

Annotated Bibliography of Information Resources Relevant to Indexing Editorial Cartoons for Search and Retrieval

By

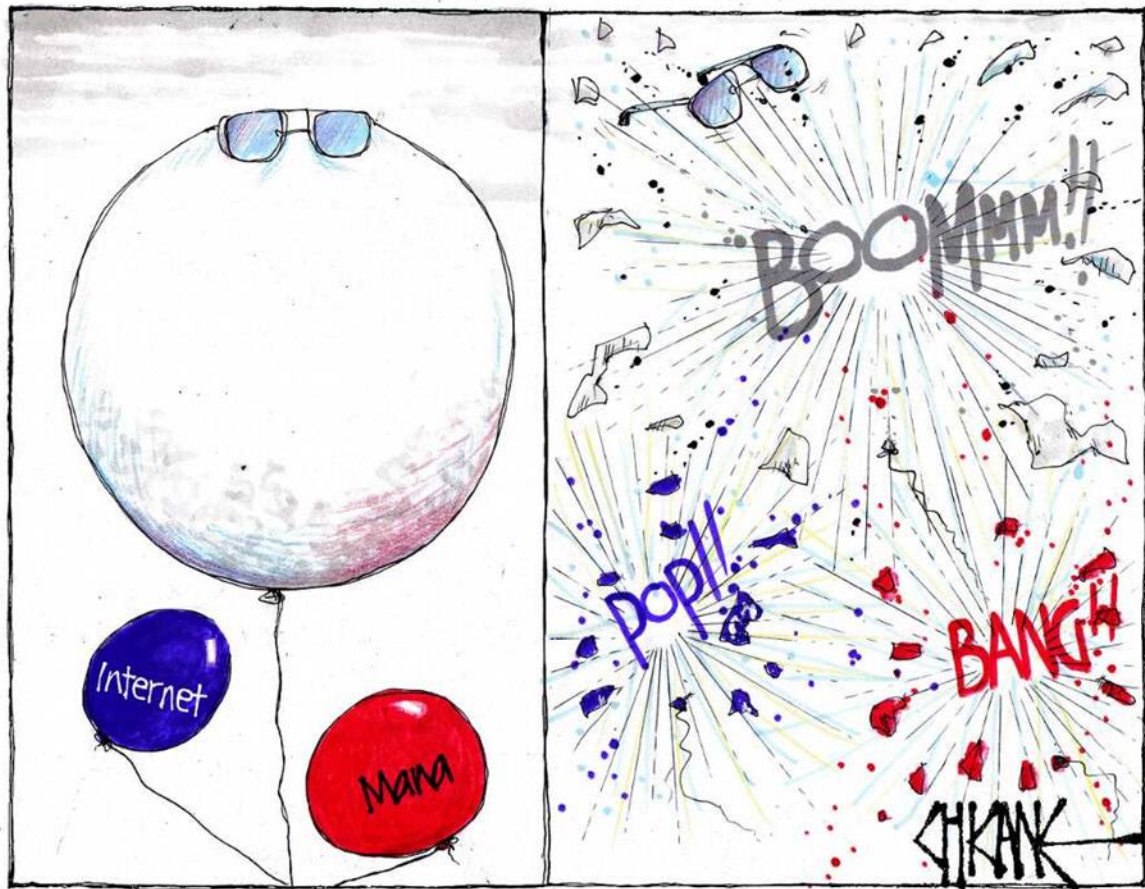
Oliver Stead

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**Oliver Stead
ID: 300358842**

INFO 580: Research Project



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Winter, Mark, 1958- :Pop, boom bang. 22 September 2014
- Tiaki IRN:
DPS:natlib.govt.nz:emu:790377
- Tiaki Reference Number:
REF:natlib.govt.nz:emu:DCDL-0029491
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2014

Description:

Two frames show three balloons floating and then popping with a bang. One version has text for a balloon floating away. The balloons are blue (the Internet Party), red (the Mana Party) and one large white balloon is wearing sunglasses (Internet Party funder Kim Dotcom). Refers to the poor showing of the Internet-Mana coalition in the 2014 General Election results.

Alexander Turnbull Library Ref: DCDL-0029491

Permission to reproduce kindly granted by Mark Winter

FIGURE 1. Digital editorial cartoon by Mark Winter, New Zealand Cartoon Archive collection, Alexander Turnbull Library, National Library of New Zealand; with selected associated metadata.

ABSTRACT

This annotated bibliography takes as its starting point the well-documented literature gap in published research on indexing collections of editorial cartoons for search and retrieval. It attempts to identify a number of key information resources specifically relevant to this field of research. To provide context, the scope of the bibliography is then widened to take account of the broader field of editorial cartoon research, which encompasses studies in academic disciplines including rhetoric, semiotics, art history, political studies, media and communication studies, journalism, and library and information studies. In addition to these perspectives the bibliography identifies some selected recent studies that focus on the ways in which readers receive and respond to information communicated by editorial cartoons. Cartoon controversies in transnational and multicultural contexts, experienced through the international news media since 2000, have dramatically increased research attention and publications in this area. At the same time profound changes in media publication since the advent of the internet have impacted on editorial cartoonists and cartoon publishing, and this is reflected in the literature. The potential for large indexed cartoon collections to be data-mined for topic modelling for research in the social sciences has pointed to the need for indexers of cartoon collections to improve metadata standards and structures to allow improved access to cartoon metadata for computational analysis. While the literature gap in this field is widely acknowledged, this study concludes that there has been a small but significant increase in published research in this field since 2000.

Acknowledgements

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PART 1 INTRODUCTION

BACKGROUND:

The challenges of indexing editorial cartoon collections in a dynamic media environment

Editorial and political cartoons – definitions, formats, and indexing

Editorial cartoons are generally defined as cartoons which contain subject matter and commentary on political or social issues (Landbeck 2002; El Refaie, 2009; Schilperoord & Maes, 2009). They are more likely to be composed as single frames than strips, although some editorial cartoons, such as Garry Trudeau's *Doonesbury* (*The Washington Post*, 2018), are produced as strips (Chen, Phiddian, & Stewart, 2017). Increasingly editorial cartoons are created entirely digitally, rather than in the traditional graphic materials of ink, pencil, paper, and pigment. While the terms 'editorial cartoon' and 'political cartoon' are both used to describe cartoons of a political nature, the term 'editorial cartoon' can be considered a slightly wider term, which allows for published cartoons about social and cultural issues to be considered together with political cartoons (Landbeck, 2002). However in the *Thesaurus For Graphic Materials* the broader term for both 'Editorial cartoons' and 'Political cartoons' is 'Cartoons (Commentary)' (Library of Congress, 2018a). An attempt to identify genres and subgenres of editorial cartoons is discussed by Pedrazzini and Scheuer (2018).

Across the visual art media, digitization of traditional visual art forms (for example paintings, drawings, prints, photographs), and the increasing production of born-digital art forms, (for example photographs and cartoons), has led to the development of large digital image libraries. This in turn has highlighted the need for improved indexing techniques to facilitate access by remote users (Zhou, Li, & Tian, 2017). Traditionally, indexing methods for visual materials have been designed to assist specialist audiences or tailored for particular kinds of collections (Jørgensen et al., 2001). Such methods often utilize thesauri such as the *Thesaurus for Graphic Materials* (Library of Congress, 2018b) and the *Art and Architecture Thesaurus* (Getty Research Institute, 2017), within metadata structures such as VRA Core (Library of Congress, 2018c), and the Dublin Core Metadata Element Set (Dublin Core Metadata Initiative, 2018).

More recent studies into indexing techniques for visual materials have focused on semantic approaches to identifying image content, with the aim of aiding computerized retrieval of data relating to content as well as format. This area of research has seen a convergence of approaches from the fields of library and information studies and computer science, around the concept of content-based retrieval (CBR) (Enser et al., 2007; Zhou, Li, & Tian, 2017). Much of the research in this area has been focused around the challenges of identifying subjects in visual images according to predefined, hierarchical classification structures that attempt to identify levels of meaning in the visual arts. The creation of descriptive metadata for indexing and retrieval of cartoon collections is especially challenging, due to the inherent difficulties for the indexer in correctly attributing subject and identifying implied meaning in individual cartoons (Chapple-Sokol, 1996; Landbeck 2002; Wu, 2013).

Scholars in the field of image analysis have frequently drawn on Panofsky's three-level hierarchy of iconological significance (Panofsky, 1939, 1955), as the basis of efforts to devise controlled hierarchies of subject categories for image indexes (e.g. Shatford, 1986; Jørgenson, 1995; Landbeck, 2002; Wu, 2013). The emergence of social tagging as a democratized, natural language-based, non-hierarchical method of generating indexing

terms has challenged the hierarchical methodologies devised by professional indexers (Rafferty & Hilderley, 2005; Jörgensen, 2007; Rafferty 2011; Stvilia, Jörgensen, & Wu, 2012). The advent of tagging has stimulated debate about the relative advantages of user-generated tags versus professional image indexing, and the use of controlled-authority versus natural language indexing terms.

The present study suggests that since 2000 there has been a limited but significant increase in research on indexing collections of editorial cartoons. In particular the work of Landbeck (2002, 2008, 2012, 2013), Wu (2013), and Johnson and Köntges (2016) has significantly added to this specialised but fascinating field of indexing studies.

Editorial cartoon collections

Large collections of digital cartoons can be accessed via the websites of news media publishers, for example *The New York Times*, *The Guardian*, and *China Daily*. The American Association of Editorial Cartoonists maintains a sophisticated website providing access to archived digital cartoons, in addition to news and educational resources. Increasingly editorial cartoonists maintain their own websites giving access to archived digital cartoons. Extensive collections of editorial cartoons in all formats have been built up for political and social research purposes by universities such as the University of Kent (The British Cartoon Archive), and the Ohio State University (The Billy Ireland Cartoon Library and Museum). National libraries have also developed large research collections of editorial cartoons, including the Library of Congress, Library and Archives Canada, and the National Library of New Zealand (New Zealand Cartoon Archive) (**FIGURE 1**). The practical challenges of managing large collections of editorial cartoons include the large volume of works produced by cartoonists, who are often required by their editors to produce many finished works per month. In archival collections, cartoons created in traditional formats require the technical support of controlled environmental conditions to maintain; archival digital cartoon collecting requires state-of-the art digital curation and preservation resources, including the employment of professional digital archivists, and the use of digital archive systems such as the Indigo and Rosetta systems used by the National Library of New Zealand for long term preservation of digital materials (Love, 2018).

Cartoon controversies

Navasky (2013) provides a brilliant summary of political cartoon history. The figure of New Zealand-born cartoonist David Low (1889-1963), looms large over the history of twentieth-century international political cartooning. Benson (1998) has demonstrated how the unusual license accorded to Low by his publisher Lord Beaverbrook allowed the cartoonist an extraordinary freedom of expression. In the twenty-first century, the role of editorial cartoonists is increasingly at the centre of debate about press freedom. Since the 9/11 terrorist attacks of 2000, the traditionally satirical role of editorial cartoonists in the international news media has come under intense pressure and scrutiny from many directions. In the wake of the 9/11 terrorist attacks some US commentators suggested editorial cartooning was in decline, partly because cartoonists found it challenging to express their natural inclination to negative satire in the context of increasing nationalism (Katz, 2004; Oliphant, 2004).

Editorial cartoons and cartoonists have been at the centre of international controversies, for example the Danish *Jyllands-Posten* Muhammad cartoon controversy of 2005. Some commentators have suggested that editorial cartoons can play a 'healing' role in

the recovery of communities from terrorist attacks (Berkowitz, 2017), while others have suggested that while editorial cartooning may not be in decline, it must take place within a rapidly changing media environment (Danjoux, 2007). Against this dynamic background the editorial independence of cartoonists has increasingly been questioned in the context of press freedom (Dalgaard & Dalgaard, 2006; Berkowitz & Eko, 2007; Veninga, 2016). As recently as 2018 a New Zealand cartoonist and his publisher have been the subject of legal action regarding implied and inferred racial prejudice in their editorial cartoons (Gathey, 2018). Around the world there are many editorial cartoonists who are imprisoned or in danger of imprisonment by oppressive regimes, for example Zunar of Malaysia (Soon, 2011). This has led to the establishment of the Cartoonists' Rights Network International, an organization which helps cartoonists safeguard their freedoms.

Whether or not editorial cartooning is in fact in decline, it continues to attract attention and dialogue. Increasingly this attention is focused in transnational and multicultural contexts (Lægaard, 2007). The *Jyllands-Posten* Muhammad cartoon controversy of 2005 has stimulated studies of editorial cartoons in several academic fields, and the publication of research investigating multicultural and transnational responses to editorial cartoons (e.g. Lægaard, 2007, 2010; Yilmaz, 2011). The fatal shooting of editorial cartoonists, staff and police at the Paris offices of the satirical *Charlie Hebdo* journal in 2015, not only highlighted the sometimes dangerous conditions under which editorial cartoonists may have to work, but also further stimulated research into the multinational aspects of editorial cartooning and reader responses (Mackay & Horning, 2017).

Dramatic changes in traditional news media publishing brought about by the advent of the internet have impacted on editorial cartoonists and their work, with many former staff positions being disestablished by publishers around the world, and many cartoonists becoming independent contractors (Mello, 2007). Such changes have altered the traditionally close relationship between editorial cartoonists, editors and publishers.

Editorial cartoon studies

In a landmark study, Chen, Phiddian, & Stewart (2017) have shown that while an extensive literature on editorial cartoons exists across a wide variety of different academic disciplines, very few attempts have been made to survey this literature comprehensively, to 'map the field' of academic editorial cartoon studies (p. 125).

