

Genre Characteristics - a Front Page Analysis of 85 Swedish Online Newspapers

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Abstract

The online newspapers entered the Internet in the mid-nineties and since then it has become more and more common to read news online. There is a long tradition of designing newspapers in print but today there is a demand from both academics and practitioners for more knowledge about how to design user friendly news sites. The challenge is to design the online newspaper, in this rapidly changing media, to be the same familiar, user friendly and universally accepted product as the printed newspaper. We have designed a study in three parts to address this challenge. The overall research question is: How can design for a media in rapid development be communicated within a genre? The purpose of the first part of the study, presented in this paper, is to build a framework for identifying genre characteristics and to describe the Swedish online newspaper genre of today. We have conducted a front page analysis on the total population of 85 Swedish online newspapers. We suggest a quadruple of the genre concepts <content, form, functionality, positioning> and a grid to handle positioning when building the framework. To describe the Swedish online newspaper genre we have used the taxonomy for the evolution of cybergenres together with the so called broadsheet metaphor. Aiming at a more comprehensive understanding of the online newspaper genre we modified the model by adding the leaf node 'progressed'.

1. Introduction

Newspapers have a long tradition and centuries of experience behind today's paper formats. Pages, headlines, columns and fonts have been tuned in form and function. They are all part of a user friendly and universally accepted product [1]. Newspapers have an internationally recognizable layout, i.e. the broadsheet or

tabloid format, familiar to readers all over the world. The first online newspapers appeared only a few years ago in 1995, and since then both academics [2; 3] and practitioners [4] have continued to ask for more knowledge about how to design user friendly news sites.

Since Sweden had the fourth largest newspaper consumption in the world in 2001, only Norway, Japan and Finland had larger consumption [5], and most Swedish daily newspapers have an online version today [4], it is relevant to study Swedish online newspapers.

Newspaper as a genre differs from e.g. magazines and journals and looking at newspapers as a genre also allow us to compare various newspapers. Digital newspapers consist of multimedia content, interactivity, immediacy and other media characteristics, which altogether constitutes a specific digital genre. This digital genre, in turn, differs from other digital genres on the web such as e-commerce sites, personal homepages etc. The integration of the web medium and the traditional newspaper genre defines a genre for online newspapers. With online newspapers we refer to local and national daily press with online editions, not branch specific or other newspapers. Categorizing different web sites as genres could help designers to copy and refine the design to reflect resemblance within the genre [6].

The users recognize a genre through a series of visual cues in the layout, e.g. columns and typeface [7]. Schmid-Isler [8] argues that various style patterns have evolved through centuries of practice with fonts, coloring and layout of pictures etc. Designers have to be aware of the user expectations of this practice when designing a genre [6].

Genre pattern can be identified by searching for recognizable types of form and content [9]. Dillon and Gushrowski [10] identified a set of features and components of personal home pages, reporting each elements frequency of occurrence across the sample, resulting in genre characteristics for the personal home

page genre. These characteristics were then compared with the user preferences and expectations of the genre.

The design of online newspapers is still in its infancy [2]. Knowledge and advice about web design is often expressed in for example guidelines and style guides. However, there are problems for designers in a specific genre to use these sources as the principles are too universal. *The challenge is to design the online newspaper, in this rapidly changing media, to be the same familiar, user friendly and universally accepted product as the printed newspaper.*

One approach to address this challenge is to find a way to define genre characteristics for design and a way to communicate design within the genre.

The results presented in this paper are from the first part of three in a larger study and the outcome is a) a framework for identifying genre characteristics and b) descriptions of the Swedish online newspaper genre of today.

In the next section the theoretical background is presented, followed by the method in section three. The study is presented in section four, implications and limitations are discussed in section five and the paper is concluded in section six.

2. Theoretical background

The term genre comes from Latin (genus) and dates back to classical philosophy. Genre is widely used for classification in fields such as arts, literature and media.

The concept of genre was introduced to the IS field as a way of identifying types of organizational communication by Yates and Orlikowski [11]. Genres are produced, reproduced and changed over time. There are rules that genres are enacted through, associated to appropriate elements of genre characteristics [11]. Not all but enough distinctive rules must be followed for a particular member of a genre to be recognizable, i.e. it has the character of 'taken for granted facts'. As noted by Toms and Campell [7], a reader typically recognize a newspaper even before reading the content, through the appearance of columns and headlines that match our understanding of the genre.

