got two entries which is insane. I think that demonstrates that we could be using social media better but we're so stretched we don't have time to do the research about how to use properly (Chief Reporter, 2012).

STV Glasgow Local's website and Twitter account launched on the day of the storm, a day that turned out to be rich pickings for User Generated Content, as described by Iain Pope who was now their Glasgow editor after moving from the *Daily Record*:

The site had a lot of traffic but everyone was on to find out about the storm, not to see us go live. We got over 2 million page views over 24 hours. We used the trampoline video and photos of the Clyde bursting its banks taken by members of the public and that content was used on the TV reports (Pope, 2012).

Strathclyde Police had built up thousands of followers by the time of the storm and were seen as a reliable and true source of information. They tweeted their own information and retweeted other people's information around 600 times:

This time, as well as general safety information 95% of what we put out was specific, about affected roads, bus routes and rail services. It was information that the public wanted and needed and people really thanked us afterwards. Not only that, it was one of the big events that woke the organisation up to what we could do with social media (Shorthouse, 2012).

South Lanarkshire Council was also using it for giving specific information such as disrupted bin collections, school closures and road closures:

We did broadcast general information and narrowed it down to specifics when needed. We also directed people to online forms on our website to report fallen trees and emergency housing repairs. We also retweeted other organisations' information and retweeted weather warnings and travel information (Russell, 2012).

However, the storm provided a challenge for emergency responders and in fact many other organisations. By mid-morning the public had nicknamed the storm Hurricane Bawbag and it was this hashtag that was adopted by the majority on Twitter causing #hurricanebawbag to trend, not only in Scotland but around the world (Daily Record, 2011) (Figure 22).



Figure 22: Trendsmap showing where #hurricanebawbag was trending (Daily Record, 2011)

Most organisations, including Strathclyde Police and South Lanarkshire Council felt that the colloquial bawbag was inappropriate for them to use. They decided to use #scotstorm to tag their tweets which meant that members of the public following #hurricanebawbag, missed out on official safety and travel information.

8.2 The Co-op building fire

On November 28, 2011, a fire broke out in the early afternoon at the disused Co-op Funeral Service building in Glasgow. The roof collapsed and the flames and acrid smoke resulted in 60 neighbouring flats being evacuated. Glasgow

City Council set up a care centre at Scotland Street School for those evacuated. The fire also caused gridlocked traffic in the surrounding streets and the M8 (STV, 2011).

The Chief Reporter at the Scottish regional tabloid remembers that there were some good pictures taken by the public that he found on social media and that one in particular was better than anything by their official photographer. However, none of the three images in the newspaper is attributed, either to a professional photographer or a member of the public (The Sun, 2012).

Iain Pope at STV Glasgow remembers the day clearly as the building is very close to his office and he could see very quickly that it was not only going to cause traffic chaos which would be a big news story but also that he could test the new technology that he and his team would be using:

Our main tool for news gathering and dissemination is the iPhone 4 and I wanted to prove to the staff that we'd made the right choice so I went along to try the phone in action. A few lessons were learned and I did tweet live from the scene, as well as send pictures back to the website. The incident was less than a mile away from STV's offices and our TV crew was first on the scene. What I was doing was just adding value. By tweeting live from the site I was able to tell people their homes were OK. The personal interaction around an event is something the traditional media wouldn't have got involved with before, although we're on a learning curve with that too. The dialogue that we saw from the emergency services that night, using Twitter as a channel for getting information was really interesting – road closures were an important part of what was going on that night and both the Fire & Rescue and the police were tweeting that live (Pope, 2012).

This is backed up by the tweets that were posted by Iain Pope on his own Twitter account giving live updates from the scene and the photos he took to test his iPhone4 and by STV's Mike Farrell who posted photographs. STV News also tweeted from its account, sharing information from both police and the fire service and linking back to news stories on their website.

The Co-op fire gave Strathclyde Police and Strathclyde Fire & Rescue the chance to try something new using social media. The Fire Service communications manager was on his way to set up a press conference in a

restaurant close to the fire and was discussing arrangements with Rob Shorthouse on his mobile phone:

I suggested that we put out a tweet saying where the press conference was going to be which we'd never done before – we'd never spoken directly to just the press using social media. My comms team had discussed setting up a separate press office Twitter account but we decided against it. I don't want the media to be thought of as anything other than just one of the many channels we have to communicate with the public (Shorthouse, 2012).

Live tracking of these two emergency events shows that Twitter comes into its own over other social media channels. Both emergency services and the media talk about Twitter rather than Facebook as a tool for communicating both with the public and each other. This is similar to the findings of research done by tracking the events of the Queensland floods in 2011 (Bruns et al, 2012).

The live tracking also shows that both STV Glasgow, Strathclyde Police and South Lanarkshire Council are more comfortable using Twitter to broadcast information to the public, share information with other organisations and also to hold conversations. However, it also shows that print media could still be missing out on information and trying to learn how to use social media in the middle of a crisis.

Another media organisation which was missing out at this time was Newsquest's *The Herald* and the *Evening Times*.

The Evening Times had struggled with Twitter to take control of their brand name for many months after an account was set up, possibly by a member of the public, which linked headlines back to the paper's website. They finally took control in February 2012. As David Leask describes:

It was never our intention to use Twitter in that way because we want to sell our newspapers, not our website. We're linking to stories that are no longer in the paper but are still on our website – a sort of *Evening Times* iPlayer if you like. But at some point in the future Twitter's use will change and we'll be encouraging people to buy online content in the same way *The Herald* does at the moment (Leask, 2012).

During the Co-op fire David was aware that the *Evening Times* was missing out:

Incidents like the Co-op fire used to be our bread and butter but we missed out because we weren't using social media and it was a bit of a wake-up call. Social media has certainly made us more aware of the competition and until recently *The Evening Times* dominated local news but STV Local is providing sustained news throughout the day on Twitter. They're tweeting live from Glasgow City Council meetings for instance and that same information wouldn't appear in the paper until the following day. They are getting the top line out there first so at some point soon our Twitter account will have to become a breaking news service (Leask, 2012).

The use of social media at *The Herald* and the *Evening Times* has, until recently, been an ad hoc arrangement and it has been used by journalists with an interest and accounts of their own. Some media organisations see Twitter as an online version of newspaper bills: a tool to shout headlines to tempt people into buying the print version of the paper:

There are still old-school editors in some organisations who don't really listen but shout, 'I'm in charge of the news. I decide what the news is. Here is the news. You read it.' The world doesn't work that way any more. Now it's 'Here's what I think the news is. Why don't you think that's the news? What do you think the news is?' What makes news is no longer decided by a select few – it's decided by lots of people. A lot of them are mad, a lot are ingenious, a lot are ordinary but my point is no one group decides what the news is. The problem is that traditional editors haven't realised it yet (Leask, 2012).

Like the *Evening Times'* Twitter account, the organisation's Twitter strategy has only existed for a short time. Until the strategy was written there were no guidelines about what to tweet, what journalists should call themselves, separating work from personal accounts, tweeting from live incidents or linking back to stories on the corporate websites. David now advises trainee journalists about separating work from personal profiles but there is still debate around journalists having a 'personality' on Twitter:

If journalists attract followers because of their personality we then have the issue of them taking followers with them if they move to another paper. That would only have happened with columnists before. We also have journalists who have their own websites and they will link back to it rather than *The Herald's* site. Followers get their story in full on their own site whereas in the paper it maybe had to be shortened due to space constraints. By following an individual journalist, followers can be getting added value (Leask 2012).

Reporters at *The Herald* and the *Evening Times* use social media as a news gathering tool but find Twitter the most useful:

Social media on the whole exposes reporters to much more scrutiny than traditional news gathering tools. Twitter is by far the best news gathering tool. You can make contact with someone without having to establish a long term relationship with them and while there's more distance between you, it's easy to engage in conversation (Leask, 2012).

8.3 Live tracking conclusions

The live tracking of these two events shows a maturation in the use of social media by Strathclyde Police, South Lanarkshire Council and STV Glasgow. By using mainly Twitter as a daily tool for communication they are building relationships, not only with their followers, but also with each other.

However, as shown by the *Evening Times*, many media organisations may still have a long way to go, both in learning how to use social media effectively as a day-to-day communications tool but also as a news gathering tool. It remains to be seen if news organisations who are already comfortable using social media will share their experience with the newcomers or if they will be left to learn 'on the job' as an incident breaks, as their predecessors did.

Hashtags too present a further difficulty, especially for emergency responders. Often a hashtag has been created by the public before the emergency services are on the scene and decisions about whether to use the public

hashtag or create a new one could affect how quickly and effectively essential information is disseminated. In their research Bruns et al (2012, p.29) go so far as to suggest that 'messages should be designed to be passed along easily . . . and should contain hashtags relevant to the topic'.

9 Comparison of influence

By comparing the Twitter accounts of South Lanarkshire Council, Strathclyde Police and the media organisations who took part in the case studies and the live tracking, a fuller picture of their influence among their Twitter followers and the wider Twitter community can be gained.

The online application, [Followerwonk](http://www.followerwonk.com) (<http://www.followerwonk.com>) analyses Twitter accounts and also allows comparisons of three at a time.

9.1 South Lanarkshire Council

At the time of analysis (March 17, 2012) South Lanarkshire Council had 6,565 followers, was following 5,455 and had an influence score of 49.69. Followerwonk describes influence as:

a proprietary rating of a user's influence and engagement on Twitter. It ranges from 0 to 100, where higher scores generally indicate a person with greater influential activity on Twitter (Followerwonk, 2012).

Followerwonk also scores the influence of a Twitter account's followers.

As can be seen by Figure 23 the majority of South Lanarkshire Council's followers (nearly 93%) have less influence than the council itself. To boost this South Lanarkshire Council could use Followerwonk to select people with the most influence to follow back. It could also be used to identify people with high influence ratings that the Council could follow in the hope that they are followed back, as well as to unfollow people whose accounts are dormant. If followers with high influence scores retweet the Council's tweets the Council's information will be held in higher regard than if it is retweeted by people with lower influence scores.