Editorial cartoons are frequently discussed in studies of visual literacy, but opinion is divided about the extent to which their implied messages are able to be decoded and understood by readers, due to cartoons' reliance on visual metaphor to convey meaning. The combinations of text and visual images that are commonly found in editorial cartoons tend to increase the range and complexity of their implied metaphorical meanings, and their interpretation by readers. Archived editorial cartoons become harder to 'get' as time goes by (Landbeck, 2002). Several classic studies are frequently cited in the literature, that suggest the intended implied meaning of editorial cartoons may not be correctly decoded and understood by many readers (Carl, 1968; Bedient & Moore, 1985; El Refaie, 2009; El Refaie & Horschelmann 2010).

While El Refaie's research has shown that editorial cartoons can be misinterpreted by both students (El Refaie, 2003) and university-educated readers (El Refaie 2009), McGurk (2016) strongly promotes the use of editorial cartoons in the classroom. Schnakenberg (2010) provides a useful summary of the pros and cons of teaching German history through cartoons. Eko (2010) shows that throughout the African continent 'cartoons and caricatures

have become the critical narrative device of choice' (p. 68) in the media. Hammett & Mather (2011) have shown that editorial cartoons are valuable aids for teaching political geography to students in South Africa. The New Zealand Cartoon Archive collection at the Alexander Turnbull Library, National Library of New Zealand has been drawn on extensively for illustrations to published research on aspects of New Zealand's political and social history, and, more recently, the country's history of race relations (Diamond, 2018). Library and Archives Canada provides an online educational 'toolkit' for decoding political cartoons (Library and Archives Canada, 2018).

Because cartoonists frequently utilize a combination of graphic image and text to convey meaning, the academic discourse about them frequently draws on studies of metaphor, rhetoric, and iconology, sourced from a variety of disciplines. The works of twentieth-century linguistic and literary and media theorists, including Bakhtin, Saussure, Barthes, McLuhan, and Burke are often cited by writers analyzing the cognitive processes involved in reading and decoding editorial cartoons. A frequently cited resource is Lakoff & Johnson's influential book *Metaphors We Live By*, which suggests that the human cognitive system is structured metaphorically (Lakoff & Johnson, 1980). This work discusses the implications of common metaphors like 'TIME IS MONEY', together with associated meanings that metaphors sometimes conveniently obscure (Lakoff & Johnson, 1980, p.7). The metaphorical approach is useful for analysts of editorial cartoons in all disciplines. Sörm and Steen (2013) discuss editorial cartoons among other types of visual art materials employing visual metaphor. The concepts of 'aboutness', and 'ofness', (Hutchins, 1977; Shatford 1986) have been useful to scholars researching the design of metadata schemas for visual materials. Thus a political cartoon can appear (for example) to be a picture 'of' an orange lavatory, but be intended by *Guardian* cartoonist Steve Bell to be 'about' US President Donald Trump (Bell, 2016). In other interesting studies, Lan & Zuo (2016) explore aspects of pictorial-verbal metaphor in Chinese editorial cartoons on food safety, sourced from the website <http://cartoon.chinadaily.com.cn>, and Ulubeyli, Arslan, & Kivrak (2015) conduct a semiotic analysis of workplace health and safety cartoons from several countries.

The concepts of modality and multimodality are also valuable in analyzing meaning in images (Rafferty, 2011). Lin and Chiang (2015) discuss multimodal fusion in cartoons addressing US beef imports into Taiwan.

Indexing editorial cartoons for search and retrieval

Over the past two decades there has been an explosive growth in the literature on search and retrieval of images indexed in electronic catalogues and databases (Zhou, Li, & Tian, 2017). However, within this dynamic, rapidly growing field of research, there are relatively few published studies that focus specifically on indexing editorial cartoons (Landbeck, 2013; Wu, 2013; Chen, Phiddian, & Stewart, 2017).

The intellectual challenges of indexing editorial cartoons are complex (Chapple-Sokol, 1996). The difficulty of attributing subject to editorial cartoons for indexing purposes exists both for traditional paper-based cartoon formats, and for digitized or born-digital cartoons. Despite the much-acknowledged paucity of published research on editorial cartoon indexing, there has been some outstanding work done on the topic, notably by Chapple-Sokol (1996), and Landbeck (2002, 2013). As noted earlier, the work of Panofsky (1939, 1955) on identifying levels of meaning in the visual arts has been extremely influential on research by scholars in the field of library and information studies. Research aimed at devising classification and metadata schemas for the description and indexing of visual

materials, including editorial cartoons, frequently cites Panofsky's three-level system of iconological significance (Shatford, 1986; Enser 1995; Jørgensen 1995; Landbeck, 2002) Rafferty, 2011; Winget, 2009; Wu, 2013).

Building on Panofsky's basic three-tier hierarchy, some scholars have proposed more elaborate classification schemes for identifying levels of meaning in images. Rafferty and Hilderley (2005) propose several multi-level models for the classification of levels of meaning in multimedia materials; Jørgensen et al. (2001) propose a 10-level 'pyramid' of image attributes, featuring four syntactical and six semantic levels of meaning, based on Jørgensen's (1995) 12-level classification model for levels of meaning. Wu (2013) proposes an adaptation of Panofsky's three-level model, including sub-level data fields, designed specifically for the description of born-digital editorial cartoons. Wu notes that 'there is no standard metadata scheme for describing digital, political cartoons' (Wu, 2013, p. 287). Some scholars have criticized Panofsky's schema as being inherently hierarchical and Eurocentric, having the potential to be inappropriate or disadvantaging when applied to descriptions of non-European cultural materials (Winget, 2009).

Within public collecting institutions, such as the British Cartoon Archive, it has formerly been the norm for professional indexers to do the work of indexing editorial cartoons for retrieval (Newton, 1999; Seymour-Ure, 2001; Baker, 2013a). With the availability of the internet, indexing projects can be initiated utilizing crowdsourcing, in which non-professional volunteers contribute metadata to indexing records for editorial cartoon collections (Baker, 2013a). Many public collecting organizations around the world provide options for tagging online catalogue entries, whereby users are encouraged to annotate entries for indexed items with non-controlled, natural language subject terms of their own choice. Over time large 'folksonomies' of tag terms develop through the contributions of individual users (Stvilia, Jørgensen, & Wu, 2012). Folksonomies can be presented online in the form of word clouds, which graphically show the relative popularity of tag terms in relation to indexed items. Through this process user-generated indexing can be seen as democratized, rather than hierarchical. While the extent to which social tagging can add value to image indexing has been questioned (Stvilia, Jørgensen, & Wu, 2012; Baker, 2013a), as Wu (2013) has demonstrated, there can be substantial variability of editorial cartoon indexing between professional indexers, even when they are using controlled vocabularies and operating identical business rules.

Many GLAM sector organisations, (galleries, libraries, archives, and museums), including the National Library of New Zealand, maintain exportable data sets for collection records, formatted in schemas such as Encoded Archival Description (EAD)(Library of Congress, 2018a), available for downloading by external users. The emerging techniques of computational topic-modelling in the social sciences have raised the potential for exported metadata from editorial cartoon indexes to be 'data-mined', to help shed light on historical social and political trends (Johnston & Köntges, 2016).

LITERATURE GAP ADDRESSED BY ANNOTATED BIBLIOGRAPHY

As Chen, Phiddian, and Stewart (2017) put it, studies on aspects of institutional collecting, preserving, indexing, digitizing and displaying political cartoons are 'almost non-existent' (p. 147), though they cite Hackbart-Dean (1997) and Landbeck (2013) as exceptions. Hackbart-Dean (1997) and Landbeck (2013) themselves identify this literature gap, as does Wu (2013). The work of Johnston and Köntges (2016) on the usability of

metadata for the New Zealand Cartoon Archive at the Alexander Turnbull Library, National Library of New Zealand, suggests that there is little published research about computational topic modelling using data sourced from cartoons.

This annotated bibliography attempts to address the literature gap identified by the above writers, although it is intended to be selective and indicative rather than comprehensive. It attempts to present selected research resources that specifically address the topic of editorial cartoon indexing, within a wider context of publications that address visual materials indexing more generally, together with selected publications that address the interpretation of cartoons by readers. By doing so, it is hoped that the present work will provide useful information resources for readers interested in indexing editorial cartoons.

PURPOSE OF ANNOTATED BIBLIOGRAPHY

The overall purpose of this annotated bibliography is to provide a useful resource for indexers of editorial cartoons. The selected resources have been chosen to represent four perspectives of approach towards the subject of indexing editorial cartoons, reflected in four intentions which inform the structure of the annotated bibliography.

The first intention of the annotated bibliography is to draw attention to resources that deal specifically with the challenges of indexing of editorial cartoons for electronic retrieval of metadata. This is a narrow field of research, which nevertheless has major implications for the wide range of academic disciplines which draw on data contained in editorial cartoons from time to time.

The second intention is to highlight a selection of literature relevant to the wider theoretical context of image analysis for descriptive and interpretive purposes, of which cartoon indexing is a specialized field.

The third intention is to select and present some recent studies which relate to national, transnational, multinational, and multicultural aspects of editorial cartoons, and reader responses. Inclusion of these resources is intended to assist awareness of the wider social, cultural and political factors, which indexers of editorial cartoon collections must try to highlight and reflect in their indexing work.

The fourth intention of this work is to group together some online resources which are of immediate practical use for indexers of editorial cartoons. These include links to websites and online resources of institutions that house and make accessible major collections of editorial cartoons, and links to webpages and resources for relevant metadata standards and thesauri.

SCOPE

This annotated bibliography is intended to be selective rather than comprehensive in scope. Preference has been given to research specifically relevant to editorial cartoon indexing, published since January 2000. Some earlier publications have been included on the basis of relevance to the theory of image analysis, the topic of indexing visual materials in general, and the topic of indexing editorial cartoons in particular. Resources which refer to editorial cartoons in the context of more general discussions about visual image analysis have been given preference over resources which do not discuss editorial cartoons at all, but are generally relevant to visual materials indexing.

Some iconic publications, for example Panofsky's (1955) *Meaning in the Visual Arts*, and Barthes (1967) *Elements of Semiology*, are included because they have had major theoretical and practical application in research on visual materials indexing.

INTENDED AUDIENCE

This annotated bibliography is aimed at all indexers of editorial cartoons for electronic search and retrieval, including:

- Professional librarians, archivists, curators, image library administrators, and collection managers employed in GLAM sector organizations that maintain editorial cartoon collections
- Non-professional cartoon enthusiasts involved in social tagging or crowdsourced enhancement projects for editorial cartoon metadata.

It is hoped that by grouping key resources on editorial cartoon indexing together with resources on meaning in visual art, indexers will find an informative and relevant resource, whether they are professionals employed by collecting institutions, individual social taggers, or volunteers in crowdsourced metadata projects.

RESEARCH LIMITATIONS

In selecting resources that are of special relevance to indexing editorial cartoons it has been necessary to exclude research publications which deal more specifically with related genres and formats such as comics, graphic novels, zines, photography, and moving image. Resources that deal with the challenges of indexing such materials have only been included where the indexing principles they outline apply more-or-less equally to indexing editorial cartoons. The majority of the resources have been selected for their relative currency and their availability as electronic publications, accessible via the Victoria University of Wellington Library online portal, Te Waharoa. Some monographs and journal articles available in hard copy format have been selected from the holdings of the National Library of New Zealand.

SEARCH STRATEGY

The online search strategies utilized in compiling this annotated bibliography are relatively simple, due to the comparatively limited amount of published research on editorial cartoons available across multiple academic disciplines, and the very limited amount of published research specifically about indexing editorial cartoon collections.

It was found that in the process of searching databases of academic publications for research on editorial cartoons, the most productive search strategies for material relevant to this project were very simple, including the following:

[All: "editorial cartoons"] AND [Publication Date: (01/01/2000 TO 09/30/2018)]

[All: "political cartoons"] AND [Publication Date: (01/01/2000 TO 09/30/2018)]

More complex searches (but not very much more) such as:

[All: “editorial cartoons”] AND indexing]

were found to produce very limited numbers of relevant results, suggesting the specialised nature of the core research topic. The bibliographies of identified research publications often provided rich sources of information for the identification of other relevant resources.

Searches were tried across a wide range of databases of academic publications available through Te Waharoa. Databases consulted in this way included Communication & Mass Media Complete, EBSCOHost, Emerald, Encyclopedia of Library and Information Science, Third Edition, JSTOR, ProQuest, and Taylor & Francis Online.

Google Scholar was also used to identify relevant material. Materials identified in results returned by Google Scholar were then re-searched for in databases available through Te Waharoa, enabling more precise, accessible results.

Identified resources were assessed individually for relevance. Key word searches of the term ‘cartoon’ were applied to each resource to help determine inclusion or exclusion.

STRUCTURE

The annotated bibliography is structured as follows:

Part 1: Introduction

- Background to annotated bibliography
- Literature gap
- Purpose
- Scope
- Intended audience
- Research limitations
- Search strategy
- Structure
- Arrangement of entries
- Suggestions for dissemination

Part 2: Bibliography

- Perspective one: indexing editorial cartoons
- Perspective two: content analysis theory relevant to indexing editorial cartoons
- Perspective three: the interpretation of editorial cartoons by readers
- Perspective four: online resources for editorial cartoon research and access

Part 3: Conclusions and directions for further research

- Conclusions
- Directions for future research

Part 4: References

Part 5: Index – Keywords & Entries

ARRANGEMENT OF ENTRIES

Four types of resources are grouped in the present work:

- **Indexing editorial cartoons:** publications which deal specifically with the challenges of indexing editorial cartoons

- **Content analysis theory relevant to indexing political cartoons:** publications which deal with the challenges of identifying or interpreting meaning in, and attributing subject to, visual materials; while these publications do not necessarily discuss editorial cartoons specifically, they have been selected for inclusion on the basis of their relevance to identifying meaning in editorial cartoons
- **The interpretation of editorial cartoons by readers:** publications which discuss the dynamic and rapidly-changing international environment in which editorial cartoonists have worked since 2000, with relevance to the subject of reader responses to editorial cartoons
- **Online resources:** including websites for selected institutional collections, relevant agencies and metadata standards.