There are different views of what characterizes a genre. A genre could be characterized by having similarities in substance and form [11], or it may be characterized by its purpose and form [6; 11; 12]. Swales [13] include 'the rationale behind a genre establishes constrains on allowable contributions in terms of their content, positioning and form' (pp. 52) in his working definition of genre.

In digital environments, genres have often been categorized by the triple <content, form, functionality> [8; 14]. *Content* refers to themes and topics [14], whereas *form* refers to observable physical and linguistic features

[11]. *Functionality* refers to capabilities available through the new media [14; 15].

When changes to established genres become widely shared among members of a community, genre variants or even new genres may emerge. Such changes may be triggered by the introduction of a new communication medium [11; 12]. According to Erickson [16] change of media may even speed up the evolution of a genre. One new genre that has emerged through the introduction of a new media is the online newspaper genre.

Online newspapers have evolved from merely replicating their printed counterpart, changing into variants of the printed edition to become a novel cybergenre according to the taxonomy for the evolution of cybergenres [14]. We refer to this taxonomy as the cybergenre model (see figure 1).

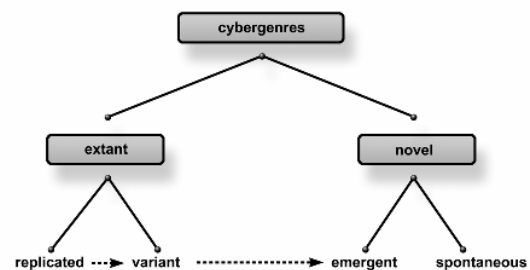


Figure 1. Cybergenre model [14]

Extant genres are based on existing genres in other media that have been transferred into the digital media, whereas *novel* genres are fully dependent on the digital media. *Replicated* subgenres can be described as following the content and form of the counterpart genre in other media and with little new functionality enabled by the new media added. In *variant* subgenres the content and form are somewhat different, with substantial new functionality added. *Emergent* subgenres have evolved from the variant subgenre to the extent that it is only marginally recognizable as the original genre. Significant difference in content and form, and a level of functionality that makes it fully dependent on the new media has been added. *Spontaneous* subgenres are novel cybergenres that do not have any counterpart in other media. In figure 1, the dotted line illustrates that the new functionality afforded by the new medium drives the evolution, and the leaf nodes (replicated, variant etc.) in the cybergenre model can be regarded as stages of genre evolution.

3. Method

We have designed a study in three parts to address the challenge of designing online newspapers. The overall research question is: *How can design for a media in rapid development be communicated within a genre?*

In part one of the study we have chosen an exploratory, qualitative approach, which we refer to as front page analysis, in the process of building a framework for identifying genre characteristics and for describing the Swedish online newspaper genre of today.

Part two of the study concerns the way to communicate design within the genre and the expected outcome is design patterns built and tested in collaboration with both designers and users. Part three is a longitudinal study concerning how the online newspaper genre evolves over time regarding design.

We have analyzed the front pages of the online newspapers since the visual pattern (trademark, columns, headings etc) for a traditional newspaper is strongly related to the front page, which is transferable to the digital media [8]. The front page of online newspapers is very important for getting an overview since browsing the front page can be compared to flipping through the printed newspaper and many users return to the front page to 'start over' instead of navigating [17]. Thereby, there is a need for an online newspaper to be recognizable as a member of the genre through the design of the front page.

For empirical data we initially choose to analyze the front pages of the total population of 110 Swedish daily newspapers with online editions presented by The Swedish Newspaper Publishers' Association [4]. This sample was later reduced excluding a) online newspapers that have a joint web site with another newspaper (here only counted as one) and b) newspapers which only display a 'business card' on the Internet. The final sample includes 85 Swedish online daily newspapers (see Appendix 1) and was used in the process of building, testing and applying the framework. To be able to get a snapshot in time from the sample to be used in the forthcoming longitudinal study, all 85 front pages were printed out on the same day and the printouts were then used in the analysis.

