Playing with Flickr. Photo sharing as multimodal digital practice.

Sigrid Jones, University of Vienna

Draft paper – to be presented at the AOIR 2008 Workshop: The role of photos in current netculture

different digital discourse distribution domain fact flickr forms framing game groups images meaning media multimodal networks people personal photo photographs photography picture play practices private production public separate site social tags text titles used users value visual words

1. Introduction

For the purposes of the workshop I shall use Kress and Van Leeuwen's theory of *Multimodal Discourse and Social Semiotics* (Kress & Van Leeuwen 2001) as tool to analyse Flickr.com as a multimodal text, outlining the relationships, tensions and negotiations between Flickr as media producer, provider and commercial enterprise on the one hand and 'produsers' - media producers formerly known as consumers – on the other, and how they combine in shaping new cultural and social practices. Flickr.com is considered to be a multimodal text that is jointly constructed by the people designing, programming, hosting, running and selling the services and infrastructure and the users providing the content, consisting of images, avatars, macros, captions, comments, discussions, group rules, tags and more.

Kress and Van Leeuwen (2001) aimed to develop a theory for investigating multimodal texts that considers the four domains of practice *Discourse*, *Design*, *Production* and *Distribution* as all relevant for the production of meaning. The theory of multimodal discourse starts from the position that

Sigrid Jones *Playing with Flickr. Photo sharing as multimodal digital practice.* Paper to be presented at the AOIR 2008 Workshop: The role of photos in current netculture. Copenhagen. Contact: sigrid.jones@univie.ac.at www.MedianABC.at, http://wordandimage.wordpress.com

representation and communication always happens through a range of modes, and that all modes, that is speech, image, gesture, writing, etc. provide sets of semiotic resources that are used in combination to create meaning. Every text is multimodal, even if one mode of representation may dominant, such as the verbal or the visual or sound. This is pertinent as we live in a period of cultural change whereby, as Kress & Van Leeuwen claim, the mode of the visual - image and design - is gaining power over the writing mode,, which has been the culturally dominant mode for many centuries. Multimodal text used to be subordinated to the logic of alphabetic writing, with the typical reader following the linear sequence of text in books. Today, however, texts increasingly follow the logic of the screen, that is, they are dominated by the visual mode, and the user's reading path follows the non-linear logic of reading a visual design. (Kress & Van Leeuwen 2001, Kress 2003)

Flickr.com, the social network and photo-sharing service, is a household name today, needing no further introduction here. It is considered one of the earliest and fastest growing Web 2.0 applications - in fact Flickr has been used to define Web 2.0 and the notion of user-generated content. In my Flickr research, I explore how people organize around and through Flickr, how Flickr continues to serve social uses of photography predating the arrival of digital technologies, and how it facilitates new practices. I would argue (along with Burgess 2007) that apart from its 'usability' and 'hackability', Flickr's 'playability' and 'spreadability' (Jenkins 2008) are some one of the most important features that differentiate Flickr from other photo-sharing communities and social network sites, and that these have contributed to its popularity and reputation. As the outcome of my research so far I would also claim, that Flickr is currently a major player in defining, what people can and may do with photos, and that social and cultural practices associated with Flickr are shaping discourses around photography in new ways.

2. Design

Kress and Van Leeuwen (2001) define design as "conceptualisations of the form of semiotic products and events", (2001:21) as separate from actual material production. "Design stands midway between content and expression. It is the conceptual side of expression, and the expression side of conception." (Kress & Van Leeuwen 2001:5)

The work of representation and communication used to be divided into domains of differently skilled groups of people, bound within their own practices, traditions, professions and habits (Kress & Van Leeuwen 2001:45) On Flickr, distinctions may be drawn between different aspects of design. Flickr as a company decides on the general layout and structure of the site, including the site architecture, site navigation, and the visual layout and style of the various web pages. Flickr.com's main design task lies

Sigrid Jones *Playing with Flickr. Photo sharing as multimodal digital practice.* Paper to be presented at the AOIR 2008 Workshop: The role of photos in current netculture. Copenhagen. Contact: sigrid.jones@univie.ac.at www.MedianABC.at, http://wordandimage.wordpress.com

in the design of the infrastructure. Flickr users design multimodal text in taking, choosing and uploading images, and composing titles, captions and comments. They provide most of the content.

