Analysis of Media News Themes:
Support to Peacekeeping

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BACKGROUND

Media coverage of world events and the now almost instantaneous transmission of opinion-forming images and reports means that any actions on the international stage must pay heed to the attitudes and perceptions of global bystanders. Until recently however, there has been relatively little work addressing this issue in a 'scientific' way. This paper is therefore intended to demonstrate the methodology of Dstl's media analysis work and to highlight some of the underlying issues in order to pave the way for future work in this increasingly valuable field of research.

Open source transmissions from the Internet, radio and television offer a wealth of information representing a vast range of perspectives from 'official' state-controlled media sources to informal Internet forums. Such data lends itself well to the use of content analysis techniques and in September 2001, the UK Ministry of Defence tasked Dstl with the quantification and analysis of world media perceptions in support to *Operation Enduring Freedom*. As a result, open source translations of native language media from the Middle East and South East Asia are obtained from BBC Caversham for the work and perceptions of terrorism and reactions to events in Afghanistan regarding the country's return to normality in the aftermath of the Taleban regime were analysed. At this time, emphasis was placed on public perceptions of the Interim Government in rebuilding and consolidating the Afghan people and tribes. In addition, to analyse whether British, American and German forces were perceived as liberating rather than occupying the country.

The project has continued to provide support to *Operation Enduring Freedom* and *Operation Veritas*, although it has changed considerably in subsequent years to account for changes on the international stage. Themes evolved to reflect increased media reporting of the Palestinian/Israeli conflict and possibilities for peace/development in the region and

briefly reflected an increasing interest in Pakistan and India in late 2002. Indeed, the number of countries and sources analysed increased from ten in 2001 to twelve in 2002 and numbered thirty in 2003 (see Table 1).

The output from the original tasking served to highlight the importance and, as a consequence, the influence of media shifts. More specifically, it served to highlight the ways in which media analysis can support peacekeeping operations.

September 2001	January 2002	September 2002
Afghanistan	Afghanistan Pro- Taleban	Afghanistan
Uzbekistan	Afghanistan Anti- Taleban	Al-Jazeera
Kyrgystan	Al Jazeera	Egypt
Tajikistan	Tajikistan	Iran
Iran	Egypt	Iraq
Turkmenistan	Indonesia	Jordan
Kazakhstan	Iran	Kuwait
Pakistan	Iraq	Pakistan
Yemen	Jordan	Palestine
Iraq	Turkmenistan	Saudi Arabia
	Pakistan	Syria
	Philippines	Turkey
	Saudi Arabia	
	Syria	
	Uzbekistan	
	Yemen	

Table 1: Countries and sources analysed between September 2001 and 2002.

SUPPORT TO PEACEKEEPING

Civil-military coherence, interagency dialogue, global credibility and the consent of the international, regional and local communities are just a few of the concerns faced by contemporary peace support, peacekeeping, and humanitarian operations. Indeed, one sentiment continually alluded to within pan-Arabic media sources demonstrates that there is a fine line between peace enforcement and perceived occupation.

It is therefore increasingly recognised that an understanding of the perceptions of the global, regional and local communities towards reconstruction activities carried out by peacekeeping forces and perceptions of the country's return to normality can be assisted by the media analysis capability described here. In particular the possibility of comparing tangible and intangible indicators of a country's return to normality in the aftermath of conflict by comparing previous research on normality indicators presented by George Rose (2001) to Cornwallis VI with those evidenced in the media.

In the immediate aftermath of the Afghan conflict, evidence of these sentiments was reflected in the emergence of themes such 'Afghanistan's return to normality,' 'support for Interim Government,' 'calls for rehabilitation of Afghanistan,' 'reporting of conflict between Afghan factions,' 'improving security situation in Afghanistan.' By March 2002, Afghani

sources were concerned primarily with the reconstruction of physical and societal infrastructure in Afghanistan, women's issues, and the role of the International community in the rehabilitation of their country.

