Chapter 9: Conclusion

9.1 Introduction

This thesis has examined the home pages of three online newspapers: the Bangkok Post (BKP), the People’s Daily (PD), and the Sydney Morning Herald (SMH). The three newspapers have been examined from a social-semiotic perspective, employing theoretical approaches from systemic functional theory (SF theory), particularly as developed for multimodal discourse analysis (MDA).

The corpus which forms the basis of this study consists primarily of 45 online newspaper home pages: 15 from each newspaper, collected over three periods (early 2002, late 2005, and early 2006), each constituting a 5-day constructed week.

The findings of this thesis have implications for SF theory and for approaches to MDA. The purpose of this thesis is, however, broader than making a contribution to SF-MDA. There are implications also for:

- the critical study of online newspapers and the mass media more broadly, and the analysis of websites and web-pages
- pedagogy in the areas of literacy, and media discourse.

The current research also has, inevitably, a number of important limitations.

In this chapter, the findings of the research project are summarised in section 9.2, and the limitations considered in section 9.3. Then, in section 9.4, the
implications in the areas outline above are considered in turn. Finally, in section 9.5, overall conclusions and final comments are made.

9.2 Summary of findings

Based on the current corpus, this thesis has examined the overall structure of online newspapers, the design of home pages, the historical development of newsbites (with particular focus on the home page of the *SMH*), and the use of news images on home pages (with a particular focus on the use of thumbnails on the *SMH* home page). In this section, the findings are summarised.

In Chapter 5, the newspapers are examined using the analytical tool of a rank scale. Online newspapers are posited to have five ranks: online newspaper, section, page, zone, and text, and a class-function cycle at each rank is identified. Systems at each rank are either generated on the basis of the data (such as at the ranks of page and text), or (partly) hypothesized where data is insufficient (such as at the rank of online newspaper). Constituency, the structural principle of parts combining to make wholes, is the basis of a rank scale, and provides one useful perspective on the relations between home pages, the texts appearing on them, and other pages and structural elements within online newspapers.

Over time, technological advances have seen online newspaper publishers introduce semiotic resources such as animation, audio, and video, as well as hypertext tools such as pop-ups. As these are integrated on pages, the ability of a rank scale to account for the ways in which meaning is made in online newspapers - limited as it is
to the structural principle of constituency - is fundamentally challenged. Nonetheless, semiotic phenomena such as rankshift (where a class element from the same or higher rank realises a structural element at a lower rank) are useful for explaining certain patterns of structure in online newspapers, and the notion of constituency also remains useful, if limited.

The rank scale proposed in Chapter 5 complements the description of the periodic structure of websites given by Djonov (2005). This complementarity, and also the ability of the rank scale to account for certain aspects of the website with theoretical elegance (such as rankshifted websites realising the functional element of Content; and the identification of the home section, and the role of the Splash and the Orientation therein) suggest that rank scale is a useful tool for examining the structure of online newspapers and websites more generally, providing its limitations are recognised.

Chapter 6 describes the home pages of the corpus from a metafunctional perspective. These home pages have the structural elements of Brand, Navigation, News Coverage, Signature, and Marketing. Each of these is realised by a class element at the rank of zone, and the News Coverage (realised by news taxonomies in the corpus) is examined in more detail. News taxonomies can be described as either:

- overt or covert, according to the presence or absence of features such as named or un-named categories, and the different visual devices used to frame categories (e.g. background colour, white space, borders, and horizontal bars)
- homogeneous or heterogeneous, according to the extent to which the different elements in the taxonomy resemble each other visually (by similarities or
Chapter Nine: Conclusion

differences in, for example, size, shape, colour, and font features where elements include or consist of text).

Depending on the combination of the various visual devices on the page, news taxonomies can be characterised as laying along these two clines, which in principle function independently of one another.

News taxonomies classify the content of the home page, and an explicit awareness of their existence, and of the visual and verbal devices used in constructing them is of benefit to readers, and to (prospective) authors of web pages and media workers.

Chapter 6 also examines the interpersonal meanings realised in the design of the home pages in the corpus. All pages are found to have an objective perspective: there is no specific viewing perspective ‘designed into’ the page, so the reader is not ‘subjected’ to a viewing position by the pages’ authors. In terms of the modality (or visual construal of the ‘factuality’) of the home pages, three aspects of design are identified as particularly important in modality. The first is stasis, and the degree to which pages employ hypertext tools such as animation, sound, and other so-called ‘bells and whistles’. The more static (and therefore conservative) the page on this measure, the higher the modality. The second measure of modality is the use of shape and space on the page. The more order in the page design (typically realised by a squared design and consistency in the size of objects and spaces on the page), the higher the modality. The third aspect of design which impacts on the modality of the page is the use of colour. Pages which are predominately black-text-on-white-background in the manner of traditional print broadsheets have a higher modality, and
a greater use of colour on the page leads to a lower modality on this measure. The overall modality of the page is a complex of values on at least these three measures, all of which operate independently of one another in principle.

Textual meanings of the home pages in the corpus are also examined in Chapter 6, and the composition of the home pages in the corpus was found to work with a number of oppositions. The ‘first screen’ of the page contrasts with the remainder of the page, and includes the Masthead, main navigation menu, and when they are include on the page the largest image and ‘breaking news’. Many pages design a horizontal break of some sort at the bottom of the ‘first screen’. This top-bottom opposition on the page realises a Head / Tail compositional structure. Left-right, pages are designed in columns, and the wider column always includes the major news stories, whereas narrower columns carry news which is secondary in importance in the value system of the newspaper, and/or navigational menus. Thus, the left-right composition realises an opposition of Primary / Secondary. And finally, all home pages in the corpus include a Masthead at the top of the page, and navigation menus either in the left column or across the bottom of the page header. These elements are repeated across the news pages of the newspaper, creating cohesion between pages and serving as a consistent point of departure for the reader, page by page. In terms of their compositional role on each page, these elements realise a Macro-Theme / Rheme structure.

Chapter 7 examines newsbites, the small headline-plus-lead-plus-hyperlink news stories which feature on the home pages of the corpus, and on online newspaper home pages more broadly. The focus in this chapter is on the home page of the SMH,
and the ways in which newsbites develop over the data collection period (which spans four page-design periods for the SMH home page). Newsbites are ‘little’ texts, yet play a prominent role on online newspaper home pages and therefore in readers’ experience of the online newspaper. A detailed system network for newsbites is provided in Chapter 7, and the changes in this system network over the four SMH page-design periods demonstrates the remarkable expansion in the meaning potential of newsbites (i.e. the paradigmatic meanings available to newbite authors) over the data collection period. This expansion in systemic choices is realised by changes in the structure of newsbites, and these are shown to relate to social, institutional, and textual factors.