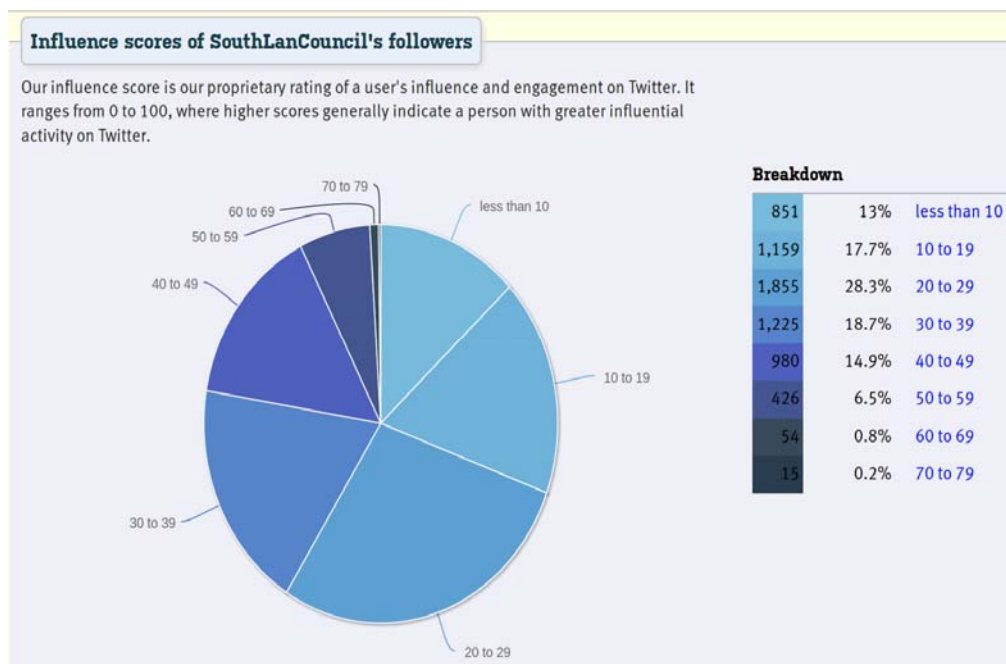


Figure 23: Influence of South Lanarkshire Council's followers

Another useful analysis is how many people each follower of South Lanarkshire Council's follows (Figure 24). This, put together with the influence scores is especially important during emergencies as it gives an indication as to how quickly and how far tweets could travel by followers retweeting messages.

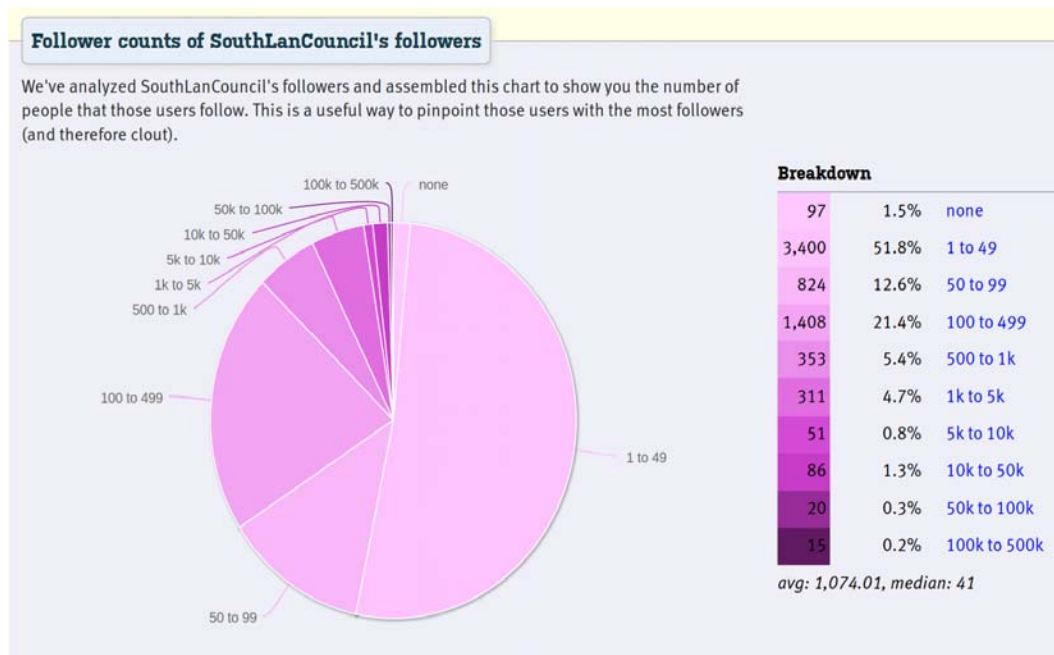


Figure 24: The number of followers South Lanarkshire Council's followers have

9.2 Strathclyde Police

Although Strathclyde Police's Twitter account is less mature than South Lanarkshire Council's they had 7,235 followers, were only following 224 people but had an influence score of 58.46. However, the influence of their followers is similar to South Lanarkshire Council's with nearly 94% of followers with less influence than the police themselves (Figure 25).

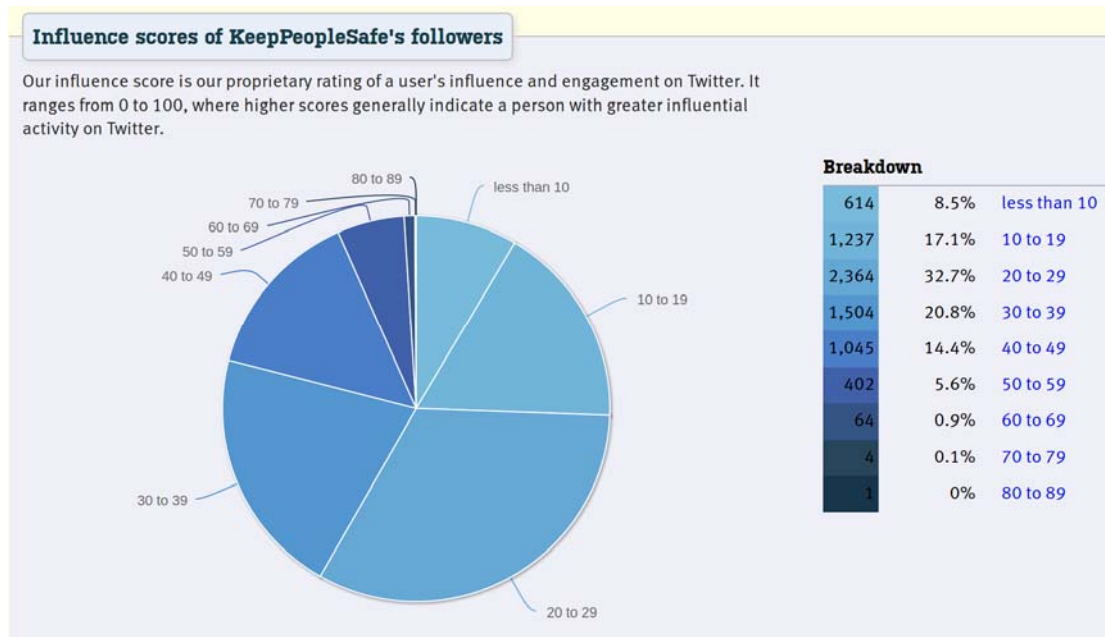


Figure 25: Influence of Strathclyde Police's followers

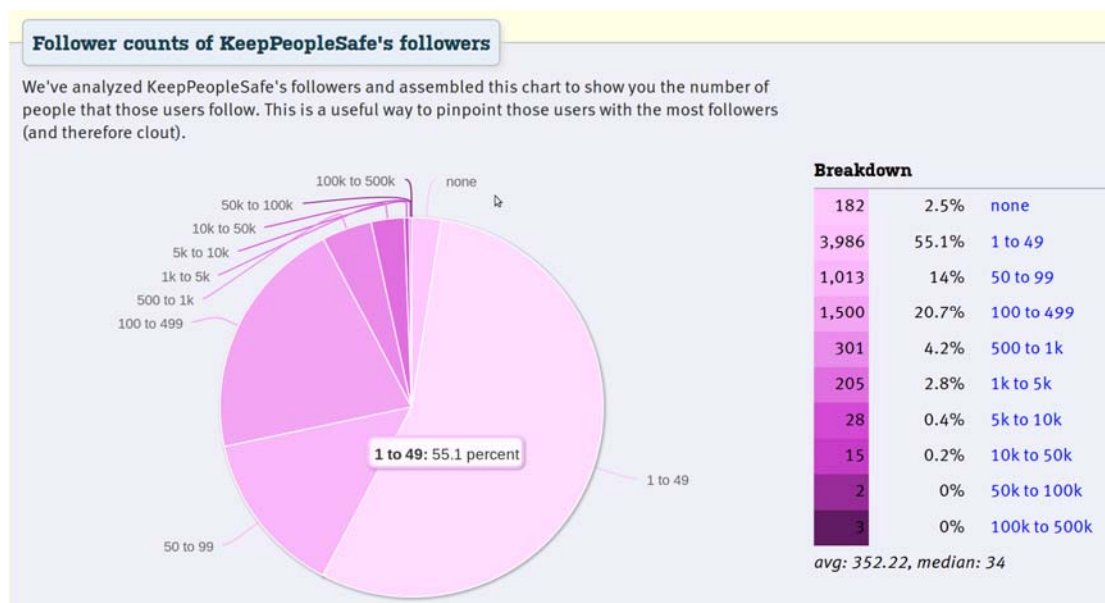


Figure 26: The number of followers Strathclyde Police's followers have

9.3 Scottish regional tabloid

On the day the Followerwonk snapshot was taken (March 17, 2012), the anonymous Scottish regional tabloid had 4,677 followers, was following 75 and had an influence score of 56.57. Again the influence of their followers is similar to that of South Lanarkshire Council and Strathclyde Police with over 95% of followers with less influence than paper itself (Figure 27).