ASSESSMENT METHOD FOR MEDIA
ANALYSIS (MoMeNT)

The aim of the project was to develop an analytical method to assess media perceptions by examining selected media reports from a wide range of countries. In addition to developing analysis techniques, considerable emphasis was placed upon ways of visualising the complexity of the media discourses and how they change over time. The method (MoMeNT) applies qualitative thematic coding and content analysis techniques to open source translations of foreign media reports. These include written newspaper reports, Internet sources, television and radio broadcasts. These reports are obtained from the BBC at Caversham, who maintain a profile of keywords and sources necessary for the analysis. Transmissions are categorised into country, date and time[i] and are received daily (Figures 1 and 2).
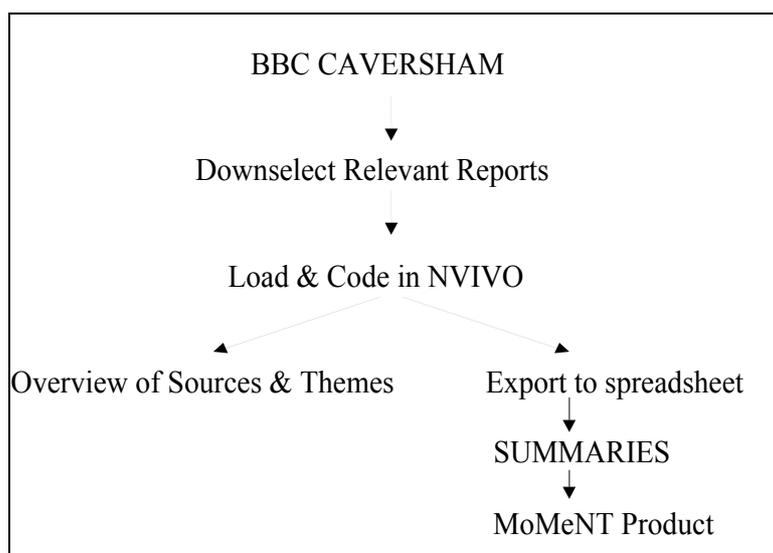

BBC CAVERSHAM

Downselect Relevant Reports

Load & Code in NVIVO

Overview of Sources & Themes   Export to spreadsheet

SUMMARIES

MoMeNT Product

Figure 1: The Media Analysis process.

The transmissions are imported into NVIVO™[ii], a qualitative data analysis tool for manual content analysis (see Figure 3). NVIVO allows systematic, auditable coding of the themes relevant to each article. The themes are characterised by a theme category or 'mother' node e.g. 'future of Afghanistan,' which in turn are divided into sub-themes or 'child' nodes e.g. 'positive perception of Interim government,' or 'calls for rehabilitation of Afghanistan.' An example of a theme list is given in Table 2. The coding scheme typically numbers an average of 120 themes.