Frame

I shall focus here on a single aspect of design, the notion of 'frame'. Kress and Van Leeuwen state that "framing is a multimodal principle" (2001: 3), which may be realized in different semiotic modes. Framing is considered as a semiotic resource - in written text, for example, framing not only applies to the graphic design of a page, but also takes place through punctuation and the construction of units of meaning through paragraphs, both of which add to the meaning of given text. "Without framing, no meaning', we might say." (Kress 2003:125)

Flickr as service provider keeps tight control of the general framing of text and images. Framing here refers to the layout of the pages, which is clearly structured and 'clean', with plenty of white space surrounding and visually separating the different units of meaning (menu bar, images, tags, comment section, etc). Framing here also refers to the site architecture and navigation, which groups content, connects and separates different sections of Flickr.com through hyperlinks, and punctuates the user's movement or navigation through the site.

Framing photographs is a cultural practice that adds personal meaning to the given image. As photographs are polysemic, framing photographs means placing them in a chosen context and arranging them in order to serve a particular narrative. The display of private photographs traditionally demands framing by visual devices such as picture frames, arrangement in collections, wall displays, or photo albums. On Flickr, such personal framing is restricted to the arrangement of photographs in personal collections and sets, with the addition of titles, captions and tags. Unlike with other social networking sites, personalisation of the individual Flickr page, and thus personal framing, is very limited. Flickr dictates the visual framing of the images uploaded by the users. However, Flickr allows and facilitates customized framing of photographs, as they may be taken elsewhere – Flickr is 'designed for hackability'.

Hackability, for Flickr, users means the ability to take their own or appropriate other photographers' images and 'reframe them' – by placing them within a different context, on another website, or weblog, and by re-mixing them, using the images as a semiotic resource to create their own meaning and serve their own intentions,¹ whether purely for 'fun', or for commercial purposes.

Sigrid Jones *Playing with Flickr. Photo sharing as multimodal digital practice.* Paper to be presented at the AOIR 2008 Workshop: The role of photos in current netculture. Copenhagen. Contact: sigrid.jones@univie.ac.at/www.MedianABC.at/, http://wordandimage.wordpress.com

¹ In this paper "the photographer" is understood as a photographer, holder and user of a Flickr account uploading content, even though technically speaking a user, of course, may hold rights and upload photos taken by other photographers. I refer to "users" in the sense of all other people, account holders or not, browsing, viewing, 'photolurking' and engaging with Flickr in various ways, as in tagging, commenting on and blogging pictures not necessarily uploaded by themselves.

In fact, many mash-up application have been created by users, on the basis of Flickr's open API code, deliberately playing with the notion of framing: for example Museumr enables the user to place a given image within a photograph of a picture frame situated on a gallery or museum wall, thus offering the opportunity for an ordinary snapshot to be viewed in the context of 'high art.' Flickr users also can create particular frameworks for viewing images by starting groups on certain topics. Designing a 'frame' here means outlining the guidelines and rules that apply to photos posted within the group concerning content, style, technique or the shape of the frame itself (e.g. squared or cinemascope).

These practices are supported by the fact that photographs are polysemic, and that they may carry both public and private meanings. (Berger 1980) Previously, the domains of public and private viewing of photographs were more, if not entirely, separate. On Flickr, public and private uses of photography merge. Through the uploading and display of images on clinically white Flickr pages, photographs are de-contextualized. By adding captions and tags, grouping them into sets, by submitting them to certain groups, the potential for new narratives and multiple meanings can be created. From the moment a picture is made public on Flickr, it can serve as a resource for different narratives and social practices simultaneously.