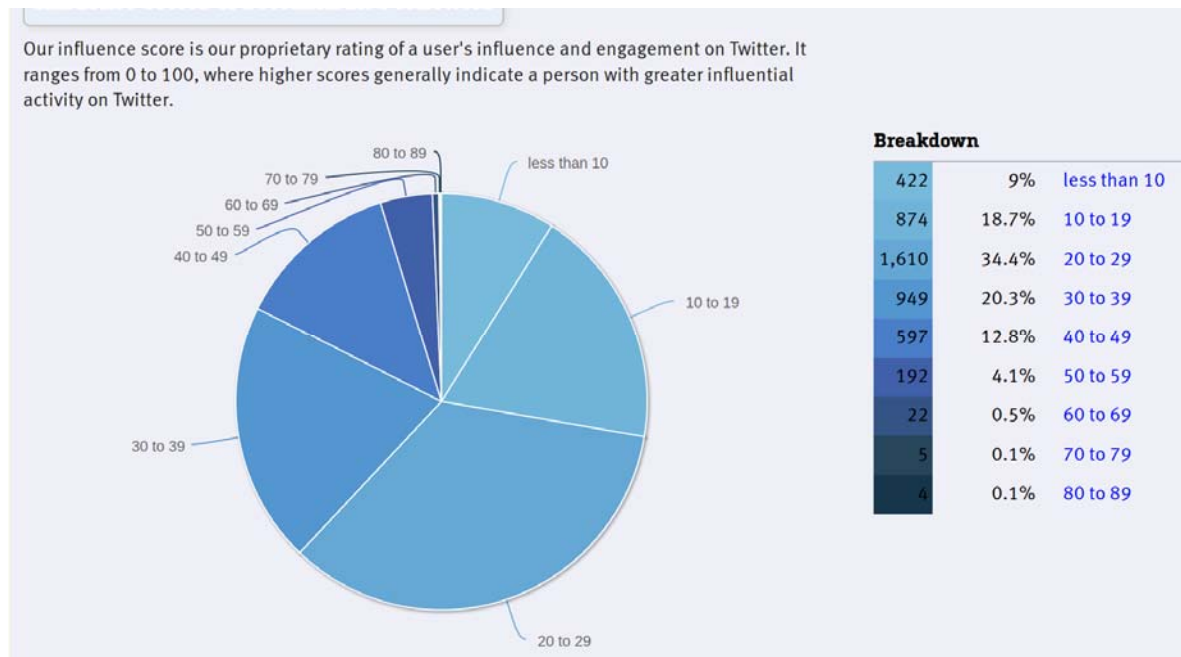


Figure 27: Influence of the regional tabloid's followers

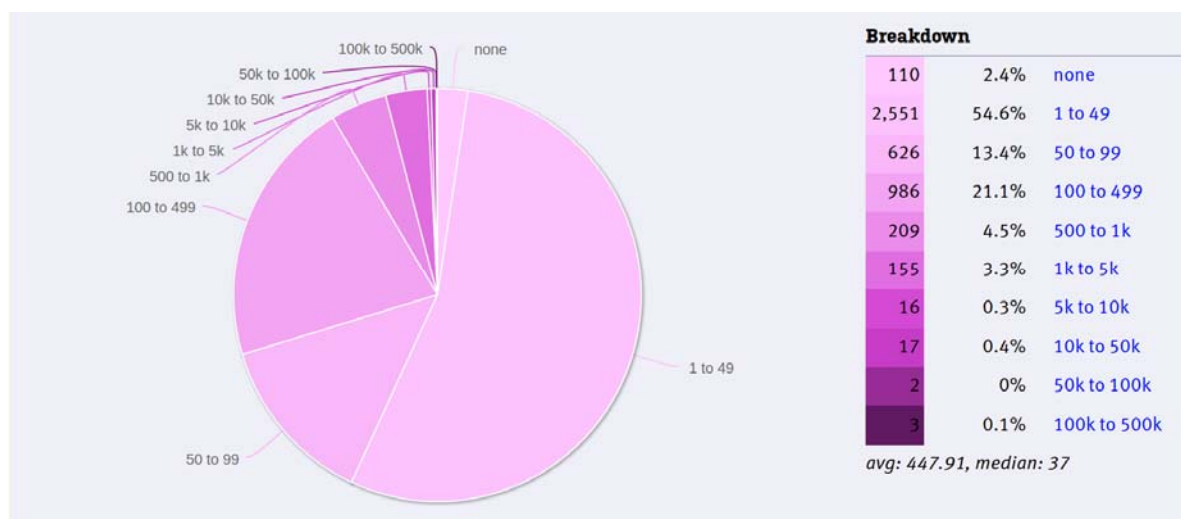


Figure 28: The number of followers the regional tabloid's followers have

9.4 The Daily Record

Of all the accounts analysed The Daily Record's was the most mature at nearly three-and-a-half years old. They had 17,899 followers, were following 2667 and had an influence score of 65.61. However, although they have a great many more followers 99% of those have less influence that that of The Daily Record (Figure 29).

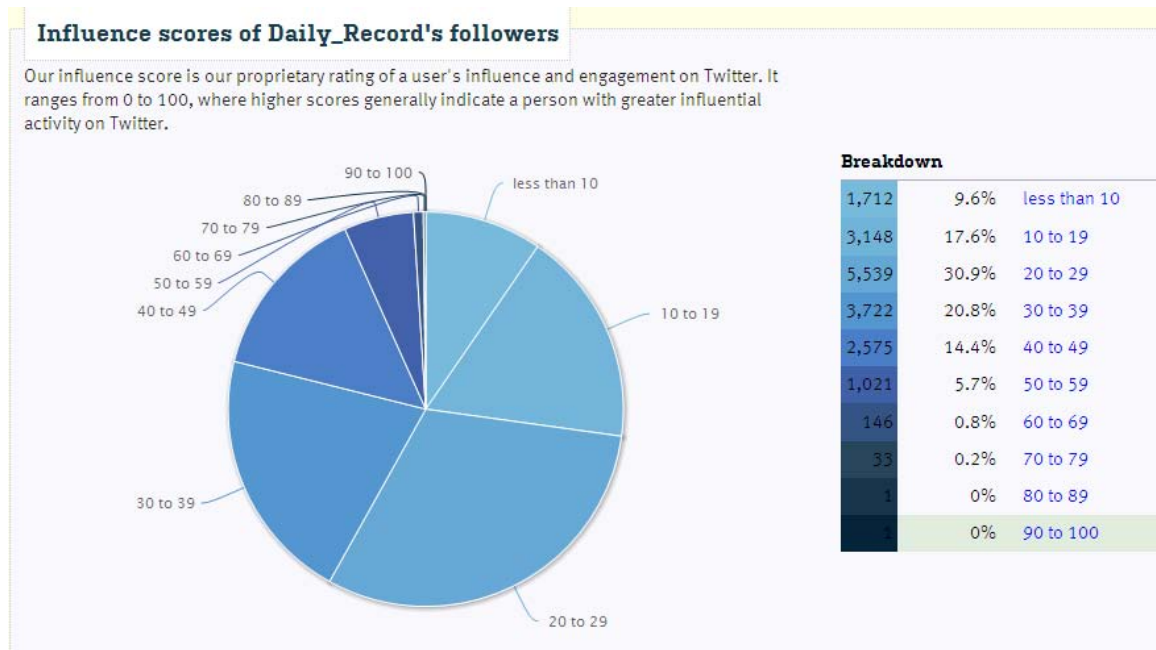


Figure 29: Influence of the Daily Record's followers

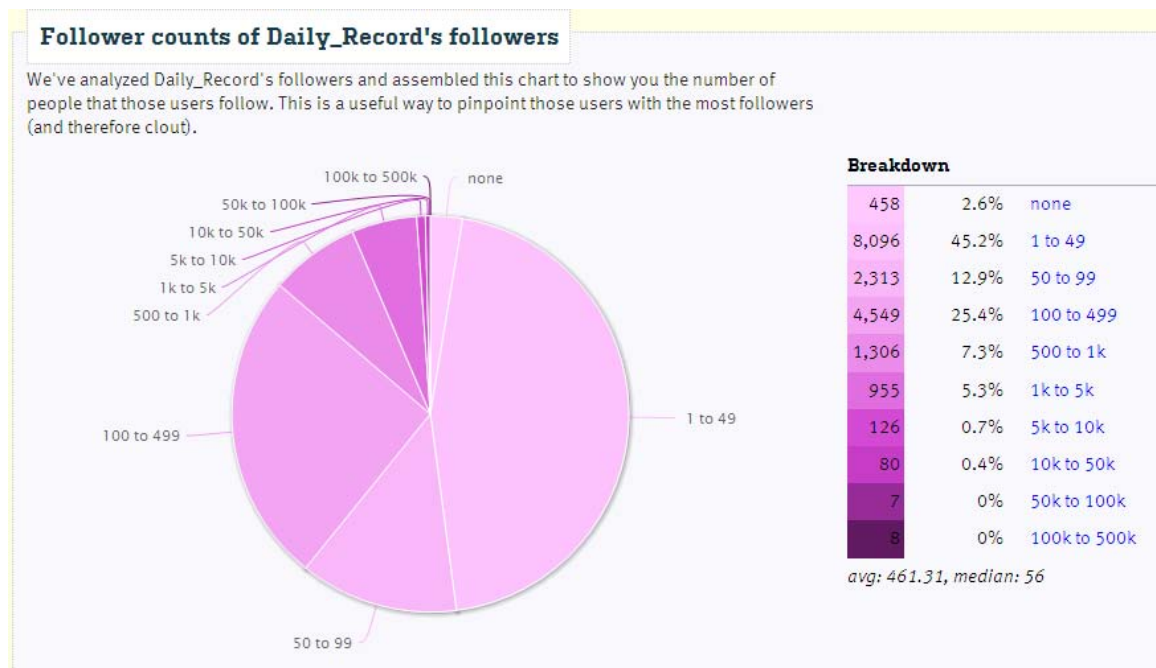


Figure 30: The number of followers that STV Glasgow's followers have

9.5 STV Glasgow

Although in comparison to the others STV Glasgow has fewer followers with 1,600 and they follow 2,000, they have significant influence, calculated at 49.62. Nearly 90% of their followers have less influence than they themselves (Figure 31).