Despite their small size and verbal brevity, these news texts can function independently of the longer texts to which they hyperlink. They play an important role in valuing the news on the home page, and allowing the institution to achieve its commercial and ideological objectives, all while working within the constraints of page templates.

Chapter 8 explores the use of news images on home pages. Each newspaper uses a large image in the Head (or ‘first screen’) of its page, and the SMH also uses thumbnails extensively, especially in later page design periods. The larger news images on home pages share many of the features of news images as used in print newspapers, though in their new discursive environment it is likely that these images will develop in ways increasingly distinct from their print counterparts. This development is likely to occur in the visual grammar by which they are authored as texts in their own right, in the ways they function in newsbites and texts of other
genres on the home page (such as newsbits, standalones, and other genres which may emerge), and in their role on the home page as a unified, multi-semiotic text.

The thumbnail images on the *SMH* home page function in very different ways from news images in print newspapers. Their ‘authors’ work with a much more limited set of choices (i.e. paradigmatic meanings), ideationally, interpersonally, and textually. In newsbites, thumbnails function as an integral element of the news story, working closely with the verbal text, engaging the reader interpersonally with the story, and bringing a participant in the verbal story ‘to the front’ of the story as Hyper-Theme. Thumbnails also play an important role in the overall design of the home page, personifying the news on the home page, and punctuating the news of the home page textually. When viewed historically, they share little with news images which have become both familiar and valued in the institutional practices of photojournalism as represented in print newspapers. However, they do share much with typography and punctuation, which are elements of language. Thumbnails can be seen as a kind of elaborated graphology, fulfilling linguistic functions and therefore, arguably, an expansion of the expression plane of language.

In light of these findings, we can return to the framing questions posed in the first chapter and consider what answers might be offered. Here, the more specific framing questions are dealt with before returning to the initial, overarching question.

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What can the analytical tool of rank scale tell us about relations between home pages and their elements, and other elements of the online newspaper?

What are the limitations of rank scale in describing the structure of online newspapers?

Home pages in this corpus realise the function of Orientation in the home section of online newspapers, and are therefore particularly important in readers’ experience of the newspaper on each reading. As class elements, home pages also realise the function of Briefing in content sections of the newspaper. Home pages consist of zones, which in turn consist of texts. This constituency perspective on online newspaper structure must be seen in relation to other perspectives on structure (e.g. periodic, and potentially prosodic structure). A rank scale is one useful perspective, but as technology continues to evolve this analytical tool may be less able to account for the different elements that constitute a home page and online newspaper, and the relations between them.

How do home pages - as unified visual signs in their own right:

- represent the human experience of events which are deemed newsworthy enough to appear on the page?
- construe a relationship between the readers of the newspaper, the institution of the newspaper, and the actors and events reported?
- construct coherent and cohesive messages?

Home pages in this corpus use news taxonomies in their visual design of the page. Interpersonally, they present an objective perspective and vary in their modality according to the use of static or dynamic design features, colour, and the degree of order in the use of shapes and space on the page. Textually, information is structured
in a Head/Tail top-bottom structure, a Primary/Secondary left-right structure, and a Macro-Theme/Rheme structure whereby the Masthead and main navigational menus are positioned consistently page by page.

**How do newsbites communicate visually? How important is visual design in such verbally short texts?**

Newsbites in this corpus are designed in such a way that their significance in relation to each other can be judged visually in a way that does not rely solely on their positioning on the page. (While this is not true of the design of newsbites on the *BKP* home page in the corpus, since the data collection period ended the *BKP* also designs newsbites in this way.). Features which contribute to this visual communication include the presence and absence of features such as images, hyperlinks, and superheadings, the use of colour in headlines and hyperlinks, and the relative size and positioning of different elements. These visual choices in design can realise elaborate systems of choices whereby newsbites, and the actors, events, and issues they report, can be valued relative to one another. In such verbally short texts, this visual design plays an important role in achieving the communicative purposes of newsbites and home pages.

**How are news images used on online newspaper home pages? What role do thumbnail images play on online newspaper home pages?**

News images are used sparingly on the home pages of this corpus, with the general trend being that one relatively large image is used on the first screen of the home page, with the possibility of other images being used elsewhere on the page. Smaller
thumbnail images are used to varying degrees (from not at all to being used extensively) further down the page.

The larger images are used in ways which resemble the conventions of photography in print newspapers, though ‘head shots’ may be more common on home pages than in print newspapers. Thumbnail images tend strongly towards being close-up shots of faces, or other ‘easy-to-read’, iconic images, and can be seen on the SMH home page as punctuating newsbites, and the home page more generally.

**How, then, is meaning communicated by the visual design of online newspaper home pages?**

The online newspaper home pages in this corpus are complex, multi-semiotic signs that are mediated by the computer screen. Their visual design is a fundamental part of each newspaper’s construal of the news events of the day. Visually, meaning is made:

- in relation to other pages (e.g. by the consistency of the Macro-Theme from page-to-page, which creates cohesion between the home page and other pages in the newspaper; by the harmony between news taxonomies on the home page and the different content sections that make up the functional element of Content at the rank of online newspaper)

- across the entire page (by the organisation of different elements in news taxonomies; by the construal of an objective stance and the visual modality of the page; by the composition of the page)

- and in the design of individual elements such as newsbites, and the thumbnail images which sometimes appear in them.
Each level is important, and the complex relations between each level contributes to the multi-semiotic construal of the news on each home page.

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In summary, a range of findings have been made in this thesis, contributing to our knowledge and understanding of the applicability of rank scale to analysing online newspapers, of the design of online newspaper home pages, and of the ways in which ‘little’ texts such as newsbites and thumbnail images function on online newspaper home pages. Inevitably, the research reported here has limitations, limitations which also open research opportunities, and these are considered in the following section.

9.3 Limitations and opportunities

In this section, limitations and opportunities are grouped and discussed in relation to the data set, the analysis, and the generalisability of the findings.

9.3.1 Data

Beginning with the data, this sub-section considers the number of newspapers sampled, the kinds of website studied, the nature of the data collected, the time span of the data collection, the hypertext resources used on the pages in the corpus, the limited number of interviews, and the information obtained in the interviews.