The frame of the photograph, however, delineates the boundary of influence, which Flickr as a company and other Flickr users are not able to cross. The influence of others over the framing and thus production of meaning is limited by the edge of the photograph. Thus the frame of the image separates the domains of the multiple producers of meaning – the content within the frame remains the sole domain of the photographer.

The frame of the photograph is also important for other reasons: the frame as visual boundary is essential for the photographic practice itself. It is with the edges of the photograph that the photographer exerts control over the image. "The photograph's edge defines content ... The photographer edits the meaning and patterns of the world through an imaginary frame." (Szarkowski, 1966, 2007:70) The photographer defines his subject by using the picture's edge as a tool to create meaning; framing means choosing and eliminating. Thus, paradoxically, the use of the frame fixed and defined by the camera manufacturer is one of the vital things that enable the photographer to control, if not the external, then the internal narrative of the image. The edge of the image is the boundary that limits the photographer's control over the public meaning of the photograph.

In summary, Design contextualizes what was previously decontextualized. *Design*, in terms of Flickr users, is carried out by Flickr staff, hackers and third party programmers, photographers and other users. The meaning of a photograph on Flickr is subject to negotiation between Flickr, its users and the photographer, in a dance around the frame, the edge of the image providing an inner and outer boundary for meaning making.

Sigrid Jones *Playing with Flickr. Photo sharing as multimodal digital practice.* Paper to be presented at the AOIR 2008 Workshop: The role of photos in current netculture. Copenhagen. Contact: sigrid.jones@univie.ac.at www.MedianABC.at, http://wordandimage.wordpress.com

3. Production

Kress & Van Leeuven define *Production* as the domain where the actualization, the material manifestation of the design takes place. Relating this to digital text is not straightforward, as digital texts are somewhat ephemeral: they live in the form of invisible bits and bytes, locked away on computer hard drives, USB sticks, CDs and DVDs; they travel invisibly through telephone lines, and only visibly, audibly manifest on a computer, camera, television or mobile phone screen. As Kress & Van Leuvven point out, it is not always easy or even possible to draw distinct lines between the *Design* and *Production* processes. This is especially true when scrutinizing the complex practices centred around Flickr.

On Flickr as a media site, production takes place in several ways, carried out by different groups of people:

- (1) The original founders and people working for Flickr in creating the layout, graphics, programming and maintenance of the site. The ongoing production of limited content (such as the Flickr Blog) and the choosing of content to be featured on Flickr 'Explore' are akin to editorial functions.
- (2) The photographer taking, digitizing, altering, rendering, manipulating and uploading images, arranging them into in collections and sets, submitting them to groups, adding titles, comments and tags.
- (3) All other users, adding comments, tags etc.
- (4) Users who navigate their own reading path through Flickr, reading images and text and producing their own meanings in an act of interpretation, or semiosis.

For the purposes of this paper I shall omit the discussion of the production of content, which lies within the frame of the photographic image, and focus on one point only, the addition of text to accompany images uploaded on Flickr as part of the production process.

Title and caption

The relationship between word and image has been the subject of investigation by many notable philosophers, linguists and semioticians. Words accompanying photographs have long been considered an essential component of pictures. (see Mitchell referring to Roland Barthes and Walter Benjamin, 1992:192) These might be titles and captions accompanying press photography, or words in books, copy text with advertising, personal notes on the back of picture postcards or spoken comments while sharing family or holiday snaps with friends.

The juxtaposition of word and image can add meaning to a multimodal text in many different ways.