For entries in the first section, which deals more specifically with the indexing of editorial cartoons for retrieval, some entries are expanded to a limit of 350 words, to allow for more discussion of especially relevant material. This also addresses the identified literature gap in research on editorial cartoon indexing. Entries in the subsequent three sections are generally limited to 100-200 words. An indication of relevance to the bibliography is given below each entry. Keywords are provided below each entry.

SUGGESTIONS FOR DISSEMINATION

The annotated bibliography could be made accessible in PDF form via the Victoria University of Wellington Research Archive. The bibliographer is currently employed as Curator of Drawings, Paintings, and Prints at the Alexander Turnbull Library, and is responsible for curating the New Zealand Cartoon Archive collection. The bibliography could be made available as an online resource via the New Zealand Cartoon Archive website; via the online catalogues and other public programmes of the Alexander Turnbull Library and National Library of New Zealand; and via the Corporate Library of the Department of Internal Affairs of the New Zealand Government. Other avenues of distribution via the professional GLAM sector networks of the bibliographer and National Library of New Zealand could be explored, as well as the international network of cartoonists, cartoon collections, and publishing industry contacts maintained by the Guardians of the New Zealand Cartoon Archive. It is envisaged that a research article or articles may develop from the present project for possible submission to a peer-reviewed journal.

PART 2 BIBLIOGRAPHY

PERSPECTIVE ONE: INDEXING EDITORIAL CARTOON COLLECTIONS

1.01

Alexander, A., & Meehleib, T. (2001). *The Thesaurus for Graphic Materials: Its History, Use, and Future. *Cataloging & Classification Quarterly*, 31(3-4), 189-212.*

An excellent introduction to the Library of Congress's *Thesaurus for Graphic Materials*, authored by two specialist cataloguing staff of the library's Prints and Photographs Division (P&P). The division has extensive holdings of photographs, fine prints, technical drawings, posters and graphic arts including editorial cartoons. The article is valuable for its concise history of the P&P Division, and account of how the thesaurus developed from the need to revise and consolidate a list of subject headings that had been in use for over fifty years at the library. The library considered adopting the *Getty Art & Architecture Thesaurus*, but found the latter resource inadequate for application to large general collections of visual materials, partly due to its focus on the materials of Western art. A number of figures illustrate the relationship of Subject index fields to Form/Genre index fields as applied to various types of materials. A political cartoon is used as an example to explain the concepts of 'about' and 'of' in relation to indexing. Many relevant studies are cited in the bibliography.

Relevance: generally relevant to the topic of indexing editorial cartoons.

Thesaurus, Indexing, Controlled vocabulary, Graphic materials, Subject headings, Form/Genre

1.02

Baines, J. (2018, March 5). 7 top tips for finding Special Collections & Archives material through LibrarySearch.

Using a number of annotated screenshots, Joanna Baines introduces useful strategies for searching the Special Collections & Archives collections of the University of Kent, including records for the British Cartoon Archive collection. Tips on identifying collection locations, electronic catalogue structure, narrowing search results, distinguishing between digitized and non-digitized materials, booking appointments to view special materials, and limiting requests are included in a helpful, succinct style. The blog post is especially helpful for accessing the British Cartoon Archive.

Relevance: generally relevant to the topic of indexing editorial cartoons.

Collections, Search terms, Cartoon archive

1.03

Baines, J. (2018, March 14). 7 ways to find material in the British Cartoon Archive.

Using text, graphics and screenshots, Baines provides a user-friendly introduction to accessing and exploring the British Cartoon Archive at the University of Kent. The archive holds cartoons by over 300 artists, and has made over 200,000 digitized cartoons available online through its catalogue. Making the important point that cartoons tend to be catalogued using the language of their time, Baines suggests users jot down key words before beginning to search through the catalogue, for example when searching for information in cartoons about the Second World War. Cartoons can be found in published books and journals in the university's LibrarySearch

catalogue, and in the online catalogue of the British Cartoon Archive. Ways to conduct more targeted searches are suggested, for example on cartoon images of Maggie Thatcher. Copyright restrictions are also clearly explained. Cartoons by famous New Zealand cartoonists David Low and Les Gibbard are referenced.

Relevance: highly relevant to the topic of indexing editorial cartoons.

Targeted searches, Search terms, Copyright, Cartoon archive

1.04

Baker, J. (2013a, May 23). Does crowdsourcing capture the crowd at its wisest? An interview with Nick Hiley.

James Baker of the British Library discusses aspects of image creation, management, metadata and discoverability with Dr Nick Hiley, Head of the British Cartoon Archive at the University of Kent. The blog notes that cartoons, which typically contain text and visual image elements, are especially challenging to index to enable data-mining for research. The interview discusses the partnership between the British Cartoon Archive and the Going Digital project (a project funded by the Arts and Humanities Research Council in the UK to encourage the use of digital resources in humanities research). Hiley discusses changing priorities in cataloguing and metadata creation processes for the British Cartoon Archive since its foundation, with emphasis on the transition from paper-based to digital cartoons. He discusses the technical aspects of managing a very large digital image collection. Hiley expresses scepticism for the idea of using crowdsourcing to enhance metadata for the British Cartoon Archive collection, on the grounds that crowdsourced metadata may inhibit rather than facilitate discoverability. This is an editorial, opinion-oriented blog rather than a formal research report. Hiley's comments are intended to provide insight into aspects of digital collection management.

Relevance: highly relevant to the topic of indexing editorial cartoons.

Cartoon archive, Crowdsourcing, Metadata, Discoverability

1.05

Baker, J. (2013b, May 16). On metadata and cartoons.

In a fascinating blog post, James Baker of the British Library discusses the results of an experimental analysis he performed on an export of .xml metadata from the British Cartoon Archive. Baker used topic modelling techniques to interrogate the metadata for topic trends. He found that the metadata created in the 1960s and '70s was richest, with the most interesting data being found in the Title and Subject fields. The Title field contains free text inscriptions found in the cartoons, while the Subject field contains subject headings added by British Cartoon Archive staff. The blog includes word trend graphs of data from Title and Subject fields, produced using Voyant textual analysis software, from data exported from the British Cartoon Archive.

Relevance: highly relevant to the topic of indexing editorial cartoons.

Topic modelling, Metadata, Textual analysis, Cartoon archive, Subject headings

1.06

Bovey, J.D. (2003). Providing Web access to a catalogue of British newspaper cartoons. *Program*, 37(1), 16-24.

J.D. Bovey, a lecturer in the Computer Laboratory of the University of Kent, discusses the challenges of providing web access to the collection of the Centre for the Study of Cartoons and Caricature, now called the British Cartoon Archive. Referencing earlier research (Bovey, 1992, 1995) the author tracks the development of an in-house thesaurus of controlled-language terms for the cartoon collection, and the challenges of digitizing graphic materials for retrieval, in the context of a review of progress after four years of the collection being made accessible online. Initiated to make original cartoons accessible, the catalogue has grown to be the main product of the university's Cartoon Centre (now the British Cartoon Archive). Originally the catalogue was only available via limited data networks in the UK. The development of a World Wide Web search interface is discussed, and screenshots are provided to demonstrate the presentation of metadata available through the online catalogues. The observations on the challenges of indexing, storing and retrieving cartoon metadata remain valid though technology has developed a long way since this article was published.

Relevance: highly relevant to the topic of indexing editorial cartoons.

Online catalogue, Searching, Controlled vocabulary, Cartoon archive, Metadata, Thesaurus

1.07

Chapple-Sokol, A. (1996, Winter). Indexing editorial cartoons. *Special Libraries*, 87(1), 21-31.

Chapple-Sokol's concise, influential study deals specifically with the challenges of accessing information about editorial cartoons, and remains a classic in the field. The author contrasts the social importance and high profile of editorial cartooning with the difficulty of providing access to historical cartoon art in libraries. She notes the general ubiquity of cartoons in the US print media, especially newspapers, and observes that while the availability of microfilm copies of newspapers has made research easier in general, subject indexes for cartoons have 'not been the norm' (p. 22). A connection is made between the relative effort expended by libraries on describing cartoons, and the perceived brief 'shelf life' of political cartoons in relation to their contemporary relevance. The rapid rate at which editorial cartoons become out-of-date is a disincentive for libraries to expend effort on their arrangement and description. Chapple-Sokol deems that indexing editorial cartoons is a contested subject within the library and publishing communities, with difficulties of interpretation often cited as being the principal challenge to efforts in this direction.

Computer technology provides options to populate and search variable length fields via free-text and controlled vocabularies. The use of symbols by cartoonists is noted as a challenge to computerised indexing. Some institutions operate different levels of indexing complexity from 'minimal' to 'full' depending on the individual image concerned. Text-based subject fields can be used to address the subject of cartoons according to two basic questions: what the cartoon is *of*, and what it is *about*. While traditionally editorial cartoons have received comparatively little attention from indexers due to perceptions of low value, their perceived worthiness

for inclusion in bibliographic indexes may improve with improvements in indexing methods and technologies.

Relevance: highly relevant to the topic of indexing editorial cartoons.

Indexing, Metadata, Ofness, Aboutness, Cultural context, Free text, Controlled vocabulary

1.08

Hackbart-Dean, P. (1997). Comic Relief: the Processing, Preservation, and Cataloging of Editorial Cartoons. *Archival Issues*, 22(2), 163-176.

In a frequently cited article Hackbart-Dean discusses a project to identify, preserve, and catalogue at item level over 2,500 editorial cartoons in the Clifford 'Baldy' Baldowski Collection, at the Richard B. Russell Library for Political Research and Studies, Georgia, USA. The project was initiated in response to a recommendation by the Congressional Papers Roundtable Task Force on Congressional Documentation, that repositories make cartoons available for research. The cartoons of 'Baldy' are of special relevance to documenting the history of the civil rights movement in Georgia during the 1950s and '60s. They presented a logical group of satirical drawings to use as a pilot project for further descriptive projects for editorial cartoon collections in the library. The project focussed on three areas – identification, preservation, and cataloguing. It was found that no specific cataloguing guidelines existed for the editorial cartoons. Item-level descriptions were created, aiming to list each individual, event or location represented, to maximize access points for researchers. Drawings were initially grouped around subject headings, and physical preservation undertaken. More detailed research and description was then carried out, and catalogue records inputted into Minaret software using Library of Congress Subject Headings. A cataloguing form was developed using MARC field descriptions. Sample catalogue forms are reproduced as examples. Following Chapple-Sokol (1996), Hackbart-Dean advises that indexers try to avoid subjective interpretation in descriptions of editorial cartoons.

Relevance: highly relevant to the topic of indexing editorial cartoons.

Description, Item-level records, Subject headings

1.09

Johnston, M., & Köntges, T. (2016). Increasing metadata usability for the New Zealand Cartoon Archive at the Alexander Turnbull Library. *Alexandria: The Journal of National and International Library and Information Issues*, 26(2), 91-106.

New methods of computational analysis in the social sciences, such as topic modelling, are dependent on the nature of metadata retrieved from library catalogues. Using as an example the New Zealand Cartoon Archive at the Alexander Turnbull Library, National Library of New Zealand, the authors suggest ways in which metadata created by the library for the description of editorial cartoons could be improved to be more useful to researchers. They also suggest that libraries should actively seek feedback from researchers on the structure and usefulness of their metadata, and conduct 'road-tests' of metadata for usefulness.

The New Zealand Cartoon Archive contains over 30,000 digital cartoons. The collection is useful for testing topic modelling techniques due to its comparatively rich item-level descriptions. Search techniques carried out on the Cartoon Archive metadata using the library's unpublished collection catalogue and the Digital New Zealand

application programme interface are described. Testing the premise that the high level of description provided in the library's metadata for digital editorial cartoons could provide a rich source of data on New Zealand society post-2010, the authors queried the data for material relating to the Christchurch earthquakes of 2011. They found two broad types of challenges to effective retrieval from the data set of the information they were seeking, which were:

- that the way the library structured its descriptive metadata impeded effective faceting of the data, both in relation to controlled authorities such as Library of Congress Subject Headings, and in relation to text-based 'scope and contents' notes
- that the difficulty for indexers of identifying and interpreting the subjects addressed by specific editorial cartoons made relevant information retrieval very inconsistent.

The authors conclude there is great value in what the scope and contents notes can tell researchers about the cartoons and New Zealand society.

Relevance: highly relevant to the topic of indexing editorial cartoons.

Computational analysis, Topic modelling, Metadata, Controlled authorities, Scope and contents notes, Cartoon archive, Subject headings

1.10

Landbeck, C. (2002). The Organisation and Categorization of Political Cartoons; an Exploratory Study. (Master's thesis, Florida State University).

Landbeck's pioneering thesis states that 'The categorization and organization of political cartoons has historically been a non-starter; both a lack of resources and a lack of interest have been cited as reasons for the exclusion of these works from the historical record' (p. vii). A thorough literature review backgrounds the study. For the purposes of the research Landbeck uses the term 'editorial cartoon' as a more encompassing term than 'political cartoon'. The enquiry is focussed on two questions, a) whether it is possible to define categories for classifying cartoons to enable research by users, and b) whether there is a research demand for such classification. To test this question a three-part study was conducted using 12 voluntary participants who were asked to look at and interpret a range of editorial cartoons from different periods.