First considered is the number of newspapers sampled. The corpus of this study includes the home pages of three newspapers. Clearly this represents a small
proportion of the multitude of English-language online newspapers published globally, and so the extent to which this corpus is representative of online newspaper home pages can certainly be questioned (compare, for example, the extent to which thumbnails are used on the SMH home page in comparison to those of the BKP and the PD). At two stages during the project (August, 2006, and July, 2007), home pages from 30 and 29 newspapers (respectively) from around the world were downloaded and briefly inspected to ‘test’ the emerging findings against a broader sample. Though a detailed analysis of each home page was not conducted, the framework developed in Chapter 6 can be employed to effectively describe the home pages downloaded, and many of the home pages also demonstrate diversity in the design of newsbites which realised paradigmatic meanings in a way similar to the home page of the SMH. Nonetheless, detailed study of home pages from a large number of online newspapers and from a large number of countries is still required to determine the extent to which the findings presented in this thesis need to be adapted as they move away from the instance (or ‘weather’) pole of the cline of instantiation, and more towards the system (or ‘climate’) pole. Additionally, an investigation of online newspapers in languages other than English, and the extent to which the visual design of home pages is related (or not) to language of publication is an area particularly worthy of investigation.

Second, limiting the data to the websites of news institutions who have their origins as print newspapers could be representative of bringing an ‘old mindset’ to a new phenomenon. On the web, news institutions which publish newspapers, broadcast on radio, or broadcast on television are represented in the same medium. The comparison made in the current study, though, gives a theoretically grounded and empirical basis on which to make a semiotic comparison with other news websites
such as agency websites (e.g. AP, AFP, Reuters), television-origin websites (e.g. CNN, Fox), online news aggregators, (e.g. Fark, Google News, Drudge Report), and broadcasting corporations who have a history of working across media (e.g. the British BBC, and the Australian ABC), and to examine the extent to which the institutional history of the website is predictive of the design of the news (see Chapter 2).

Similarly, the role of personal blogs, social networking sites (e.g. MySpace, Facebook, and Twitter), and other user-generated-content sites (e.g. YouTube) in the reporting and dissemination of breaking news is expanding at the time of writing this chapter. This is a significant change from the way in which news was disseminated on the web when this research project began, and serious study of the reporting of news in these fora, the genres by which this is done, and their relation (if any) to other web-based news genres and other traditional news genres is an area in need of study. The ramifications of this for our understandings of what news is, and who decides, also require investigation.

Third, the corpus of this study consists primarily of 15 home pages from each online newspaper. Also collected from each newspaper on each day were the home page of one content section (the ‘domestic news’ content section - however named in each newspaper) and a number of story pages linked from the home page and/or the content-section home page. These were saved as html files using a web browser, and software was also used to save the entire page as an image. Saving pages as images was particularly important in later data collection periods, as in some cases the html files looked nothing like the original pages when re-opened at a later date. This
collection method was used because of the focus of this study, but also due to technological limitations in downloading whole websites (including access to software, processing speed, bandwidth at reception, and periodical problems in accessing the websites).

Downloading the entire domain of each newspaper on each data collection day would have facilitated the current research, and would also have made the corpus more useful for subsequent research. However, the collection and maintenance of such data poses problems not only in collection, but also in terms of browser and file compatibility (especially over time).

The technological issues in compiling such a corpus represent not only a practical problem, but also a broader social issue. As Perlmutter observes:

... unless one has printed the entire Web page as an integrated unit, it no longer exists at all. As the Times’s Bernard Gwertzman (1999) explained to me, “We save the individual pictures and stories but not the page.” Unless that page has been systematically copied, downloaded, or printed, it may be lost forever as a text for analysis, clarification, introspection, comparison, or simply a refreshing of memory. That updating is one of the great benefits of the Internet - a capability that most proponents of the medium cite as a positive tool for enhancing individuals’ interaction with the news - is a contradiction. (Permlutter, 2003, p. 18; see also Barnhurst, 2002, p. 487; Puijk, 2008)

Online newspapers are influential, and therefore powerful texts in a globalised society. They have the power of writing, and the impermanence of speech. For their authors, this lack of permanence can mean a lack of accountability, and can conceal a lack of responsibility if there is one. This alone provides sufficient justification for collecting comprehensive corpora of online newspaper discourse (see www.archive.org).
Keeping permanent (or at least long-lasting) and accessible records of impermanent phenomena and rendering them in a form suitable for analysis is not a new problem for discourse analysis, which has long dealt with recordings and transcripts of speech. Many of the shortcomings of audio recordings and transcripts are well recognised, but the potential pitfalls of saved web pages (which can differ according to the format in which they are saved, as already mentioned) are probably still largely unknown. Further, the challenges in collecting and processing such data are likely to develop as quickly as the genres and the technologies that realise them. Thus, while the corpus of the current study is sufficient to address the questions posed, it is not immune from the limitations inherent in the conversion of discourse into data which are amenable to our methods of analysis. Looking forward, it would seem prudent to exercise caution in equating our data sets of texts like online newspapers with the actual phenomena they represent (cf. Latour, 1999).

The research reported in this thesis is a multi-year study, with the three data collection periods spanning four years. The collection periods are not evenly spaced, and there is a period of three years and five months between the first and second collections, and only of two months between the second and third. This irregularity is not as problematic as it may seem, though, because the data are representative of the page design periods during which they were collected. In fact, the third data collection period was motivated by a simultaneous change in design in two of the newspapers (BKP and SMH) as explained in Chapter 4.
A four-year study, as it happens, appears to have generated useful data in examining the development of the newspapers over time, with the PD having two design periods, the BKP four, and the SMH also four over the data collection period. Even so, social-semiotic studies of news websites over longer time scales such as those used by Cooke (2003), and Utt & Pasternack (2003) would clearly be informative.

Three years on from the last data collection, online newspapers are commonly embedding video on their home pages, animation is a staple resource of many home pages, the meaning potential of newsbits (let alone newsbites) has expanded considerably on many home pages, and other changes (possibly relating to the challenges posed by social networking sites as mentioned above) will no doubt be emerging as this paragraph is read. In a sense then, the rapid evolution of web-based news genres as illustrated in this research project means that the findings reported in this thesis are historical, and that the design of news on online newspaper home pages has already moved beyond what is reported here. While the descriptions outlined in the previous chapters do still account for the much of the design of news on current home pages, the speed of evolution of these genres as documented in this thesis nonetheless means that the current findings are a starting point, and that future social-semiotic studies of online newspapers will need to account for phenomena that do not appear in the corpus of this study for historical reasons. There is, then, much scope for future investigation building on the findings of the current study.