The purpose of the study presented in this paper is to:

- a) build a framework for identifying genre characteristics for the online newspaper genre, and
- b) describe the Swedish online newspaper genre of today as a base for the forthcoming longitudinal.

The framework in its whole emerged from the study is described in the next section.

4. The study

In building the framework for identifying genre characteristics we draw on genre theory using the genre concepts content, form and functionality for digital genres. As the genre characteristics are intended for communicating design, we added positioning to these digital genre concepts, resulting in a quadruple of genre concepts <content, form, functionality, positioning>. This quadruple was used in the front page analysis.

To handle these concepts in the front page analysis we asked the following questions: *What content is presented on the front page?*; *In which form(s) is the content presented?*; *What functionality does the content require?*; and *Where is the content positioned on the front page?* We regard the relation between the concepts as follows: The front page consists of *content* elements - each content element is presented in one or several *forms*, is sometimes requiring *functionality* and is *positioned* on the front page.

To be able to relate positioning to the front pages we divided them according to a column and section grid (see figure 2). Section A and B are visible on the screen in resolution 1280x1024 pixels, whereas one has to scroll to be able to see section C and D. All columns are visible in this resolution. For further clarification, the grid is applied on an online newspaper in figure 3.

Columns Sections	1	2	3	4	5
A	Header of front page				
B	Bt >> Top half of B-section on screen in resolution 1280 x 1024 pixels				
	Bb >> Bottom half of B-section on screen in resolution 1280 x 1024 pixels				
C	Rest of front page				
D	Footer of front page				

Figure 2. The column and section grid

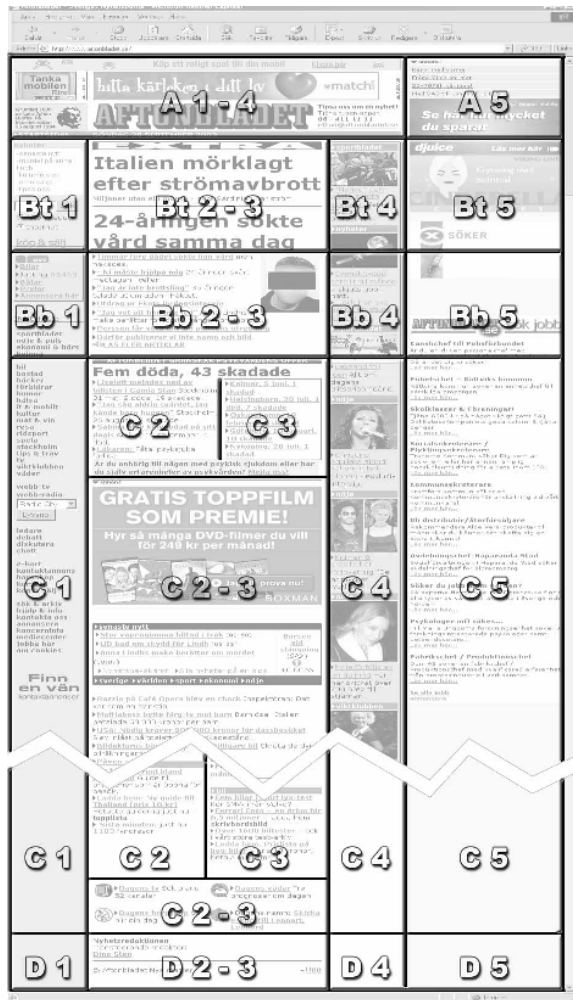


Figure 3. The column and section grid applied on www.aftonbladet.se

To decompose the layout of the front pages we positioned each content element according to the section and column grid. Each content element was then related to form and functionality. In an iterative process we identified all genre characteristics for content, form and functionality. This resulted in a list of genre characteristics specific for online newspapers. This list was revised during the process and when revision was needed we went back to ensure that all characteristics were handled consistently. In the front page analysis all content was identified newspaper by newspaper and was registered in a database with their given position, forms and possible functionality.

Building the framework for identifying the genre characteristics and applying it on the sample gave us a vast amount of data as a base for describing the Swedish online newspaper genre of today. To be able to a) use the description in future comparisons and b) to get a manageable selection amongst the online newspapers that have exploited the media the most for the second part of our study, we chose to use the cybergenre model [14]. The list of genre characteristics was therefore divided into two groups, inheritance and new, indicating degree of evolution (see table 1). Inheritance refers to the genre characteristics that exist in the printed edition of the newspaper and new refers to those that are possible through the new media. In the front page analysis only functionality enabled by the new media was handled and therefore there exists no inherited functionality in table 1.