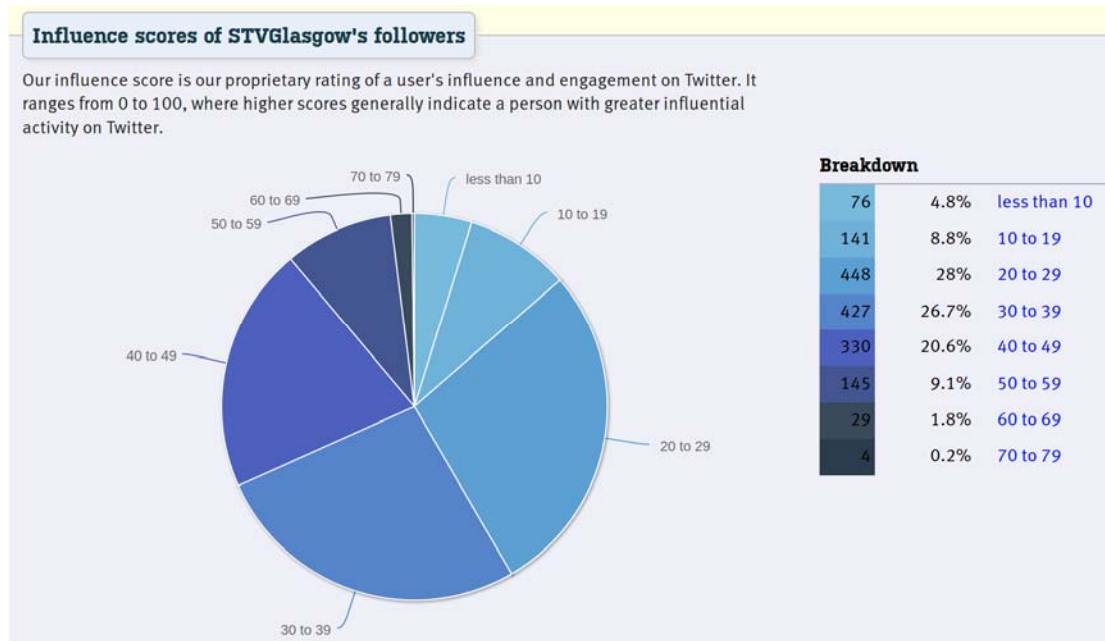


Figure 31: Influence of STV Glasgow's followers

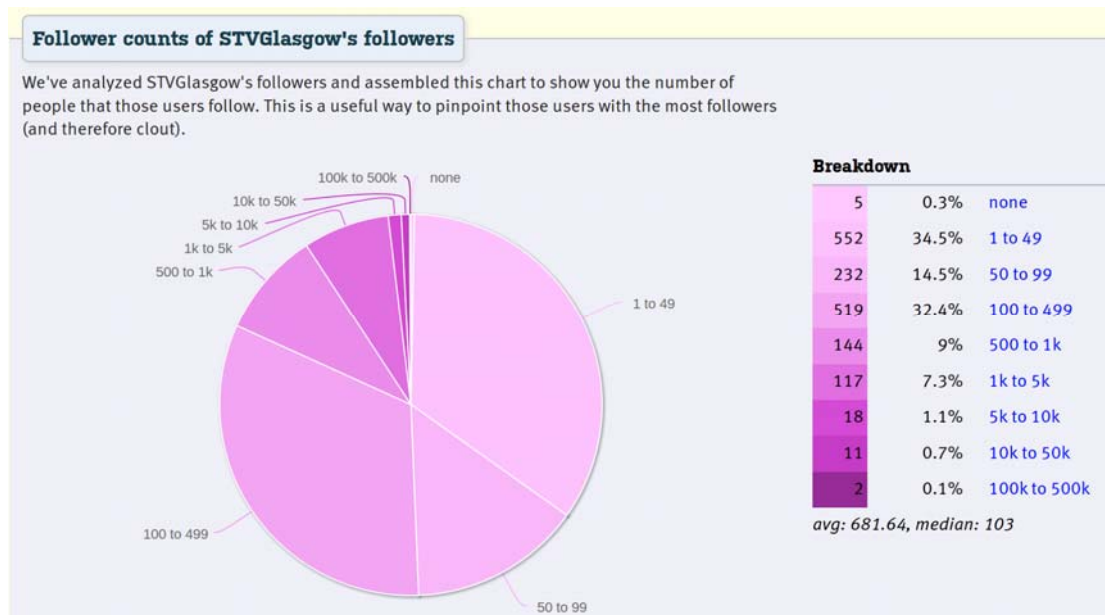


Figure 32: The number of followers STV Glasgow's followers have

9.6 The Herald

Although The Herald had only been using Twitter for a year when the Followerwonk analysis was done, they had 7,032 followers, were following 159 and had an influence score of 57.75. Nearly 92% of their followers have less influence than The Herald (Figure 33).

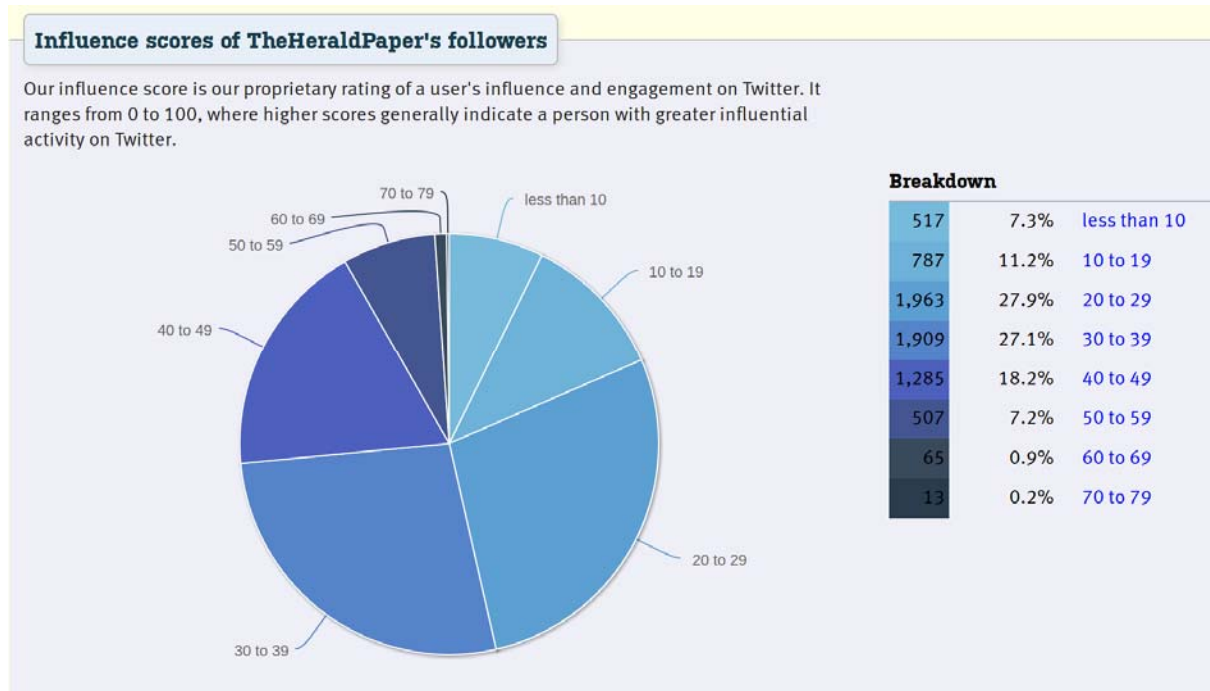


Figure 33: Influence of The Herald's followers

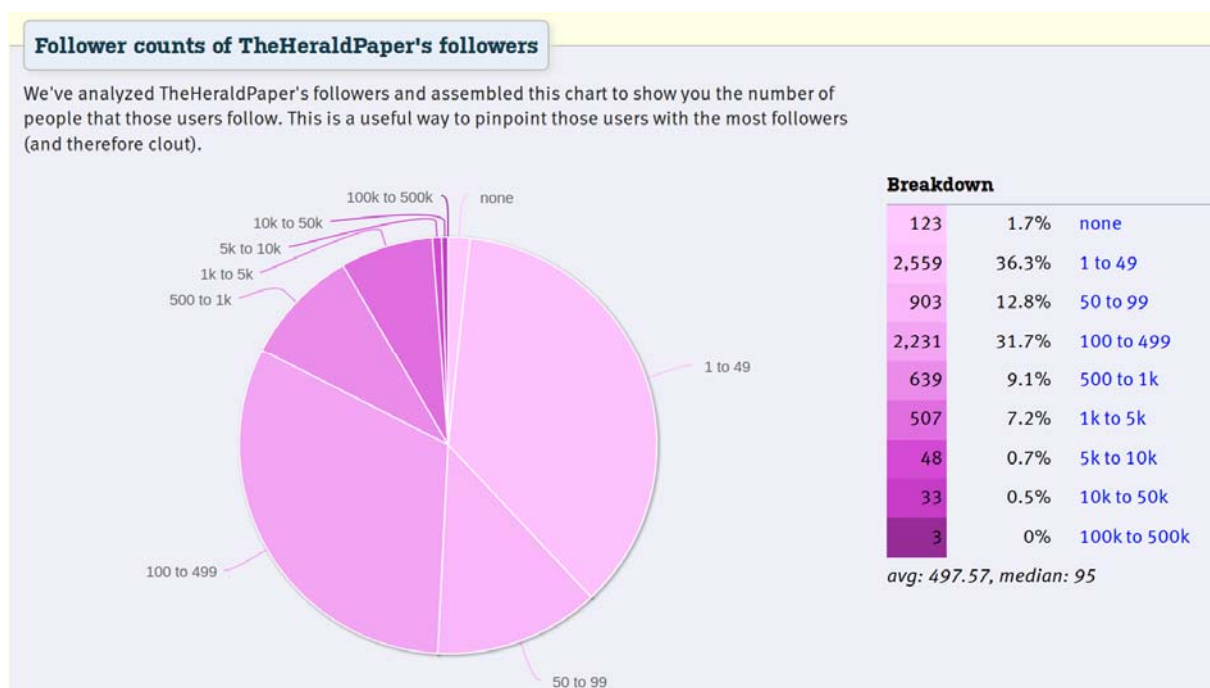


Figure 34: The number of followers The Herald's followers have

9.7 The Evening Times

The Evening Times had only been using Twitter for 59 days when the Followerwonk report was carried out. They had 1,180 followers and were following 2,000 and had an influence score of 36.83. Only 42% of their followers had less influence than the paper (Figure 35).