Additionally, the innovative practices used in advertising texts on the web pages of the corpus (including the use of animation, pop-ups, sound, and video)
appear to be moving ahead of the news texts. The relation between advertising and news (including relations of content and design) is also an area deserving of further attention.

Moving from the corpus to the interviews, one voice from the \textit{BKP}, one voice from the \textit{SMH}, and no voice from the \textit{PD} is heard in this thesis. The information gathered in the interviews is useful in providing an understanding of the way the newsrooms of the \textit{SMH} and \textit{BKP} operate, and the way in which the print and online editions are related in each news institution. Unfortunately, each provides limited information on the historical development of the online edition, and also of the decision-making processes by which online news design is enacted in each institution. A number of attempts were made to arrange an interview with staff from Digital Post at the \textit{BKP} by telephone, email, and in person, but were unsuccessful. (Attempts to establish contact with the \textit{PD} by email were also unsuccessful.) Regardless, the interviews are very useful in providing context for the discourse analysis, and the generosity of each of the interviewees is greatly appreciated.

‘Insider’ accounts of semiotic practices are an important contribution to our understanding of the nature of discourse, and the ways in which specific discursive events ‘work’. The research presented here draws on an understanding of news practices based in part on the interviews represented in Appendices B and C, but also on published accounts of the practices of news producers, such as those by Boczkowski (2004a, 2004b), Bell (1991), de Vries (2008), Iedema, Feez & White (1994), McCargo (2000), and Paterson & Domingo (2008).\textsuperscript{85} Research which

\textsuperscript{85} The ‘Ask an Editor’ forum of the \textit{New York Times} is another valuable, public resource.
combines rich ethnographic data with large, well-designed corpora of texts will continue to be important in providing insights into the social practices of news production and dissemination.

In summary, there are a number of limitations in the data set of this research, each of which raises issues for the ways in which research into online newspaper discourse is conducted, and indicates directions for future research.

9.3.2 Analysis

The SF-MDA approach to analysis taken in this research project is a particular theoretical approach to analysing, understanding, and communicating knowledge about semiosis. There are, of course, other approaches which could have been taken (and which have been elsewhere), even in conjunction with an SF-MDA approach. SF theory is applied by nature: Halliday’s (e.g. 1978) rejection of the separation of applied and theoretical linguistics has become a defining feature of SFL. This means that as SF theory is applied in new domains and to evolving communicative situations, the theory itself evolves to account for the data, a feature particularly relevant to SF-MDA (e.g. Bateman 2008; Caple, 2009; Djonov, 2005; Kress & van Leeuwen, 1996; Martinec, 2005; Martin, 2008; O’Halloran 2005; van Leeuwen, 1999).

Thus, the social-semiotic approach adopted in this thesis is intended as a complementary contribution to other approaches used in studying online newspapers, such as Barnhurst’s (2002) content analysis; Boczkowski’s (2004a, 2004b) ethnography; Cooke’s (2003) use of grounded theory, Lowrey’s (1999) use of
interviews; Perlmutter’s (2003) reflective approach, Utt & Pasternack’s (2003) use of questionnaires; Bateman (2008) and colleagues’ (Bateman, Delin & Henschel, 2007) document design approach, and Stark Adam, Quinn & Edmonds’ (2007) eyetracking research. No single research approach can tell us all we need to know, and no single research project can employ every worthwhile approach. What is required is for each approach to move forward with some knowledge and understanding of the others, so that we can complement each other’s strengths and cover each other’s weaknesses. The current research is intended to contribute to such a broad, co-operative approach to understanding online newspapers.

In terms of object of analysis, this project focuses primarily on analysing pages and their elements. A rank scale is proposed in Chapter 5 in order to contextualise Chapters 6, 7, and 8 (structurally and theoretically) and to explore the applicability of rank in MDA, but detailed analysis of the relations between pages, so important to the ways in which hypertexts mean, has not been undertaken in this study. Djonov’s (2005) account of website navigation provides a foundation for developing the frameworks developed in this study in such a way that they can take account of this aspect of meaning. Additionally, work by Zhao (2010) on integrating time into theoretical accounts of hypertexts re-defines units of meaning in terms of readers’ different paths through hypertext. These approaches highlight an analytical limitation of the current study: the treatment of the texts analysed as ‘independent’ units of meaning. This is a useful construct for making analysis manageable and providing a ‘foothold’ on which more extensive analysis can build, but is also an important limitation which must be acknowledged and, in future research, overcome.
Building on the current study, an obvious direction for further research is the evolving genres in online newspapers, such as image galleries which sometimes also employ written language, slide shows which integrate written and/or spoken language with images, and the ‘videobites’ which are now commonplace in online newspapers and on their home pages. These ‘videobites’ presumably draw in part on the conventions of television news reporting, but may or may not also draw on the conventions of newspaper reporting.

In summary, the analysis conducted in this thesis draws on one theoretical approach, and analyses texts as ‘independent’ units. These delimitations of the research have made the project manageable, and provided a basis on which future research following a similar approach can build.

9.3.3 Limitations and opportunities: Conclusion

In summary then, the current study, like all research, has a number of limitations. These relate to the data set and to the analysis employed. Each of the limitations points to useful directions for further research, and each can be understood in relation to the inevitable process of making choices in the course of designing and conducting research, choices which create limitations and deficits in some areas, while allowing investigation to proceed and produce knowledge in others. The findings provide opportunities for related studies using similar and/or complementary approaches to build upon the tools and descriptions developed here.
9.4 Implications

Having considered the limitations of the current research project in the previous section, the implications of the research are now considered. The implications of the findings are considered in terms of their relevance for SF theory; for the critical study of the world wide web, the mass media, and in particular online newspapers; and for pedagogy in the areas of literacy and media discourse.

9.4.1 Implications for SF theory

The research reported here is an application of systemic functional (SF) theory, rather than an attempt to develop the theory. For this reason, its ramifications for the theory are relatively minor, though there are a number of contributions worthy of mention. These are the ability of Kress & van Leeuwen’s (1996) visual grammar to account for many aspects of the visual design of news on online newspaper home pages; the theoretically (though not descriptively) comprehensive rank scale for online newspapers; the multi-semiotic realisation statements in the systemic description of newsbites; and the identification of thumbnail images as an instance of the expanding expression plane of language.