Table 1. Genre characteristics of online newspapers

CONTENT		FORM		FUNCTIONALITY	
Inheritance	New	Inheritance	New	Inheritance	New
Navigation	Search item	TOC	Bar		Interaction
Nameplate	Video item	Menu	Tab		Real time interaction
Advertisement	Sound item	Logotype	Drop-down menu		Personalization
Classified	Web TV	Photograph	Link		Searching
News article	Web radio	Image	Icon		Showing video
Feature material	News stream	Section head	Text box		Playing sound
Hard composite	News archive	Body text	Radio button		Downloading
Soft composite	Added service	Caption	Banner		e-mailing
Entertainment	Poll	Headline	Timestamp		Broadcasting
Traditional service	Forum for chat	Date	Button		Login functionality
Issue	Membership		e-mail link		
Contact	Debate		Link list		
Letter to editor					

Some of the characteristics in table 1 need further explanation. By traditional services we refer to elements that could be found in the printed edition as well, such as TV schedule, weather, exchange news etc. Examples of added services are job-, real estate- and travel services that include interactivity possible through the new media.

A hard composite is used to present links to many articles within limited space whereas a soft composite present ingresses of a few articles followed by links within a limited space. A news stream present links to recent articles ordered by publishing time [18].

To exemplify the relations between content, form and functionality we give the following examples; The content *search item* can be presented in different forms such as a *textbox*, a *button* or an *icon* and requires the functionality *searching* enabled by the media; The content *video item* can be presented in different forms such as an *icon*, an *image* or a *link* and requires the functionality *showing video* enabled by the media.

When applying the cybergenre model (figure 1) on the empirical data we have identified newspapers with both content and functionality progressed in evolution to the stage of the emergent leaf node. Thus, the lack of

significantly different forms indicates that none of the online newspapers in the sample could be categorized as fully emergent. To enable more comprehensive descriptions of the online newspaper genre evolution, as a base for the third part of the study, there is a need for adding a leaf node to the cybergenre model. This is also needed to get a manageable sample for the second part of the study. We have added a leaf node called “progressed” in our modification of the cybergenre model for online newspapers (see figure 4).

The genre characteristics from table 1 have been categorized according to the leaf nodes replicated, variant or progressed. The characteristics from the “inheritance” column in table 1 were categorized as replicated since they exist in the printed edition. The characteristics of the “new” column were categorized as variant or progressed according to the level of functionality discussed by Shepherd and Watters [14]. The functionality proposed to the replicated cybergenre was exemplified by going to a section or turning page. We consider such functionality as part of the browser, and have therefore not handled it in the model.

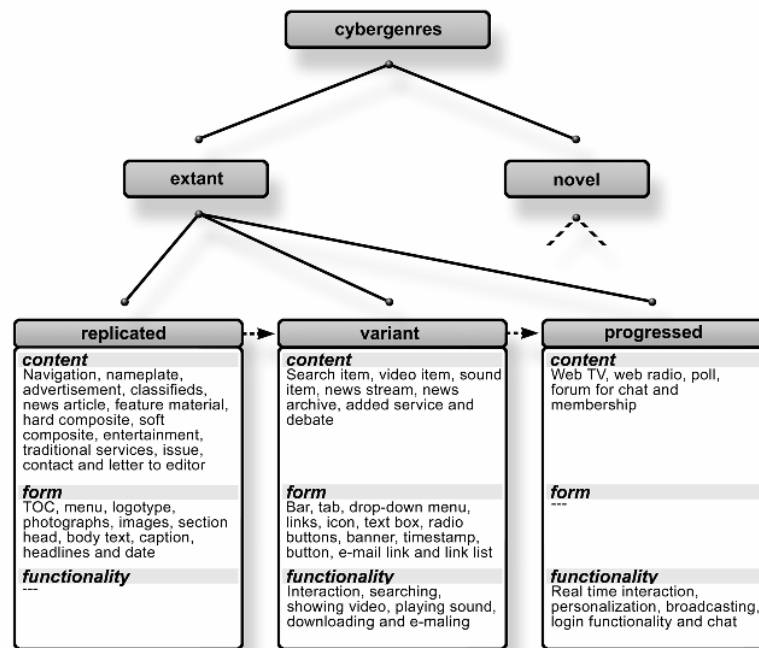


Figure 4. The cybergenre model for online newspapers

To categorize the online newspapers in the empirical sample into the different leaf nodes, we constructed rules that were used when applying the model on the sample.