Sigrid Jones *Playing with Flickr. Photo sharing as multimodal digital practice.* Paper to be presented at the AOIR 2008 Workshop: The role of photos in current netculture. Copenhagen. Contact: sigrid.jones@univie.ac.at www.MedianABC.at, http://wordandimage.wordpress.com

The information provided by word and image may enhance the meaning. Word and image can complement or stand in contrast to each other. Words can illustrate or paraphrase an image just as an image can illustrate or paraphrase words. An image can render words more specific, or vice versa, words can anchor the meaning of an image, or place a particular emphasis. (Tønnessen 2008, Mitchell 1992:192ff). A photograph in combination with words can serve varying rhetorical functions – it can be used to persuade, make assertions, make claims, or make us laugh.

With digital photography, images and words closely linked through their underlying technology. Image files have to be named: they are given titles, tags, or digital watermarks – in fact it is numbers and letters that make images searchable and findable on computers and search engines. While in a personal photo album a photographer may or may not add captions, on Flickr the photographer, and indeed every other user, is encouraged to add text, tags and anchorage to every photo made public. The title field, if not used for a specific title, will usually show the generic file name automatically provided by the digital camera. In the process of uploading the images, the photographer is prompted by Flickr to add titles and tags to individual photos and sets of images. Thus, while the photo uploaded is de-contextualized, de-personalized, the photographer is encouraged to provide additional meaning through title, caption and tags that are ideally not only personal, but relate to some more or less objective quality adding to the folksonomy of images. The photographer wanting to increase the visibility of the image is made to think about appropriate titles, captions and tags that are findable by search engines. He is, if not forced, then coerced into adding meaning to the image, which ultimately serves the needs of others more than his own. One may argue that this is ultimately what communication is about - wanting to be heard, read or viewed calls for the effort of clear communication, an effort that is repaid by the response of others. However, there is also another angle to this. Photographs previously shared among people in a gift economy are now becoming part of a commodity culture. (see Jenkins 2008 in a discussion of DIY media on YouTube) Adding tags to images adds value to the photo, and ultimately to Flickr, aiding the commodification of the photographs.

In summary, Flickr administrators, users, groups and their members, and photographers co-construct meaning by adding text and context though titles, captions, comments, tags, discussion and pools serving personal, private and public narratives. This may be seen as serving a continuation and extension of social practices applied to photography predating digital networked practices. However, photographs, which used to be shared in a gift economy, are now also being commodified.

Sigrid Jones *Playing with Flickr. Photo sharing as multimodal digital practice.* Paper to be presented at the AOIR 2008 Workshop: The role of photos in current netculture. Copenhagen. Contact: sigrid.jones@univie.ac.at www.MedianABC.at, http://wordandimage.wordpress.com

4. Distribution

Distribution is the domain that is concerned with the dissemination of text and how new technologies change conditions and meaning, as texts are 'recoded' for different distribution circles. New technologies can re-shape and transform the message in new and different ways. With digital media, the text's design, production, and its distribution, which used to be in the hands of different groups of people and subject to diverse and distinct professional practices, have merged.

Distribution can mean physical distribution of media content or product, but an essential part or preliminary of the distribution process is promoting the media product through a multitude of communication channels, including public relations and advertising. With Flickr, as with other DIY media, people take promotion and distribution of content into their own hands. They feature it on weblogs, talk about it in forums, chat rooms and social networking sites, and appropriate and remix it for their own purposes.

Understanding Flickr means not limiting the field of investigation to what happens on Flickr.com itself, As Flickr is not just a self-contained entity, but part of networked cultural practices. In the course of the last century, taking pictures has become ever more affordable and ubiquitous, even more so with the introduction of digital photo technology and mobile phone cameras. For many decades, even ordinary people have made the production of pictures part of their everyday cultural practices. Inherent in digital technology is the capacity for easy manipulation, transformation, or re-mixing of images as well as the capacity for distribution though digital networks. Through Web 2.0 networked technology, for the first time ordinary people can seize the means of distribution, and on a large scale. While the context of image production has not necessarily changed, the context of reception and circulation has. Henry Jenkins (2008), in the context of DIY media, discusses this as the difference between 'sticky' and 'spreadable' media content – between old media, which is distributed from a centralized hub in the hands of distributors (in the case of photography through print magazines, newspapers, books, or art galleries) and new media practices, which are marked by an increasing collaboration between producers, distributors and consumers. In the case of DIY media, what matters is not only "who produces the content, but who moves it to other spaces". (Jenkins 2008) In fact, Jenkins calls the motto "if it doesn't spread it's dead" a core principle of new DIY media practices.