To begin with the application of Kress & van Leeuwen’s (1996) visual grammar to online newspaper home pages, aspects of the framework developed by Kress & van Leeuwen do account for the data in this study. As an attempt to account for visual texts which vary widely in both design and use, it is not surprising that some adaptations have been made to account for online newspaper home pages. These include:
• the development of visual taxonomies, in which the covert / overt distinction has been modified, and the homogeneous / heterogeneous cline introduced

• the identification of modality variables specific to online newspapers, including stasis, and order in the use of shapes and space

• the identification of information-value variables generated specifically from online newspaper homepages.

It is likely that adaptations such as these are, in many cases, genre-specific (see Bateman, 2008).

Turning to the development of a rank scale for online newspapers, as discussed in Chapters 3 and 5, rank scales have been developed for a range of non-linguistic and multi-semiotic genres. In the published literature on SF-MDA, however, class-function cycles have not, in general, been explicated, and systems at various ranks have not been elaborated (Zhao, forthcoming).

The rank scale developed in Chapter 5 shows that rank is more than just a heuristic for multimodal texts, and that it can be applied in a theoretically thorough manner. Nonetheless, it is worth highlighting that online newspapers, while inherently multimodal and multi-semiotic, are texts which belong to a macro-genre which historically is very much based on language, containing texts of genres in which the semiotic resource of language plays a central role. It may not, then, be surprising that the structural principle of constituency as developed and used in linguistics is also applicable to this macro-genre.
At face value, rank is easy to apply to analysing online newspapers. It is clear that texts combine on pages, pages combine into website sections which combine to make up a website. But the shortcomings of rank as an analytical tool are revealed in the detailed development of the rank scale, and the elaboration of class-function cycles and systems at each rank. This illustrates the need for SF-MDA studies using rank to develop rank scales in a theoretically comprehensive manner, making explicit the class-function cycles and systems at each rank. This is time-consuming, and the volume of metalanguage required in generating both class and function labels is challenging, and often frustrating. Nonetheless, the process of distinguishing functions from classes, and developing an understanding of where the systemic oppositions (and therefore the ranks) lie is a theoretically important one, making the description both empirically and theoretically accountable in a way not otherwise possible. Without such an approach, the value of proposed rank scales, and their ability to account for the data they are intended to describe, are much harder to evaluate.

Turning now to the systemic description of newsbites in Chapter 7, each of the systems in Chapter 7 set out the paradigmatic choices in newsbites at the rank of text, and give realisation statements, or statements of the structures that realise the paradigmatic choices (see Chapter 3). The realisation statements in Chapter 7 are multi-semiotic, involving language (e.g. Focus, Event), colour (e.g. Hyper-Focus, Tradition-Focus), hyper-textual distance relations (e.g. Link, Tangent, Navigator), image (e.g. Illustration, Lure), and layout (e.g. Verbal Frame, Border).
It is axiomatic to SF-MDA that genres are multi-semiotic (see Chapter 3). The multi-semiotic realisation statements in Chapter 7 illustrate that newsbites instantiate a genre that is *systemically* multi-semiotic. That is, these texts are not only multi-semiotic in their structure, but the meaning potential they instantiate can also be mapped multi-semiotically. To reiterate, newsbites are *systemically*, as well as *structurally* multi-semiotic.

Newsbites are obviously not unique in this regard. Most written texts combine a range of semiotic resources. There are generic patterns observable across the semiotic resources of language, layout, and image in written texts, and spoken texts combine semiotic resources of language and gesture, along with proxemics and the use of space, dress, and others. This suggests that the systemic choices available to writers and speakers are typically multi-semiotic, yet while this is implicit in much or all of the work in SF-MDA, system networks have not typically modelled choices in this way (though cf. Djonov, 2005; Martinec & Salway, 2005).

Finally, we turn to the description of the expanding expression plane of language and the use of thumbnail images as punctuation on the home page of the *SMH*. The question of how to model the expression plane of language, and where the boundaries of language lie is raised by work such as that by van Leeuwen (2005a, 2006) on typography; Matthiessen (2007) on writing; and Martinec (2004), Hood & Forey (2005), and Zappavigna et al. (2010) on gesture. The phenomenon of thumbnails functioning as punctuation on the home page of the *SMH*, where they realise the Hyper-Theme of newsbites and ‘point’ textual boundaries on the home page, describes another development in the meaning potential of language on the
expression plane, and a challenge for SF theory. As van Leeuwen (2006) observes in his investigation and description of developments in typography:

> The problem is, concepts and methods for analysing this new kind of writing, its coherence, and hence its potential effectiveness, lag behind the techniques we have for analysing traditional writing. (p. 141)

This means that frameworks developed for intersemiosis (e.g. O’Halloran, 2005, 2008) are likely to combine with ‘traditional’ SF approaches to describing writing to provide more useful models of the written texts of the present and the future (cf. Kress & van Leeuwen, 2001; Martin & Rose, 2008; Matthiessen, 2007; van Leeuwen, 2005).

In summary, the major contribution of this thesis is not to develop SF theory, but it nonetheless has a number of implications for the theory. It extends aspects of Kress & van Leeuwen’s (1996) visual grammar in ways specific to online newspaper home pages, and that may also be applicable to other texts. It confirms the applicability of rank scale as an analytical tool for the description of multimodal texts, and also models how such descriptions may proceed in a more detailed and thorough manner than has applied in the published literature in SF-MDA to date, while pointing to limitations in this theoretical approach. It establishes that genres can be systemically multimodal, and that the expression plane of language is developing and expanding in response to the rapid evolution of the emerging communicative contexts found in new media, such as that described in this thesis.
9.4.2 Implications for discourse analysis

Critical studies of the mass media, and in particular newspapers, have long examined the language of news reports, and SF linguistics has informed a great deal of such work. Critical studies of the use of images in news are also well established, and more recently, critical studies of the visual design of newspapers have also begun to emerge (Chapter 2). This thesis contributes to this relatively new area of study, and has implications for the ways in which texts are analysed in critical studies of the mass media, and also for our understandings of the changing nature of what a text is in new media.

Beginning with implications for analysing texts, the current research provides a framework which critical analysts can apply in examining texts and corpora. The representation of Australians on overseas drug charges on the home page of the SMH as discussed in Chapter 6, for instance, provides an illustration of one way in which the framework developed in this thesis can be applied. Such an approach can work together with detailed linguistic analysis and image analysis to provide a more complete understanding of the ways in which individuals and groups are construed and evaluated in online newspapers (see Appendix J).