It is important to note the themes are extremely dynamic, and emerge from the data. When a number of media sources progressively contain a new theme, e.g. increased discussion surrounding tension between Pakistan and India, it will be added to the coding scheme. Themes are only discontinued where a theme has become completely obsolete.
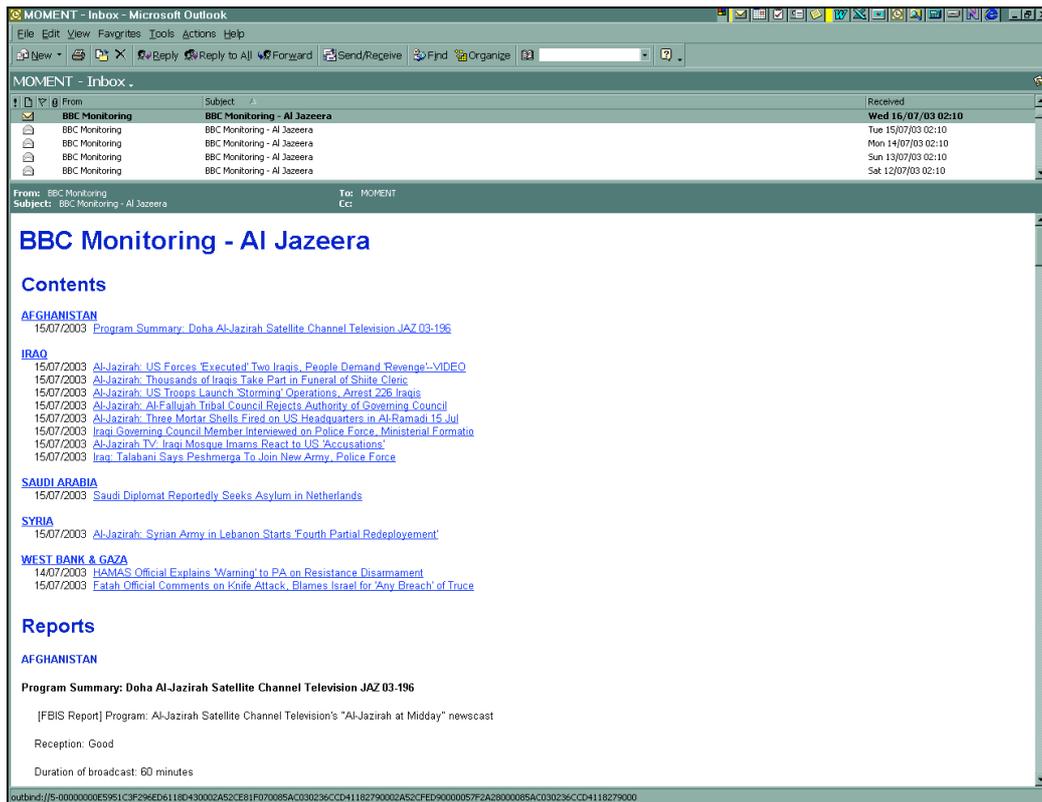
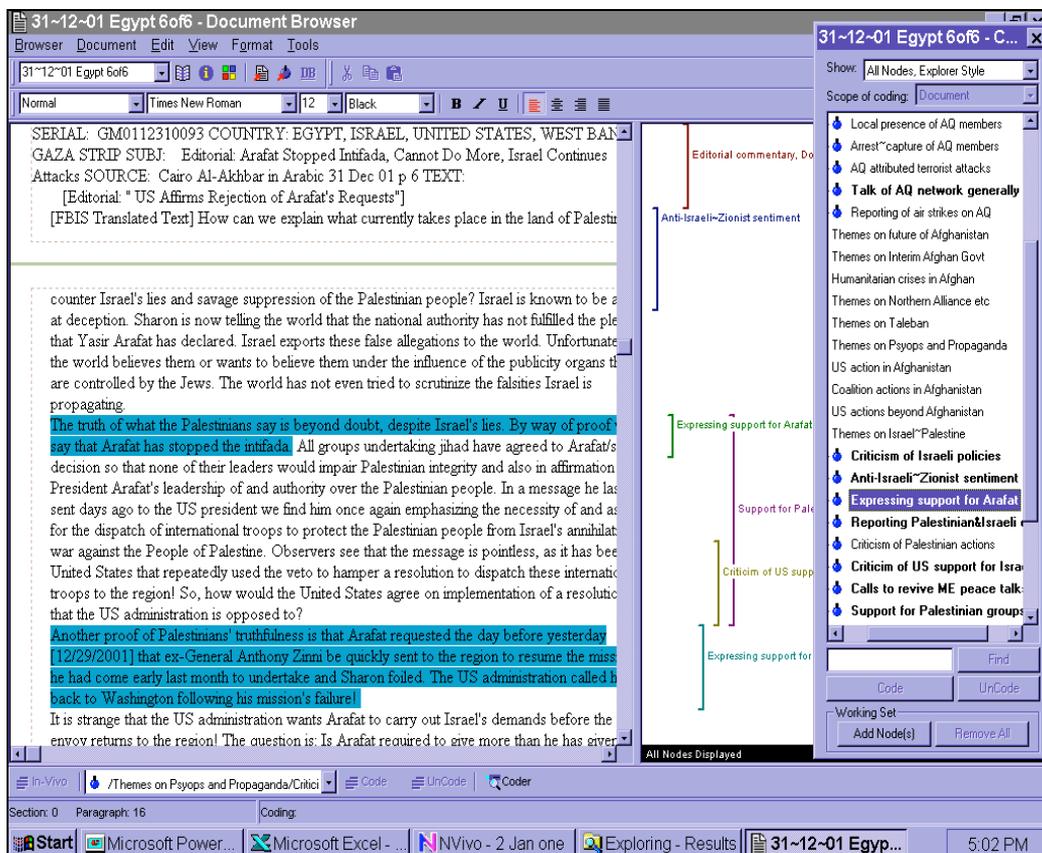*Figure 2:* Daily feed from BBC Monitoring.