- A *replicated online newspaper* consists of replicated content elements and form,
- a *variant online newspaper* must have additional variant content elements, form and functionality and
- a *progressed online newspaper* must also have additional progressed content elements and functionality.

Applying the model for the online newspaper genre on the empirical data resulted in a manageable sample of 23 online newspapers for the second part of the study, i.e. those that have exploited the media the most. To further describe the genre as a base for the forthcoming longitudinal study, we used the visual pattern [8] and the definition of broadsheet metaphor [19]. Schmid-Isler [8] divides the visual pattern of a traditional newspaper front page into: a) the name of the newspaper – the brand, b) the number of columns, c) headings, d) photographs and e) table of contents (often to the left). The broadsheet metaphor is described as “a newspaper layout of text and photographs... integrated into a coherent presentation” [19, p.151]. When referring to the broadsheet metaphor




we include both the descriptions of Schmid-Isler [8] and Shepherd et al. [19].

All aspects of the broadsheet metaphor were recognized in 60% of the online newspapers, whereas as much as 83% of the online newspapers followed the broadsheet metaphor in all aspects, except presenting photos on the front page.

There is a difference among the online newspapers regarding the amount and width of columns, e.g. the more evolved the more columns (see table 2). Most online newspapers have an additional column to the right for advertisements, 43 have it as their forth column and 8 as their fifth. Approximately 23% of the newspapers only use the height of the screen in resolution 1280x1024 pixels resolution, showing section A, B and D, since most newspapers have a D section. Independent of the categorization, all online newspapers have a logotype typically positioned at the top center and most have the issue and date in connection to the logotype.

The Swedish online newspaper of today is described in a summary presented in table 2, categorized as replicated, variant and progressed. Each category is described in short using the broadsheet metaphor and an example of the typical online newspaper front page is shown.

Table 2. Snapshot of the Swedish online newspaper genre 2003

	Replicated	Variant	Progressed
Online newspapers	13	49	23
Use of the broadsheet metaphor	Using limited part of the screen space in width and length, 2-3 columns, 50% only use A-B sections, only 4 without left navigation, 6 without photographs	Presenting a lot of content on front page, using 3-4 columns, over 80% use A-D sections, only 3 without left navigation, 13 without photographs	Presenting a lot of content with interactivity using 3-5 columns, almost 90% have long pages using A-D sections, only 3 without left navigation, 5 without photographs
Typical sample			

5. Implications and limitations

We have met the design challenge presented in the introduction through the first step of the suggested approach by finding a way to define genre characteristics. This was done by *building a framework* and applying it on the Swedish population of online newspapers. This process is here summarized in short;

1. identifying the genre characteristics content, form and functionality grouped as inheritance or new (table 1),
2. conducting a front page analysis using the column and section grid (figure 2) for positioning the content elements and relating them to form and functionality,
3. developing/modifying a model for the online newspaper genre evolution (figure 4) by grouping the genre characteristics as replicated, variant or progressed,
4. categorizing the online newspapers as either replicated, variant or progressed according to the model.

This approach is one way of addressing the challenge drawing on genre theory, there are of course others not discussed in this paper. In the process of building the framework we encountered some difficulties. The iterative process of identifying the list of genre characteristics was time consuming. In some cases decisions were made that later were changed and this led to starting all over again. The characteristics for functionality led to the most changes. We only handle the functionality clearly visible on the front page, there is probably more functionality not identified in this study. This process resulted in a final list of characteristics that were easily identifiable on the front pages.

To apply the framework on another sample of online newspapers, for example from another country, would strengthen the framework by revealing eventual shortcomings leading to improvements to the framework. In the same way the framework could be applied on other digital genres indicating its relevance for digital genres in general.