Additionally, the current research provides for a better understanding of the relations between institutional practices and the visual design of news. Texts tell us about their producers and their conditions of production, and this is as true for the choices in their visual design as for the choices in their use of language and image. The current project informs a critical perspective on media discourse, contributing to an understanding of the ways in which meaning is made, and the kinds of meaning
that *can* be made in these texts. The ideology of a news text is not a simple matter of the political position expressed in the content of the text: it is a complex phenomenon which lies in the structures of communication, and the possibilities available to and chosen by the authors. Mapping (a portion of) the visual possibilities available to news authors on the page (Chapter 6), the multi-semiotic possibilities available in newsbites (Chapter 7), and the emerging conventions of images and their use in online news (Chapter 8) affords better understanding of the construal of ideology in news discourse, as the visual and verbal design of stories affords and constrains the choices available to online newspapers as they position actors in stories. These choices construe relations between the news institution, represented social actors, and the audience. In this way, newspapers ‘carve out’ their ideological space in the social order.

This brings us to the second point discussed in this sub-section, which is closely related to the foregoing discussion of ideology: the implications of the current study for understandings of what a text is, and of emerging genres in new media. Chapter 7 illustrates how the fragmentation of media discourse on online newspaper home pages requires the institutional authors of the newspaper to construe, and to value news in new ways. Online newspaper home pages are a new way of telling stories. In such a semiotic environment, understanding the different timescales on which texts work becomes increasingly important.

Readers interact with online news texts on three timescales: seconds, minutes, and years. Beginning with the shortest timescale, newsbites and other short texts which appear on online newspaper home pages are read on a timescale measured in
seconds. Such texts ‘fit’ relatively well with existing notions of ‘what a text is’, as do the news stories which appear on story pages in online newspapers (many of which are also read on a timescale measuring in seconds).

The verbally short texts appearing on online newspaper home pages have little or no extended argumentation. Nonetheless, they are very important texts in online newspapers. They dominate the ‘prime real estate’ of the home page, and are the first news texts that readers typically encounter on any given reading of the newspaper (in many cases they are the only ones). As media discourse becomes less ‘linear’, short news texts such as newsbites and newsbits become more pervasive, and therefore increasingly important in understanding the construal of ideology in media discourse. As a result, the ability to analyse short texts and understand the ways in which they communicate multimodally (as examined in Chapters 7 and 8) also becomes more important.

In contrast with texts of such ‘elemental’ genres (Martin & Rose, 2008) or ‘mini-genres’ (Baldry, 2000) are texts instantiating macro-genres, which organise shorter texts of elemental genres into longer texts in a principled, coherent manner (Martin, 1994; Martin & Rose, 2008; cf. Christie, 1997, 2002; Piriyasilpa, 2009). The online newspaper is one such macro-genre which includes news features, editorials, commentaries, hard news stories, video reports, audio reports, photographic essays, and slide shows, in addition to the newsbites and newsbits on home pages and section pages. For convenience, we can call an entire edition of an online newspaper, when viewed as a single text, the \textit{newspaper-as-text}. Readers are likely to interact with the
newspaper-as-text on a timescale of minutes (Barthelson 2002; Thurman 2007) rather than seconds.

An online newspaper is a non-linear text. The reader can choose their own reading path on the home page, and also from the home page by following links to any section of the newspaper.

Non-linear texts impose a paradigmatics. They select the elements that can be viewed and present them according to a certain paradigmatic logic, ... but leave it to the reader to sequence and connect them. (Kress & van Leeuwen, 1996, p. 223)

So, while the reader of an online newspaper is left to connect elements (or individual news texts) of the newspaper-as-text syntactically, it is the institutional authors of the newspaper, not the reader, who determine the ideological paradigm and the positioning of news stories therein (Chapters 6 and 7).

This is also the case in print newspapers. However, despite consistencies in their visual design (e.g. Barnhurst & Nerone, 2001; Evans, 1976; Kress & van Leeuwen, 1998; Utt & Pasternack, 2003), the degree of regimentation of story length, visual presentation of stories, and page layout on print newspaper pages is far less than that found in online newspapers, and the extensive use of newsbites (and other short texts such newsbits) in online newspapers also leads to a greater atomisation of news content.

Home page design (on both home pages functioning as Orientation in home sections, and home pages functioning as Briefing in content sections) plays an important role on this second timescale. On home pages, newspaper authors present
actors, events and issues they value as current and immediate. At the same time, the
design of home pages allows them to present other actors, events and issues which
may be less current, but also important in the value system of the newspaper. In this
way, ‘big’ stories or issues can be kept ‘simmering in the background’ of the
readership’s collective consciousness. On home pages, the news content of each
individual story is kept to a minimum, while actors and events in those stories are
valued relative to those in other stories (Chapters 6 and 7). Home pages, through
newsbites, highlight the ‘interpersonal peak’ of each story (Chapters 7 and 8), and
readers are kept well informed interpersonally on a range of issues, but well informed
ideationally only with regard to those stories they follow to story pages in content
sections of the website (cf. Barthelson, 2002; Holmqvist et al., 2003).

Over the timescale of minutes with which a reader interacts with the
newspaper-as-text, then, the structure of newsbites and newsbits (short on content, big
on valeur) and home pages play an important role in achieving the ideological
objectives of the news institution, whatever navigational paths the reader follows.

Turning to the longest of the three timescales, each edition of the newspaper-
as-text presents the institution’s version of what is important to know on a given day.
Over time, a cumulative store of knowledge of events, of important individuals and
groups and their typical actions is shared among the writers and readers of the paper.

At the same time, letters pages, feedback through other media, social
interaction between journalists (in their personal and professional lives) with other
members of society, blogs, published reader comments on stories, and ‘citizen
journalism’ mean that there is an ongoing dialogue between the institution of the newspaper and its readership. Viewed this way, each edition of a newspaper can be seen as one turn in a dialogue between the news institution and its readership - a dialogue which spans years, even decades (cf. Bakhtin 1986, p. 92; Lemke 2003, pp. 141-146). This dialogue can be called, for convenience, the **newspaper-as-dialogue**.

Thus, Bakhtin's terms, each edition of the newspaper-as-text may be considered one utterance, or one turn in the newspaper-as-dialogue (cf. Bakhtin, 1986, pp. 60-61).

> However monological the utterance may be (for example, a scientific or philosophical treatise), however much it may concentrate on its own object, it cannot but be, in some measure, a response to what has already been said about the given topic, on the given issue, even though this responsiveness may not have assumed a clear-cut external expression. (Bakhtin, 1986, p. 92)

One story in a newspaper is a text within a text within a text: a story within an edition of a newspaper within a dialogue between the institution of the newspaper and its readership. The dialogue is complex and heteroglossic, and it unfolds within a particular dynamic and complex context of culture and in relation to the communicative conventions of the social institution of the newspaper.