William J. Mitchell (1992) had already outlined much earlier the affordances of digital images in comparison to analogue photography. While the act of printing an image from a negative or publication meant fixing the work in some tangible medium of expression, with digital images there is no corresponding act of closure (Mitchell 1992:51). Mitchell argued that we "might best regard digital images, then, neither as ritual objects (as religious paintings have served) nor as objects of mass

Sigrid Jones *Playing with Flickr. Photo sharing as multimodal digital practice.* Paper to be presented at the AOIR 2008 Workshop: The role of photos in current netculture. Copenhagen. Contact: sigrid.jones@univie.ac.at www.MedianABC.at, http://wordandimage.wordpress.com

consumption (as photography and printed images are in Walter Benjamin's celebrated analysis), but as fragments of information that circulate in the high-speed networks now ringing the globe and that can be received, transformed, and recombined like DNA to produce new intellectual structures having their own dynamics and value" ... "If mechanical image reproduction substituted exhibition value for cult value as Benjamin claimed, digital imaging further substitutes a new kind of use value – *input value*, the capacity to be manipulated by computer – for exhibition value. The age of digital replication is superseding the age of mechanical reproduction. The cultural production system now emphasizes processability." (Mitchell 1992:52)

So, processability (Mitchell 1992), hackability (Burgess 2006) and spreadability (Jenkins 2008) are all vital features for the distribution of digital photography, all of which are supported, encouraged and used by Flickr.com. This means that the medium of the Internet, and Flickr as part of it, functions "not just as a transmission medium – but as an originating medium, a medium for creating new forms of interaction." (Kress & Van Leeuwen 2001: 109)

Flickr practices are marked by multiple authorship, fluidity, lack of stability and closure. The use of digital images, as part of a multimodal text and distributed through digital networks, renders the meaning of images into something dynamic, provisional and in a constant state of flux, rather than something fixed that can be subjected to some definite scrutiny. In Flickr, the media of text, photography, (old media) computer and internet (new media) meet and are remixed in a unique way to create new social practice new ways of using photographs. Flickr uses a flow of images that passes us by, encompasses us and forms and reforms into ever-new meanings, shapes, waves and currents.

5. Discourse

The practice of photography is situated within public and private discourses, that can be aligned along a series of dichotomies such as public versus private, art versus craft, and professional versus vernacular. I would like to focus here on one of these sets of dichotomies, where photography is considered either as art, which is mastered by professionals and artists, or as vernacular practice including snapshots of family and friends, pictures of holidays and travel, and amateur photography. In these discourses photography is regarded either as a specialized technique or 'art' or as a practice without particular aesthetic or cultural merit beyond purely personal use. Photography as art or professional practice is 'serious', while snapshot or amateur photography is considered 'trivial'. Domestic photography is not situated in a discourse concerning 'quality' or 'aesthetics'.