The experiment consisted of a classification/abstraction exercise, a cartoon seeking exercise, and a post-test survey. After sorting the cartoons the participants were asked to search for them in a database provided by the experimenter. In the survey questionnaire participants were asked to evaluate the verbal terms they had selected to describe images against the results they obtained using the same terms to search for the cartoons on the database. In the abstraction part of the experiment participants were asked to identify the subject and message of the cartoon. Most participants were unable to identify the intended subject and message of the cartoon by looking at it. Based on the experiment Landbeck identifies a classification schema for the description of editorial cartoons based on five classes: Words, Bibliographic Description Data, Individuals and Instances, Interpretive Areas. He proposes further research to test the effectiveness of this schema on a larger database of cartoons.

Relevance: highly relevant to the topic of indexing editorial cartoons.

Image classification, Searching, Description

1.11

Landbeck, C. (2008). Issues in Subject Analysis and Description of Political Cartoons. 19th Annual ASIS SIG/CR Classification Research Workshop.

Initially presented as a conference paper, this resource provides a good short introduction to the concepts and challenges of indexing editorial cartoons. Building on his earlier research (Landbeck, 2002) the author outlines three basic cataloguing needs for editorial cartoons indexed in electronic databases; bibliographic, descriptive, and subject. Bibliographic needs for editorial cartoons have much in common with those of documents; subject and context are very challenging to describe. A metadata schema is useful for describing editorial cartoons, to allow for wider, faster and more effective indexing for retrieval. The VRA Core 4.0, Dublin Core, and MODS schemas are discussed in this context. A brief literature review is followed by sections introducing the themes of cartoon interpretation, image indexing, aboutness, visual materials, and refining metadata schemas for editorial cartoon indexing.

Relevance: highly relevant to the topic of indexing editorial cartoons.

Cartoon interpretation, Indexing, Aboutness, Metadata, Description

1.12

Landbeck, C. (2012). Access to editorial cartoons: The state of the art. In N.D. Rasmussen, (Ed.), *Indexing and retrieval of non-text information* (pp. 59-79).

Focussed specifically on indexing editorial cartoons in large collections, Landbeck's comprehensive remains one of the most relevant discussions of editorial cartoon indexing. Editorial cartoons are a neglected part of the historical record, due to conceptual challenges inherent in describing and interpreting these items, and technical challenges in collection and delivery. The study is divided into two broad sections. The first section includes a thorough literature review with detailed discussion under subheadings which include image description theory, user attitudes to searching for cartoon images, cartoon interpretation, and relevant metadata schemas. The second section introduces examples of cartoon collection information sources, and related resources. Landbeck distinguishes 'sources' from 'resources' by designating as 'sources' collections or publications which include cartoons but which are not indexed for research on editorial cartoons. Resources are assessed by the author as either 'poorly designed and poorly executed', 'well-designed but poorly executed', and 'well designed and well-executed'. Lack of consistency and granularity in descriptive metadata can hinder research. Landbeck concludes that notwithstanding the challenges of indexing editorial cartoons it should be possible to improve descriptive standards to enhance research.

Relevance: highly relevant to the topic of indexing editorial cartoons.

Indexing, Metadata, Collections, Description, Consistency, Granularity

1.13

Landbeck, C. (2013). The Description and Indexing of Editorial Cartoons: An Exploratory Study. (Doctoral dissertation, Florida State University).

With this work Landbeck establishes himself as the foremost scholar of indexing for editorial cartoons writing in English. The dissertation describes a thorough research project to gather information about users' descriptions of editorial cartoons.

Descriptive terms and phrases provided by users in response to editorial cartoons

were gathered and compared. Users were drawn from two population pools: academically qualified and non-academically qualified groups. Descriptive terms supplied by the two groups were sorted according to Jörgensen's 12 classes of image description. It was found that while the terms could be fitted into the 12 classes, users described editorial cartoons in significantly different ways to other types of images. Jörgensen's Abstract Concepts class dominated descriptions and searches. The class Viewer Reactions also played a large role in descriptions supplied by users in the experiment. Results were discussed with professional image indexers and cartoonists and it was found that the information could potentially be helpful for indexing and retrieval of editorial cartoons.

Relevance: highly relevant to the topic of indexing editorial cartoons.

Description, Indexing, Cartoon interpretation, Searching, Tagging

1.14

Newton, J. (1999). The centre for the study of cartoons and caricature, University of Kent at Canterbury. *Contemporary British History*, 13(4), 170-179.

Newton's detailed article presents a highly informative introduction to the cartoon archive (now known as the British Cartoon Archive), at the University of Kent, summarising its development and holdings. The Archive was founded by Dr Graham Thomas, a member of the university's Politics Department, who had a particular interest in collecting anti-Fascist cartoons. The centre was founded both to preserve British cartoon heritage and to promote the use of cartoons as primary sources for study in a range of disciplines. Major holdings of editorial cartoons from British daily and weekly newspapers include works by the New Zealand-born David Low, 'Vicky' and Garland. Newton's article includes a lengthy excerpt from a lecture on the history of the centre by one of its major champions, Colin Seymour-Ure. At the time of writing the centre had catalogued over 30,000 cartoons in a searchable database available over the internet. The development of the centre's database in association with the university's Computing Laboratory is described. The requirements of the system were that it should be as simple as possible and provide online access to a thesaurus of keywords and a name authority file.

Relevance: highly relevant to the topic of indexing editorial cartoons.

Primary sources, Searching, Cartoon archive

1.15

Note, M. (2011). *Managing Image Collections: A Practical Guide*. Chandos Information Professional Series. Oxford, UK: Chandos Publishing.

A technical monograph in the long-running Chandos Information Professional Series, this book is predominantly concerned with collections of paper-based and digital photography. While it does not specifically mention cartoons its analysis of descriptive theory and practice is generally relevant to image description and retrieval. The work covers the theory of image description as well as providing detailed discussion on various aspects of physical collection management for a variety of photographic image formats.

A brief introduction summarises the growth in image collections. Proliferation of visual materials in collections requires new approaches to describing, searching and retrieval such materials. Descriptive approaches traditionally used by GLAM sector

organisations for visual images are discussed in relation to contemporary image collections. This discussion leads to a more detailed analysis of descriptive practices usefully broken down under headings as follows:

- Item level description
- Collection-level description
- Subject description
- Metadata
- Metadata crosswalks
- Image description practices

An excellent feature of the work is the section on metadata standards. After defining collection metadata in general terms Note presents a series of tables giving examples of metadata standards relevant to images according to several headings:

- Dublin Core metadata elements and their definitions (Table 5.1)
- Data *structure* standards (Table 5.3)
e.g. Dublin Core, Encoded Archival Description (EAD), MARC21, METS, MODS, VRA Core 4.0
- Data *content* standards (Table 5.4)
e.g. Anglo-American Cataloguing Rules, Second Edition (AACR2), Cataloging Cultural Objects (CCO), Graphic Materials
- Data *value* standards (Table 5.5)
e.g. Art & Architecture Thesaurus Online (AAT), Library of Congress Authorities – Subject Headings (LCSH).

Relevance: highly relevant to the topic of indexing images.

Collections, Description, Metadata, Graphic materials, Subject headings, Thesaurus

1.16

Seymour-Ure, C. (2001). What Future for the British Political Cartoon? *Journalism Studies*, 2(3), 333-355.

Colin Seymour-Ure was one of the founders of political studies at the University of Kent, and one of the founders of the British Cartoon Archive. Seymour-Ure was also a biographer of the New Zealand-born cartoonist Sir David Low, widely regarded as the greatest political cartoonist of the twentieth century. In this detailed study of British political cartoons the author provides a very interesting analysis of changing trends in British political cartooning. Statistical tables show data for: length of service of selected British editorial cartoonists; editorial cartoonists covering British general elections 1983-2001; cartoons of party leaders in the British general election of 1997; cartoons and broadcast news quotations relating to party leaders in the British general election 1997; cartoons of party leaders 1998; cartoon images of party leaders British general election 1997; selected cartoon images of party leaders from national daily and Sunday newspapers March-May 1997; cartoons of the royal family in the British press 1996-1999.

Relevance: highly relevant to the topic of indexing editorial cartoons.

Cartoon analysis, Cartoon trends, Elections, Cartoon archive

1.17

Wu, Y. (2013). Indexing Historical, Political Cartoons for Retrieval. *Knowledge Organisation*, 40(5), 283-294.

Summarising published research to 2013, Wu states that the specific purpose of his study is to 'develop an indexing scheme for describing historical political cartoons...and...to propose an approach to indexing historical political cartoons' (p. 285). Wu notes the observation of Landbeck (2008) that indexing requirements for editorial cartoons can be divided into three categories: bibliographic, descriptive and subject. Theoretical approaches to image classification are discussed, including Panofsky's schema of three levels of meaning (Panofsky, 1955); the concepts of 'ofness' and 'aboutness' (Hutchins, 1977; Shatford, 1986); the 'hard' indexing of visual features and 'soft' indexing of meaning proposed by Choi and Rasmussen (1999); and the multi-level schema proposed by Rafferty and Hilderley (2005).

Wu proposes a metadata schema for editorial cartoons. Indexing fields based on elements of Panofsky's three-level approach (Panofsky, 1939), are modified to include 'general descriptive fields', 'historical/sarcastic description fields', 'historical/sarcastic interpretation fields', and 'historical/sarcastic meaning fields' (p. 287). Together these comprise four general description fields, five subjective description fields, and one comprehensive field. A comparison was made of indexing work carried out by different individual indexers using the proposed system. Results were analysed to detect variations in consistency of indexing by the indexers in various aspects. Natural language rather than controlled-vocabulary description was used by the indexers. Another group of subjects was recruited to judge the similarity of results field-by-field. Wu concludes that three basic variables affected the indexing results: indexers, indexing field, and cartoons.

Relevance: highly relevant to the topic of indexing editorial cartoons.

Indexing, Metadata, Online catalogue, Description, Ofness, Aboutness, Natural language, Controlled vocabularies, Tagging, Variability, Retrieval

1.18

Zavalina, O.L., Palmer, C.L., Jackson, A.S., & Han, M. (2009). Evaluating Descriptive Richness in Collection-Level Metadata. *Journal of Library Metadata*, 8(4), 263-292.

The authors present a highly detailed analysis of descriptive records for collections across 202 cultural heritage organisations participating in the international Digital Curation Centre (DCC) DCC Collection Registry project. The authors focussed their research on the use of free text description fields, in particular the 'Description' field as defined in the Dublin Core metadata schema. They found that free-text data in Description fields often provides more accurate information about aspects such as object type, subject, creator and provenance than specified fields. They conclude that free-text descriptive notes can be semantically rich. They also suggest that free-text data can provide a valuable source of information for improving controlled vocabularies. Text-based descriptions of collections of political cartoons are used as exemplars in the context of discussions about 'collection size' and 'object type'.

Relevance: generally relevant to the topic of indexing editorial cartoons.

Cultural heritage organisations, Collections, Metadata, Description, Free-text, Controlled vocabularies

1.19

Zhang, J., Ribbens, K. & Zeeman, R. (2013). The digital archiving of historical political cartoons: An introduction. Presented at the 13th Dutch-Belgian Workshop on Information Retrieval, DIR 2013.

In a very condensed article the authors report on an experimental project to archive historical cartoons by harvesting images from digitized newspapers in the collection of the National Library of Holland. The digitally archived images are cartoons by a single Dutch cartoonist, Maarten Meuldijk, created between 1937 and 1942. Crowdsourcing was used to provide contextual information for the digitised cartoons with volunteers completing cartoon descriptions online. The metadata created ranged from simple descriptions to interpretation and opinion. Search strategies available for querying the data included full-text and key word searching. It is not clear from the article whether controlled vocabularies were utilised by the volunteer describers in this experiment. The possibility of being able to include the crowdsourced metadata within a formal metadata schema such as VRA Core is briefly discussed.

Relevance: highly relevant to the topic of indexing editorial cartoons.

Crowdsourcing, Description, Interpretation, Searching, Metadata, Retrieval

PERSPECTIVE TWO: CONTENT ANALYSIS THEORY RELEVANT TO INDEXING EDITORIAL CARTOONS

2.01

Barthes, R. (1967). *Elements of Semiology*. London: Jonathan Cape Ltd.

Elements of Semiology is an essential brief introduction to semiology by French semiotician Roland Barthes. Published in England as a small book, this edition is the classic translation into English, by Annette Lavers and Colin Smith, of the article first published in the French review *Communications* (No. 4, 1964, pp. 91–135), under the title 'Éléments de Sémiologie'. The work contains introductions to semiotic concepts developed by Barthes for the analysis of systems of signs whatever their substance and limits. It groups elements of semiology under four basic headings borrowed from structural linguistics: Language and Speech; Signified and Signifier; Syntagm and System; Denotation and Connotation. This seminal text is frequently cited in studies of visual literacy. The concept of Denotation and Connotation is often used by scholars in the analysis of visual images, including editorial cartoons, where it is a useful tool in decoding implied meaning.

Relevance: relevant to the topic of identifying meaning in images.

Semiology, Semiotics, Structural linguistics, Visual literacy, Denotation, Connotation, Decoding

2.02

Benson, A.C. (2015). Image descriptions and their relational expressions: a review of the literature and the issues. *Journal of Documentation*, 71(1) 143-164.