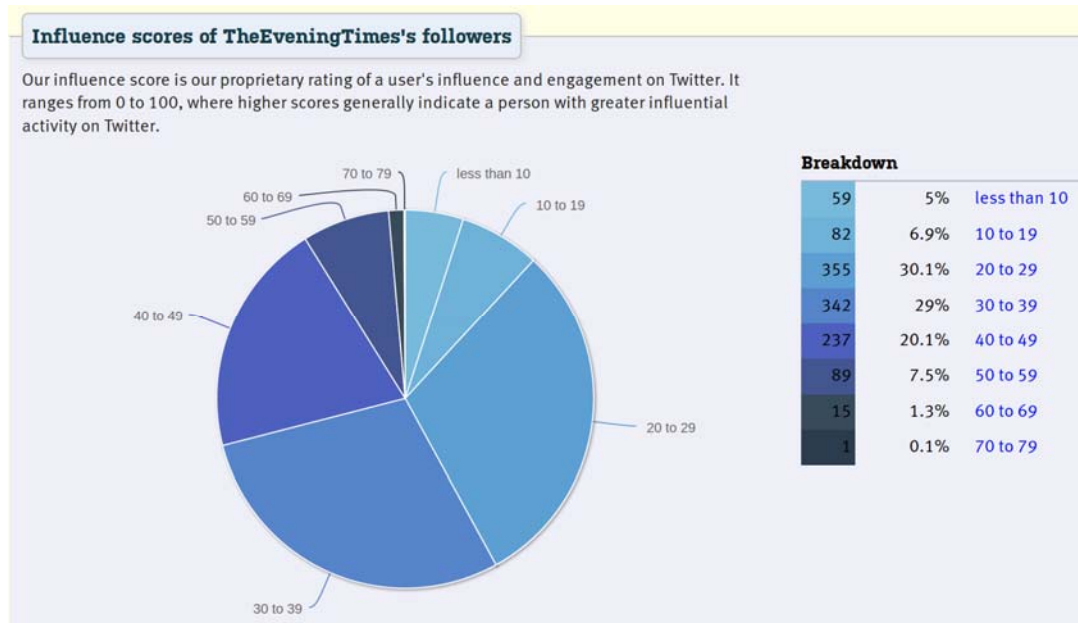


Figure 35: Influence of the Evening Times' followers

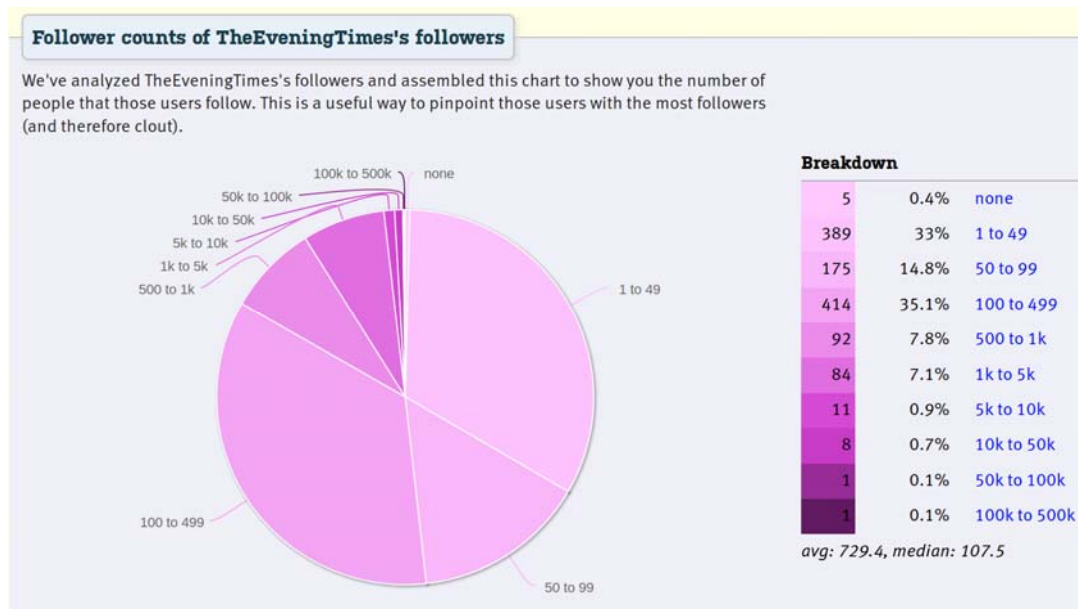


Figure 36: The number of followers the Evening Times' followers have

9.8 Comparison of followers

Followerwonk also lets you compare unique and shared relationships across three Twitter accounts simultaneously.

Figure 37 shows the relationship between the accounts of South Lanarkshire Council, Strathclyde Police and the Scottish regional tabloid. Only 84 (0.5%) followers from a total of 18,477 are shared by all three accounts.



Figure 37: Comparison of South Lanarkshire Council, Strathclyde Police and Scottish regional tabloid's followers

A comparison of South Lanarkshire Council, Strathclyde Police and The Daily Record shows that from a total of 31699 followers, 268 (0.8%) are common to all three accounts (Figure 38).

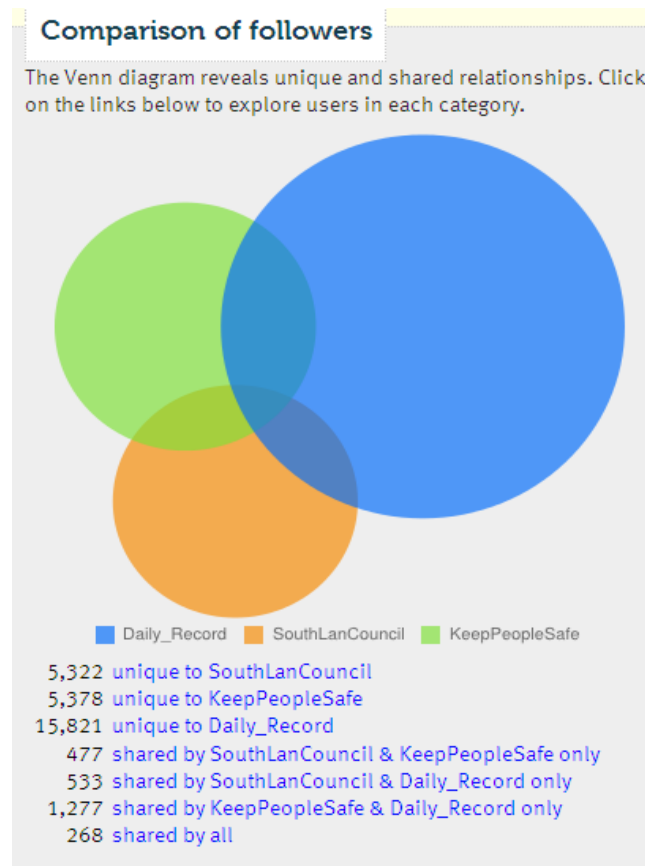


Figure 38: Comparison of South Lanarkshire Council, Strathclyde Police and The Daily Record's followers

As can be see in Figure 39 only 80 (0.5%) followers are shared by South Lanarkshire Council, Strathclyde Police and STV Glasgow, out of a total of 15,400.

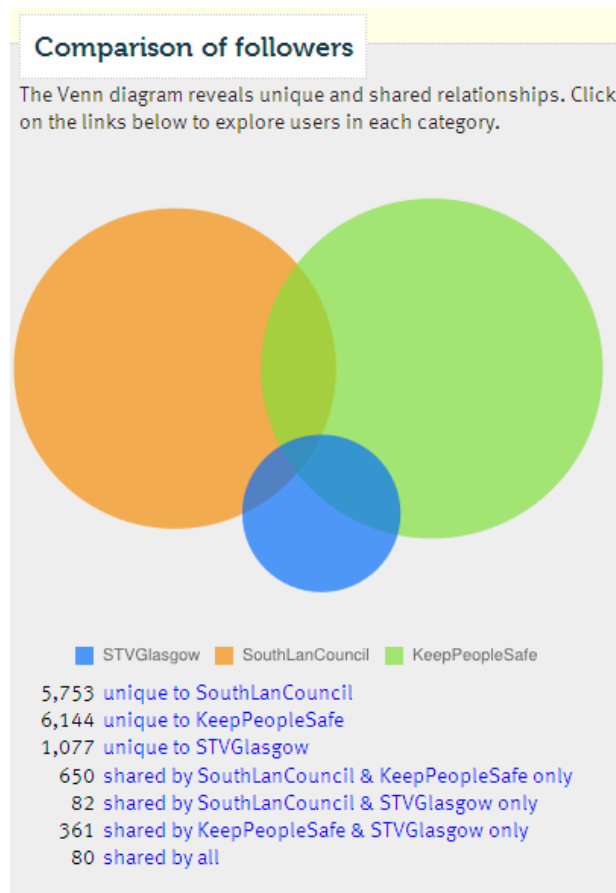


Figure 39: Comparison of South Lanarkshire Council, Strathclyde Police and STV Glasgow's followers

Comparing South Lanarkshire Council and Strathclyde Police with the Herald in Figure 40 shows 206 (1%) common followers from a total of 20,832.

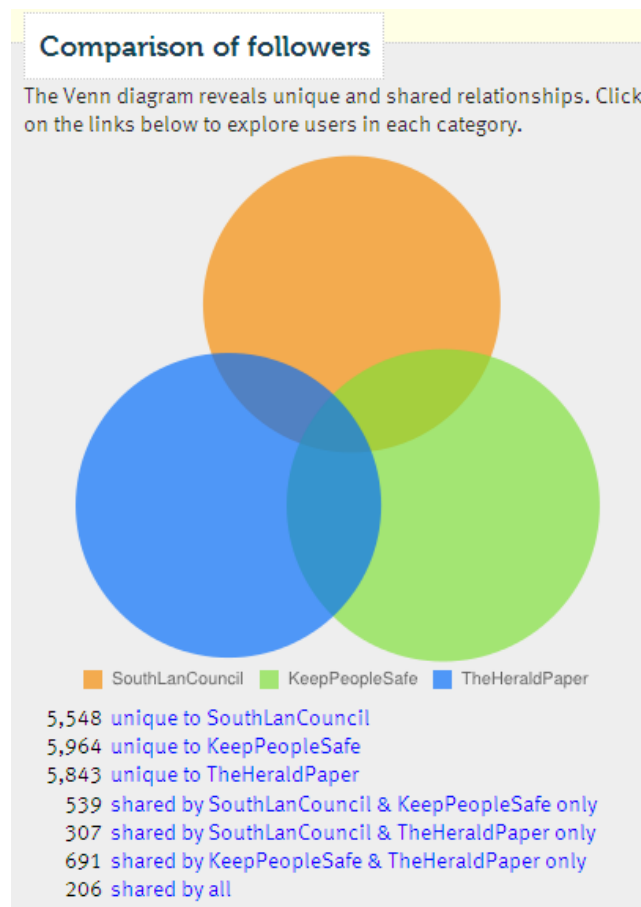


Figure 40: Comparison of South Lanarkshire Council, Strathclyde Police and The Herald's followers

Figure 41 shows a comparison of South Lanarkshire Council, Strathclyde Police and The Evening Times who have 62 (0.4%) common followers out of a total of 14,970.