In a previous paper, (Jones 2008) I discussed more in depth how Flickr not only supports older social and cultural practices relating to the use of personal photography, such as the construction of personal

Sigrid Jones *Playing with Flickr. Photo sharing as multimodal digital practice.* Paper to be presented at the AOIR 2008 Workshop: The role of photos in current netculture. Copenhagen. Contact: sigrid.jones@univie.ac.at www.MedianABC.at, http://wordandimage.wordpress.com

and group memory, the creation and maintenance of social relationships and self-expression, and the construction of identity through the creation of personal narratives. Importantly, Flickr also enables new forms of social interaction and meaning making, for example through game play. All vital aspects of games and play as outlined by Huizinga and Callois, (notably *paidia*, *ludus*, *agens*, *alea*, *ilinx*, *mimicry*) can be found on Flickr. (Huizinga 1955, Caillois 1962) I have argued that Flickr's 'playability' is one of its main defining features, which has contributed to its phenomenal popularity. 'Playing with Flickr' is possible in many different ways ranging in scale from casual, non-immersive or coincidental forms of play to immersive forms of game play; it can take the shape of a massively multiplayer online game, it can take the shape of a massively multiplayer online game, or the form of a pervasive game. (Montola 2005, McGonigal 2003) 'Playing with Flickr' means turning the creation and use of social objects, i.e. digital photographs, into games. Flickr facilitates these various forms of creative play through its architecture (i.e. the ability to form groups), and its 'hackability,' which enables users to write code for programmes or mash-ups (which use Flickr photos for certain forms of games and play).

As game players and sports fans alike will attest, much of game play and performance at the highest level depends not only on skill and technique, but also on something that has been described as 'art.' One may consider arguments made about the aesthetics of certain kinds of sport or chess, where the elegance of moves and the originality of solutions are some of the criteria by which individual performances are judged: "Aesthetic concerns can become part of mastery of the game itself." (Smuts 2005) Game play at the most sophisticated level provides some form of aesthetic experience, both for the performer and the audience: the experience of *flow* for the performer; the experience of *catharsis* for the audience. "Play has the tendency to be beautiful," Huizinga (1938) said.

Why is this relevant for *Discourse*? Because on Flickr photographers can interact with each other, regardless of whether they may be considered professionals, artists, or amateur photographers. In the 'magic circle' of game play, ordinary social distinctions between players are temporarily suspended. (Huizinga 1938) The players — whether professional, artist, amateur or snapshot photographers — meet on a level playing field, where these social differences are irrelevant. Thus photographers who partake in Flickr groups, whether they are explicitly called 'games' or not, can bypass the long and controversial discourse of vernacular or hobby vs. professional or artistic photography. Group users do not have to adhere to any standards of professionalism (whether in terms of skill, aesthetics or originality) — they simply have to follow the group rules, which are 'the rules of the game'. However, the fact that playful interaction takes place does not imply that concerns of quality, aesthetic relevance and originality of vision are not important — on the contrary, in Flickr games (or groups) similar but at the same time different criteria of artistic and technical excellence apply. User discussions revolve around topics typical to game play, i.e. around techniques that have been or could be applied and their mastery, and whether the group rules or game objectives have been met, and they involve comment, feedback and sometimes analysis of outstanding achievements within a given (game or group) context.

Sigrid Jones *Playing with Flickr. Photo sharing as multimodal digital practice.* Paper to be presented at the AOIR 2008 Workshop: The role of photos in current netculture. Copenhagen. Contact: sigrid.jones@univie.ac.at www.MedianABC.at, http://wordandimage.wordpress.com

This is just one example of how Flickr practices may shape *Discourse*, in this case discourse about photography.

Flickr also enables new kinds of visual discourses. If photography primarily is "a way of seeing" the world (Sontag 2008), this means people provide an interpretation of what is perceived as reality. People contribute to public discourses as they construct their own visual narratives, interact and communicate in a visual way, something that not too long ago belonged to the domain of powerful media corporations. Users partake in public discourses; through a never-ending stream of images they make visible what previously remained invisible and provide counter-narratives to dominant discourses.

References

Berger, John (1980) About Looking, Pantheon Books, U.S.A.