In a well-documented review Benson examines the literature on how different kinds of relationships are expressed in image descriptions in library and archive indexes. The term 'relationship' is construed to include spatial, temporal, meronymic, and attributive relationships. It is noted that while there is a significant literature on naming and classifying image attributes, there is very little research on how relationships are expressed in image description. A range of image classification schemas is discussed including Panofsky (1939), Enser (1993), and Jørgensen (1995). Cartoons are briefly mentioned in a discussion of Enser's research on different types of visual materials.

Relevance: relevant to the topic of identifying meaning in images.

Description, Relationships, Image attributes

2.03

Bostdorff, D. M. (1987). Making Light of James Watt: A Burkean Approach to the Form and Attitude of Political Cartoons. *Quarterly Journal of Speech*, 73(1), 43.

Bostdorff discusses rhetorical devices employed in political cartoons, referencing the work of literary theorist Kenneth Burke (1984). She also extensively cites work on rhetoric in political cartoons by Medhurst and DeSousa (1981). Rhetorical devices discussed in Bostdorff's article include irony, incongruity, metaphor, metonymy, burlesque, and synecdoche.

Relevance: relevant to the subject of interpreting meaning in editorial cartoons.

Rhetoric, Irony, Incongruity, Metaphor, Metonymy, Burlesque, Synecdoche

2.04

Chen, K.W., Phiddian R., & Stewart R. (2017). Towards a Discipline of Political Cartoon Studies: Mapping the Field. In: J. Milner Davis (Ed.), *Satire and Politics* (pp. 125-162).

An important survey which finds the study of political cartoons is 'fragmented theoretically, exists largely on the fringes of research in political communication', and lacks 'a framework belonging to any specific discipline' (p. 125). The authors suggest that the multi-dimensional aspect of political cartoons constrains their study and makes it difficult to analyse the different cross-cultural messages of cartoons involved in the 2015 attack on the *Charlie Hebdo* offices in Paris. In this context they set out 'to map the field of political cartooning' provide 'a guide to what researchers in various fields are doing, and...enable better integration of findings' (p. 126).

The authors cite a variety of recent studies into political cartoons, within a broader field of comic studies. They note that the tendency of contemporary editorial cartoonists of sometimes working in single-panel cartoon format, and sometimes in multi-panel strips, further complicates studies in the field of political cartoons. A literature review of 144 studies is analysed for subject and the authors identify six sub-fields of study among them. The authors state that a full synthesis of ways of conceptualising the field is beyond the scope of their survey. Their analyses demonstrate fragmentation in the field of cartoons studies. In their conclusion the authors claim that 'studies on aspects of institutional collecting, preserving, indexing, digitising and displaying, along with any entailed copyright problems, are almost non-existent' (p. 147), citing Hackbart-Dean (1997) and Landbeck (2013) as notable exceptions.

Relevance: highly relevant to the topic of identifying meaning in editorial cartoons.

Cartoon studies, Cartoon interpretation, Copyright

2.05

Domínguez, M. (2015). On the Origin of Metaphors. *Metaphor and Symbol*, 30(3), 240-255.

In an unusual approach to metaphor studies Spanish scholar Domínguez examines metaphor from an evolutionary perspective. Using illustrations of pencils and pens found in editorial cartoons about the *Charlie Hebdo* terror attacks of 2015, the author demonstrates how initial metaphors can create subsequent metaphors in popular consciousness, leading to a kind of 'metaphor drift' (p.240). While editorial cartoons are not the central topic of the article specific examples are used very effectively to illustrate the author's theory of fast-spreading metaphor evolution in the media.

Relevance: highly relevant to the topic of identifying meaning in editorial cartoons.

Metaphor, Cartoon interpretation

2.06

El Refaie, E. (2003). Understanding visual metaphor: the example of newspaper cartoons. *Visual communication*, 2(1), 75-95.

El Refaie's much-cited article examines Austrian newspaper cartoons to explore the grammar of visual metaphor. Using cartoons which address themes of migrants and migration the study looks at how modes of verbal metaphor differ from modes of metaphor in visual art, and how the two types of mode are used in combination by editorial cartoonists. The author concludes that in assessing the metaphors in

cartoons it is more appropriate to consider the concepts that lie behind the visual metaphor employed by the cartoonist. It cannot be assumed that every verbal metaphor has an exact visual equivalent, or vice versa. Abstract concepts cannot be depicted in visual terms without the mediation of metaphors.

Relevance: highly relevant to the topic of identifying meaning in editorial cartoons.

Metaphor, Cognitive metaphor theory

2.07

Enser, P. (1995). Progress in Documentation Pictorial Information Retrieval. *Journal of Documentation*, 51(2) 126-170.

Among the most significant studies of advances in image retrieval published in the mid-1990s, Enser's substantial article surveys both theoretical and practical issues relating to pictorial information retrieval. The author notes that the increasing volume of visual material consumed by society in the computer age has led to a paradigm shift in approaches to visual image retrieval. The paper reviews current image classification and indexing systems and proposes four models of information retrieval involving different proportions of verbal and visual descriptors for images. Cartoons are not mentioned in this high-level overview of image indexing methodologies.

Relevance: highly relevant to the topic of identifying meaning in images.

Image classification, Searching. Retrieval

2.08

Enser, P., Sandom, C., Hare, J., Paul H., & Lewis, P. (2007). Facing the reality of semantic image retrieval. *Journal of Documentation*, 63(4), 465-481

This important study introduces the concept of semantic image retrieval. While not specifically about cartoon image libraries the article does present relevant data about image retrieval in relation to searches of medical and art history picture libraries, and discusses the 'semantic gap' between content-based and text-based image retrieval paradigms. The study suggests that the semantic gap is in fact a two-stage gap, with a first gap between raw data and object labelling, and a second gap between identified content and its contextual interpretation. The authors conclude that successful content-based image retrieval (CBIR) remains highly dependent on text-based description of images.

Relevance: highly relevant to the topic of identifying meaning in images.

Semantic gap, Semantic image retrieval, Content-based image retrieval, Text-based image retrieval, Description, Context

2.09

Farmer, L.S.J. (2015). Information Architecture and the Comic Arts: Knowledge Structure and Access. *Journal of Visual Literacy*, 34(2), 23-50.

Farmer's study describes approaches to information architecture for representing and presenting knowledge about a broad range of graphic comic arts, including comics and graphic novels. Political cartoons are mentioned in a section concerning types of content analysis for comic arts, in the context of a discussion about rhetorical methods of image analysis. Semiotic image analysis methods are also discussed in relation to comic arts. Interestingly, the author cites many research publications from

the field of information science but relatively few from the field of library and information studies.

Relevance: relevant to the topic of identifying meaning in editorial cartoons.

Information architecture, Comic art, Content analysis, Semiotic image analysis

2.10

Foster, A., & Rafferty, P. (Eds.). (2016). *Managing Digital Cultural Objects: Analysis, discovery and retrieval*. London: Facet Publishing.

Foster and Rafferty present an excellent introduction to analysis and interpretation, discovery and retrieval of a variety of non-textual objects, from music to moving image. Aimed at assisting postgraduate students working in digital humanities fields, the volume contains contributions by leading scholars and practitioners of digital collection management, including Corinne Jörgensen. It draws on a range of disciplines including information studies, digital preservation, cultural theory and digital media studies. The authors declare that they believe 'this multidisciplinary and interdisciplinary approach is both necessary and useful in the age of the ubiquitous and mobile web' (p. xvii). Divided into three parts – 'analysis and retrieval of digital cultural objects', 'digitization projects in libraries, archives and museums: case studies', and 'social networking and digital cultural objects', the book provides excellent theoretical and practical insights into contemporary issues in the management of collections of digital materials. A range of informative figures and tables is presented, together with thorough bibliographies for each chapter. Cartoons are not specifically mentioned but discussions of content- and concept-based image retrieval are relevant to digital cartoon curation.

Relevance: highly relevant to the topic of identifying meaning in images.

Digital cultural objects; Data modelling; Content analysis; Content-based image retrieval; Concept-based image retrieval

2.11

Gombrich, E.H., & Kris, E. (1940). *Caricature*. Harmondsworth, Middlesex, UK: The King Penguin Books published by Penguin Books Ltd.

Published in the King Penguin series of pocket-sized monographs, *Caricature* provides a brief history of comic art from ancient Egypt to 1940, co-authored by Gombrich, one of the major art historians of the twentieth century. The discussion notes that portrait-caricature, as found in political cartoons, is a comparatively new phenomenon in Western art history, developed in the late sixteenth century from the drawings of Italian painter Annibale Carracci (1560-1609). The use of portrait-caricature to express political ideas developed further in seventeenth- and eighteenth-century Europe, disseminated through published prints. By the nineteenth century political cartoons had become a staple of the European press, distributed via journals and daily newspapers. The authors make the observation that the humorous 'point' of cartoons becomes more difficult to interpret with the passing of time. The monograph marks a significant point in the formal discussion and analysis of caricature in its historical, social and political contexts.

Relevance: highly relevant to the topic of identifying meaning in editorial cartoons.

Caricature, Comic art

2.12

Hutchins, W.J. (1977). The Problem of 'Aboutness' in Document Analysis. *Journal of Informatics*, 1(1), 18.

Hutchins' discussion of the concept of 'aboutness' analyses different types and operations of communication found in documents. It argues that for the purposes of indexing the 'aboutness' of documents resides in the presuppositions of authors about the knowledge of readers. The article describes text structures in terms of theme, rheme, thematic and semantic progression. The author notes that many automated indexing and abstraction systems are based on searching frequently-occurring subject descriptors, and cautions that mere frequency of word occurrence does not necessarily provide an adequate indication of the semantic content of documents. The study is frequently cited in studies of visual literacy and cartoon interpretation, where Hutchins' observations about 'aboutness' in text are extended to bear on visual and multimedia materials.

Relevance: generally relevant to the topic of identifying meaning in images;

Aboutness, Document analysis, Indexing

2.13

Jørgensen, C. (1995). *Image attributes: An investigation* (Order No. 9625856). Available from ProQuest Dissertations & Theses Global.

Corrine Jørgensen's PhD thesis researches the identification of image attributes for search and retrieval. The thesis takes as its starting point the observation that while millions of images per day are produced around the world, very little literature exists on the topic of assigning image attributes and descriptors to them for indexing purposes. The author backgrounds her research with a literature review taking into account different approaches to the classification of images from a range of disciplines including psychology, aesthetics, art history, and information science. A research experiment was conducted to compare the identification, sorting and searching processes of participants performing tasks with images. Words and phrases used by participants to describe images were analysed semantically and statistically. Resulting from this exercise Jørgensen identified 47 categories of image attribute and 12 higher-level image attribute classes. These are proposed as potentially helpful for the development of metadata schemas for electronic image indexing. The study has been widely cited and has been especially influential on the work of Landbeck (2002), who adapted Jørgensen's methodology to carry out similar research into indexing editorial cartoons.

Relevance: highly relevant to the topic of identifying meaning in images.

Image attributes, Image classification, Indexing, Metadata, Retrieval

2.14

Jørgensen, C. (2007). *Image access, the semantic gap, and social tagging as a paradigm shift*. 18th Annual ASIS SIC/CR Classification Research Workshop.

Starting with a useful definition of the semantic gap between human recognition and machine recognition of images, Jørgensen discusses current issues in the application of controlled-language descriptors and social tagging to image indexing noting that little research has yet been done to prove empirically the frequently expressed assumption that while social tagging might assist general recall of images, it could

undermine precision in returning useful results from image indexes. She concludes that multiple ontologies exist for the description of images.

Relevance: highly relevant to the topic of identifying meaning in images

Semantic gap, Tagging, Controlled authorities, Image ontologies, Description

2.15

Jørgensen, C., Jaimes, A., Benitez, A., & Chang, S. (2001). A conceptual framework and empirical research for classifying visual descriptors. *Journal of the American Society for Information Science and Technology*, 52(11), 938-947.

In an influential article the authors present a conceptual structure for the description of content in visual images. The structure draws on research in the fields of computer science, psychology, and information studies. The structure, called the 'Pyramid', contains (in descending order) four syntactical levels of image attribute categories; and six semantic levels of attribute. The discussion clearly distinguishes between semantic and syntactic processes that operate in the identification of content in visual images. A test of the structure was devised to examine whether it could classify a full range of visual content descriptors for an image, both syntactic and semantic. A sample of 700 images pulled from the internet was used as a sample with which to test the model. Results highlighted challenges in terms of individual indexers' experiences in testing the model, and in terms of the availability of metadata for the images tested.

Relevance: highly relevant to the topic of identifying meaning in images.

Image classification, Image attributes, Indexing, Description. Metadata

2.16

Kenney, K. (2002). Building Visual Communication Theory by Borrowing from Rhetoric. *Journal of Visual Literacy*, 22(1), 53-80.

Kenney provides a useful discussion about applying terms and concepts from the study of rhetoric to the interpretation of visual images. The article includes an entertaining section on the application of a neoclassical perspective to the interpretation of political cartoons, comparing cartoonists to classical orators who used tone and rhetoric to modulate their communicated messages. The article features a good summary of Medhurst & DeSousa (1981).

Relevance: highly relevant to the topic of identifying meaning in editorial cartoons.

Rhetoric, Visual communication theory

2.17

Kline, S., & Hill, M. (2010). Editorial Inkblots: A Comparative Analysis of Presidential Election Cartoons from 1960, 1980, and 2008. *Conference Papers - International Communication Association*, 1.