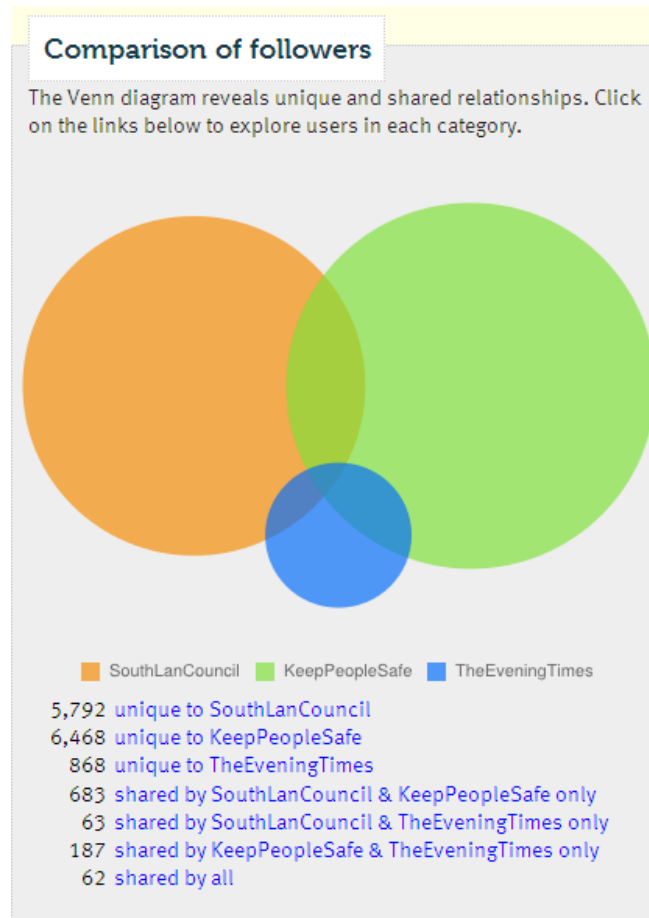


Figure 41: Comparison of South Lanarkshire Council, Strathclyde Police and The Evening Times' followers

Lastly, as an example of shared audiences of media organisations, Figure 42 shows a comparison of STV Glasgow, the Scottish regional tabloid and The Herald, who share 102 (0.8%) followers out of a total of 13,309.

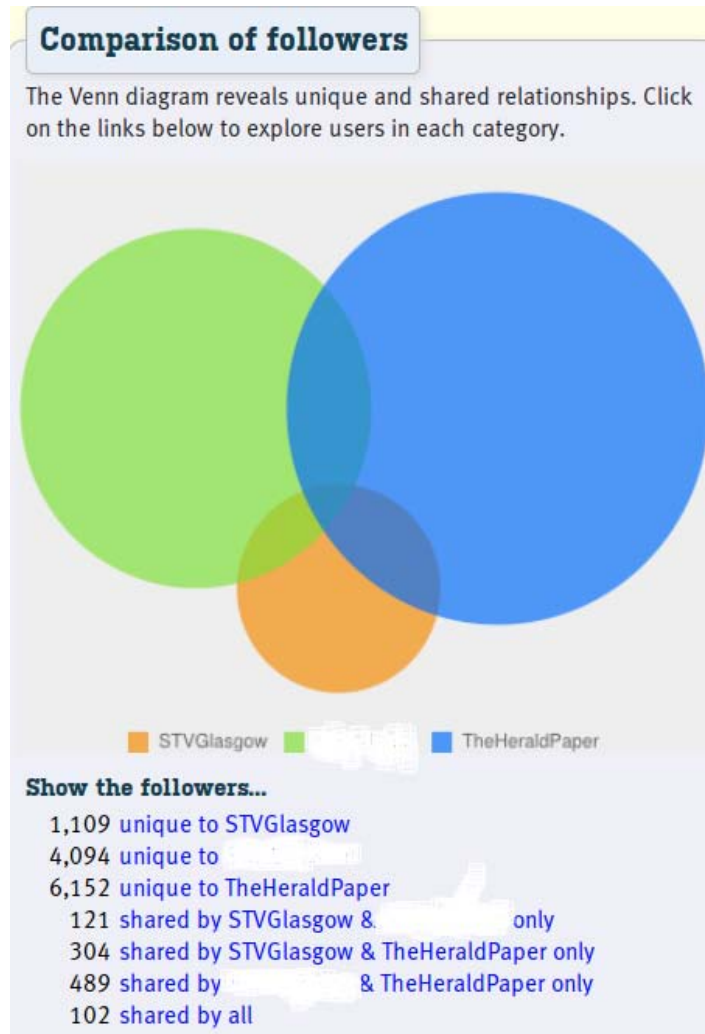


Figure 42: Comparison of STV Glasgow, The Scottish regional tabloid and The Herald's followers

9.9 Conclusion of comparisons

These Venn diagrams, combined with the previous set of influence charts show that even although STV Glasgow and The Evening Times have relatively few followers, they still have significant influence.

This would suggest that a little more discernment around who organisations follow back or who they chose to follow could increase their influence.

Overall these diagrams show that the audiences for South Lanarkshire Council, Strathclyde Police and the area's media organisations tend to be different, as do the audiences of the different media outlets themselves.

This would suggest that were they to work together on unified messages during an emergency instead of working autonomously, the information would reach many more people and the likelihood of messages 'going viral' would increase.

This work should be done during 'quiet' periods of learning and not during an incident when the message itself is the most important consideration, rather than refinement of the medium.

This is in keeping with the findings of the Riots Communities and Victims Panel (2011) which found councils and the emergency services use of social media weak and Bruns et al (2012, p.31) who consider the retweeting of official information as 'amplification' of key messages.

10 Conclusion

This study sought to discover a number of things, the first of which was how embedded social media monitoring is in Strathclyde's local and regional media. It would appear that news organisations are at different stages of using social media but that the level of its use is not relative to circulation figures, but more on how interested, individual journalists are in using it. For instance the Scottish regional tabloid has a higher circulation figure with 47,747 sales more than the Daily Record (All Media Scotland, 2011) yet the Daily Record has more influence and 13,222 more followers on Twitter. Both the questionnaire and the case studies highlighted that it is often one journalist who uses social media, often starting with a personal account, but that using social media during a crisis such as a weather event or a major incident proves its worth to senior management and it is then developed in a more formal way.

Social media strategies and policies seem to have grown organically within the early adopters within Strathclyde's media. However the laggards may be putting rules and regulations in at an earlier stage of its use compared to the early adopters.

The members of the Strathclyde Emergency Co-ordination Group (SECG) are monitoring and using social media in their normal day-to-day business as councils, NHS Boards, police and fire and rescue service. However during an emergency incident the approval process for any information coming from the Communications Group means that its release can be slower than a social media audience would expect. This is similar to the findings of Kapucu (2006) who found that hierarchical structures struggle in emergency situations when quicker problem solving and information sharing are required. It would also appear that there are no protocols for sharing information between members across social media platforms. Information sharing by retweeting amplifies important information and is critical during emergencies (Bruns et al, 2012).

During an emergency, Strathclyde's news organisations will use information, video and photographs provided by the public on social media channels, if they can trace it back to source. This would suggest that the public is aware when a news organisation has used their content but it remains to be seen if

this is still the case if there is ever a large-scale incident in Strathclyde which creates a high volume of social media content across different platforms. All interviewees described busy news rooms with tight deadlines where social media is an add-on for existing staff.

However, the usual journalism practice would appear come into play at the scene of an incident where there have been casualties or deaths, in that reporters will check the names of victims, casualty figures and other details with the lead emergency responder, rather than depend on information from the public. News organisations are however, comfortable taking photographs from a personal social media account once the person's name has been officially released. As stated previously the ethics surrounding digital media are still being researched and with a constantly changing landscape ethics policies will need to keep up (Ess, 2009).

Strathclyde Police admitted that they are in the early stages of monitoring social media at an operational level and it remains to be seen how this would connect and connect with the other information that feeds into the SECG Communications Group cell during an emergency. This has been highlighted as critical to the flow of communication and the potential to correct misinformation by the Riots Communities and Victims Panel in their interim report (2011) following the London Riots.

Some local authorities are using social media to have two-way conversations and monitor situations and for them social media could be an effective communication tool during an emergency. However, other local authorities are still using social media as a broadcast tool which goes against the advice held in the SECG Communications Plan where agencies should identify their key audiences and ensure 'effective two-way communication' (SECG:PCG, 2011 p.32).

A turning point for emergency responders was the severe weather in 2010. Up until that point they had felt their duty was to inform the media during an emergency and that it was the media's duty to inform the public. However, during the severe snow, with people trapped in cars, emergency responders realised that they could warn and inform the public themselves, although there was a realisation that the tone and content of the messages wasn't quite right. By the time of the storms in 2011/12 this had been improved upon and

emergency responders were also beginning to retweet each other's information, although again there is no official protocol in place to make this a slicker operation.

Overall, during the time scale studied, both journalists and emergency responders have learned how to monitor and use social media during emergency events, rather than preparing during normal business. This goes against the advice of the Deputy Chief Constable of Tayside Police who advises that 'you shouldn't learn about social media while the bricks are flying and the cars are burning' (Scobbie, 2012). There has been very little sharing of good practice, either within each group or across groups.

Twitter seems to be the platform of choice for both groups when it comes to putting out or sharing information, although journalists will use other social media platforms to glean pictures from personal accounts in certain circumstances. This is consistent with the findings of Bruns et al (2012, p. 31) who describe Twitter as:

deeply embedded in the broader media ecology, both drawing on and rapidly becoming a primary source of information for more mainstream news and media outlets.