The aim to *describe the Swedish online newspaper genre* of today as a base for the forthcoming longitudinal study resulted in a vast amount of data stored in a database and the categorization in table 2. As Sweden has the forth largest newspaper consumption in the world and most newspapers have an online edition, using the total population of Swedish online newspapers constitutes a trustworthy sample.

Based on the empirical results we suggest some initial layout implications to illustrate how this data can be used for further development. We are using our initial idea of the relation between the concepts for this purpose (each *content* element is presented in one or several *forms*, is sometimes requiring *functionality*, and is *positioned* on the front page). The suggestions are based on the most frequently identified design solutions in the sample.

The content *navigation* is mainly presented as a table of content or a menu and is positioned to the left (in A-B1) or in a bar positioned at the top (in A1-3).

The content *advertisement* is presented in a banner and is positioned at the top (in A1-4), to the right (in Bt3-4) or in the middle (in Bb2-3).

The content *news* article is presented as a body text with headlines, links, timestamp and photographs and is positioned mainly in the middle (in Bt2-3 or Bb2-3).

The content *hard composite* is presented with section heads or headlines, with link lists or links and is positioned in the middle (in Bt2-3 or Bb2-3).

The content *soft composite* is presented as body text with headlines, links and photographs and is mainly positioned in the middle (in Bt2, Bb2 or C2).

The content *news stream* is presented as a headline together with a time stamp and often divided with section heads and is positioned in the middle (in Bt2-3 or Bb2-3).

The content *news archive* is often presented as a link, textbox or button and has the functionality of searching and are mainly presented to the left (in A1, Bt1 or Bb1).

The content *added service* is mostly presented in a banner or with a link, with functionality like searching, interaction or real time interaction and is positioned to the right (in Bt3-4 or Bb3-4) or to the left (in Bb1).

These layout implications can be used as initial input in finding a way to communicate design within the genre, since they are built on genre specific characteristics instead of general web guidelines and style guides.

6. Conclusions and further research

Cybergenres can be characterized by the triple <content, form, functionality> [14; 15]. When using genre theory for design purposes this is not enough. When designing online newspapers, the characteristics that are taken for granted are related to the broadsheet metaphor which requires handling layout. We suggest a quadruple of genre concepts to be used when applying genre theory for design purposes. This quadruple consists of the concepts <content, form, functionality, positioning>. To handle positioning in layout we have constructed a column and section grid, which also can be used for other cybergenres.

Our findings are in line with the discussion of Shepherd and Watters [14] that the online newspaper genre appears to be evolving back to something closer to its original genre in print regarding layout, i.e. the broadsheet metaphor. Since online newspapers are adopting the broadsheet metaphor for their layout and have a counterpart in another media (i.e. the printed newspaper), they can not become novel, emergent subgenres according to the cybergenre model, as they are still recognizable as the original genre (by not having significantly different forms).

To be able to get a richer picture of the Swedish online newspaper genre of today we added the progressed leaf node to the model. This leaf node is specific for the online newspaper genre but it is possible that other digital genres could benefit from this modification of the model.

Identifying the genre characteristics has built good grounds for the continuance of the study. The initial layout implications are intended to be used as input to the second part of the story. This part will address the second step of the approach to the design challenge, which is to find a way to communicate design within the genre. The results have also provided us with a snapshot of the Swedish online newspaper genre for future use in the third, longitudinal study. Our future longitudinal study will give the possibility of understanding more about genre change and how users and designers of online newspapers interact over time.

In conclusion, we have gained a productive way of understanding design for the online newspaper genre, of recognizing the similarities that constitutes the genre in its diversity. Our genre approach to design, takes the concept of positioning into account leading to the quadruple of <content, form, functionality, positioning>. This quadruple together with the use of the evolutionary model by Shepherd and Watters has made our understanding more comprehensive. The addition of the leaf node progressed deepened this understanding further. Although we can not generalize from this study of one genre (in one country) we can draw on this research together with previous research of digital genres to be of significance for future studies.