This interesting article compares editorial cartoons from three US Presidential elections to test the argument that levels of social capital and political participation are declining in the US. The article provides an excellent theoretical framework for understanding types of meaning found in editorial cartoons, and the rhetorical strategies used by editorial cartoonists to communicate meaning in their works. The authors usefully observe that 'cartoons have been viewed by historians as containing three basic elements: a cognitive picture of current reality, a normative

recommendation as to what should be done, and the creation of a mood that tells us how we should feel' (p. 2). They note work by Bostdorff (1987) on incongruity in cartoons and Morris (1993) on the rhetorical processes of condensation, opposition and carnivalization in understanding cartoons.

Relevance: highly relevant to the topic of identifying meaning in editorial cartoons.

Rhetoric, Condensation, Opposition, Carnivalization, Elections

2.18

Lan, C. & Zuo, D. (2016). Pictorial-verbal metaphors in Chinese editorial cartoons on food safety. *Metaphor & the Social World*, 6(1), 20–51.

Lan & Zuo examine 120 cartoons referencing food safety issues, collected from the website <http://cartoon.chinadaily.com.cn>. The cartoons are analyzed for pictorial-verbal metaphors, from the perspectives of conceptual metaphor theory and multimodal metaphor theory. The article develops the concept of multimodal metaphor theory in a Chinese context.

Relevance: highly relevant to the topic of identifying meaning in editorial cartoons.

Metaphor, Conceptual metaphor theory, Multimodal metaphor theory

2.19

Lin, T.Y., & Chiang, W. (2015). Multimodal Fusion in Analyzing Political Cartoons: Debates on U.S. Beef Imports Into Taiwan. *Metaphor and Symbol*, 30(2), 137-161.

In a very interesting study of cognitive mechanisms involved in understanding and interpreting the messages communicated by political cartoons, the authors propose a multimodal fusion model of cognitive mechanisms involved in the operation of political cartoons. They conclude that multimodal fusion is a recurrent technique in the composition of editorial cartoons, helping to encapsulate complex abstract concepts efficiently with satirical effect. Using a methodology similar to that of Lakoff and Johnson (1980) in identifying metaphor the authors examine cartoons relating to US beef imports according to the ideas "POLITICS IS GAME" and "POLITICS IS WAR". The study looks at both verbal and visual content in the cartoons.

Relevance: highly relevant to the topic of identifying meaning in editorial cartoons.

Multimodal fusion, Metaphor

2.20

Medhurst, M. J., & DeSousa, M. A. (1981). Political Cartoons as Rhetorical Form: A Taxonomy of Graphic Discourse. *Communication Monographs*, 48(3), 197.

Medhurst and DeSousa's research describes a taxonomic approach to identifying the methods of persuasion used by cartoonists in composing political cartoons. The study draws from the disciplines of rhetoric and art history, noting that the political cartoon is a form of non-oral rhetoric which has received little attention in studies of rhetoric. The authors seek to identify a set of formal principles by which cartoonists attempt to persuade their readers of their point of view. A sample of 749 cartoons was sampled in their analysis. An entertaining feature of the article is a table analysing exaggerated physical features of US politicians as represented by political cartoonists showing comparative frequencies of appearance for noses, teeth, body shape, hair, etc. for each politician. The authors conclude that the neoclassical canon of rhetorical

techniques could be used to devise a taxonomy of rhetorical devices used by political cartoonists.

Relevance: highly relevant to the topic of identifying meaning in editorial cartoons.

Rhetoric

2.21

Morris, R. (1993). Visual Rhetoric in Political Cartoons: A Structuralist Approach. *Metaphor & Symbolic Activity*, 8(3), 195-210.

Morris discusses a structuralist approach to metaphor in political cartoons, and suggests that this approach could be useful for attempts to describe how individuals and groups are portrayed in cartoons. The concept of visual rhetoric is introduced in relation to discussions of visual semiotics. Morris cites Gombrich's (1978) analysis of condensation and combination as elements in the satiric methodology of cartoonists. Morris also discusses the rhetorical devices of domestication, opposition, carnivalization and hypercarnivalization in relation to implied meaning in editorial cartoons.

Relevance: highly relevant to the topic of identifying meaning in editorial cartoons.

Structuralism, Metaphor, Rhetoric, Semiotics, Condensation, Combination, Domestication, Opposition, Carnivalization, Hypercarnivalization

2.22

Panofsky, E. (1939). *Studies in Iconology: Humanistic themes in the art of the Renaissance*. New York: Oxford University Press.

In this classic study the art historian Erwin Panofsky discusses his schema of three levels or strata of meaning which can be distinguished in a work of art. These are, (in truncated form): a) *primary or natural subject matter*, factual and expressional – enumeration of these aspects of an image constitutes a *pre-iconographical* description of the image; b) *secondary or conventional subject matter* – for example a group of figures seated at a dinner table in a certain way is intended to represent the Christian story of the Last Supper – identification of the secondary or conventional meaning of the image elements constitutes an *iconographical analysis* of the image; c) *intrinsic meaning or content* – this refers to the cultural, social and political contexts in which the image has been created, and to implied meanings with reference to those contextual values and symbols which the creator of the image communicates to the audience. Analysis of these image elements constitutes iconographical analysis and iconographical synthesis. Panofsky's three-level schema of iconography is frequently cited by scholars in many disciplines relating to the visual arts and media including information studies.

Relevance: relevant to the topic of identifying meaning in images.

Subject, Iconography, Iconology, Image analysis

2.23

Rafferty, P. (2011). Informative Tagging of Images: The Importance of Modality in Interpretation. *Knowledge Organization*, 38(4), 283–298.

Presented in the context of debate over the value of subjective, user-generated image descriptors contributed to image catalogues through social tagging, Rafferty's article describes an experiment to test a model of image modality. Four test images were

interpreted and tagged by a group of distance learning students of the University of Aberystwyth. The results suggest that while a modality model may be of some use in categorizing images within online catalogues, unmoderated user-generated tags could lead to information loss.

Relevance: highly relevant to the topic of identifying meaning in images.

Modality, Online catalogue, Tagging

2.24

Rafferty, P., & Albinfalah, F. (2014). A tale of two images: the quest to create a story-based image indexing system. *Journal of Documentation*, 70(4) 605-621.

The writers discuss the concept of story-based image indexing systems and describe an experiment to record the verbal descriptions of eight interviewees in response to two undescribed images. The responses are compared and analysed for potential themes useful for the design of a story-based image retrieval system. Theoretical approaches to image analysis, which have informed the design of the experiment, are discussed in a succinct introduction to issues relating to semantic image retrieval.

Relevance: relevant to the topic of identifying meaning in images

Semantic image retrieval, Indexing, Story-based imaging system, Tagging, Description

2.25

Rafferty, P. & Hilderley, R. (2005). Indexing multimedia and creative works: the problems of meaning and interpretation. Aldershot, Hants; Burlington, VT: Ashgate.

A very useful and well-organised introduction to multimedia indexing in book form, this substantial publication provides insights drawn from a wide range of fields including information science, computer science, communications and semiotics. It is aimed at a broad audience of readers interested in multimedia materials and their interpretation and indexing for retrieval. Chapter topics include an overview of information retrieval; discourse and communication; multimedia information retrieval; semiotic analysis of multimedia objects; multimedia indexing tools; and research issues.

Relevance: highly relevant to the topic of identifying meaning in images

Multimedia, Information retrieval, Semiotic analysis, Indexing

2.26

Schilperoord, J., Maes, A. (2009). Visual metaphoric conceptualization in political cartoons. In C. Forceville & E. Urios-Aparisi (Eds.) *Multimodal Metaphor*. (pp. 211-238). Berlin: Mouton de Gruyter.

In a substantial contribution to the literature on metaphor in editorial cartoons, the authors note that in order to interpret cartoons readers must not only map features from one cognitive domain to another, but in addition they must appreciate the critical stance adopted by the cartoonist. They postulate two separate cognitive interpretation strategies involved in interpreting cartoons: schematic reasoning and taxonomic reasoning. They argue that schematic reasoning is involved in the complex mapping of features from one domain to another, while taxonomic reasoning is involved in triggering the interpretation of critical stance.

Relevance: highly relevant to the topic of identifying meaning in editorial cartoons.

Metaphor, Schematic reasoning, Taxonomic reasoning

2.27

Shatford, S. (1986). Analyzing the subject of a picture: A theoretical approach. *Cataloging and Classification Quarterly*, 6(3) 39-62.

Shatford suggests a theoretical basis for identifying and classifying the subjects of visual images or pictures for indexing purposes. The author draws on a range of principles derived from established cataloguing and classification systems, combined with image analysis theory derived from the histories and philosophies of language, art and visual perception. Rather than attempting to specify or prescribe a particular indexing system the author provides a theoretical background intended to 'provide the reader with a means for evaluating, adapting, and applying presently existing indexing languages, or for devising new languages for pictorial materials' (p. 39). An important feature of the organisation of this much-cited article is that it begins with a discussion of possible uses of pictures, acknowledging the wide range of uses for which images are useful to various fields of enquiry. These observations lead logically into the discussion of meaning in visual imagery, with reference to earlier classification systems for levels of meaning in images such as Panofsky (1939).

A section on classification of the subjects of pictures discusses the concepts of 'ofness' and 'aboutness' in relation to pictorial meaning (Hutchins, 1977), acknowledging the basic principle that while a visual image may appear to be a representation *of* an item in concrete terms, its meaning may be intended to be interpreted by a viewer as being *about* something else. Shatford presents her suggested faceted classification system in tabular form in Figure 1 of the article. She cites Raganathan's concept of information facets among sources for her suggested system (Raganathan, 1939). In the final section of the article the author discusses how her proposed faceted classification system can be applied to the indexing of picture collections.

Relevance: highly relevant to the topic of identifying meaning in images.

Indexing, Ofness, Aboutness, Facets, Classification, Collections

2.28

Sterling, C.H. (2013). CBQ Review Essay: Editorial/Political Cartoons. *Communication Booknotes Quarterly*, 44(3), 99-115.

Published in the form of a brief annotated bibliography this article provides a handy selection of resources relevant to editorial cartoons, with an engaging overview. Sterling points out that formal studies of editorial cartoons are still fairly new to academic discourse. The selection is divided into four sections: reference; history – United; history – foreign; and individual cartoonists. The reference selection includes citations for collections including the Billy Ireland Cartoon Library and Museum and the British Cartoon Archive. Other sections contain a mix of published volumes and articles, including cartoonist biographies. This is a useful background resource which suggests the breadth of the field of cartoon studies.

Relevance: generally relevant to the topic of identifying meaning in editorial cartoons.

Cartoon studies, Cartoon archive, Collections

2.29

Stvilia, B., Jörgensen, C., & Wu, S. (2012). Establishing the value of socially-created metadata to image indexing. *Library & Information Science Research*, 34(2), 99-109.

In a valuable contribution to debate on the value of social tagging to image indexing the authors present the results of experiments which compared tag terms sourced from image descriptions found on Flickr and English Wikipedia to controlled-language terms found in the Thesaurus for Graphic Materials and the Library of Congress Subject Headings. 'Steve' tagging software was modified to have pre-assigned index terms loaded for the photographs used in the study. Participants were then asked to add their own tags and compare their tags with the pre-assigned terms. Testing the assumption that tag terms act to reduce the value of indexed image descriptions, the study found that social tags did add value. Complementing controlled vocabulary terms with social terms increased the coverage of participants' terms for describing an image. More experienced social taggers were found to add more tags to indexed items.

Relevance: highly relevant to the topic of identifying meaning in images.

Image retrieval, Controlled vocabulary, Tagging, Description, Metadata, Indexing, Subject headings

2.30

Ulubeyli, S., Arslan, V., & Kivrak, S. (2015). A semiotic analysis of cartoons about occupational health and safety issues in the construction workplace. *Construction Management and Economics*, 33(5-6), 467-483.

A semiotic analysis of cartoons about health and safety issues in the construction industry was conducted using the General Theory of Verbal Humour. Seven cartoons from different countries were selected from entries in a Turkish cartoon competition. The main finding was that, as represented in the cartoons, perceptions of health and safety in the construction industry do not vary significantly from country to country. The authors suggest that cartoons can be used as a *lingua franca* in workplace situations where migrant workers from many cultures are employed.

Relevance: highly relevant to the topic of identifying meaning in editorial cartoons.

Semiotic analysis, General Theory of Verbal Humour

PERSPECTIVE THREE: THE INTERPRETATION OF EDITORIAL CARTOONS BY READERS

3.01

Berkowitz, D. (2017). Solidarity Through the Visual: Healing Images in the Brussels Terrorism Attacks. *Mass Communication and Society*, 20(6), 740-762.

Berkowitz applies semiotic analysis to a range of images published in the international news media following the Brussels terrorist attacks of 2016. The article contains a separate section entitled 'Decoding Political Cartoons' which highlights the requirement for audiences to have a strong intuition of the dominant visual culture in which the cartoon is made, in order to decode it successfully. Berkowitz uses the concepts of denotation and connotation as developed by Barthes (1967) to support his argument. The author concludes that images including political cartoons can be intended and used to 'heal' societies in the wake of terrorist attacks.

Relevance: highly relevant to the topic of reader responses to editorial cartoons.

Semiotic analysis, Decoding, Denotation, Connotation, Intuition

3.02

Berkowitz, D., & Eko, L. (2007). Blasphemy As Sacred Rite/Right. *Journalism Studies*, 8(5), 779-797.

Using qualitative textual analysis techniques, the authors survey articles published in the American *New York Times* and French *Le Monde* newspapers at the height of the *Jyllands-Posten* Muhammad cartoons controversy, in 2006. While noting the multicultural and multinational aspects of the controversy the study identifies distinctly national journalistic paradigms are identified in the publications surveyed.