By watching the storm event and the Co-op fire live this study shows that some organisations' social media use is maturing and, not only is it being used as a communication tool for day-to-day business, it is beginning to be used to build relationships with their own audiences and each other. However, others still have a long way to go on their social media journey but not only are they playing catch-up, they should be aware of the speed at which the social media landscape can change and also that we have a generation of digital natives who take social media for granted and who expect organisations to communicate with them using it (Shirky, 2008).

Hashtags on Twitter seem to be a cause of concern for emergency responders and #hurricanebawbag showed them that, not only do they not control hashtags, when they try to control them it can have a detrimental effect on the flow of important information. Hashtags are essential for effective retweeting and as has been said earlier retweeting amplifies any official messages (Bruns et al, 2012).

This research has also shown that each organisations' Twitter account has very different sets of followers – they have very few common followers. Were they to share information more effectively, official information would travel further and quicker than it does at the moment. Also a little more discernment in who they follow could result in higher influence scores and a better flow of information if those influential followers choose to retweet official information.

This research has focused on the Strathclyde Emergency Co-ordination Group and it would be useful for research to be done across the other emergency areas to see if the results are consistent. However, the results here are consistent with research done in London following the English riots in the summer of 2011 (Riots Communities and Victims Panel, 2011) and research done in Queensland following the severe floods in 2011 (Bruns et al, 2012). This would suggest that the following high-level conclusions can be drawn for emergency communications in general:

- communications groups working during emergencies need to be aware of the expectations of a public used to the speed of social media. As discussed by Kapucu (2006) extreme events require quicker problem solving and information sharing than at other times
- there also needs to be a connection between operational monitoring of social media and the communications group's use of social media to share information
- Twitter should be the main social media channel for communication information and conversation during an emergency event
- the effective use of hashtags and retweeting between emergency responders, the media and the public are essential for the amplification of key emergency information.

11 Recommendations

This research indicates that social media has an important role to play for both emergency responders and the media but most important group of all is the public who need clear and consistent information during a crisis.

The following suggestions should be taken into consideration to enable emergency responders and the media to use social media effectively not only in their day-to-day business but also together during an incident.

11.1 Twitter

Each Category 1 organisations should set up a Twitter account, as should media organisations. This should not be done during an incident but rather during 'quiet' periods when users have the time to learn how to use it effectively. Fail early so if mistakes are made, they are done while the account has few followers.

11.1.1 Twitter lists

Twitter lets users create lists of important accounts which means the 'noise' can be filtered out from the rest. Lists of the following could prove useful during an incident:

- Category 1 responders such as blue light services, local authorities and health boards
- Category 2 responders such as airport operators, utility companies and harbour authorities
- Local/regional media

11.2 Community of Practice

The SECG model has been shown to work although there should be cognisance at a strategic level that the sign-off process for information can be too slow for the expectations of a public now used to the speed of social media. However, there is a disconnect between the SECG and the media in the area. Having the media attend SECG meetings during an incident is unrealistic but an online community could be set up. Public sector organisations are already comfortable using the Local Government Association's online networking platform, the [Knowledge Hub](http://www.local.gov.uk/knowledgehub) (<http://www.local.gov.uk/knowledgehub>). An emergency response community should be created where best practice can be shared amongst, not only emergency responders but also the media.

11.2.1 Twitter hashtags

Hashtags should also be discussed on the community of practice as early as possible during an incident. The hurricanbawbag hashtag was trending in Scotland by mid-morning on the day of the storm but had there been a platform for the media and emergency responders to discuss what hashtag was going to be used for official information there would have been less confusion and the media could have shared the official information in a more effective way.

11.2.2 Buddying

Both the questionnaire and the case studies showed that media organisations and emergency responders are at various levels of social media use maturity. A buddy system should be set up where a more seasoned user is paired up with a relative newcomer. This would add an extra, one-to-one dimension to the community of practice and would help get everyone onto a similar level of use more quickly than if it were to grow organically.

11.3 Automated tweeting

During a crisis there is little time for either the media or the emergency communications team to sit on Twitter looking for information to retweet. However, there are tools available to automate retweeting and reposting. Tools such as [TwitterFeed](http://twitterfeed.com/) (<http://twitterfeed.com/>) and [If This Then That](http://ifttt.com/) (<http://ifttt.com/>) allow users to set up a rule that will recognise a hashtag being published on a named account which will then automatically retweet on the user's account. Therefore if an official hashtag is agreed by the SECG the media can set up a rule that will retweet everything with that hashtag from Strathclyde Police, therefore the people who follow the Daily Record will see the official information coming from Strathclyde Police. These rules can be set up in advance during 'quiet' periods so that only the hashtag needs added. Retweeting not only amplifies the message (Bruns et al, 2012) but, looking at the Followerwonk data, the message will also travel to a wider audience by sharing it across accounts.

11.4 Crowd sourcing/mapping

Applications such as [Ushahidi](http://ushahidi.com/) (<http://ushahidi.com/>) and [Sahana](http://sahanafoundation.org/) (<http://sahanafoundation.org/>) should be trialled to gauge their usefulness in the Strathclyde context. Ushahidi is an open-source crowd mapping tool and it was used to map fuel shortages in the run up to a threatened tanker drivers' strike in March 2012. The [Fuel Shortages Map](https://petrolblockade.crowdmap.com/) (<https://petrolblockade.crowdmap.com/>) allowed categories such as fuel shortages, deliveries and queues to be placed on a map of the country, either by tweeting using #fuelwatch or by filling in an online form. Volunteers around the world plot these pieces of information on the map (Fuel Shortages Map, 2012). The application has also been used for large scale events such as the severe snow in New York in 2008, the Japanese tsunami in 2011 and the on-going political unrest in Syria (Ushahidi, 2012). A demonstration by a UK volunteer would show not only the power of the tool itself but also the power

of the crowd. Again this should be done in a 'quiet period' rather than learning how to use it during the pressures of a crisis.

11.5 Tweet ups

Tweet ups are informal events where people who use Twitter meet up face-to-face, often for the first time. Talking to other people who use social media tools but who are from sectors other than the media or emergency responders can be beneficial in that they may be using social media in different ways that could be applicable during an incident. Emergency responders and the media should be encouraged to attend these and even to organise their own.

12 Appendix 1

12.1 Media organisations emergency social media survey

Page 1 - Question 1 - Choice - One Answer (Bullets)

Does your organisation/titles have its/their own social media streams?

- Yes
- No

Page 1 - Question 2 - Choice - Multiple Answers (Bullets)

If yes which ones do you have?

- Facebook page
 - Twitter stream
 - Google+ account
 - Blog
 - YouTube channel
 - Vimeo channel
 - Flickr account
 - Other, please specify
-

Page 1 - Question 3 - Choice - Multiple Answers (Bullets)

Do you ever retweet/cross post items from the following:

- Fire services
- Police
- NHS
- Local councils
- Members of the public

Page 1 - Question 4 - Choice - Multiple Answers (Bullets)

Do your journalists/reporters monitor any of the following social media channels as part of their job?

- Facebook
- Twitter
- LinkedIn
- Google+
- Blogs
- YouTube
- Vimeo
- Delicious
- Digg
- StumbleUpon
- Reddit
- Newsvine
- Flickr
- Other, please specify

Page 1 - Question 5 - Choice - Multiple Answers (Bullets)

Which monitoring tool(s) do they use?

- None
 - Tweetdeck
 - Hootsuite
 - CoTweet
 - Media Funnel
 - Radian 6
 - Other, please specify
-

Page 1 - Question 6 - Choice - One Answer (Bullets)

Have they ever found a lead on a social media channel that was used?

- Yes
- No

Page 1 - Question 7 - Open Ended - Comments Box

If yes what was (were) the story (stories) about?

Page 1 - Question 8 - Open Ended - Comments Box

If they have found a lead on a social media channel how was the story corroborated?

Page 1 - Question 9 - Choice - One Answer (Bullets)

Has a story from official channels ever been supplemented by information taken from social media channels?

- Yes
- No

Page 1 - Question 10 - Choice - Multiple Answers (Bullets)

If yes which channels have been used?

- Facebook
- Twitter
- LinkedIn
- Google+
- Blogs

- YouTube
 - Vimeo
 - Delicious
 - Digg
 - StumbleUpon
 - Reddit
 - Newsvine
 - Flickr
 - Other, please specify
-

Page 1 - Question 11 - Open Ended - Comments Box

If yes what was (were) the story (stories) about?

Page 2 - Question 12 - Choice - One Answer (Bullets)

Thinking specifically about the terrorist attack on Glasgow Airport on June 30th 2007, how did you first find out about the incident?

- Police press office
 - Fire service press office
 - Airport press office
 - Public
 - Other, please specify
-

Page 2 - Question 13 - Choice - One Answer (Bullets)

Which method of communication was used?

- Phone
 - Email
 - Text
 - Social media
 - Other, please specify
-

Page 2 - Question 14 - Choice - One Answer (Bullets)

If social media, which channel?

- Facebook
- Bebo
- Twitter
- LinkedIn
- Blogs
- YouTube
- Vimeo
- Delicious
- Digg

- StumbleUpon
 - Reddit
 - Newsvine
 - Flickr
 - Other, please specify
-

Page 2 - Question 15 - Choice - One Answer (Bullets)

If you first heard from the public, how long was it before you heard officially?

- Less than 10 minutes
- Between 10 and 30 minutes
- Between 30 minutes and an hour
- Longer than an hour

Page 2 - Question 16 - Choice - Multiple Answers (Bullets)

As the story unfolded did your reporters use any of the following social media channels?

- Facebook
 - Bebo
 - Twitter
 - LinkedIn
 - Blogs
 - YouTube
 - Vimeo
 - Delicious
 - Digg
 - Stumbleupon
 - Reddit
 - Newsvine
 - Flickr
 - None
 - Other, please specify
-

Page 2 - Question 17 - Choice - One Answer (Bullets)

Was any of the information from social media used in your coverage?

- Yes
- No

Page 2 - Question 18 - Choice - One Answer (Bullets)

If yes was the social media source revealed?