Yet despite this dynamism and complexity, within each individual newspaper, the visual presentation of information remains remarkably consistent edition to edition, given the potential which exists for dynamism. Newsbites are constructed to a predictable length and appearance, and are structured verbally to meet both the visual demands of the computer screen and the social functions of the news institution. Homepages are arranged ideationally, interpersonally, and textually with a remarkable degree of consistency day-to-day.
Regardless of the differences in verbal and visual content between individual news stories (however often they are updated), each newsbite is positioned and read in a consistent ideological paradigm construed multi-semiotically.

Readers can still navigate to story pages and read news texts which are longer than newsbites - other news genres have not disappeared from online newspapers. Even so, longer news stories are mostly accessed initially through home pages. The tendency is towards shorter news texts organized in a rigid visual template, and readers interact with all news texts on very short timescales, measured in seconds or minutes at most. As discussed above, from a Bakhtinian perspective, their interaction with the newspaper-as-dialogue can be typically measured in years or even decades, and it is this text - the extended dialogue between a news institution and its readership and the paradigmatic possibilities it encodes - which grows in importance ideologically as readers interact with other texts on shorter timescales.

This development in the practices of news production and reception can be seen in relation to broader social developments.

The higher levels of the system are now buffered against changes in text-type and text content ... . Fundamental changes in the system now take place at longer timescales. The types of change at shorter timescales which were formerly significant matter much less at higher scales of organization, if at all. (Lemke, 2003, p. 147)

Viewed from this perspective, online newspapers are developing in such a way that a variety of shorter texts contribute to the unfolding of a superordinate text with a much more pliable syntactic structure, and which spans a much longer timescale.
As news stories become shorter and more atomised, the ideological representations in a single news text take on less and less significance, and the paradigm in which they are positioned becomes increasingly important. A reader’s interaction with an online newspaper is chaotic - a particular reading path cannot be predicted, and the path and exit point cannot be determined by the entry point and the entry conditions. Over the course of time however, collective order emerges from the chaos of individual trajectories, and patterns of meaning emerge. It matters less and less what a particular news text says (and it is increasingly likely to say very little in any case), and more and more what patterns emerge across the newspaper-as-dialogue. So as individual news texts become shorter and shorter, ‘the instantiation of the system in text’, or logogenesis (Martin & Rose, 2003, p. 267) by necessity traverses traditional textual boundaries. In such hypermodal texts (Lemke, 2002), a variety of voices and viewpoints can be comfortably accommodated within a dominant ideology which carries what Hall (1982, p. 81) calls ‘the warrant of “common sense”’.

Viewed historically, print newspapers emerged in a social context where they were providers (and therefore producers) of information. Over time, they also became gatekeepers. As competition developed between newspapers, and then with other media (radio, television), the gatekeeping role was shared, but newspapers had to package their product in ways that would maintain their existence. With the emergence of the internet, mass media institutions no longer gatekeep information. Anyone who wants to learn about any news story or issue can find the information on the world wide web in a variety of fora (often even in nation states where censorship is practiced). But structures of social inequality are reproduced on the internet
Chapter Nine: Conclusion

(Golding & Murdock, 2000), so mass media institutions came to the world wide web with a head start, and still command a large audience.

In this social semiotic environment, newspapers depend on developing and maintaining a loyal readership in order to achieve their economic and ideological objectives. They must compete with other online newspapers - published the world over in the case of English-language online newspapers - and also with a growing array of traditional and new media.

In line with the historical, social, and textual changes brought about by the world wide web, online newspapers have evolved in a context where the control of access to information is almost irrelevant: the control over the value of information is where social power lies. And this is where home pages and newsbites fit so neatly, providing a wealth of short stories which function as ‘entry points’ to various sections of the newspaper. These stories are valued relative to one another, and their paradigmatic meanings are opaque, and relatively inconsequential on a timescale of seconds or minutes. On a timescale of years, however, their contribution to the ideology construed in the newspaper-as-dialogue is far from inconsequential.

SF theorists have studied texts unfolding over longer timescales for a considerable time. Examples include Fowler’s (1991) account of the ‘salmonella-in-eggs affair’ in the British press; Christie’s (1997, 2002) descriptions of curriculum macro-genres; Iedema’s (2003) discussion of the resemiotization of meetings into reports into plans into a physical building; and Henderson-Brooks’ (2008) account of change in a patient over the course of psychotherapy sessions. Studies such as these,
together with those of Djonov (2005, 2007, 2008) and Zhao (2010) which provide complementary perspectives on the nature of web-based texts, provide points of contact for the current research, and directions in which studies of the newspaper-as-dialogue may be extended.

In conclusion to this sub-section, the implications of the current study for critical analysis of the mass media are that the framework developed here can be applied to the analysis of ‘short’ texts, and also of collections of such short texts over time. In addition, the current study contributes to developing an account of the ways in which ideology is construed in online newspapers over different timescales. Obviously, there is much work yet to be done in this area, as our existing understandings of what texts are and how they operate are fundamentally challenged by the emerging genres of new media (Martinec & van Leeuwen, 2009). The ways in which online newspapers can mean are changing, and our descriptive tools need to move with them.

9.4.3 Implications for pedagogy

Considerations of pedagogical applications have received little attention in this thesis. Yet developing pedagogical explanations and approaches which can be applied to teaching online newspaper discourse (and to texts instantiating related genres) is an important long-term goal of the current work. This thesis has implications for pedagogy in two areas: language education and professional development for (prospective) media practitioners. These are considered in turn.
Looking first at the implications for language education, the work of Kress & van Leeuwen and their colleagues has already had significant impact on first-language (L1) literacy education in countries such as the UK and Australia. The theoretical and descriptive findings of this study can contribute to educational work in this area. But it is the area of second-language (L2) education that has particular resonance for the author of this thesis.

L2 education, especially in foreign-language (FL) contexts, needs target-language texts, and genuine communicative contexts for both teachers and learners. Newspapers have long provided a valuable source of materials for L2 contexts, but historically, access to target-language newspapers in FL contexts has been limited at best, and more often non-existent. The rise of online newspapers has changed this, and provides a useful source of texts for teachers and students in FL contexts, giving access not only to authentic target-language texts, but also to common and current discourses in the cultures where the target language is spoken.