Figure 3: Electronic coding of themes in NVIVO with coding scheme.

Relevant discourses in the media are highlighted and 'coded' according to which theme they represent (see Figure 3). Although individual themes often recur within transmissions and articles, the theme is only coded once per transmission to allow normalisation, where the number of reports per country per day is divided against the number of themes coded that day.

A Boolean search is then carried out on the day's data in NVIVO, using a matrix intersection of countries and themes, to calculate the number of themes coded for each country per day. The software then produces an output of themes coded per country per day by number, which is exported to Excel for further, quantitative analysis.

Theme categories (mother nodes)	Sub-themes (child nodes)
(1) Anti-US	(1 1) Criticism of US Imperialism
	(1 2) Condemnation of US terrorism
	(1 3) Criticism of US foreign policies
	(1 4) Anti-US sentiment generally
	(1 5) Anti-US activity or protests
	(1 6) Reporting of US ground operations
	(1 7) US reported bombing/killing civilians
(2) Pro-US themes	
(3) Reports on UK/EU/IC	(3 1) Pro-UK sentiment
	(3 2) Pro-UK Activity
	(3 3) Anti-UK sentiment
	(3 4) Criticism of UK support for US
	(3 5) Pro-EU sentiment
	(3 6) Calls for IC intervention
(4) Reporting on Terrorism	(4 1) Condemnation of Sept 11 attacks
	(4 2) Condemnation of Terrorism generally
	(4 3) Condemnation of OWN terrorist issues
	(4 4) Calls for universal definition of terrorism
	(4 5) Talk of Human rights violations
	(4 6) Distancing Islam from terrorism
(5) Themes on UBL	
(6) Themes on AQ	
(7) Future of Afghanistan	(7 1) Calls for rehabilitation of Afghanistan
	(7 2) Talk of Afghanistan's return to normality
	(7 3) Pro-Interim Govt sentiment
	(7 4) Anti-Interim Govt sentiment
	(7 5) Talk of women's issues in Afghanistan

Table 2: Extract of theme list characterising' mother' and 'child' nodes.

In Excel, MoMeNT uses a visual presentation of results, which allows a moving average of themes and actors present within a media source on a particular day and uses simple trend graphs to show how theme strengths in the 30 sources increase or decline in response to developing events. The spreadsheet also divides the themes evidenced in the media into 'hot' 'warm' and 'cool', in terms of relative frequency; this allows a quick overview of weekly theme strengths.

In addition, the team also produces an assessment of key media events, relating them to the trend displays wherever the analysts believe there is sufficient evidence of 'causality.. This process is largely subjective, since it is often the analyst's intimate knowledge of the preceding weeks data that enables them to attribute particular events to such media shift.