- Yes
- No

Page 2 - Question 19 - Choice - One Answer (Bullets)

Did emergency responders communicate quickly enough for your deadlines? (Please use the box for any comments)

- Yes
 - No
 - Other, please specify
-

Page 2 - Question 20 - Choice - One Answer (Bullets)

Would you consider that social media was used to fill any gaps in official communications? (Please use the box for any comments)

- Yes
 - No
 - Other, please specify
-

Page 3 - Question 21 - Choice - One Answer (Bullets)

Thinking about the Lanark school bus crash on March 31, 2010, how did you first find out about the incident?

- Police press office
 - Fire services press office
 - South Lanarkshire Council press office
 - Public
 - Other, please specify
-

Page 3 - Question 22 - Choice - One Answer (Bullets)

Which method of communication was used?

- Phone
 - Email
 - Text
 - Social media
 - Other, please specify
-

Page 3 - Question 23 - Choice - One Answer (Bullets)

If social media, which channel?

- Facebook
- Bebo
- Twitter
- LinkedIn
- Blogs
- YouTube
- Vimeo
- Delicious
- Digg

- StumbleUpon
 - Reddit
 - Newsvine
 - Flickr
 - Other, please specify
-

Page 3 - Question 24 - Choice - One Answer (Bullets)

If you first heard from the public, how long was it before you heard officially?

- Less than 10 minutes
- Between 10 and 30 minutes
- Between 30 minutes and an hour
- Longer than an hour

Page 3 - Question 25 - Choice - Multiple Answers (Bullets)

As the story unfolded did your reporters use any of the following social media channels?

- Facebook
 - Bebo
 - Twitter
 - LinkedIn
 - Blogs
 - YouTube
 - Vimeo
 - Delicious
 - Digg
 - Stumbleupon
 - Reddit
 - Newsvine
 - Flickr
 - None
 - Other, please specify
-

Page 3 - Question 26 - Choice - One Answer (Bullets)

Was any of the information from social media used in your coverage?

- Yes
- No

Page 3 - Question 27 - Choice - One Answer (Bullets)

If yes was the social media source revealed?

- Yes
- No

Page 3 - Question 28 - Choice - One Answer (Bullets)

Did emergency responders communicate quickly enough for your deadlines?(Please use the box for any comments)

- Yes
 - No
 - Other, please specify
-

Page 3 - Question 29 - Choice - One Answer (Bullets)

Would you consider that social media was used to fill any gaps in official communications? (Please use the box for any comments)

- Yes
 - No
 - Other, please specify
-

Page 4 - Question 30 - Choice - One Answer (Bullets)

Thinking specifically about the severe weather in Scotland in early December 2010, did you use social media to monitor the situation?

- Yes
- No

Page 4 - Question 31 - Choice - Multiple Answers (Bullets)

If yes, which channel?

- Facebook
 - Bebo
 - Twitter
 - LinkedIn
 - Blogs
 - YouTube
 - Vimeo
 - Delicious
 - Digg
 - StumbleUpon
 - Reddit
 - Newsvine
 - Flickr
 - Other, please specify
-

Page 4 - Question 32 - Choice - One Answer (Bullets)

Was any of the information from social media used in your coverage?

- Yes
- No

Page 4 - Question 33 - Choice - One Answer (Bullets)

If yes was the source revealed?

- Yes
- No

Page 4 - Question 34 - Choice - One Answer (Bullets)

When receiving information from official channels, was it received quickly enough for your deadlines? (Please use the box for any comments)

- Yes
 - No
 - Other, please specify
-

Page 4 - Question 35 - Choice - One Answer (Bullets)

Would you consider that social media was used to fill any gaps in official communications? (Please use the box for any comments)

- Yes
 - No
 - Other, please specify
-

Page 5 - Question 36 - Rating Scale - Matrix

Thinking about your organisation's future use of social media, how important would you consider the use of social media will be in a journalist/reporter's job?

Not important at all **Reasonably important** **I m p o r t a n t** **Very important** **E s s e n t**
 1 2 3 4

Page 5 - Question 37 - Choice - One Answer (Bullets)

Do you have or are you working on a social media strategy and policy?

- Yes
- No

Page 5 - Question 38 - Open Ended - Comments Box

If you would consider your organisation suitable as a Glasgow Airport, Lanark school bus crash or severe weather case study, please provide contact details.

12.2 Emergency responders' social media survey

Page 1 - Question 1 - Choice - One Answer (Bullets)

Does your organisation have its own social media streams?

- Yes
- No

Page 1 - Question 2 - Choice - Multiple Answers (Bullets)

If yes which ones do you have?

- Facebook page
 - Twitter stream
 - Google+ account
 - Blog
 - YouTube channel
 - Vimeo channel
 - Flickr account
 - Other, please specify
-

Page 1 - Question 3 - Choice - Multiple Answers (Bullets)

Do you ever retweet/cross post items from the following:

- Fire services
- Police
- NHS
- Local councils
- Media
- Members of the public

Page 1 - Question 4 - Choice - Multiple Answers (Bullets)

Does your organisation monitor any of the following social media channels as part of their communications job?

- Facebook
 - Twitter
 - LinkedIn
 - Google+
 - Blogs
 - YouTube
 - Vimeo
 - Delicious
 - Digg
 - StumbleUpon
 - Reddit
 - Newsvine
 - Flickr
 - Other, please specify
-

Page 1 - Question 5 - Choice - Multiple Answers (Bullets)

Which monitoring tool(s) do they use?

- None
 - Tweetdeck
 - Hootsuite
 - CoTweet
 - Media Funnel
 - Radian 6
 - Other, please specify
-

Page 2 - Question 6 - Choice - One Answer (Bullets)

Thinking specifically about the terrorist attack on Glasgow Airport on June 30th 2007, how did you first communicate with the media about the incident?

- Phone
 - Email
 - Text
 - Social media
 - Other, please specify
-

Page 2 - Question 7 - Choice - One Answer (Bullets)

If social media, which channel?

- Facebook
 - Bebo
 - Twitter
 - LinkedIn
 - Blogs
 - YouTube
 - Vimeo
 - Delicious
 - Digg
 - StumbleUpon
 - Reddit
 - Newsvine
 - Flickr
 - Other, please specify
-

Page 2 - Question 8 - Choice - Multiple Answers (Bullets)

Did you communicate directly with the public using any of the following?

- Phone
- Email
- Text
- Facebook
- Bebo
- Twitter
- LinkedIn

- Blogs
 - YouTube
 - Vimeo
 - Delicious
 - Digg
 - StumbleUpon
 - Reddit
 - Newsvine
 - Flickr
 - Other, please specify
-

Page 2 - Question 9 - Choice - Multiple Answers (Bullets)

As the incident unfolded did your comms team use any of the following social media channels?

- Facebook
 - Bebo
 - Twitter
 - LinkedIn
 - Blogs
 - YouTube
 - Vimeo
 - Delicious
 - Digg
 - Stumbleupon
 - Reddit
 - Newsvine
 - Flickr
 - None
 - Other, please specify
-

Page 2 - Question 10 - Choice - One Answer (Bullets)

Was any of the information from social media used in your official communications?

- Yes
- No

Page 2 - Question 11 - Choice - One Answer (Bullets)

If yes was the social media source revealed?

- Yes
- No

Page 3 - Question 12 - Choice - One Answer (Bullets)

Thinking about the Lanark school bus crash on March 31, 2010, how did you first communicate with the media about the incident?

- Phone
- Email

- Text
 - Social media
 - Other, please specify
-

Page 3 - Question 13 - Choice - One Answer (Bullets)

Which method of communication was used?

- Phone
 - Email
 - Text
 - Social media
 - Other, please specify
-

Page 3 - Question 14 - Choice - One Answer (Bullets)

If social media, which channel?

- Facebook
 - Bebo
 - Twitter
 - LinkedIn
 - Blogs
 - YouTube
 - Vimeo
 - Delicious
 - Digg
 - StumbleUpon
 - Reddit
 - Newsvine
 - Flickr
 - Other, please specify
-

Page 3 - Question 15 - Choice - Multiple Answers (Bullets)

Did you communicate directly with the public using any of the following?

- Facebook
 - Bebo
 - Twitter
 - LinkedIn
 - Blogs
 - YouTube
 - Vimeo
 - Delicious
 - Digg
 - StumbleUpon
 - Reddit
 - Newsvine
 - Flickr
 - Other, please specify
-

Page 3 - Question 16 - Choice - Multiple Answers (Bullets)

As the incident unfolded did your comms team use any of the following social media channels?

- Facebook
 - Bebo
 - Twitter
 - LinkedIn
 - Blogs
 - YouTube
 - Vimeo
 - Delicious
 - Digg
 - Stumbleupon
 - Reddit
 - Newsvine
 - Flickr
 - None
 - Other, please specify
-

Page 3 - Question 17 - Choice - One Answer (Bullets)

Was any of the information from social media used in your official communications?

- Yes
- No

Page 3 - Question 18 - Choice - One Answer (Bullets)

If yes was the social media source revealed?

- Yes
- No

Page 4 - Question 19 - Choice - One Answer (Bullets)

Thinking specifically about the severe weather in Scotland in early December 2010, did you use social media to monitor the situation?

- Yes
- No

Page 4 - Question 20 - Choice - Multiple Answers (Bullets)

If yes, which channel?

- Facebook
- Bebo
- Twitter
- LinkedIn
- Blogs
- YouTube

- Vimeo
 - Delicious
 - Digg
 - StumbleUpon
 - Reddit
 - Newsvine
 - Flickr
 - Other, please specify
-

Page 4 - Question 21 - Choice - One Answer (Bullets)

Was any of the information from social media used in your official communication?

- Yes
- No

Page 4 - Question 22 - Choice - One Answer (Bullets)

If yes was the source revealed?

- Yes
- No

Page 5 - Question 23 - Rating Scale - Matrix

Thinking about your organisation's future use of social media, how important would you consider the use of social media when communicating about an emergency situation?

Not important at all	Reasonably important	I m p o r t a n t	Very important	E s s e n t
1	2	3	4	

Page 5 - Question 24 - Choice - One Answer (Bullets)

Do you have or are you working on a social media strategy and policy?

- Yes
- No

Page 5 - Question 25 - Open Ended - Comments Box

If you would consider your organisation suitable as a Glasgow Airport, Lanark school bus crash or severe weather case study, please provide contact details.

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