Relevance: highly relevant to the topic of reader responses to editorial cartoons.

Textual analysis, *Jyllands-Posten* Muhammad cartoons controversy, Multicultural, Multinational

3.03

Bounegru, L., & Forceville, C. (2011). Metaphors in editorial cartoons representing the global financial crisis. *Visual Communication*, 10(2), 209-229.

Bounegru and Forceville cite influential research by Lakoff and Johnson (1980) indicating that the human cognitive system is structured metaphorically, in the context of a study of 25 metaphors the authors identified within a sample of 30 editorial cartoons relating to the global financial crisis. The article contains a useful definition of the term metaphor in relation to their subject. They explain that a metaphor consists of a 'target' and a 'source'. Thus, if 'love is a battlefield', 'love' is the target and 'battlefield' is the source (p. 212). Using this methodology the authors divide the sample into groups according to identified source domains. The article is especially relevant for the authors' cogent discussion of the challenges to retrieval of data from electronically indexed collections of editorial cartoons. They note that while online cartoon indexes can provide convenient corpuses for the study of metaphor, search results are heavily dependent on the type and quality of indexing. They find that image tagging or labelling for their sample was not consistent, and that descriptive metadata lacked the discursive context of the publications in which the cartoons originally appeared. The authors' grouping of images according to identified

metaphoric source/domain headings suggests possibilities for enrichment of descriptive metadata for editorial cartoon indexing.

Relevance: relevant to the topic of reader responses to editorial cartoons.

Metaphor, Tagging, Metadata

3.04

Caswell, L.S. (2004). Drawing Swords: War in American Editorial Cartoons. *American Journalism*, 21(2), 13-45

Caswell's article presents a survey of US wartime editorial cartoons over two centuries. The study discusses the various roles of editorial cartoonist, editor and audience in the US in wartime, and how these have changed over time. The potentially conflicting agendas of satire and propaganda are discussed in relation to implied meanings of editorial cartoons. This article is not about indexing cartoons but is useful in relation to discussions about decoding editorial cartoons. Lucy Shelton Caswell has published many important studies on aspects of special collections cataloguing.

Relevance: relevant to the topic of reader responses to editorial cartoons.

Audience reception, Satire, Propaganda

3.05

Choi, Y. and Rasmussen, E. M. (2003). Searching for images: The analysis of users' queries for image retrieval in American history. *Journal of the Association for Information Science and Technology*, 54, 498-511.

In a study of readers' search needs for image retrieval in American history studies, search queries from 38 university students were collected and their search terms examined. 38 natural language statements, 185 search terms, and 219 descriptors were identified from the sampled queries. The distribution of subject content analysed across the sample. It was found that more than half of the queries could be described as 'general/nameable needs' (p. 498). Examples of participant queries included political cartoons from nineteenth-century American periodicals illustrating anti-Catholic prejudice, and political cartoons making statements either for or against the reenlistment of Union soldiers 1863-64. The implications of the findings for image indexing are discussed.

Relevance: generally relevant to the topic of reader responses to editorial cartoons.

Natural language, Content analysis, Search terms, Retrieval

3.06

Codina, M., & Rodríguez-Virgili, J. (2007). Journalism for Integration: the Muhammad cartoons. *Javnost-The Public*, 14(2), 31-46.

A useful summary of the background to the *Jyllands-Posten* Muhammad cartoons controversy is presented in this paper, which would be of great value to readers interested in any aspect of the controversy and related events. The cultural and political factors that gave rise to the controversy are well explained. The range of responses to the cartoons is concisely surveyed. The authors point to the global dimension of the controversy and the context of cultural coexistence. The study is aimed at assisting understanding of journalistic practice.

Relevance: highly relevant to the topic of reader responses to editorial cartoons.

Cartoon controversy, Cultural coexistence

3.07

Constantinou, M. (2018). Charlie Hebdo's controversial cartoons in question: stances, translational narratives and identity construction from a cross-linguistic perspective. *Social Semiotics*.

An important analysis of translation as it operates in news media images is presented in this substantial and well-illustrated paper. The author points out that message translation is an inherent part of international news reporting, and this applies to editorial cartoons as much as to other forms of media communication. She notes that 'political cartoons from an interlinguistic and intersemiotic perspective have just recently started gaining the interest of scholars' (no page number). To examine the translational aspects of the cartoon controversy the study referenced a corpus of texts from English, French and Greek online newspapers and blogs. The study revealed not only journalists voices but public narratives about cartoon controversies. The study finds that translating cartoons narratives involves finding semantic and textual equivalences, and adopting an integrative approach to intertextuality and polyphony. These approaches can help understanding of how cultural identities are constructed through competing narratives.

Relevance: highly relevant to the topic of reader responses to editorial cartoons.

Cartoon controversy, Translational narratives

3.08

Dalgaard, S., & Dalgaard, K. (2006). The right to offend. *The RUSI Journal*, 151(2), 28-33.

Published in the security-focussed journal of the Royal United Security Institute (RUSI), this article presents an interesting insight into the background of the *Jyllands-Posten* Muhammad cartoon controversy from the point of view of two senior Danish journalists. The authors note that Denmark has a tradition of freedom of speech which historically has shocked its neighbours. The article discusses Danish press coverage of Egyptian electoral politics in the context of the cartoon controversy. Two main debates have arisen as a result of the controversy, one political, the other philosophical.

Relevance: highly relevant to the topic of reader responses to editorial cartoons.

Cartoon controversy, Free speech

3.09

Danjoux, I. (2007). Reconsidering the Decline of the Editorial Cartoon. *PS: Political Science & Politics*, 40(2), 245-248.

Taking a historical perspective, Danjoux examines the changing relationship between editorial cartoonists and their editors. The number of full-time editorial cartoonists in the US declined from over 200 to less than 90 in 2007. Danjoux notes that Matt Davies, head of the Association of American Editorial Cartoonists, had stated that he was invariably questioned about the demise of the editorial cartoonist in recent interviews. Factors involved in the decline of editorial cartooning include technological innovation and corporate interests of newspapers. From a corporate point of view it does not make good economic sense to offend readers. Corporate media conglomerates are able to syndicate cartoons and reduce costs, impacting on editorial cartoonists. Digital technology give editors more control over the productions of cartoonists who traditionally exploited slow delivery times to ensure the publication of

more contentious works. Despite these factors the author contends that the future of the digital editorial cartoon seems bright.

Relevance: highly relevant to the topic of reader responses to editorial cartoons.

Syndication, Digital editorial cartoons

3.10

Eko, L. (2010). The Art of Criticism: How African Cartoons Discursively Constructed African Media Realities in the Post-Cold War Era. *Critical African Studies*, 2(4), 65-91.

In a very interesting study Lyombe Eko describes the ways in which political cartoons have been utilised throughout the African continent since the early 1990s. Eko notes that 'cartoons and caricatures have become the critical narrative device of choice of the African media' (p. 68). Cartoons are among the most visible manifestations of post-Cold War political liberalisation across the African continent. In the context of a discussion of cartoon controversies which references the Danish cartoon controversy of 2005, Eko provides a survey of African cartoon controversies. The author reproduces thirteen cartoons published in various African countries between 1997 and 2008, and observes that in narrative terms each one can be read as either a parable, a proverb, or a maxim. These are useful categories and provide an alternative schema for categorising cartoons by narrative device.

Relevance: relevant to the topic of reader responses to editorial cartoons.

Critical narrative, Cartoon controversy

3.11

El Refaie, E. (2009). Multiliteracies: how readers interpret political cartoons. *Visual Communication*, 8(2), 181-205.

El Refaie presents the findings of a small-scale study in which a sample of readers responded to three British political cartoons. The eight participating readers were all academics with highly developed literacy skills. They were selected by the author to be part of this pilot study on the presumption that they would share an interest in politics. Despite their similar social backgrounds the eight readers demonstrated very different responses to the cartoons. The study suggests that reading political cartoons is complex, requiring readers to make sense of multimodal texts by utilizing a range of different literacies, including knowledge of current and past events, familiarity with the cartoon genre, and analytical thinking skills in relation to current affairs.

Relevance: relevant to the subject of identifying meaning in editorial cartoons.

Multiliteracies, Analytical thinking skills

3.12

El Refaie, E. & Hörschelmann, K. (2010). Young people's readings of a political cartoon and the concept of multimodal literacy. *Discourse: Studies in the Cultural Politics of Education*, 31(2), 195-207.

El Refaie and Hörschelmann present a study of responses by young people to newspaper cartoons as a way of exploring the concept of multimodal literacy. The study draws on a related research project which collected response to cartoons from 16-19 years olds in a multi-ethnic British city, as a way of encouraging them to talk about political events. Editorial cartoons were chosen for the author's study of

multimodal literacy because they are good examples of multimodal texts, combining verbal and visual semiotic modes. The authors argue that the interpretation of editorial cartoons is complex and requires a particular form of multimodal literacy. The study concludes that while editorial cartoons can provide a good stimulus to engage young people with political ideas, many young people find it difficult to make sense of editorial cartoons.

Relevance: highly relevant to the topic of reader responses to editorial cartoons.

Multimodal literacy, Semiotics

3.13

Hammett, D., & Mather, C. (2011). Beyond Decoding: Political Cartoons in the Classroom. *Journal of Geography in Higher Education*, 35(1), 103-119.

In a study featuring South African political cartoons, Hammett & Mather present evidence for the usefulness of political cartoons in teaching political geography. The authors cite a number of references to research showing that political cartoons can be effective teaching aids, helping students to develop analytical skills. The study does not highlight concerns regarding students' difficulties with interpreting political cartoons discussed by El Rafaie (2009).

Relevance: highly relevant to the topic of reader responses to editorial cartoons.

Teaching, Analytical thinking skills, Decoding

3.14

Hampton, M. (2013). The Political Cartoon as Educationalist Journalism. *Journalism Studies*, 14(5), 681-697.

In a historically-focused article Hampton discusses the portrayal of mass unemployment in interwar Britain by New Zealand-born cartoonist David Low. Demonstrating the enduring interest Low's work holds for historians of editorial cartoons, the article notes that while scholars have traditionally neglected editorial cartoons as primary sources for the interpretation of historical events, this is changing. Low's works demonstrate the capacity for editorial cartoons to convey serious political messages within an entertaining medium. Hampton backgrounds the changes in the British newspaper industry which led to Low's popularity and relative freedom of expression. Low gained a large regular audience and celebrity status which enabled him to get his political message across in a staged manner, week by week.

Relevance: relevant to the topic of reader responses to editorial cartoons.

Visual culture, Mass media, Primary sources

3.15

Lægaard, S. (2007). The cartoon controversy as a case of multicultural recognition. *Contemporary Politics*, 13(2), 147-164.

Grouping together several examples of prominent clashes between culturally, ethnically or religiously defined groups, played out in the international media, Lægaard characterises these as multicultural conflicts. Using this concept as a basis, the author examines the *Jyllands-Posten* Muhammad cartoon controversy to consider whether the concept of recognition can be usefully applied to understanding multicultural conflicts. The study considers types of recognition involved in reader responses to the cartoon controversy, including claims denials of recognition of

aspects of the cartoons at the centre of the controversy. The concept of multicultural recognition is introduced.

Relevance: highly relevant to the topic of reader responses to editorial cartoons.

Cartoon Controversy, Recognition, Multicultural recognition

3.16

Lægaard, S. (2010). Normative significance of transnationalism? The case of the Danish cartoons controversy. *Ethics & Global Politics*, 3(2), 101-121.

Lægaard considers aspects of transnationalism in relation to the *Jyllands-Posten* Muhammad cartoon controversy. Transnationalism denotes relationships that do not take place between states, or between states and citizens, or between groups and individuals within a state. The paper argues that while arguments about freedom of speech usually take place domestically within a state, many such arguments also take place transnationally. Standard arguments about multicultural recognition are difficult to apply to transnational contexts.

Relevance: highly relevant to the topic of reader responses to editorial cartoons.

Cartoon controversy, Transnationalism, Multicultural recognition, Free speech

3.17

LaMarre, H.L., Landreville, K.D., Young, D., & Gilkerson, N. (2014). Humor Works in Funny Ways: Examining Satirical Tone as a Key Determinant in Political Humor Message Processing. *Mass Communication and Society*, 17(3), 400-423.

This study presents research on the cognitive processing of humour and message in political satire. The authors describe an experiment in which subjects were exposed to political satire in animated cartoons and in late-night television programmes.

Relevance: highly relevant to the topic of reader responses to editorial cartoons.

Cognitive processing, Satire

3.18

McGurk, C. (2016). Communicating the Value of Cartoon Art Across University Classrooms: Experiences From the Ohio State University Billy Ireland Cartoon Library and Museum. *New Review of Academic Librarianship*, 22(2-3), 192-202.

Caitlin McGurk is Associate Curator of Outreach and Engagement at the Billy Ireland Cartoon Library and Museum, Ohio State University. In this article she presents some of the varied uses to which cartoons can be put as primary sources in educational and pedagogical settings. She notes that perceptions of cartoons from an educational point of view have changed significantly, and such resources are now less likely to be viewed as vulgar. As a result perceptions of cartoons' usefulness as teaching resources have become more positive. She cites research suggesting that cartoons can be useful in developing critical thinking skills in students.

Relevance: relevant to the topic of reader responses to editorial cartoons.

Teaching, Primary sources, Critical thinking skills

3.19

Mackay, J. B., & Horning, M. A. (2017). Responding to Charlie Hebdo. *Journalism Practice*, 11(9), 1121-1136.