Figure 5 demonstrates this. Media sentiment toward the United States remained relatively constant in Pakistani and Saudi Arabian reporting but steadily increased in the Iraqi media in January 2002. However, following the 'Axis of Evil' speech delivered by President George W. Bush on 28 January 2002, a dramatic increase in Iranian anti-US sentiment was noted.
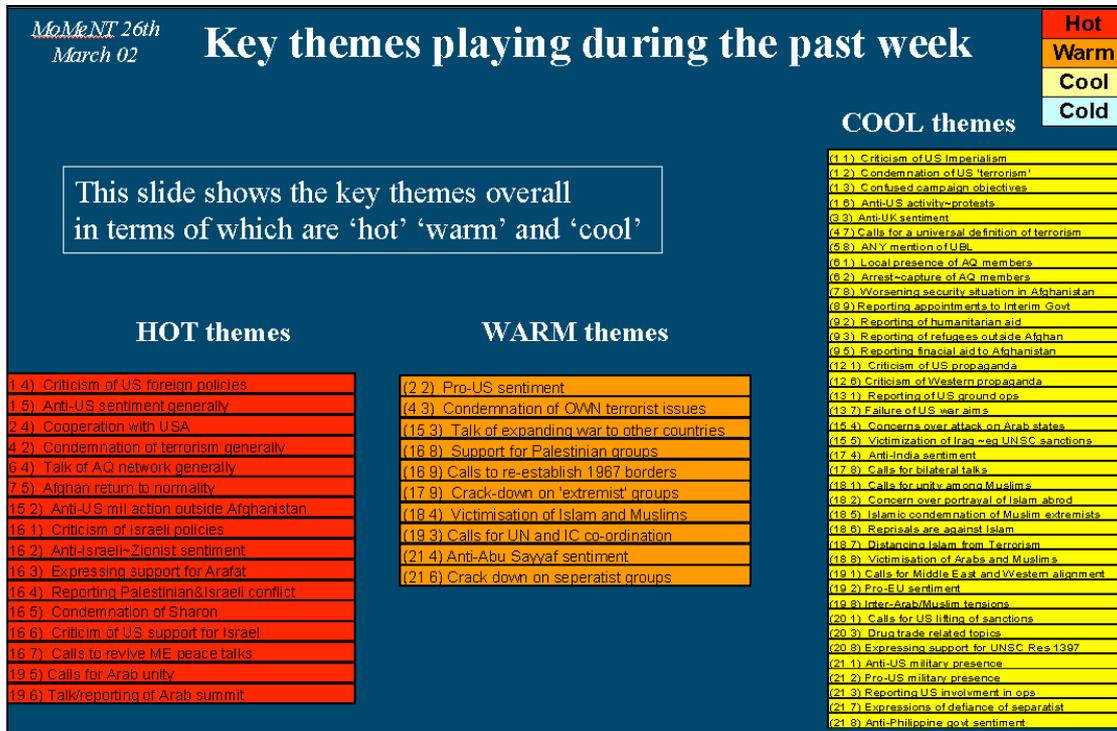

Figure 4: Example of a product slide showing the overall themes in terms of which are 'hot,' 'warm,' and 'cool.'
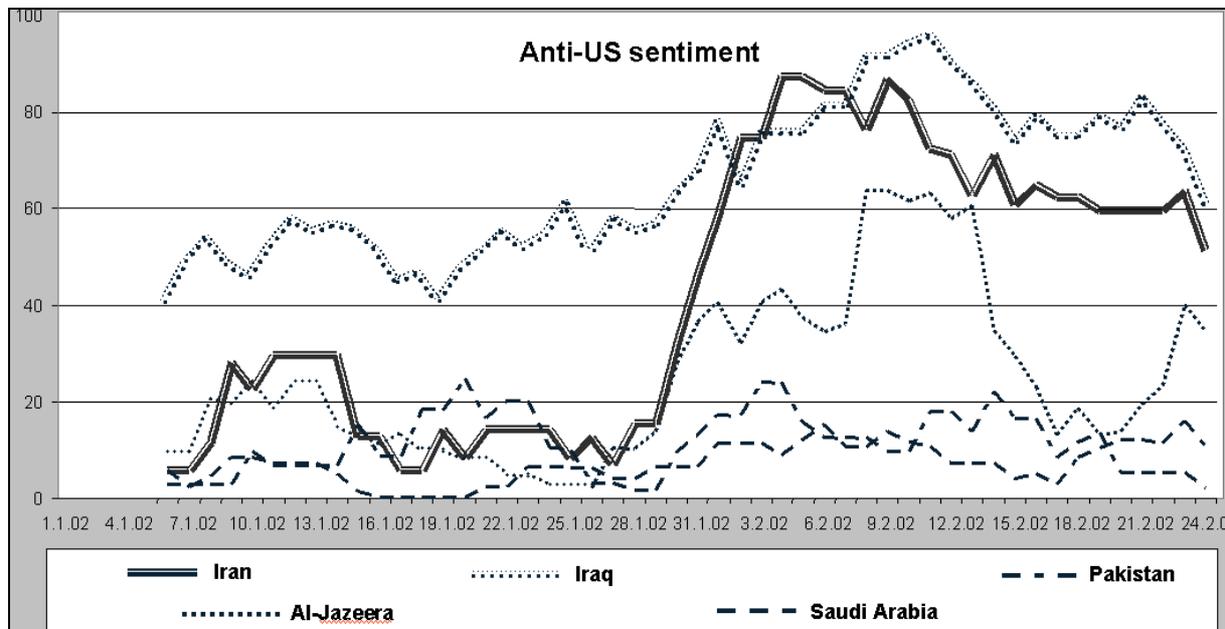

Figure 5: Graph illustrating increase in MoMeNT theme 'anti-US sentiment' in Iranian media following the 28 January 'Axis of Evil' speech delivered by President George W. Bush.