Burgess, Jean (2007) Vernacular Creativity and New Media, PhD dissertation, Queensland University of Technology http://eprints.qut.edu.au/archive/00010076/01/Burgess_PhD_FINAL.pdf (20.8.2008)

Burgess, Jean (2006) flickr & relational aesthetics http://www.cci.edu.au/burgess-usesofmultimedia.php (20.8.2008)

Caillois, R. (1962, originally published in 1958). Man, Play, and Games. London: Thames and Hudson

Cox, Andrew (2007) Flickr: What is new in Web2.0? DRAFT prepared for "Towards a social science of Web2.0", University of York, September 2007

Cox, Andrew, P.D. Clough & J. Marlow (2008) Flickr: a first look at user behaviour in the context of photography as serious leisure. Information Research VOL. 13 NO. 1, March 2008 http://informationr.net/ir/13-1/paper336.html

Huizinga, Johan (1955, originally published in 1938) Homo Ludens: A Study of the Play-Element in Culture. Beacon Press, Boston.

Jones, Sigrid (2008) *Playing with Flickr: Casual and pervasive games and creative play*. Presentation at Breaking the Magic Circle, Tampere, Finland April 10-12, 2008

Khalid H. & A. Dix (2006). From selective indulgence to engagement: exploratory studies on photolurking. In Volume 2, Proceedings of the 20th British HCI Group Annual Conference. The British Computer Society. pp. 17-20. http://www.hcibook.com/alan/papers/ HCI2006-indulgence/ xxx

Kress, Gunther & Theo Van Leeuwen (2001) Multimodal Discourse. The Modes and Media of Contemporary Communication. New York: Hodder Arnold

Kress, Gunther (2003) Literacy in the New Media Age. London: Routledge

Jenkins, Henry (2008) What happened before YouTube. Keynote Adress CCI International Conference Brisbane http://cultural-science.org/creatingvalue.html (20.8.2008)

McGonigal, J. (2003). This is not a game: Immersive aesthetics & collective play. Digital Arts & Culture 2003, Conference Proceedings.

Mitchell, William J. (1992) The Reconfigured Eye. Visual Truth in the Post-Photographic Era. Cambridge, MA. MIT Press

 ${\it Montola, Markus (2005) } \textit{Exploring the Edge of the Magic Circle: Defining Pervasive Games. } \textit{Game Research Lab, DAC 2005 Conference}$

Smuts, Aaron (2005) *Are Video Games Art?* In: Contemporary Aesthetics. Rhode Island School of Design. http://www.contempaesthetics.org/newvolume/pages/article.php?articleID=299 [04.08.2008].

Sontag, Susan (2008) At the same Same Time. Pengiun

Smuts, Aaron (2005) *Are Video Games Art?* In: Contemporary Aesthetics. Rhode Island School of Design. http://www.contempaesthetics.org/newvolume/pages/article.php?articleID=290 [04.08.2008].

Sugarbaker, M. (2003) *Thinking outside the MUD: Ludicorp CEO Stewart Butterfield on the Game Neverending*. May 05, 2003 Mindjack.com. http://www.mindjack.com/feature/gne.html [21.3.2008].

Szarkowski, John (1966, Third Printing 2007) The Photographers Eye. New York: The Museum of Modern Art.

Tønnessen, Elise Seip (2008) *Learning how to read and write in a multimodal environment*. Paper for the conference Designs for learning, Stockholm March 2008, Department of Nordic and Media Studies University of Agder Kristiansand, Norway

Van House, Nancy, Marc Davis, Yuri Takhteyev, Nathan Good, Anita Wilhelm, & Megan, Finn (2004). "From 'What?' to 'Why?' The Social Uses of Personal Photos." http://people.ischool.berkeley.edu/~vanhouse/van%20house_et_al_2004a.pdf [21.3.2008]

Sigrid Jones *Playing with Flickr. Photo sharing as multimodal digital practice.* Paper to be presented at the AOIR 2008 Workshop: The role of photos in current netculture. Copenhagen. Contact: sigrid.jones@univie.ac.at/www.MedianABC.at/, http://wordandimage.wordpress.com