Critical approaches to L2 pedagogy are well-established in the relevant literature, but multimodality is still a relatively new factor in L2 education. The current study provides materials and curriculum developers with explicit tools for developing materials and tasks which combine critical and multimodal perspectives on online newspaper discourse.

86 In the field of second language education, a common distinction is made between second-language (L2) contexts (where the target language is widely spoken in the community in which the learners are situated), and foreign-language (FL) contexts (where it is not). ‘Second language’ (or L2) is often used as a superordinate term to cover both L2 and FL contexts, and this applies here unless otherwise indicated in the text.
By approaching newspaper discourse as multimodal, the communicative practices employed in online news stories and on online news pages can be explained overtly and systematically, and language learners can be given explicit multimodal and linguistic knowledge which enables them to read, view, and listen to news genres effectively and critically (see Callow, 1999; McCabe, O’Donnell & Whittaker, 2007). In addition, learners can use this knowledge and these communicative skills in the production of their own multimodal texts in a range of genres in the communicative environments in which they use their second language.

Turning to implications for pedagogy for (prospective) media practitioners, the newspaper journalists of the future need to be able to write for the web, regardless of whether print newspapers survive in something close to their current form, evolve into something quite different, or become extinct. The genres of online newspapers are evolving rapidly. Editors and journalists have learned their craft from centuries of institutional practices which have evolved with ink and paper. After less than two decades, pixels and screens have proven that their impact on the communicative practices of individuals and institutions will be at least as profound as that of Gutenberg’s printing press, probably more so. The better understanding that journalists and other institutional authors have of the affordances and constraints of the medium of the world wide web, and the better understanding they have of the ways in which visual design means, the better they will be at their craft and the faster they will adapt to the changes they inevitably face.

For both language education and professional development of (prospective) media practitioners, the key challenge will be to translate theoretical principles and
empirical descriptions such as those outlined in this thesis, and communicate them in a way that is engaging and of continuing interest to those who might learn them. To borrow and mix metaphors from both Kress & van Leeuwen and the language education literature, this will involve the development of ‘pedagogical multimodal grammars’ of online newspapers: i.e. accessible and tailored renditions of the descriptions provided in this thesis. Such work is already well established in the area of L1 literacy, and this thesis can contribute to expanding the domains in which this ongoing work is applied (cf. Callow, 1999; de Silva Joyce & Gaudin, 2007; Martinec & van Leeuwen, 2009). This, however, is another step in a larger project, and beyond the scope of this thesis (though see Appendices F and J).

In conclusion, online newspapers are likely to grow in importance for language education and media professionals. We are witnessing the rapid genesis of new kinds of texts which operate on a number of different timescales, and which cohere in new ways. And for so-called ‘digital natives’, hypermedia texts such as online newspapers, their home pages, and newsbites are as ‘natural’ as casual conversations, text books, television commercials, and comics. In such an environment, the development of pedagogical approaches based on theoretically consistent and rigorous description is vital if we are to avoid re-inventing the wheel at every new genre, in every new context, for every group of learners.

9.4.4 Implications: Conclusion

Online newspapers provide a challenge for the theories we employ to analyse and understand texts, for the critical analysis of such texts, and for the development of pedagogical approaches by which knowledge and understanding of such texts can be
taught and learned. These challenges are significant, and meeting them will require a range of approaches, and sustained effort. The current research has implications for meeting these challenges, and is intended as a contribution towards understanding of online newspapers and the roles they play in a range of social contexts.

9.5 Conclusion

Over the centuries, newspaper institutions have become hegemonic institutions, and the multimodal design of newspapers is an enactment of the social (re-)production of power relations: the power of newspapers lies in their discourse, and this discourse is fundamentally multimodal.

In the early 21st century, newspapers face discursive competition as never before. In the commercial and ideological ‘attention economy’, online newspapers must compete not only with a much greater number of newspapers in a globalised market, but also with other fora accessed through other media, both traditional (e.g. television, radio) and emerging (e.g. mobile phones and other portable devices). The numbers of social networking and other user-generated-content sites, on which anyone with an internet connection can construct and mass-distribute information and opinion quickly and cheaply, are growing, and the scale of this growth brings innovation, failure, and success, or in short, evolution.

The meaning potential of humanity is expanding rapidly. And with this expansion comes a potential realignment of power. Some see these changes as a great democratising movement, and power relations are undoubtedly at stake in a way that
they were not before the world wide web. But hegemonic institutions such as online newspapers are not sitting idly by. Indeed, they are scrambling to stake their claim on the web in order to maintain, or extend their hegemony. This is reflected in the rapid evolution of new forms of news discourse (Chapters 7 and 8).

Newspapers have always depended for their survival on being at the edge of information construction and distribution, and the institutionalised power and adaptability of newspapers remain as strengths. The speed of the evolution of the macro-genre of the online newspaper is remarkable. New genres such as newsbites, newsbits, ‘videobites’, slide shows, blogs, and image galleries are commonplace. Not only this, but story pages often allow readers to link these pages to the very fora that may collectively threaten the newspapers’ existence (e.g. del.icio.us, Digg, Facebook, twitter), fora that represent methods of communication that literally did not exist when this research project began. In this way, newspapers become integrated in readers’ web-mediated social networks.

But whether they do it by means of print newspapers, so-called ‘digital editions’, online newspapers, or otherwise, newspaper institutions will need to do a better job than the authors who publish on user-generated-content sites, social networking sites, in personal blogs, and in whatever communicative environments evolve in the future. The *Bangkok Post, People’s Daily, Sydney Morning Herald*, and the thousands of newspapers published around the world will need to continue attracting attention.
Newspapers came to the internet with an advantage, and the established, shared position of power they have held is reflected in the consistent semiotic structures by which they construe the world and relate to their readers (Chapters 5 and 6). But the environment has changed, and continues to do so. The ‘rivers of gold’ of advertising revenue are drying up; the relative monopoly on the ability to mass-distribute information is gone; rapid evolution on surprisingly short timescales, such as that documented in this thesis, appears to be the new norm. The construal of ideology is moving from extended argumentation in ‘regulated’ texts through which readers progress from beginning to end, to shorter texts which may be accessed, compiled, read, re-read, or ignored in unpredictable sequences. Power relations between readers, news institutions, and the actors and events represented in online newspapers are in flux.

Newspapers are responding and will continue to do so, and for those of us with an interest in them, it will be fascinating to watch. But whether the next generation of potential readers are as bothered will probably determine how long this particular story unfolds. Whether they survive in some form, or are overwhelmed by competing genres, the coming decades represent interesting times, indeed, for newspapers.