MEDIA OUTPUT

The media analysis output is prepared weekly. The output comprises a detailed overview of the trends evidenced in the media and where applicable, related events, an illustration of the 'hot,' 'warm,' and 'cool' themes shown in Figure 4 and graphical representations of the main themes emerging in the media for each source or country.

In addition, slides for each of the 'hot' themes are prepared, to allow for comparison between countries and media sources. The summaries are composed weekly by a team of five analysts intimately familiar with the preceding weeks' media trends. Two examples of the slides from a final product are shown in Figures 6 and 7.
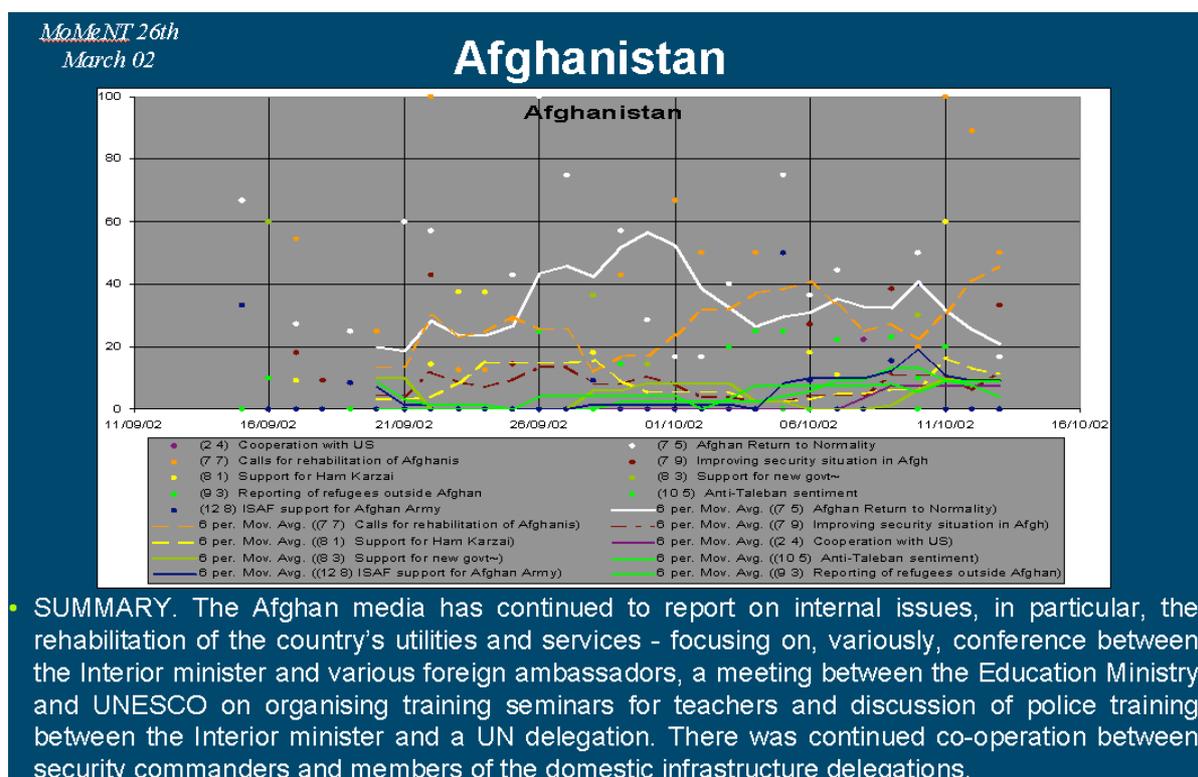

Figure 6: Media summary for Afghanistan in March 2002. The white trendline demonstrates the theme 'Afghanistan's return to normality' as the most frequently observed sentiment in the Afghan media during the week beginning 11 March 2002.