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References

- [1] A. Gurtler, "History of the development of the newspaper", *Swiss Typographic Monthly Magazine*, TM 4, 1984.
- [2] Nielsen, J., *Designing Web Usability*, New Riders, 2000.
- [3] P. J. Boczkowski, "The Development and Use of Online Newspapers: What Research Tells Us and What We Might Want to Know", in L. Lievrouw and S. Livingstone (eds.), *The Handbook of New Media*, Sage Publications, London, 2002, pp.270-286.
- [4] J. Gunnarsson, *110 svenska dagstidningars webbtjänster*, TDM-rapport nr 10-2002, Teknik och Digitala Medier, Tidningsutgivarna, 2002.
- [5] WAN – World Press Trends 2002, Available at: <http://www.wan-press.info/pages/index.php3>
- [6] K. Crowston, and M. Williams, "Reproduced and Emergent Genres of Communication on the World Wide Web", *The Information Society*, Vol. 16, No. 3, 2000, pp. 201-216.
- [7] E.G. Toms, and D.G. Campbell, "Genre as interface metaphor: Exploiting form and function in digital environments", in *Proceedings of the 32nd Hawaii International Conference on System Sciences*, CD-ROM issued by IEEE Computer Society Press, Hawaii, 1999.
- [8] Schmid-Isler, S. "The Language of Digital Genres a Semiotic Investigation of Style and Iconology on the World Wide Web", in *Proceedings of the 33rd Hawaii International Conference on System Science*, CD-ROM issued by IEEE Computer Society Press, Hawaii, 2000.
- [9] J. Yates, W. J. Orlikowski, and K. Okamura, "Explicit and Implicit Structuring of Genres in Electronic Communication: Reinforcement and Change of Social Interaction", *Organizational Science*, Vol. 10, No. 1, 1999, pp.83-103.
- [10] A. Dillon, and B. Gushrowski, "Genres and the Web: Is the personal home page the first uniquely digital genre?", *Journal of the American Society for Information Science*, Vol. 51, No. 2, 2000, pp. 202-205.
- [11] J. Yates, and W. J. Orlikowski, "Genres of Organizational Communication: A Structural Approach to Studying Communication and Media", *Academy of Management Review*, Vol. 17, No. 2, 1992, pp. 299-326.
- [12] J. Yates, W. J. Orlikowski, and W. J. Rennecker, "Collaborative genres for collaboration: Genre systems in digital media", in *Proceedings of the Thirtieth Annual Hawaii International Conference on System Sciences*, Vol. VI, IEEE Computer Society Press, Hawaii, 1997, pp. 50-59.
- [13] J. Swales, *Genre Analysis*, Cambridge, Cambridge University Press, 1990.
- [14] M. Shepherd, and C. Watters, "The Evolution of Cybergenres", in *Proceedings of the 31st Annual Hawaii International Conference on Systems Science*, Vol. II, IEEE Computer Society Press, Hawaii, 1998, pp. 97-109.
- [15] M. Shepherd, and C. Watters, "The Functionality Attribute of Cybergenres", in *Proceedings of the 32nd Hawaii International Conference on System Science*, CD-ROM issued by IEEE Computer Society Press, Hawaii, 1999.
- [16] T. Erickson, "Social Interaction on the Net: Virtual Community as Participatory Genre", in *Proceedings of the Thirtieth Annual Hawaii International Conference on System Sciences*, Hawaii, Vol. VI, IEEE Computer Society Press, Hawaii, 1997, pp. 13-21.
- [17] C. Ihlström, and J. Lundberg, "The Online News Genre Through the User Perspective", in *Proceedings of the Thirty-sixth Annual Hawaii International Conference on System*

Sciences, CD-ROM issued by IEEE Computer Society Press, Hawaii, 2003.

[18] L. B. Eriksen, and C. Ihlström, "Evolution of the Web News Genre - The Slow Move Beyond the Print Metaphor", in *Proceedings of the Thirty-third Annual Hawaii International Conference on System Sciences*, CD-ROM issued by IEEE Computer Society Press, Hawaii, 2000.

[19] M. Shepherd, J. F. Duffy, C. Watters, and N. Gugle, "The Role of User Profiles in News Filtering", *Journal of the American society for information science and technology*, Vol. 52, No. 2, 2001, pp.149-160.