Editorial cartoonists were surveyed in a study of cartoonists' ethical perspectives and responses following the *Charlie Hebdo* shootings. Responses obtained from an online survey of 273 cartoonists were analysed. In addition to supplying demographic data about themselves cartoonists were asked to identify their political views on a scale between very conservative and very liberal. They were asked what their emotional responses were to the shootings, whether they drew a cartoon in response, and to describe the content of those cartoons. A standardised questionnaire was used to determine the respondents' ethical positions in relation to the shootings. Key ideas in the cartoons were analysed for frequency of occurrence. The authors conclude that no single set of criteria can account for the cartoonists' decisions about how they expressed their feelings in their cartoons following the shootings.

Relevance: highly relevant to the topic of reader responses to editorial cartoons.

Ethics position theory, Cartoonist responses

3.20

Mello, W.B., (2007). Political Cartooning in the 21st Century: A Changing and Dynamic Future. *Critical Studies in Media Communication*, 24(1), 78-80.

In a brief but useful opinion-piece W. Bradford Mello outlines profound changes in the international news media industry that have impacted on editorial cartoonists since the advent of the internet. Mello observes that editorial cartoons are inherently political. Referencing American editorial cartoonists Garry Trudeau, Darrin Bell, and Daryl Cagle, Mello discusses cartoonists' perceptions that they are increasingly expected to avoid offending readers in the context of the profit agendas of corporate news businesses. Mello cites research showing decline in cartoonist numbers and suggests that cartoonists must find alternative outlets for distributing their work. He suggests that these challenges may help keep the art form alive in the long run.

Relevance: relevant to the topic of reader responses to editorial cartoons.

Audience reception, Syndication

3.21

Müller, M.G., Özcan, E., & Seizov, O. (2009). Dangerous Depictions: A Visual Case Study of Contemporary Cartoon Controversies. *Popular Communication*, 7(1), 28-39.

Three connected cases of cartoon controversies in the year 2006 are examined and compared: the *Jyllands-Posten* Muhammad cartoon controversy; controversy arising from a cartoon competition initiated by the Iranian government for cartoons addressing the Holocaust; and controversy surrounding cartoon depictions of Lybian leader Khadafi published in Bulgaria in the context of a trial of Bulgarian nurses accused of infecting Lybian children with HIV. The authors note that while language barriers impede global textual communication, visuals can transgress such barriers and evoke responses in different cultural contexts. They conclude that the relationship between text and image in the international news media has significantly shifted and visuals can no longer be dismissed as merely decorative. Depictions can be dangerous communications tools if their cross-cultural conflict potential is misunderstood or ignored.

Relevance: highly relevant to the topic of reader responses to editorial cartoons.

Cartoon controversy, Cross-cultural conflict

3.22

Navasky, V.S. (2013) *The Art of Controversy: Political Cartoons and Their Enduring Power*. New York: Alfred A. Knopf.

Former editor of *The New York Times*, and long-time editor of *The Nation*, Victor S. Navasky provides a brilliant summary of the history of political cartooning from its origins in the Italian Renaissance to the present. The well-constructed commentary includes sections on the cartoon as content, the cartoon as image, and the cartoon as stimulus, as well as a useful section on caricature. Thirty-one internationally influential cartoonists are profiled in individual chapters, including the New Zealand-born David Low, acknowledged as 'the twentieth century's greatest caricaturist' (p. 113). A fascinating timeline at the end of the book presents a chronological selection of events from 1831 to 2012 in which cartoonists were charged with offenses or subject to violent attack for their works.

Relevance: relevant to the topic of reader responses to editorial cartoons

Political cartoons, Cartoon controversy, Caricature

3.23

Olson, K.M., & Olson, C.D. (2004). *Beyond strategy: a reader-centered analysis of irony's dual persuasive uses*. *Quarterly Journal of Speech*, 90(1), 24-52.

In the context of a wider discussion of how modes of irony affect readers, the authors offer four possible interpretive positions on two ironical political cartoons concerning the rededication of the Statue of Liberty. They point out that the interpretation of an editorial cartoon is dependent on the reader. Readers may wholly or partly decode the cartoonist's meaning, but the 'decoding space' between cartoonist and reader allows for alternate readings; readings are co-created between cartoonist and reader. The study conceives readers in terms of three categories: optimistic, cynical and sceptical. Texts that are open to interpretation are not necessarily beneficial to public sphere discussions.

Relevance: highly relevant to the topic of reader responses to editorial cartoons.

Irony, Decoding

3.24

Schnakenberg, U. (2010). *Developing multiperspectivity through cartoon analysis: Strategies for analysing different views of three watersheds in modern German history*. *Teaching History*, (139), 32-39.

Schnakenberg's concise article on the uses of editorial cartoons in teaching German history to students is frequently cited by other scholars in the field of editorial cartoon studies. It contains an excellent definition of cartoons as 'riddles to be deciphered' (p. 139). Schnakenberg notes that while cartoons are typically enjoyed by students, they can present considerable difficulties for students. Students need to develop reading strategies and analytical skills to interpret cartoons. Using graphics and illustrations the author presents a methodology for scaffolding cartoon analysis, and shows how cartoon analysis can be used to explore multiple perspectives in history.

Relevance: highly relevant to the topic of reader responses to editorial cartoons.

Teaching, Analytical thinking skills, Cartoon Analysis, Multiperspectivity

3.25

Shaw, M.J. (2007). Drawing on the Collections. *Journalism Studies*, 8(5), 742-754.

Based on an introduction to resources held at the British Library, Shaw discusses the development of American political cartooning and advocates for the study of political cartoons as primary sources for research on print history. In a concise overview of editorial cartooning history and historiography the article emphasises the growth in popularity of editorial cartooning in nineteenth-century America, and its role in defining what it means to be American. The article also provides a practical guide to bibliographic tools, electronic resources, and institutional collections that researchers can access for further study.

Relevance: generally relevant to the topic of reader responses to editorial cartoons.

Cartoon resources, Primary sources, Collections

3.26

Veninga, J.E. (2016). Echoes of the Danish Cartoon Crisis 10 Years Later: Identity, Injury and Intelligibility from Copenhagen to Paris and Texas. *Islam and Christian-Muslim Relations*, 27(1), 25-34.

Taking as its starting point the tenth anniversary of the *Jyllands-Posten* Muhammad cartoon controversy, Veninga's article shows how debate about Danish identity stirred up by the controversy was eclipsed by polarising debate about freedom of speech and religious respect. Such issues were once again brought to the fore in the international media by the 2015 Charlie Hebdo terror attacks. The author argues that popular debate on such issues is inherently dualistic. She suggests that the concepts of identity, injury and intelligibility can help to broaden discussions beyond the dualistic model of argument.

Relevance: highly relevant to the topic of reader responses to editorial cartoons.

Cartoon controversy, Free speech

3.27

Wicks, R.H. (2005). Message Framing and Constructing Meaning: An Emerging Paradigm in Mass Communication Research. *Annals of the International Communication Association*, 29(1), 335-362.

This is a useful article about the ways in which meanings are constructed, communicated by media and interpreted by audiences. The author discusses the concept of message framing developed by such writers as Burke (1966) and McLuhan (1964). News messages may be framed episodically, in terms of narrative, or thematically, in terms of general or abstract concepts. Political cartoons are mentioned in the context of a discussion of content analysis. Content analysis of messages in media publications including political cartoons can have a high degree of external validity if appropriate methodologies are used.

Relevance: relevant to the topic of reader responses to editorial cartoons.

Visual communication, Audience reception, Framing, Content analysis

3.28

Yilmaz, F. (2011). The Politics of the Danish Cartoon Affair: Hegemonic Intervention by the Extreme Right. *Communication Studies*, 62(1), 5-22.

An overview of the cultural and political background to the *Jyllands-Posten* Muhammad cartoon controversy is provided in this substantial paper. The explosive production of journal articles and books analysing the controversy is noted. The author argues that the controversy served the agenda of the publisher, and that the ensuing events were exploited by sections of the European populist right movement to incite moral panic around Muslim immigration and cultural practices. The paper suggests that both defenders and critics of the cartoons claimed to have been speaking from a liberal or progressive perspective. It observes that the literature on the controversy tends to treat the publication of the cartoons as an event separate from the ensuing events, which are interpreted in terms of abstract, universal principles. The author suggests that there is a need for societies to identify possible agendas behind cultural controversies and crises, rather than to 'readily jump into them' (p. 18).

Relevance: highly relevant to the topic of reader responses to editorial cartoons.

Cartoon controversy

PERSPECTIVE FOUR: ONLINE RESOURCES FOR EDITORIAL CARTOON RESEARCH AND ACCESS

SELECTED CARTOON COLLECTIONS AND ASSOCIATED WEBSITES & WEBPAGES

Australian Cartoon Museum

<https://www.theaustraliancartoonmuseum.com.au/>

Billy Ireland Cartoon Library & Museum, Ohio State University Libraries

<https://cartoons.osu.edu/>

British Cartoon Archive

<https://www.cartoons.ac.uk/index.html>

Belgian Comic Strip Centre

<https://www.comicscenter.net/en/home>

Cartoon Museum, London

<http://www.cartoonmuseum.org/>

Library and Archives Canada: political cartoons collection

<http://www.bac-lac.gc.ca/eng/discover/politics-government/canadian-confederation/Pages/political-cartoons.aspx>

Library of Congress: cartoon prints, American

<http://www.loc.gov/pictures/collection/app/>

National Library of New Zealand: New Zealand Cartoon Archive

<https://natlib.govt.nz/collections/a-z/new-zealand-cartoon-archive>

New Zealand Cartoon Archive website

<http://www.cartoons.org.nz/>

SELECTED NEWS MEDIA AND CARTOONIST WEBSITES

Belltoons: Steve Bell official website

<http://www.belltoons.co.uk/index.php>

Charlie Hebdo

<https://charliehebdo.fr/en/>

Chicane Pictures (Mark Winter) official website

<https://chicanepictures.com/about/>

China Daily

<http://www.chinadaily.com.cn/opinion/cartoon/index.html>

Daryl Cagle official website

<https://darylcagle.com/>

Stuff Cartoons

<https://www.stuff.co.nz/opinion/cartoons>

The Guardian: Steve Bell profile

<https://www.theguardian.com/profile/stevebell>

The New York Times: Cartoons & Cartoonists

<https://www.nytimes.com/topic/subject/cartoons-and-cartoonists>

The New Zealand Herald: cartoons

<https://www.nzherald.co.nz/tags/cartoons/500814/>

The Washington Post: editorial cartoonists syndication

https://www.washingtonpost.com/syndication/cartoonists/?utm_term=.b4be7869cba3

SELECTED AGENCIES

Association of American Editorial Cartoonists (AAEC)

<http://editorialcartoonists.com/aaecweb/>

Australian Cartoonists Association

<http://www.cartoonists.org.au/>

Cartoonists Rights Network International

<https://cartoonistsrights.org/>

Professional Cartoonists Organisation (UK)

<https://procartoonists.org/>

SELECTED METADATA STANDARDS & AGENCIES

Digital Curation Centre

<http://www.dcc.ac.uk/>

Dublin Core Metadata Initiative

<http://dublincore.org/>

Encoded Archival Context – Corporate Bodies, Persons , and Families (EAC-CPF)

<https://eac.staatsbibliothek-berlin.de/>

Encoded Archival Description (EAD)

<https://www.loc.gov/ead/>

International Image Interoperability Framework (IIIF)

<https://iiif.io/>

Metadata Encoding & Encryption Standard (METS)

<http://www.loc.gov/standards/mets/>

Metadata Object Description Standard

<http://www.loc.gov/standards/mods/>

Research Data Alliance

<https://www.rd-alliance.org/>

VRACore

<https://www.loc.gov/standards/vracore/>

SELECTED THESAURI & CLASSIFICATION SYSTEMS

Art & Architecture Thesaurus (Getty Research Institute)

<http://www.getty.edu/research/tools/vocabularies/aat/>

Thesaurus For Graphic Materials

<http://www.loc.gov/pictures/collection/tgm/>

Iconclass

<http://www.iconclass.org/>

PART 3: CONCLUSIONS AND DIRECTIONS FOR FURTHER RESEARCH

Conclusions

While there remains a well-documented gap in the literature specifically addressing the indexing of editorial cartoons for search and retrieval, this study concludes that there has been a significant increase in published research on this topic since 2000. A common theme in the literature is the relative values of controlled-language versus free-text metadata fields for cartoon description in automated indexing; a parallel debate concerns the relative values of professional indexing versus social tagging for the identification of content in editorial cartoon indexes. Several writers have endorsed the value of free-text, natural language descriptive fields for identifying and making accessible semantic content in editorial cartoons (Wu, 2013; Johnston & Köntges 2016).

Despite profound changes in the news media industry editorial cartoons continue to attract popular attention and sometimes violent responses. It seems likely that research interest in editorial cartoons will continue to grow. In serving that interest, indexers of editorial cartoon collections will need to improve indexing methodologies, to facilitate data-mining and topic modelling techniques for content analysis relevant to a variety of research fields.

Directions for further research

Despite the challenges of finding and creating metadata sets suitable for topic modelling and other types of computational analysis, Johnston and Köntges (2016) believe that it is possible for indexers to improve their descriptive practices for editorial cartoons, to help facilitate such research. They emphasize the value to cartoon indexing of granular, free-text scope and contents notes fields, used in combination with controlled-vocabulary fields. Future directions for studies on the description of visual materials include research on enhancing interoperability among data standards used to describe and index materials held by GLAM sector organisations. In an international, open-data environment, the adoption of application programming interfaces such as IIIF (Crane, 2017) can help GLAM sector organisations and image libraries present image metadata more effectively, formatted according to a range of standard schemas.

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