THE WAY AHEAD

While most qualitative analysis techniques are time consuming and labour intensive, media analysis techniques developed and described in this paper have demonstrated that they can be carried out in near real time. The products have been viewed as useful to decision makers who are engaged in planning for peacekeeping operations following international crises: in particular those who have been concerned in assessing the responses of various countries to world events post 11 September 2001.   The development of the current media analysis method has therefore demonstrated that it is possible to combine qualitative and quantitative

analysis techniques in an efficient way to show how themes and perceptions change over time, in response to political discourses and world events.
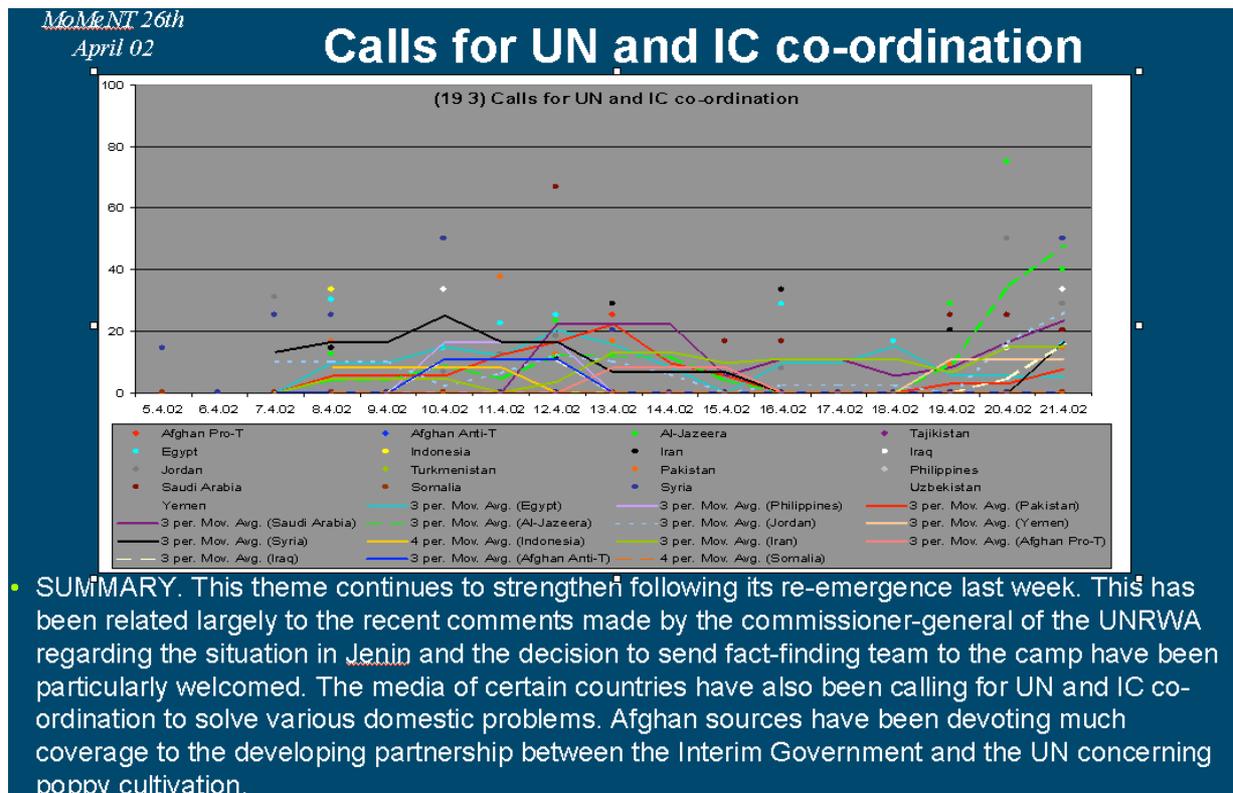

Figure 7: Media summary for theme calls for United Nations and International community co-ordination in April 2002 amid prospective co-operation between the Interim Government in Afghanistan and the UN regarding drug control in the country and following media condemnation of Israeli actions in Jenin.

However, there are a number of issues associated with this work that provide the foundation for future research. Firstly, it is important to recognise that media sources may not reflect public opinion. This is particularly the case where the media is guided or controlled by the state. In Iraq until early 2003, for example, the vast majority of media outlets were operated by the state. Although this in itself may be advantageous for investigating the disparity between a country's media perceptions and other world media in relation to world events, indicators of normality as reflected in the media in the aftermath of conflict would be problematic.