Appendix 1. The Online Newspapers

NR	NEWSPAPER	WWW	NR	NEWSPAPER	WWW	NR	NEWSPAPER	WWW
1	8 SIDOR	8sidor.se	30	Hallands Nyheter	hn.se	59	Skaraborgsbygden	skaraborgsbygden.se
2	Aftonbladet	aftonbladet.se	31	Hallandsposten	hallandsposten.se	60	Smålandsposten	smp.se
3	Arbetarbladet	arbetarbladet.se	32	Helsingborgs Dagblad	hd.se	61	Sundsvalls Tidning	st.nu
4	Arboga Tidning	arbogatidning.com	33	Hudiksvalls Tidning	ht.se	62	Svenska Dagbladet	svd.se
5	Avesta Tidning	avestatidning.com	34	Hälsinge-Kuriren	halsingekuriren.se	63	Sydsvenska Dagbladet	sydsvenskan.se
6	Barometern	barometern.se	35	Katrineholms-Kuriren	kkuriren.se	64	Sydöstran	sydostran.se
7	Bergslagsposten	bergslagsposten.se	36	Kristianstadsbladet	kristianstadsbladet.se	65	Södermanlands Nyheter	sn.se
8	Blekinge Läns Tidning	blt.se	37	Kungälv-Posten	kungalvs-posten.com	66	Tempus	tempus.se
9	Bohuslänningen	bohuslaningen.se	38	Laholms Tidning	laholms-tidning.se	67	Tidningen Ångermanland	tidningen.to
10	Borlänge Tidning	borlangetidning.com	39	Lidingö Tidning	lt.nu	68	Trelleborgs Allehanda	trelleborgsallehanda.se
11	Borås Tidning	bt.se	40	Ljusdals-Posten	ljp.se	69	Trollhättans Tidning	lt.2stad.se
12	Bärgslagsbladet	bargslagsbladet.com	41	Läns-Posten	lans-posten.nu	70	Ulricehamns Tidning	ut.se
13	Dagbladet Nya Samhället	dagbladet.nu	42	Länstidningen Södertälje	lt.se	71	Upplands Nyheter	tidningshuset.com/un
14	Dagens Industri	di.se	43	Länstidningen Östersund	ltz.se	72	Uppsala Nya Tidning	unt.se
15	Dagens Nyheter	dn.se	44	Mora Tidning	moratidning.com	73	Vestmanlands Läns Tidning	vlt.se
16	Dalabygden	tidningshuset.com/db	45	Motala Tidning	motalatidning.se	74	Vimmerby Tidning	vimmerbytidning.com
17	Dala-Demokraten	dalademokraten.com	46	Nerikes Allehanda	nerikes.se	75	Värmlands Folkblad	vfb.se
18	Eskilstuna-Kuriren	ekuriren.se	47	Norra skåne	nsk.se	76	Västerbottens Folkblad	nyavf.se
19	Expressen	expressen.se	48	Norra Västerbotten	norran.se	77	Västerbottens-Kuriren	vk.se
20	Fagersta-Posten	fagerstaposten.com	49	Norrbottens-Kuriren	kuriren.nu	78	Västerviks-Tidningen	vt.se
21	Falu-Kuriren	falukuriren.se	50	Norrköpings Tidningar	nt.se	79	Västmanlands Nyheter	vastmanlandsnyheter.nu
22	Folkbladet	folkbladet.se	51	Norrländska Socialdemokraten	nsd.se	80	Ystads Allehanda	ystadsallehanda.se
23	Folket	folket.se	52	Norrtälje Tidning	norrtaljetidning.se	81	Ölandsbladet	olandsbladet.se
24	Gefle Dagblad	gd.se	53	Nya Dagen	dagen.com	82	Örebro-Kuriren	orebro-kuriren.se
25	Gotlands Allehanda	ga.helagotland.com	54	Nya Ludvika Tidning	nyalt.se	83	Örnsköldsviks Allehanda	allehanda.se
26	Gotlands Tidningar	gt.helagotland.com	55	Nyheterna	ostrasmland.se	84	Östersunds-Posten	op.se
27	GT	gt.se	56	Nynäshamns-Posten	nhp.se	85	Östgöta Correspondenten	corren.se
28	Gästriklands Tidning	tidningshuset.com/gt	57	Piteå-Tidningen	pitea-tidningen.se			
29	Göteborgs-Posten	gp.se	58	Sala Allehanda	salaallehanda.com			