Second, concerns have been raised regarding translation from native language discourses. Whether new translators affect the initial output from BBC Caversham and whether different emphasis may affect coders' perception of an issue. This is not formally reviewed, although subtle changes in the style of discourse or differences in transliteration (e.g. different spellings for Arabic names or places) have often alerted the analysts to a change in translator and where necessary, to clarify any effects this may have had on their perceptions. For example, certain Arabic media sources commonly referred to the UK and US aircraft as the 'ravens of evil'. Presently, this became referred to as the 'evil ravens.' It was subsequently noted a new translator had been appointed to the team at BBC Caversham[iii].

Third, the normalisation process may over-represent themes from countries for which only one or two reports are received daily. Where it may appear a theme has been coded 100% for a low volume source or country, it is commonly a product of one transmission for the country. If this is true, any resulting analysis is explained as such in the weekly summary.

Fourth, inter-coder reliability has not been formally assessed although there is currently an extensive training period in which the coding carried out by new team members is qualitatively compared to the coding carried out by existing team members. There are consequently plans to carry out quantitative analysis to assess any significant differences in coding of articles between analysts to establish inter-coder reliability.

Finally, no research has been carried out to investigate the effects of swamping by other events. Is it noteworthy that a significant event on the international or domestic stage can obscure media reporting on key changes within a country of interest. For example, a significant decline in coding the theme 'calls for the rehabilitation of Afghanistan' may reflect the Iranian medias preoccupation with current events in Iraq rather than reflecting a change in opinion regarding Afghanistan's ongoing reconstruction.

A sister project, Investigating Statistical Actualities in New Themes (InStANT) is underway to further the utility of the media analysis tool by undertaking a detailed analysis of the data set over the long-term and to investigate the feasibility and utility of such analysis for future peace support operations. The project will examine;

- Any periodicity (e.g. weekly transients), which could be factored out of the data to improve trend analysis. Potentially, investigating swamping effects, for instance, the effects of religious festivals on media reporting, inter-coder differences and other arbitrary occurrences.

- Any long-term trends in the data (over months rather than days or weeks).

- The relationship between different themes.

- The nature of media interest in a story (peak and longevity) versus event type versus country.

- The impact of normalisation, as discussed above.

The concept of setting a 'warning level' for a particular theme could also be important for future MoMeNT work, allowing, for instance, an alarm to be raised when it appears that a theme is increasingly emerging in the data, or to highlight a potentially important event.

Finally, there are plans underway to evaluate state of the art content and thematic analysis software to determine whether the human involvement can be augmented or replaced by intelligent automation. There is a growing number of products and projects, which claim to achieve 90% of the performance of human coders. MoMeNT's extensive and unique database will enable analysts' to configure a trial to compare the performance of automatic content analysis packages with that of the MoMeNT team.

CONCLUSION

In the long term, the recent analysis has served to highlight the necessity for analysis of a country's media prior to conflict to facilitate a baseline of normality indicators[iv]. It is however recognised that the utility of this comparison for countries with heavily state-controlled media is limited due to the nature of the reporting.

The current media analysis method does however provide a remote ethnographic representation of the peace support issues salient to a country of interest - particularly in light of the growing realisation that Western perceptions of conflict and rehabilitation differ significantly from those central to many recent post conflict countries and it is often difficult, if not impossible to infer the more cultural aspects of societal infrastructure. An increasingly pertinent example of this is the effect of peace support operations on tribal interaction, integration and cohesion in countries such as Afghanistan and Iraq.

FOOTNOTES

[i] It has long been of interest to analyse the order in which transmissions are presented to identify any trends within and between sources

[ii] Further details of QSR software can be found at http://www.qsr.com

[iii] Further details regarding BBC media analysis can be found at http://www.bbc.co.uk/

REFERENCES

Hayes, R. and G. Rose, 2001. *Crisis Response Operations Theory and Practice (Do the metrics measure up?)* in Cornwallis VI: Analysis for Crisis Response and Societal Reconstruction, pp. 36-45.

Woodcock, Alexander and David Davis, (eds.), 2001. *Cornwallis VI: Analysis for Crisis Response and Societal Reconstruction*, Cornwallis Park, Nova Scotia, Canada: Canadian Peacekeeping Press Publications.